Sharing adaptation knowledge across Europe: Evidence for the evaluation of Climate-ADAPT

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Abbreviation	Name
AST	Adaption Support Tool
CCIVA	Climate change impacts, vulnerability and adaptation
CMCC	Centro Euro-Mediterraneo sui Cambiamenti Climatici
DG CLIMA	Directorate-General for Climate Action
DG RTD	Directorate-General for Research and Innovation
DRR	Disaster Risk Reduction
ECCA	European Climate Change Adaptation
EEA	European Environment Agency
ETC/CCA	European Topic Centre on Climate Change Impacts, Vulnerability and Adaptation
EU	European Union
LIFE	EU's funding instrument for the environment and climate action
MEU	Turkish Ministry of Environment and Urbanisation (MEU)
MMR	Monitoring Mechanism Reporting
MoE	Ministry of Environment (MoE) of Poland
NAP	National Adaptation Plan
NAS	National Adaptation Strategy
NFP	National Focal Point
NRC	National Reference Centres
NRC	National Reference Centre
Q	question
SDU	Sustainable Development Unit for the Health and Social Care System in England
UAST	Urban Adaption Support Tool
UK Met Office	Meteorological Office of United Kingdom
UNFCCC	United Nations Framework Convention on Climate Change
WHO	World Health Organization

INTRODUCTION

This report (termed 'ETC/CCA Technical Paper') collects the annexes supporting the outcomes of the evaluation of the European Climate Adaptation Platform (Climate-ADAPT), that are presented in the European Environment Agency (EEA) Report (2018) "Sharing adaptation knowledge across Europe – Evaluation of the European Climate Adaptation Platform".

The "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions — European Union (EU) strategy on adaptation to climate change"[1] was adopted by the European Commission in 2013 and sets out actions to meet three specific objectives of (1) promoting action by Member States, (2) better informed decision-making and (3) promoting adaptation in key vulnerable EU sectors. Climate-ADAPT is the web-based adaptation platform that was launched in 2012, and was acknowledged in the strategy as a key element in ensuring informed decision-making (priority 5). It was recognized that the knowledge base on adaptation in Europe needed improvement and that the further development of Climate-ADAPT was one of the ways of achieving this.

To assess whether Climate-ADAPT has achieved its objectives and assisted in informing decision-making in the period covered by the strategy, the website was evaluated during 2017 and this has culminated in the Report "Sharing adaptation knowledge across Europe – Evaluation of the European Climate Adaptation Platform" (published in 2018) (hereafter Evaluation Report). The report was produced by the European Environment Agency (EEA), supported by the European Topic Centre on Climate Change Impacts, Vulnerabilities and Adaptation (ETC/CCA). It provides evidence information on the achievements of the joint EEA/Directorate General for Climate Action (DG CLIMA) work and is timely to feed into the review of the EU Adaptation Strategy during 2018.

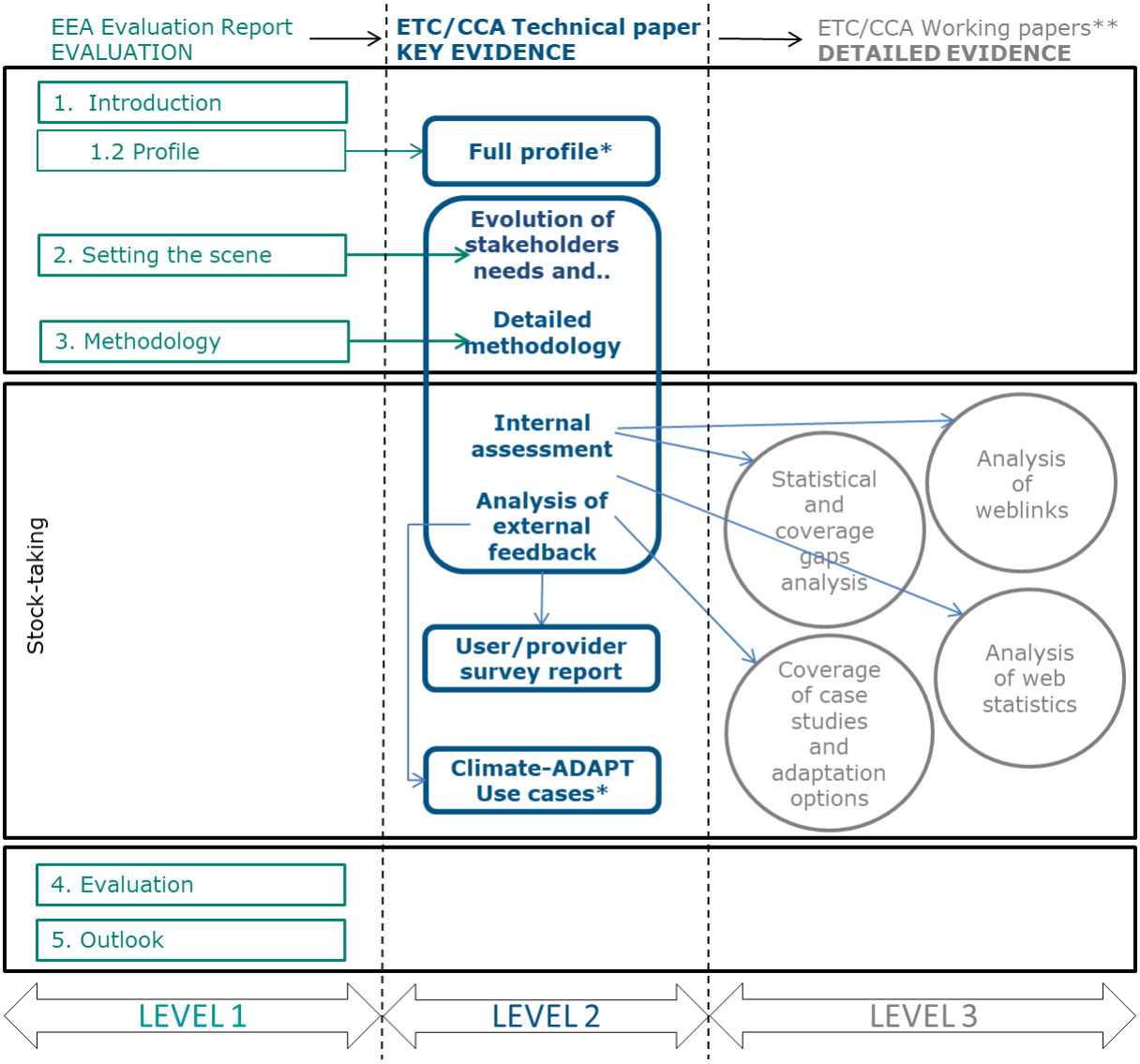
The Evaluation Report has provided the results of a "process" evaluation on how the growing knowledge on adaptation in Europe has been captured, presented on the web-based platform Climate-ADAPT and shared across Europe. It has furthermore shown how the use of the knowledge has been facilitated by the platform, and how the platform contributed to more coordination across governance levels and among sectors. In addition, the Evaluation Report has included a reflection on the need to further develop Climate-ADAPT for the changing needs of Climate-ADAPT users and information providers in the mid-term perspective.

The evaluation focused mostly on lessons learned on how Climate-ADAPT can better support informed decision-making on adaptation in Europe. Quantitative impacts of the platform were captured where feasible in a summative way.

The complexity of the evaluation rational, concept and tools has been reflected in three information layers, which are intended to meet the interests of a different target audience according to their roles in the climate change adaptation landscape in Europe (see Figure 0.1).

[1] COM(2013) 216 final of 16 April 2013 - https://ec.europa.eu/clima/policies/adaptation/what_en#tab-0-1

Figure 0.1 Visualization for guidance on how to read the report and its supporting evidence



Note: * published on Climate-ADAPT; ** available on request (email climate.adapt@eea.europa.eu).

Source: elaboration on EEA. 2018. Sharing adaptation knowledge across Europe – Evaluation of the European Climate Adaptation Platform

The following three groups of audience were identified.

Audience level 1: Decision makers, i.e. high-level governmental decision-makers, deciding on policy priorities, budgets, time schedules of adaptation policy, such as head of unit, DG CLIMA (and above); other heads of unit in the European Commission (and above); heads of adaptation units in Environment ministries or Environment agencies of EEA Member countries. The level 1 EEA Evaluation Report is designed with this audience in mind.

Audience level 2: Decision supporters, i.e. governmental organisations and boundary organisations, preparing decisions for governmental decision-makers, developing evidence documents for policy processes and researchers, such as staff members of the adaptation unit in DG CLIMA working on and with Climate-ADAPT as well as framework contractors (such as working on the Global Covenant of Mayors for Climate and Energy); staff members in other units of the European Commission (such as DG RTD, etc.); staff members in the ministries and/or agencies of EEA Member countries working on adaptation in general and in sectors. The level 2 document is this report with the Annexes.

Audience level 3: (Adaptation) Knowledge Platform managers: such as EEA Climate change impacts, vulnerability and adaptation (ACC4) and ETC/CCA Climate-ADAPT platform experts; Adaptation Knowledge Platform managers in governmental organisations and organisations supporting decision-makers, such as intermediaries; EEA experts managing the EEA website and other thematic platforms (WISE[2], WISE Marine[3], BISE[4], ACC websites). The level 3 documents that are referred to can be provided on request via Climate-ADAPT (climate.adapt@eea.europa.eu).

1. The Evaluation Report targets the **level 1** audience.
2. The present 'ETC/CCA Technical Paper' compiling the Annexes to the Evaluation Report provides the **level 2** "key evidence".
3. The "detailed evidence" is provided by the **level 3** documents.

The "key evidence" (level 2) is organized in the following annexes of the present ETC/CCA Technical paper:

- ANNEX 1: Evolution of stakeholder demands and adaptation knowledge in Europe
- ANNEX 2: Detailed methodologies of the Climate-ADAPT evaluation
- ANNEX 3: Key evidence of the Climate-ADAPT evaluation
- ANNEX 4: Climate-ADAPT User-Provider survey report
- ANNEX 5: Analysis of Climate-ADAPT Use cases

The "detailed evidence" can be found in the following ETC/CCA Working Papers available on request (email climate.adapt@eea.europa.eu):

- ETC/CCA Working paper "Climate-ADAPT database statistical and coverage gaps analysis"
- ETC/CCA Working paper "Coverage and gap analysis of Climate-ADAPT case studies and adaptation options"
- ETC/CCA Working paper "Systematic Analysis of Climate-ADAPT Web Links"
- ETC/CCA Working paper "Analysis of Climate-ADAPT web statistics"
- Table A1 "Overview on the detailed evidence of the Climate-ADAPT use cases"
- Table A2 "Overview on Climate-ADAPT features used to support policy processes"

[2] https://water.europa.eu/

[3] https://water.europa.eu/marine

[4] https://biodiversity.europa.eu/

ANNEX 1 Evolution of stakeholder demands and adaptation knowledge in Europe

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1.1 Introduction

Key messages

- Fulfilling the objectives of Climate-ADAPT to support better informed decision making on adaptation requires an understanding of the changing user needs and stakeholder demands for adaptation information and selection of the right content to meet these needs.
- Twofold challenges are confirmed by various assessments and interactions with the Climate-ADAPT target audience: 1) there are varying adaptation knowledge needs which relate, among others, to the governance level at which actors operate and their changing demands over time as a result of the progress they make in the adaptation policy processes; and 2) there is a steadily growing and diversifying amount of adaptation information that needs to be captured and shared with users.
- The intended users of Climate-ADAPT vary in terms of their level of expertise, background, interests and skills. This creates the need to provide information for both experienced and less experienced users.
- As the complexity and diversity of adaptation knowledge increase, new ways of presenting this knowledge will be required in the near future.

Understanding user needs and stakeholder demands for information, and selecting the right content to meet them in a timely way have been identified as two of the main challenges that managers of adaptation platforms are often confronted with (EEA, 2015b). These challenges are difficult to overcome due to a range of reasons, including the inherent complexity of adaptation, the continuous increase of adaptation knowledge, the diversity of user needs and demands for adaptation information and the fact that the latter change in response to the changing conditions of the environment in which different actors operate. Understanding user needs and demands, however, is critical for fulfilling the objectives that many knowledge platforms, including the European Climate Adaptation Platform (Climate-ADAPT), aim to meet. As a result considerable efforts have been made in order to find ways to address them best.

Having the aforementioned as a point of departure, this ETC/CCA working paper presents a few examples that demonstrate how the great diversity of information needs and demands of the intended target group of Climate-ADAPT, and the continuously growing amount of adaptation knowledge could challenge the management of the platform. The first part (section 1.2) looks at the diverse information needs and demands that actors have as a result of the different governance levels and stage in the adaptation policy cycle where they operate, while the second part (section 1.3) presents some evidence that demonstrate how adaptation research funds and activities have evolved in recent years.

It should be noted that this ETC/CCA working paper has been written with intention to be an accompanying document to the evaluation report of Climate-ADAPT. Hence, an in-depth review of the challenges faced by platform managers and the way that adaptation knowledge landscape has evolved in Europe are beyond its scope. Moreover, the examples included here were selected having Climate-ADAPT and its role to support decision-making as a point of reference. Nevertheless, the presented information could be of relevance also to other adaptation platforms.

1.2 Understanding user needs and stakeholder demands for adaptation information

Identifying gaps in the adaptation information landscape, especially those being long-lasting and widely relevant, and finding ways to address them are key processes for supporting 'better informed decision-making'. To date, several studies have been carried out to identify the topics for which more information is needed, hence pointing out the areas on which research activities should focus. Knowledge gaps are usually reflected also in stakeholder demands for information. These are influenced by many factors including the overall context in which stakeholders operate, as this determines in many cases the policy questions that need to be answered.

Information needs have been explored also in a series of European Commission service contracts, carried out between 2014 and 2016, which aimed to assess the needs of specific user groups (e.g. sectoral experts at EU levels and new users from national levels and subnational level and (see sections 1.2.1 and 1.2.3 for more details).

The rest of this section focuses on the Climate-ADAPT target audience (i.e., governmental decision-makers, organisations providing adaptation support, and actors working on adaptation at transnational, national and subnational levels (Street et al., 2014), and presents a few example cases that demonstrate the diversity of information needs of actors operating in different contexts (i.e., different governance levels and stage in the adaptation policy cycle)[5].

1.2.1 European level

The EU Strategy on adaptation to climate change aims to enhance the preparedness of EU actors at all levels to respond and adapt to climate change impacts and one of its key objectives for doing so is to support better-informed decision-making. Towards the achievement of this objective, the Strategy has identified four themes, which have a Europe-wide relevance and for which improved knowledge is needed. These include the "damage and adaptation costs and benefits; regional and local-level analyses and risk assessments; frameworks, models and tools to support decision making; and means of monitoring and evaluating past adaptation efforts" (EC, 2013, p. 7). In the context of the Strategy's implementation, the Commission intends to revisit and revise this list, in collaboration with the Member States, in order to accommodate to their needs (EC, 2013).

[5] It should be noted that needs for information from the private sector are not the focus of Climate-ADAPT. For the private sector various EU funded EU initiatives exist, such as Climate-KIC. The needs from the private sector are therefore not specifically explored here.

In general terms, the information needs of the European Commission relate or are defined by the specific roles and activities in which it is involved. These include, among others, mainstreaming adaptation into all relevant EU policies, funding of adaptation through various EU funds and tracking this spending, and managing information on adaptation reported by each Member State of the European Union according to article 15 in the European mechanism for monitoring and reporting information relevant to climate change Regulation (EU) No 525/2013 (EU, 2013).

Sectors

A project funded by DG CLIMA[6] in 2016 provided insights into the challenges of promoting climate change adaptation in sectoral organisations and networks. Feedback collected from EU level experts from the agriculture, forestry and water management sectors[7] revealed that the awareness of Climate-ADAPT and its content among these experts was low. Moreover, it was demonstrated that sectoral stakeholders saw the improvement of the communication of the submission procedure, the enhancement of the links between pages and relevant information external to Climate-ADAPT, and the engagement with more stakeholders in the update of the platform as priorities (Gancheva et al., 2017). A range of knowledge gaps were identified, which included adaptation knowledge specific to the sectors about climate change impacts and the uncertainty associated with them, information on adaptation options, linkages between mitigation and adaptation benefits, and innovation and technologies, to mention a few (Gancheva et al., 2017). Other needs included finding ways to better integrate adaptation in sectoral policies, sharing information on sectoral adaptation plans developed in different Member States. Finally, a list of suitable topics of interest that could be considered for future events that aim at engaging with sectoral stakeholders was developed based on the current knowledge gaps, needs and other challenges faced by sectoral stakeholders (Table 1.1).

Table 1.1 Examples of topic of interest per sector, based on the current knowledge gaps, needs and other relevant challenges

Sector	Topics of interest
Agriculture & Forestry	• Exchanges of practical examples and case studies; • Information about funding options; • Establishing new contacts and networks;
Water	• Cross-sectoral collaboration for adaptation; • Innovative approaches to decision-making in asset management; • Links and synergies between adaptation actions taken by utilities and at city level; • Integration of adaptation planning across different scales and instruments (e.g. river basin, floods and urban development plans).

Source: Gancheva et al., 2017.

Specific recommendations were developed also regarding the information published on Climate-ADAPT. These highlighted, among others, the need for expanding the information presented on the sector pages, facilitating access to these pages, improving the links between the sector pages and other information presented on Climate-ADAPT as well as information provided by external sources, increasing awareness

[6] Dissemination and capacity-building supporting adaptation in the framework of the EU Adaptation Strategy (Contract number 340202/2015/718400/SER/CLIMA.C.3)

[7] The 'Insurance' sector was included in the study initially, but attempts to involve experts from this sector were not successful.

of the platform among sectoral stakeholders and engaging more actively with them, to mention a few (Gancheva et al., 2017).

1.2.2 Transnational level

The level of preparedness and capacity to respond to climate change impacts vary considerably across transnational regions[8] in Europe. This has been influenced by numerous factors, including a region's financial capacity, the different approaches in governance and the policy frameworks in which adaptation is embedded, but also other factors related to the availability of knowledge and the effectiveness of its dissemination in each region. When it comes to the availability of adaptation knowledge, important gaps have been identified that are relevant for the majority of the transnational regions. For example, to date, detailed impact and vulnerability analyses at transnational level are generally lacking except for a few cases, where EU funded projects (e.g., Baltadapt[9], Carpivia[10]) have produced analyses of climate change impacts for specific regions. Differences have been observed in terms of the efficiency of the structures that regions have established to support the distribution and use of such knowledge. For example, while some regions have managed to develop well-functioning cooperation structures for this purpose, awareness raising and capacity building to enable the uptake and implementation of the adaptation actions remain challenging in other, even when sufficient scientific knowledge is available[11].

Such differences influence stakeholder knowledge needs and hence are reflected in their demands. Also, they underline the importance of enhancing capacity-building and cooperation within and among regions, in order to support the strategic role that transnational regions may play in the implementation of the EU adaptation strategy[12]. To the best of our knowledge, to date no study has investigated systematically stakeholder knowledge needs and demands on adaptation across different transnational regions. Currently, the EEA, supported by the ETC/CCA, analyses in a technical paper the status of adaptation in transnational regions, where the status of adaptation knowledge is one of the topics.

1.2.3 National level

Although there is a wide range of factors that determines the type and the amount of knowledge that different countries need, the stage in the adaptation cycle that a country has reached appears to be one of the most influential ones. Each adaptation policy cycle stage has different aims and involves different tasks, which usually increase in complexity and difficulty as countries advance from one stage to another. The stage that a country has reached determines the questions to which policymakers are expected to respond, and thus determine the type of information they need. Table 1.2 provides an overview of the type of information that is expected to be useful for policymakers being at the different stages of the adaptation policy cycle[13].

[8] http://climate-adapt.eea.europa.eu/countries-regions/transnational-regions

[9] http://climate-adapt.eea.europa.eu/metadata/projects/development-of-a-baltic-sea-region-wide-climate-change-adaptation-strategy

[10] http://climate-adapt.eea.europa.eu/metadata/projects/carpathian-integrated-assessment-of-vulnerability-to-climate-change-and-ecosystem-based-adaptation-measures

[11] ETC/CCA Working paper "Adaptation and knowledge base in European transnational regions" 2017, unpublished.

[12] ETC/CCA Working paper "Adaptation and knowledge base in European transnational regions" 2017, unpublished.

[13] While the focus of this sub-section is on the national/ country level, one might argue that the maturity in the adaptation policy process might be equally relevant and influential also in other cases (e.g. when looking at the different sectors or other governmental levels (e.g. cities)).

Table 1.2 Expected information needs per different stage in the adaptation policy cycle

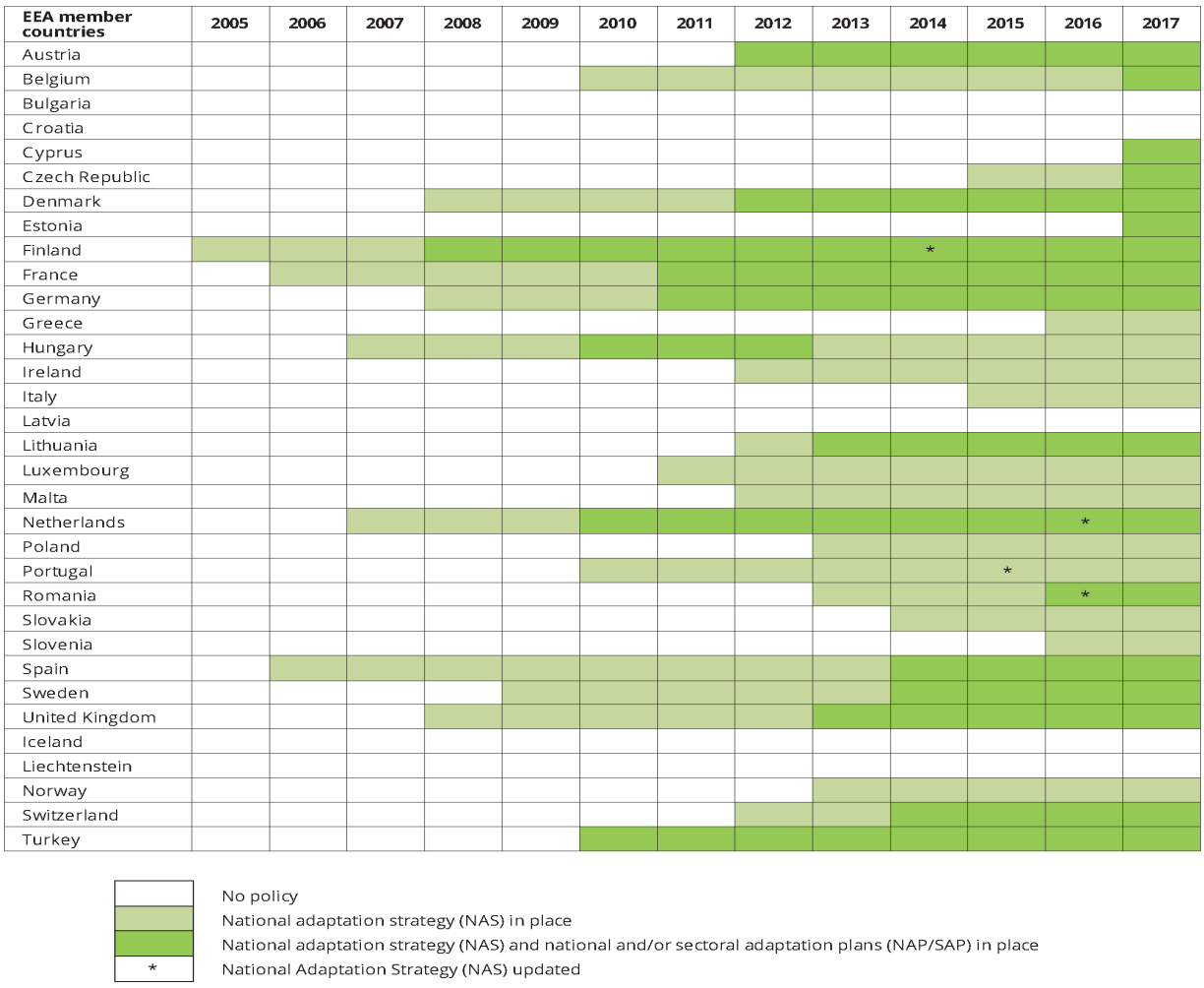
Adaptation policy cycle	Aim	Types of information needed
1. Prepare the ground for adaptation	Introduce key elements that are important to build the basis for a successful adaptation process.	Actual and potential future climate change impacts; adaptation activities and good practice examples; effective methods to communicate climate change information.
2. Assess risks and vulnerability to climate change	Develop a comprehensive picture of current and future risks, the expected stress factors and opportunities that might arise from climate change and provide information on how to assess adaptive capacity and cope with uncertainty.	Past and current weather trends, climate projections and sensitivity to anticipated changes; expected (direct and indirect) impacts (threats, opportunities) at different timescales; level of confidence for impacts; assessment of socio-economic development and other non-climatic factors; estimation of adaptive capacity in terms of available financial and human resources, and possible adaptation options; identification of transboundary issues.
3. Identify adaptation options	Identify adaptation options, in order to address the identified concerns, keep negative impacts to an acceptable level and take advantage of the opportunities that may arise from climate change.	Adaptation options to accommodate the relevant main concerns identified for a country; information to allow the comparison and prioritisation of options (e.g. scope, socio-economic and ecological context, actors responsible for their implementation, financial resources, time frame).
4. Assess adaptation options	Assess and prioritise the identified adaptation options, based on a detailed description and criteria, and prepare the national framework for climate change adaptation.	With reference to each identified option: information on the risks aiming to be addressed; the extent to which risks are likely to be reduced; the timeframe for the implementation of the individual option; the direct and indirect effects of its implementation (economic, environmental, social); the costs and benefits; the potential implementation barriers.
5. Implementation	Prepare an action plan, which sets out what needs to be done to implement adaptation options.	Entry points for adaptation; preferred adaptation options and ways of implementation; roles and responsibilities; implementation timetable; human and financial resources needed; funding opportunities; barriers to action and mechanisms to overcome them; mechanisms to monitor and evaluate the progress and success of implementation.
6. Monitoring and evaluation	Improve the understanding of the progress and performance of adaptation, learn and communicate lessons, and inform future policy and practice.	Adaptation aims that the MRE system attempts to accomplish; methods used for the collection of data; actors involved in the relevant processes; the extent to which the results of MRE activities are used in policies and practice.

Note: This information has not been communicated directly by policymakers themselves, but instead it was compiled considering the aims to be achieved and the tasks to be performed at that each stage of the adaptation policy cycle.

Source: Climate-ADAPT http://climate-adapt.eea.europa.eu/knowledge/tools/adaptation-support-tool.

In Europe, countries have been making gradual progress in the adaptation policy cycle in recent years (Figure 1.1). Around the time of the adoption of the European adaptation strategy, EEA carried out a self-assessment survey involving 33 EEA member countries in an attempt to provide an overview of adaptation policy processes in Europe. At that time, 21 countries reported that they had adopted a national adaptation strategy (NAS) and 12 countries had adopted a national adaptation plan (NAP) (EEA, 2014b). Nine countries reported that they had reached the implementation phase and only four countries were at the monitoring and evaluation phase (EEA, 2014b). As of September 2017, the number of countries with a NAS in place has increased to 28 (25 EU Member States and three other EEA member countries[14]), the number of countries with a NAP to 17 countries (15 EU Member States and two other EEA member countries) and the number of countries with an MRE system in place or under development to 14 countries (EEA, 2015a, 2017b).

Figure 1.1 Overview of the national adaptation strategies and national and sectoral adaptation plans in European countries



Source: EEA, 2017b.

[14] Information on the European environment information and observation network (EIONET), as well as the member and cooperating countries can be found here: https://www.eea.europa.eu/about-us/countries-and-eionet

These numbers demonstrate that countries have been moving away from the early stages of the cycle where they prepared the ground for adaptation, towards more advanced stages, which involve the implementation, monitoring and evaluation, and in a few cases even the revision of adaptation policies. Nevertheless, while the progress made in this field has been relatively constant, there is still considerable variation across different European countries. This implies that that the spread of information needs and demands that needs to be covered by a platform such as Climate-ADAPT remains rather wide.

Several studies have focused on identifying information needs of national level actors when undertaking specific tasks. The EEA report on national adaptation processes (EEA, 2014b), for example, explored the topics on which additional information is needed when carrying out risk and vulnerability assessments, while Downing et al. (2017) identified the current knowledge gaps that policymakers face when developing national adaptation plans. The former highlighted the need to provide countries with more accurate estimates of costs, benefits and uncertainties, and local level information (EEA, 2014b), while the latter put emphasis, among others, on the assessment of social vulnerabilities, the development of socio-economic scenarios and projections and the establishment of sector-specific and common national level methodologies (Downing et al., 2017) (Table 1.3). More detailed descriptions of the state of vulnerability assessments at national levels and main knowledge needs was published in 2018 by the EEA in an upcoming report (EEA, 2018b).

Table 1.3 Information needs identified by national level actors with reference to risk and vulnerability assessments and national adaptation plans

Tasks	Knowledge gaps
Risk and vulnerability assessments	• Estimates of costs; • Estimates of benefits; • Estimate of uncertainties; • Local community level information; • Consideration of social issues; • Interdependencies across sectors; • Consideration of different time periods; • Medium and long-term socio-economic scenarios; • Improved models.
National adaptation plans	• Assessment of current social vulnerabilities; • Development of future socio-economic scenarios and projections; • Sector-specific methodologies and common national level methodology, especially for early stage country; • Guidance on how to deal with uncertainty related to assessing 'exposure'; • Research on how to deal with uncertainty related to future socio-economic scenarios and projections; • Decision-making tools to meet practitioner needs; • Vulnerability measuring and monitoring tools.

Source: EEA, 2014b; Downing et al., 2017.

National level actors at the early stages of the adaptation policy process

In an attempt to explore the information needs of national level actors who are new to adaptation, in 2014, the European Commission's "Climate-ADAPT science/ policy forum" project[15] delivered eight events targeted on countries that were at the first stages of the adaptation policy cycle[16]. An assumption was made that users from these countries could be considered as 'users new to adaptation'.

The organised forums supported the exchange of adaptation knowledge and information to policymakers and other interested stakeholders, and helped identify the areas of interest on which future efforts should concentrate (Milieu, 2014). Among others, information collected from these forums allowed for the development of a set of recommendations targeted on Climate-ADAPT. These have been grouped according to the specific theme to which they refer (Table 1.4).

Table 1.4 Examples of information needs expressed as recommendations from "new users" targeted to Climate-ADAPT

Theme	Information needs
Targeting 'early stage' users	• Develop a tutorial for first time or early users • Develop a section on guidance • Provide clear links to sector-focused information • Present information in national languages
Additional content	• Knowledge on extreme events, the transport sector, EU Projects and reports, vulnerability indicators • Links to adaptation platforms, EU Directives • More technical or scientific documents among the database items)
Improving users' experience on Climate-ADAPT	• Develop case studies covering also south and eastern Europe • Ensure regular update and quality proofing of the country pages • Provide additional information on the database search results and the individual database items (e.g., contact person, publication date) • Make tools and guidance available in a printable format • Provide a single page preview of all national and cross-border adaptation platforms
Creating a Climate-ADAPT community	• Provide guidance regarding the upload of database items • Enable moderated discussion forums • Allow users to share, rank and comment on database items
Disseminating Climate-ADAPT	• Use social media to highlight new additions on the platform

Note: The knowledge gaps are used a proxy for the information needs. This table presents the topics that have been characterised as high priority[17])[18]

Source: Milieu, 2014.

[15] Science/ policy forum: workshops for the dissemination and exchange of adaptation-related knowledge" (Contract number 071303/2013/663059/SER/CLIMA.C.3)

[16] Countries covered were Bulgaria Slovakia, and Czech Republic, Romania, Estonia, Latvia, Lithuania, Poland, Hungary, Croatia, Slovenia, Greece.

[17] Additional recommendations (medium and low priority) have been for all themes.

[18] More recommendations emerged from the forums. Table 1.3 presents examples of the recommendations considered of high priority.

1.2.4 City level

Cities have started responding to climate change, demonstrating adaptation action on the ground (EEA, 2016; Cortekar et al., 2016). Action will differ according to cities' individual characteristics such as location, structure, size, resources, environmental characteristics, previous experience in adaptation, just to mention a few (Cortekar et al., 2016). As a result, diversity is expected to be seen also in terms of cities' specific knowledge needs. A recent empirical study on urban adaptation knowledge gaps (Romanovska et al., 2016) revealed that cities need additional information data and know-how (Table 1.5). This study provided also recommendations with regards to knowledge generation and transfer, as well as specific recommendations for EU Mayors Adapt initiative.

Table 1.5 Summary of information needs at city level

Knowledge gaps
• Economic costs and social impacts of climate change;
• Climate change impacts on essential urban services and that converge at the city level;
• Current, past and future impacts, and downscaling and interpreting impacts at the city scale;
• Developing, selecting and applying adaptation indicators and the appropriate monitoring system at city level to assess progress in adaptation and the effectiveness of measures;
• Understanding the economic and social impacts as well as the costs and effectiveness of adaptation measures, including funding possibilities of measures;
• Safeguarding against maladaptation and long-term institutional set-up for urban adaptation.

Note: The knowledge gaps identified in the frame of the EU Mayors Adapt initiative (2014-2016) are used as a proxy for the information needs of the cities.

Source: Romanovska et al., 2016.

In the context of the EU Adaptation Strategy, the European Commission launched the Mayors Adapt initiative in 2014 to support urban adaptation[19]. In 2015, the Covenant of Mayors for Climate and Energy was established, bringing together the Covenant of Mayors (2008) and Mayors Adapt (2014)[20]. This new initiative aimed at providing support, knowledge sharing, and opportunities for engagement and networking among cities regarding both topics of mitigation and adaptation[21]. Since 2017 in partnership with the international Compact of Mayors it has developed into a Global Covenant of Mayors for Climate and Energy[22].

The Directorate-General for Regional and Urban Policy (DG REGIO) has set up a webpage that serves as a 'one stop shop' for cities[23], providing information on the various themes of the EU Urban Agenda[24], including also that of climate adaptation in cities[25]. Among other sources, this webpage provides a link to the Climate-ADAPT sub-page focused on cities and towns. With one of the key aims of the EU Urban Agenda being "better knowledge", useful synergies with Climate-ADAPT could be further promoted.

[19] http://climate-adapt.eea.europa.eu/countries-regions
[20] http://climate-adapt.eea.europa.eu/eu-adaptation-policy/covenant-of-mayors
[21] http://climate-adapt.eea.europa.eu/eu-adaptation-policy/covenant-of-mayors
22 https://www.globalcovenantofmayors.org/about/history-compact-of-mayors/
[23] https://ec.europa.eu/info/eu-regional-and-urban-development/topics/cities_en
[24] https://ec.europa.eu/info/eu-regional-and-urban-development/topics/cities/urban-agenda-eu_en
[25] https://ec.europa.eu/info/eu-regional-and-urban-development/topics/cities/priority-themes/climate-adaptation-cities_en

1.3 Recent progress in the production of adaptation knowledge and practical evidence in Europe

In recent years there has been a growing number of research and innovation projects looking at climate-related topics, including adaptation. In Europe, EU funds have played an important role in supporting climate research and promoting climate action in different contexts, in order to meet climate targets and enhance climate resilience across Europe. This way they have contributed to the enhancement of knowledge and practical evidence on adaptation in Europe.

EU funds[26] relevant to climate change adaptation have been provided through a range of instruments. According to the Multiannual Financial Framework 2014-2020, at least 20% of the European budget should be allocated to climate-relevant expenditure[27] provided through a range of instruments (e.g. European Structural and Investment funds, the Horizon 2020 and the LIFE Programme)[28]. Other EU and international funds and financing bodies which support (directly or indirectly) adaptation measures include the European Agricultural Fund for Rural Development, certain schemes of the European Agricultural Guarantee Fund, the European Investment Bank and the European Bank for Reconstruction and Development[29]. National programmes provide also funds for adaptation, such as various funding strands under the auspices of the Federal Ministry of Education and Research[30]. Funding from financial institutions, using EU Emissions Trading Scheme auction revenues for financing adaptation, private and funding initiatives is also available[31] (e.g. GAIA - Green Area Inner-city Agreement to finance tree planting in Bologna; Financial incentive programme enabling Hamburg's Green Roof Strategy, Public–private partnership for a new flood-proof district in Bilbao, Ghent crowdfunding platform realising climate change adaptation projects). For more information on Adaptation Financing please see the EEA report (EEA, 2017a).

The high number and wide range of EU funded projects and initiatives along with a substantial number of nationally funded projects have enhanced significantly the amount and quality of adaptation knowledge in Europe and beyond in recent years.

In 2015 EEA, supported by the ETC/CCA, screened the CORDIS database involving 25610 EU research projects funded under 7th Framework Programme (FP7) 2007-2013 and 4157 funded under the Horizon 2020 (H2020). From a total of 29767 projects, 115 FP7 and 29 H2020 projects were identified as relevant to adaptation. The selection of these projects based on a criteria-based screening that was done by ETC/CCA considering mainly the direct relevance of the project for adaptation (applying the criteria for the selection/approval of items for the Climate-ADAPT database).

The LIFE Programme has been another important funding source for projects exploring adaptation issues, providing more “practical evidence”. During the period 2014-2016, 39 projects addressing adaptation issues were co-funded under the strand of "Climate Change Adaptation" with a total budget allocated to them of 115.0 million Euro and an EU contribution is 59.3 million Euro. Projects relevant to theme of adaptation have been funded also by the strands "Nature", "Environmental Governance and

[26] Original source of all information presented on EU adaptation funds is Climate-ADAPT (http://climate-adapt.eea.europa.eu/eu-adaptation-policy/funding)
[27] https://ec.europa.eu/clima/policies/budget_it, https://ec.europa.eu/clima/policies/budget/mainstreaming_en
[28] http://climate-adapt.eea.europa.eu/eu-adaptation-policy/funding
[29] http://climate-adapt.eea.europa.eu/eu-adaptation-policy/funding
[30] “Adaptation Plan of the German Strategy for Adaptation to Climate change. http://www.bmub.bund.de/fileadmin/bmu-import/files/pdfs/allgemein/application/pdf/aktionsplan_anpassung_klimawandel_en_bf.pdf
[31] http://climate-adapt.eea.europa.eu/eu-adaptation-policy/funding

Information", "Integrated Projects Clima", "Climate Governance and Information"[32]. In terms of sectors[33], disaster risk reduction, urban adaptation, biodiversity, water management and climate change impacts are those covered by the highest numbers of projects. Likewise, in terms of climate change impacts[34], extreme temperatures, flooding and droughts are among those most widely covered.

The increased resources allocated to adaptation research in Europe and beyond have resulted in a significant body of adaptation knowledge, which continues to grow. Klein et al. (2017) attempted to describe the way that adaptation research has evolved over time in terms of its focus, and distinguished four research themes generations based on the focus of research in each one of them: research and description, acceptance and norms, progress and policy, and acceleration and implementation (Table 1.6). Klein et al. (2017, p. 19) argued that "the fourth generation research will increasingly focus on the implementation of adaptation and the effort to build a climate-resilient future" and presented an indicative list of research priorities that could be considered also by the Climate-ADAPT managers as a source of inspiration to proactively prepare approaches for presenting the outcomes of research for transformative adaptation.

Overall, the impressive increase in adaptation knowledge needs to be reflected also in the content of Climate-ADAPT, as well as in that of other relevant knowledge platforms, in an appropriate way in order to support its wide dissemination and uptake by a large number of users. The growing wealth of information raises the challenge to find appropriate ways to select the content that is relevant. At the same time, such processes need to be feasible in terms of resources that are needed to present this knowledge in a timely manner.

As adaptation knowledge grows and becomes more and more diversified, adaptation platform managers are required to find new forms and tools for presenting, sharing and promoting it to the increasingly diverse audiences in order to meet their needs and demands in the best possible way.

[32] No specific numbers are provided here to demonstrate the number of projects per strand, as this information is not official information, but only based on EEA interpretation.
[33] Climate-ADAPT sector categories.
[34] Climate-ADAPT impact categories. Extreme temperatures might also cover the impacts of slow changes of the temperature.

Table 1.6 Adaptation research priorities and areas of focus over time

	First Generation	Second Generation	Third Generation	Fourth Generation
Descriptive questions	What are the potential impacts of climate change? Who is going to be affected? Is adaptation possible? What would be the costs and benefits?	How do social factors influence vulnerability to climate change? What role does adaptive capacity play, and how can it be improved?	Which factors exacerbate or reduce vulnerability? What climate and risk data are needed for adaptation planning, and at what scales?	How does adaptation actually work on the ground? Which successful adaption actions are replicable and scalable?
Normative questions		What does successful adaptation mean? What should be the balance of adaptation and mitigation?	How can adaptation be equitable and meet the needs of poor and marginalized people?	Should adaptation challenge underlying social, political and economic structures and drive transformative change?
Policy questions			What policies, institutions, tools and resources are needed to support adaptation? How can priorities for adaptation support be set? How does adaptation align with other global, national and local goals?	When does adaptation require specific policies and institutions, and when is it best mainstreamed into existing activities? What role do the private sector and other non-state actors play in adaptation implementation and governance?
Implementation questions				What technical knowledge is necessary to engage successfully in climate adaptation? How do we best measure the outcomes of adaptation projects and programmes? How do we learn from failure?

Source: Klein et al., 2017, page 5.

References

Cortekar, J., et al., 2016, *Why climate change adaptation in cities needs customised and flexible climate services*, Climate Services 4, pp. 42-51 (DOI: 10.1016/j.cliser.2016.11.002).

Downing, C., et al., 2017, *Assessing adaptation knowledge in Europe: Vulnerability to climate change*, Final Report, 340202/2015/719923/SER/CLIMA.C.3, Ecofys.

EC, 2013, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions — *An EU Strategy on adaptation to climate change* (COM(2013) 216 final of 16 April 2013).

EEA, 2014b, *National adaptation policy processes in European countries — 2014*, EEA Report No 4/2014, European Environment Agency.

EEA, 2015a, *National monitoring, reporting and evaluation of climate change adaptation in Europe*, EEA Technical Report No 20/2015, European Environment Agency.

EEA, 2015b, *Overview of climate change adaptation platforms in Europe*, EEA Technical Report No 5/2015, European Environment Agency.

EEA, 2016, *Urban adaptation to climate change in Europe 2016 — Transforming cities in a changing climate*, EEA Report No 12/2016, European Environment Agency.

EEA, 2017a, *Financing urban adaptation to climate change*, EEA Report No 2/2017, European Environment Agency.

EEA, 2017b, *Number of countries that have adopted a climate change adaptation strategy/plan*, European Environment Agency (https://www.eea.europa.eu/airs/2017/environment-and-health/climate-change-adaptation-strategies)

EEA, 2018, *Sharing adaptation information across Europe. Evaluation of the European Climate Adaptation Platform – Climate-ADAPT*.

EEA, 2018b, *National climate change vulnerability and risk assessments in Europe 2018*, (https://www.eea.europa.eu/publications/national-climate-change-vulnerability-2018)

EU, 2013, Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change (OJ L 165, 18.6.2013, p. 13-40).

Gancheva, M., et al., 2017, *Climate-ADAPT: Dissemination and capacity-building supporting adaptation in the framework of the EU Adaptation Strategy — Final report*, Milieu Ltd.

Klein, R. J. T., et al., 2017, *Advancing climate adaptation practices and solutions: Emerging research priorities*, Stockholm Environment Institute.

Milieu, 2014, Climate-ADAPT science/policy forums: Workshops for the dissemination and exchange of adaptation-related knowledge to policy makers — Feedback and recommendations for Climate-ADAPT.

Romanovska, L., et al., 2016, *Urban adaptation knowledge gaps in Europe. The Mayors Adapt knowledge base strategy*, Mayors Adapt.

Street, R., et al., 2014, *Analysis of Climate-ADAPT use and possible improvements*, ETC/CCA Working Paper.

ANNEX 2 Detailed methodologies of the Climate-ADAPT evaluation

Table of Content

This annex contains a brief description of all the individual methodologies that were used for the internal assessment and the analysis of external feedback to the platform (see ANNEX 3). It complements the description of the overall evaluation approach (EEA, 2018, Chapter 4).

2.1 Methodologies for internal assessment of Climate-ADAPT

As part of the Climate-ADAPT M&R procedures, EEA together with the ETC/CCA regularly analyses the content, functionalities and dissemination of the platform in order to keep it effective in supporting the needs of the evolving European adaptation policy process. The methodologies of the internal assessment tools that supported the evaluation are presented in this section.

Climate-ADAPT database statistical and coverage gaps analysis (objective A)

The methodology of the regular assessment of the Climate-ADAPT database content follows four steps: 1) database content statistical analysis; 2) identification of information gaps and needs; 3) thematic experts' consultation; 4) recommendations for the improvement of the database.

In step 2, three gap categories were defined and assigned to the different analysed metadata fields.

- Gap category 1 - Missing scientific/practical evidence: The knowledge/information/practical experience has not been provided yet by science or practice. The gaps identified in this category can feed in the EU Knowledge gap strategy.
- Gap category 2 - Incomplete information gathering: The information is available, but it has not yet been included in the database.
- Gap category 3 - Information is not eligible according to the database criteria: The information/knowledge/practical experience exists and is relevant for adaptation on EU and transnational level, but it is not eligible according to the database QA/QC criteria.

Due to their in-depth knowledge of the database content, the Climate-ADAPT thematic experts were consulted in step 3), to check the plausibility of the results and contribute to the interpretation of the statistical results, the identification of gaps in their sectors and the development of proposals on how to fill the gaps.

In order to evaluate, if Climate-ADAPT captured and shared the growing amount of knowledge in Europe over time in the evaluation period, the results of the two annual database content analyses were put together into a timeline. Changes in the content management of Climate-ADAPT from Liferay to Plone as well as changes in the structure of the database led to some limitations in this analysis. Results are presented in the Evaluation Report (EEA, 2018, section 5.2).

Case studies and adaptation options (objective A)

Adaptation options and case studies are specific database elements developed by the EEA and the ETC/CCA. The catalogue of adaptation options, searchable by impact and sector, allows users to get a systematic overview on adaptation measures for all sectors and impacts known from the literature on adaptation. The set of case studies, searchable by impact, sector and geographic origin, provide inspiring and illustrative cases of actually implemented adaptation options and measures.

In order to keep the set of generic adaptation options systematic and up-to-date EEA and ETC/CCA analyse it on a yearly basis, in terms of the coverage of climate impacts and adaptation sectors. Further updates of adaptation options are carried out mainly based on the availability of results provided by EU funded research projects.

The analysis of inspiring case studies in terms of climate impacts, sectors and countries covered is been carried out also on an annual basis in order to ensure a systematic completion in line with the agreed selection criteria. For the purpose of this evaluation, the three annual analyses of the case studies were put together into a timeline to show the evolvement of the case studies coverage over time.

Due to the small size of the sets of adaptation options and case studies, the annual analyses were carried out manually. The analysis and identification of possible knowledge gaps and follow-up actions followed the same procedure that was developed for the annual internal assessment of the Climate-ADAPT database. Results of both assessments are presented in the Evaluation Report (EEA, 2018, section 5.2).

Development of the web content (objective A)

The monitoring and updating of the platform web page's content relies on a regular and holistic analysis carried out by the EEA and the ETC/CCA on an annual basis. The objective is to assess if the update and improvement of content follows the priorities that were agreed in the 2013 to 2018 Climate-ADAPT work plan, to identify possible knowledge and information gaps and to determine how to capture the missing content in a structured way. The results of the analysis is summarized for the whole evaluation period in the Evaluation Report (EEA, 2018, section 5.2).

Improvement of functionalities (objective B)

The functionalities of the platform were analysed based on the regular feedback collected in many individual interactions with users and information providers in meetings and conferences (e.g. the ECCA 2015 and 2017, Enviroinfo 2015 and 2016, and Adaptation Futures 2016), via the annual Eionet meeting and multiple webinars. Additional important sources of information on the functionalities of the platform were DG CLIMA service contracts and the Climate-ADAPT feedback functionality. The results are reported in the Evaluation Report (EEA, 2018, section 5.3).

Coverage of web links to key partners (objective C)

Within this analysis, the current capacity of the platform to deliver web links to key information providers across its wide range of pages was assessed. Considering that user might access the platform from various entry points the analysis covered web links to external providers as well as internal weblinks guiding users to other Climate-ADAPT sections. Four types of weblinks were analysed along a starting page for the screening process:

- weblinks to partners providing information for the adaptation policy cycle (e.g. climate change information, climate services, funding, MRE); the starting page defined for this screening was http://climate-adapt.eea.europa.eu/knowledge/tools/adaptation-support-tool;
- weblinks to the policy sectors (e.g. mainstreaming and EU sector policies); the starting page defined for this screening was: http://climate-adapt.eea.europa.eu/eu-adaptation-policy with additional input from the ETC-CCA sector experts;
- weblinks to other governance levels (e.g. policy and territory); the starting page defined for this screening was http://climate-adapt.eea.europa.eu/network;
- weblinks to knowledge and information provision (e.g. research, data, tools); the starting page defined for this screening was: http://climate-adapt.eea.europa.eu/knowledge.

Due to the constant evolution of knowledge and evidence made available across Europe, it was not possible to define a clear reference frame of the key information providers on adaptation knowledge in Europe. Potential gaps of web links to providers of sectoral information were identified based on expert judgement by the ETC/CCA thematic experts. Scoping criteria that were applied in the screening are:

- the focus on main relevant EU level weblinks;
- weblinks to main groups of partners working on adaptation, but not on topics that have only a loose connection to adaptation;
- focus on weblinks where maintenance deemed feasible in the long-term perspective.

The assessment needed also to take into consideration the profile of its main intended target audience and actual users. Potential additional weblinks to key sectoral information providers were identified by a 2016 DG CLIMA service contract involving EU level experts in the agriculture, forestry, water management and insurance policy sectors.

The results of the coverage analysis of weblinks to key partners on Climate-ADAPT and actions proposed to address such gaps are presented in the Evaluation Report (EEA, 2018, section 5.4).

2.2 Methodologies for external feedback on Climate-ADAPT

Methodology of the web statistics analysis (objective A)

Web statistics is information generated in the background of the website on the number of website users, their geographic origin, when they access the website and which pages they visit. An in-depth analysis of the web statistics was carried out in addition to the regular capturing of individual user feedback. In order to get information on the actual quantitative use of the platform, an analysis of the data was carried out using Google Analytics. The analysis used, a list of specific evaluation questions that was set-up in advance. The most relevant results were selected to provide information for the overall evaluation.

For the analysis of the evolution of use of the platform over time, four indicators were selected to support the analysis:

- monthly number of users: this indicator indicates how many users have visited the Climate-ADAPT website every month;

- country of origin of sessions and users: this indicator refers to the country where the user has accessed the Climate-ADAPT website;
- monthly number of page views over time: this indicator refers how many pages of the Climate-ADAPT website have been viewed;
- average session duration time per user (minutes) on a monthly basis: this indicator reflects how much time a user spends on viewing the website.

Considering the limits in the availability of data, the data of these indicators were analysed for the period of 1 March 2013 until 30 April 2017. Problems with the comparability of the data for the period before the migration of the platform from the Content Management system Liferay 6.2 to Plone 4.3.7 (May 2016) could be solved by extracting two datasets:

- 01 March 2013- 30 June 2016;
- 1 July 2016 – 30 April 2017.

With Google Analytics (https://analytics.google.com/analytics/web/) web-based analyses were carried out by manually extracting information to an EXCEL sheet, to use for designing tables and graphs.

In terms of the geographic origin of the users, the session per user and respondents new to adaptation were analysed. With this data, it was possible to identify where the users were located and how many sessions took place from these countries. This information is provided for the period July 1st, 2016 – April 30, 2017.Although Google Analytics automatically excludes the visits, counted from search engines, located in the United States, a specific analysis was carried out in order to confirm that the users being counted as from the United States, were real users. However, some uncertainty about the Google analytics methodology remains. Thus, the figures available in the ETC Working paper "Analysis of Climate-ADAPT web statistics" who could not be fully explained were not presented in Annex 3 and the Evaluation report (EEA, 2018).

Information on the evolution of the most visited pages and the visit of the section of the website that were of high relevance for EEA and DG CLIMA was provided for the period of July 1st, 2016 to April 30, 2017 using this indicator page views.

Although, the analysis of the web statistics provides an unbiased quantitative overview on the use of the platform, a lack of full transparency on the methodologies used by Google to provide the numbers for the indicators remains. Therefore, the results of this analysis, presented in the Evaluation Report (EEA, 2018, section 5.2), are valued more for the information about trends rather than the absolute numbers. The outcomes of this quantitative analysis are confirmed by the next two levels of analysis, which are more qualitative (EEA, 2018, section 5.1).

Methodology of the user/provider survey via online questionnaire (objective A, B, C)

The purpose of the survey was to evaluate if Climate-ADAPT is achieving its aim of supporting decision-makers in Europe and to help understanding the quantitative results of the web statistics analysis. Thus, the survey supports a more detailed level of analysis in this evaluation (tier 2)[35]. The survey was designed to be answered by the intended target audience of "decision makers and

[35] More information on the structure of the tiered analysis of external feedback to Climate-ADAPT is available in chapter 4.6 of the Evaluation report (EEA, 2018).

organisations providing support (agencies, boundary organisations and research institutes) on adaptation at EU, transnational, national, and city level." (MTWP, EEA 2014). To reach the identified interviewees, therefore, the following mailing lists were used:

Users:

- European Commission (DG CLIMA Adaptation unit, Climate-ADAPT Advisory Group) (about 20 participants);
- National Reference Centres on climate change adaptation (NRC´s)/Transnational organisations working on adaptation to climate change (approx. 60 people);
- Climate-ADAPT newsletter recipients (currently[36] 3778 people subscribed to the EEA Dissemination service on Climate change adaptation information including the European Climate Adaptation Newsletter ("newsletter"),
- European City networks (ICLEI Europe, Climate Alliance, Global Covenant of Mayors for Climate and Energy signatories committed to adaptation targets approx. 400).

Information providers:

- Researchers of the adaptation relevant H2020/FP7 projects (using the invitation list of the 2015 Climate-ADAPT webinar participants, approx. 60 recipients);
- European Commission, NRC´s and transnational regions contacts that are related to research on adaptation to climate change.

The invitation to the survey was sent to the above, i.e. approximately 4600 users and information providers, using a personalised email. Some participants are covered in multiple mailing lists and will have received the survey more than once, hence the number of individuals will be less than 4600. The survey was also promoted in multiple events and activities related to climate change adaptation (webinar, newsletters and events) both before and during the month it was open. In order to overcome the inherent limitations of surveys to get only responses from users that are already familiar with the platform and to be self-referencing, the EEA asked all recipients of the survey invitation, to invite more users to participate in the survey. Furthermore, the EEA explicitly encouraged respondents that are less experienced with adaptation during the promotion events to participate in the survey.

The method was a 3-step approach. Firstly, a small-scale pilot survey to test the questions and the online process was carried out, and improvements were made to address issues. Secondly, the survey was opened online (from 20 March 2017, to 21 April 2017). Finally, follow-up activities were organized which involved a limited number of interviews and various discussions at events in order to ask more in-depth questions and to get more information on user behaviour.

The structure of the survey was organised to refer to the three objectives of Climate-ADAPT (section 1.2 and Annex 1) and was therefore divided into the following sections:

- section 1 Tell us about the focus of your work: Q1-Q6;
- section 2 Tell us how you use Climate-ADAPT: Q7-Q9;

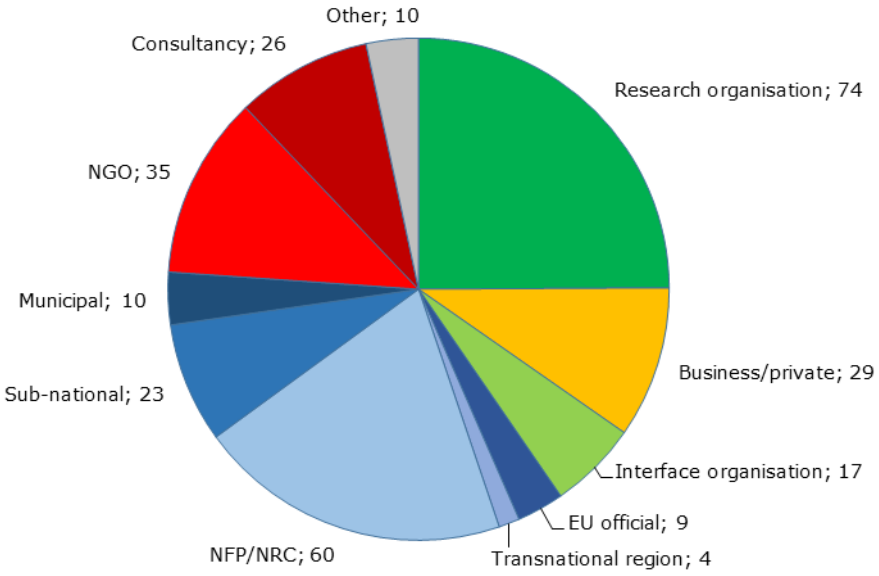
[36] as of March 2017

- section 3 Tell us about how you contribute to Climate-ADAPT: Q10-Q15;
- section 4 Tell us about the user friendliness of Climate-ADAPT: Q16-Q19;
- section 5 Tell us how Climate-ADAPT supports cooperation: Q20-Q21;
- section 6 Share Climate-ADAPT success stories with us: Q22-Q25.

The survey aimed for a balance between closed questions, easier to analyse quantitatively (22 multiple choice questions, 17 of which were mandatory, and 5 of which were for those who have submitted information), and a limited number of open questions for more contextual information (4 free text fields).

There were 300 respondents to the survey, of which 183 completed the whole survey. It is not possible to say whether the respondents can be considered as a representative sample of the people belonging to the target audience. However, despite the fact the sample is probably not significant in statistical terms, it is large enough to provide a substantial insight into our users'/information providers' opinions. Moreover, the answers are relevant because all types of organizations that make up the target audience of Climate-ADAPT are represented. Respondents come from research organisations, public authorities and governments, and science/policy interface organisations (Figure 2.1. green and blue slices).

Figure 2.1 Type of organisations of respondents (N=211)



Note: The figure reflects the results of Question 1 of the Climate-ADAPT user/provider survey, only one answer was allowed.

The people who have answered the survey are a self-selected audience of people who are able to communicate in English. Since the platform is in English it was decided to also develop the survey in English. This means that it is not possible to determine the extent to which language is a barrier.

The analysis of the data was carried out based on aggregated data through a spreadsheet software, and on disaggregated data using the IBM Statistical Package for Social Scientists (SPSS). For this latter analysis, the groups described below were considered.

The core audience of Climate-ADAPT was defined according to the Climate-ADAPT mid-term work plan. Therefore, the following groups were created based on the type of organization they work for:

- **core audience** are defined as those respondents who have selected: research organisation, all public authority/government, and science/policy interface organisations, i.e. 197 people, or 66% of the people who answered the question;
- **wider audience** are defined as those respondents who have selected: consultancy, business/private company, NGO and other, i.e. 100 people, or 34% of the people who answered the question.

Respondents have also been grouped according to their expertise, the following groups are considered based on the years of expertise:

- **respondents experienced with adaptation** are defined as those respondents who have been working on climate change adaptation for two or more years, i.e. 254people, or 86% of the people who answered the question;
- **respondents new to adaptation** are defined as those respondents who have been working on climate change adaptation for up to one year, i.e. 40 people, or 14% of the people who answered the question.

Finally, two classifications were created to look into the characteristics of the countries and geographical areas, they are described in Table 2.1 and in Table 2.2.

Table 2.1 Classification of countries based on the presence of NAP and national Adaptation platform (as of Spring 2017)[37]

Groups	Countries that respondents focused on	Number of respondents
Both national adaptation plan and platform	Austria, Belgium, Denmark, Estonia, Finland, France, Germany, The Netherlands, Spain, Sweden, United Kingdom	88
National adaptation plan; no platform	Czech Republic, Lithuania, Malta, Romania	5
No national adaptation plan; platform	Croatia, Ireland, Poland	13
Neither plan nor platform	Bulgaria, Cyprus, Greece, Hungary, Italy, Latvia, Luxembourg Portugal, Slovakia, Slovenia	75
	Countries outside the EU	**15**
	Total	**196**

Source: EEA

[37] Luxembourg was not considered in the analysis.

Table 2.2 Classification of countries based on the European region[38]

Groups	Countries that respondents focused on	Number of respondents
Eastern European	Albania, Bosnia and Herzegovina, Bulgaria, Czech Republic, Croatia, FYROM, Hungary, Kosovo*, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia	30
Western European	Andorra, Austria, Belgium, France, Germany, Ireland, Liechtenstein, Luxembourg, Monaco, the Netherlands, Switzerland, United Kingdom	65
Southern European	Cyprus, Greece, Italy, Malta, Portugal, San Marino, Spain	83
Northern European	Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway, Sweden	14
	Total	**192**

Note: *Kosovo under the UN Security Council Resolution 1244/99.
Source: EuroVoc; http://eurovoc.europa.eu

One last analysis was performed that aimed to classify respondents based on the nature of their work. The respondents could select any number of options regarding the nature of their work. A two-step cluster analysis was carried out in order to classify the respondents and identify emerging clusters. As a result, six clusters were identified, with a 'fair' cluster quality based on the silhouette coefficient, which is a measure of both cohesion (similarity of elements in the cluster) and separation (differences between the clusters.

The results of the survey are presented in the Evaluation Report (EEA, 2018, sections 5.1-5.2-5.3-5.4).

Individual user feedback collected on an ad-hoc basis (objective b)

Individual feedback that was regularly collected between 2013 and 2017 on an ad-hoc basis during the whole evaluation period via various events, and based on service contracts of the European Commission, was summarized and categorized in order to generalize the lessons learnt. Results are presented in the Evaluation Report (EEA, 2018, section 5.1-5.2-5.3-5.4).

Individual feedback collected via the Climate-ADAPT online feedback mechanism (objective B)

Individual user feedback is captured since the launch of the platform via a feedback form, which is accessible from all web pages of Climate-ADAPT via the tab "Contact" in the footer of the website, and sent to the EEA using a generic address. The online support is additionally offered on "Help" related sections of the website related to get more information on the use of the platform the submission of database items.The EEA answers the messages submitted, and addresses the comments on a regular basis. The content of this inbox was additionally assessed and categorized for the period of March 2012 to March 2017 to better understand how users and providers value Climate-ADAPT and which problems are flagged interacting with the platform.

Based on a sequential 3-step approach, the content of the feedback form, which comprised of 403 individual emails, was screened applying a criteria-based approach: Firstly, the above-mentioned initial screening of emails was conducted to separate 'real' feedback from other sorts of feedback. Secondly, the remaining emails were quantitatively assigned to five feedback categories: 1) content

[38] Turkey was not included in this classification.

(including granting of access rights to the platform); 2) general functionalities (includes newsletter and submissions); 3) links to other platforms and organizations; 4) problems with the process of submitting content/ submission functionalities; 5) Other feedback (e.g., on questions regarding topics beyond the focus of Climate-ADAPT). Finally, each email was categorized into three content categories 1) Comments, statements, clarifications, praises and complaints; 2) Concrete suggestions and proposals (including submission of material to the platform and corrections to available information); and 3) Requests about the use of the platform contents (includes newsletter).

All emails were coded to preserve anonymity and analysed for the sole purpose of this report. Multiple emails pertaining to the same issue were only counted once. Simple request to log in were not included as feedback. The outcomes of the analysis were not included into the Evaluation Report (EEA, 2018, section 5.1) since the outcomes were mainly relevant for internal purposes.

Individual feedback collected via evaluation examples (Climate-ADAPT "use cases") (objective A, B, C)

Seventeen "real-life" examples, gathered from across Europe, provide in-depth insight into how the platform is being used to support decision making in all its various forms (Climate-ADAPT use cases[39]). They complement and help to better understand the quantitative results of the web statistics and the user/providers survey. Thus, they support the third level of analysis of the external feedback to Climate-ADAPT (tier 3)[40].

The use cases were provided on voluntary basis upon request by EEA. Invitations for submission were sent out via the European Climate Adaptation Newsletter subscription and other mailing lists (that included National Reference Centres (NRC's), researchers from FP7 and H2020 projects and other key stakeholders via various meetings. The Climate-ADAPT use cases were submitted on a voluntary basis using a pre-prepared template. It was intended to collect examples from various perspectives of the platform use, such as examples from:

- all governance levels in Europe (EU, transnational, national, sub-national, local);
- all regions in Europe (North, East, South, West);
- from" front runners" in the adaptation policy process to "beginners";
- from users with and without national adaptation platforms in place;
- from the research and policy perspective;
- from a sectoral perspective.

In order to get a sufficient coverage of these aspects, the EEA staff and ETC/CCA experts actively encouraged and supported users to submit examples, such as for the sectoral perspective or from less experienced users.

The use cases were analysed applying the following three criteria: 1) professional backgrounds of the use cases providers (i.e. type of organisation, general background on adaptation or sectoral specific background); 2) availability of a National Adaptation Plan (NAP) and transnational or national adaptation platform, and 3) in terms of the coverage of European regions.

[39] https://climate-adapt.eea.europa.eu/help/climate-adapt-use-cases
[40] More information on the tiered approach is available in section 4.6 of the Evaluation report; (EEA, 2018).

Since the data were collected in a systematic and comparable way for all individual cases, following the overall intervention logic of Climate-ADAPT (EEA, 2018, Chapter 4), they were analysed as "evaluation case studies" to identify common features of the platform use, to generalize lessons learnt in terms of the fulfilment of the three objectives of Climate-ADAPT as set out in its mandate, and to draw conclusions for the further development of the platform.

Thus, the collection of the use cases, presented in the Evaluation Report (EEA, 2018, section 5.1-5.2-5.3), in ANNEX 3 and in ANNEX 5, provides additional in-depth specific information to the Climate-ADAPT evaluation. The use cases[41] are also published on the Climate-ADAPT website.

Methodologies of capturing individual user feedback on selected sections of the platform (objective B)

In addition to the external feedback on the whole platform, collected via the web statistics, the user/provider survey and the individual feedback, EEA intended to understand better the contribution of specific Climate-ADAPT content to achieve the objectives of the platform. Therefore, in addition to this, feedback was specifically collected and analysed on selected sections of the Climate-ADAPT (EEA, 2018, section 5.3).

Survey on the actual use of Climate-ADAPT case studies (objective B)
Feedback on the case studies is regularly collected and addressed in the completion of the set of case studies. In order to get an indication, if the case studies are actually being used and if the EEA should continue prioritising the work on case studies, a survey on their actual use was carried out It takes advantage of the fact that the contact information of the local contacts of each Climate-ADAPT case study is available online for questions.

This specific small survey, carried out subsequently to the user/provider survey, used the same methodology. The invitation to the survey was sent, using a personalised email towards each of the case study contacts. The structure of the survey was organised to capture the requests for the uptake of the case study information by Climate-ADAPT users, and was therefore divided into the following sections: section 1 enabled categorising the typology of respondents to the survey; section 2 allowed collecting information on the possible use of Climate-ADAPT case studies, and section 3 aimed at understanding whether and how local contacts are interested in providing further information to Climate-ADAPT case studies. The survey included closed questions (9 multiple choice questions, and a limited number of open questions for more contextual information (3 free text fields).

Although the survey was quite short, initially, the response rate was small. In order to increase the number of participants, a number of phone calls were carried out to assist the local contacts filling in the survey form. Moreover, some individual feedback was collected that contributed to the lessons learned on the use of the case studies. From the methodological point of view, it should be stressed that the results of the survey have to be valued as one among other means of understanding the use of the Climate-ADAPT case studies. Results of the survey are presented in the Evaluation Report (EEA, 2018, section 5.3).

Statistical analysis and survey on the feedback to the European Climate Adaptation Newsletter (objective B)
The European Climate Adaptation Newsletter ("newsletter") aims to inform people who work on adaptation in Europe about relevant developments in the adaptation policy framework and the

[41] https://climate-adapt.eea.europa.eu/help/climate-adapt-use-cases

knowledge base at all governance levels (except the city level) on a bimonthly basis. Since the recipients of the newsletter receive it via a subscription to the EEA dissemination system on the topic "climate change adaptation", the EEA collects data on the use of the newsletter in an anonymous way. Taking advantage of this EEA, supported by the ETC/CCA, analyses the use statistics on an annual basis to further improve the newsletter.

EEA analysed the 2015 and 2016 data to contribute to the evaluation of the achievement of the second objective of Climate-ADAPT, to assist the better uptake of the information. Four indicators were analysed, namely the evolution of subscribers over time, the opening rate of the newsletter email as well as the click-through ratio (percentage of opens on specific items of the newsletter). These results per indicator were compared with other relevant newsletters related to climate change.

In addition, EEA carried out a small newsletter survey on the relevance, user friendliness and effectiveness of the newsletter. Despite the newsletter-specific questions, the survey was set up following the same structure as the above-mentioned surveys. It was disseminated to the newsletter recipients (sent to 3778 recipients of which 14 gave their response) in the March and May 2017 issues. Results of both analyses can be found in the Evaluation Report (EEA, 2018, section 5.3).

References

EEA, 2014. *Medium Term Work Plan (MTWP) European Climate Adaptation Platform (Climate-ADAPT)2013-2017*

EEA, 2018, *Sharing adaptation information across Europe. Evaluation of the European Climate Adaptation Platform – Climate-ADAPT*.

ANNEX 3 Key evidence of the Climate-ADAPT evaluation

Table of Content

3.1 Internal assessment of Climate-ADAPT content and functionalities

3.1.1 Objective A: Sharing adaptation knowledge in Europe to build a consistent knowledge base

3.1.1.1 Content of the Climate-ADAPT database

Key messages

- The growth of knowledge related to CCIVA, published in Europe and publicly available is reflected in the Climate-ADAPT database in terms of quantity and timeliness. The database analysis confirms that the knowledge base on adaptation in Europe has been built in a consistent way by ensuring that only the relevant content was selected through applying a set of eligibility criteria.
- The database content reflects also the increasing diversification of the types of knowledge on adaptation. It includes all types of knowledge resources, such as "Case studies" and "Tools" that have become available to support decision-making on adaptation.
- The database structure for EU policy sectors was adjusted to ensure that the more diversified information, such as on urban adaptation and adaptation in the buildings, energy and transport sectors, was captured.
- The growing knowledge on climate impacts in Europe is included in the database. However, improvements in the database structure are needed to make these diverse knowledge resources, such as for impacts related to "Ocean acidification", more easily accessible.
- The database represents resources from all types of knowledge needed to assist decision makers in the steps of the adaptation policy cycle. The largest number of items in the database relates to "Adaptation measures and actions" and "Vulnerability assessments. The large increase of resources for "Adaptation Plans and strategies" as well as on mainstreaming of adaptation in "Sector policies" demonstrates that the database captures the growing evidence information on these activities in Europe.
- According to the mandate of Climate-ADAPT, its database focuses on the collection and sharing of resources coming from European sources. The database analysis confirms that the database content reflects this actual focus.
- Gaps in the database content were identified for some aspects, e.g. for indicators on the progress of "Adaptation measures and actions" and "Adaptation Plans and Strategies". Such gaps may be addressed through further dedicated research and growing experience from practitioners. Gaps in the database that need a more targeted screening of the available information were also found, such as for information on the sector "Marine and Fisheries", and "Tools" for sector policies.
- Although the structure of the database was continuously updated where feasible, limits in the current database structure remain, such as for specific climate impacts or types of data (e.g. "Multimedia") and should be addressed. This would improve the accuracy of the outcomes of the database search function and would also allow making these resources accessible from various Climate-ADAPT pages where they are presented ask key resources in their respective policy context, such as on the EU sector pages.

This section shows evidence information related to the objective A of Climate-ADAPT to share the knowledge on adaptation in Europe to build a consistent knowledge base. In particular, it provides answers to the question A2 of the evaluation: Does Climate-ADAPT provide the relevant information on the platform?

The Climate-ADAPT database was developed as an instrument for sharing information on adaptation across Europe. It provides access to relevant sources of information by using tailored search criteria and allows a quick overview by screening the metadata available for each information source. The information in the Climate-ADAPT database was selected using a set of predetermined eligibility criteria: relevance to Climate Change Impacts, Vulnerability and Adaptation (CCIVA), relevance at European level, and accessibility to all users in Europe. Since the information is submitted by different providers and via different processes, the ETC/CCA team ensures that the quality of the metadata information matches the above mentioned selection criteria.

Since the launch of Climate-ADAPT in 2012, its database has been continuously updated on a monthly basis to support the building of a consistent knowledge base, mainly by a number of ETC/CCA thematic experts in the various policy sectors of the EU. Throughout this period, also EEA improved the database structure, in order to provide a searchable access to up-to-date information sources on CCIVA across Europe.

EEA, supported by the ETC/CCA, conducts a regular (bi-annual) gap analyses of the database content, based on statistical analyses of the database content. The assessment of its content follows four steps: 1) statistical analysis of the database content; 2) identification of potential information gaps; 3) ETC/CCA thematic experts' consultation to verify and confirm the identified gaps; 4) recommendations for a structured improvement of the database content. Additionally, the analyses identify needs to adjust the database structure with the objective to facilitate the best possible search results.

Furthermore, specific content of the database, i.e. Climate-ADAPT adaptation options and case studies, are analysed in more depth (see also sections 3.1.1.2 and 3.1.1.3).

The first analysis of the database content was carried out in February 2015, and a second assessment was performed in February 2017 aiming for a comparability of both analyses. This section of the report presents the characterization of the Climate-ADAPT database content in these two moments in time with the aim of reviewing the development of the database content over time. The evidence that is considered appropriate to evaluate whether Climate-ADAPT provides the right information in its database, has been interpreted in terms of the types of data, sector policies, impacts, timeliness and the geographic origin of the selected information sources. The assessment uses the categorisation of the information types in the database ("types of data") as well as metadata categories that also serve as filters to the database search engine: "adaptation sectors", "climate impacts", "adaptation elements", "geographic characterization" and "year" (of publication on the market). Details on the database and the methodology of the assessment are provided in the Climate-ADAPT profile[42].

Although the Evaluation Report (EEA, 2018, Chapter 3) shows the evolvement of knowledge that became available on adaptation in Europe over time in an overview, there is no clear indication on how much and which types of adaptation information has been produced that needs to be considered as the reference frame to evaluate if Climate-ADAPT captured all the relevant

[42] https://climate-adapt.eea.europa.eu/about

information. Thus, the analysis reflects if the EEA builds the database in a consistent way by applying the selection criteria.

Information captured in terms of types of information

The Climate-ADAPT database captured a diversity of information resources[43] that are needed to support decision-making on adaptation in Europe. At the time of the second assessment, i.e. February 2017[44], the total number of items in Climate-ADAPT database was 1812, and is presented in Figure 3.1 based on the "types of data". The type of data "Publications and reports" and "Research and knowledge projects" represent 63% of the items in the database.

Figure 3.1 Number of items per type of data in the Climate-ADAPT database in February 2017.

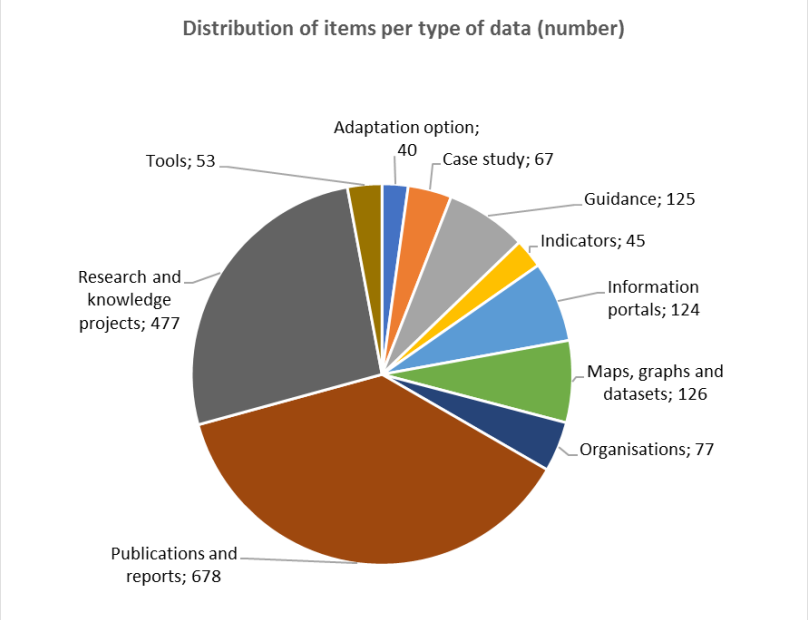


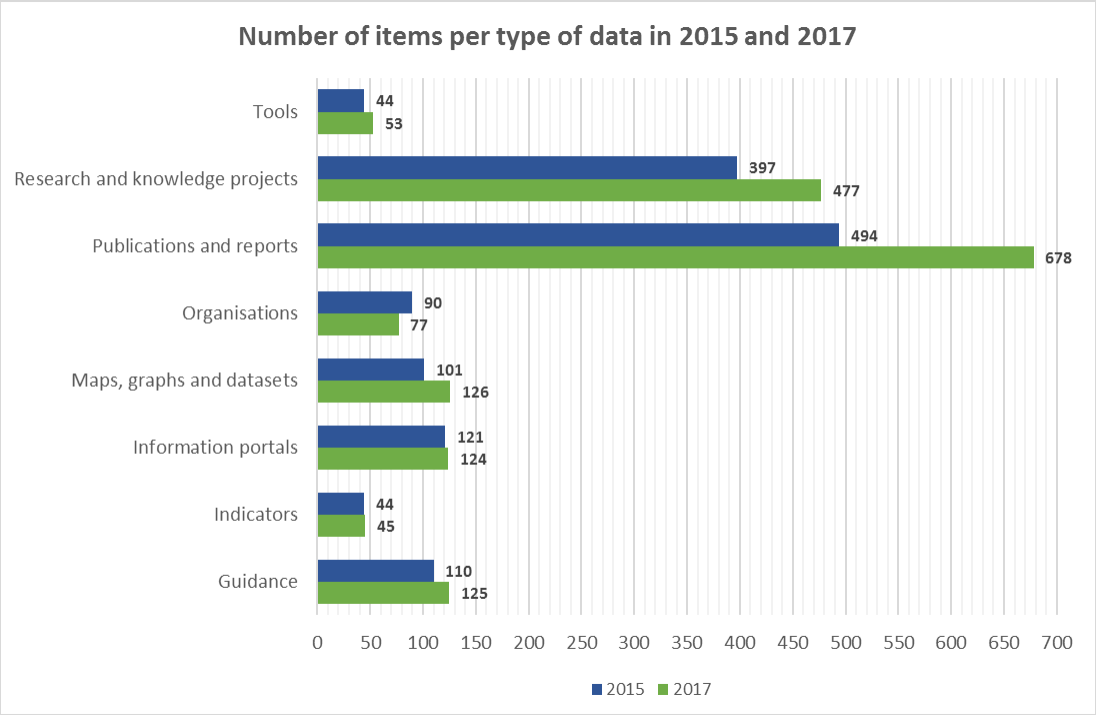
Figure 3.2 shows a comparison of the number of items by type of information in the Climate-ADAPT database in February 2015 and in February 2017. Comparatively to February 2015, there was an increase in the number of items for almost all types of data. "Indicators" include only EEA indicators (maintained by the EEA) based on the availability of European level data, so their number is more constant over time. "Adaptation options" and "Case-studies" are analysed in detail in sections 3.1.1.2 and 3.1.1.3, respectively. "Maps, graphs and datasets" were not much updated after 2013 since climate data and data on impacts has become available from a range of EU funded research projects that provide this on their own project web sites. In addition pre-operational climate change services have been finalised which also provided their results on their project web sites. Also since 2016 the Copernicus Climate Services has started to become operational, providing climate data and projections

[43] The types of data of the Climate-ADAPT database: "Publications and reports", "Information portals", "Guidance documents", "Tools", "Maps, graphs and datasets", "Indicators", "Research and knowledge projects", "Organisations", "Adaptation options" and "Case-studies"

[44] February 2017 was chosen as an analogous period of the first database analysis, February 2015

This suggests that the information that was selected, applying the set of criteria to build the knowledge base, shows an overall balanced growth of content in terms of the information types.

Figure 3.2 Number of items per type of data in the Climate-ADAPT database in February 2015 and in February 2017.



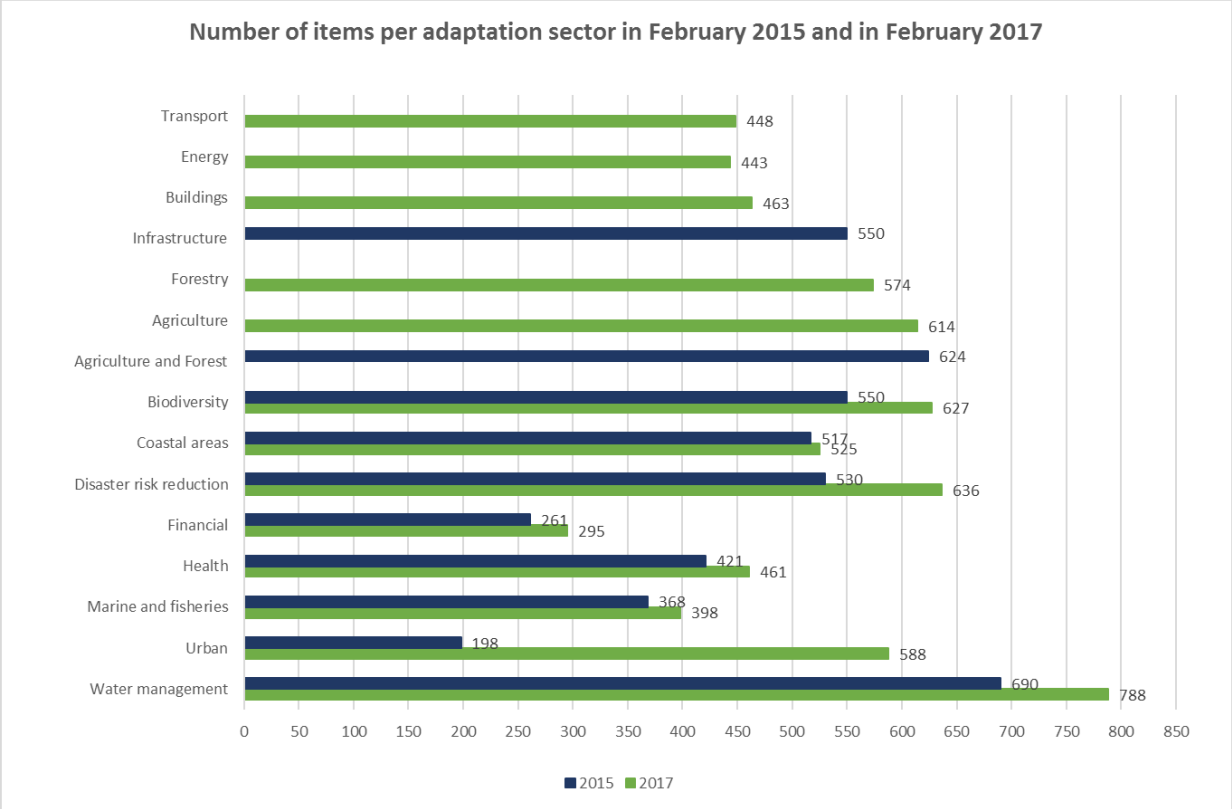
Information captured in terms of adaptation in EU sector policies

More diversified information on adaptation in the EU policy sectors became available, such as on urban adaptation and adaptation in the energy, buildings and transport sectors. The database structure was improved to ensure, that the knowledge of these new information types can be screened by Climate-ADAPT users in a way that facilitates efficient results.

"Adaptation sectors" are part of the metadata categories of all types of data and are mandatory. Since June 2016, 13 adaptation sectors[45] are available to tag items at the Climate-ADAPT database. Before this period, "Agriculture and Forestry" was a single sector and "Buildings", "Energy" and "Transport" were under the umbrella of "Infrastructure". "Adaptation sectors" are one of the filter criteria of the database search engine. Figure 3.3 shows the number of items per adaptation sector in the Climate-ADAPT database in 2015 and in 2017.

[45]13 sectors are now considered in the Climate-ADAPT database: "Agriculture", "Biodiversity", "Buildings", "Coastal areas", "Disaster risk reduction", "Energy", "Financial", "Forestry", "Health", "Marine and fisheries", "Transport", "Urban" and "Water management". Until September 2016 only 10 sectors were available: "Agriculture and Forest" was a unique sector and now is divided in "Agriculture" and "Forestry"; "Infrastructure" was a sector but now is divided in "Buildings", "Energy" and "Transport".

Figure 3.3 Number of items per adaptation sector in the Climate-ADAPT database in February 2015 and in February 2017.



Note: Database items may relate to more than one sector, thus, the items can be tagged with multiple sectors. This generates duplicates and the sum of all sectors is more than the total number of items.

In comparison to February 2015, there was an increase in the number of items for all sectors. “Water management” is the sector with the highest percentage of items (43%) and “Disaster risk reduction”, “Biodiversity” and “Agriculture” sectors have also a large share of items in the database representing the relative maturity of knowledge and political priorities of these sector policies. The coverage of items for the sector “Financial” has also increased, but has the lowest percentage of items (16%). A systematic revision of all items of the “Financial” sector will be carried out in the period 2017-2018 to harmonize the content of the sector.

In February 2015, “Water management” was the sector with most items and “Urban” the sector with fewest items, which is now among the top five. The large increase of items of the “Urban” sector is on one hand, the result of the revision and re-tagging process of the existing stock of database items. After “Urban” was added as a new sector to the database in 2014, this new tagging option was applied to assign these items retrospectively to the sector "Urban" in 2015-2016, to make this information type searchable. On the other hand, more effort in terms of resources for the database updating were dedicated to the “Urban” sector, due to the cooperation with the European Commission’s Mayors Adapt/Global Covenant of Mayors for Climate and Energy Initiative. “Agriculture and forestry” and “Infrastructure” had a large share of items in 2015, but as these

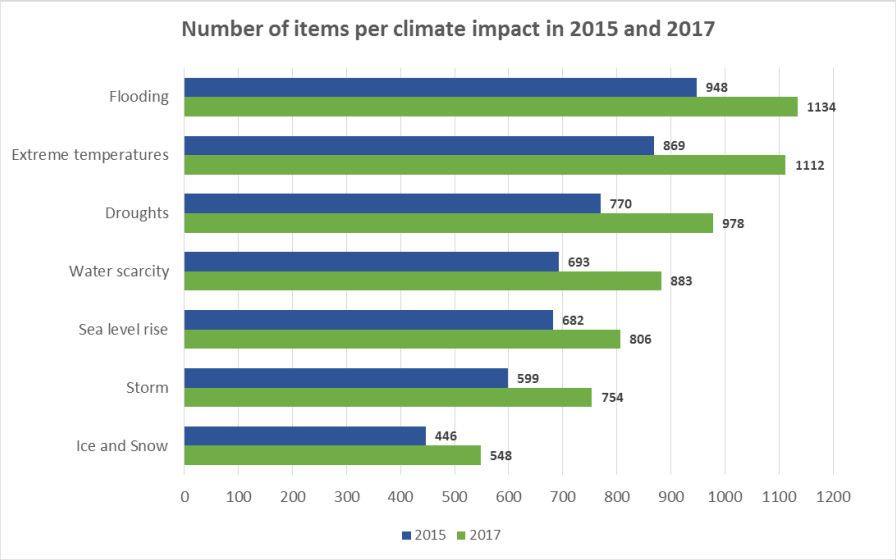
sectors were split in 2016[46] due to the need to better capture the diversified knowledge on adaptation in these sectors, these items are now re-distributed in the new sectors.

The analysis shows that the selected items as well as the refined database structure ensure that the "right" knowledge in the database in terms of its relevance for adaptation sectors is presented on Climate-ADAPT.

Information captured in terms of climate impacts

"Climate impacts[47]" are part of the metadata categories and are mandatory for all types of data. Figure 3.4 shows the number of items by "Climate impact" in the Climate-ADAPT database in 2015 and in 2017.

Figure 3.4 Number of items per climate impact in the Climate-ADAPT database in February 2015 and in February 2017.



Note: Database items may relate to more than one impact, thus, the items can be tagged with multiple impacts - this generates duplicates and the sum of all impacts is more than the total number of items.

In relation to February 2015, there are more items for all climate impacts. All the climate impacts considered in the Climate-ADAPT database are covered by an increased amount of knowledge resources suggesting that the growing knowledge on climate impacts in Europe was equally captured in the database. The distribution of items by "climate impacts" showed the same pattern: "Flooding" and "Extreme temperatures" are the climate impacts with more items, followed by "Droughts" and "Water scarcity"; "Ice and Snow" have a smaller number of items. The largest increase was for "Extreme temperatures" as it is the only temperature related impact available in the Climate-ADAPT database. Furthermore, all items that relate to the impacts of the increase of the global mean surface temperature are also tagged with this impact. These types of items can only be searched by keywords, limiting the quality of the search results. There are more items that were added to the database, but cannot be tagged by appropriate metadata categories, such as for impacts like "Ocean

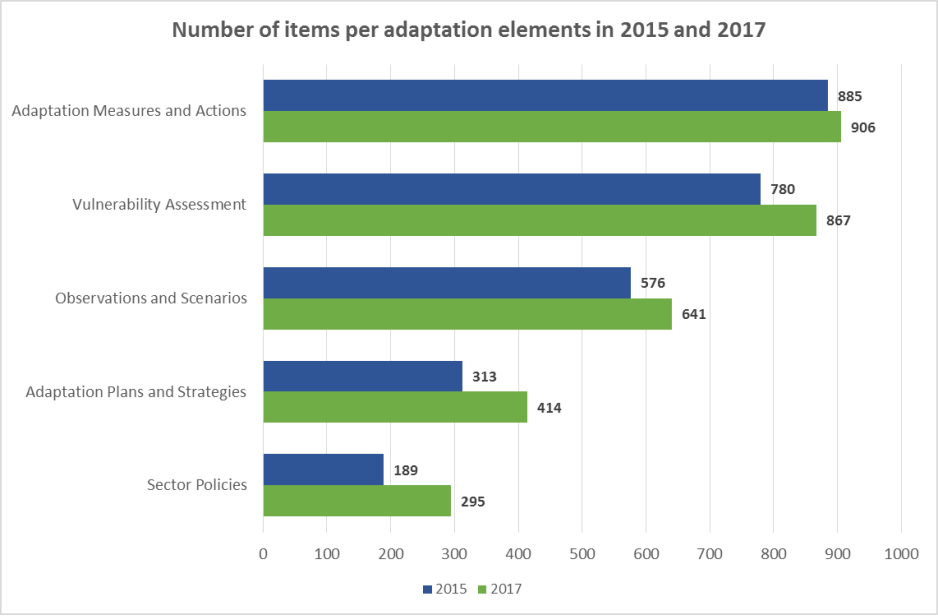
[46] The 2015 sector "Agriculture and Forestry" was split in 2016 into the new sectors "Agriculture" and "Forestry"; the sector "Infrastructure" was split into the sectors "Energy", "Transport" and "Buildings".
[47] Floods, storms and droughts are extremes events that might be aggravated by climate change. The impacts used in this report refer exclusively to the filter criterion "Impacts" in the Climate-ADAPT database,

acidification". Thus, the analysis shows that the relevant knowledge, based on the selection criteria, is consistently captured in quantitative terms, but cannot yet be shown in its diversification, due to the limits of the database structure. This suggests to improve the database structure to better visualise "Climate impacts" in the database search.

Information captured in terms of knowledge related to the adaptation policy cycle

The database presents resources to assist decision makers in the different steps of the adaptation policy cycle ("Adaptation elements"). Figure 3.5 presents the number of items per adaptation elements in February 2015 and in February 2017[48].

Figure 3.5 Number of items per adaptation element in the Climate-ADAPT database in February 2015 and in February 2017 (excluding adaptation options and case studies).



Note: Database items may relate to more than one element, thus, the items can be tagged with multiple elements. This generates duplicates, and the sum of all elements is more than the total number of items.

Comparatively to 2015, in 2017 the distribution pattern is the same: "Adaptation measures and actions" and "Vulnerability assessments" are the adaptation elements with higher numbers of items. Furthermore, the number of items increased for all adaptation elements - "Adaptation Plans and Strategies" and "Sector Policies" had the highest increases. Although the focus of the database is still "Adaptation measures and actions", the large increase of the "Adaptation Plans and strategies" as well as "Sector policies" demonstrates that the database successfully captures the growing evidence information on adaptation strategies and the related activities. Items that relate to Monitoring, Reporting and Evaluation of adaptation activities, have been added to the database, but cannot yet be shown, due to the limits of the database structure.

[48] "Adaptation elements" are included in the metadata categories of all data types except for "Adaptation options" and "Case-studies". Thus, the analysis of the adaptation elements considers the following types of data "Guidance", "Indicators", "Information portals", "Maps, graphs and datasets", "Organizations", "Publications and reports", "Research and knowledge projects" and "Tools", corresponding to a total number of items of 1705.

Information captured in terms of the geographic dimension of the knowledge

In order to present the information in a complementary way, the Climate-ADAPT database focuses on the collection and sharing of resources coming from European organizations. Geographic elements are part of the metadata categories of all types of data and are divided in five elements: “Europe” versus “Global”; “Transnational regions”; “Biogeographic regions”; “Countries”; and “Subnational regions”.

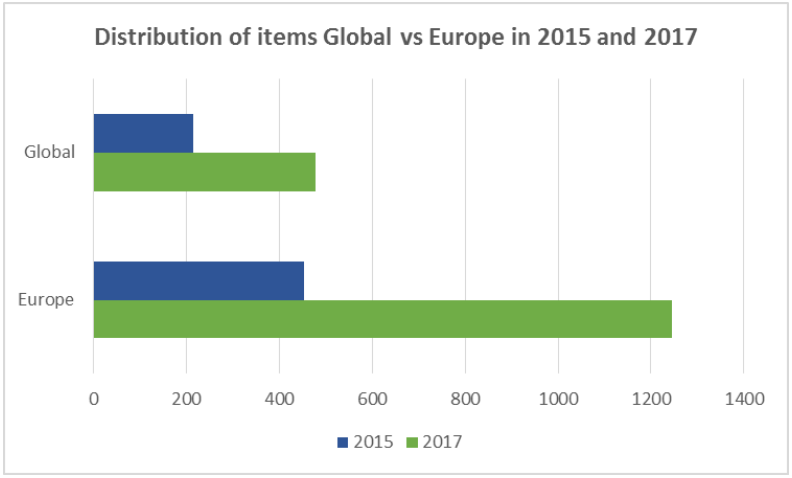
Figure 3.6 presents the number of items for the geographic elements “Global versus Europe” in 2015 and in 2017. Relative to 2015, there was a large increase in the number of items with European scope in 2017.

Considering the level “Europe” versus “Global”, “Europe” applies for items focusing on climate change impacts, vulnerability and/or adaptation in the EU and/or EEA member countries and six cooperating countries. “Global” applies to items that have worldwide coverage, in which Europe is included (e.g. IPCC reports).

Since the database follows a sectoral approach, there is no option available to tag items with a cross-sectoral content. As a practical solution, items that have a general methodological scope in terms of adaptation are also tagged with the label “Global”. Thus, the share of the global items reflects as well the update of the database with items dedicated to adaptation as a whole.

The comparison of the Climate-ADAPT database content in these two years reflects that the database was updated with a reliable focus on the collection and sharing of resources coming from European sources.

Figure 3.6 Number of items for the geographic elements “Global versus Europe” in the Climate-ADAPT database in February 2015 and in February 2017.



Gaps in database content and actions to address them

The identification of potential gaps in the database is a step of the methodology of the regular biannual assessment of the Climate-ADAPT database content (see ANNEX 2, Section 2.1). These gaps relate to a lack of targeted gathering of information in the database and might also relate in some cases to a possible lack of knowledge or evidence information, or this knowledge being available in formats not eligible to the Climate-ADAPT database (e.g. scientific articles).

This identification of gaps is based on the expert judgement of the Climate-ADAPT thematic experts' using the results on the statistical analysis database content, presented above. It identifies recommendations for the improvement of the database and its structured update. It refers to the Climate-ADAPT database content and does not intend to be seen as a mirror of the CCIVA knowledge landscape in Europe. The gaps are divided in three gap categories: 1) Possible missing scientific/practical evidence: The knowledge/information/practical experience has not been provided yet by science or practice; 2) Incomplete information gathering: the information is available, but it has not yet been included in the database; 3) Information is not eligible in a format supported by the database criteria. The gaps are always identified considering the types of data eligible to the database and its requirements, e.g., scientific articles are only eligible if publicly available free of charge ("open access") and if available in a language that is understandable for the intended Climate-ADAPT target audience; "Maps, graphs and datasets" need to be compliant with the INSPIRE Directive.

The gaps identified in the database content, as related to possibly missing scientific/practical evidence (gap category 1), were for example the lack of "Maps, graphs and datasets" for the "Marine and fisheries" and "Coastal areas" sectors, the lack of indicators on the progress of "Adaptation measures and actions" and "Adaptation Plans and Strategies" and for the impacts "Sea level rise" and "Storms", as well as the lack of (adaptation) "Tools" for sector policies.

As gaps related to incomplete information gathering (gap category 2) were identified the needs for a systematic inclusion of information on monitoring, reporting and evaluation of climate change adaptation and on "Marine and fisheries" also considering recent on-going projects.

The "adaptation sectors" face different challenges regarding climate change and their knowledge needs and requirements evolve differently. Considering the consistent and continuous updating of the database since 2012, the number of items in the database is not expected to continue to increase significantly in this category. "Maps, graphs and datasets" require the availability of data at the EU and country level and additionally, it is challenging to map adaptation information for all sectors. "Indicators" also require data availability at EU or country level. Long-term monitoring of climate related data is needed to support the scientific community with relevant information to develop climate change adaptation indicators and spatial information. "Monitoring systems and tools" are one of the priority areas where knowledge gaps were identified in the EEA report "Climate change, impacts and vulnerability in Europe" (EEA, 2017). This report also suggests as useful exploring "how existing thematic and sectoral EU legislation and policies could be used to improve climate change impact data and indicators" (EEA, 2017).

Improvements of the database structure

The final step of the assessment of the Climate-ADAPT database is the identification of recommendations for its further improvement. Although the structure of the database was continuously updated where feasible, limits in the current database structure remain that should be addressed to improve the outcomes of the database search function and to allow presenting the database resources in their respective policy context on the web pages.

As examples of recommendations to improve the database structure and search results are: to include "multimedia", such as videos, as an additional type of knowledge that was detected as relevant for adaptation in various sectors; to improve the options to tag knowledge resources by more specific climate impacts (for example add "ocean acidification") and add "Monitoring, Reporting and Evaluation" to the options to tag knowledge items by "adaptation elements", to

improve the search results. Improvements of the consistency of the database with the web pages, such as for the sector "Urban" would improve the visibility of urban adaptation resources in the context of EU urban adaptation policy.

3.1.1.2 Coverage of adaptation options

Key messages

- Climate-ADAPT provides a systematic set of generic adaptation options including many options that are known for application in various sector policy contexts for a variety of climate change impacts. More specifically, the set of 40 adaptation options (as of February 2017) on Climate-ADAPT has an overall balanced distribution of grey, soft and green options.
- Adaptation options are available for all policy sectors, but with varied coverage. Sectors with the largest numbers of resources are "Disaster Risk Reduction", "Coastal areas", "Urban" and "Water Management". Remaining gaps were identified for the "Marine and Fisheries" sector. Such gaps might be addressed through further dedicated research and growing experience from practitioners. Gaps in the adaptation options that need a targeted screening of the available information in the future, were also detected, i.e. for the "Financial", "Energy", and "Transport" sectors. Further improving the sector coverage into a comprehensive catalogue of options should be considered by systematically analysing sources of scientific and practical evidence information.
- Adaptation options are also provided for all types of climate change impacts. "Flooding" is the most frequently addressed climate impact, in analogy with the distribution of case studies in terms of impacts. "Storms", "Sea Level Rise, "Drought" are also well represented, and to smaller extent "Water scarcity". There is a gap in the options for the "Ice and Snow" related impacts, corresponding to the same coverage pattern of case studies. This gap is likely due to the limited number of adaptation options and practical experience available for this impact. It could be addressed through dedicated research or gaining of practical experiences. The current number of options related to "Extreme temperatures" is expected to be increased.
- Climate-Adapt offers a minimum of one case study to highlight the practical implementation of adaption measures for 35 out of 40 generic adaptation options. These interlinkages should be considered while developing new case studies.
- Adaptation options represented by a relative high number of case studies (> 10) are: "Green space and corridors in urban areas", "Water sensitive urban and building design", "Awareness campaigns for behavioural changes", Adaptation or improvement of dikes and dams", "Adaptation of flood management plans, and Rehabilitation and restoration of rivers".

This section aims to support answering the question A1 of the evaluation: Does Climate-ADAPT provide the relevant information on the platform? The answers, presented in this section, help to understand if the generic adaptation options, available on Climate-ADAPT, support adaptations experts to find valid adaptation approaches for various climate change impacts in all sector policies or to use the adaptation options to check the completeness of their current approaches in a systematic way.

In February 2017, Climate-ADAPT included 40 adaptation options forming a catalogue of measures that can be systematically checked and applied in different contexts (different geographic areas and for different policy sectors) to improve adaptation to climate change and increase resilience to extreme weather. This catalogue is the result of a 2-years revision process (2015-2016) aimed at eliminating redundancy, obtaining similar level of details and producing a compact set of options, covering as much as possible all the policy sectors and the climate change impacts considered by Climate-ADAPT.

Main messages of this section of the report come from the annual analysis of adaptation options carried out in parallel to the case studies analysis (see Section 3.1.1.3) in order to allow a consistent update of both types of knowledge that are interlinked with each other. It also follows the same procedure for the identification of gaps and possible improvements than the statistical database analysis (Section 3.1.1.1). Methodologies of the assessment are presented in the ANNEX 2.

Coverage of adaptation options

Climate-ADAPT includes a balanced number of grey (15), green (13) and soft (11) adaptation options (one option includes both green and grey measures and is therefore categorised as “green/grey”). However, the attribution of a specific adaptation option to one of the three considered categories is not always straightforward and might be arbitrary in some cases. EEA envisages to consider possible new knowledge on ecosystem-based solutions, generated through EU research funding and enhanced experience and knowledge from practitioners, thus, increasing in future the number of green measures. This should be done in close collaboration with the dedicated EU knowledge platforms on biodiversity and eco-system based approached (BISE and OPPLA).

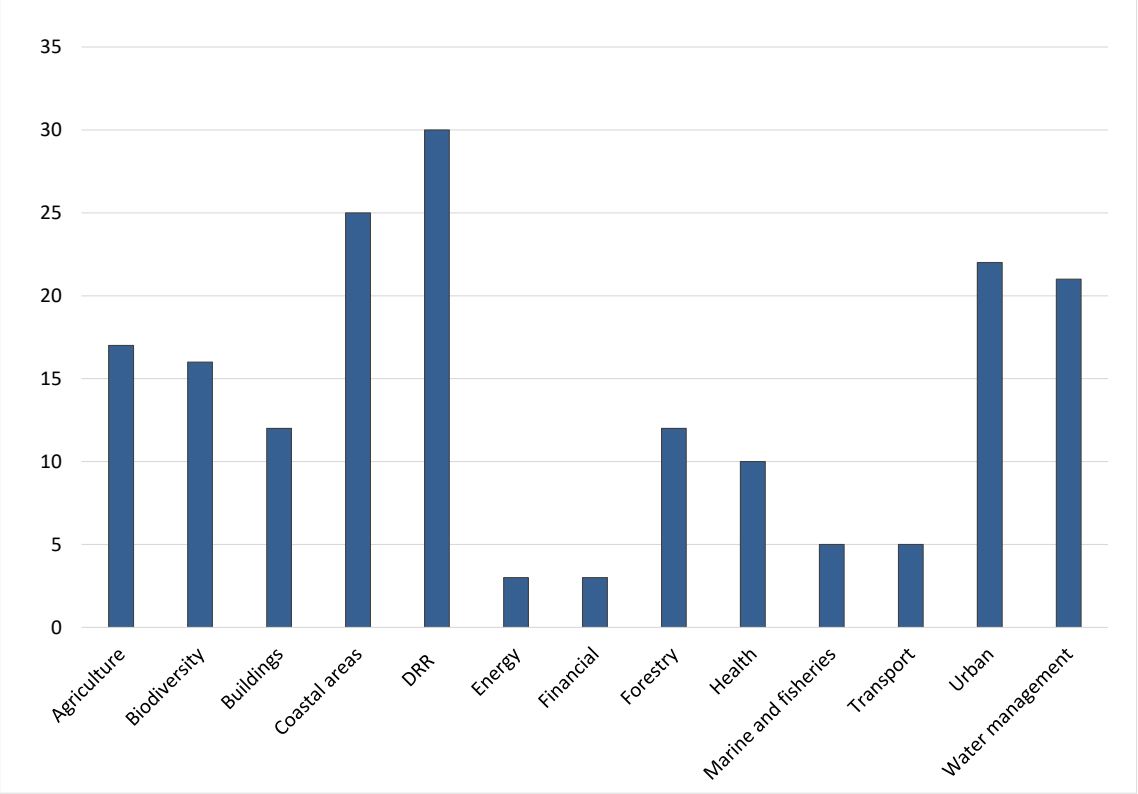
Large parts of the policy sectors[49] are well covered; the most relevant gaps are related to Energy, Financial, Marine and Fisheries, and Transport sectors (Figure 3.7). According to the gap categorisation considered for the analysis of the whole Climate-ADAPT database, the relatively low numbers of “Financial”, “Energy” and “Transport” options appear to be related to the second category “Incomplete information gathering”. In the case of the “Marine and Fisheries” sector, it is likely that the limited number of options derives from a combination of category 2, with gap category 1 (Missing scientific/practical evidence), as similarly highlighted for the analysis of case studies (see Section 3.1.1.3). The relative high number of options available for the “Coastal areas” sector (often related also to DRR), derives from the productive collaboration with the European Commission’s DG Environment study "Sharing of Best Practices on Integrated Coastal Management (ICM) in a Context of Adaptation to Climate Change in Coastal Areas" (briefly called OURCOAST II), which provided a comprehensive set of options, jointly developed with EEA and ETC/CCA. A number of repositories, list and menus of adaptation options are available from publications, project reports, and websites, but also from official documents, such as national adaptation strategies and plans. Information on adaptation options can also be derived from practitioners’ knowledge. In the future, it should be considered to systematically analyse such sources of information and further develop this type of Climate-ADAPT database content towards a more comprehensive catalogue of adaptation options, improving the coverage for all other sectors.

Adaptation options tend to be specific for a limited number of sectors. More than 70% of the 40 adaptation options deal with just 2 to 4 policy sectors. Only two general options cover all thirteen

[49] “Urban” is currently not yet represented on Climate-ADAPT with a specific web page under the tab “EU sector policies” although there is an “Urban” EU sector policy. “Urban” is currently presented in the geographic component of Climate-ADAPT under the tab “Countries, regions, cities”.

Climate-ADAPT sectors: awareness campaigns for behavioural change, and economic incentives for behavioural change.

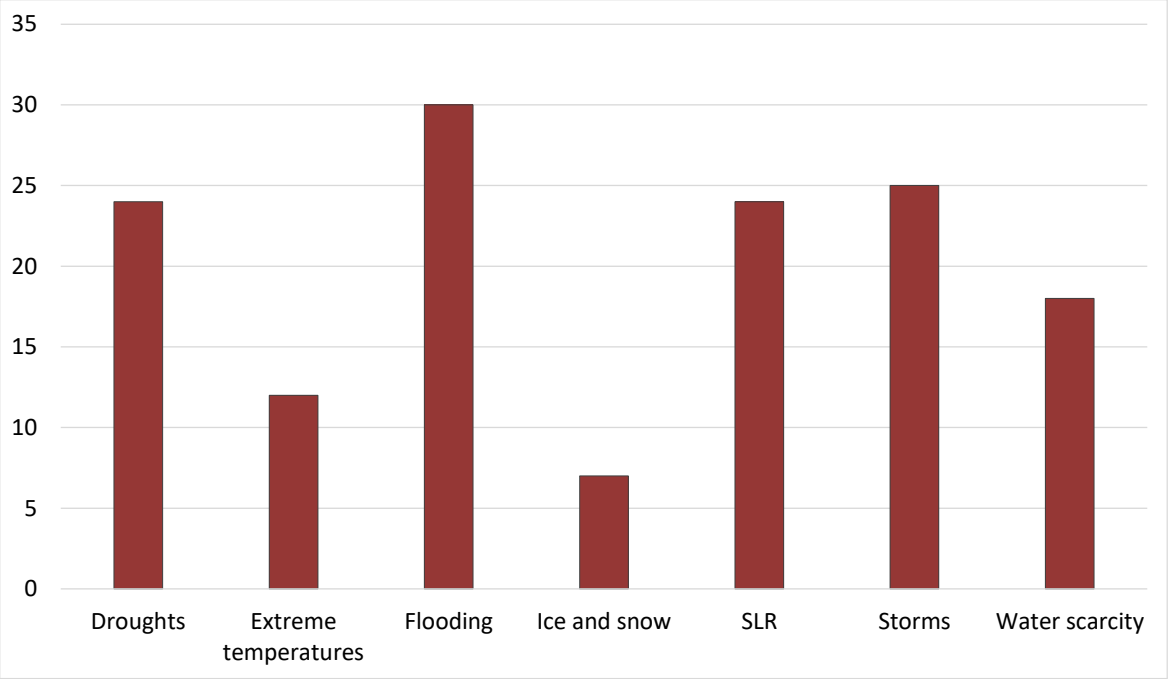
Figure 3.7 Distribution of Climate-ADAPT adaptation options by sectors at February 2017



Note: Adaptation options can be tagged with more than one sector. This generates duplicates, and the sum of all options related to one sector is larger than the number of adaptation options.

There are adaptation options available for all types of climate change impacts with a smaller number of options for the impact related to “Ice and Snow” (Figure 3.8). “Flooding” (30) is the most frequently addressed climate impact, in analogy with the distribution of case studies in terms of impacts (Section 3.1.1.3). Other impacts are well represented: “Storms” (25), “Sea Level Rise” (SLR) (24), “Drought” (24), and to smaller extent “Water scarcity” (18). Similarly to case studies, adaptation options, coping with “Ice and Snow” related impacts are relatively rare (7); this impact confirms being one of the more relevant gaps of the current database of adaptation options. This gap is likely linked to the first gap category “Missing scientific/practical evidence”, due to the relatively limited number of adaptation options available to cope with ice and snow-related impacts. The gap could be addressed through dedicated research or gaining of practical implementation. Given their relevance (for example for urban areas or Southern European countries), the current number of adaptation options related to “Extreme temperatures” (12) is also expected to be increased.

Figure 3.8 Distribution of Climate-ADAPT adaptation options by climate change impacts at February 2017



Note: Options can be tagged with more than one impact. This generates duplicates, and the sum of all options related to one impact is larger than the number of adaptation options.

Link of adaptation options to case studies

Climate-ADAPT adaptation options and case studies are interlinked. All relevant aspects of an individual adaptation option are presented in a metadata sheet, searchable via the Climate-ADAPT database. In each adaptation option metadata sheet, there are web links to Climate-ADAPT case studies, which show implemented adaptation activities making use of this specific adaptation option. The other way around, each case study metadata sheet, where the lessons learned from the case study are presented, reports all generic adaptation options that were applied in the case study via web links. This offers help for users starting either, from a practical perspective to understand an implemented measure in a systematic context or, users, starting from a more strategic level, may benefit from practical examples on the implementation of a generic adaptation option.

Among the 40 adaptation options, provided on Climate-ADAPT in February 2017, only 5 were not represented by any of the 67 case studies: adaptation of groundwater management plan, cliff strengthening, floating or elevated roads, water sensitive forest management and water use to cope with heatwaves in cities. These gaps should be addressed when elaborating new case studies, to have at least one example of a practical application of each adaptation option. Adaptation options represented by a relative high number of case studies (> 10) are: Green space and corridors in urban areas (18), Water sensitive urban and building design (15), Awareness campaigns for behavioural changes (15), Adaptation or improvement of dikes and dams (13), Adaptation of flood management plans (12) and Rehabilitation and restoration of rivers (12). This situation reflects well the distribution of case studies by sectors, which is characterised by an evident dominance of items related to the “Water management” and “Urban” sectors.

3.1.1.3 Coverage of case studies

Key messages

- Climate-ADAPT provides a collection of 67 Climate-ADAPT case studies (as of February 2017), offering illustrative and inspiring examples of implemented adaptation measures across Europe. It was complemented in a systematic way applying the criteria for the selection of case studies to show lessons learnt from implemented adaptation actions.
- The policy sectors are well represented by the current collection of case studies, such as "Urban", "Water management", "Disaster Risk Reduction", "Biodiversity", and "Coastal areas". Other sectors are covered by a good diversity of case studies even if their number is lower: "Buildings", "Financial", "Forestry", "Health", "Agriculture", "Energy", and "Transport". The sector "Marine and Fisheries" shows a gap in terms of case studies, likely due to missing scientific and practical evidence.
- The Climate-ADAPT case studies have been developed in a way that all climate change impacts are well represented such as "Extreme temperature", "Storms", "Drought", "Sea level rise", and "Water scarcity". "Flooding" is the climate change impact most frequently addressed in Climate-ADAPT case studies. There are only a few case studies for impacts related to "Ice and Snow". This gap is likely due to the limited number of adaptation options and practical experience available for this impact. It could be addressed through dedicated research or gaining of practical experiences.
- Case studies have been developed for several levels of governance with the main focus on the local and sub-national levels. The geographic coverage of case studies varies among European regions with major gaps in the Northern Periphery and the Alpine Space.
- The number of countries represented by at least one Climate-ADAPT case study has constantly increased reaching 27 countries out of 39 (including in the total number EEA Members and Cooperating Countries) in February 2017.

This section aims to support answering the question A2 of the evaluation: Does Climate-ADAPT provide the relevant information on the platform? The answers, presented in this section, aim to understand if the case studies, available on Climate-ADAPT, help adaptations experts to find inspiration from implemented adaption measures for various climate change impacts in all sector policies.

The number of Climate-ADAPT case studies has constantly increased since EEA and ETC/CCA started working on their development in 2013: 31 in 2014, 47 in 2015 and 67 at February 2017[50]. Sources of information consulted for case study development are quite diverse (Figure 3.9), including: EU projects (e.g. LIFE funded projects, BASE, GRaBS, EPI-WATER, CIRCLE-2, SWITCH, etc.), EEA studies

[50] A case study originally published in 2014, was updated during 2016. Updating of older case studies is an issue to be consider in the future evolution of Climate-ADAPT.

aiming to develop case studies on specific aspects[51] (synergy between mitigation and adaptation in urban areas and financing urban adaptation), the so-called DG ENV Ourcoast II[52] project on adaptation and resilience in coastal areas, local administrations (e.g. Vaxjo and Copenhagen municipalities just to mention some examples) and other specific sources (as institutions, organisations, companies, strategies, plans, web-platforms, local projects, etc.). Due to the application of clear selection criteria, the set of case studies follows a systematic approach showing practical experiences and lessons learnt based on actually implemented adaptation actions.

Figure 3.9 Sources of information of Climate-ADAPT case studies

Note: Sources of information represented in bigger letters are those used for developing a greater number of case studies. For the purpose of the above figure, full names of sources, used to elaborate case studies, have been shortened. Complete references are reported in the "Source" field include in the case study metadata sheets of the Climate-ADAPT database.

Annual analyses of the Climate-ADAPT case studies were carried out since 2014 (specifically at end of 2014, end of 2015 and February 2017) in order to ensure a systematic and targeted updating of the set of case studies in terms of policy sectors, climate change impacts and geographic coverage (see ANNEX 2). It follows the same procedure for the identification of gaps and possible improvements than the statistical database analysis (Section 3.1.1.1).

The collection of Climate-ADAPT case studies, providing illustrative and inspiring examples of implemented adaptation measures across Europe, was complemented in a systematic way thus creating a collection with a g coverage of policy sectors and climate change impacts as well as a balanced geographic coverage.

Coverage of case studies in terms of policy sectors

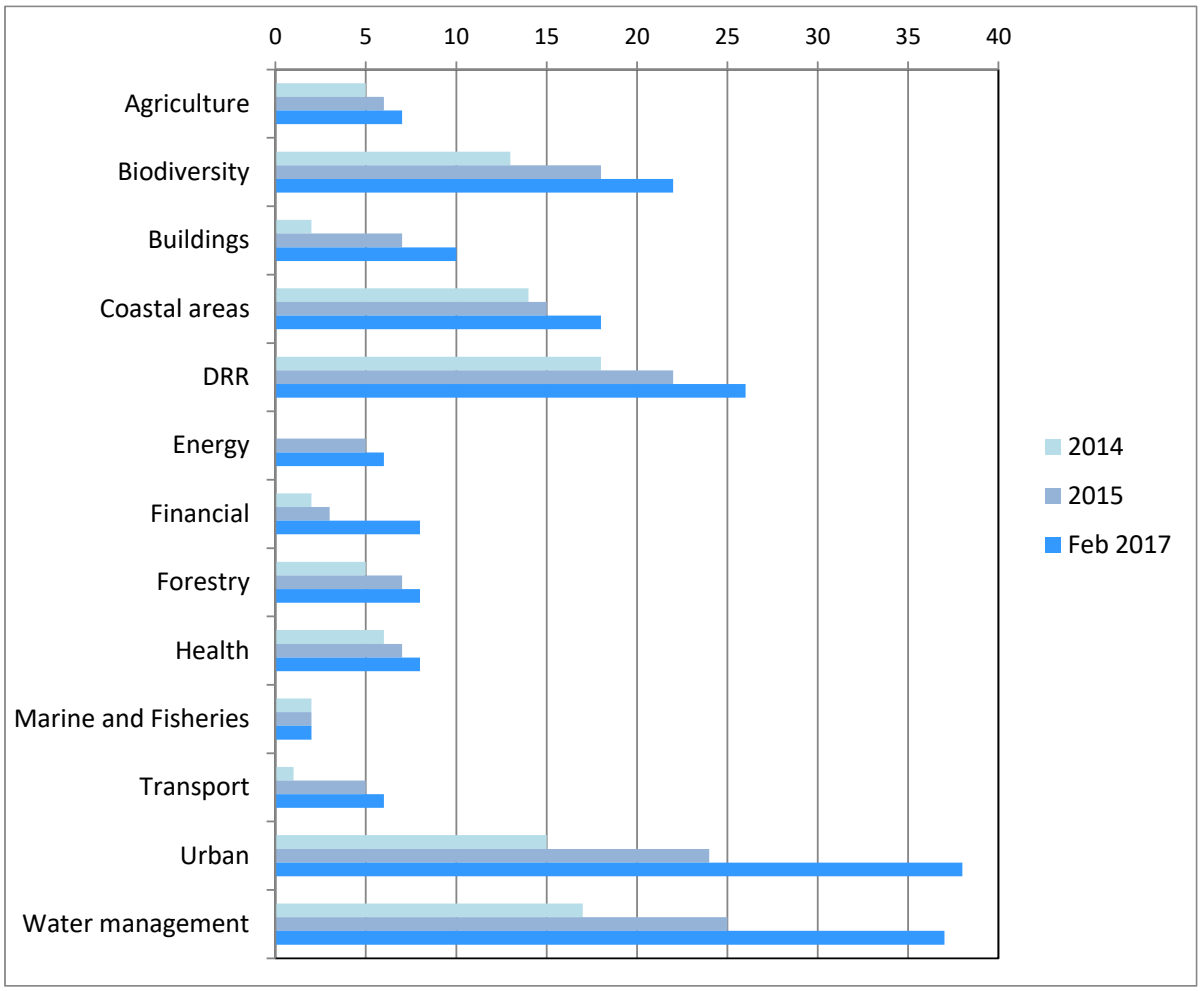
Most of the sectors are well represented by the collection of Climate-ADAPT case studies (see February 2017 situation in Figure 3.10), as in particular in the case of: Urban (tagged by 38 case studies), Water management (37), Disaster Risk Reduction (26), Biodiversity (22) and Coastal areas (18). Other sectors are covered by a good diversity of case studies even if their number is lower: Buildings (10), Financial, Forestry and Health (8), Agriculture (7), Energy and Transport (6). Most of the sectors have experienced an increase in the number of case studies in the period 2014-February

[51] Those studies consulted a wide variety of specific sources of information, including: Arkitools and IMDEA, Barcelona City Council, "Bratislava is preparing for Climate Change" project, City of Bologna, City of Malmö, Dura Vermeer - Factor Architecten - Boiten raadgevende ingenieurs, Empresa Portuguesa das Águas Livres (EPAL), Emschergenossenschaft/Lippeverband, Mayors Adapt, Ghent crowdfunding platform, Hamburg's Green Roof Strategy, Paris Climate & Energy Action Plan, Zorrotzaurre Master Plan.

[52] Full name of the project is "Sharing of Best Practices on Integrated Coastal Management (ICM) in a Context of Adaptation to Climate Change in Coastal Areas"

2017 (Figure 3.10). The major gap is related to Marine and Fisheries sector, which is considered only by two case studies at February 2017, which at the same time deal with it only in a general and indirect way.

Figure 3.10 Number of Climate-ADAPT case studies by adaptation sector at end of 2014, end of 2015 and February 2017



Note: Total number of case studies per sector are reported for each analysed period; i.e. 2015 illustrates case studies published in the entire period 2014-2015, February 2017 (Feb 2017 in the Figure) illustrates case studies published in the entire period 2014-February 2017. Most of the case studies are tagged in the database with more than one sector. This generates duplicates, and the sum of all case studies related to one sector is larger than the total number of Climate-ADAPT case studies.

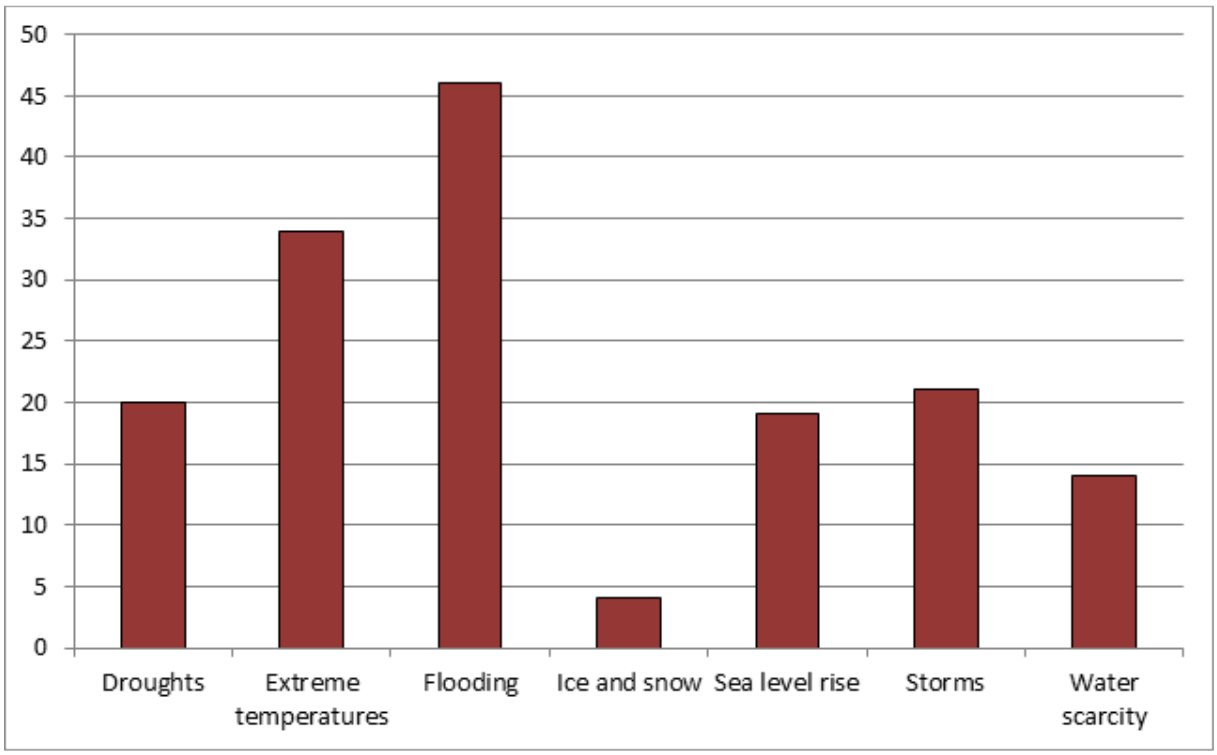
According to the gap categorisation considered for the analysis of the whole Climate-ADAPT database, the relatively lower number of Health, Energy, Transport, Agriculture, Forestry and Financial case studies appears to be related to the second category "Incomplete information gathering". Gaps related to the Marine and Fisheries sector are probably related to a combination of the gap category 2 with category 1 (Missing scientific/practical evidence). For this sector, it is likely that practical experiences on the design and implementation of concrete adaptation measures have not been fully developed yet. Indeed, new research projects are addressing this gap, as in the H2020-funded projects Clime-Fish "Co-creating a decision support framework to ensure sustainable fish production in Europe under climate change" and CERES "Climate change and European aquatic resources".

Most of Climate-ADAPT case studies (92%) cover more than a single sector, highlighting that implementation of adaptation measures can generate synergies among and co-benefits for different sectors. However, such synergies tend to be specific: 88% of the 67 case studies deal with just 2 to 4 adaptation sectors.

Coverage of case studies in terms of climate change impacts

"Flooding" (46) is the climate change impact most frequently addressed in Climate-ADAPT case studies. Other impacts are in general well represented: "Extreme temperature" (34), "Storms" (21), "Drought" (20), Sea level rise (19), and Water scarcity (14). Ice and snow (4 case studies) is the major and unique gap related to the distribution of cases studies by climate change impacts. This gap is likely linked to the first gap category "Missing scientific/practical evidence", due to the relatively limited number of adaptation options available to cope with ice and snow-related impacts and to the few real experiences concretely applied. This gap could be addressed through dedicated research or gaining of practical implementation.

Figure 3.11 Distribution of Climate-ADAPT case studies by climate change impact at February 2017



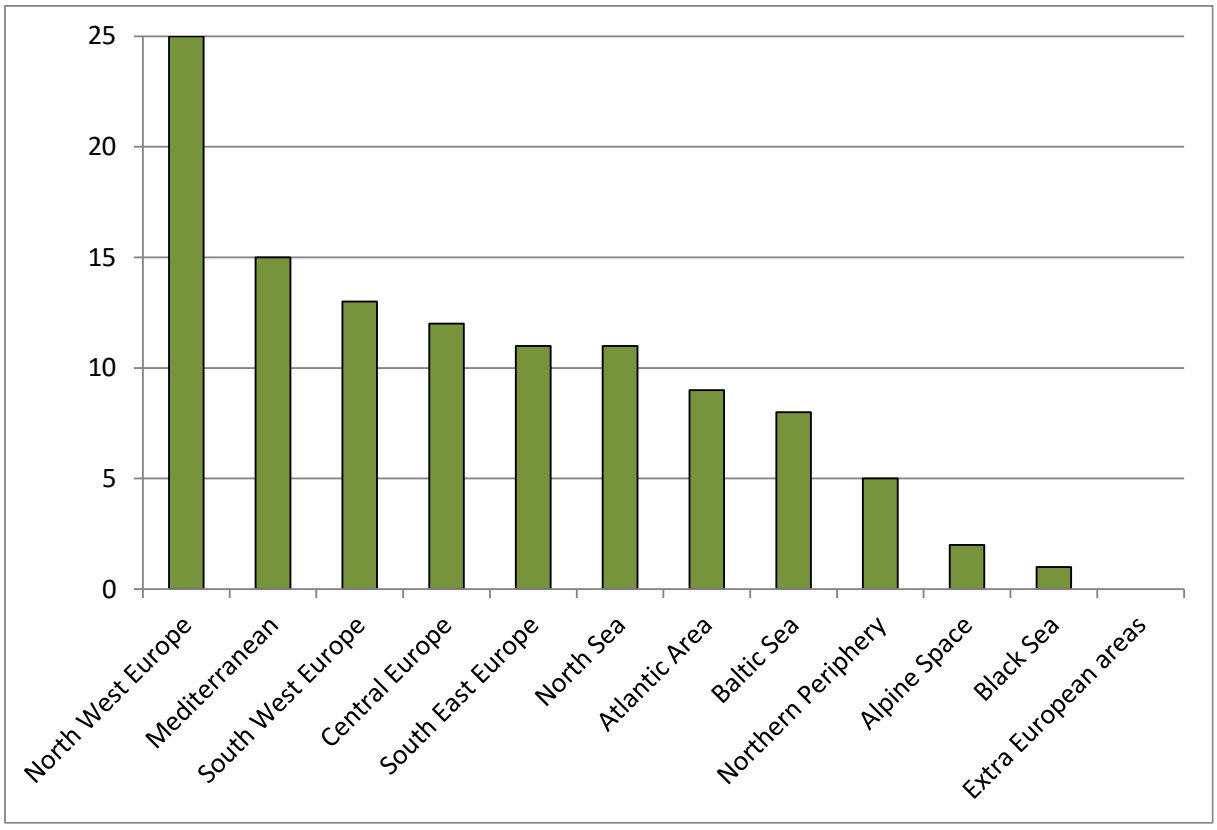
Note: Most of the case studies are tagged in the database with more than one impact. This generates duplicates, and the sum of all case studies related to one impact is larger than the total number of Climate-ADAPT case studies.

Coverage of case studies in terms of geographic distribution

Climate-ADAPT case studies have been developed for several levels of governance in Europe. The great majority of case studies occurs at the local (42) and sub-national (17) levels, as it can be expected. These scales of application are the most relevant ones for the implementation of concrete adaptation solutions. Five case studies have a national dimension, being related to the implementation of national adaptation strategies, plans or guidelines. Only three Climate-ADAPT case studies have a transnational dimension.

North West Europe (25 cases) is the wider covered region, followed by Mediterranean (15), South West Europe (13), Central Europe (12), South East Europe (11), North Sea (11), Atlantic Area (9) and Baltic Sea (8). Major geographic gaps are related to Northern Periphery (5) and in particular Alpine Space (2), Black Sea (1) and Extra European Areas (0 case studies) (Figure 3.12). The number of countries represented by at least one Climate-ADAPT case study has constantly increased reaching 27 countries out of 39 (including in the total number EEA Members and Cooperating Countries) in February 2017 (Map 3.1). Adaptation measures, described in Climate-ADAPT case studies, are often initiated to meet a range of policy objectives and co-benefits, including, but not exclusively dealing with climate change adaptation. Map 3.1 shows the spatial distribution of Climate-ADAPT case studies in February 2017.

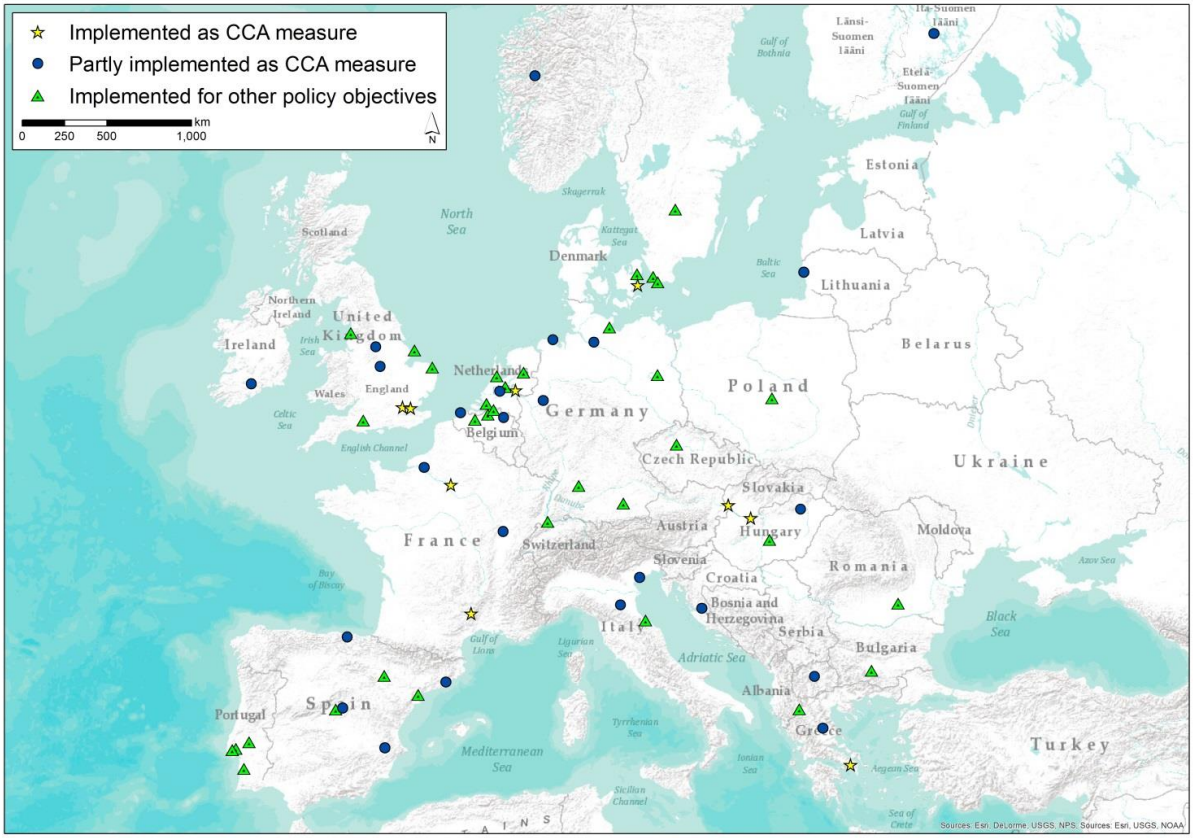
Figure 3.12 Distribution of Climate-ADAPT case studies by transnational regions in February 2017



Note: The figure shows the distribution of case studies by the 13 transnational regions considered by Climate-ADAPT in February 2017. Transnational regions are defined by the EU Macroregional cooperation programmes 2008-2013. For the purpose of the analysis, Caribbean area, Macaronesia and Indian Ocean area have been grouped into the category "Extra European areas", while Black Sea has been added to the original 13 ones. As such, transnational regions overlap, case studies might be tagged to more than one region. Moreover, in the course of 2017, Climate-ADAPT has embedded the new regions[53] for transnational cooperation (according to the EU Macroregional cooperation programmes cooperation programmes 2014-2020), only partially coinciding with previous ones: Adriatic-Ionian, Alpine Space, Atlantic Area, Balkan-Mediterranean, Baltic Sea, Central Europe, Danube, Mediterranean, North Sea, North West Europe, Norther Periphery and the Arctic, South West Europe, Other regions.

[53] http://climate-adapt.eea.europa.eu/countries-regions/transnational-regions

Map 3.1 Spatial distribution of Climate-ADAPT case studies in February 2017 and their categorisation in terms of their direct link to adaptation



Note: Climate-ADAPT case studies are categorised in three groups, describing their relevance for climate change adaptation and other policy objectives: (i) Cases, developed and implemented as climate change adaptation (CCA) measures; (ii) Cases, developed and implemented and partially funded as CCA measures; (iii) Cases, mainly developed and implemented because of other policy objectives, but with significant consideration of CCA aspects.

3.1.1.4 Web content development

Key messages

- The Climate-ADAPT web content was further developed according to the priorities outlined in the EU Adaptation Strategy and the 2013-2018 Climate-ADAPT work plan. Thus, the adaptation policy and knowledge development in Europe was generally represented on the web pages in a reliable, comprehensive, and systematic way.
- Major achievements are a new section with overview information on all actions of the EU Adaptation Strategy, among others informing about access to all EU funding sources on adaptation in Europe. This section includes as well "City profiles" showing the progress of adaptation in signatory cities of the EU Mayors Adapt/Global Covenant of Mayors for Climate and Energy Initiative. The "Urban adaptation Support Tool" provides tailor-made advice for the signatories and other cities in Europe. A more diversified set of pages on adaptation sectors informs about the progress of mainstreaming of adaptation in 13 EU sector policies.
- Officially reported country information on adaptation according to the MMR regulation was published and annually updated on a voluntary basis. It provides reliable and comprehensive information on national adaptation policies for EEA Member countries in a comparable way in one place. It also aims to support learning among countries in Europe.
- Considering the multi-governance approach of adaptation, adaptation policy information was expanded, covering also other governance levels in Europe in a systematic way. "Transnational regions" pages present overview information on adaptation policies in those regions. Detailed information is available for the Baltic Sea Region. It provides a common knowledge base for stakeholders working on adaptation in a transnational perspective.
- The most relevant EU funded research projects were highlighted on new "Research projects" pages. The Adaptation Support Tool was regularly updated based on EEA assessment reports.
- However, some goals could not be achieved; such as the intended access to the knowledge provided by the Copernicus Climate Services, which only started to be operational in 2016 with limited products.
- New knowledge generated through EU activities, not explicitly covered in the work plan, such as on ecosystem-based approaches, could be presented to a limited extent.
- The varying updating frequency of the Climate-ADAPT sections was both determined by the respective policy processes in which the content was generated, e. g. on adaptation in the Baltic Sea Region, and by the need to prioritize the updating of the large amount of Climate-ADAPT web pages.

This section aims to support answering the question A2 of the evaluation: Does Climate-ADAPT provide the relevant information on the platform? The answers, presented in this section, help to understand if the web pages of Climate-ADAPT were updated in order to share the relevant adaptation information across Europe.

Complementary to the annual self-assessment of the database content, EEA, based on expert judgement, regularly assessed if the Climate-ADAPT web content was developed according to the

2013-2018 Climate-ADAPT work plan and responding to feedback received from the platform stakeholders. Thus, DG CLIMA and EEA set the priorities of the annual ETC/CCA Action plans to further develop the platform in the best possible way taking into account the available resources.

Main focus of the web content development

The Climate-ADAPT web content was further developed according to the priorities outlined in the EU Adaptation Strategy and the 2013-2018 Climate-ADAPT work plan. Table 3.1 shows the annual priorities of the 2013-2018 Climate-ADAPT work plan. They are determined by the priorities of the European Commission to inform about its activities in the EU Adaptation Strategy, to facilitate the reporting of country information on adaptation according to the MMR regulation as well as of providing support and visibility for signatory cities of the EU Mayors Adapt/Global Covenant of Mayors for Climate and Energy Initiative. Furthermore, overview information on adaptation policy at all levels in Europe, aiming at assisting governmental decision makers and the organisations supporting to benefit from "frontrunner approaches", should be provided.

The table reflects also on the actual implementation of new or improved Climate-ADAPT web pages per year in the period of 2013 to 2017. Major milestones in the development of the web pages are: A section, informing about all important aspects of the implementation of the EU Adaptation Strategy, was set up in 2014. The pages cover detailed information on the actions of the three priority areas of the Strategy as well as access to information on all major EU funding sources available for adaptation in Europe. The most relevant knowledge generated through EU funding sources, such as by EU funded research projects, was highlighted on the platform, on the "Research projects" pages (2015). These pages support to visualize the progress in the development of the knowledge base on adaptation in Europe." Overview information on the progress of mainstreaming of adaptation in EU sector policies was presented in a more comprehensive way in 2015. The number of sector pages increased from 10 to 13 through presenting sector policies on more specific pages and by making the information more consistent and comparable. Content related to the EU Mayors Adapt/Global Covenant of Mayors for Climate and Energy Initiative was published on Climate-ADAPT in 2015. This content was developed and updated by DG CLIMA service contracts in close collaboration with the EEA. A new dedicated section provides access to adaptation policy profiles of signatory cities to make their actions and progress visible. The "Urban Adaptation Support Tool" provides tailor-made guidance and advice on all steps of the adaptation policy cycle.

The section "country information "was modified in 2015 in order to present the information reported by EU Member states under MMR, applying the reporting guidance provided by the European Commission. Thus, comparable overview information on adaptation policies at national level in Europe is available in a comprehensive way in one place. Overview information on adaptation policies for all transnational regions was set up in 2015) to support the mutual learning among the transnational regions. Detailed information on adaptation for one region (Baltic Sea) was published (2013) and further updated in 2017. It aims to supports all stakeholders in this region working on adaptation in the transnational context. Thus, the objectives of the Work plan were achieved.

However, one objective could not be fully achieved; the access to the Copernicus Climate Services through Climate-ADAPT was implemented by a landing page with overview information and web links, while not providing direct access to the Copernicus services on Climate-ADAPT. This is primarily due to the fact that the Copernicus Climate Services became only operational in 2016 with initially limited products, which are being expanded rapidly since 2016 and in the coming years. Links to these more comprehensive products and services will be implemented, once these additional data and services become available. The currently available maps on climate change, impacts and

vulnerability on Climate-ADAPT come from a variety of EU funded projects, finalised until around 2013/2014. These will become less relevant in future. This is partly because of the existing and upcoming products of the Copernicus climate change services. It is also because of data and maps from a large number of EU funded research projects and Copernicus pre-operational services that have been finalised in the past years became available on a range of project websites. In addition, it was realised that there is no need for giving access to data directly from Climate-ADAPT, when the Copernicus Climate services will do so themselves. This implies that EEA is considering to close the section on maps on Climate-ADAPT and only provide weblinks to these other information sources.

Based on the extensive EU funding provided for research on ecosystem-based adaptation, a large number of knowledge resources was generated, accessible for example via the project based platforms NRWM[54] OPPLA[55]. EEA is reflecting how to best link and/or incorporate information on ecosystem based initiatives in general within its Biodiversity Information System for Europe (BISE). In addition, the increasing information on ecosystem-based adaptation should be specifically covered within Climate-ADAPT, in a consistent and complementary way.

Updating frequency of the web content

The updating frequency of the web content varied among the sections. It reached from ad-hoc updates, based on the availability of new knowledge (such as for the Adaptation Support Tool), to updating frequencies, determined by the progress in the related policy processes (such as such as the formal 4-yearly and subsequent regular voluntary updating of country information, reported to the European Commission and EEA by countries).

Table 3.1 provides an overview on the timing of the development of the Climate-ADAPT web content. Some sections could not be updated in the frequency indicated in the Climate-ADAPT work plan. Examples are the detailed information on adaptation for the Baltic Sea Region[56] where the updating frequency was due to the political momentum in the related policy process. Due to the need to prioritize, web pages could not always be updated immediately after the knowledge became available, e.g. through EEA reports, such as the “Observations and Scenarios” and “Impacts and Vulnerabilities” pages.

[54] http://nwrm.eu/
[55] https://www.oppla.eu/
[56] http://climate-adapt.eea.europa.eu/countries-regions/transnational-regions/baltic-sea-region/adaptation/general

Table 3.1 Overview on the priorities of the Climate-ADAPT work plan and the progress in the improvement of the Climate-ADAPT web content and functionalities

Climate-ADAPT sections	Climate-ADAPT work plan priority	Overall website/ Homepage	About	Database	EU policy	Countries, regions, cities	Knowledge – Adaptation information	Knowledge – Tools	Help
2013 Content	Case studies			Improved set of Climate-ADAPT case studies		New: Detailed information on adaptation in the Baltic Sea Region			
2013 Functionalities	Improved access to case studies			Improved: Case study meta data sheet				New: Map-based access to case studies via Case Study Search Tool	
2014 Content	Set up of adaptation policy section, Improved: Adaptation Support Tool				New: Section on EU policy including overview on funding information			Improved: Major revision of Adaptation Support Tool	
2014 Functionalities	Improved access to spatial climate data	New: - Rotating banner - "Call to action" button to promote provision of information		Improved: Search function					
2015 Content	- City information - Publish country information reported according to MMR	New: Archive of European Climate Adaptation Newsletter		Improved: Systematic set of adaptation options	Improved: - Diversified set of EU policy sectors, - Better structured content and major update	New: - Mayors Adapt city profiles, - Mayors Adapt Urban Adaptation Support Tool			New: - Help section with all help related features provided

Climate-ADAPT sections	Climate-ADAPT work plan priority	Overall website/ Homepage	About	Database	EU policy	Countries, regions, cities	Knowledge – Adaptation information	Knowledge – Tools	Help
					of policy information for all individual sector policies pages	- Urban Vulnerability Map book Modified: Transformation of voluntary country information into visualisation of official country reporting under MMR			in one section
2015 Functionalities	Overview and interactive access to country	Improved: - Platform navigation structure - Access to EU policy sectors		Improved: - access to case studies through related adaptation option		New: Map-based access to country, transnational regions and city information		Improved: Map viewer New: JRC Time Series Tool	
2016 Content	Content on Copernicus Climate Services		Improved: Description of website content		Improved: Transnational regions information	Improved: Update of country information based on voluntary update according to MMR reporting	Improved: Research projects pages	Improved: MRE section of the Adaptation Support Tool	
2016 Functionalities	Links to Copernicus Climate Services	Improved: - Migration to Plone with improved functionalities, e. g. Export to pdf New: - search for web content -Automatic tracking of broken links						New: FAQ for information for users and providers	

Climate-ADAPT sections	Climate-ADAPT work plan priority	Overall website/ Homepage	About	Database	EU policy	Countries, regions, cities	Knowledge – Adaptation information	Knowledge – Tools	Help
2017 Content	Evaluation of platform content	New: Quick guide for Climate-ADAPT use		Improved: Advice how to best use the database search function	New: Fact sheets for mainstreaming of adaptation in pilot EU sector policies (Agriculture, Forestry, and Water management)				
2017 Functionalities	Evaluation of platform functionalities								

Source: EEA, 2014

3.1.2 Objective B: Assisting the uptake of the knowledge and informing decision-making

Key messages

- Significant progress was made in assisting users with the uptake of knowledge available on Climate-ADAPT. The platform functionalities were further developed according to users´ and providers´ needs.
- Improved or new functionalities include interactive map-based access to country, transnational and city information, e. g, through access to various topics of country information via thematic maps. Another example is the access to case studies by using various filter criteria through the Case Study Search Tool. These improvements aimed to assist users to quickly find the relevant information.
- According to feedback from users and providers, which was continuously collected during the maintenance of the platform, the navigation structure was refurbished to assist the quick access to the web pages. The database search function was improved to increase its performance. This aimed to assist users to find the overview on further adaptation knowledge resources more efficiently. Support for new users includes a "news" section with "Frequently asked questions" for users and providers. Guidance with specific web links to key pages for selected user groups aimed to assist exploring the platform from various user perspectives.
- However, there were also significant delays in the improvement of the user friendliness of the platform due to the need to overcome technical limitations of the Climate-ADAPT IT architecture and to focus on other content priorities.

Supporting better informed decision-making means not only to provide online information on CCIVA, but also to assist users in the uptake of the knowledge, by presenting it in a user friendly way and to promote its use (objective B of Climate-ADAPT). Reflecting the interests and capabilities of users that are both new and experienced in the adaptation policy field, is a challenge that was highlighted by EEA already in earlier assessments (EEA, 2015).

This section focuses specifically on one question of the evaluation: Is the knowledge presented on Climate-ADAPT in a useful way of assisting the uptake of the information (B4)? The evidence that is considered appropriate to determine if Climate-ADAPT has successfully achieved assisted the uptake of knowledge in this respect comes from a holistic assessment of the Climate-ADAPT functionalities.

The second aspect of the Climate-ADAPT objective b), the question B5 of the evaluation: Is the knowledge, presented on Climate-ADAPT, promoted and disseminated in a way to assist the uptake of the knowledge? was not in the scope of the internal assessment, but is covered by the analysis of the user/provider survey (see Section 3.2.2.2).

Climate-ADAPT functionalities, aiming to help the Climate-ADAPT audience to make best use of the knowledge in adaptation policy, planning and implementation, were regularly analysed by the EEA. This was done to address users' and providers' needs, gathered by EEA and ETC/CCA as well as through DG CLIMA service contracts in various interactions with platform stakeholders. Valuable feedback on the improvement of Climate-ADAPT functionalities was captured already in 2014, e.g. through a DG CLIMA service contract, in particular to assist the better uptake of the information for new users in countries, lagging behind in the adaptation policy process. Examples of such feedback

were the implementation of specific help functions directly on the web pages or a better overview on the complex Climate-ADAPT content. An overview on this feedback, collected on an ad-hoc basis, is presented in Section 3.2.1.4, showing that the functionalities are key to the platform success. An overview on how the EEA and the European Commission addressed the feedback and developed the functionalities over time, in line with the Mid-term Climate-ADAPT Work plan (2013-2018), is presented in Table 3.1ANNEX 2. Messages, summarized in this section, were already reported by EEA at the annual Eionet meetings and at relevant conferences, workshops and the Climate-ADAPT development webinars (link to profile[57]).

DG CLIMA and EEA set the priorities of the IT contracts that were used to maintain the platform IT (EEA framework contracts) and to further develop the platform functionalities (DG CLIMA service contracts). There were many limitations to significantly improve the user friendliness of the platform due to the earlier Content Management System (Liferay). EEA decided therefore to migrate the whole platform to the EEA Content Management System (Plone) in order to benefit from the EEA IT services for the overall EEA web site[58] (finalised in 2016)[59]. Thus, Climate-ADAPT benefits from the standard EEA web site functionalities, and will in future also use its more advanced functionalities.

Progress was made to present the information on Climate-ADAPT in a way to assist users in the uptake of the knowledge, such as by setting up interactive map-based access to country, transnational and city information, and case studies. These map-based access tools allow users to efficiently search for specific information, e.g. by using thematic maps for specific aspects of adaptation policy information in EEA Member countries[60], and by using geographic filter criteria to find most relevant case studies[61]. Major milestones achieved were: improved access to case studies (2014), a more user-friendly layout and navigation structure of the platform (2015), better access to adaptation policy information at all governance levels by map-based search tools (2015), more efficient search results by an improved database search function, more transparency of the Climate-ADAPT updating process towards information providers (2016). A dedicated help section was set up (2015), and additional guidance was provided (2017) to assist users from various backgrounds to explore the platform from their specific perspective (Table 3.1).

However, there were also significant delays addressing some of the user and provider feedback for various reasons. This include the need to overcome the limitations of the previously used Content Management System, and, in addition, also due to other priorities. These include e.g. a high priority from DG CLIMA and EEA to provide support and visibility for the Mayors Adapt/Global Covenant of Mayors for Climate and Energy signatory cities. Profiles of signatory cities were set up on Climate-ADAPT to highlight the ambitions and actual and progress of signatory cities in developing urban adaptation strategies. Supported by EEA, the “Urban Adaptation Support Tool”, was created by the DG CLIMA Mayors Adapt initiative, re-using, refining and adapting the Climate-ADAPT Adaptation Support Tool. The tool was implemented on Climate-ADAPT as the guidance for urban users (signatories of the EU Mayors Adapt initiative[62]), using links to the Climate-ADAPT database to

[57] https://climate-adapt.eea.europa.eu/about
[58] https://www.eea.europa.eu/
[59] The migration of the platform from the Content Management System Liferay to the standard EEA system Plone was carried out in 2015/2016. Liferay was operational until May 2015, and Climate-ADAPT operates with Plone from June 2016.
[60] http://climate-adapt.eea.europa.eu/countries-regions/countries
[61] http://climate-adapt.eea.europa.eu/knowledge/tools/sat
[62] Today merged with the Covenant of Mayors for Climate and Energy initiative.

highlight the most relevant knowledge resources to assist users in the steps of the urban adaptation policy and planning processes.

3.1.3 Objective C: Supporting coordination between governance levels and among sectors

Key messages

- Climate-ADAPT contributes to coordination between governance levels by presenting adaptation information in a complementary way: Firstly, it focuses on its role to provide an overview on the knowledge resources relevant for adaptation in Europe at EU level ("one-stop-shop"). Secondly, it presents weblinks[1] to providers of key resources on adaptation which is highlighted in its brand "Sharing adaptation information across Europe". It helps to avoid that experts get lost in duplicated information at various governance levels. It ensures that users find always the most up-to-date information prepared by the respective provider. Thus, the "one-stop-shop" concept of Climate-ADAPT, set up in the EU Adaptation Strategy (EC, 2013), was in practice implemented through a complementing approach ("guiding the users to the right shops").
- Weblinks to key providers of adaptation data and information in the "Knowledge" section show a comprehensive coverage, despite some areas, where weblinks are potentially missing, such as to LIFE and INTERREG projects, as well as to economic tools and climate services.
- Weblinks in the "EU Adaptation policy sectors" section show a reasonable coverage in terms of providers of policy information, knowledge documents and funding sources. These weblinks address the needs of experts working on mainstreaming of adaptation into sector policies. However, there are some potential missing weblinks to key actors, such as those, offering policy information for the "Buildings" and "Transport" sector, and for knowledge documents across all sectors.
- Interactions with EU level stakeholders and experts in some pilot EU sector policies through the DG CLIMA service contract for "Communities of practice" have also shown that weblinks to some sectoral adaptation knowledge providers are potentially missing. This is in particular relevant for those users, working on specific aspects of adaptation in individual EU policy sectors rather than for those experts working on adaptation in general.
- There is an extensive set of weblinks to sources of information on other governance levels, provided in the main policy information sections on Climate-ADAPT ("EU Policy", "Countries, regions, cities"). These weblinks address the needs of experts working at various governance levels at the same time, such as experts from intermediary organisations. Weblinks to information providers in the "Global Covenant of Mayors for Climate and Energy" context, were not assessed here since this initiative is developing a new knowledge platform (to become operational in 2018).
- The "Network" section that serves as an additional entry point for users, coming from the "network" perspective, does not efficiently fulfils its function. It does not guide users properly to web pages on Climate-ADAPT where they can find information and weblinks to providers at other governance levels.

All three aspects of supporting coordination among governance levels across Europe and across sectors that can be subject of an evaluation of objective C of Climate-ADAPT, are described in Section 3.2.3. These are: the presentation of information in a complementary way (C1), the support of countries and regions in Europe with similar characteristics and adaptation challenges (C2), and the support of efficient information flows between governance levels (C3) and across sectors (C4). The section supports to answer the first aspect of the objective: C1) Does Climate-ADAPT present the information in a way that is complementary to the original source?

The analysis considers the dual role of Climate-ADAPT. Firstly, it intends to clarify if Climate-ADAPT fulfils its specific role to provide weblinks to resources at EU level and overview information on EU Member countries on adaptation. This was highlighted in the EU Adaptation Strategy by aiming for a "one-stop-shop" (EC, 2017). Secondly, it aims to assess if Climate-ADAPT supports coordination by providing knowledge complementarily: Information, which is published and updated online on various knowledge platforms only *one* time according to the role of the provider, can be accessed through Climate-ADAPT by many users in Europe in multiple ways via weblinks. More specifically, it evaluates if adaptation experts find the key information sources that might support their work through correct weblinks on Climate-ADAPT to providers of relevant and salient knowledge (i.e., guiding users "to the right shop").

Main messages of his section come from an analysis of possible missing weblinks on Climate-ADAPT, which was carried out in August 2017, supplemented by expert judgement. The methodology is described in ANNEX 2. Considering the limits of this evaluation it was decided to focus the analysis on aspects of high relevance to support coordination, i.e. weblinks to key providers of adaptation information (Section 3.1.3.1), weblinks to key sectoral EU level platforms (Section 3.1.3.2) and weblinks to governance levels (Section 3.1.3.3). The analysis started from the respective introductory page for each of these topics. Since there was no clear reference frame for key partner platforms available, the identification of potential missing weblinks was done based on expert judgement.

Users looking for weblinks to relevant further information resources might arrive on Climate-ADAPT not only on the homepage, but on various other pages to start exploring the platform. Due to the complexity of adaptation, for many topics, such as urban adaptation, information is available on more than just one web page on Climate-ADAPT, such as on the "Cities" page and on the "Global Covenant of Mayors for Climate and Energy" page in the "EU policy" section. Therefore, it is necessary to also analyse and reflect on the current capacity of the platform to deliver such weblinks across its wide range of web pages. Recommendations to improve the coverage of weblinks cover therefore also their placement across the Climate-ADAPT web pages as well as their capacity to interlink the web pages for each topic. The placement of weblinks to guide users with an interests in a specific topic to all the pages with their topic-specific content across Climate-ADAPT, relates also to objective B of Climate-ADAPT to assist the uptake of the information. It is presented here for better understanding.

3.1.3.1 Coverage of weblinks to key data and knowledge providers

On the introductory page of the section "Knowledge", accessible from the main navigation bar on the homepage (sub- page "Knowledge - introduction"[63]) it is stated that this section "includes adaptation information and a variety of tools and methods to support adaptation policy and decision-making by European stakeholders". The tab provides, as well, access to the following sub-

pages “Adaptation information – introduction” with 5 sub-pages, and “Tools – introduction” with 8 sub-pages presenting Climate-ADAPT tools and weblinks to tools from external providers.

The coverage of weblinks in the “Knowledge” section is quite comprehensive. There are some potential missing weblinks related to knowledge, generated in projects from EU funding streams, that might not yet sufficiently captured in the platform, such as LIFE and INTERREG (see Table 3.2). Additionally, information on economic tools seems to be potentially missing and should be added, based on upcoming results of the relevant FP7 and H2020 projects. Future improvements of the weblinks to these projects should carefully balance the resources that are needed to update those weblinks. Solutions to provide weblinks to key resources at programme level should also be considered. Furthermore, weblinks to climate services seem to be insufficient. This gap could be closed by linking to the research projects providing pre-operational climate services and to the services developed by the Copernicus Climate Services, led by ECMWF. Such an activity should take into account that these only started in 2016 and their coverage in terms of essential climate variables is still limited, but their products and services are expected to rapidly increase.

Overview information on selected EU-funded research projects were systematically set up in 2015 applying a criteria-based approach to select the FP 7 and Horizon 2020 projects that are most relevant for decisions-makers in Europe (see Section 3.1.1). Weblinks to the most relevant results of the research projects are available for each of those projects.

3.1.3.2 Coverage of weblinks to key sector platforms

Climate-ADAPT was set up for experts supporting decision makers on adaptation in general at all governance levels in Europe and not primarily for users with a sectoral background. However, adaptation knowledge developed and presented on key sectoral EU level platforms, which is relevant for users with a general adaptation background as well as for sectoral users, should be linked to Climate-ADAPT in the best possible way.

Coverage of weblinks in the “EU sector policy” section

The introductory page to EU policy sectors is located under the “EU Policy” tab in the main navigation bar[64] and provides access to 12 individual EU sector policies pages[65] via weblinks from the EU Policy sectors introductory page[66]. Within each of these pages there are several internal weblinks but the majority are internal within the same “EU policy” section, thus losing some potential connections to other Climate-ADAPT sections. The number of external weblinks in the “EU Policy - introduction” page is quite extensive. However, these could be organised in a more coherent way, since the current is more related to how each explanatory text are written in each page, rather than to a user experience logic. Based on expert judgement, it can be said that several weblinks to external information sources in the EU Adaptation policy field are available which should provide a reasonable coverage of themes of interest (e.g. policy documents, funding sources, among others). Therefore, the next section presents an assessment of potential gaps in terms of external weblinks.

Coverage of weblinks on individual “EU sector policies” pages

In order to identify significant gaps in terms of weblinks to key external organizations, projects or (policy) processes of interest in each of the individual EU policy sectors, a holistic review of the

[64] http://climate-adapt.eea.europa.eu/eu-adaptation-policy/sector-policies
[65] Agriculture, Forestry, Biodiversity, Coastal areas, Disaster risk reduction, Financial, Buildings, Energy, Transport, Health, Water management, Marine and fisheries
[66] http://climate-adapt.eea.europa.eu/eu-adaptation-policy/sector-policies

weblinks was conducted by the ETC-CCA sector experts. The search criteria reflect the needs of stakeholders working on adaptation in general. A list of weblinks that should be added to the EU policy pages is presented in Table 3.2

A 2016 DG CLIMA service contract that was set up to develop "Communities of (adaptation) practice"[67] with some pilot sectors, prepared an indicative dissemination plan incorporating "those sectoral stakeholders considered being most relevant for future (Climate-ADAPT) dissemination activities". A list of potential sectoral partners of interest to have their weblinks included in the Climate-ADAPT EU sector pages was provided by this project. These weblinks are additionally presented in Table 3.2 to complement the list of potentially missing sectoral weblinks on the platform. These additional weblinks might reflect the needs of experts working on sector-specific aspects of adaptation. It indicates that there is potential to identify more relevant sectoral knowledge providers in the next period of the Climate-ADAPT development to address the needs of this group of sector-specific users.

The analysis indicates that the list of potential missing weblinks is limited, pointing to a reasonable coverage of themes of interest in terms of all three aspects of sector information on Climate-ADAPT: 1) policy framework; 2) knowledge base, and 3) funding sources. The amount of weblinks might be informative enough for a general overview on further resources on adaptation in the EU policy sectors. Weblinks that should be added relate in particular to the aspect "policy framework" for the "Transport and "Buildings" sector. Weblinks to providers of resources for the "knowledge base" should be included for the "Agriculture", "Forestry", "Coastal areas", "Biodiversity", "Marine and fisheries", and "Financial" sectors (related to insurance). Weblinks to key sectoral partners could be further strengthened by interacting with key experts from the other sector policies.

[67] Service Contract Number 340202/2015/718400/SER/CLIMA.C.3 (Gancheva et al. 2017)

Table 3.2 List of potential missing external web links to key providers of adaptation information

Sector/Page /Section	Potential missing external links
Adaptation Support Tool	• Results from EC H2020 funded research projects (multiple links to be assessed via the updating of 'Research Projects' DB coverage by ETC experts)
	• Copernicus Climate Change Service (C3S); http://climate.copernicus.eu/
	• ERA-NET Cofund for Climate Services (ERA4CS); http://www.jpi-climate.eu/ERA4CS
	• Current and future development of ISO/AWI 14091 (Climate Change Adaptation - A guidance to Vulnerability Assessment); https://www.iso.org/standard/68508.html
	• Current and future development of ISO/DIS 14080 (Greenhouse gas management and related activities -- Framework and principles for methodologies on climate actions); https://www.iso.org/standard/67452.html
Agriculture	• European Conservation Agriculture Federation (ECAF); http://www.ecaf.org/
	• IFOAM EU; http://www.ifoam-eu.org/en/node
	• COPA-COGECA; http://www.copa-cogeca.be/Menu.aspx
	• Pillar 1; http://www.europarl.europa.eu/atyourservice/en/displayFtu.html?ftuId=FTU_5.2.4.html
	• Green payment; https://ec.europa.eu/agriculture/direct-support/greening_en
	• DG CLIMA; https://www.eea.europa.eu/data-and-maps/data-providers-and-partners/directorate-general-for-climate-action
	• DG AGRI; https://enrd.ec.europa.eu/networks-and-networking/research-initiatives/research-institutions-dgagri_en
Forestry	• EIP-AGRI; https://ec.europa.eu/eip/agriculture/en
	• Network of European Regions for Innovation in Agriculture, Food and Forestry (ERIAFF); https://twitter.com/ERIAFF_Network
	• Union of European Foresters; http://www.european-foresters.org/
	• The European Forestry House; http://www.cepf-eu.org/welcome.cfm
	• European Forest Institute (EFI); http://www.efi.int/portal/
	• European State Forest Association (EUSTAFOR); https://www.eustafor.eu/
Biodiversity	• Mapping and assessing the condition of Europe's ecosystems; https://www.eea.europa.eu/publications/mapping-europes-ecosystems
Coastal areas	• MSP Platform; http://msp-platform.eu/
	• EMODnet; http://www.emodnet.eu/
	• EMODnet checkpoints; http://www.emodnet.eu/checkpoints
	• European Maritime and Fisheries Fund (EMFF); https://ec.europa.eu/clima/policies/adaptation/financing/funds_en
Disaster risk reduction	• No additional links needed
Financial	• No additional links needed

Sector/Page /Section	Potential missing external links
Buildings	• EC Energy Topic; https://ec.europa.eu/energy/en/topics/energy-efficiency/buildings
	• Energy Performance of Buildings Directive; http://eur-lex.europa.eu/legal-content/EN/ALL/;ELX_SESSIONID=FZMjThLLzfxmmMCQGp2Y1s2d3TjwtD8QS3pqdkhXZbwqGwlgY9KN!2064651424?uri=CELEX:32010L0031
	• Energy Efficiency Directive; http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1399375464230&uri=CELEX:32012L0027
Energy	• No additional links needed
Transport	• Implementation Report on the White Paper; https://ec.europa.eu/transport/sites/transport/files/themes/strategies/doc/2011_white_paper/swd%282016%29226.pdf
	• SWD(2013)137 (changed); https://ec.europa.eu/clima/sites/clima/files/adaptation/what/docs/swd_2013_137_en.pdf
	• TEN-T priority corridors; https://ec.europa.eu/transport/themes/infrastructure/news/2017-01-11-transport-infrastructure-second-generation-work-plans-11_en
	• Mid-Term review of the 2011 transport white paper (changed); http://www.nvdb.org/getattachment/Actualiteit/Europese-Commissie/2015/20150818-Analysis-of-the-public-consultation-on-mi/20150818-Analysis-of-the-public-consultation-on-midterm-review-of-White-Paper-on-transport.pdf.aspx
	• Strategy on "Low-Emission Mobility"; https://ec.europa.eu/transport/themes/strategies/news/2016-07-20-decarbonisation_en
	• The 2017 "mobility package" ("Europe on the move"); https://ec.europa.eu/transport/modes/road/news/2017-05-31-europe-on-the-move_en
	• Revision of the combined transport directive; https://ec.europa.eu/transport/themes/urban/consultations/2017-CTD_en
	• The mid-term review of the maritime transport policy; https://ec.europa.eu/transport/sites/transport/files/swd2016_326.pdf
	• The 2013 (fourth) "railway package"; https://ec.europa.eu/transport/modes/rail/packages/2013_en
	• The revision of the ITS Action Plan; https://ec.europa.eu/transport/themes/its/road/action_plan/its_reports_en
Health	• Several links and text to be replaced
Water management	• EIP-Water; http://www.eip-water.eu/
	• EUREAU - Association of water utilities; http://eureau.org/index.php/who-we-are
	• International Office for Water (Oieau); http://www.oieau.fr/?page=sommaire&lang=en
	• International Network of Basin Organisations (INBO) - Europe; http://www.inbo-news.org/tag/europe-inbo?lang=en
	• European Water Partnership; http://www.ewp.eu/
Marine and fisheries	• MSP Platform; http://msp-platform.eu/
	• EMODnet checkpoints; http://www.emodnet.eu/checkpoints
	• European Maritime and Fisheries Fund (EMFF); https://ec.europa.eu/clima/policies/adaptation/financing/funds_en
	• Federation for European Risk Management Associations; http://www.ferma.eu/

Sector/Page /Section	Potential missing external links
Financial (Insurance)	• Insurance Europe; https://www.insuranceeurope.eu/
	• CRO (Chief Risk Officers) Forum Europe; https://www.thecroforum.org/
Knowledge	• LIFE; http://ec.europa.eu/environment/life/project/Projects/index.cfm
	• Interreg; https://www.interregeurope.eu/projects/

Source: Gancheva et al. 2017.

3.1.3.3 Coverage of weblinks to key platforms at other governance levels

Access to information on adaptation at other governance levels through weblinks is organised on Climate-ADAPT through the "EU Policy" and the geographic entry point "Countries, regions, cities" in the main navigation bar on the homepage. Due to the strong link between governmental organisations, working on adaptation at national level, and the EEA via the Eionet, there is a huge amount of weblinks to national level platforms in the geographic component of Climate-ADAPT, and also to transnational regions networks, and cities. Weblinks on the "Country pages" were selected by the countries according to governmental reporting under the MMR regulation[68].

Since the merge of the EU Mayors Adapt Initiative in 2016 with the EU Covenant of Mayors Initiative and the subsequent partnership with the international Compact of Mayors resulting in the creation of the Global Covenant of Mayors for Climate and Energy in 2017, this network has extended its audience beyond Europe to the global level. Although it was obvious, that the weblink to information providers relevant in this new initiative is not sufficient, an analysis of these weblinks was not carried out because the new setting of adaptation related parts of the Global Covenant of Mayors website are not yet implemented.

There is an additional "Network" section on Climate-ADAPT, accessible from the tab "Network" on the main navigation bar. It was set up for users starting to navigate on the platform from the "Network" perspective as an additional entry point to the Climate-ADAPT sections informing about adaptation policy at other governance levels including weblinks for further information. On the starting page ("Network - introduction"[69]), it is possible to read about four governance levels, namely: "Global level", "EU level", "Transnational level", and "National, regional and local level governance and networks". Furthermore, two additional sub-pages in this section contain information on "Organisations" and "Global Platforms". For each level there is a paragraph with a short description including 1 to 5 different weblinks that direct users towards the main entry points into policy information available for other governance levels on Climate-ADAPT ("EU Policy" and "Countries, regions, cities" sections).

Based on expert judgment, there is a large number of weblinks to the related Climate-ADAPT pages. However, these are not efficiently organised, showing many redundancies that may not guide users internally on Climate-ADAPT in a straightforward way. There are external weblinks to complementary platforms of key organisations, but their number is limited. This is because they are additional to the ones in the above-mentioned main sections "EU Policy" and "Countries, regions, cities". Without a reference framework, the coverage of these external weblinks to key partners on this additional "Network" section is difficult to assess, but the list is valued as quite complete.

[68] Monitoring Mechanism Regulation (Regulation (EU) (Number 525/2013)
[69] http://climate-adapt.eea.europa.eu/network

3.2 Assessment of external feedback to Climate-ADAPT

3.2.1 Objective A: Sharing of adaptation knowledge in Europe to build a consistent knowledge base

3.2.1.1 Climate-ADAPT web statistics

Key messages

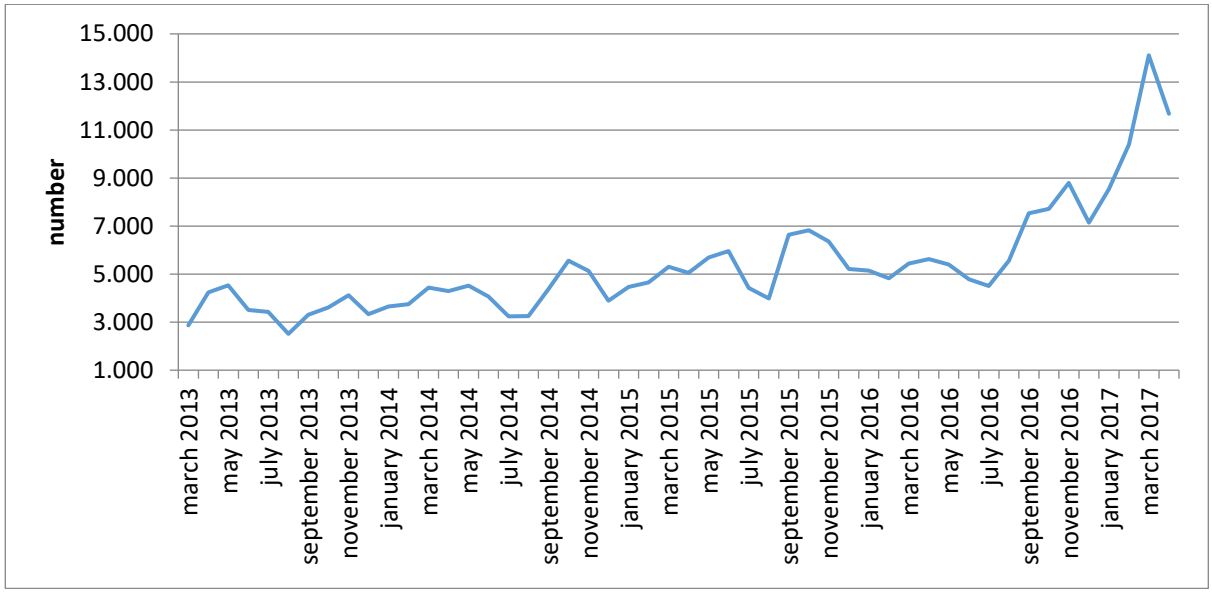
- The number of Climate-ADAPT users grew five fold since March 2013 suggesting an increasing outreach of the platform since its launch in 2012.
- The increasing numbers of new and returning users suggest that the platform provides what users need and gains recognition as a trusted source of information.
- There is an increased interest of users to explore more content of the platform, shown in the increased number of page views. The decreasing amount of time spent on the pages needs to be further analysed.
- The most visited content are the homepage, the "search" page (including the Climate-ADAPT database), the "adaptation option – "awareness campaigns for behavioural change", the "Country information" as well as the "EU Adaptation Strategy" and "Adaptation Support Tool" pages.
- "Case studies" are also often visited, while heat waves and flooding related ones, in particular in cities, are the most visited case studies. It should be noted that these topics are among the the impacts covered with the largest number of case studies on Climate-ADAPT.

This section shows the trends of the use of the platform, based on the outcomes of the in-depth analysis of the Climate-ADAPT web statistics, using Google Analytics (see ANNEX 2). It supports to answer the question A3 of the evaluation: Which sections of Climate-ADAPT are currently being used? This is one aspect of the objective A of the platform to share adaptation information in Europe.

Outreach of Climate-ADAPT

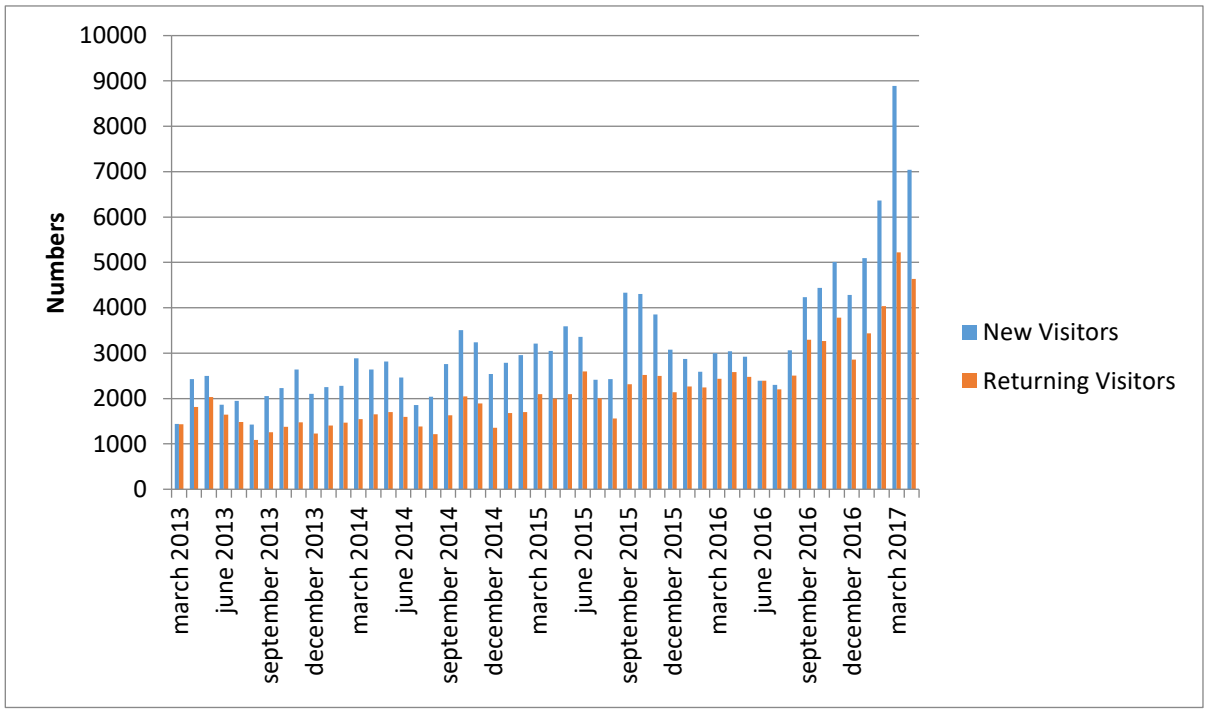
Climate-ADAPT supports the sharing of knowledge in Europe. The platform has been visited by a total number of 267,300 users in the period of March 1, 2013 – April 30, 2017. The number of monthly users is steadily increasing, and has almost grown by five times, reaching from 2,800 monthly users in March 2013 to 14,100 monthly uses in March 2017 (Figure 3.13). There is no quantitative goal in terms of the monthly users that should be reached in a specific time. However, the investment into the further development of the platform content and functionalities, and into the maintenance as well as of the promotion of the platform seems to be successful. The introduction of a new Content Management System in summer 2016 goes hand in hand with an increased number of users. The trend points towards a growing awareness of the platform. One explanation of the significant increase in the number of visitors from July 2016 since the beginning of the website use can be that the EEA intensified the promotion of the platform via an active involvement of information providers into the European Climate Adaptation Newsletter (see Section 3.2.2.5). Another explanation can be an increased interest from non-European countries such as USA, India, and Kenya, countries in which UN headquarters are found, e.g. the UNEP in Nairobi and India. This possible explanation was however not further analysed.

Figure 3.13 Evolution in the monthly number of Climate-ADAPT users in the period of 1 March 2013 – 30 April 2017



Note: The graph shows the increase in users who have initiated at least one session on the Climate-ADAPT Platform during a month. Two sets of data were combined into one timeline: first set from 01 March 2013- 30 June 2016 (CMS Liferay); second set from 01 July 2016 - 30 April 2017) (CMS Plone).

Figure 3.14 Evolution in the monthly numbers of new users and returning users in the period of 1 March 2013 – 30 April 2017



Note: A new user is recorded when Google Analytics detects a unique Client-ID on Climate-ADAPT. When the system detects an existing Client-ID in a new session, it counts it as a returning user. Two sets of data were combined into one timeline: first set from 01 March 2013- 30 June 2016 (CMS Liferay); second set 01 July 2016 - 30 April 2017) (CMS Plone).

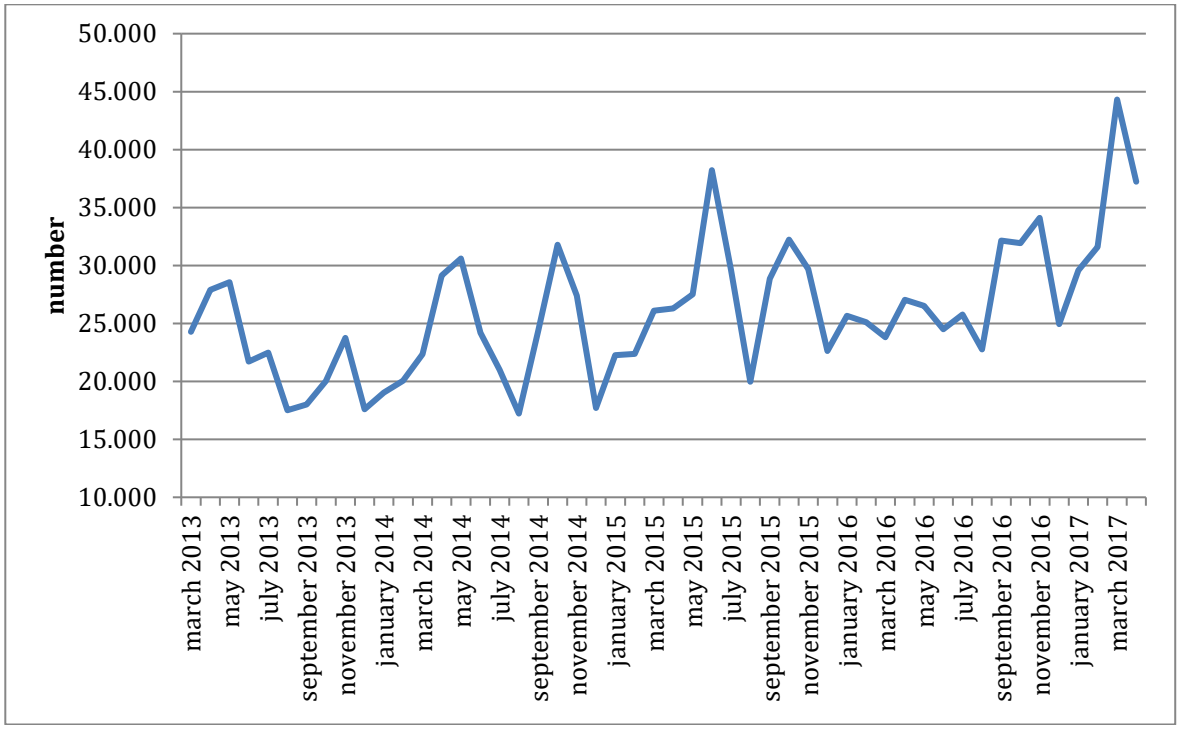
There is a large amount of returning visitors that is growing in the same way as the number of new visitors (Figure 3.14). This suggests that the platform gains recognition as a trusted source of information and provides what users are looking for. It suggests as well that the content is

presented in a way that experts are interested to regularly use it. Besides the share of returning users, the web statistics show as well that Climate-ADAPT keeps on welcoming many new users.

Use of the platform content

The number of page views increases over time (Figure 3.15), indicating a growing interest of users to explore and use more Climate-ADAPT content, while the time spent on a session is decreasing over time (Figure 3.16). This may mean that Climate-ADAPT is easier to access and users easily find the information they need. Or it means, on the contrary, that the layout and functionalities of the platform are not sufficient to allow users to access the content they are looking for. The decreasing amount of time spent on the pages should be further explored.

Figure 3.15 Evolution in page views in the period of 1 March 2013 – 30 April 2017



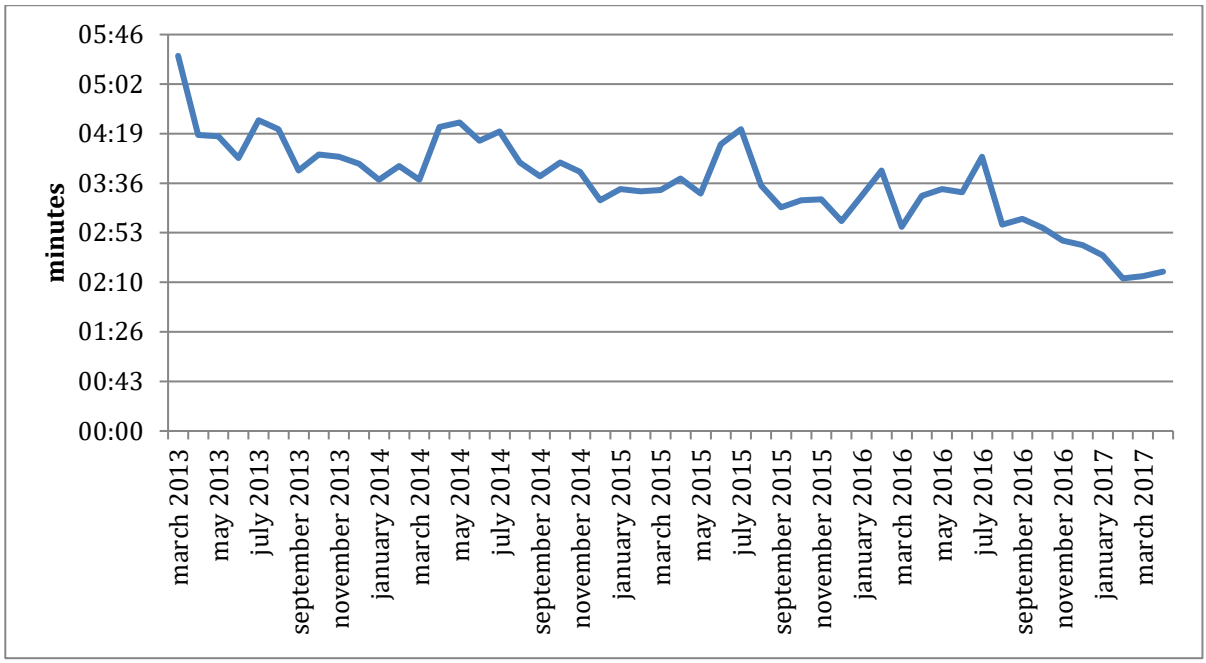
Note: The indicator "page views" is the total number of pages viewed. Two sets of data were combined into one timeline: first set from 01 March 2013- 30 June 2016 (CMS Liferay); second set from 01 July 2016 - 30 April 2017) (CMS Plone).

The most popular pages are the home page, the search page, the adaptation option – "awareness campaigns for behavioural change", the country information pages as well as the EU Adaptation Strategy and Adaptation Support Tool pages (Figure 3.17). The patterns of the Climate-ADAPT use suggest that users arrive on the homepage and navigate by using the navigation functions of the homepage as well as the search function on the top-right of the homepage[70]. The search function and the Climate-ADAPT database have the same URL. Thus, the web statistics suggests further, that Climate-ADAPT users are not only using the search function to look for information on Climate-ADAPT, but they are guided to relevant sources of information that is provided on other platforms complementarily to Climate-ADAPT. Thus, Climate-ADAPT supports sharing the adaptation information across Europe. Furthermore, it seems that the policy information, provided on the

[70] The Climate-ADAPT "Search" function and the Climate-ADAPT "Database search" have the same URL (http://climate-adapt.eea.europa.eu/data-and-downloads#b_start=0)

country pages, informing about the legal and policy framework on adaptation, the sectors and actions, the assessments as well as the involvement of stakeholders in the adaptation process at national level, is very relevant for the users. There is also interest in using the adaptation policy at EU level and the Adaptation Support Tool.

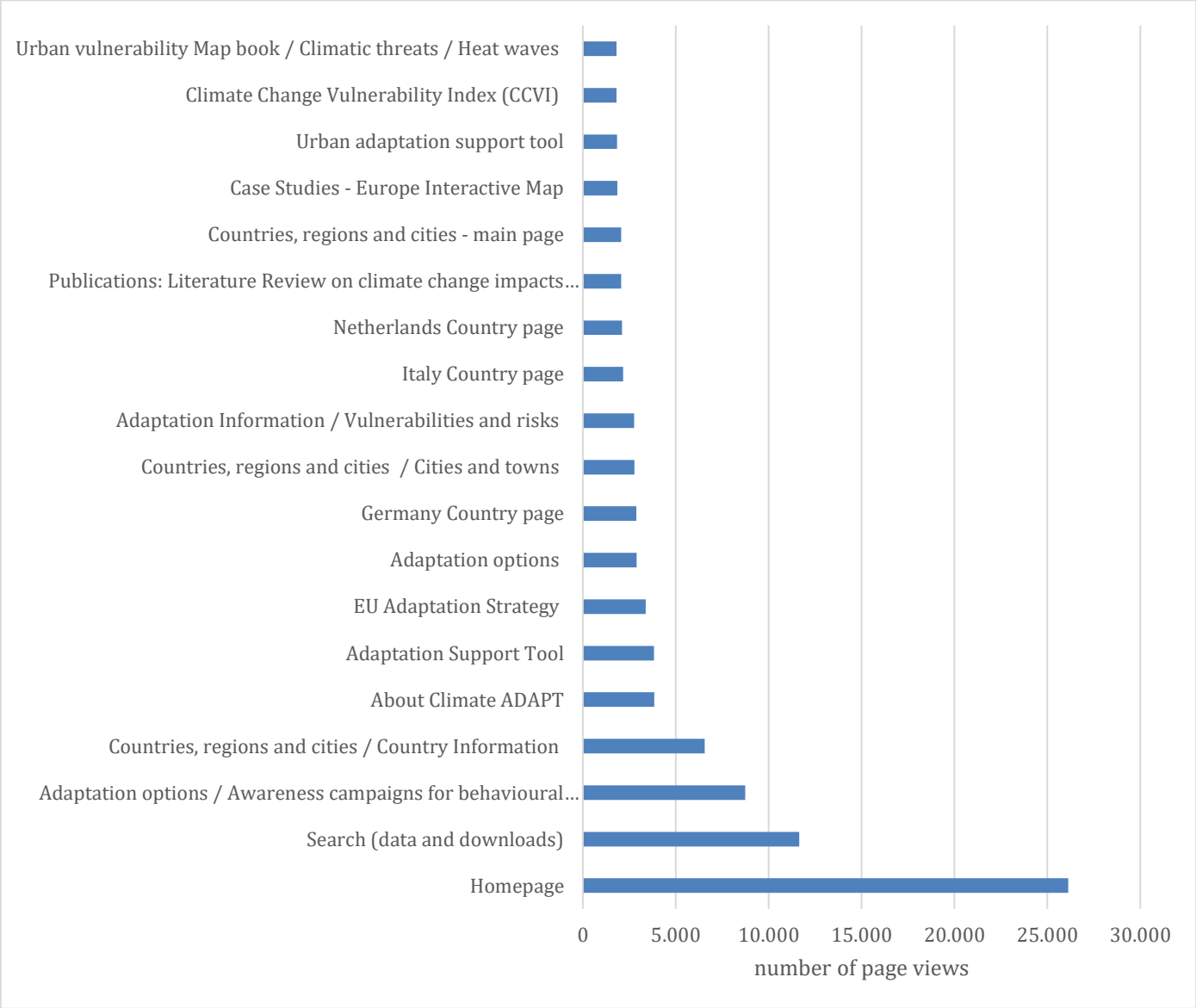
Figure 3.16 Evolution in the monthly average session time (in minutes) in the period of 1 March 2013 until 30 April 2017



Note: The graph shows the average amount of time (in minutes) users spent viewing a specified page or set of pages. Two sets of data were combined into one timeline: first set from 01 March 2013 - 30 June 2016 (CMS Liferay); second set from 01 July 2016 - 30 April 2017) (CMS Plone).

Thus, the most visited content shows that Climate-ADAPT is mainly used to explore adaptation information via the Climate-ADAPT database, to learn from cross-sector adaptation options and case studies, to stay informed about the development of adaptation policy at national level in European countries and at EU level, and to get assistance in adaptation policy and planning via the Adaptation Support Tool.

Figure 3.17 Most visited Climate-ADAPT pages in the period of on 1 July 2016 to 30 April 2017



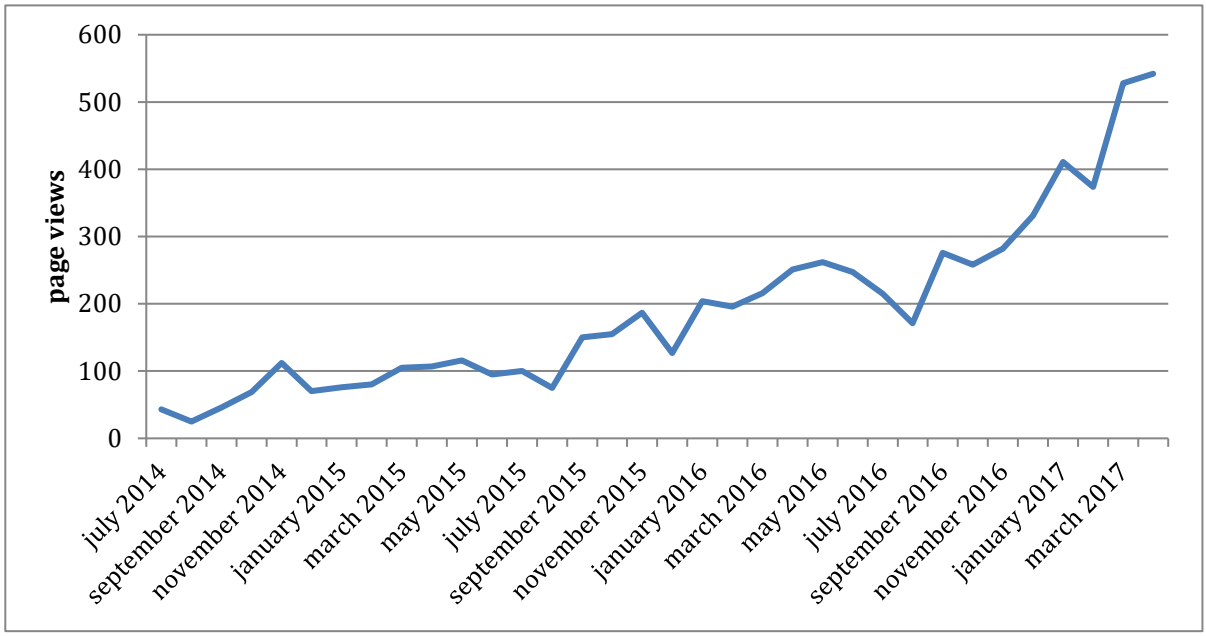
Note: The graph shows the monthly number of page views of specific Climate-ADAPT pages. Selection of the period depends on the availability of data.

Use of specific Climate-ADAPT sections

The use of specific Climate-ADAPT pages, that present EU level information or tools that are regularly updated by the EEA and DG CLIMA were analysed to see the trends in how this knowledge is used over time. This analysis covers the "EU Adaptation Strategy", the Adaptation Support Tool and "Case studies" sections of Climate-ADAPT.

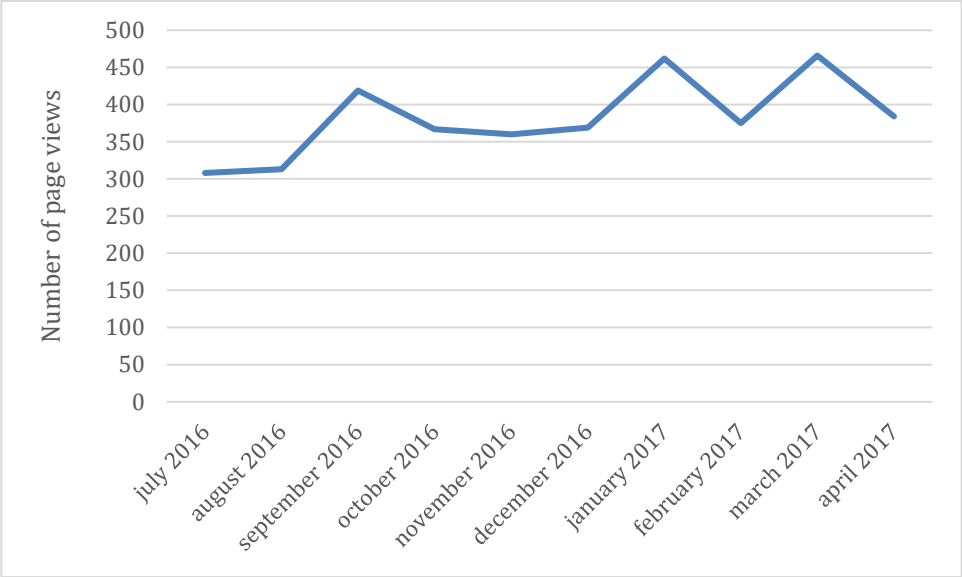
Figure 3.18 illustrates that users are increasingly interested in Climate-ADAPT information to keep up to date on EU adaptation policy. Climate-ADAPT demonstrates to be a commonly used one-stop shop for information on EU adaptation policy.

Figure 3.18 Evolution in monthly page views of the section "EU Adaptation Strategy" in the period of 1 July 2014 to 30 April 2017



Note: The graph shows the evolution of the monthly number of page views from the day when this page was launched (July 2014). Two sets of data were combined into one timeline: first set from 01 July 2014 - 30 June 2016 (CMS Liferay); second set from 01 July 2016 - 30 April 2017) (CMS Plone).

Figure 3.19 Evolution in monthly page views of the Adaptation Support Tool in the period of 1 July 2016 until 30 April 2017

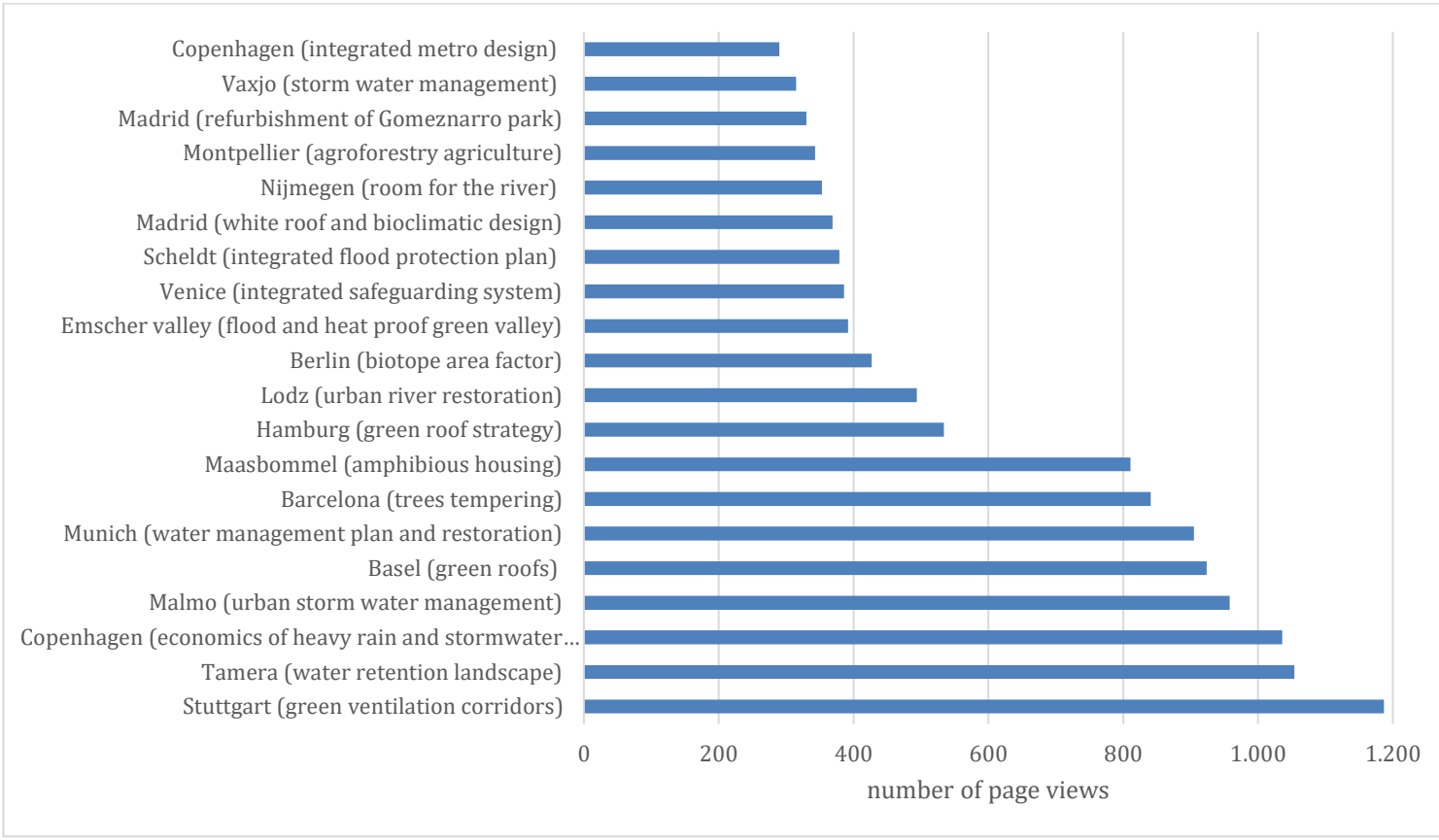


Note: The graph shows the evolution of monthly page views of the Adaptation Support Tool in the period of 1 July 2016 until 30 April 2017. The period was selected based on the availability of data.

Figure 3.19 shows that the Adaptation Support Tool is constantly visited by a relatively high number of users during the period from July 2016 to April 2017. This confirms that this tool, providing guidance for all steps of the adaptation policy cycle, continues to be used by stakeholders in Europe in adaptation policy and planning. The updating of the tool, carried out by EEA, supported by the ETC/CCA based on new scientific knowledge and evidence information, seems to be according to the evolving needs of users.

Climate-ADAPT case studies prove to be a section that is consulted by many users. Cases showing implemented adaptation actions like green ventilation corridors, water retention landscape and heavy rain and storm water management are the most visited case studies (Figure 3.20). The figure shows that, among the 20 most visited case studies, 13 case studies deal with urban heat waves and flooding. However, it should be noted that these are the impacts covered with the largest number of case studies on Climate-ADAPT (see Section 4.1.3).

Figure 3.20 Number of page views on the most visited case studies in the period of 1 July 2016 to 30 April 2017



Note: The graph shows the number of monthly page views of the most visited Climate-ADAPT case studies in the period of 1 July 2016 until 30 April 2017. The period was selected based on the availability of data.

The web statistics confirm, that the policy information on the EU Adaptation Strategy, provided by the European Commission, as well the guidance on adaptation, provided through the Adaptation Support Tool, are increasingly used. Inspiring examples of implemented adaptation actions are also in demand by Climate-ADAPT users.

3.2.1.2 User/provider survey

Key messages

- The survey has shown that 98 respondents have submitted information to Climate-ADAPT and thus have contributed to building a consistent knowledge base. Many of those that have provided information recognised the added value for them in doing so.
- The reasons that people have not submitted information was that they did not think they had appropriate information and that they did not know it was possible. This suggests that Climate-ADAPT could do further promotion to raise awareness of the fact that it is a portal that is open to contributions and also aim to convert existing users into providers.
- The survey shows that the most used sections are the news/events pages, followed by the database, EU Adaptation Strategy, information on impacts and vulnerability and the country pages.
- Tools, such as the Map viewer or the Urban Vulnerability Map book, are used by a limited number of respondents. The respondents who use the tools the most are from the operational cluster.
- The diverse user community requested additional content on Climate-ADAPT that covered a broad range of information types, with a preference for synthesis information such as assessments and indicators, but also for guidance documents, and for case studies.

A survey of users and providers of Climate-ADAPT was carried out (20 March - 21 April 2017) to assess if Climate-ADAPT is meeting its aim. The online survey was sent to approximately 4600 users and information providers and there were 300 responses to the survey (see ANNEX 2 for more information on the methodology of the survey). See ANNEX 4 for the full report about the User/provider survey.

The results of the survey were analysed against the 3 specific objectives linked to the overall aim of Climate-ADAPT, i.e. to support decision-makers in Europe by providing the following objectives (EEA, 2014a):

A. to share the adaptation knowledge in Europe and build a consistent knowledge base;

B. to assist in the effective uptake of this knowledge;

C. to contribute to supporting coordination among sectors and across institutional levels.

A series of questions were developed for each objective and evidence in the form of key messages is presented for each question.

This section presents the evidence for objective A of Climate-ADAPT, to share the adaptation knowledge in Europe to build a consistent knowledge base. The questions to be answered are:

A1) Does Climate-ADAPT successfully involve potential information providers to share their information?

A2) Does Climate-ADAPT provide the relevant information on the platform?

A3) Which sections of Climate-ADAPT are currently being used?

A4) What information is also needed by Climate-ADAPT users?

The survey was successful in capturing responses from the broad range of information providers to Climate-ADAPT (Figure 4.2). Although the sample is not statistically representative it nevertheless has the value of representing a diversity of potential opinions (Figure 4.2 and ANNEX 4).

A1) Does Climate-ADAPT successfully involve potential information providers in sharing their information?

The results of the survey indicate that there is a high rate of information submission to the platform among the stakeholders. What is particularly encouraging is the fact that the submission of information was not only enforced by reporting obligations (MMR) but also stemmed from the willingness of contributors to share their experiences with others.

Ninety eight people out of 211 have submitted information to Climate-ADAPT (Figure 3.21). This section of the questionnaire could be skipped because it was recognised that not all respondents would be information providers, hence there is a difference between the numbers of respondents answering this question (211) and the number of respondents answering question 1 i.e. 297.

66 people have contributed to more than one section. A total of 285 pieces of information have been submitted to the available sections, with a median of one and a maximum of eight per person.

Users from the core audience[71] and those who are more experienced[72], are more likely to have carried out submissions. A higher proportion of countries with a national adaptation platform[73] have submitted information. The highest percentage of contributors was among the strategic multitask and the administration clusters, whilst the lowest was among the operational cluster. The database section was mainly populated by the pure research, strategic multitask and administration clusters. Case studies were largely submitted by pure research, followed by strategic multitask and communication clusters. Pure research and strategic multitask submitted research projects, whilst the strategic multitask cluster led on the contribution of news and events.

The multiple added value of presenting information on Climate-ADAPT was recognised, such as making research results more understandable in the political context and creating further outreach (Figure 3.22).

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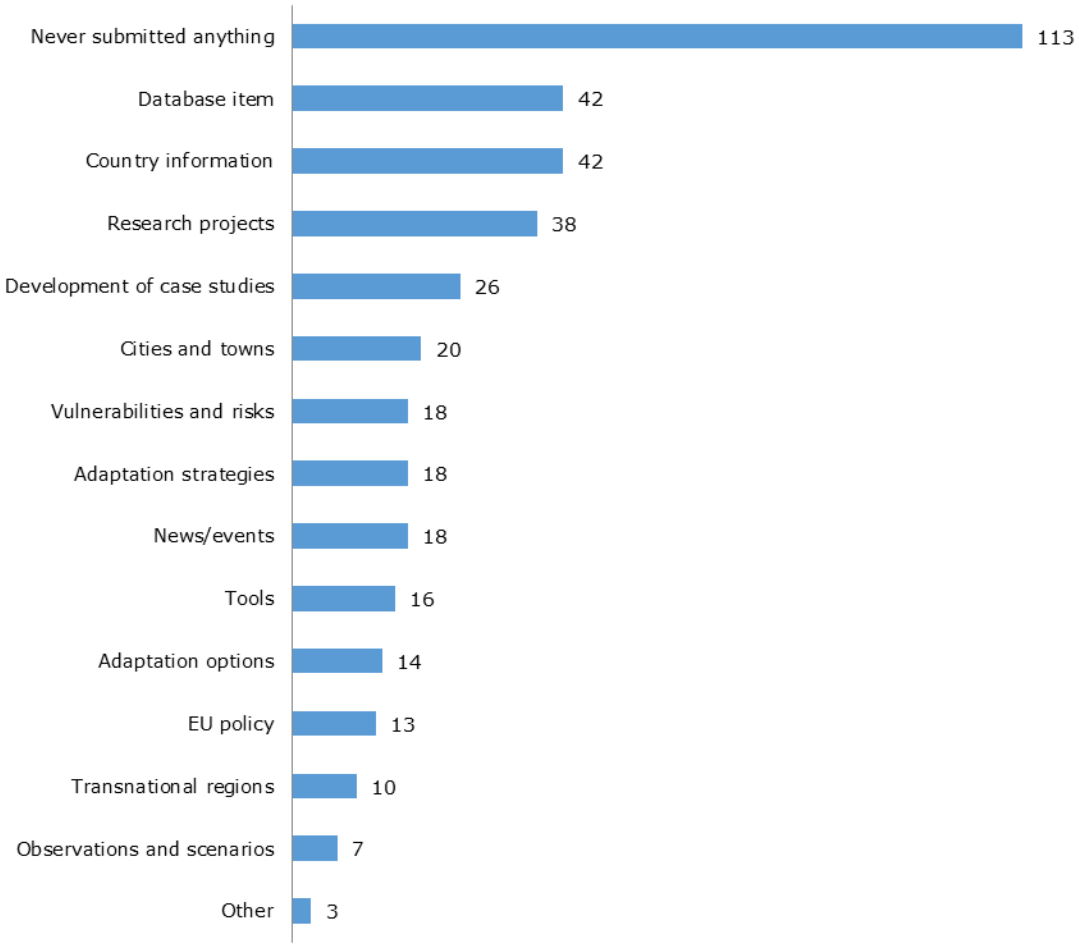
[71] The following groups were created based on the type of organization respondents work for:
core audience are defined as those respondents who have selected: research organisation, all public authority/government and science/policy interface organisations, i.e. 197 people , or 66% of the people who answered the question;
wider audience are defined as those respondents who have selected: consultancy, business/private company, NGO and other, i.e. 100 people, or 34% of the people who answered the question.

[72] The following groups were created based on the years of expertise of respondents:
respondents experienced with adaptation are defined as those respondents who have been working on climate change adaptation for two or more years, i.e. 254people, or 86% of the people who answered the question;
respondents new to adaptation are defined as those respondents who have been working on climate change adaptation for up to one year, i.e. 40 people , or 14% of the people who answered the question.

[73] Countries with both national adaptation plan and platform: Austria, Belgium, Denmark, Estonia, Finland, France, Germany, The Netherlands, Spain, Sweden, United Kingdom (N=88)
Countries with National adaptation plan, but without platform: Czech Republic, Lithuania, Malta, Romania (N=5)
Countries without national adaptation plan, but with platform: Croatia, Ireland, Poland (N=13)
Countries without plan nor platform: Bulgaria, Cyprus, Greece, Hungary, Italy, Latvia, Portugal, Slovakia, Slovenia (N=75)
Countries outside the EU (N=15)
Total N=196

Two thirds (65%) of those who submitted information have done so because they wanted to share knowledge with other people in Europe. The other reasons for submitting information include where it is obligatory as part of the EU Monitoring Mechanism Regulation (MMR) or obligatory for EU research projects). Obligatory national adaptation reporting was a reason to contribute information for a higher number of respondents from Northern and Eastern Europe compared to Southern and Western Europe[74].

Figure 3.21 Sections information providers have contributed to (N=211)

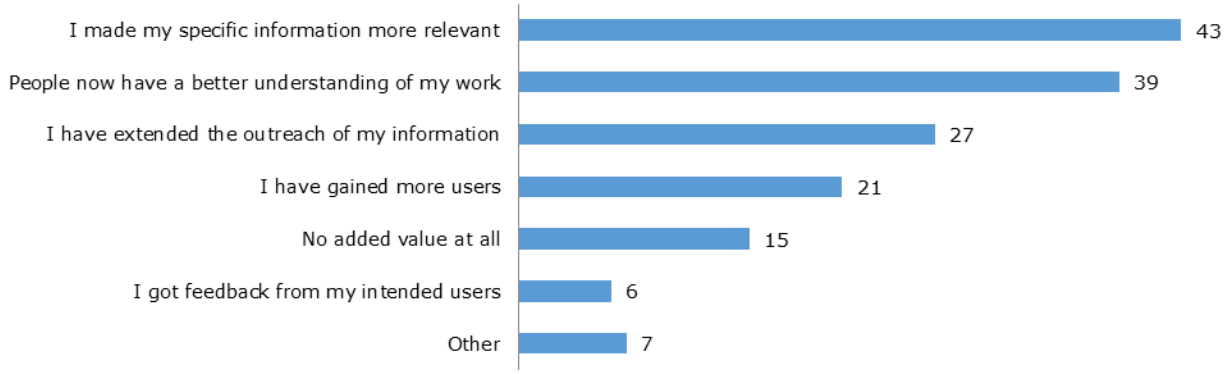


Note: This figure reflects the results of Question 10 of the Climate-ADAPT user/provider survey, more than one answer was allowed.

Therefore the survey has shown that Climate-ADAPT has succeeded in involving various knowledge providers by making them aware of the added value of presenting their information on Climate-ADAPT and sharing it as part of the knowledge base on climate change adaptation in Europe.

[74] Classification was done according to EuroVoc; http://eurovoc.europa.eu

Figure 3.22 Added value gained from making information visible on Climate-ADAPT (N=102)



Note: The figure reflects the results of Question 15 of the Climate-ADAPT user/provider survey, more than one answer was allowed.

The majority of people (91 people out of 111, 82%) find the submission process clear. Two main messages are voiced by the 20 people who responded that the process is not clear: (1) more guidance is needed to understand the submission process, (2) more transparency would be welcomed on the publishing process, e.g., it is not clear why something submitted was not published.

Forty six people, have given an explanation in the free text of why they have not submitted anything. The reasons stated were that they do not have appropriate information (15 people), did not know it was possible (8 people), or did not think it was their responsibility (8 people). This suggests that further promotion would raise awareness of the fact that Climate-ADAPT is a portal that is open to contributions for sharing information across Europe. It was also mentioned that some people (4) do not know the criteria for determining what information is appropriate to submit. There were suggestions about how the submission process could be improved, including: (1) more guidance is needed to understand the submission process, (2) more transparency would be welcomed on the publishing process, e.g. it is not clear why something submitted was not published and (3) on the 'Share your information' webpage[75] there could be a webinar tutorial to go through the whole process.

A2) Does Climate-ADAPT provide the relevant information on the platform?

The survey did not explicitly ask this question but feedback from a limited number of respondents in the free text questions can provide an impression of this.

Generally, the site is well received and considered a useful and comprehensive source of European information on adaptation. The main comments were that the language in English only is a barrier and translation would extend its reach significantly (4 comments) and that it could be more user-friendly e.g. database and search function (4 comments).

In addition, 3 people provided feedback quotes that imply that they found what they were looking for on the site:

- 'It's (Climate-ADAPT) a good approach';
- 'Best sector platform in the EU';

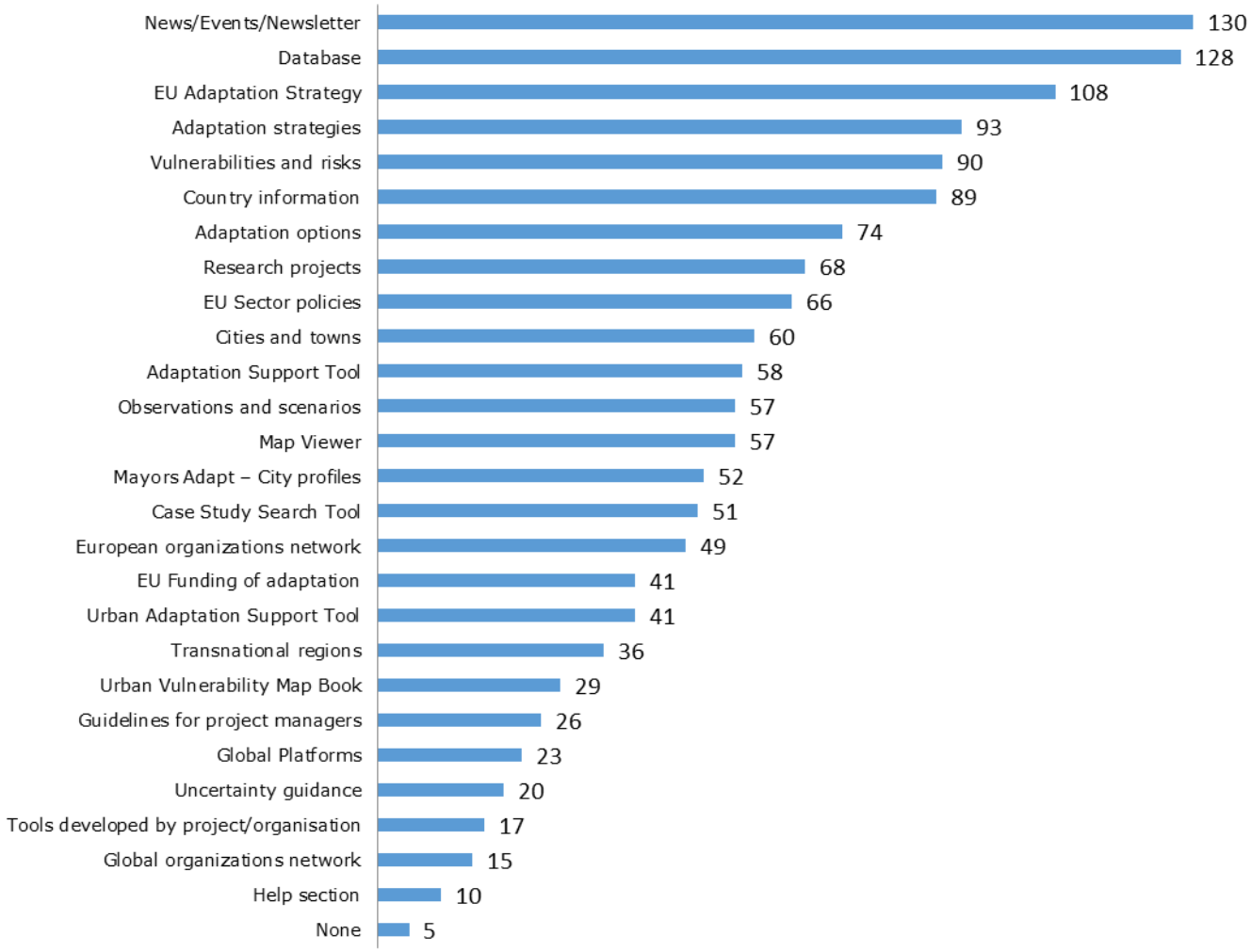
[75] http://climate-adapt.eea.europa.eu/help/share-your-info

- 'Climate-ADAPT is a fully functional and comprehensive info base. Congrats!'

A3) Which sections are currently being used?

The survey helps to better understand the use pattern of the homepage, indicated by the large numbers of page views in the web statistics (Section 3.2.1.1): the most frequently used section of Climate-ADAPT is the news/events/newsletter, that is directly accessible from the homepage, suggesting that the outreach function of Climate-ADAPT is effective (Figure 3.23) also shows that the database, as the second most used content, might fulfil its role to provide a systematic access to the adaptation knowledge base in Europe. The EU Adaptation Strategy pages, adaptation strategies, vulnerabilities and risks and country information are furthermore among the most frequently used sections of Climate-ADAPT. This shows that there is interest in the actions of the EU adaptation strategy and the related areas (how to develop a strategy and vulnerability assessment and what other countries are doing in this field). It could also mean that DG CLIMA/EEA has achieved its task of informing the target audience about EU policy.

Figure 3.23 Sections of Climate-ADAPT used (N=246)



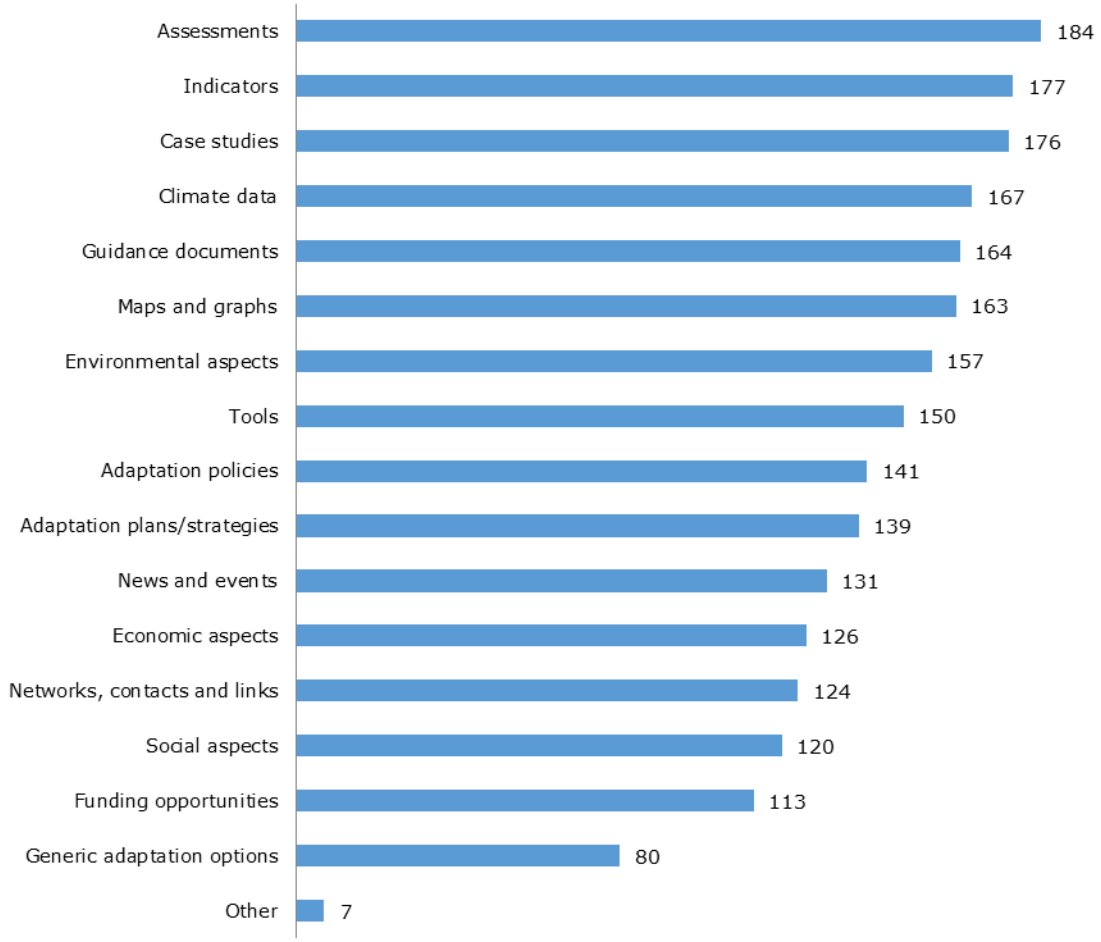
Note: This figure reflects the results of question 8 of the Climate-ADAPT user/provider survey more than one answer was allowed.

The Climate-ADAPT core audience uses more specific information than the wider audience, such as the countries, regions, cities pages, EU policies, and the adaptation information. Tools, such as the map viewer or the Urban Vulnerability Map book, are used by a limited number of respondents (Figure 3.23).

The different clusters use the diverse information made available according to their needs, e.g. news/events/newsletter was used most by the communication and administration cluster, adaptation information was used most by the strategic multitask, communication and pure research clusters and operational users use the tools the most.

Climate-ADAPT, appears to succeed in keeping users up-to-date with the news and events on adaptation across Europe and information about adaptation policy at EU level. The respondents often use the database to get access to adaptation knowledge in Europe. The platform may also succeed in assisting users across Europe by providing knowledge on adaptation policies at European and national level.

Figure 3.24 Information types that users want (N=251)



Note: This figure reflects the results of Question 7 of the Climate-ADAPT user/provider survey more than one answer was allowed.

A4) Which information is also needed by Climate-ADAPT users?

Figure 3.24 shows that respondents would like a range of new information types on Climate-ADAPT in the future. These results suggest that users, (working often in various roles and at various steps of the adaptation policy cycle) appreciate the fact that they need a range of information types to support the mainstreaming of adaptation into other policy fields and systemic transformative adaptation. The four most wanted information types suggest that there is a preference for synthesis information such as assessments and indicators, but also for guidance documents and case studies. Furthermore, there is a high interest in better access to climate data and maps and graphs.

Figure 3.24 also shows that there is interest in knowledge on environmental, economic and social aspects of adaptation suggesting that experts need knowledge to assess adaptation options in a systemic way taking into account the synergies, conflicts and co-benefits relative to other developments in society.

The cluster analysis (see Table 4.5 and ANNEX 4) shows that the strategic multitask cluster want the greatest number of products, while the administration cluster want the least. The strategic multitask cluster particularly want maps and graphs, tools, adaptation options, economic aspects and environmental aspects. The communications clusters want guidance, adaptation plans and strategies and case studies.

3.2.1.3 Survey on the Climate-ADAPT case studies uptake

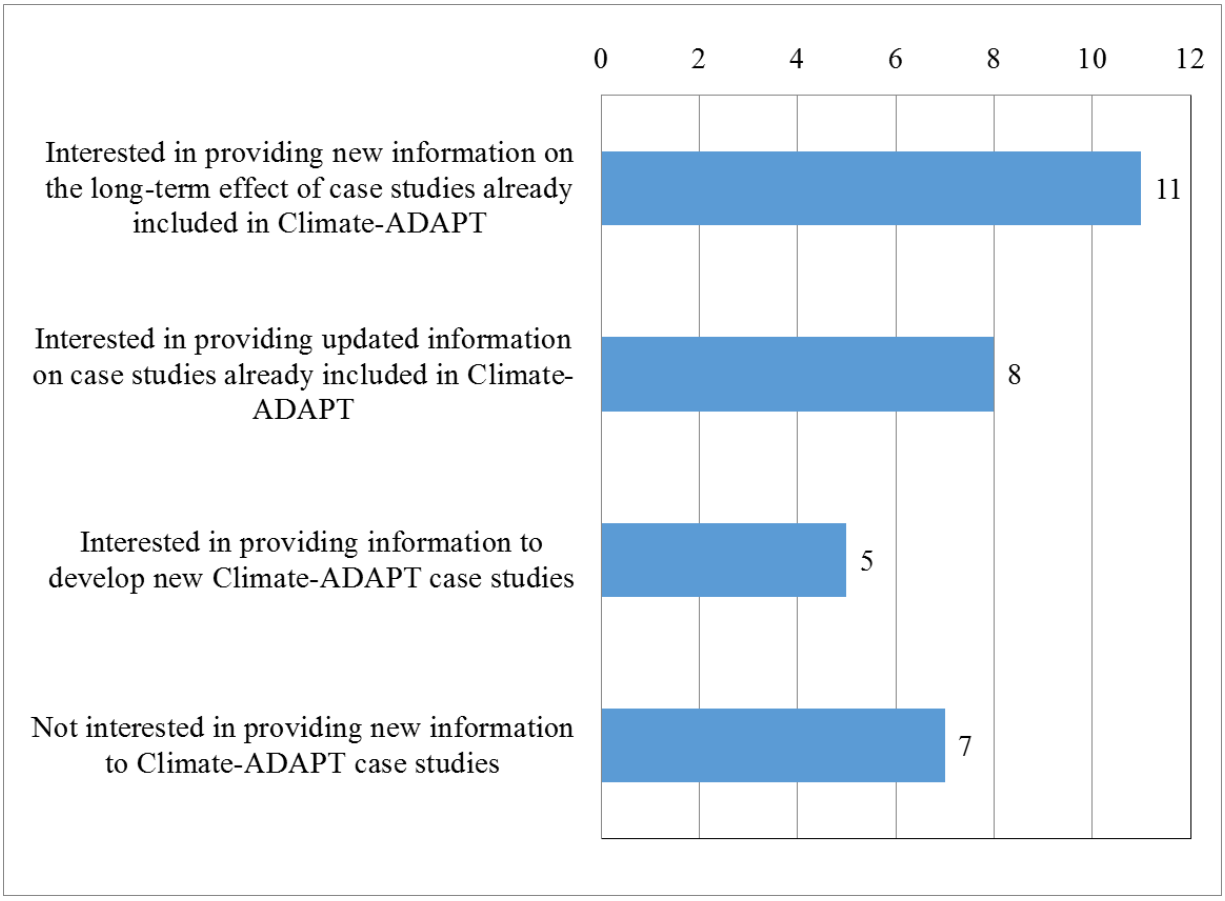
Key messages

- Climate-ADAPT case studies provide contact information from reference persons of local organisations for further detailed information on the case studies ("Local contacts"). Twenty out of 27 local contacts are willing to support the further improvement of Climate-ADAPT case studies, in particular as far as long-term effects of adaptation measures are concerned (11 cases). This could support the evolution of current "state of the art" case studies into "good practice" case studies, which aims to provide information on achieved results in terms of increased adaptation capacity. However, this would require a more intensive collaboration with and support from case study providers.
- Five out of 27 local contacts of Climate-ADAPT case studies showed interest in further collaborating with Climate-ADAPT providing information on new case studies, such as in the water management and energy sectors providing experiences on implemented new approaches on adaptation in the same location. Engaging additional potential local providers would help improving the coverage of case studies by adaptation sectors and climate change impacts.

This section intends to contribute answering the first aspect of the objective A of Climate-ADAPT, to share the adaptation knowledge in Europe to build a consistent knowledge base: A1) Does Climate-ADAPT successfully involve potential information providers in sharing their information? Whereas the previous sections covered Climate-ADAPT as a whole, this section relates to specific Climate-ADAPT content, i.e. the case studies. Main messages in this part of the report come from a survey, sent out to local case studies providers in April 2017. Details of the survey methodology are explained in ANNEX 2.

The EEA together with the ETC/CCA continuously complements the set of Climate-ADAPT case studies in a systematic way considering gaps in terms of covered climate change impacts, adaptation sectors and European regions (section 3.1.1.3). In this perspective, a survey on the use of Climate-ADAPT case studies, among others, explored the willingness of local case study contacts – reference persons whose contacts are included in Climate-ADAPT case study sheets for further detailed information - to be further engaged as information providers in this process. This should also help understanding the potential of developing the set of "state of the art" case studies as currently presented on Climate-ADAPT into "good practice" cases on adaptation. While the first provide the description of implemented adaptation measures and related challenges and objectives, the second aim to give also evidence of achieved results in terms of increased adaptation capacity and improved resilience. Feedback, collected through the anonymous online survey with local contacts (reference persons of organisations whose contacts are available in the case studies on Climate-ADAPT for further detailed information) of the 67 case studies contained in Climate-ADAPT in February 2017, was provided by 28 respondents.

Figure 3.25 Local case study contacts interested in providing more information to Climate-ADAPT case studies.



Note: The figure represents the results of Question 10 of the survey on the use of case studies. Multiple choice was allowed; answers to the questions were provided by 27 local contacts.

A significant number of respondents (20 on 27; one local contact did not reply to this specific section of the survey) declared being interested in further supporting Climate-ADAPT with new information, in particular as far as long term effects of adaptation measures described in the case studies already included in Climate-ADAPT are concerned (11 cases) (Figure 3.25). This strongly depends on the availability of monitoring data on the long-term success of implemented

approaches and measures in terms of better preparedness and improved adaptation of people and territories to climate change impacts. However, due to their demanding ordinary workload the local contacts expressed the need to be actively contacted and supported by the EEA to provide such information. This will be very valuable if the EEA intends to significantly improve the presentation of case studies on Climate-ADAPT, progressively moving from "state of the art" case studies towards "good practice" case studies, therefore providing benchmarks for implemented adaptation action in Europe. The collection of this information would require a more intensive collaboration with case study providers.

In five cases (part of the total of 20 proactive respondents), surveyed contacts expressed their interest in collaborating with Climate-ADAPT providing information on new case studies (e.g. on the water management and energy sectors) (Figure 3.25), thus contributing to improve the database coverage (by sector, climate impact and region).

The positive attitude towards further collaboration with Climate-ADAPT was confirmed by the ten case studies contacts who stated to be available for discussing in more details the feedback provided through the on-line survey.

3.2.1.4 Ad-hoc collected feedback

Key messages

- The analysis of feedback collected ad-hoc in various interactions with users shows that Climate-ADAPT overall succeeds in building and providing a knowledge base, and has already supported action at national and transnational level. However, the content should be extended by synthesis information, such as on the outcomes of research projects, and benchmarks, e. g. for "best-practice" case studies.
- The wealth of information on Climate-ADAPT could be better used if it would be presented in a more user friendly way, in particular for new users, and an improved search function. Across many stakeholder groups, but in particular from new users, there was a strong request to present information in national languages.
- Sectoral users, such as from agriculture, forestry and water management, need more tailor-made access to the content relevant from their perspective.
- Urban users, have very specific and detailed requests to support their practical work in adaptation planning and implementation, such as discussion forums, user rating of items and additional information on the costs and benefits of adaptation.
- Various proposals for improvement from ad-hoc feedback, such as the need for overview and synthesis information, are still valid and could not yet be implemented due to the need to prioritize.

This section intends to support answering question related to the objective A of Climate-ADAPT, to share adaptation knowledge and to build a consistent knowledge base. These questions are A3) Which sections of Climate-ADAPT are currently being used? and A4) Which information is also needed by Climate-ADAPT users?

Additional to the Climate-ADAPT web statistics and the user/provider survey, individual feedback on the platform collected ad-hoc via meetings and conferences between 2013 and 2017 by EEA, ETC/CCA and DG CLIMA contractors (see Section 3.2 and ANNEX 1) is presented in this section. This feedback was not captured in a standardized way. At various stages, this feedback was analysed by EEA and the ETC/CCA, such in 2014 (Street et al., 2014) to draw conclusions on possible improvements, and EEA and DG CLIMA considered such feedback and recommendations from key stakeholders, and collected in DG CLIMA service contracts 2014 (Milieu, 2014) and 2016 (Gancheva et al., 2017), while setting the priorities of the further development of the platform content and functionalities taking into account the available resources.

Feedback, collected through direct contact with users and providers in conferences, workshops and meetings, shows that the content of Climate-ADAPT is valued as generally valuable, but should be further extended by synthesis information and benchmarks. The wealth of the information could be better accessed by an improved user friendliness of the platform. Less experienced users need to be better supported by improved “Help” functions, and sectoral users need more tailor-made access to the content relevant from their perspective.

Table 3.3 presents such feedback on Climate-ADAPT content and functionalities collected in a summarized way. There is some explicit recognition that the Climate-ADAPT content was already helpful for national and sub-national adaptation, as for example expressed in a meeting with governmental decision-makers in 2014. Re-occurring requests from stakeholders across almost all stakeholder groups were the need for information in national languages (expressed by sectoral and national level users), to find more overview and synthesis information, such as for harmonized and synthesized research outcomes, requested e. g. by national level users (2014) and in the EU Strategy Evaluation Stakeholder Workshop (2017), and many users wanted to find benchmarks, such as for “best practice” case studies (National level users, 2014). Apart from that, Stakeholders across three policy sectors at EU levels recognized that information might be available on Climate-ADAPT, but that their awareness of the content might be significantly increased by a more tailor-made access to it (2016), in particular to sector-specific information at country level. Feedback to Climate-ADAPT received from urban adaptation stakeholders, collected by the DG CLIMA Mayors Adapt initiative showed that city levels users need more practical support and quick interactions, such as a forum functionality and a user-based ranking of content. More transparency on the process of the submission of content was particularly requested by less experienced providers (Milieu, 2014).

The Climate-ADAPT user/provider survey, carried out in March 2017 to capture feedback to the platform in an anonymous way (section 3.2.2.2), showed that users appreciated that some parts of the individual feedback were addressed (such as presenting ongoing and completed EU funded research projects). However, it also illustrates that various proposals for improvement, known from the individual feedback, such as the need for overview and synthesis information, are still valid and could not all yet be implemented due to the need to prioritize.

Table 3.3 Summary of individual user feedback to Climate-ADAPT collected by EEA and DG CLIMA between 2013 and 2017

Activity	Audience	Type of user	Type of feedback/recommendation
2013 and 2014 EEA Expert Workshops on Adaptation platforms	National level experts preparing governmental decisions	Experienced users)	European level information has already supported national/sub-national level adaptation policy and action Country profiles very useful Define/communicate the goal and the target audience Transparency and communication needed on uncertainties and boundaries of the information presented Extend the use of the knowledge by translating and harmonizing research results Vulnerability and other maps very helpful, but not high resolution necessary Need for standards on case studies best practice Case studies on policy processes needed Clarify links to climate services and DRR
2013 CIRCLE 2 Expert meeting on adaptation platforms	National level experts preparing governmental decisions	Experienced users	Enhance links to DRR and climate services, and to national adaptation platforms, Further enhance the set of case studies by implemented adaptation strategies and improve them for communication purposes s
2014 DG CLIMA Science Policy Workshops in 8 EU Member States	National level experts and decision makers, Scientists, NGO´s	Less experienced users	Low awareness of Climate-ADAPT potentials General positive feedback on content from governmental organizations and NGO´s, but not from scientists Strong request to enhance the publication of content in national languages several comments on needs to improve the design and user friendliness of presented information More transparency on submission of database items and web content
2014 DG CLIMA Service contract on adaptation at regional levels	Regional level experts and decision makers	Less experienced users	Targeting regions more directly on Climate-ADAPT Improve awareness raising on Climate-ADAPT among regional level users
2015 Mayors Adapt Knowledge Base Strategy city survey and expert analysis	Urban adaptation practitioners across the EU	Experienced users	Link Climate-ADAPT policy sections to relevant EUROSTAT data Improve database content regarding urban specific adaptation indicators and measures, for the latter include costs of adaptation in the metadata if available set up one section for social aspects of adaptation Urban AST: interlink it better with the other Climate-ADAPT sections
2016 Mayors Adapt practitioners' Group	Urban adaptation	Both experienced	Avoid Eionet login where possible

Activity	Audience	Type of user	Type of feedback/recommendation
Workshop on Urban Adaptation Support Tool improvements	practitioners across the EU	and less experienced users	Better integrate visual information to homepage and add a what's new" section" as well as graphics to Urban AST Explain purposes of each section and tool Link cases studies with Urban AST steps and set up a search function within the tool Include non- EU items in the database and cities´ items, as well as resources in national languages Implement user rating of items and prioritize the most "liked" items and allow online-content evaluation via 'Is this answer useful?' popup Create practitioners' and, experts' database Develop a forum for discussions Improve the glossary by adding terms and by making it more useful via adding practical examples to the definitions.
2016 EEA Expert Workshop on adaptation platforms	National level experts preparing governmental decisions	Experienced and less experienced users	Further strengthen links between national CCA platforms Research projects – Support the development of new research proposals by presenting ongoing and completed EU funded research projects on Climate-ADAPT Support national adaptation platform managers by exchanging experiences in selecting content, presenting it and evaluating platforms
2016 DG CLIMA service contract "Communities of Practice"	EU level Sector experts from Agriculture, Forestry, and Water management	Mostly less experienced users	Present EU funding options Present knowledge about adaptation in the sectors (e.g., linking mitigation and adaptation benefits; innovation and technologies) Support the exchange of practical examples and case studies Provide relevant and up-to-date information from across different regions and countries Uncertainty about the expected impacts Support establishing new contacts and networks Information on country profiles to be provided in multiple languages; Provide information on sectoral adaptation plans in the different Member States; Information should be tailored to the respective sectors; Funding opportunities for adaptation should be available on sectoral pages; Present outputs from EU-funded projects
2017 DG CLIMA EU Adaptation Strategy Evaluation Stakeholder Workshop/Breakout group on knowledge base	Experts from all governance levels	Experienced and recent users	Need for additional information to assist the uptake of the information (e. g. assessments and best practices case studies)

Source: Gancheva et al., 2017; Milieu, 2014.

3.2.1.5 Feedback collected through Climate-ADAPT use cases

Key messages

- Seventeen examples of Climate-ADAPT use ("use cases") confirm that Climate-ADAPT succeeds to share the knowledge for a wide range of adaptation challenges in Europe.
- The providers of the examples come from the core audience, working often at strategic levels. They can find the information they need on Climate-ADAPT, and the five most regularly used features, i. e., the "Country pages", "EU policy", "Database", "Adaptation Support Tool (AST)", and the Case studies" are the same than identified in the web statistics and the user/provider survey. Thus, these five features can be valued as Climate-ADAPT "core content". This could be actively communicated, and should remain the first priority of the further platform development.
- The examples also used a wide variety of the other features, such as the set of "Adaptation options", and the "Research projects" pages. Specific features, such as the "Map viewer" and map-based access tools to information, like the "Case Study Search Tool" were used in a limited number of cases. This demonstrates their added value for specific tasks such as the development of Regional Adaptation Plans and national sets of case studies. Additional promotion of these features maybe needed.
- The urban adaptation information including that developed by the EU Covenant of Mayors Initiative was highly valued by urban users. As strong link and better promotion of this content and emerging features of the Global Covenant of Mayors for Climate and Energy on Climate-ADAPT would be beneficial for urban users.
- Some examples show that there is particular added value in using the "Adaptation options", e.g. for helping experts to systematically explore solutions applicable at regional and local levels. Further development of the set of "Adaptation options "and to enlarge the set of "Case studies" in a complementary way could be valuable.
- An extension of the geographic component of Climate-ADAPT by an additional (sub-national) level was suggested to provide an entry point into the "state of the art" of adaptation at sub-national levels in Europe. It should be noted that such information is currently available on the Climate-ADAPT "Country pages".

This section intends to support answering question related to the objective A of Climate-ADAPT, to share adaptation knowledge and to build a consistent knowledge base. These questions are A3) Which sections of Climate-ADAPT are currently being used? and A4) Which information is also needed by Climate-ADAPT users?

Seventeen "real-life" inspirational examples (use cases[76]) were collected from across Europe to provide in-depth insight into how the platform is being used to support decision making in all its various forms. The examples show the specific adaptation challenges, the administrative circumstances under which the stakeholders work, the way that Climate-ADAPT has been used to assist the users and the processes that were supported. The cases were collected based on a

[76] https://climate-adapt.eea.europa.eu/help/climate-adapt-use-cases

common template to ensure comparability of the information. The detailed methodology is presented in ANNEX 2.

Table 3.4 shows an overview on the collected cases, the full set of use cases[77] is published in Climate-ADAPT. Numbers in brackets refer to the respective number of the case as published on Climate-ADAPT. An analysis of the use cases is provided in ANNEX 5.The cases were provided on a voluntary basis. Thus, they are not fully representative in terms of their coverage of geographic origin, governance level, and availability of a National Adaptation Platform or the state of progress on adaptation. However, the examples illustrate the added value that Climate-ADAPT provides in that it shares knowledge on adaptation at EU level and is complementary to national and transnational adaptation platforms. Furthermore, the examples highlight new information needs for future activities that could be supported by additional content and functionalities on Climate-ADAPT.

Since the data were collected in a systematic and comparable way for all individual cases, following the overall intervention logic of Climate-ADAPT (EEA, 2018, Chapter 4), they were analysed as "evaluation case studies" to identify common features of the platform use, to generalise lessons learnt in terms of the fulfilment of the three objectives of Climate-ADAPT as set out in its mandate, and to draw conclusions for the further development of the platform.

The collection of the 17 examples proved to be a valuable instrument for evaluating Climate-ADAPT. It confirms the results of the web statistics and the survey for the core audience (tier 3)[78], and additionally it demonstrates *how* information from Climate-ADAPT was used to cope with various challenges and where Climate-ADAPT could be improved to further support decision making.

A3) Which sections of Climate-ADAPT are currently being used?

The examples show that Climate-ADAPT information was used to support decision making at all stages of the adaptation policy cycle. Examples of use reach from the very early stages of "getting started with adaptation" (e. g. Rete Gaia consultancy, working for the Municipality of Sorradile, Italy (14) to the development of adaptation strategies (such as e. g. the Ministry of Environment and Water (MoEW) in Bulgaria (3). Examples of use are also available for more advanced stages of the policy development, such as the revision of adaptation strategies and plans (e.g. Turkish Environment Ministry (7). The use cases show that the platform also provides assistance for experts at all governance levels in Europe; there are examples from the local level, such as the City of Bologna (12), from the subnational level, such as the Barcelona region (11) and the Lombardy Region (9), from the national level, such as the Ministry of Environment of Poland (5), the transnational level (Carpathian Convention, (2)), and from the European level (DG Research and Innovation (DG RTD, 1). However, the majority of cases (6 out of 17) come from the national level. Two cases illustrate common patterns of use from an urban perspective, i. e., Bologna (12) and, Cascais (13). Furthermore, there are examples illustrating the use of Climate-ADAPT from other perspectives; the sectoral one, i.e. on health related adaptation in England (Public health England, 16), from a research perspective (UK Met Office, 17) as well as from two intermediary organisation (Lombardy Foundation 15and Sorradile (14).

The majority of use cases come from countries where there is not yet a National Adaptation Platform in place (all except Poland (5), and two more cases where this criterion is not applicable (DG RTD (1) and UK Met Office (17).In particular, six use cases for Italy from the national to the local

[77] https://climate-adapt.eea.europa.eu/help/climate-adapt-use-cases
[78] More information on the tiered approach is provided in section 4.6 of the Evaluation report (EEA, 2018).

level (ISPRA (4), Sardinia Region (10), Lombardy Region (9), Lombardy Foundation for the Environment (15), City of Bologna (12), City of Sorradile (14)) illustrate specific needs and use patterns for users that currently do not have a national adaptation platform in place.

Table 3.4 Overview on the Climate-ADAPT use cases

Number	Location	Governance level	Geographical region	National Adaptation Platform in place
1	DG RTD	EU	EU	n. a.
2	Carpathian Mountains	Transnational	East	n. a.
3	Bulgaria	National	East	no
4	Italy	National	South	no
5	Poland	National	East	yes
6	Spain	National	South	no
7	Turkey	National	East	no
8	Greece	National	South	no
9	Lombardy	Subnational	South	no
10	Sardinia	Subnational	South	no
11	Barcelona	Subnational	South	no
12	Bologna	Local	South	no
13	Cascais	Local	South	no
14	Sorradile	Intermediary organisation	South	no
15	Lombardy Foundation	Intermediary organisation	South	
16	Sustainable Development Unit (SDU) for the Health and Social Care System in England, UK	Sector	West	yes
17	UK MetOffice	Research organisation	West	n. a.

Note: The full set of Climate-ADAPT use cases is provided in full on Climate-ADAPT (https://climate-adapt.eea.europa.eu/help/climate-adapt-use-cases).

Box 3.1 includes an exemplary Climate-ADAPT use case from DG RTD in order to show how the use cases demonstrate the sharing of knowledge through Climate-ADAPT. All details on how the other examples used Climate-ADAPT in their specific adaptation challenges are published on Climate-ADAPT[79] (see also ANNEX 5).

[79] https://climate-adapt.eea.europa.eu/help/climate-adapt-use-cases

The providers of the examples come from the core audience[80], working mostly at strategic, rather than operational levels. They can find the information they need on Climate-ADAPT and the five most regularly used features are the "Country pages", "EU policy", "Database" and "Adaptation Support Tool (AST)", and "Case studies". The top sections of Climate-ADAPT, that are used in the examples, are almost the same as the top 10 sections that were indicated in the web statistics (Section 3.2.1.1) and in the user/provider survey (Section 3.2.1.2). This shows that the broader results from the web statistics and the user/provider survey and deeper results from the examples are demonstrating that these five features can be valued as Climate-ADAPT "core content". This could be communicated as such, and should remain the first priority of the further platform development.

It was pointed out in 14 out of 17 cases that the EU policy (EU Adaptation Strategy) and country pages allows to stay up-to-date with the development of adaptation in Europe and that it is used as *the* reference information to identify the "state of the art" of adaptation in Europe and to apply or build on approaches widely accepted in the EU adaptation community. The individual country pages served to benefit from experiences in other European countries to re-use front-runner approaches for various applications (e.g. for the mainstreaming of adaptation (Lombardy Foundation for the Environment, (8) and the selection of climate change and impact indicators at national levels (ISPR, 4). Almost all providers stated that they plan to continue checking this information on a regular basis to remain up-to-date.

Many use cases providers (e. g. UK Met Office (17), Lombardy Foundation for the Environment (15), Greek LIFE Task Force (8) highlighted specifically the added value of the Climate-ADAPT database for efficiently finding and accessing the relevant information on adaptation in Europe in one place without checking primary literature, and serving as a starting point for more detailed searches to develop tailor-made assessments and guidance for the individual users´ needs.

There is a quote from the Greek LIFE Task Force (GR LTF) use case (8) summarizing the added value of these main features:

"GR LTF experts, working as intermediaries, valued the added value of Climate-ADAPT in providing a trusted EU-wide information basis on climate change vulnerability, impacts and adaptation, and it can be used quite widely in different levels (local, regional, national, transnational). It allows EU citizens to get access to the same level of information and provides the same background, enhancing the cohesion of the Union and the streamlining of the measures and policies that are implemented for this global issue, respecting the limits set by the different geographical and other circumstances (personal communication)."

As well as the five main features, the examples also used a variety of other features, such as adaptation options (Greek life task Force (8). Specific tools were applied such as the Map viewer (e.g. in the Lombardy Region (9) to develop a Regional Adaptation Plan). "Research projects" pages, were for example applied by DG RTD (1) to map the achievements of EU funded research as well as by the Greek LIFE Task Force (8). Interactive map-based access tools were used in some cases (such as the thematic maps to find information per topic on the "Country pages" by the Ministry of the Environment and Water (Bulgaria, (2). The "Case study search tool", was applied by the Spanish Climate Office (6)) to identify the Climate-ADAPT case studies for Spain. This demonstrates that

[80] Within the Climate-ADAPT user/provider survey, governmental decision makers and experts from organisations supporting them, was defined as the Climate-ADAPT core audience.

even though they are not the most popular pages for general use they are valued for specific tasks. Additional promotion of these features for specific decision-related tasks maybe needed.

On the contrary to the outcomes of the user/provider survey (section 5.1.2), the “News/events” was not mentioned very often, such as by Public Health England (16), and the Sardinia Region (10).

The link to the urban adaptation information developed by the EU Covenant of Mayors Initiative was highly valued by urban users. The “Urban adaptation support tool”, developed by the Covenant team, hosted on Climate-ADAPT, as well as the EEA “Urban vulnerability map book” proved to be very helpful tools for the specific needs of urban level users (Barcelona Region (11)) and the Cascais Municipality (13)). In the case of Barcelona, the more extensive guidance available on Climate-ADAPT was also used while urban adaptation guidance is available on AdapteCCa, the Spanish national level platforms, thus filling a temporal methodological gap.

There was also a request for information for small, and particularly more rural communities on the Covenant of Mayors platform (Sorradile (14)). The urban information and links to Covenant of Mayors could be better promoted.

The examples show that there is an added value in using the “Adaptation options” feature to explore possible approaches for developing, implementing adaptation actions in a systematic way (Province of Barcelona (11), Greek LIFE Task Force, (8)). Further development to update the set of “Adaptation options” and to enlarge the set of “Case studies” in a continuous way would be valuable.

A4) Which information is also needed by Climate-ADAPT users?

Asked for additional information needs for future plans there were some specific requests for additional content. Information related to the needs of small, and rural communities (Sorradile (14), an extension of the geographic component of Climate-ADAPT by an additional level (sub-national information) in order to learn about the state of the art of adaptation at sub-national level in Europe (Sardinia region 10), information on non-governmental actors at all governance levels (Lombardy Foundation, 15), and a search option to identify projects by their “type of funding” (Greek LIFE Task Force, 8).

Examples are information on implementing adaptation (all use cases), the announcement of funding calls on the “EU Policy” pages (DG RTD: Use case no 1), a thematic layer giving quick access to MRE approaches from countries (Ispra Italy , use case no 4), synthesis information on national level vulnerability assessment approaches (Poland, Use case no. 5), an additional database filter criterion “type of funding” to quickly identify the background of project information (Greece, Use case no 8), adaptation plans and actions in cities (Use case 12 Bologna), methods on MRE for cities (Cascais, Use case 13), and information on non-governmental adaptation activities (Lombardy Foundation, Use case no. 15).

Box 3.1 Example of a Climate-ADAPT use case from the EU level

Using Climate-ADAPT to find the latest scientific knowledge on adaptation for agenda-setting for EU research and innovation funding

Climate-ADAPT features used: database; EU policy (funding of adaptation); countries, regions (transnational) and cities pages (interactive Map Viewer); knowledge (Case Study Search Tool)
Sector: adaptation in general
Governance level: EU
Biogeographical region or macro-region: pan-European
Policy stage: EU Research Framework Programme development and implementation

The challenge

The Directorate-General for Research and Innovation (DG RTD) develops an EU research and innovation (R&I) agenda on climate change adaptation, which is supported by various actions and initiatives (such as Nature-based Solutions and Innovating with Cities) to improve the adaptation knowledge base, provide strategic recommendations on the scoping of the EU R&I framework programmes and mainstream research outputs into relevant EU policies and international agreements promoting adaptation. In the context of developing and promoting this agenda, DG RTD acts both as a user and as a provider of information from EU-funded research projects, assessing their contribution to the knowledge base and the value they add to the development of adaptation strategies and plans. In addition, it highlights remaining knowledge gaps and future challenges that research should address. It is also essential for DG RTD to stay informed about the actions and initiatives on adaptation promoted by Member States, learning from good practices as well as from national and regional contexts. Finally, synergies with other environmental and climate policies need to be identified to develop the R&I agenda in a complementary way.

The approach

One important information source for developing this R&I agenda is Climate-ADAPT, as it is supported by the European scientific and policymaking community and provides access to a wide range of resources.

Mapping of R&I projects on adaptation is currently under development and will be finalised in early 2018 to contribute to the development of future EU research framework programmes and clustering of projects with similar objectives. The information provided by Climate-ADAPT on the 'EU funding of adaptation' ([1]) page allowed DG RTD to identify the range of funding instruments beyond Horizon 2020 that provide significant support to Member States, regions and cities for investing in programmes and projects on adaptation (e.g. LIFE, the European Regional Development Fund (ERDF) and the Cohesion Fund). This was a useful starting point for developing a comprehensive mapping of research projects and creating synergies between those sharing similar research aims, strategies and methodologies.

The information on the transnational, national and sub-national adaptation research programmes presented on the individual transnational regions ([1]) pages and the individual country pages ([1]) allowed a better appreciation of the progress of adaptation plans and strategies in the Member States.
To identify knowledge gaps and future challenges, DG RTD uses several knowledge sources, including: (1) the Climate-ADAPT database ([1]) to access accurate and recent adaptation knowledge/publications such as the EEA assessment reports are easily accessible; (2) case studies presenting good practices from EEA member countries, which can highlight innovations, as well as the implementation barriers (and enablers) encountered by local decision-makers; and (3) the Case Study Search Tool ([1]) to browse examples of implemented actions. In the context of developing a coherent EU R&I agenda, such

bottom-up information is deemed essential for identifying which policy decisions and financing instruments are successful and which types of obstacles may prevent the implementation of adaptation/mitigation actions at local level. Finally, (4) assessing the actual impact and added value of R&I projects by using the information highlighted on the research projects pages ([1]) can contribute to efforts to focus future research on specific environmental and climate policy priorities and areas for action. The R&I agenda, which builds on this new knowledge, provides valuable input into Priority 2, Action 4, of the EU Adaptation Strategy ('Better-informed decision-making — knowledge gap strategy'), which is currently under evaluation.

Figure A1 Contribution of EU R&I climate change research to Action 4 of the EU Adaptation Strategy

Note: The figure shows how EU research projects on adaptation funded through the 2014-2018 Horizon 2020 programme are contributing to Action 4 of the EU Adaptation Strategy (i.e. by addressing gaps in knowledge).

Source: EC, 2017.

Future plans

To further support the mapping of projects and future agenda-setting for EU R&I on adaptation, DG RTD would appreciate the following additional or improved Climate-ADAPT features:

- Easy access to adaptation information is a key interest of DG RTD; in addition to the dissemination of relevant Horizon 2020 calls through the European Climate Adaptation Newsletter ([1]), the promotion of adaptation-relevant research calls from LIFE, Interreg, the European Investment Bank and other financing instruments in a user-friendly way directly on the 'EU funding of adaptation' page (e.g. by including the quick reference guide from the Covenant of Mayors *Financing opportunities for local climate and energy actions (2014-2020)*) ([1]) would enhance synergies and visibility to the larger stakeholder community.
- Complementing the overview on and quick access to R&I adaptation projects on Climate-ADAPT with summary information about overall progress on closing adaptation knowledge gaps through EU R&I projects would increase awareness among stakeholders of their added value for adaptation.
- Linkages and enhanced coordination with other sectoral platforms (e.g. the Disaster Risk Management Knowledge Centre (DRMKC)) as well as greater visibility of the results of ecosystem-based adaptation research through stronger linkages with project websites and relevant platforms such as Oppla ([1]), the Biodiversity Information System for Europe (BISE) ([1]), Natural Water Retention Measures platform (NWRM) ([1]), ThinkNature ([1]) and the Partnership for Environment and Disaster Risk Reduction (PEDRR) ([1]) would be very valuable to promote key topics of EU-funded research such as Nature-based Solutions. Furthermore, European Commission activities presenting information on ecosystem-based solutions and the interoperability of related platforms should be considered in the further development of Climate-ADAPT. For example, Climate-ADAPT could be a partner in the clustering exercise of adaptation-relevant Horizon 2020 projects on nature-based solutions for climate and water resilience (UNALAB, Connecting, GREEN GROWTH and URBAN GREEN UP) to improve data management and dissemination within EU evidence-based platforms.
- Announcing topic-specific webinars (i.e. the webinar series from the Covenant of Mayors) and other relevant R&I events on Climate-ADAPT would further support cooperation.

3.2.2 Objective B: Assisting the uptake of the knowledge and informing decision-making

3.2.2.1 Climate-ADAPT web statistics

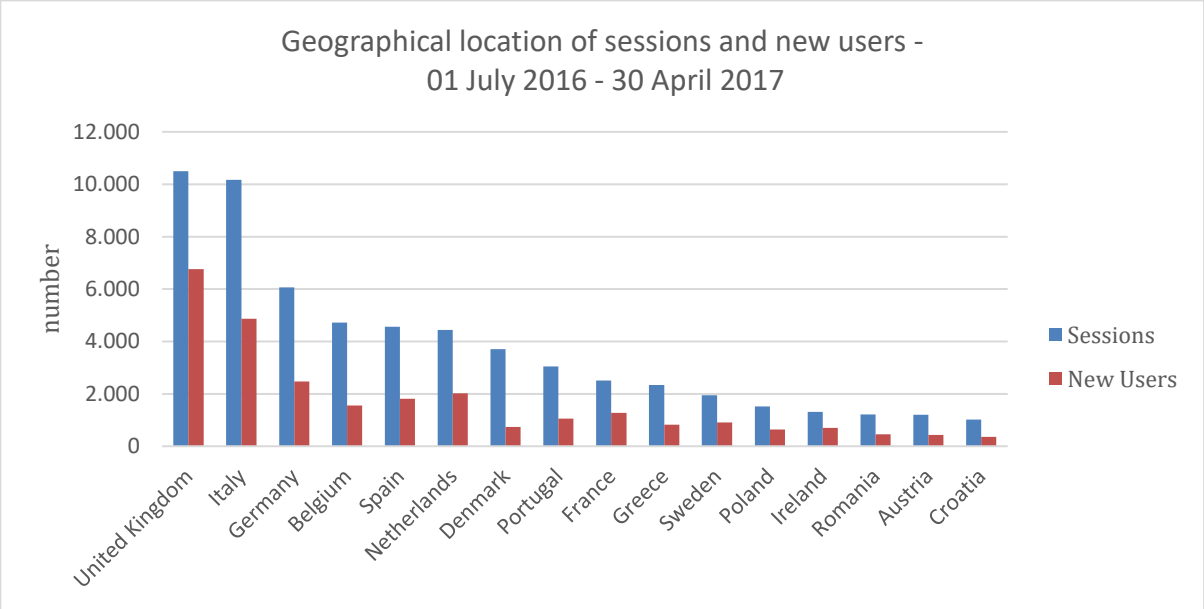
Key messages

- Climate-ADAPT seems to succeed in reaching large parts of the intended target audience across Europe with highest shares from Western European countries. High shares of countries with smaller population numbers such as Belgium and Denmark show differences in the activities of users per country.
- However, the use of Climate-ADAPT in Eastern and Central European countries is limited, suggesting additional promotional activities.
- Use numbers indicating the use of the platform outside Europe cannot be explained.

This section intends to support answering the question B1 related to the objective B of Climate-ADAPT, to assist the uptake of the information to support informed decision-making: Who is using Climate-ADAPT? It shows the geographic origin of the platform users. This evidence information was generated through the in-depth analysis of the Climate-ADAPT web statistics, using Google Analytics. Details of the methodology are explained in ANNEX 2. The detailed outcomes of the web statistics are presented in the ETC/CCA Working Paper [81].

European users are coming from a variety of countries. Whereas the United Kingdom, Italy, Germany, Belgium, Spain, the Netherlands, Denmark and Portugal show the highest shares, the Eastern and Central European countries are mainly missing (Figure 3.26). Larger numbers of sessions and new users can be explained by the higher population numbers of some countries, but this is not the case for all the countries, such as the Belgium and Denmark, suggesting that users from these countries might be more active. Lower numbers in Eastern European countries might relate to the fact that these countries have lower population numbers, but also that adaptation experts might not be aware of the platform and that English might be a barrier to use the platform. Climate-ADAPT reaches users in diverse European countries but should take additional effort to promote its use in Eastern and Central European countries.

Figure 3.26 Geographical location of sessions and number of new users in the period of 1 July 2016 – 30 April 2017



Note: The geographical location is the European country from which the session originated. A session is the period of time a user is actively engaged with Climate-ADAPT. All usage data (screen views, reading, interaction, etc.) is associated with a session. The period was selected considering the change in the timeline of the web statistics due the migration of Climate-ADAPT to the Content Management System Plone (see ANNEX 2).

Furthermore, the analysis shows that the users of Climate-ADAPT might be globally spread (see also Figure 3.27). It indicates that there are users coming from outside Europe e.g., from the United States, Australia, India, and Canada. Due to the use of Google analytics, the detailed methodology of those indicators is not available. Further analysis of EEA has not lead to full confirmation of those numbers. Although the Climate-ADAPT user/provider survey also showed the use of Climate-ADAPT outside Europe, these outcomes of the web statistics do not seem reliable enough to draw

[81] ETC/CCA 2017: Analysis of the Climate-ADAPT web statistics available on request (email climate.adapt@eea.europa.eu)

conclusions, such as the systematic promotion of European adaptation policy and practice at the global level. This will be further explored in the analysis of the Climate-ADAPT web statistics in the coming years.

3.2.2.2 User/provider survey

See ANNEX 4 for the full report about the User/provider survey.

Key messages

- The survey has captured opinions from a range of users since two-thirds of respondents were from the core audience of 'decision-makers in Europe and organisations that support them' and one-third was from the wider audience.
- Thirty-nine European Environment Agency (EEA) Member countries, as well as countries outside Europe, are represented in the survey. Additional effort should be put into intensifying the involvement of the users/providers of less represented countries, particularly from Eastern Europe.
- It is clear from the survey that the platform is used beyond Europe and this offers the potential to promote European adaptation approaches at the global level.
- Climate-ADAPT has been used primarily by research organisations that are supporting decision makers to develop evidence documents that feed into the adaptation policy process. Climate-ADAPT has also been used in a variety of further processes including also participatory processes and for dissemination.
- The sections of the website that are being used to create tailor-made products and enhance the capacity of individuals are the: Country information pages, all sections of the website, urban information, case studies, the tools, assessment of impacts and vulnerability, and the database.
- Overall Climate-ADAPT is considered user friendly but, would benefit from a more straightforward structure to allow easy access to the complex content.
- Nearly half of respondents have multiple types of work such as science, policy, management and stakeholder engagement. More than half of respondents (171 out of 298) work on adaptation to climate change in general and many sectors are represented. Also, the majority (86%) of people who answered the survey have been working on adaptation for more than 2 years, and those that have been working on adaptation for less than 1 year are less represented. This suggests that that there is potential to provide different content for different roles/types of users (new to adaptation, science or urban users) on Climate-ADAPT and to offer tailor-made entry points to and improved routes between the relevant areas of the platform.
- Eighty two percent of users/providers feel sufficiently involved in the development (content and functionality) of Climate-ADAPT, but some would like to have a package of promotion services (e.g. guidance, awareness raising and events) to make the interaction stronger.
- The low number of referrals from other sites to Climate-ADAPT suggests that there is potential to improve the uptake of information from Climate-ADAPT with more dissemination, additional promotion activities, such as training webinars and links from external websites to Climate-ADAPT, such as key partner platforms.

This section presents the evidence that has been used to assess whether knowledge and information from Climate-ADAPT is assisting in the uptake of knowledge by decision-makers (Objective B). The evidence that is considered appropriate to determine whether Climate-ADAPT is 'assisting in the effective uptake of knowledge' has been interpreted in the following way:

B1) Who is using Climate-ADAPT?

B2) What product or processes are the users using the information for?

B3) Which sections of Climate-ADAPT are used to develop tailor-made products or support processes?

B4) Is the knowledge presented on Climate-ADAPT in a useful way of assisting s the uptake of the information?

B6) Which additional services (promotion and training) are needed to assist in the uptake of the information on Climate-ADAPT?

B1) Wo is using Climate-ADAPT?

Two-thirds of respondents of the survey (197 out of 297) were from the core audience and of these, 1/2 (91 out of 197) were from organisations that support decision-makers (boundary and research organisations). In addition, one third of respondents (100/297) were from the wider audience.

Nearly half of respondents have multiple roles in terms of the type of work they do, such as science, policy, management and engagement. The majority of users visit the website on an ad hoc basis (when needed). This may reflect the ad hoc pattern of updating of information as new policy is agreed, new knowledge becomes available and the fact that respondents have diverse mandates and multiple roles (see cluster analysis), only part of which may be related to climate change adaptation. In addition, more than half of respondents (171 out of 298) work on adaptation to climate change in general. Urban, water, energy and 'other' are the four most represented sectors and this suggests that people who work in adaptation represent many different sectors. Therefore, Climate-ADAPT should consider the multiple roles and types of users and provide tailor-made entry points and improved routes between the relevant areas of the platform.

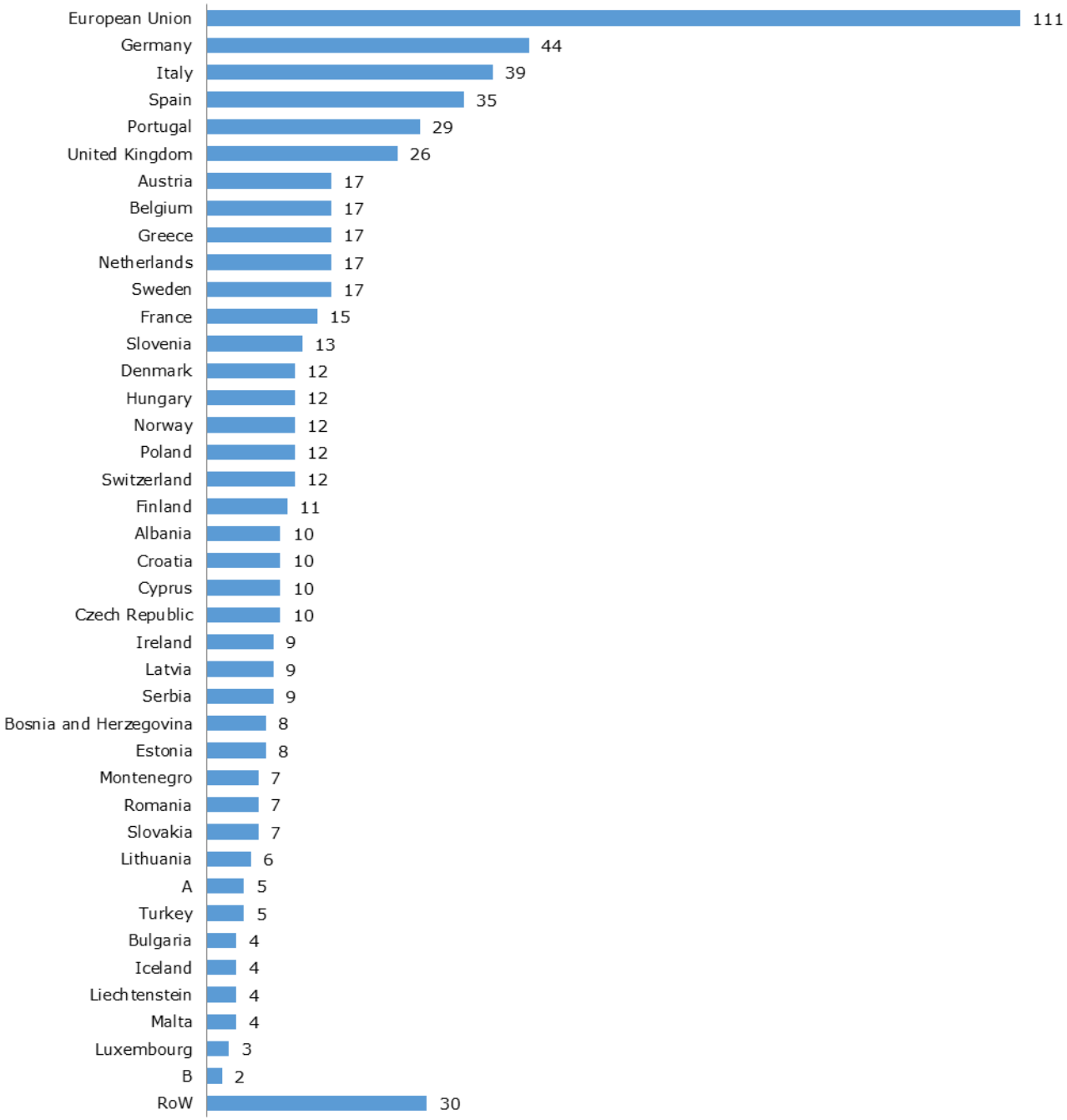
The survey shows that users that have been working for longer in the field of adaptation, e.g. respondents experienced with adaptation, have accessed a wide range of webpages and can find the content they need. Respondents experienced with adaptation have also contributed a significant amount of information via the submission process, to Climate-ADAPT (Figure 3.21). However, respondents experienced with adaptation would like to find more information on case studies. The cluster analysis shows that almost all strategic multitask, communication and pure research clusters are respondents that are experienced with adaptation.

Only 14% (40 out of 297) of survey respondents are new to the field of adaptation (those working on adaptation for less than 1 year). Respondents that are new to adaptation are much less likely to access the EU policies, adaptation information and tools section of the platform compared to respondents experienced with adaptation and have are also less likely to have submitted information. Therefore, some effort should be put into supporting users that are new to the field of adaptation with additional promotion activities and further assistance.

Thirty-nine European Environment Agency countries, are represented in the survey, with the majority of this work is focused at the EU level (111 respondents, i.e. 38%, Figure 3.27). In addition, people whose work focuses on the rest of the world also look at Climate-ADAPT (30 respondents, i.e. 10% -Figure 3.27). The countries that are most frequently the focus of respondents' work on

adaptation are Germany, Italy, Spain, Portugal and the United Kingdom. The countries that are the least represented are the Former Yugoslav Republic of Macedonia, Turkey, Bulgaria, Iceland, Liechtenstein, Malta, Luxemburg and Kosovo under the UN Security Council Resolution 1244/99. It may be that the countries with small populations are likely to be the least represented by respondents in the survey.

Figure 3.27 Country of work focus (N=290)



Note: The figure reflects the results of Question 6 of the Climate-ADAPT user/provider survey, more than one answer was allowed. (A: Former Yugoslav Republic of Macedonia; B: Kosovo under the UN Security Council Resolution 1244/99; RoW: rest of the world).

An analysis per region was also carried out and the lowest number of participants was in Northern Europe and this may be because the majority of countries in this region already have national adaptation platforms and/or plans in place, hence less support is needed from Climate-ADAPT. Eastern countries have the second smallest number of participants (per region). This may mean that they are not aware of the possibilities offered by Climate-ADAPT or, that the awareness of adaptation is still limited to a small group of experts or, that they do not speak English.

In conclusion, Climate-ADAPT has successfully engaged people focused on adaptation at EU and national levels across all European countries. Additional effort should be put into intensifying the involvement of the users/providers of less represented countries, particularly from Eastern Europe and options to lower the language barrier should be explored. It is clear that the platform is used beyond Europe and this offers the potential to promote European adaptation approaches at the global level.

B2) What products or processes are the users using the information for?

The majority (97 out of 182, 54%) of the information has been used for research purposes based on quantitative survey data (Figure 3.28). This may reflect the fact that 25% of the audience are from a research organisation (74 people out of 297). It may also indicate that Climate-ADAPT has been used by organisations that are supporting decision makers to develop evidence documents that feed into the adaptation policy process. This may also support previous interpretations that researchers are part of the core audience because they are preparing the information for decisions, but are not decision-makers themselves.

After research, the information is most frequently used to inform the adaptation policy process (such as adaptation strategies or plans) (51 out of 182) or, to support participatory processes (consultations, workshops) (50 out of 182), or to support decision-making (regulation, allocating funding) (32 out of 182).

Further details of what the information was used for was provided from the survey and this indicated that the uptake of information had been used to create tailor-made products and enhance the capacity of individuals. The detailed results show that Climate-ADAPT has been used as an input into policies, plans and strategies (9 out of 37 respondents that answered the question), at national (NAS/NAP), city, and regional level and 2 at sectoral level (water and transport). Climate-ADAPT has also been used as a source of adaptation knowledge (6 out of 37), as evidence for research (6 out of 37) and as inputs for reports and other documents (5 out of 37).

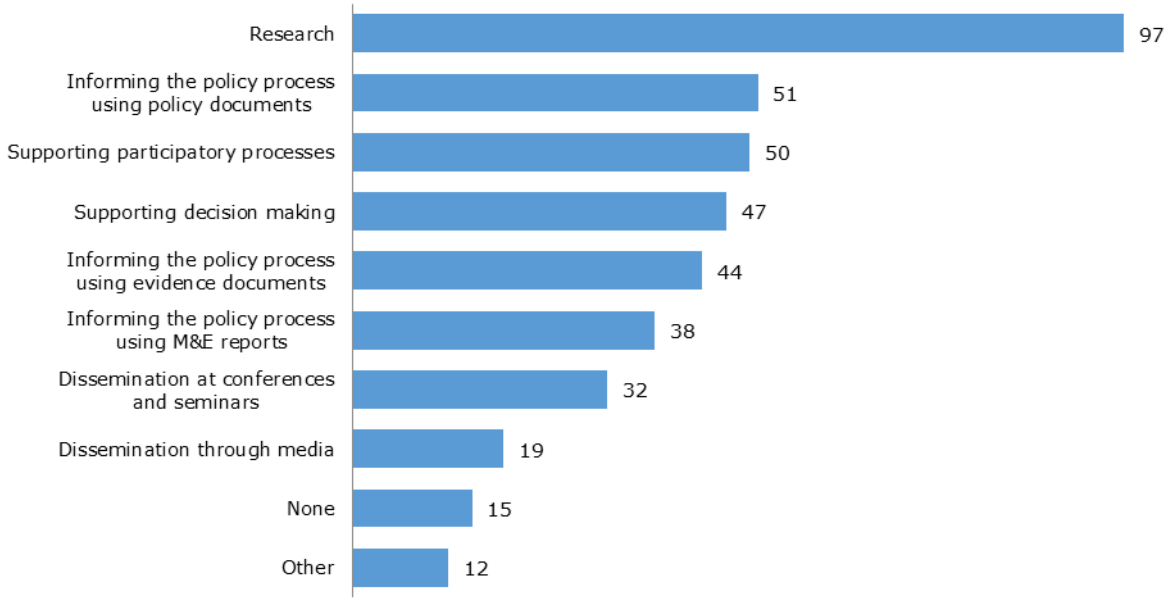
The information from Climate-ADAPT has also been used to create a variety of other products and services such as, guidance for stakeholders, a film, a source of information for developing adaptive capacity indicators and as inspiration for a portal design.

Therefore, this demonstrates that Climate-ADAPT has contributed to achieving its objective of enhancing the uptake of knowledge to support decision-making for adaptation in Europe.

The analysis also shows that significantly more respondents experienced with adaptation (43 out of 162 respondents experienced with adaptation, i.e. 27%) have used the Climate-ADAPT information for informing the adaptation policy process compared to the number of respondents that are new to adaptation (1 out of 23, 4%). In addition, none of the 23 respondents that are new to adaptation have applied the Climate-ADAPT information for dissemination at conference and seminars, compared to nearly 20% of the respondents experienced with adaptation (32 out of 162). This may indicate that respondents experienced with adaptation are finding and using the information on Climate-ADAPT to generate tailor-made products and processes.

A much higher proportion of Eastern European respondents have used Climate-ADAPT information to support participatory processes, such as workshops. This could mean that these countries are using EU level information to make the case for adaptation and to support cooperation between governance levels and across sectors in their countries.

Figure 3.28 How the information has been used (N=182)



Note: The figure reflects the results of question 23 of the Climate-ADAPT user/provider survey, more than one answer was allowed.

B3) Which sections of Climate-ADAPT are used to develop tailor-made products or support processes?

The sections of Climate-ADAPT where knowledge has been extracted to create tailor-made products, processes and enhance the capacity of individuals (in priority order, qualitative data, free text field) are the:

1. country information pages (10 respondents who wrote in the free text box);
2. all sections of the website (9);
3. urban (urban case studies, urban tools, cities pages) (9);
4. case studies (8);
5. the tools – particularly the Adaptation Support Tool (AST) and Urban AST (6);
6. assessment of impacts and vulnerability (5);
7. the database (4).

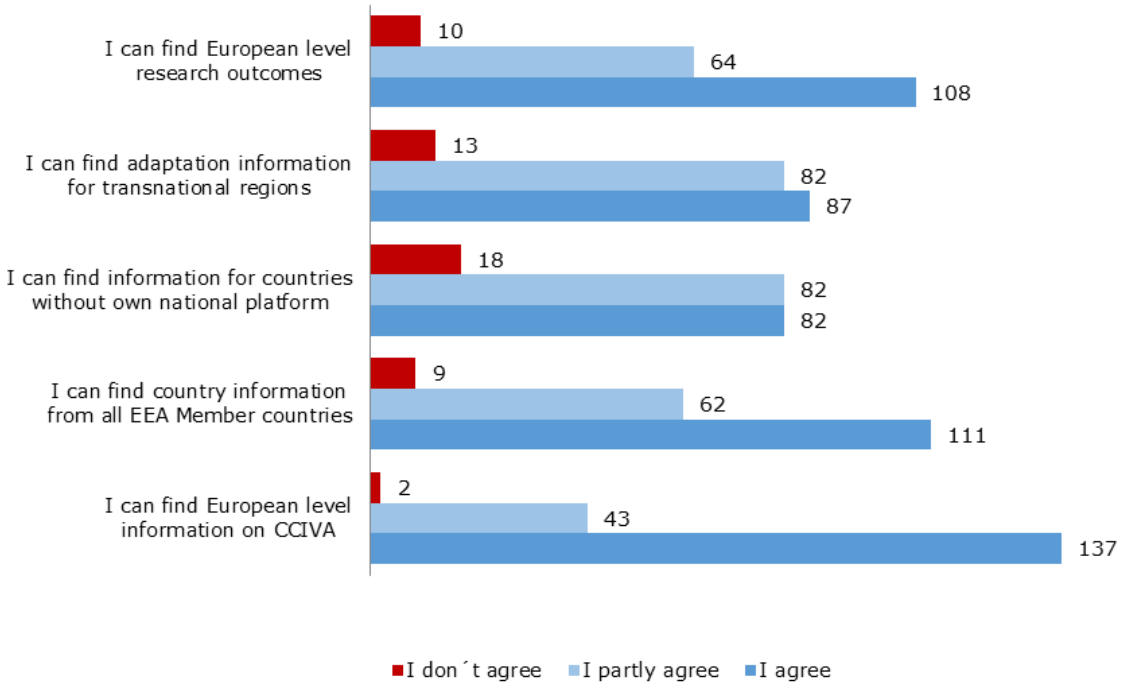
Climate-ADAPT aims to operate in a complementary way to national and transnational adaptation platforms in that it strives to add value at the European level and to sign-post to the original source rather than duplicate knowledge. Many respondents recognise the added value that the information on Climate-ADAPT provides (Figure 3.29). It appears to be most successful in adding

value by providing European level information on CCIVA and research outcomes, as well as national level information on adaptation in European countries.

The survey asked what benefit respondents felt they gained by submitting their information to Climate-ADAPT. The majority of respondents felt that the benefit of submitting items came from making their information more relevant (Figure 3.22), going beyond the e.g. research project website, and improving the understanding of how the work submitted may be helpful to users. Seven respondents (7%) have received direct feedback, and some respondents commented that they have asked for feedback from users to evaluate how their information was used.

Respondents who saw no benefit in submitting information to Climate-ADAPT were also less likely to use evidence from Climate-ADAPT to inform adaptation policy processes (67 out of 88 that declared they saw no added value). This has been interpreted to mean that the more familiar respondents were with the website, particularly if they had contributed items, the more likely they were to take up the information on the site to create tailor-made products and processes. Hence Climate-ADAPT should enhance its promotion of the fact that it welcomes input from users (i.e. converting users to providers) and the greater involvement of users is likely to encourage further uptake of the information.

Figure 3.29 Added value of Climate-ADAPT (N=182)



Note: The figure reflects the results of Question 22 of the Climate-ADAPT user/provider survey.

B4) Is the knowledge presented on Climate-ADAPT in a useful way of assisting the uptake of the information?

The way that the content of the site is presented has an impact on how easy it is to find and gather the knowledge that people can then use to create their own products and processes and it is why it is relevant for this objective to assist the uptake of knowledge.

Overall the website is considered user-friendly with about three quarters (150/202) saying that the information on the website is easy to understand, the text is about the right length and the graphics are clear. However, respondents are not aware of the help section (88 'don't know' responses) and it is not often used (10 responses/246, Figure 3.23). This suggests that people may not be using it because they have found what they are looking for.

In addition, the awareness of the interactive functionalities is limited (49/202 people, i.e. 25% said 'don't know'). This may be because the interactive functionalities are not very visible from the home page, and/or they are complicated to use. However, those that have used the interactive functionalities value them and would like to see improvements and this is illustrated by the following quote from one respondent in the free text box who stated that: 'An improved map viewer function. More guidance on how to get exact data points on the climate impact indicators for which there is information on the site.'

Further assessment of the individual tools is needed to determine the appropriate action for each one. There is a minor preference for the icons on the homepage as the easiest way to find the pages people need. The green navigation bar is the second most popular way of finding pages and 3rd is the search function.

An example of an individual view on the user-friendliness of Climate-ADAPT is provided in the free text answers that also provides more detail on what needs to be changed e.g. the layout of the homepage. Quote from 1 individual: 'I think that there is not necessarily a need for more information to be available on Climate-ADAPT, rather the information that is currently available should be organised more efficiently and clearly to allow users easy access. The homepage and the dropdown menus on it can be more informative and better organised. For instance, at the moment one does not immediately see there is information about sectors or EU policies.'

This is reinforced by further free text answers, quote from one respondent: 'Please make the website more user friendly/easier to navigate. I feel there are a lot of valuable information but I'm not able to find them.'

In terms of further supporting the sharing and use of information in Climate-ADAPT the main comments from free text were, in priority order, most common first:

1. the language in English only is a barrier and translation would extend its reach significantly (4 comments);
2. some elements of the sites function (user-friendliness) could be improved such as the database and search function (4);
3. there needs to be an area for people that are new to adaptation (3);
4. there needs to be a visual overview of the content of the site (3).

Despite the low numbers of respondents providing these comments in the free text, these opinions should be considered along with the other evidence from the survey. Few people take the time to write in the text boxes and these who have made the effort are those that want to help to improve the platform. Secondly, the survey was designed to gather both data and opinion from its users and all of the available evidence should be used.

In conclusion, the information from both the closed (quantitative) and open (qualitative) questions in the survey have been used to assess if Climate-ADAPT is achieving its objectives. The qualitative data has particularly been used to suggest recommendations about how to improve the platform in the future.

Forty five respondents provided comments and of these 8 would like to have more overview information and summaries, as well as a visual site map so that they can find information that is on Climate-ADAPT and guidance (7 comments) on technical topics.

In conclusion, overall the platform is considered user-friendly, but would benefit from a more straightforward structure and improvements of the search and help functions. The use of the interactive tools could be extended by improving their profile on the website and by making them more user-friendly.

B6) Which additional services are needed to assist in the uptake of the information on Climate-ADAPT?

The main way of learning about the Climate-ADAPT platform is through a colleague (79 out of 202 respondents). This may reflect the influence of the main way that Climate-ADAPT interacts with its core audience (EC, NRCs/NFPs/national governments) which tends to be through invited meetings (Eionet, DG CLIMA and webinars) where the invitation is for the country and specifically requests that it if an individual cannot attend that it is passed on to a colleague. The internet (Google search engine) is the second most popular way of learning about Climate-ADAPT.

The low number of referrals from other sites to Climate-ADAPT shows that the number and position of links might not be sufficient or users may not feel the need to visit Climate-ADAPT, because they found all they needed on the referring platform (e.g. a national adaptation platform). This suggests that there is potential to improve the uptake of information from Climate-ADAPT with more dissemination, additional promotion activities, such as training webinars and links from external websites to Climate-ADAPT, such as key partner platforms'.

The survey asked respondents to comment on whether they felt that the current process of involving user and providers in the development of Climate-ADAPT by consulting with them and requesting their feedback via webinars, workshops, conferences, ad-hoc requests and bi-monthly newsletter was sufficient. 82% (162/197) of users/providers feel sufficiently involved in the development (content and functionality) of Climate-ADAPT, but would like to have a package of promotion services (e.g. guidance, awareness raising and events) to make the interaction stronger.

Some respondents consider that it is not clear which user is being addressed. This suggests that that there is potential to provide different content for different roles/users (new to adaptation, science or urban users) on Climate-ADAPT. This is illustrated with this quote from one respondent: 'An area for beginners with no previous knowledge of climate change adaptation that forward points to other sections as appropriate'.

A variety of general comments were received that would help Climate-ADAPT to promote its capabilities more and hence facilitate the further uptake of the information. This would assist in achieving all of the 3 objectives and ensure that the wider aim of Climate-ADAPT - to support policy makers to make evidence informed decisions, would be achieved. For example:

- create a package of promotion and dissemination activities surrounding the platform to raise awareness of the contents of the platform;
- translate some parts/key summaries into other EU languages;
- regular online and other events,
- targeted engagement to grow credibility with users rather than broad engagement.

Having key parts of the information translated into national languages and targeted engagement would help to make better use of the complex content of Climate-ADAPT, in particular for people that are new to the adaptation field. The comments about the content being only in English and the area for people that are new to the adaptation field reinforces previous conclusions and is supported by other evidence from ad hoc feedback and reviews of the platform by experts in the past.

3.2.2.3 Feedback collected through Climate-ADAPT use cases

Key messages

- The use cases show that intermediaries play a major role in using Climate-ADAPT to support governmental decision makers by preparing tailor-made assessments for their specific adaptation challenges. This could be better reflected in the description of the intended target audience in the Climate-ADAPT mandate.
- The knowledge shared through Climate-ADAPT is used to inform the policy processes by developing evidence documents (assessments) and methodologies (such as on case studies, indicators and guidance) as well as plans and strategies feeding into the policy processes at all governance levels in Europe. Furthermore, participatory processes and the preparation of funding proposals for all types of EU funding are supported by Climate-ADAPT.
- The examples show that the Climate-ADAPT knowledge base is widely accepted among decision makers and organisations supporting them as *the* reference frame - where to find the state-of-the-art, comprehensive knowledge on adaptation in Europe. It is often used as a starting point to widen the search to develop tailor-made products. Thus, it could be recommended to rephrase the branding of the "one-stop-shop" in the EU Adaptation Strategy into a "first-stop-shop".
- In order to recognize these use patterns and to manage expectations it could be recommended to clarify the objectives of Climate-ADAPT. An adjustment may be made that states "to provide access to state-of-the-art knowledge on adaptation in Europe for developing tailor-made information for adaptation policy processes" rather than providing tailor-made knowledge "ready to use".
- The uptake of the information by Climate-ADAPT could be further increased, such as by informed about the full range of information available on the platform through RSS feed and improving the performance of the database.

This section intends to support answering question related to the objective B of Climate-ADAPT, to assist the uptake of the information to support informed decision-making. These questions are: B1 Who is using Climate-ADAPT? B2) What products or processes are the users using the information for? B3) Which sections of the Climate-ADAPT are used to develop tailor-made products or support processes? and B4) Is the knowledge presented on Climate-ADAPT in a useful way of assisting the uptake of the information?

Outcomes presented in this section come from 17 examples of Climate-ADAPT use ("Climate-ADAPT use cases") that were voluntarily provided during the course of 2017 based by governmental decision makers on adaptation in Europe and organisations, supporting them, i.e. experts from the Climate-ADAPT core audience. The collection is based on a common template to ensure comparability of the information. The methodology of the use cases collection and analysis is

explained in ANNEX 2, the full set of use cases is available on Climate-ADAPT[82] (see also ANNEX 5). Numbers in brackets refer to the respective number of the use case on Climate-ADAPT and the Table 3.5.

B1) Who is using Climate-ADAPT?

The large share of users with a "research" background, found in the user/provider survey, is confirmed by the use cases: Intermediaries, also categorising themselves as "research organisations", play a significant role in using Climate-ADAPT to support governmental decision makers by preparing tailor-made assessment for the specific circumstances, such as the Lombardy Foundation for the Environment (15), Rete Gaia in Sardinia (14) and the Greek LIFE Task Force (GR LTF) (8). This may suggest highlighting this user group more specifically in the Climate-ADAPT mandate in terms of the intended target audience ("organisations supporting governmental decision makers and decision makers on adaptation").

B2) What products or processes are the users using the information for?

A common pattern is the use of a few Climate-ADAP features, highlighted in Section 3.2.1.5 as "core" features, showing that those, which are prominently visible on the homepage, such as the Adaptation Support Tool, the country profiles, the news/events, and the database, are widely used, both by users at strategic level, and by users of all levels of experience on adaptation. The more experienced users, such as the UK Met Office (number 17, Table 3.5), applied a broader range of features, such as the thematic maps of the country pages, or the Case Study Search Tool, such as the Spanish Climate Change Office (6).

The examples applied the knowledge available on the platform primarily to inform the policy processes by developing evidence documents. Examples are assessments on the state of adaptation in the Carpathian Mountains, developed by the Secretariat of the Carpathian Convention (2), documents for the agenda setting of adaptation research funding at EU level, developed by DG RTD (1), and briefings for the Chair of the European Committee of the Regions´ Commission for Environment, Climate change and Energy, developed by the Sardinia Region (10). Furthermore, Climate-ADAPT knowledge was used to develop methodologies such as on case studies (e.g. by the Spanish Climate Change Office (6)), on indicators (e.g. by ISPRA (4), on adaptation options (by the Province of Barcelona (11)) or national guidelines for the development of urban adaptation strategies in Poland (5). It was also used to develop adaptation plans and strategies feeding into the policy processes at all governance levels in Europe, such as for the National Adaptation Strategy in Bulgaria (2). Participatory processes (events and dissemination) are supported by Climate-ADAPT, such as in the development of urban adaptation in Poland (5) or the National Adaptation Strategy in Bulgaria (3).

The examples have shown that Climate-ADAPT supports additionally the development of project proposals for EU funding, such as for LIFE in Greece (8), for adaptation in Pre-Accession Assistance (IPA II) Turkey (7) and for H2020 and Copernicus Climate Services in the UK (17). These more in-depth findings about the effectiveness of Climate-ADAPT confirm and refine the broader findings of the survey.

[82] https://climate-adapt.eea.europa.eu/help/climate-adapt-use-cases

Table 3.5 Examples of processes supported by Climate-ADAPT

Number	Location	Governance level	Research	Develop evidence documents feeding into policy (e.g. assessments)	Informing the development of NAS and NAP	Support participatory processes	Support decision making (g. deciding on regulations)	Develop funding proposals
1	DG RTD*	EU	x	x				
2	Carpathians	Transnational		x				
3	Bulgaria	National			x	x		
4	Italy	National		x	x			
5	Poland	National		x	x	x	x	
6	Spain	National		x		x		
7	Turkey	National			x	x		x
8	Greece	National				x		x
9	Lombardy Region	Subnational		x	x	x		
10	Sardinia Region	Subnational		x		x	x	
11	Province of Barcelona	Subnational		x				
12	Bologna	Local			x			
13	Cascais	Local			x		x	
14	Sorradile	Intermediary organisation l		x			x	
15	Lombardy Foundation	Intermediary organisation	x	x	x			
16	England, UK	Sector		x				
17	UK	Research organisation	x	x		x	x	x

Note: *DG RTD (Directorate General for Research and Innovation). The table summarizes information coming from Climate-ADAPT use cases. Detailed evidence information of this table is provided in ANNEX 5 and in Tables A1 "Overview on the detailed evidence of the Climate-ADAPT use cases" and A2 "Overview on Climate-ADAPT features used to support policy processes" (available on request, email climate.adapt@eea.europa.eu). All use cases are provided on Climate-ADAPT (https://climate-adapt.eea.europa.eu/help/climate-adapt-use-cases).

Box 3.2 shows in an exemplary way one of the use cases highlighting the uptake of information from various Climate-ADAPT sections to develop a guidance for urban adaptation plans in Poland. The same level of detail on how Climate-ADAPT supported better informed decision-making is provided for all the other use cases[83] available on Climate-ADAPT (see also ANNEX 5).

[83] https://climate-adapt.eea.europa.eu/help/climate-adapt-use-cases

B3) Which sections of Climate-ADAPT are used to develop tailor-made products or support processes?

The examples show that the Climate-ADAPT knowledge base is widely accepted among the governmental decision makers and organisations supporting them as *the* reference frame - where to find the comprehensive state-of-the-art knowledge on adaptation in Europe. It is highlighted in several cases, for example by the Lombardy Foundation for the Environment (15) or by the Secretariat of the Carpathian Convention (2), that Climate-ADAPT is used as a starting point to widen the search to develop tailor-made products. Thus, it could be recommended not to keep the Climate-ADAPT branding of the "one-stop-shop", as mentioned in the EU Adaptation Strategy (EC, 2013), but to turn it into a "first-stop-shop". In order to recognize the real use pattern and to manage expectations it might be better to clarify the objectives of Climate-ADAPT. An adjustment may be done that states "to provide access to state-of-the-art knowledge on adaptation in Europe for developing tailor-made information for adaptation policy processes" rather than providing tailor-made knowledge "ready to use" directly in the policy processes. Consequently, Climate-ADAPT should focus on the provision of the knowledge that is used to produce tailor-made products providing support in the best possible way.

B4) Is the knowledge on Climate-ADAPT presented in a useful way of assisting the uptake of the information?

Although the user-friendliness of the platform was not directly addressed in the collection of use cases, some conclusions can be drawn from the description of the way of using Climate-ADAPT in these examples.

Interactive map-based access tools were used in some cases (such as the thematic maps to find information per topic on the "Country pages" by the Ministry of the Environment and Water (Bulgaria, 3) as well as by the Ministry of the Environment of (Poland, 5), and the Secretariat of the Carpathian Convention (2). The "Case study search tool", was applied by the Spanish Climate Office (6)) to identify the Climate-ADAPT case studies for Spain.

A re-occurring issue is the slow performance time of the database. Climate-ADAPT users highlighted that they would like to be better informed about the full range of information available, e.g. by applying functionalities such as RSS feed. Several proposals were made how to support future activities, such as improving the accessibility of Covenant of Mayors information (Lombardy Foundation for the Environment, 15) or adding additional search filters for the database (such as "type of funding") to support the development of funding proposals (Greek LIFE Task Force, 8.).

Box 3.2 Example of a Climate-ADAPT use case providing evidence for the uptake of Climate-ADAPT knowledge

Informing Urban Adaptation Plans for large cities in Poland using Climate-ADAPT

Climate-ADAPT features used: Database (Case studies): Countries/regions/cities (Country pages' map viewer and individual pages); Knowledge (urban adaptation support tool/case study search tool)
Sector: Adaptation in general
Governance level: National
Biogeographic region: Continental
Macro-Region: Central Europe/Baltic Sea
Policy step: Policy development/implementation

The challenge

Cities in Poland are facing various impacts of climate change, including river floods and heat waves. Among others, one of the key actions of the Polish National Strategy for Adaptation to Climate Change (NAS 2020), adopted in October 2013, was therefore to foster urban adaptation in Poland. Since a national adaptation action plan is not foreseen by the Polish Government the Ministry of Environment (Ministerstwo Środowiska) in charge of implementing adaptation policy at national level - on the basis of "soft coordination" - will encourage regional and local authorities to prepare action plans at regional or local level as soon as regional or local strategies are adopted.

The approach

Within the implementation of the NAS 2020 process the Ministry of the Environment has initiated and is currently coordinating the project: Development f Urban Adaptation Plans for cities with more than 100,000 inhabitants in Poland.

The Ministry of Environment conducts the project and has provided funds for its implementation within the Operational Programme Infrastructure and Environment 2014-2020. The Urban Adaptation Plans are currently being developed for 44 cities in a step-wise approach from 2014 to 2017. All plans follow a common methodology and are developed by a consortium composed of: Environment Protection Institute — National Research Institute (leader), Institute of Meteorology and Water Management — National Research Institute, Institute for Ecology of Industrial Areas and a consulting and engineering company ARCADIS as well as a subcontractor responsible for project communications — Deloitte Polska.

All works are carried out in close cooperation with the city administrations and under the supervision of the Ministry of Environment. Over 30% of the Polish population lives in cities covered in the project.

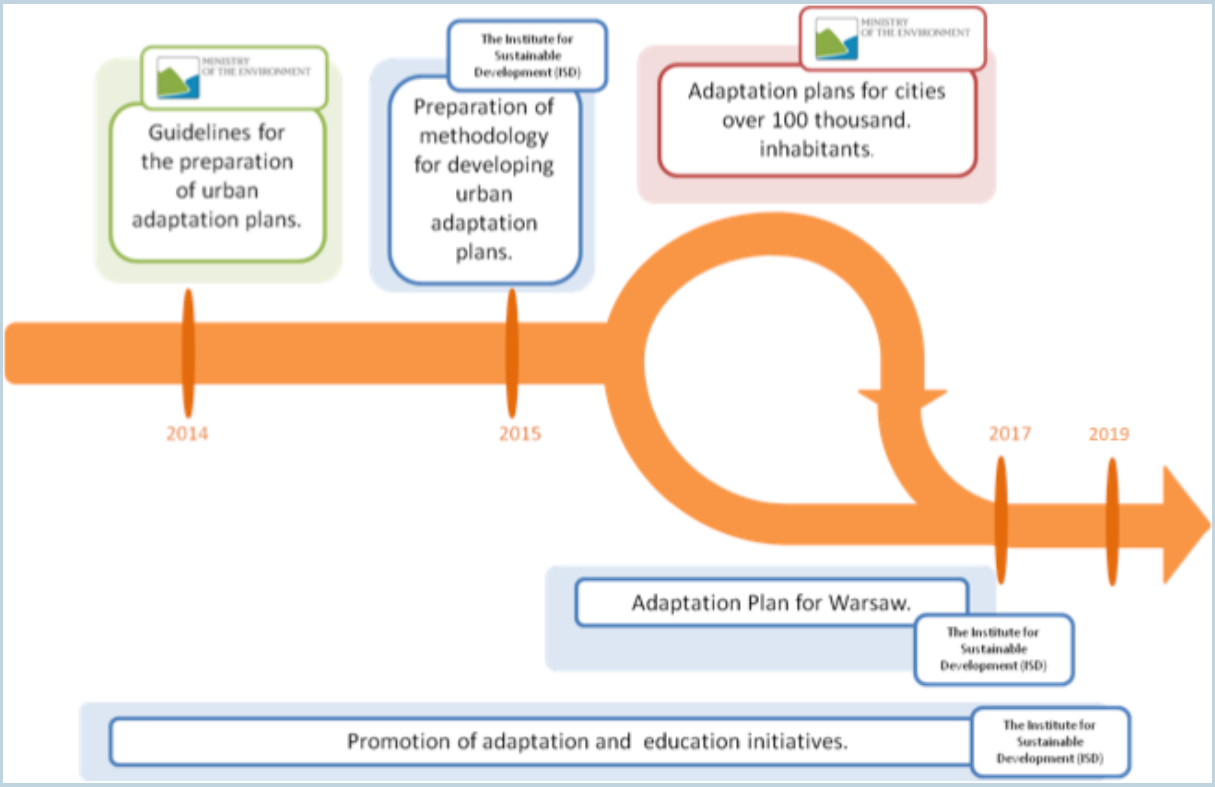
The knowledge provided on Climate-ADAPT was used to inform this policy process and to support participatory processes at national level in Poland. Climate-ADAPT information on national adaptation policies as well as case studies in other European countries supported the national adaptation policy by learning from other useful approaches and by using Climate-ADAPT tools as reference information. Climate-ADAPT features were valued by the Ministry of the Environment as one of the most important information in the whole process from the development of the national policy approach up to the preparation of the specific Urban Adaptation Guidelines.

The information provided on the Climate-ADAPT country pages was analysed for similarities, best practices and lessons learned on developing national adaptation policies and plans and to compare the progress of the policy implementation in the various countries on national level. The "export to pdf" functionality and the possibility to create images from the Map Viewer (via Save As… function upon right-click) allowed an easy export of the information for further use in documents and presentations that feed into the policy process.

Climate-ADAPT case studies from different European countries (e.g. Kruibeke, Belguim; Monpellier, France) were presented in meetings and workshops with stakeholders to illustrate implemented adaptation actions. The interactive map viewer available in the case study search tool was used to screen the case studies available on Climate-ADAPT and to select them in terms of the impacts, adaptation sectors and European regions covered.

The Adaptation Support Tool as well as the more city specific Urban Adaptation Support Tool (step 0-0) were extremely helpful for developing the "Polish Guidelines for Urban Adaptation Strategy development" refined to the specific situation in Poland, These guidelines, available on the national adaptation platform Klimada, provide a common framework and a checklist for the elaboration of urban adaptation plans and are applicable for any local authority in Poland also beyond the "MPA" project.

Figure A2 Development of urban adaptation plans in Poland



Source: Marcin Gradzki.

Future plans

The current plans for policy development on adaptation include the integration of adaptation to climate change in the national strategic document on environmental policies, continued work on the urban areas adaptation with further Polish cities, inclusion of adaptation issues in the framework of ESIF programming as well as development of new adaptation initiatives for rural areas and agriculture under the "Responsible Development Strategy"[1].

The overview information on adaptation in European countries is crucial from the perspective of the Polish Ministry of Environment representing adaptation at Member State level. A synthesis of the methods and results of the vulnerability assessments of all countries available in English would be an added value to easily compare and combine the outcomes for further developing the vulnerability assessments in Poland.

3.2.2.4 Survey on the Climate-ADAPT case studies uptake

Key messages

- The majority of local contacts for Climate-ADAPT case studies who responded to the survey (17 out of 28), received requests for more detailed information on the case studies, confirming their relevance and suggesting the importance of continuing investing in this specific type of information.
- Case studies are used for a variety of purposes related to different steps of the adaptation process (policy and strategy development, planning and implementation). They are also used in awareness raising processes, for the development of guidelines and for scoping research questions and proposals whereas they seem to be less used for similar applications in other regions.
- Collecting information from local contacts on the request of information on Climate-ADAPT case studies as a proxy of their use proved to be helpful to get indications about their relevance and effectiveness. This could be continued in future on a regular basis. However, gathering more consistent data on the actual use of the case studies would require setting up a monitoring and reporting.

This section intends to support answering the question B2 related to the objective B of Climate-ADAPT, to assist the uptake of the information to support informed decision-making: What products or processes are the experts using the information for? This section relates to the uptake of specific content of Climate-ADAPT, i.e. the case studies.

In February 2017, Climate-ADAPT included 67 case studies. At conferences, workshops or meetings case studies are often mentioned as an important mean of illustrating and sharing the experiences of implemented adaptation actions and inspiring further initiatives aiming to improve resilience and adaptation to climate change, specifically at local and regional levels. In order to get an indication whether the case studies are relevant and actually being used, a survey on their actual use was carried out. It provides an indication of the use of Climate-ADAPT case studies and allows conclusive remarks and related recommendations. Details on the methodology of this specific survey are presented in the ANNEX 2. However, it is only one of the means used by Climate-ADAPT experts to evaluate the relevance and usefulness of the case studies, complemented by others: direct contacts with case study users and providers, individual on-line feedback and focused workshops. Feedback provided by these additional mechanisms are not reported in a structured way, but are regularly used to focus the further development of Climate-ADAPT case studies.

Twenty-eight local contact persons (reference persons whose contacts are included in Climate-ADAPT case study sheets for further detailed information) out of the total sample of 67 responded to the survey on the use of Climate-ADAPT case study. The high response rate (42%), which was also achieved thanks to direct contacts with some of the respondents, allows drawing conclusions on the actual use of these showcases. Although the EEA is aware that Climate-ADAPT case studies are used in a wide range of contexts, such as illustrative examples in various policy papers, the requests for more detailed information on specific case studies can serve as a proxy indicator for the use of the Climate-ADAPT case studies.

Indications of the Climate-ADAPT case studies use

17 local contact persons (61% of the respondents' sample) indicated that they had been contacted by users interested in getting more detailed information on Climate-ADAPT case studies. The number of received requests for further information on individual case studies is rather heterogeneous, as shown in Table 3.6.

Being aware that this information cannot completely capture the real use of Climate-ADAPT case studies, this number can be considered quite a good indication of the potential use of this typology of knowledge presented on the platform. Some of the local contacts highlighted that it is not always possible to distinguish whether received requests of information are triggered by the case study description presented on Climate-ADAPT or by other platforms, points of contact and sources of information. In general, local contact persons of Climate-ADAPT case studies do not monitor and collect information on their use in structured way. Furthermore, they may present their case studies through various information channels, including other platforms.

Table 3.6 Reported number of requests for further case study information

Number of different requests of information	Number of case studies
1	3 case studies
3 to 5	4 case studies
5 to 10	1 case study
About 10	2 case studies
12 in total (and approximately 4 per year)	1 case study
About 3 times per year in the last five years (estimate of about 15 in total)	1 case study
Once every two months (without indication of the total number of requests)	1 case study

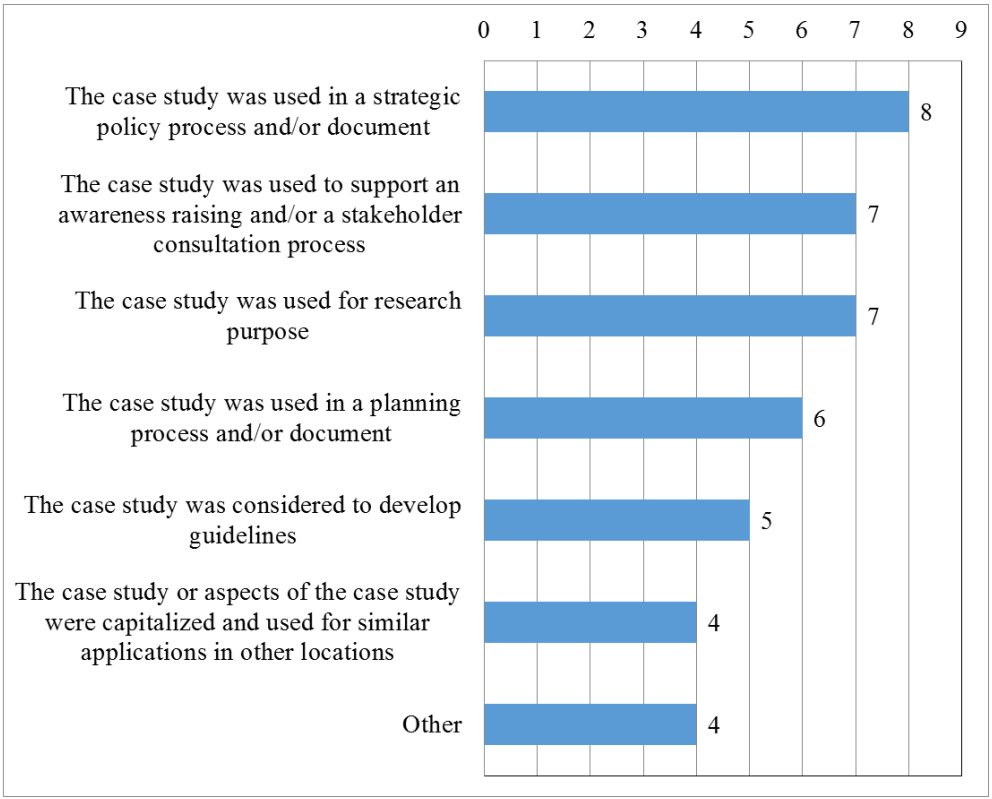
Note: The table reflects the results of Question 7 of the survey on the actual use of Climate-ADAPT case studies. Answers to the question were provided by 13 local contacts.

Those who declared to have been contacted were asked to specify the purposes of the requests they had received (Figure 3.30). In 8 cases detailed information was requested to be used in a strategic policy process and/or to develop policy documents. A significant number of users requesting information (7) aimed to support awareness raising and/or stakeholder consultation process as well as research activities (7). Other more concrete processes, such as the use for guidelines or to inspire similar applications in other regions were indicated as relevant by respondents, although with lower preferences. Four local case study contacts highlighted other uses of the requested detailed information, including: presentations and field trips for students and lecturers, Master dissertation, and academic education.

Feedback to this specific question shows the relevance of Climate-ADAPT case studies for a significant range of possible uses, related to different steps of the adaptation process (policy development, planning and implementation). Initially, one important aim of the presentation of case studies on Climate-ADAPT was the replication of the adaptation approaches and measures implemented in specific areas for similar applications in other geographic locations. Indeed, the number of requests for this specific practical purpose (reported request by 4 local case study

providers) is lower than those for the more strategic, planning and research oriented purposes (26 indications altogether). According to the survey results, it might be concluded that Climate-ADAPT case studies are more used for inspiration in "strategic" policy processes, as well as planning and research, rather than in practical implementation of adaptation measures; however, this assumption needs to be further explored in future.

Figure 3.30 Objectives of the received request of information on case studies



Note: The figure reflects the results of Question 8 of the survey on the use of Climate-ADAPT case studies. Multiple choice was allowed; answers to the question were provided by 17 local contacts.

Independently whether they had received requests of more information, half (14) of the surveyed contacts declared to have spotted use of case studies included in Climate-ADAPT, although it is not easy to discern whether Climate-ADAPT was the main source of information. In their answers, based on personal expert judgement, respondents included a variety of modalities of uses, as: conferences, meetings, international and local projects, support to local governments, other web platforms (e.g. the EU MSP Platform on Maritime Spatial Planning), scientific papers and reports (i.e. the 2016 EEA report on urban adaptation to climate change in Europe), promotion activities.

Analyse the use of case studies on a regular basis

Collecting information from local contacts on the request of information on Climate-ADAPT case studies as a proxy of their use proved to be helpful to get indications about their relevance and effectiveness.

In order to distinguish whether received requests of information are triggered by the case study description presented on Climate-ADAPT or by other platforms, points of contact and sources of information, a structured monitoring of these requests would be helpful providing more consistent and coherent data. A lesson learned is therefore the importance of setting up a monitoring and

reporting scheme for the request of information on Climate-ADAPT case studies as a proxy of their use.

3.2.2.5 Newsletter dissemination statistics

Key messages

- The number of recipients of the European Climate Adaptation Newsletter, gained from the dissemination statistics, has been doubled in 2 years since its launch in January 2015, showing that it gained acceptance as one of the means to assist the uptake of information on adaptation in Europe.
- The "opening rates" of the newsletter mailing and "click through ratio" of at least one newsletter item are high compared to other climate newsletters, but is decreasing over time.
- The dissemination statistics shows also, that the newsletter supports the uptake of adaptation information on Climate-ADAPT by leading to longer visits on Climate ADAPT pages

This section intends to support answering the question B5 related to the objective B of Climate-ADAPT, to assist the uptake of the information to support informed decision-making: Is the knowledge on Climate-ADAPT disseminated and promoted in a way that it assists the uptake of the information? This section relates to the promotion of Climate-ADAPT content and functionalities through a Newsletter.

Since January 2015, EEA publishes a bi-monthly European Climate Adaptation Newsletter ("Newsletter") (Figure 3.31). Besides providing new information on "EU policies and EEA activities", "Research & assessment", "Transnational, national and local activities", and an overview of adaptation related events, the newsletter has a dedicated section presenting the new developments on Climate-ADAPT ("Climate-ADAPT – new features"). Each issue of the newsletter contains between 12 and 22 news items, and some event announcements.

The main messages presented in this section come from the monthly statistics, collected through the EEA Customer Relations management system. Details of the analysis of the newsletter statistics are presented in ANNEX 2. A survey on the newsletter, carried out in March and May 2017 to get feedback on the relevance and user friendliness of the newsletter, did not provide sufficient results.

In November 2016, 5,000 people have subscribed to the newsletter through subscribing to the area of information related to the theme "climate change adaptation" in the EEA dissemination system. Since the launch of the newsletter in January 2015, the number of recipients has almost doubled in 2 years (2,540 subscribers in February 2015). The increase of the subscribers might also be due to the fact that the EEA since September 2016 actively involved the NRC´s and representatives from transnational regions organisations into the production of the newsletter by asking for submissions. In addition to the dissemination of the newsletter to subscribers via personal emails, generated by the EEA dissemination service, the newsletter can be found also on Climate-ADAPT[84].

[84] Newsletters can be found online at http://climate-adapt.eea.europa.eu/newsletter. This is also where new people can sign up to receive the newsletter.

Figure 3.31 Newsletter No.2

Note: This is a screenshot from the second issue of the newsletter (March 2015).

The opening rate (i.e. percentage of readers opening the mail) is relatively high, compared to five other climate related newsletters, but is decreasing over time. In February 2015 the opening rate of this newsletter was 46% and in November 2016: 29%. The “Click through ratio” (percentage of opens on specific items of the newsletter) is far above the average, compared to other climate newsletters, i.e. Adaptation Futures, August 2016 Newsletter: 20%, but decreasing in the end of 2016. The newsletter “click through” caused a higher average session duration time on Climate-ADAPT (almost 6 minutes) in 2016 (EEA, 2017).

There is not a specific list of most read items; this varies along project output, new reports, and activities from local governments. However, items from, EEA, Eionet information, and Climate ADAPT are well presented among the top viewed items.

Table 3.7 Statistics of the use of the European Climate Adaptation Newsletter 2015 – 2016)

Campaign name	Sent date	Day	Total recipients No	Opens No	Click ratio %	Clicks No	Click rate %	Bounces No	Unsubscriptions No
Climate-ADAPT Newsletter – issue 1	06 Feb 2015	Friday	2540	1170	46.1	356	30.4	25	4
Climate-ADAPT Newsletter – issue 2	30 March 2015	Monday	2843	1231	43.3	417	33.9	62	4
Climate-ADAPT Newsletter – issue 3	01 June 2015	Monday	2935	1173	40	279	23.8	45	1
Climate-ADAPT Newsletter – issue 4	15 July 2015	Wednesday	3067	1256	41	427	34	18	8
Climate-ADAPT Newsletter – issue 5	30 Sept 2015	Wednesday	3210	1211	37.7	371	30.6	19	2
Climate-ADAPT Newsletter – issue 6	26 Nov 2015	Thursday	3292	1304	39.6	356	27.3	18	4
Climate-ADAPT Newsletter – issue 7	12 Feb 2016	Friday	3410	1137	33.3	371	32.6	32	2
Climate-ADAPT Newsletter – issue 8	22 March 2016	Tuesday	3463	1325	38.3	384	29	14	2
Climate-ADAPT Newsletter – issue 9	09 June 2016	Thursday	3520	1288	36.6	358	27.8	8	1
Climate-ADAPT Newsletter – issue 10	03 Aug 2016	Wednesday	3655	1306	35.7	389	29.8	18	6
Climate-ADAPT Newsletter – issue 11	27 Sept 2019	Tuesday	3778	1327	35.1	368	27.7	41	5
Climate-ADAPT Newsletter – issue 12	28 Nov 2016	Monday	4998	1436	28.7	295	20.5	66	7
Total average					**38**		**29**		

Note: The table shows the statistics of the first 12 issues of the bimonthly newsletter.

Sent date: Date of the newsletter mailing

Total Recipients: Total number of newsletter subscriptions

Opens: Total number of recipients who opened the mail (outlook preview screen not included)

Click ratio: Percentage of recipients who opened the mail

Clicks: Number of opens on specific items of the newsletter

Click rate: Percentage of opens on specific items of the newsletter

Bounces: Number of hard and soft bounces of the mail: **Hard:** email address no longer valid

Soft: mailbox full

Unsubscriptions: Number of recipients who cancelled their subscription **Source:** Kantorqwentes, 2017

3.2.3 Objective C: support coordination across governance levels and between sectors

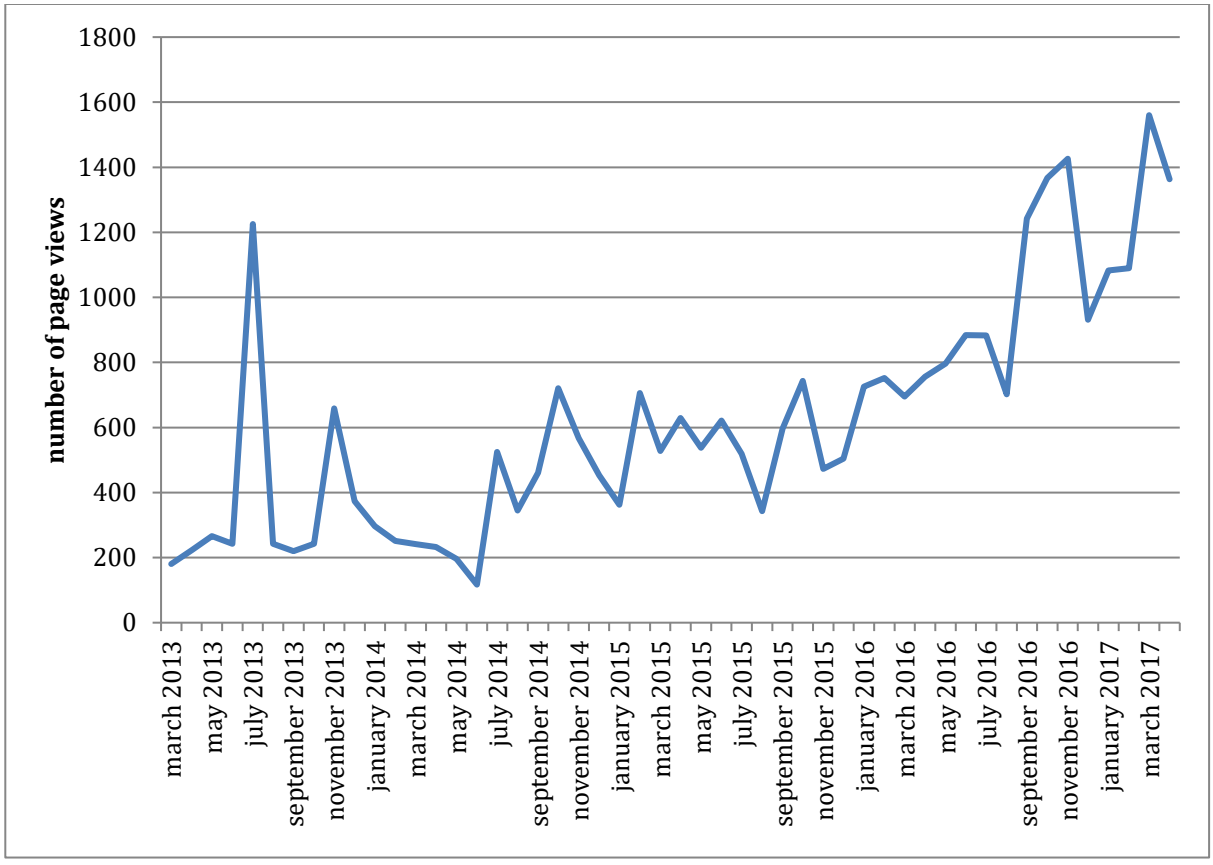
3.2.3.1 Climate-ADAPT web statistics

Key message

- The continuously increasing trend of the number of page views of the Climate-ADAPT database indicates that the role of the Climate-ADAPT database to guide users to the complementary information on adaptation in Europe becomes more known.
- It suggests that the efforts in the structured updating and further development of the database seem to be appreciated.

This section supports to answer the evaluation question C1) Does Climate-ADAPT present the information in a way that is complementary to the original source? This is one aspect of the Climate-ADAPT objective C to support cooperation across governance levels and among sectors. It helps to understand if database fulfils this role by pointing users through web links to the providers of adaptation information in Europe, which present their knowledge online complementary to Climate-ADAPT. Outcomes of this section complement the results of the internal assessment on the provision of web links (Section 3.1.3). Results come from the analysis of the Climate-ADAPT web statistics. The methodology of the analysis is presented in the ANNEX 2.

Figure 3.32 Change in the monthly page views on the "database search page" in the period of 1 March 2013 to 30 April 2017



Note: The graph shows the evolution of the monthly page views on the "database search page" in the period of 1 March 2013 to 30 April 2017. Two sets of data were combined into one timeline: first set from 01 March 2013 - 30 June 2016 (CMS Liferay); second set from 01 July 2016 - 30 April 2017) (CMS Plone).

The Climate-ADAPT database was set up to allow screening the information available on adaptation in Europe. This is done by using filter criteria to identify the relevant sources, and by providing metadata to inform about the content of each individual information source (see also Section 3.1.1.1).

The web statistics show that the database search[85] is increasingly used (Figure 3.32). Although, these numbers present the use of the Climate-ADAPT search function to find specific pages on Climate-ADAPT is represents as well the use of the database search function. It suggests a growing awareness of the Climate-ADAPT role to guide users to other adaptation information sources across Europe. It might furthermore indicate, that the database updating, done by EEA, supported by the ETC CCA on a monthly basis, as well as the efforts to continuously improve the structure and performance of the database seems to be helpful for adaptation experts in Europe finding complementary information sources from other information providers.

3.2.3.2 User/provider survey

See ANNEX 4 for the full report about the User/provider survey.

Key messages

- The survey has shown that Climate-ADAPT achieves its goal of being a general source of information that links to more detailed sources well for information on national adaptation, transnational adaptation and vulnerabilities and impacts, but not so well for city and sub-national information.
- The availability of links to sector level information is well known by survey respondents in EU countries without a national adaptation plan or adaptation web platform and those outside the EU. This suggests that Climate-ADAPT provides a solution for an important knowledge gap for respondents from countries that do not have a national adaptation plan or an adaptation web platform.

This section presents the evidence from the user survey that has been used to assess whether Climate-ADAPT has met Objective C 'to contribute to a greater level of coordination among the relevant sectoral policies, and among different institutional levels'. The benefits of horizontal coordination for adaptation are that by linking sectors together actors could address cross-sectoral issues. In addition, improving links between governance levels from national to local (vertical integration) could improve resource allocation and capacity for adaptation.

The specific question covered by the survey are:

C1a) Does Climate-ADAPT present the information in a complementary way to other sources of information such as, sector or national platforms? In addition, the evidence that is considered appropriate to determine whether Climate-ADAPT is 'contributing to a greater level of coordination' has been interpreted as.

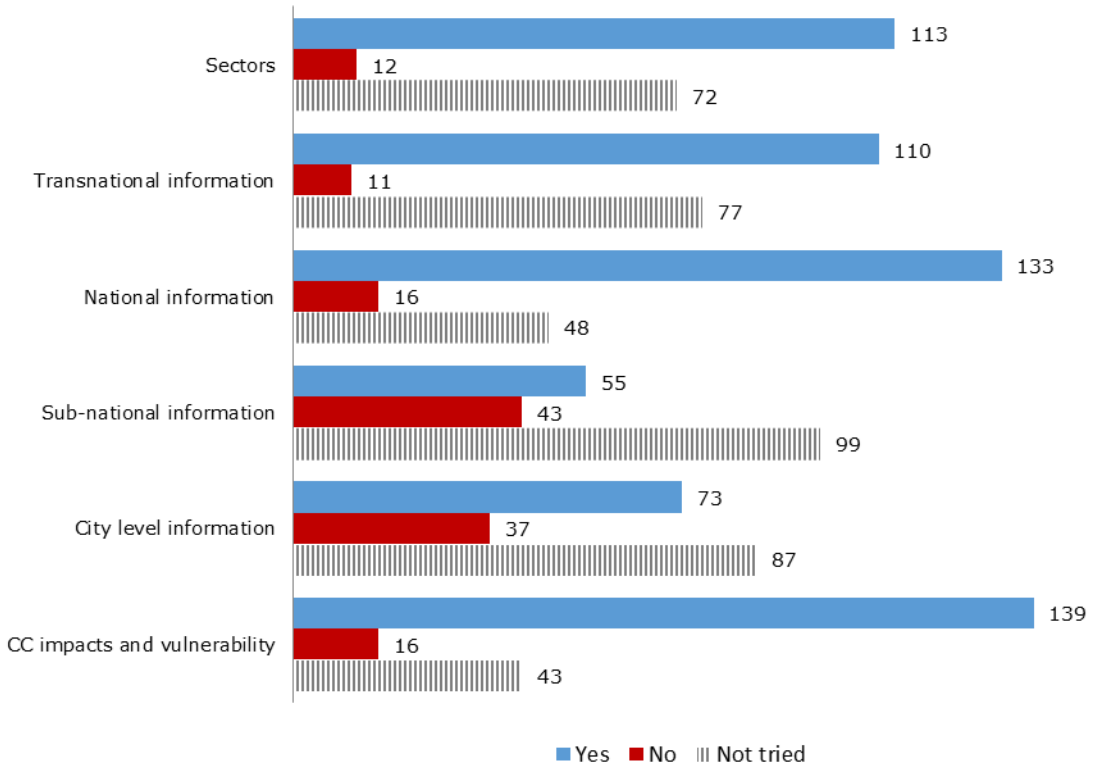
C1b) How well does Climate-ADAPT link between different sources of information.

Climate-ADAPT has a dual role, firstly to provide EU level adaptation information on the platform and secondly to link to information at other levels (such as national or sectoral). Information at the sub-EU level is not hosted on Climate-ADAPT but, made available via links to the original external source. The

[85] The Climate-ADAPT "Search" function and the "Database" have the same URL (http://climate-adapt.eea.europa.eu/data-and-downloads#b_start=0).

platform aims to avoid duplication of information that is available elsewhere and to only provide synthesis and summary information for these levels on Climate-ADAPT; hence it aims to guide users to the 'right-shop'.

Figure 3.33 Is Climate-ADAPT a general source of information that links to other sources? (N=197)



Note: The figure reflects the results of Question 20 of the Climate-ADAPT user/provider survey.

The survey shows that Climate-ADAPT achieves its goal of being a general source of information that links to more detailed sources well for information on national adaptation and vulnerabilities and impacts, but not so well for city and sub-national information (Figure 3.33). The results show that for city and sub-national information the number of 'yes' responses is lower and the number of 'no' and 'not tried' answers are higher compared to the other areas of Climate-ADAPT. Hence in the areas that are used often, the feeling is, that Climate-ADAPT is a good source of information and links well to other sources. But, in the areas that are the least tried, the feeling is, that these areas have the least amount of information. However, this is not true in reality for city level information because there is a significant amount of this information, shared within Climate-ADAPT, via links to Mayors Adapt (now Covenant of Mayors for Climate and Energy), but the link to the Covenant of Mayors pages is very hidden in the EU Adaptation Policy section. To improve the profile of this section it may need more promotion and more links to and from city network websites.

The subnational area is considered to have the least amount of information (Figure 3.29). This is because it is considered by the European Commission to be the responsibility of the countries. Therefore, is not considered a priority for Climate-ADAPT which has an EU-wide remit. Although there are links to subnational information from the individual country pages, perhaps there needs to be more explicit explanation on the availability of subnational information. In addition, some countries have subnational information and some do not, so the coverage is not consistent.

Climate-ADAPT also achieves its goal for sectors. This is particularly true for those respondents in the EU countries without a national adaptation plan or adaptation web platform and those outside the EU. This suggests that Climate-ADAPT provides support to close an important knowledge gap for respondents from countries that do not have a national adaptation plan or an adaptation web platform. If Climate-ADAPT wants to boost its user numbers (in particular from sectoral users, Figure 3.33) it may need a campaign to raise its profile within the individual policy sectors. It will also need materials tailor-made to the selected sectors and better links to sector-specific platforms.

It also achieves its goal for transnational information, more so for respondents from the core audience compared to the wider audience. This reveals that the different audience types have different perceptions and needs and that these different needs should be taken into account when developing the content of Climate-ADAPT so that they have different entry points on the home page and different routes through the site.

In a few areas (cities and sub national information) opinion is divided about whether Climate-ADAPT is general source of information that links to more detailed sources, however, in most areas Climate-ADAPT achieves its overall goal to be a place to guide users to the 'right shop'.

3.2.3.3 Feedback collected through Climate-ADAPT use cases

Key messages

- The use cases have shown that Climate-ADAPT succeeds in supporting cooperation by providing access to relevant complementary sources of information on adaptation in Europe. This is particular the case for those, who work on more than one governance level, such as the Sardinia Region, Italy where the "news/events" section and links to key partners, as well as policy information helped to support the related policy processes.
- The use case of the Carpathian Mountains has shown that Climate-ADAPT also supports cooperation among countries with similar characteristics.
- A number of specific requests to support cooperation include, for example, new pages for sub-national level information and on activities of non-governmental actors at all governance levels.
- There is specific interest in strategically collaborating with EEA in further developing adaptation platforms in a way that provides the knowledge needed for the policy processes, such with AdapteCCa (Spain), to collaboratively work on case studies and other areas of interest. This would both boost cooperation with the national level and develop and share knowledge on the development and maintenance of adaptation platforms.

This section focuses on two questions of the evaluation: Does Climate-ADAPT present the information in a way that is complementary to the original? (C1) and Does Climate-ADAPT support cooperation across countries and regions with similar characteristics (such as mountain regions) and neighbouring countries (e.g., in transnational regions?) (C2). The evidence that is considered appropriate to determine if Climate-ADAPT successfully achieved its objective C to support coordination across governance levels and between sectors, comes from the collection of Climate-ADAPT use cases. Details of the methodology are provided in the ANNEX 2.

C1) Does Climate-ADAPT present the information in a way that is complementary to the original source?

The examples provide broad evidence that Climate-ADAPT is supporting cooperation across countries and regions, among others, via guiding g to complementary information sources. All experts who provided the use cases, confirmed that they were able to find relevant information, provided on other platforms through web links on Climate-ADAPT, for example through the country pages. The collection of Climate-ADAPT use cases[86] is provided in full on Climate-ADAPT ANNEX 5 provides the evidence, starting from DG RTD (1), aiming to check the progress of adaptation through links on the transnational regions and country pages, to experts at all governance levels and also in the English health sector (16), searching for detailed information to learn from adaptation approaches in other countries and regions.

The benefit of Climate-ADAPT was for example explicitly highlighted, where more than one governance level is represented, such in the Sardinia Region, Italy (10), where experts have used the news/events section and links to key partners, as well as policy information to coordinate research and policy from the global level to the subnational level. Sardinia Region is for example supporting the UNFCCC process (Under2Memorandum of Understanding), the European level (Committee of the Regions´ Commission for Environment, Climate Change and Energy), the implementation of the Italian National Adaptation Strategy, and a LIFE project at sub-national level (MASTER ADAPT). Box 3.3 presents this use case in an exemplary way.

A number of specific requests for additional content on Climate-ADAPT included information on the sub-national level (a landing page) and on non-governmental actors at all governance levels. An RSS-feed function may make users more aware of new development on various areas of Climate-ADAPT.

The examples have shown that there is also interest in strategically collaborating with EEA to share information on platform development and evaluation of platforms as a result of this evaluation (such as by the Spanish Climate Change Office, aiming to further develop the national level platform AdapteCCa in close exchange with Climate-ADAPT (6). This would both boost cooperation with the national level and develop and share knowledge on the development and maintenance of adaptation platforms. Furthermore, both the Spanish Climate Change Office and the Ministry of Environment and Water (MOEW) of Bulgaria (3) expressed their interest to strategically work together with Climate-ADAPT to develop case studies.

[86] https://climate-adapt.eea.europa.eu/help/climate-adapt-use-cases

Box 3.3 Example of a Climate-ADAPT use case showing how Climate-ADAPT supports cooperation

Supporting cooperation across governance levels and access to European knowledge on Climate-ADAPT for Regional Government of Sardinia

Climate-ADAPT features used: Database (Case studies, search function); Countries, regions, cities (Country pages); Knowledge (Adaptation options); Networks (Organizations); News
Sector: Adaptation in general
Governance level: Sub-national
Biogeographic region: Mediterranean
Macro-Region: Southern Europe
Policy step: Policy development

The challenge

The Regional Government of Sardinia Region[1] (Italy), is acting on adaptation to climate change in various roles.

The President of Sardinia Region chaired the Commission for the Environment, Climate Change and Energy (ENVE) within the European Committee of the Regions (CoR)[1] until September 2017. Since the CoR is supporting the UNFCCC process as an active stakeholder at EU level, the President is also the rapporteur of the Opinion[1] on "Delivering the global climate agreement – a territorial approach to COP22 in Marrakesh" that was approved by CoR in October last year.

In this context, Sardinia Region is promoting sustainable ways of energy production and high-level target for greenhouse gas reduction also considering aspects of adaptation in the field of environmental protection and energy. Also in the UNFCCC context, Sardinia Region became part of the "Under2 Memorandum of Understanding"[1] (Under2MOU), which represents a powerful instrument of aggregation and cooperation capable of raising international awareness on the crucial role of sub-national governments to achieve the global targets on climate change. Signatories from regional governments all over the world intend to contribute to the implementation of the global climate agreement also by "Assessing the projected impacts of climate change on communities"[1].

Supporting the engagement of the European regions on adaptation in the UNFCCC process requires up-to-date information on the progress of adaptation policies in European countries and regions.

Secondly, the Sardinia Region, through its Minister for the Environment Protection, coordinates the Interregional Board on the Italian Strategy for Adaptation to Climate Change (SNAC) with the purpose of promoting and monitoring the implementation of regional adaptation strategies and plans consistently with the national strategy. In this regard, overview information on the state of implementation of national strategies and plans on adaptation to climate change in Europe is mostly needed.

Thirdly, networking is a crucial prerequisite in the LIFE Project MASTER ADAPT[1] (MAinSTreaming Experiences at Regional and local level for adaptation to climate change) launched in October 2016, in which Sardinia Region acts in the role of Coordinating Beneficiary. The project aims to identify and test innovative tools of multilevel governance to support regions and local authorities in defining and developing adaptation strategies and policies. The partnership includes regional and local public institutions, non-profit scientific institutions and associations, environmental consultancies, and universities.

The approach

Climate-ADAPT, as the platform of the European Commission and EEA, represents a useful source to find examples related to adaptation plans and strategies. The Sardinia Region experts assessed for example the individual country pages of Italy, Germany, United Kingdom, France and others in order to picture the state of the art of national plans and strategies among European Countries. Links to platforms of other relevant organisations and the section "news" available on Climate–ADAPT proved to be helpful to support cooperation and to strengthen links among governments and the actors involved.

Climate-ADAPT was regularly consulted in order to provide briefings to support the President of Sardinia Region in his role of chair of the European Committee of the Regions Commission for Environment, Climate Change and Energy. This was done by consulting the EU policy section, which contains summary information related to adaptation measures and policies in Europe.

The clear and intuitive menu allowed to rapidly move through the different sections of the platform and the user-friendly search engine[1] is an efficient tool that allowed to find easily case studies, publications, reports and so on. The Sardinia region experts used in particular the appropriate keywords to quickly select the information needed. Both the "cities and towns"[1] and the "Covenant of Mayors"[1] as well as the country information sections[1] were consulted to get valuable information on the progress of all aspects of adaptation policy implementation at country and city level in Europe.

Figure A 3 The city of Cagliari, regional capital of Sardinia.

Source: Sardinia Region.

Climate-Adapt was also used to support the reporting of adaptation activities to global initiatives such as within the activities related to the UNFCCC Under2 MoU for the submission of adaptation data to the Carbon Disclosure Project's (CDP) states and regions platform[1]. As signatory of the Under2 MoU Sardinia Region committed to fill with the regional data the forms of the CPD platform. Although Sardinia has not yet joined the RegionsAdapt[1] initiative (the new global commitment to support and report efforts on adaptation at the state and regional level), we have been able to insert regional data related to adaptation measures requested from the CPD platform. Specifically, going through "case studies" and "adaptation options" contained in Climate-Adapt platform have been useful in this task.

By providing adaptation policy information at various levels of governance, links to key partners and dissemination services (e. g. the European Climate Adaptation Newsletter), Climate-ADAPT is supporting sub-national level actors working in adaptation and cooperating with other governance levels.

Future plans

Downscaling climate change adaptation national strategies into regional policies is an essential precondition to influence climate resilience. Continuing the work within the LIFE MASTER ADAPT project, Sardinia Region will support regional and local public institutions to optimize and effectively integrate sectorial regional policies with respect to climate change adaptation.

In addition, Sardinia Region will continue to encourage a collaborative approach among all Italian regions thanks to the coordinating role of the Environment and Energy Commission of the Italian Conference of Regions in order to promote a change in lifestyles and production models at different levels. The efforts are now focused on elaborating the regional adaptation plan and on carrying out innovative projects in the field of climate change funded by the European Commission based on the Memorandum of Understanding with Climate-KIC S.R.L.[1] , signed in June 2017. In this context, it would be helpful to have a section in the platform dedicated to regions (subnational-level) in order to easily identify the regions that have developed a regional plan or a strategy or that are already implementing specific actions on adaptation.

C2) Does Climate-ADAPT support cooperation across countries and regions with similar characteristics and neighbouring countries?

The use case of the Secretariat of the Carpathian Convention highlights specifically how Climate-ADAPT supports cooperation across countries with similar characteristics (2). Information from individual countries, provided on the country pages, was used to support the collection of consistent information for the "Outlook on Climate change Adaptation in the Carpathian Mountains"[87]. The outlook take stock of the impacts and vulnerabilities of climate change to the Carpathian Mountains and aims to inform decision makers for joined action. Furthermore, the information collected helped to prepare online information for adaptation in this transnational region which was established in October 2017[88].

[87] https://www.grida.no/publications/381

[88] http://climate-adapt.eea.europa.eu/countries-regions/transnational-regions/carpathian-mountains/general/index_html

References

EEA, 2014. *Medium Term Work Plan (MTWP) European Climate Adaptation Platform (Climate-ADAPT)2013-2017*

EEA, 2015, *Overview of climate change adaptation platforms in Europe*, EEA Technical Report No 5/2015, European Environment Agency.

EEA, 2017, *Climate change, impacts and vulnerability in Europe*.

EEA, 2018, *Sharing adaptation information across Europe. Evaluation of the European Climate Adaptation Platform – Climate-ADAPT*.

EC, 2013, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions — *An EU Strategy on adaptation to climate change* (COM(2013) 216 final of 16 April 2013).

Gancheva M., McGuinn J., Muro M., O'Brien S., Potestio S., 2017, *Climate-ADAPT: Dissemination and capacity-building supporting adaptation in the framework of the EU Adaptation Strategy — Final report*, Milieu Ltd.

Milieu, 2014, *Climate-ADAPT science/policy forums: Workshops for the dissemination and exchange of adaptation-related knowledge to policy makers — Feedback and recommendations for Climate-ADAPT*.

Street, R., et al., 2014, *Analysis of Climate-ADAPT use and possible improvements*, ETC/CCA Working Paper.

ANNEX 4 Climate-ADAPT User-Provider survey report

Table of Content

Executive summary

A survey of users and providers of Climate-ADAPT was carried out (20 March - 21 April 2017) to assess if Climate-ADAPT is meeting its aim. The Climate-ADAPT website was developed in 2012 to support 'decision makers and organisations providing support (agencies, boundary organisations and research institutes) on adaptation at EU, transnational, national, and city level' (EEA, 2014) and is included as Action 5 within the EU Adaptation Strategy (COM, 2013).

The survey is part of a multi-method assessment to evaluate Climate-ADAPT. The evaluation of Climate-ADAPT in turn forms part of the evidence within the evaluation of the European Union (EU) Adaptation Strategy from 2016-2018. The survey results will also be used to further develop Climate-ADAPT according to the needs expressed by the users and information providers.

The content of Climate-ADAPT is developed in collaboration with its users and content can be proposed by users. The people who submit this information are called 'information providers' and there is a specific section of the survey (How do you contribute to Climate-ADAPT?) designed for them.

A 3-step method was used in the survey:

1. a small-scale pilot survey to test the questions and the online process;
2. an online-survey (in the following text referred to as 'survey') (Appendix);
3. follow-up activities to clarify the findings (events and interviews).

The invitation to the online survey was sent to approximately 4600 users and information providers from a range of mailing lists, using a personalised email and invitees were encouraged to 'Forward to a friend'. The survey was also accessible via the Climate-ADAPT platform and was promoted through various newsletters and events. There were 300 respondents to the survey. It is recognised that Climate-ADAPT was designed to reach a 'core' audience of 'decision makers and organisations providing support' however, it also reaches a 'wider' audience, and the survey analysis has differentiated between these two groups where possible.

The results of the survey were analysed against the 3 specific objectives linked to the overall aim of Climate-ADAPT, i.e. to support decision-makers in Europe by providing the following objectives (EEA, 2014):

A. to share the adaptation knowledge in Europe and build a consistent knowledge base;

B. to assist in the effective uptake of this knowledge;

C. to contribute to supporting coordination among sectors and across institutional levels.

A series of questions were developed for each objective and evidence in the form of key messages is presented for each question.

Key messages from the survey as evidence contributing to Objective A
To share the adaptation knowledge in Europe and build a consistent knowledge base

A1) Does Climate-ADAPT successfully involve potential information providers to share their information?

- The survey has shown that 98 respondents have submitted information to Climate-ADAPT and thus have contributed to building a consistent knowledge base. Many of those that have provided information recognise the added value for them in doing so.
- The reasons that people have not submitted information was that they did not think they had appropriate information and that they did not know it was possible. This suggests that Climate-ADAPT could do further promotion to raise awareness of the fact that it is a portal that is open to contributions and also aim to convert existing users into providers.

A2) Does Climate-ADAPT provide the relevant information on the platform?

- The survey did not explicitly ask this question but feedback from a limited number of respondents in the free text questions provides an impression that generally the site is well received and considered a useful and comprehensive source of European information on adaptation.

A3) Which sections of Climate-ADAPT are currently being used?

- The survey shows that the most used sections are the news/events pages, followed by the database, EU Adaptation Strategy, information on impacts and vulnerability and the country pages.

A4) Which information is also needed by Climate-ADAPT users?

- The diverse user community requested additional content on Climate-ADAPT that covered a broad range of information types, showing a preference for synthesis information such as assessments and indicators, but also for guidance documents, and for case studies.

Key messages from the survey as evidence contributing to Objective B
Assisting in the effective uptake of knowledge

B1) Who is using Climate-ADAPT?

- The survey has captured opinions from a range of users - two-thirds of respondents were from the core audience of 'decision-makers in Europe and organisations that support them' and one-third was from the wider audience.
- Thirty-nine European Environment Agency countries[89], as well as countries outside Europe, are represented in the survey. Additional effort could be put into intensifying the involvement of the users/providers of less represented countries, particularly from Eastern Europe.

B2) What product or process are the users using the information for?

- Climate-ADAPT has been used primarily by research organisations that are supporting decision makers to develop evidence documents that feed into the adaptation policy process. Climate-ADAPT has also been used in a variety of other processes including participatory processes and for dissemination.

B3) Which sections of the platform are used to develop tailor-made products or support processes?

- The sections of the website that are being used to create tailor-made products and enhance the capacity of individuals are the: Country information pages, all sections of the website, urban information, case studies, the tools, assessment of impacts and vulnerability, and the database.

B4) Is the knowledge presented on Climate-ADAPT in a useful way of assisting the uptake of the information?

- Overall Climate-ADAPT is considered user friendly but, would benefit from a more straightforward structure to allow easy access to the complex content.

B5) Which additional services (promotion and training) are needed to assist in the uptake of Climate-ADAPT?

- Nearly half of respondents have multiple types of work such as science, policy, management and stakeholder engagement. More than half of respondents (171 out of 298) work on adaptation to climate change in general and many sectors are represented. Also, the majority (86%) of people who answered the survey have been working on adaptation for more than 2 years, and those that have been working on adaptation for less than 1 year are less represented. This suggests that that there is potential to provide different content for different roles/users (new to adaptation, science or urban users) on Climate-ADAPT.
- Eighty two percent of users/providers feel sufficiently involved in the development (content and functionality) of Climate-ADAPT, but some would like to have a package of promotion services (e.g. guidance, awareness raising and events) to make the interaction stronger.
- The low number of referrals from other sites to Climate-ADAPT suggests that there is potential to improve the uptake of information from Climate-ADAPT with more dissemination,

[89]EEA countries include 28 EU Member States plus Iceland, Liechtenstein, Norway, Switzerland, Turkey, Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, Montenegro, Serbia and Kosovo under UNSC Resolution 1244/99.

additional promotion activities, such as training webinars and links from external websites to Climate-ADAPT, such as key partner platforms'.

Key messages from the survey as evidence contributing to Objective C
Supporting coordination among sectors and across institutional levels

C1a) Does Climate-ADAPT present the information in a way that is complementary to the original sources of information such as, sector or national platforms?

C1b) How well does Climate-ADAPT link between different sources of information?

The benefits of horizontal coordination for adaptation are that coordination between sectors could address cross-sectoral issues. In addition, improving links between governance levels from national to local (vertical integration) could improve resource allocation and capacity for adaptation.

- The strongest agreement for Climate-ADAPT being a general source of information that links to more detailed sources is for information on national adaptation, transnational information and vulnerabilities and impacts, but the agreement is not as strong for city and sub-national information.
- The availability of links to sector level information is well known by survey respondents in EU countries without a national adaptation plan or adaptation web platform and those outside the EU. This suggests that Climate-ADAPT provides a solution for an important knowledge gap for respondents from countries that do not have a national adaptation plan or an adaptation web platform.
- In most areas Climate-ADAPT achieves its overall goal to be a place to guide users to the 'right shop'.

4.1 Introduction

A user-survey of Climate-ADAPT has been carried out to assess if Climate-ADAPT is meeting its aim. The survey is part of a multi-method assessment to evaluate Climate-ADAPT. This includes web statistics, internal analysis of the website content, assessment of case study users, feedback of countries progress in the adaptation policy process (EEA, 2014b) and contribution from EU level sectoral experts working on adaptation (Gancheva, 2017). The evaluation of Climate-ADAPT in turn forms part of the evidence within the wider evaluation of the European Union (EU) Adaptation Strategy during 2018.

The survey results will be directly used to further develop Climate-ADAPT according to the needs expressed by users and information providers. The evaluation of Climate-ADAPT will also assess whether the original aims need adjusting in the future since the policy field and knowledge base for adaptation in Europe has changed significantly since Climate-ADAPT was established.

The content of Climate-ADAPT is developed in collaboration with its users and content can be proposed by users. In addition, specific content is requested by the EEA/DG CLIMA, for example on adaptation in Member states according to the Monitoring Mechanism Reporting (MMR) and by DG RTD for information on EU research on adaptation such as FP7/H2020 projects. The people who submit this information are called 'information providers' and there is a specific section of the survey designed for information providers.

Climate-ADAPT was created in 2012 during the preparation for the publication of the EU Adaptation Strategy (April 2013). The EU Strategy is based on eight actions and Action 5 is to 'Further develop Climate-ADAPT as the 'one-stop shop' for adaptation information in Europe'. Specifically the Commission and the European Environment Agency will improve access to information and develop interaction

between Climate-ADAPT and other relevant platforms, including national and local adaptation portals (COM, 2013).

The aim of Climate-ADAPT is to support decision-makers in Europe by providing the following objectives:

A. enhance information structuring and sharing and act as a facilitator for collecting and disseminating scientific information, data and case studies about climate change impacts and vulnerability, to build a consistent and updated knowledge base;

B. assist an effective uptake of this knowledge by international, EU, national, regional, local or sectoral decision makers, by offering guidance, tools, best practices for assessments of vulnerability to climate change at different geographical levels and of adaptation plans and measures;

C. contribute to a greater level of coordination among the relevant sectoral policies, and among different institutional levels (EEA, 2014).

The rest of Chapter 4.1 describes the purpose and methodology of the survey, Chapter 4.2 describes the detailed results of the survey and Chapter 3 provides the interpretation, discussion and conclusions.

4.1.1 Purpose and background of the survey

The purpose of the survey was to evaluate to what extent Climate-ADAPT achieves its aim of supporting decision-makers on adaptation. The definition of these decision-makers is described in the Climate-ADAPT mandate through the EU Adaptation Strategy as:

'Governmental decision-makers (and organisations providing them support such as agencies, boundary organizations and research institutes) working on the development and implementation of adaptation strategies or actions at EU, transnational, national and sub-national level (e.g. cities)' (EEA, 2014, p. 6).

Hence the survey was designed to be answered by the intended target audience of 'decision-makers and organisations providing them support'. It is recognised that Climate-ADAPT also reaches an extended audience defined as:

'a broader spectrum of user groups, e.g. business organizations, non-governmental organisations, practitioners and interested citizens'. (EEA, 2014, p. 6)

Therefore, the survey asked questions to determine the professional background of the participants and where appropriate the results are analysed in two groups – a core audience of 'decision-makers and those preparing evidence for decision-making' and a 'wider' audience.

The survey is only one means among others to capture the opinions of users and information providers on Climate-ADAPT. Feedback collected earlier on behalf of DG CLIMA included feedback of countries' progress in the adaptation policy process (EEA, 2014b) and feedback from EU level sectoral experts working on adaptation (Gancheva, 2017). The results of the survey will be used in the evaluation of Climate-ADAPT together with the results of the above complementing activities.

4.1.2 Survey Methodology

The survey consisted of three steps:

1. a small-scale pilot survey to test the questions and online process;
2. an online-survey (open from 20 March 2017, to 21 April 2017);

3. follow-up activities, which involved a limited number of interviews and various discussions (European Climate Change Adaptation Conference; ECCA) and Eionet meeting) in order to ask more in-depth questions and to get more information on user behaviour.

Survey Design

The online survey (further referred to as 'survey') was designed according to the following principles:

- the time needed to answer the questions was limited to 10-15 minutes for the multi-choice questions in order to encourage participation in the survey;
- the survey aimed for a balance between closed questions (multiple choice; easier to analyse quantitatively) and a limited number of open questions (free text fields – more contextual information, but analysis more time-consuming);
- the questions were arranged in thematic sections;
- since users could also be information providers at the same time the questionnaire addressed both groups together.

The structure of the survey (in Appendix) was organised to refer to the three objectives Climate-ADAPT should achieve (see above) and was therefore divided into the following sections:

1. tell us about the focus of your work: Q1-Q6 (evidence for the actual, rather than perceived, audience for Climate-Adapt);
2. tell us how you use Climate-ADAPT: Q7-Q9 (most popular information and what is wanted in future);
3. tell us about how you contribute to Climate-ADAPT: Q10-Q15 (views of information providers);
4. tell us about the user friendliness of Climate-ADAPT: Q16-Q19 (how easy the site is to navigate, search and find information);
5. tell us how Climate-ADPT supports cooperation: Q20-Q21 (contribution to greater coordination);
6. sharing Climate-ADAPT success stories: Q22-Q25 (added value and uptake of knowledge).

Different types of questions were used in the survey:

- multiple choice questions where only one answer was allowed, and the results from these questions are reported as pie charts;
- multiple choice questions where more than one answer was allowed, and the results from these questions are reported as bar charts multiple choice questions also had the possibility of an additional answer 'other'. Some of the results have been manually reassigned to the multiple choices according to the answer in the free text box;
- matrix questions with answers in a rating scale, reported as bar charts;
- free text answers have been categorized manually then reported in synthesis, with the aid of charts where appropriate.

Pilot test of survey

The survey was piloted with 15 people to assess whether the questions were clear and to test the functioning of the IT software. The pilot survey participants belonged either to the EEA, or to organizations belonging to the ETC/CCA, or who use Climate-ADAPT.

As a result of the pilot some of the questions were changed and the structure was altered to the six sections (see Section 4.1 above). It was discovered that the online software with which the survey was created allowed navigation from one section to the other without completing all the questions. This explains why people could avoid answering some questions and, thus, there are different numbers of answers for all the questions.

Survey Participants

Snowball sampling was used to recruit participants: the invitation to the survey was sent to approximately 4600 users and information providers using a personalised email, which had a 'forward to a friend' function built in. The following mailing lists were used:

Users

- European Commission (DG CLIMA Adaptation unit, Climate-ADAPT Advisory Group) (about 20 participants);
- National Reference Centres on climate change adaptation (NRC´s)/Transnational organisations working on adaptation to climate change (approx. 60 people);
- Climate-ADAPT newsletter recipients (as of March 2017 3778 people subscribed to the EEA Dissemination service on Climate change adaptation information including the European Climate Adaptation Newsletter ('newsletter');
- European City networks (ICLEI Europe, Climate Alliance, Covenant of Mayors signatories committed to adaptation approx. 400);

Information providers

- researchers of the adaptation relevant H2020/FP7 projects (using the invitation list of the 2015 Climate-ADAPT webinar participants, approx. 60 recipients);
- European Commission, NRC´s and transnational regions contacts that are related to research on adaptation to climate change (approx. 265).

Some participants are covered in multiple mailing lists and may have received the survey more than once, hence the number of individuals will be less than 4600, however, because of the additional promotional activities it is not possible to give figures on the total number of people invited to take the survey and, therefore, the response rate remains unknown.

It is recognised that this might not be a representative sample of the entire population of potential users in Europe, due to targeting the known users and contributors. Nonetheless, the survey offers an insight into the opinions of the established users and information providers.

Moreover, the people who have answered the survey are those who are able to communicate in English. Since the platform is in English it was decided to also develop the survey in English. This means that it is not possible to determine the extent to which language is a barrier. The respondents who have answered the survey are also self-selected as only those who want to complete it, fill it in.

Promotion of the survey

Moreover, the survey was promoted both by EEA and ETC/CCA through a wide range of routes both before and during the month it was open. The most relevant promotion activities which were carried out are listed here:

- webinar agenda item - 2017 Climate-ADAPT evaluation including survey (18 January 2017);
- European Climate Adaptation Newsletter (bi-monthly) - advance notice of survey (7th February);
- UKCIP news – advance notice (22nd February);
- launch of survey via personalised emails – approximately 4600 recipients (20th March);
- UKCIP news – launch of survey (20th March);
- individual emails to ETC/CCA consortium;
- emails to Mailing list of CMCC (21st March);
- sent internally to EEA colleagues (22nd March);
- ICLEI promotion via mailing list of Open European Day (24-29th March);
- CMCC's newsletter (29th March);
- European Climate Adaptation Newsletter - Editorial by EEA director and individual news item (31st March);
- email to workshop attendees via DG CLIMA with a short description and link to survey ahead of the workshop (30th March);
- workshop on EU Strategy Evaluation - DG CLIMA – promotion in plenary and breakout group discussion (5th April);
- reminder emails – personalised via mailing lists (11th April and 18th April).

Follow-up activities

As a follow-up of the results and analysis of the online survey, activities have been organized to clarify or improve the information collected. These three activities took place in June 2017, and they provided further insights with regards to the interpretation of the results:

- the draft results were discussed in a session during the 3rd European Climate Change Adaptation (ECCA) Conference Our Climate Ready Future (Downing, 2017), held in Glasgow, 5th-9th June 2017;
- the draft results were discussed in a break-out session during the 11th Eionet workshop on Climate Change Impacts, Vulnerability and Adaptation, held in Copenhagen 21st-22nd June 2017;
- two personal interviews.

Methodology of the analysis

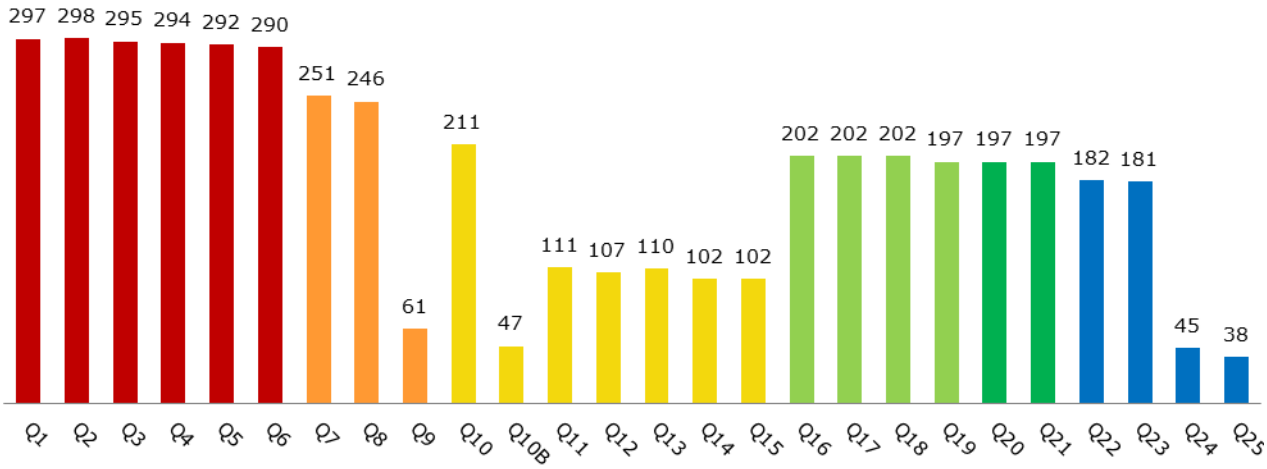
The results were analysed per question using the aggregated data. Tables and charts were developed using a spreadsheet software.

The statistical analysis of the user survey of Climate Adapt was carried out using the IBM SPSS (Statistical Package for Social Scientists) version 23. Due to the predominantly dichotomous and nominal character of data the main analysis method was chi-squared test (χ^2). For cross-tabulations, where one or more cells had expected count of less than 5, Fisher exact test was used instead of the standard Pearson chi-square test to take the small numbers into account.

Two-step cluster analysis was applied to classify the respondents according to their area of work. This method is suitable for nominal and dichotomous data (Chiu T, 2001).

4.1.3 Survey respondents

Figure 4.1 Number of respondents per question [N=300]



Note: colours identify sections.

There are 300 responses, out of these, 183 participants have answered all the questions. There is a variable number of answers for each question despite the fact that questions were mandatory. This is because the respondents could navigate from one section to the other using the menu at the top right of the page. This behaviour can be confirmed since all the questions belonging to one section have received more or less the same number of answers.

- section 1 Tell us about the focus of your work: Q1-Q6 [red];
- section 2 Tell us how you use Climate-ADAPT: Q7-Q9 [orange];
- section 3 Tell us about how you contribute to Climate-ADAPT: Q10-Q15 [yellow];
- section 4 Tell us about the user friendliness of Climate-ADAPT: Q16-Q19 [light green];
- section 5 Tell us how Climate-ADAPT supports cooperation: Q20-Q21 [dark green];
- section 6 Share Climate-ADAPT success stories with us: Q22-Q25 [blue].

Section 1 had the highest number of responses and section 3 the lowest. The lower number of responses for section 3 is due to the lower number of providers compared to users. The numbers in the table do not include the four free-text questions (Qs 9, 10B, 24, 25) which had an average of 48 responses. The free text answers provide a rich source of additional detailed qualitative data for the evaluation. These

qualitative results have been used to add specific examples to enhance the quantitative data-based results. Further analysis of who answered the survey is found in Section 4.2.1.

4.2 Survey Results

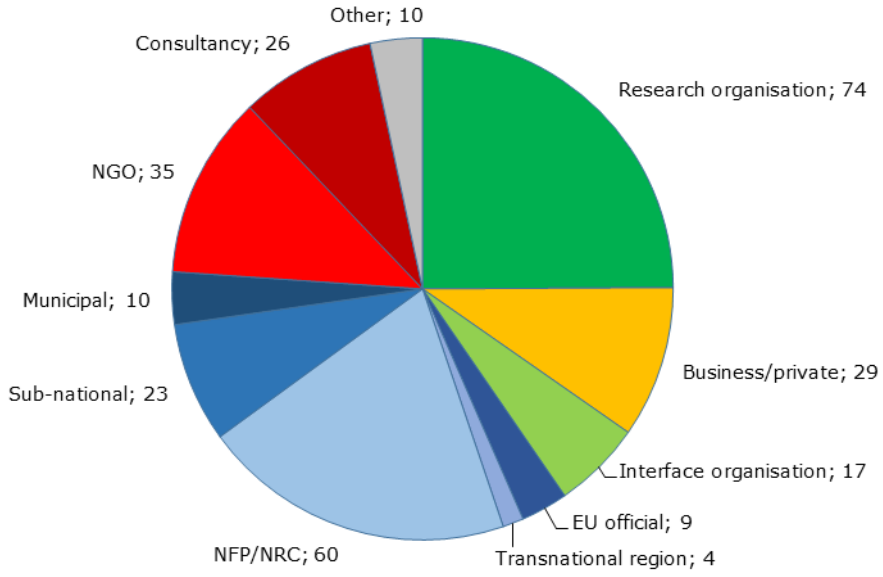
Chapter 4.2 describes the results of the survey in detail with key messages summarised in the boxes at the start of each sub-section. The interpretation, discussion and conclusions of the survey are provided in Chapter 4.3.

4.2.1 Section 1: Focus of work

Key messages

- The survey has captured opinions from a diverse range of organisations with the most respondents from research organisations, National Focal Points and NGOs.
- Two thirds came from the target audience defined as public authority/government, research and interface organisations.
- The majority (86%) of people who answered the survey have been working on adaptation for more than 2 years. Those that have been working on adaptation for less than 1 year are less represented in the survey.
- Nearly half of respondents have multiple types of work such as science, policy, management and stakeholder engagement.
- The majority of users visit on an ad hoc basis (e.g. when needed).
- Eastern countries have a limited share of the survey participants compared to the other regions of Europe

Figure 4.2 Type of organisations of respondents [N=297]



Note: The figure reflects the results of Q1 of the Climate-ADAPT user/provider survey, only one answer was allowed.

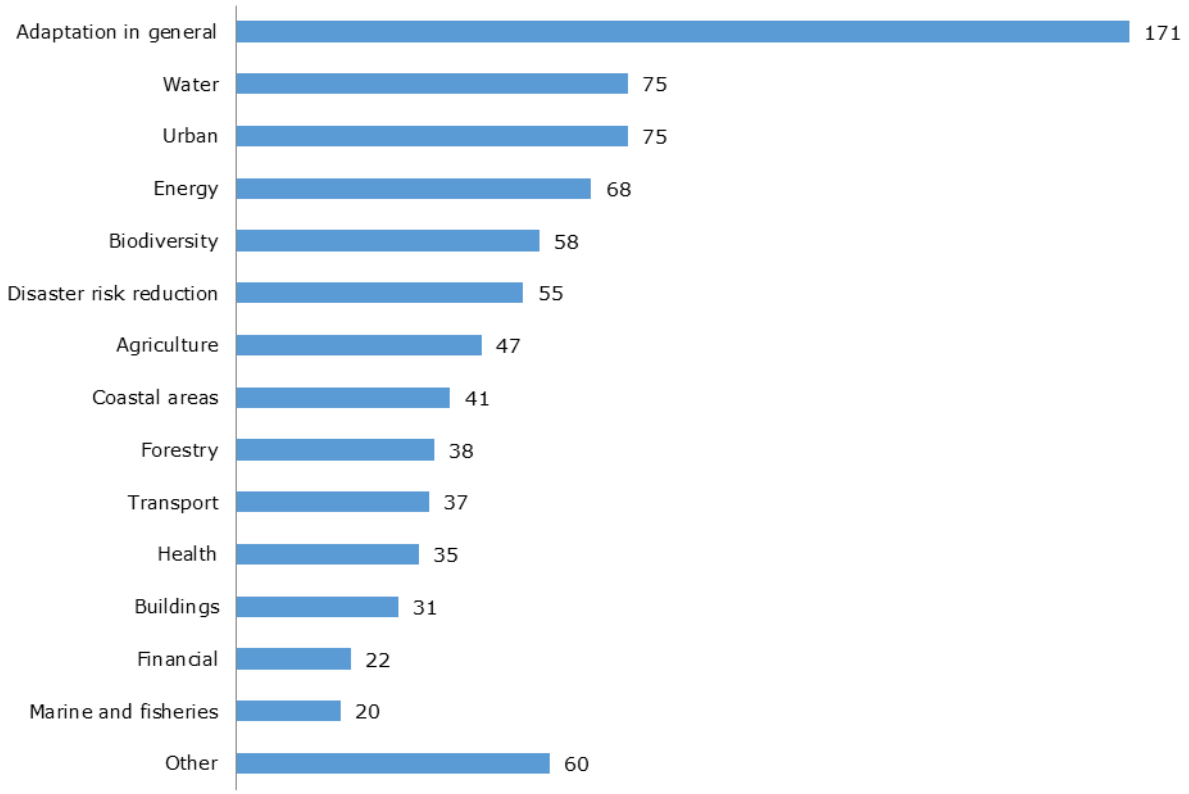
The survey captured opinions from various types of organisations (Q1, Figure 4.2), showing that the dissemination of the invitation reached the relevant audience. The highest number of respondents came from research organisation and National Focal Point (NFP)/National Reference Centre (NRC), which together account for almost half of respondents. The core audience of Climate-ADAPT was defined in Section 4.1.1 according to the Climate-ADAPT mid-term work plan.

Accordingly, in this survey report the following groups were identified:

- **core audience**, defined as those respondents who have selected the following organisation types: research organisation, all public authority/government and science/policy interface organisations (197 respondents; 66% of those who answered the question);
- **wider audience**, defined as those respondents who selected consultancy, business/private company, NGO and other, i.e. 100 people, or 34% of the people who answered the question.

Follow-up activities clarified that some research organisations are working to support governments working on adaptation. It is also recognised that consultancies could be working for both the private sector and governments. However, the decision to assign research organisations to 'core audience' and consultancies to 'wider audience' was confirmed during the break-out group held in the Eionet workshop. The discussion highlighted the fact that in many EU countries researchers are employed by governments to gather evidence from which decisions are made, although it is not possible to know how many of the research organisations in the survey are doing 'evidence gathering' and how many are doing 'pure research'.

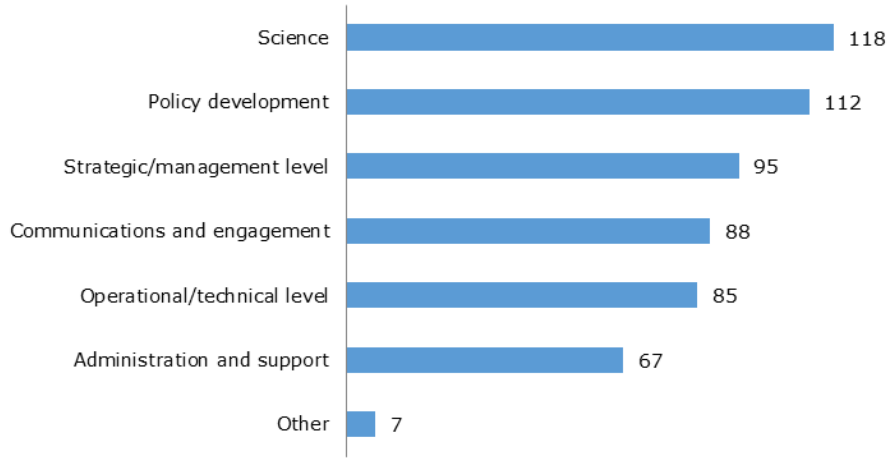
Figure 4.3 Field of work (more than one answer was allowed) [N=298]



Note: The figure reflects the results of Q2 of the Climate-ADAPT user/provider survey, more than one answer was allowed.

The fields of work listed in **Q2** (Figure 4.3) matched the policy sectors of Climate-ADAPT. Respondents are represented in all fields of work. The results show that more than half of respondents work on adaptation to climate change in general. Urban, water and energy are the three most represented sectors. Sixty respondents have selected 'Other', the fifth highest response, and have written in the available box a wide range of environmental issues, such as meteorology, sustainability and the circular economy, or with a specific focus, e.g. environmental engineering and waste.

Figure 4.4 Types of work (more than one answer allowed) [N=295]



Note: The figure reflects the results of Q3 of the Climate-ADAPT user/provider survey, more than one answer was allowed.

The full range of types of work listed in the survey are represented in the sample of respondents (**Q3** Figure 4.4). The two most common types are science (more than 40%) and policy development. The least common administration and support (over 20%). Nearly half of the respondents have selected more than one type of work: 150 respondents chose only one option, while the other 145 chose two or more (up to six) options. Many respondents had multiple roles: on average each respondent selected two types of work.

There were some statistically significant differences between the respondents in the core and wider audience groups with regard to the nature of their work:

- a higher proportion of the core audience respondents worked in science compared to the wider audience (47% versus 26%) (χ^2=12.254; p<0.001; N=297);
- a higher proportion of the respondents belonging to wider audience worked at the strategic/management level compared to the core audience (40% vs 28%); (χ^2=4.059; p<0.05; N=297);
- a higher proportion of the wider audience compared to the core audience worked at the operational/technical level (35% vs 24%); (χ^2=4.312; p<0.05; N=297).

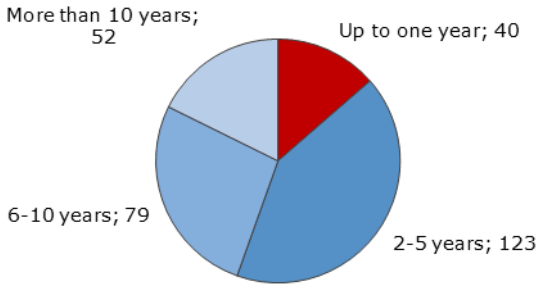
The fact that nearly half of the core audience work in science (Q3) could be explained by the fact that a high share of the core audience defines themselves as working for a research organization (Q1 Figure 2.1). Follow-up activities have led to the hypothesis that the high share of people who work in science may mean that Climate-ADAPT has become a source of information not only to support policy, i.e. the intended users, but also to support research, which is an activity where Climate-ADAPT has added value (see Q23 in section 4.2.6).

A two-step cluster analysis was carried out in order to classify the respondents in Q3 according to their types of work. As a result, six clusters were identified, with a 'fair' cluster quality based on the silhouette coefficient, which is a measure of both cohesion (similarity of elements in the cluster) and separation (differences between the clusters). The clusters were cross-tabulated with Q1 looking at differences between the core and wider audience. The groups that are more numerous in the core audience are pure research (78% in core audience vs 22% in wider audience; a quarter of all core audience are classified as pure research); strategic multitask (75%); and administration (68%). The least numerous group are the operational (51% in core, 49% in wider) ($\chi 2=16.113$; $p<0.01$; N=297).

Table 4.1 Characteristics of the emerging clusters

Cluster name		Pure research	Communication	Strategic multi-task	Administration	Operational	Other
Size		68	53	44	39	37	108
% respondents		20	15	13	11	11	31
Predominant answer to questions about nature of work	Science	yes	No	Yes	No	No	No
	Communications and engagement	no	Yes	Yes	No	No	No
	Administration and support	no	No	No	Yes	No	No
	Operational/technical	no	No	No	No	Yes	No
	Policy development	no	Yes	Yes	No	No	No
	Strategic/ management	no	no	yes	no	no	No

Figure 4.5 Length of time working on climate change adaptation [N=294]



Note: The figure reflects the results of Q4 of the Climate-ADAPT user/provider survey, only one answer was allowed.

The majority of respondents in **Q4** (Figure 4.5) have been working on climate change adaptation between 2 to 5 years (42%). Respondents that have been working on adaptation for up to one year are less represented in the survey (14%), despite the fact that EEA encouraged those new to adaptation to participate in the survey wherever possible.

In this survey report the following groups from Q4 are considered in the analysis:

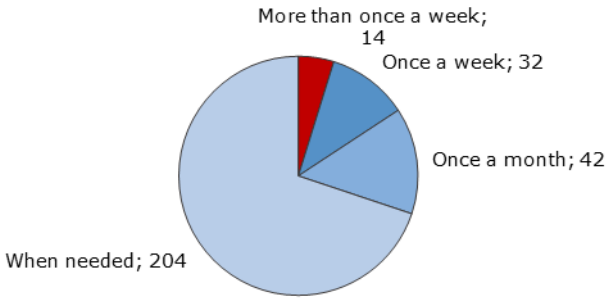
- **respondents new to adaptation** are defined as those respondents who have been working on climate change adaptation for up to one year, i.e. 40 people, or 14% of the people who answered the question;
- **respondents experienced with adaptation** are defined as those respondents who have been working on climate change adaptation for two or more years, i.e. 254 people, or 86% of the people who answered the question.

There are statistically significant differences between the numbers of respondents that are experienced and those that are new to adaptation in the core audience and wider audience categories. Nearly two thirds of respondents experienced with adaptation are from the core audience, whereas only half of those new to adaptation are from the core audience (χ^2=4.042; p<0.05; N=293). Unfortunately, not many people with no or low level of experience on adaptation answered the questionnaire, so the survey has not been able to capture details of their needs and how to improve their involvement. However, the free text answers in Q25 give some insight into their needs.

Table 4.2 Cross tabulation between Q1 (core audience vs wider audience) and Q4 (respondents new to adaptation vs. respondents experienced with adaptation)

		New user (0-1 year)	Experienced user (2 and above years)	Total
Audience	**Core**	20	168	188
	Wider	20	85	105
Total		40	253	293

Figure 4.6 How frequently Climate-ADAPT is consulted and/or submitted [N=292]



Note: The figure reflects the results of Q5 of the Climate-ADAPT user/provider survey, only one answer was allowed.

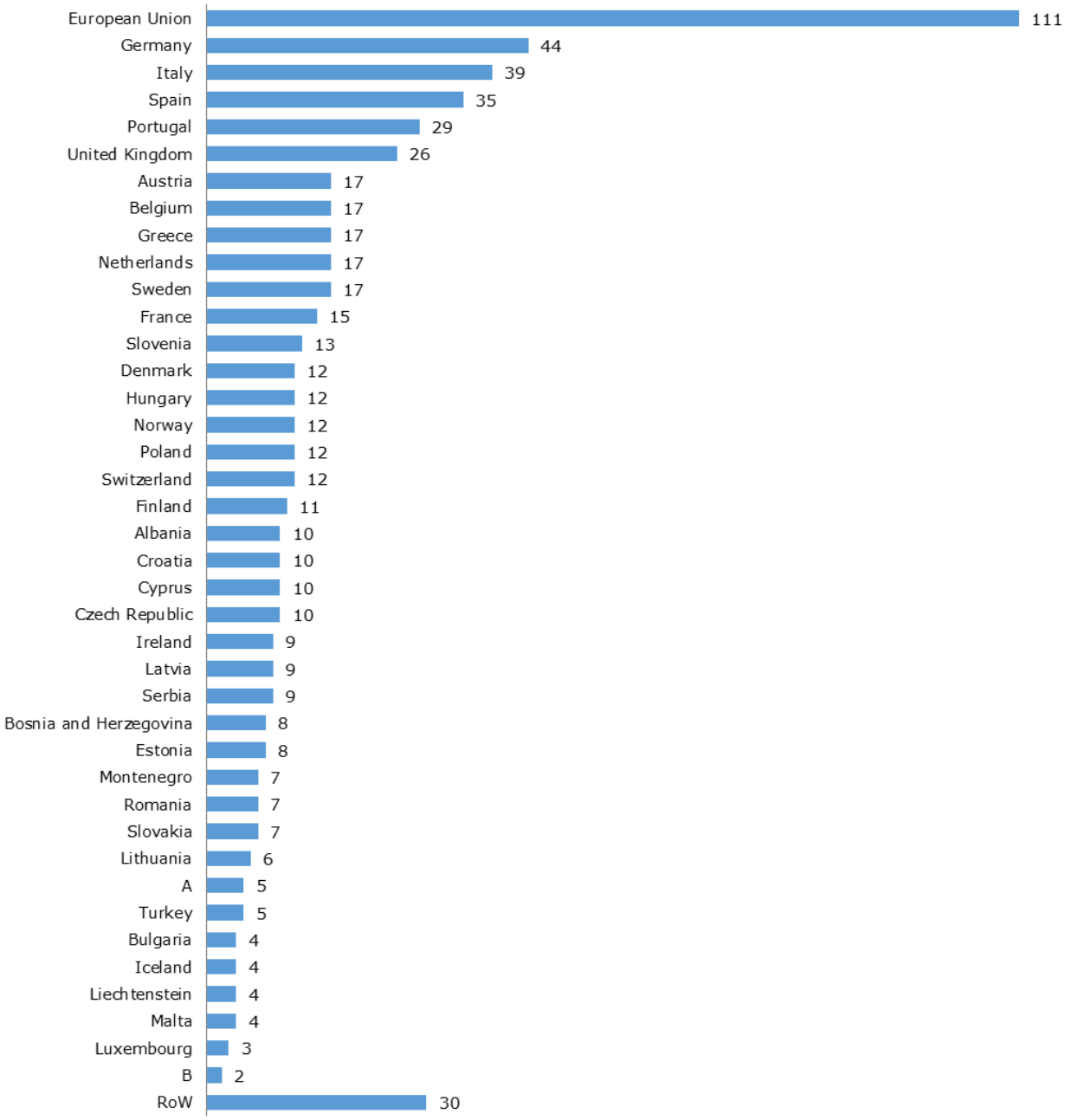
The majority of the respondents (i.e. 168) belong to the group of 'core audience – respondents experienced with adaptation', and therefore the people who answered the questionnaire belong to the target audience of Climate-ADAPT and have experience to share (Table 4.2). Thus, the opinions recorded though the survey are very useful for this assessment.

There were statistically significant differences in the distribution of respondents new to adaptation and respondents experienced with adaptation among different clusters (see analysis of Q3 and Table 4.1). Overall, 86% of users are experienced, but the highest number of respondents experienced with

adaptation is in the strategic multitask cluster (all but one), communication (94%) and pure research (87%). The highest number of respondents new to adaptation is in the administration cluster (12 respondents of 40 in total; $\chi 2=18.207$; $p<0.01$; N=294). This could mean that people working in administrative roles are starting to work with Climate-ADAPT, perhaps because awareness of and knowledge on adaptation are now becoming more widespread.

According to **Q5** (Figure 4.6) the majority of people visit Climate-ADAPT to either find/or submit information when they need to, on an ad hoc basis (70%). The remaining third, however, visit or submit information quite frequently, ranging from once a month (the next highest count) to more than once a week.

Figure 4.7 Country of work focus (more than one answer) [N=290]



Note: The figure reflects the results of Question 6 of the Climate-ADAPT user/provider survey, more than one answer was allowed. (A: Former Yugoslav Republic of Macedonia; B: Kosovo under the UN Security Council Resolution 1244/99; RoW: rest of the world).

Thirty nine European countries, as well as the rest of the world are represented in the survey (**Q6**, Figure 4.7), but the majority of the respondents work at the EU level (38%). Countries with the highest representation are: Germany (15%), Italy (13%), Spain (12%), Portugal (10%) and the UK (9%). In addition, people from outside the EU consult Climate-ADAPT (10%).

Table 4.3 Classification of countries based on the presence of NAP and national Adaptation platform (as of Spring 2017) [90]

Groups	Countries that respondents focused on	Number of respondents
Both national adaptation plan and platform	Austria, Belgium, Denmark, Estonia, Finland, France, Germany, The Netherlands, Spain, Sweden, United Kingdom	88
National adaptation plan; no platform	Czech Republic, Lithuania, Malta, Romania	5
No national adaptation plan; platform	Croatia, Ireland, Poland	13
Neither plan nor platform	Bulgaria, Cyprus, Greece, Hungary, Italy, Latvia, Luxembourg, Portugal, Slovakia, Slovenia	75
Countries outside the EU		15
Total		196

Source: EEA

Table 4.4 Classification of countries based on the European region[91]

Groups	Countries that respondents focused on	Number of respondents
Eastern European	Albania, Bosnia and Herzegovina, Bulgaria, Czech Republic, Croatia, FYROM, Hungary, Kosovo*, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia	30
Western European	Andorra, Austria, Belgium, France, Germany, Ireland, Liechtenstein, Luxembourg, Monaco, the Netherlands, Switzerland, United Kingdom	65
Southern European	Cyprus, Greece, Italy, Malta, Portugal, San Marino, Spain	83
Northern European	Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway, Sweden	14
Total		192

Note: *Kosovo under the UN Security Council Resolution 1244/99.

Source: after EuroVoc; http://eurovoc.europa.eu

For the purposes of further analysis, the respondents from individual countries were grouped based on two criteria: 1) the status of adaptation planning in country (presence of National Adaptation Plan (NAP) and National Adaptation Platform (platform), see Table 4.3; 2) based on four geographical regions in Europe: East, West, South and North (based on EuroVoc, see Table 4.4). The analysis using these two classifications was limited to the respondents who have either selected only one country they were working on or those who selected only countries in the same category. It was decided not to use the

[90] Luxembourg was not considered in the analysis.
[91] Turkey was not included in this classification

National Adaptation Strategy (NAS), because it did not help in differentiating the countries as the majority of countries now have a NAS.

The results of the analysis for the country groups suggest (Table 2.1) that Climate-ADAPT is used by both respondents from countries at the later stages of the national adaptation policy process, with both NAP and national adaptation platform in place (88 out of 181 and by countries which are generally at the early stages of the adaptation policy process and do not have a national platform (75 out of 181). In the first case, this may be because Climate-ADAPT provides information in one place which can be used very efficiently and also provides an avenue to share and promote their adaptation activities. In the latter case, it may be because they do not have an alternative source of adaptation information.

The largest number of participants is from Southern Europe (83 out of 192), which may relate to the extent of climate impacts in the region, but also to the fact that they have, with the exception of Spain, no national platforms. It may also be because there is a high awareness of Climate-ADAPT and there are a high number of signatories in Italy and Spain to the Global Covenant of Mayors for Climate and Energy (Table 2.2). The relatively high share of participants from Western Europe is likely to be due to the high level of preparedness to climate change in this region.

The lowest number of participants was in Northern Europe and might mean that since the majority have national adaptation platforms and/or plans in place, support from Climate-ADAPT is not so essential. Eastern countries have the second smallest number of participants and this might mean that they are not aware of the possibilities offered by Climate-ADAPT or, that the awareness of adaptation is still limited to a small group of experts. EEA/DG CLIMA could reinforce their efforts to involve the countries from Eastern Europe.

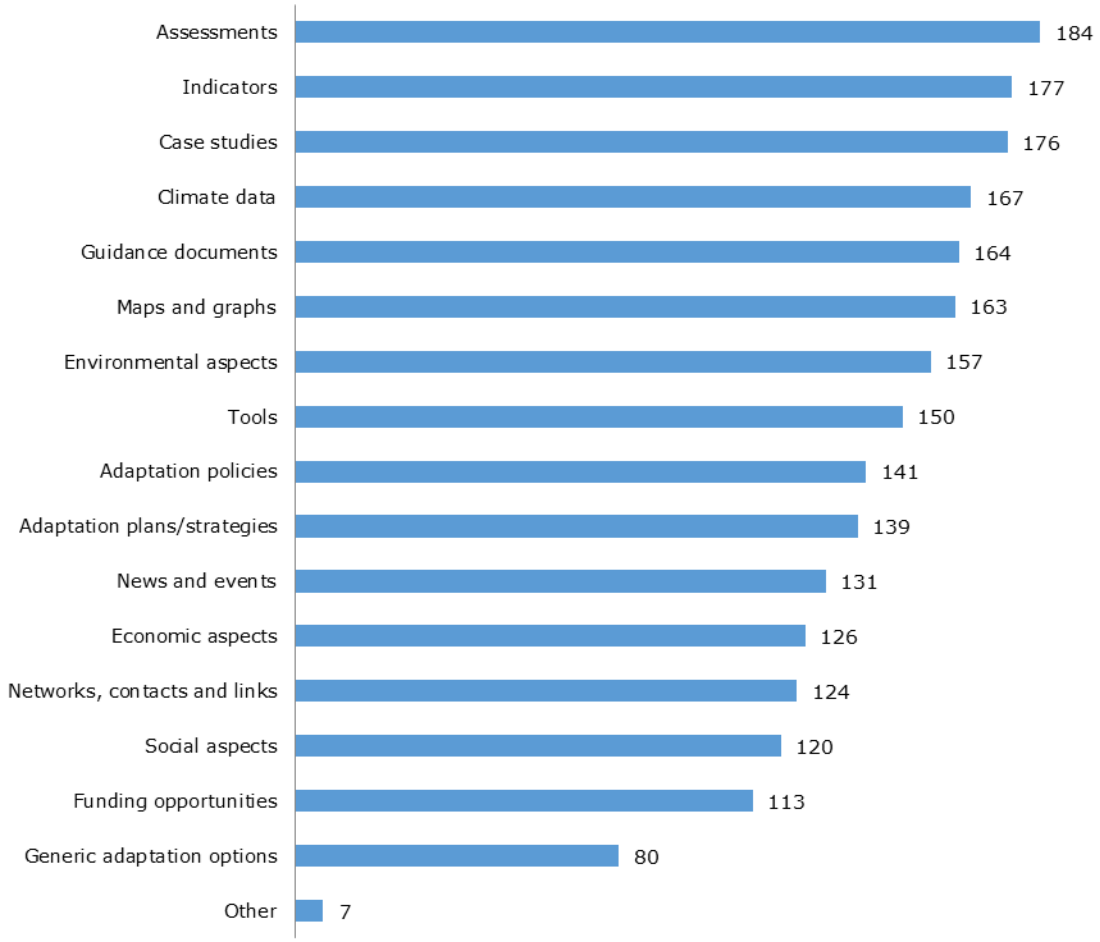
4.2.2 Section 2: Requests for new information and use of existing information

Key messages

- Assessments, indicators and case studies were the climate change adaptation products that respondents would like to have on Climate-ADAPT.
- Different sections are used by different audience types e.g. news by the communications and administration clusters and tools by the strategic multitask and operational clusters. The core audience uses mostly the sections EU policies, Adaptation Support Tool, country information and case studies.
- The tools are used by a limited number of respondents – more by respondents experienced with adaptation.

According to **Q7** (Figure 4.8) assessments, indicators and case studies were the top three climate change adaptation products that respondents felt Climate-ADAPT should provide. Climate data (projections), guidance documents, maps and graphs were ranked 4-6 respectively in popularity. Environmental aspects of adaptation was the 7th most wanted product. All products received more than 100 responses (except generic adaptation options that had 80 responses) indicating that respondents would like Climate-ADAPT to provide them all. This could mean that more respondents experienced with adaptation are already quite knowledgeable on the topic of adaptation and therefore are more interested in in-depth information, not available on other websites, such as the case studies. The high share of interest in the environmental aspects of adaptation could relate to the task of the NRC's as working on adaptation in general to mainstream adaptation into the other policy fields.

Figure 4.8 Adaptation products that users want [N=251]



Note: The figure reflects the results of Q7 of the Climate-ADAPT user/provider survey, more than one answer was allowed.

There are no statistically significant differences in the perception of what information Climate-ADAPT should provide between core and wider audience. A much higher proportion of respondents experienced with adaptation (158 out of 219, 72%;) thought that Climate-ADAPT should provide information on case studies in comparison to respondents that are new to adaptation (17 out of 35, just under 50%) (χ^2=7.827; p<0.01; N=254). There are statistically significant differences between respondents from different regions for the following options:

- the highest demand for case studies is from Southern and Western Europe, compared to the respondents from the North and the East (χ^2=7.942; p<0.05; N=167);
- similarly, the highest demand for news and events was amongst respondents from Southern and Western Europe, whilst the appetite for this type of content was much lower amongst Northern European respondents (χ^2=7.942; p<0.05; N=167).

Table 4.5 Differences between various cluster respondents with regards to which kind of adaptation products they want (%) (N=258)

	Pure research	Multi-task	Administration	Operational	Other	Communication	Average	χ^2	p
Climate data	66	70	67	73	56	62	65		ns
Indicators	73	85	58	70	62	64	69		ns
Maps and graphs	64	82	53	67	50	67	63	11.791	<0.05
Assessments	69	85	64	64	64	78	71		ns
Guidance docs	51	77	53	68	58	78	64	13.747	<0.05
Tools	51	80	47	61	52	60	58	11.124	p<0.05
Generic adaptation options	27	49	17	39	24	31	31	11.835	<0.05
Adaptation plans and strategies	46	59	39	46	64	67	54	11.198	p<0.05
Adaptation policies	47	54	42	52	54	71	54		ns
Case studies	71	80	42	73	56	84	68	23.223	<0.001
Funding opportunities	44	62	42	46	34	40	44		ns
Economic aspects	49	69	28	52	40	56	49	15.353	<0.01
Social aspects	42	74	28	52	32	56	47	23.766	<0.001
Environmental aspects	66	90	42	61	44	64	61	25.922	<0.001
Networks, contacts, links	36	67	47	49	34	62	48	16.011	<0.01

Note: red-orange is a scale for highest preference, grey marks least preferred, ns – not statistically significant.

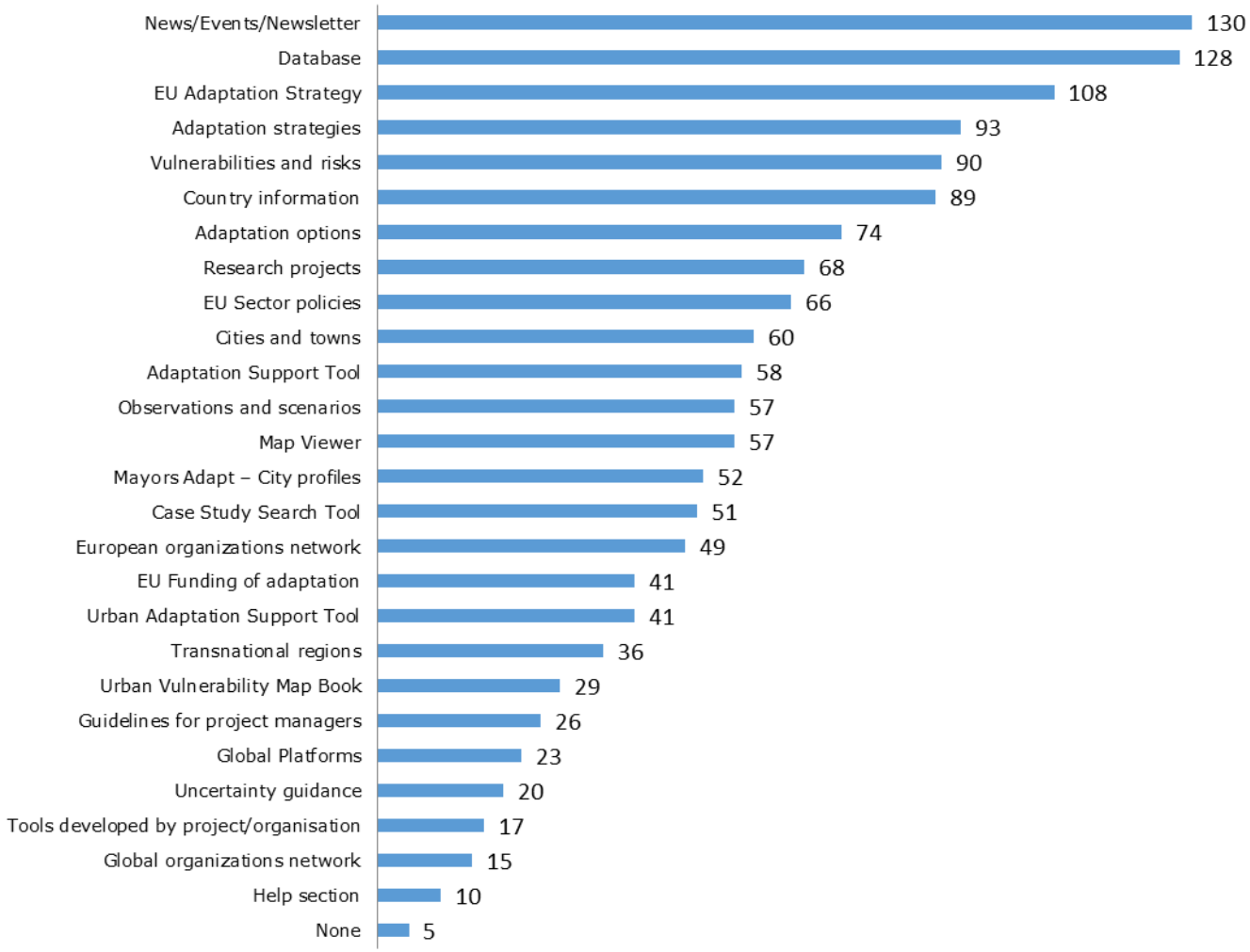
The cluster analysis (Table 4.5) shows that the respondents classified to the strategic multitask cluster are interested in the widest range of information types. There were some statistically significant differences between the clusters in terms of the information that the respondents wanted to see on Climate-ADAPT.

- The need for maps and graphs was highlighted predominantly by the strategic multitask cluster (82% compared to 63% across all clusters), as well as the operational and communication cluster (67% in both cases). The maps and graphs were the least important for the respondents in clusters other and administration.
- Guidance documents were most desired by the communication cluster (78% said yes compared to 64% across all clusters) followed by the strategic multitask (77%) and the operational cluster (70%).
- Tools were most wanted by the strategic multitask, operational and communication clusters.
- Generic adaptation options were the most wanted by strategic multitask and the operational clusters.
- Adaptation plans and strategies were the most required by communication (two-thirds selected this option) and respondents in the other cluster (64%). This type of information was the least popular among administration (39%).

- Case studies were the most popular with the communication (84% selected this option) and strategic multitask cluster (80%), whilst the administration cluster were least interested (42%).
- Economic aspects of adaptation and social aspects of adaptation were the most popular among the strategic multitask cluster, followed by the communication cluster, with the administration cluster the least interested.
- Environmental aspects of adaptation were wanted the most by strategic multitask followed by pure research and communication.
- Finally, networks, contacts and links were the most wanted by strategic multitask and communication. Pure research and other were the least interested in them.

There were also no statistically significant differences between the different clusters for assessments, indicators, climate data, adaptation policies and funding opportunities.

Figure 4.9 Sections of Climate-ADAPT used [N=246]



Note: The figure reflects the results of Q8 of the Climate-ADAPT user/provider survey, more than one answer was allowed.

The news/events/Climate-ADAPT newsletter, database and EU policies: adaptation Strategy pages are the top three areas that are most often used by respondents (**Q8**, Figure 4.9). The areas that were ranked 4-6 respectively were adaptation information: adaptation strategies, adaptation information -

vulnerabilities and risks and country information. Many of the general tools (Adaptation Support Tool; AST) and the more specific tools (case study search tool, map book) are the middle of the range. The help section has a very low number of responses. Respondents could select more than one answer.

Analysis of differences between the audience types (Q1) and the level of experience (Q4) in terms of the use of various sections of the site resulted in the following:

- the core audience (96 out of 166, 58% of respondents) are much more likely to use the Climate-ADAPT section: countries, regions and cities than the wider audience (37 out of 87, 43% of respondents) (χ^2=5.361; p<0.05; N=253).;
- a much greater proportion of core audience (47 out of 166, 28% of respondents) have used the Adaptation Support Tool compared to wider audience (11 out of 87, 13% of respondents) (χ^2=7.932; p<0.01; N=253).

Looking at the use of tools in more detail, only one respondent new to adaptation has used the Urban Adaptation Support Tool, compared to 40 (18%) respondents experienced with adaptation. Guidelines for project managers and additional tools were not used at all by respondents new to adaptation.

EU policies (Q4 vs Q8) have been used much more by the respondents experienced with adaptation (half of them have used that section, whilst only a quarter of respondents new to adaptation have used it (χ2=7.283; p<0.01; N=254). This is mainly driven by the differences in the use of the subsection on EU adaptation strategy, which was used by 46% of respondents experienced with adaptation compared to under a quarter of respondents new to adaptation (χ2=6.421; p<0.05; N=254). Similarly, with regards to the countries, regions, cities section, a greater proportion of respondents experienced with adaptation have used it compared to respondents new to adaptation (χ2=7.131; p<0.01; N=254). The same pattern emerges for the adaptation information section (χ2=11.564; p=0.001; N=254) and tools section (χ2=10.159; p=0.001; N=254).

There were statistically significant differences in the use of Climate-ADAPT sections by respondents in different clusters (Table 4.6):

- news/events/newsletter was used most by the communication and administration cluster;
- adaptation information was used most by the strategic multitask, communication and pure research clusters;
- tools was used most by the strategic multitask and the operational clusters;
- global organization networks were used mainly by the communication cluster.

There were no statistically significant differences in the use of the database, help, EU policies, countries, regions and cities by respondents in different clusters.

In some cases there are requests for certain types of information (Q7), e.g. for case studies but they are not so often used (Q8). This may mean that the respondents are unaware that in many cases the information already exist on Climate-ADAPT and they cannot find it, or that it is not in a form that they can understand/use.

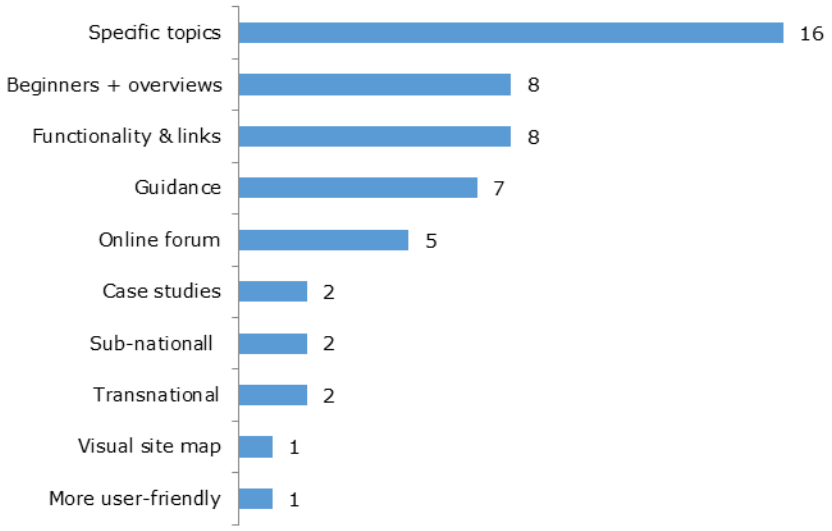
Forty five respondents provided additional qualitative information about how they would like Climate-ADAPT to support their work using the free text box made available in **Q9** (Figure 4.10).

Table 4.6 Differences between various cluster respondents with regards to which section of Climate-ADAPT they have used (%) (N=258)

	Pure research	Strategic multitask	Administration	Operational	Other	Communication	Average	χ2	p
Database	58	64	47	42	36	49	50		ns
News	40	54	64	46	30	73	50	23.281	<0.001
Help	2	5	8	0	4	2	4		ns
EU policies	50	54	36	33	52	47	46		ns
Countries, regions, cities	56	51	44	46	50	58	52		ns
Adaptation information	60	67	28	49	52	64	54	15.749	<0.01
Tools	47	62	25	55	28	51	44	17.970	<0.01
Networks	26	18	19	15	12	38	22	11.333	<0.05

Note: red marks the highest preference, ns – not statistically significant.

Figure 4.10 Additional information people would like to support their work [N=45]



Note: The figure reflects the results of Q9 of the Climate-ADAPT user/provider survey, free text answers.

The most common request (16 out of 45) was for specific topics, e.g. economic assessments of adaptation measures, co-benefits of adaptation and mitigation measures, greater spatial resolution (NUTS3 level) of data, participatory adaptation, e.g. citizen science, communications and engagement of the public.

There were eight requests for synthesis information (a summary of the information available on that topic) designed for respondents that are new to adaptation that included the following topics:

- a visual of the site contents (more than a site map) to make it clearer what is available;
- an overview of tools and what they can be used for;
- a summary of the status of national adaptation plans and policy process;

- a comparison between countries and lessons learned;
- an overview of communications and engagement of the public;
- a synthesis of benchmarking linked to standards for vulnerability assessment;
- an overview of uncertainties that make it clear the level of understanding and the trend e.g. impacts understanding - high, knowledge - increasing, damages understanding - low and knowledge – static;
- a synthesis of facts to make the case for adaptation.

There were also eight comments on the functionality of the site such as the search engine and improvements to the map viewer.

Guidance was one area that also came up frequently (seven comments) especially on how to do a local vulnerability assessment and help for users to choose which tools and methods they should use for assessments.

Finally, an online forum for regular discussion between researchers and practitioners was mentioned by five respondents.

Additional comments provided by respondents in Q9 show the need:

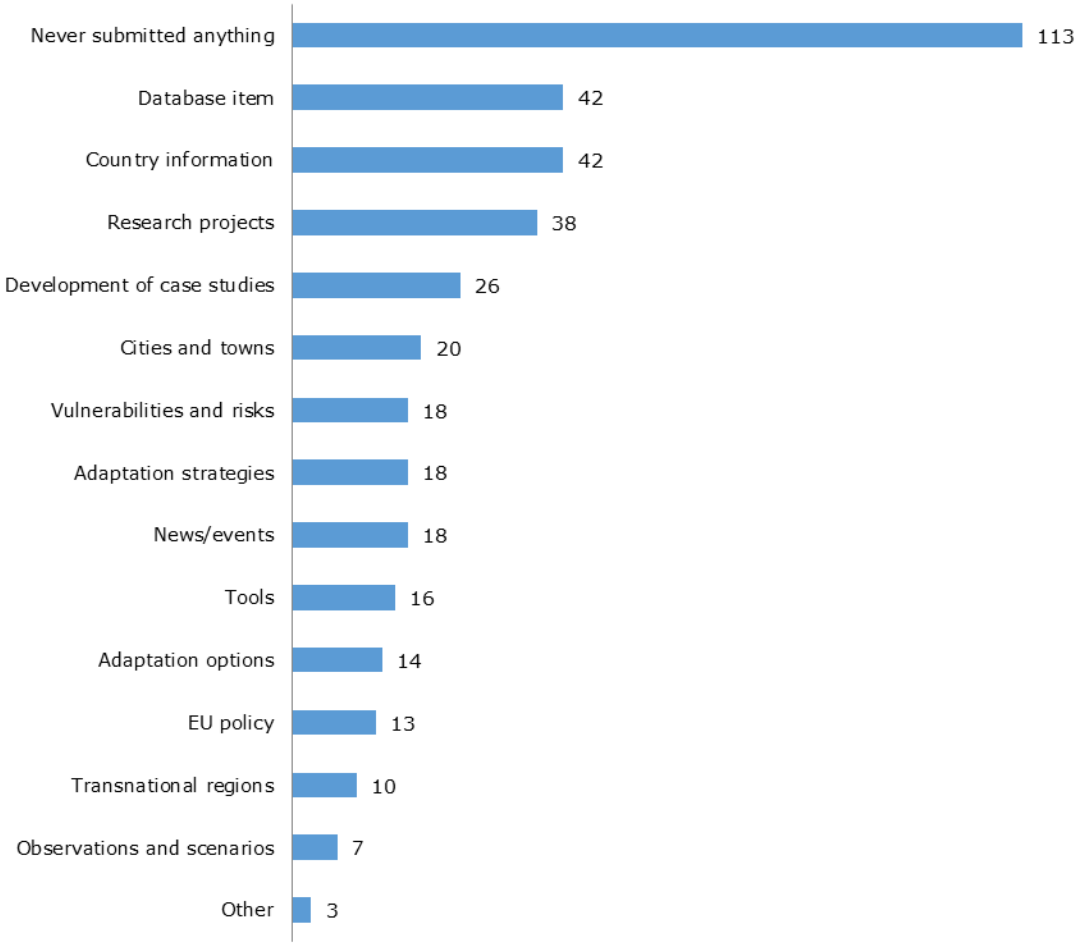
- for more promotion of the features that are available on Climate-ADAPT, because they are not easy to find;
- for respondents that are new to adaptation to have more information and guidance on how to use Climate-ADAPT;
- for all users to have more synthesis and/or summary information to get quick access to the status of adaptation in the EU.

4.2.3 Section 3: Contributions to Climate-ADAPT

Key messages

- Ninety eight people out of 211 have submitted information to Climate-ADAPT.
- A higher proportion of respondents from countries with a national platform have submitted information compared to other respondents.
- The main reason not to submit information is the perception of respondents that they do not have information that is appropriate (15 respondents). A lower number (4 respondents) think that the criteria could be clearer and more guidance on the submission process would be helpful.
- Eighty seven people recognize that there is added value of presenting information on Climate-ADAPT – such as making research

Figure 4.11 Sections people have contributed to [N=211]



Note: The figure reflects the results of Q10 of the Climate-ADAPT user/provider survey, more than one answer was allowed.

Nearly half of respondents (98 out of 211) have submitted information to Climate-ADAPT: a total of 285 pieces of information have been submitted to the available sections, with a median of one and a maximum of eight per person (**Q10**, Figure 4.11). The most contributions are for: database items (20%), country information (20%) and research projects (18%). It is also worth mentioning that contributions to the development of case studies (12%) also feature strongly. In addition, approximately 20 people have submitted items to cities, vulnerabilities and risks, adaptation strategies and news/events.

Respondents from the core audience are more likely to submit information than those belonging to the wider audience. Over half of the core audience have submitted information, compared to only a third of wider audience (χ^2=6.794; p<0.01; N=223). However, there was no statistically significant difference between the core and wider audience in terms of the number of sections they have contributed to.

Many more of the core audience have contributed to the country information section (25%) compared to the wider audience (only 5%) (χ^2=13.638; p<0.001; N=223). On the contrary, information was uploaded to the cities and towns section by a higher number of wider audience (16%) compared to core audience (4%) (χ^2=8.946; p<0.01; N=223).

Rather unsurprisingly, respondents experienced with adaptation were much more likely than respondents that are new to adaptation to have contributed to Climate-ADAPT (nearly half compared to one-fifth (χ^2=6.978; p<0.01; N=224). Those that are new to adaptation have not contributed at all to the following sections:

- observations and scenarios;
- EU policy;
- tools;
- cities and towns;
- case studies.

There were statistically significant differences between respondents from different country groups in terms of the proportion who have contributed information to Climate-ADAPT. The proportion was much higher for respondents from countries with an adaptation platform but no plan (10 out of 11 have contributed) compared to those with no platform and no plan (only a third of respondents have contributed) (χ^2=14.650; p<0.01; N=148).

A significantly higher proportion of the respondents from Eastern and Northern Europe have contributed to Climate-ADAPT compared to the Southern Europe, where only a quarter have contributed (χ^2=16.698; p<0.01; N=145).

The fact that more of the core audience have contributed to the country information section is likely to be because the MMR process was mandatory in 2015 at the national level (see results for Q14).

The results show that those countries that have a platform also have the capacity to contribute to Climate-ADAPT (Q6 vs Q10).

There were statistically significant differences between different respondent clusters based on their area of work in terms of the number of people contributing information to Climate-ADAPT. The highest percentage of contributors was among the strategic multitask and the administration clusters, whilst the lowest was among the operational cluster. The database section was mainly populated by the pure research, strategic multitask and administration clusters. Case studies were largely submitted by pure research, followed by strategic multitask and communication clusters. Pure research and strategic multitask submitted research projects, whilst the strategic multitask cluster led on the contribution of news and events.

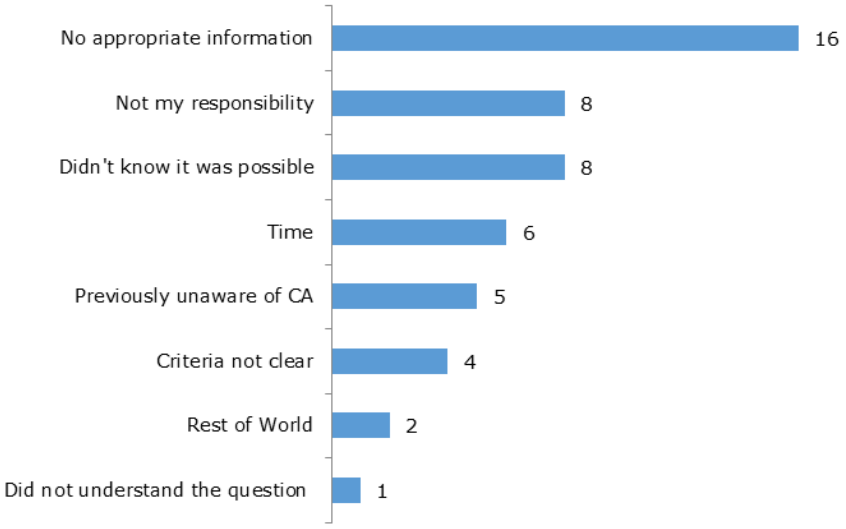
There were no statistically significant differences between the clusters on the percentage of respondents who have submitted to other sections: observations and scenarios, vulnerabilities and risks, adaptation options, adaptation strategies, EU policy, tools, transnational regions, country information, cities and towns.

Forty six people (out of the 113 people who have answered in Q10 'Never submitted anything') have given an explanation of why they have not submitted anything in the free text box available in **Q10B** (Figure 4.12). Answers given indicate that there is some lack of awareness on the fact that information can be shared through Climate-ADAPT.

The highest number of those who have not submitted anything (15 people, 31%) think that they do not have information that is appropriate. Many also did not know it was possible (8 people, 16%) or consider that it is not their responsibility (8 people, 16%). In addition, the criteria for determining what information is appropriate to submit are also not well known to those who have not submitted any information.

The majority of people (91 people out of 111, 82%) find the submission process clear (**Q11**). Two main messages are voiced by the 20 people (18%) who responded that it is not clear: (1) more guidance is needed to understand the submission process, (2) more transparency would be welcomed on the publishing process, and e.g. it is not clear why something submitted was not published.

Figure 4.12 Why people have never submitted information [N=46]

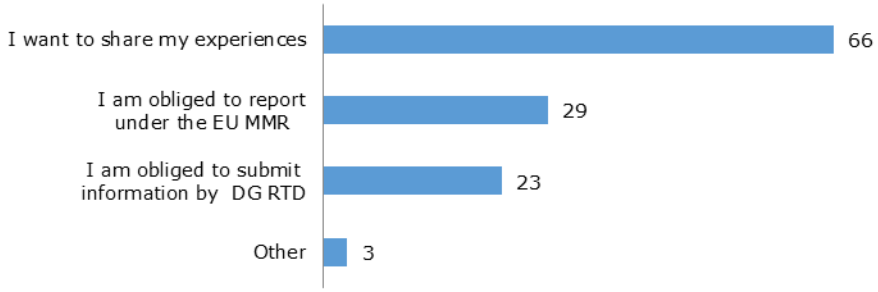


Note: The figure reflects the results of Q10B of the Climate-ADAPT user/provider survey, free text answers.

Most people (92 people out of 107, 86%) consider that the criteria to identify the information that is eligible for publication are clear (**Q12**). The 15 people (14%) who did not agree that the criteria are clear gave no specific reason in the questionnaire. However, one person suggested that in the 'Share your information' webpage[92] could provide a webinar tutorial to go through the whole process.

Almost all respondents either find it easy to check if the information is already in the database before submitting an item (53 people out of 110, 48%) or 'Don't know / have never tried' (47 people, 43%) (**Q13**). It is difficult for only 10 people (9%), mainly because the search function is not user friendly.

Figure 4.13 What prompted people to submit information [N=102]



Note: The figure reflects the results of Q14 of the Climate-ADAPT user/provider survey, more than one answer was allowed.

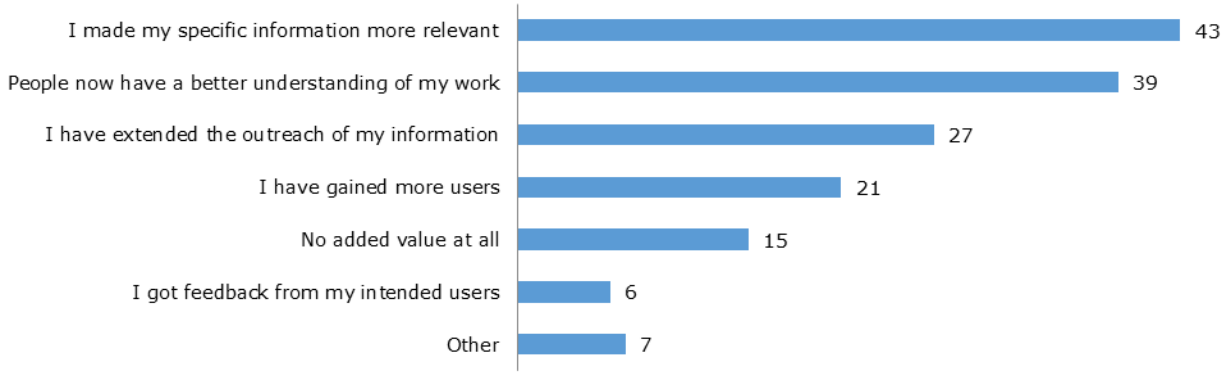
The majority of information providers (**Q14**, Figure 4.13), i.e. 66 people out of 102 (65%), submitted information on a voluntary basis, 16 of these also submit because they are obliged to (they answered 'yes' to one or both the 'I am obliged to…' answers).

There was a statistically significant difference between audience types in the case of mandatory national adaptation action reporting. A third of the core audience have submitted information because they were

[92] http://climate-adapt.eea.europa.eu/help/share-your-info

obliged to report on national adaptation action, compared to none of the wider audience (χ^2=13.268; p<0.001; N=117).

Figure 4.14 Added value gained from making information visible on Climate-ADAPT [N=102]



Note: The figure reflects the results of Q15 of the Climate-ADAPT user/provider survey, more than one answer was allowed.

A total of 87 people recognize there is an added value in sharing information through Climate-ADAPT (they chose one or more of the first four answers on Figure 4.14). About half of the respondents chose more than one of the first four answer: they see multiple added values of sharing the information on Climate-ADAPT. However, only six people received feedback from users who accessed their information. Only 15 people do not see an added value.

4.2.4 Section 4: Usability of Climate-ADAPT

Key messages

- The main way of finding out about Climate-ADAPT is through a colleague.
- Overall the website is considered user-friendly but some respondents consider that parts of the information are out-of-date and this could be improved.
- Respondents are not aware of the 'help' section (many don't know responses).
- The awareness of the interactive functionalities is limited, however, those that have used them value them and would like to see improvements

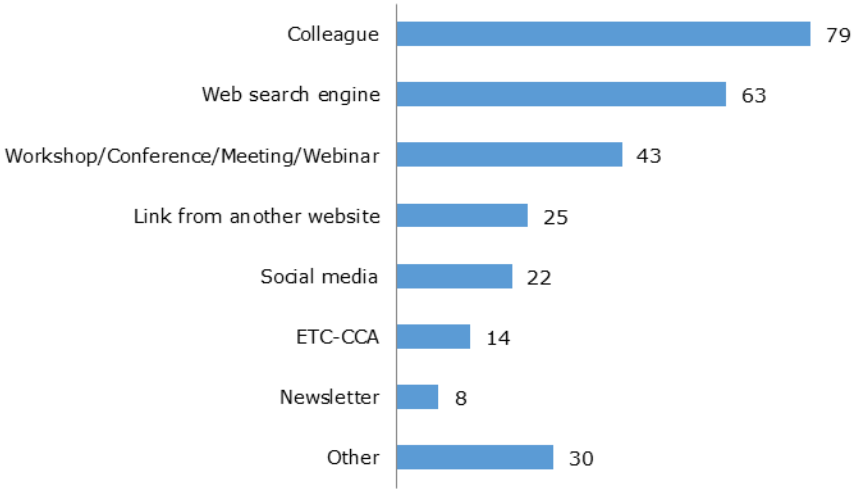
The most popular way to discover Climate-ADAPT is via a colleague, with the second most popular via a web search engine e.g. Google and via events (workshops/webinars) is the third most common method (**Q16**,

Figure 4.17). The Climate-ADAPT Newsletter is the least used.

The survey shows that the main way of finding out about Climate-ADAPT is through a colleague and this may reflect the primary way of interacting with its core audience (EC, NRCs/NFPs/national governments). This is often through invited meetings (Eionet, DG CLIMA and webinars) where the invitation specifically requests that the country is invited to attend but if the individual cannot attend, it should be passed on

to a colleague. The success of this access path is also confirmed by some of the follow-up activities (e.g. various meetings, ECCA 2017, Evaluation stakeholder workshop 5 April 2017[93]).

Figure 4.15 How people learn about Climate-ADAPT [N=202]



Note: The figure reflects the results of Q16 of the Climate-ADAPT user/provider survey, more than one answer was allowed.

The graphs for the results of Q17 and Q18 have a similar shape – in that the 'good' is the most often used category. To differentiate between the different series the 'adequate', 'excellent' and 'don't know' categories have been used.

Overall the site is considered easy to navigate, primarily via the green header bar and drop-down menus (most 'excellent' responses) (**Q17**, Figure 4.16). The search function and interactive functionalities are relatively easy to use but are considered less user-friendly than the green header bar and drop-down menus (more 'adequate' responses). The number of clicks to reach the information has less excellent and more adequate responses. The help section is the least used (many don't know responses) although it is prominently located in the main green navigation bar. The interactive functionalities are also not as well used (more don't knows) compared to the other functions.

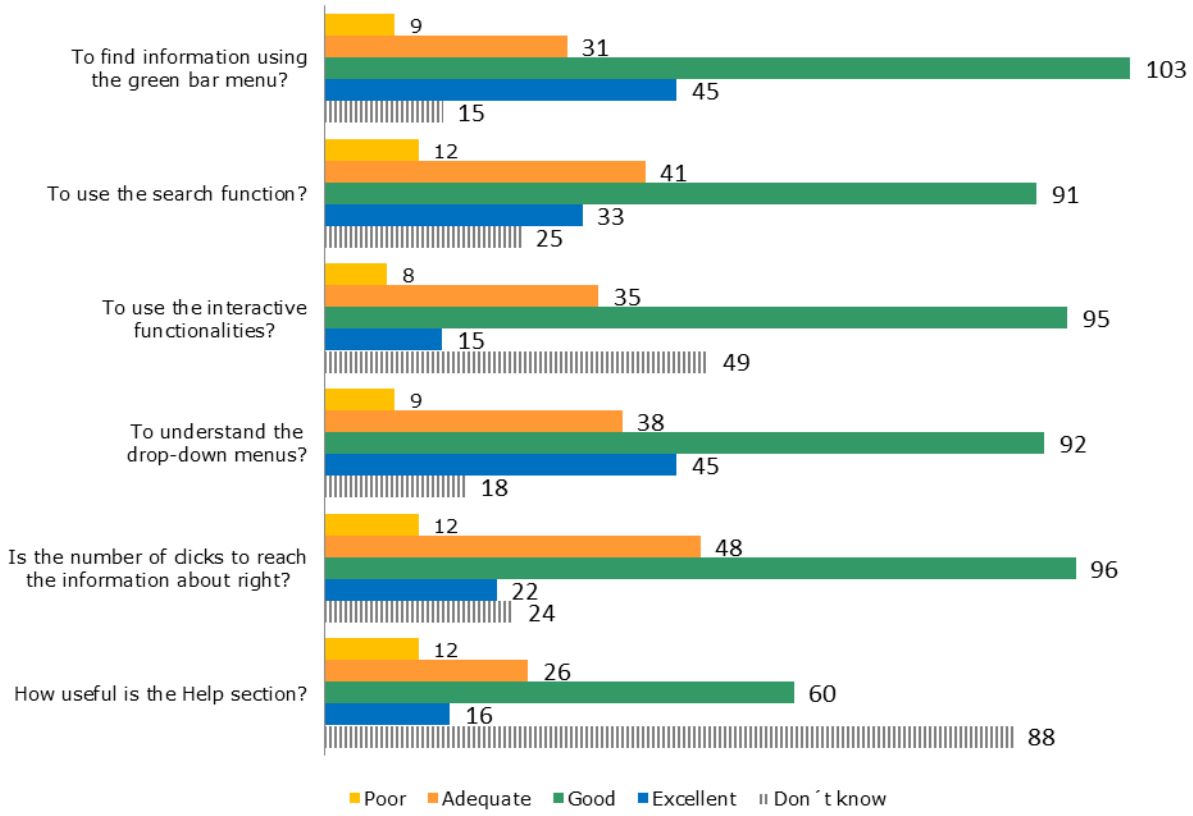
The awareness of the interactive functionalities is limited, however those that have used them recognise their added value and would like to see improvements, as shown in a quote from Q9: 'An improved map viewer function. More guidance on how to get exact data points on the climate impact indicators for which there is information on the site.'

Overall the information is easy to understand, the text is about the right length and the graphics are clear (**Q18**,

Figure 4.17). There were more 'adequate' and less 'excellent' responses to the 'how up-to-date is the information' question: this suggests that there is less agreement on the fact that the information is updated and, therefore, this could be improved.

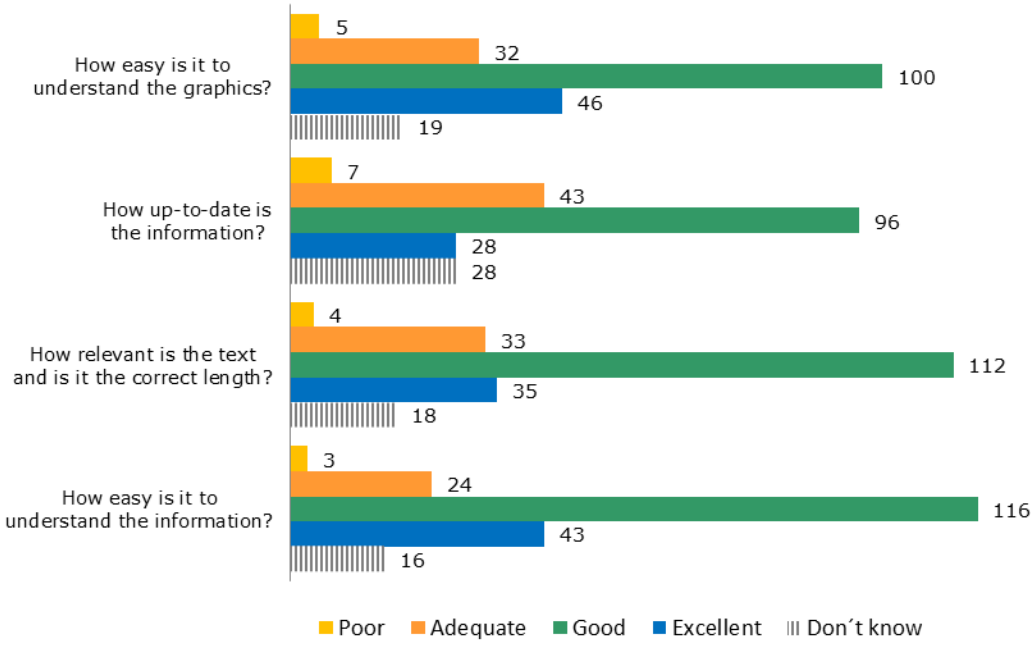
[93] https://ec.europa.eu/clima/sites/clima/files/adaptation/what/docs/summary_workshop_report_20170405_en.pdf

Figure 4.16 Ease of navigation around the website [N=202]



Note: The figure reflects the results of Q17 of the Climate-ADAPT user/provider survey.

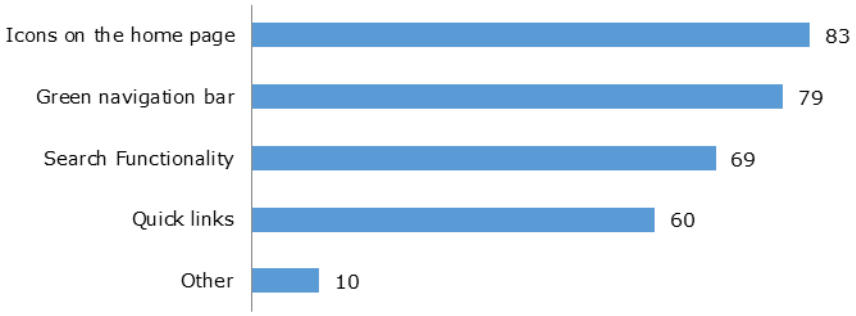
Figure 4.17 Q18 User friendliness of the website [N=202]



Note: The figure reflects the results of Q18 of the Climate-ADAPT user/provider survey.

An example of individual views on the user-friendliness of Climate-ADAPT is provided in the free text answers (Q9): 'I think that there is not necessarily a need for more information to be available on Climate-ADAPT, rather the information that is currently available should be organised more efficiently and clearly to allow users easy access. The homepage and the dropdown menus on it can be more informative and better organised. For instance, at the moment one does not immediately see there is information about sectors or EU policies.'

Figure 4.18 Features used to find required pages [N=197]



Note: The figure reflects the results of Q19 of the Climate-ADAPT user/provider survey, more than one answer was allowed.

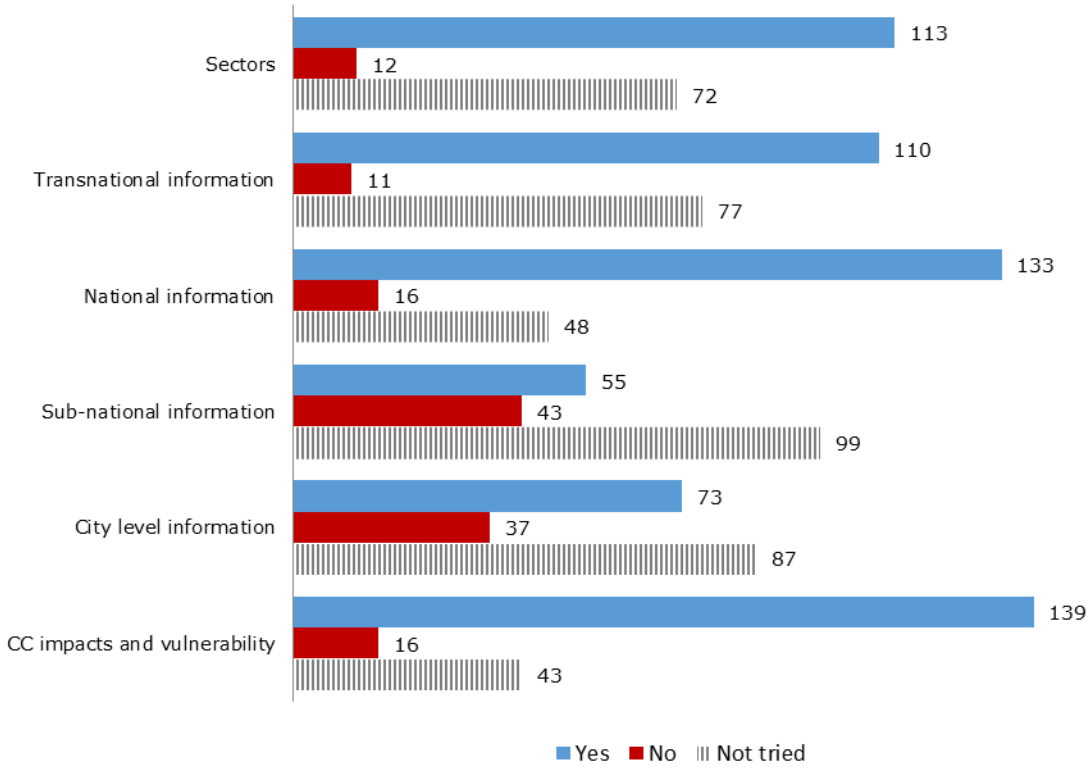
All the routes to finding information are used regularly (**Q19**, Figure 4.18). There is a slight preference for the icons on the homepage that are used the most to find the pages people need. The green navigation bar is the second most popular way of finding pages and 3rd is the search function.

4.2.5 Section 5: Supporting co-ordination among sectors and across institutional levels

Key messages

- In most areas Climate-ADAPT guides users to the 'right shop'.
- The survey shows that Climate-ADAPT achieves its goal of being a general source of information that links effectively to more detailed sources for information on national adaptation and vulnerabilities and impacts, but is less effective for city and sub-national information.
- It also achieves its goal of being a general source of information that links effectively to more detailed sources for sectors, particularly for those respondents in EU countries without a plan or platform and those outside the EU.
- It also achieves its goal of being a general source of information that links effectively to more detailed sources for transnational information, particularly for respondents from the core audience.
- The survey reveals that different audience types have different perceptions and need different types of information and products.
- Users/providers feel sufficiently involved in the development of Climate-ADAPT, but would like to have a package of promotion services to make the cooperation clearer.

Figure 4.19 Is Climate-ADAPT a general source of information that links to other sources? [N=197]



Note: The figure reflects the results of Q20 of the Climate-ADAPT user/provider survey.

The areas of the website that respondents consider that the objective of linking to other sources has been achieved the most are for climate change impacts and vulnerability and national information (**Q20**,

Figure 4.19). The perception is slightly less strong for sector information and transnational information. The areas where this is least achieved are subnational and city level information.

The core audience were more likely than the wider audience to see Climate-ADAPT as a general source of information related to transnational issues (58% versus 50% agreed) (χ^2=7.331; p<0.05; N=197).

There were statistically significant differences among the country groups with regards to the option of Climate-ADAPT achieving its objective as a general source of information on sectors. The highest levels of agreement were recorded among respondents from countries outside EU (9 out of 10) and those with no plan and no platform (30 out of 43, or 70%), compared to those from countries with both the plan and the platform (26 out of 62, or 42%) (χ^2=19.020; p<0.01; N=128). Therefore Climate-ADAPT can provide information on sectors for countries that do not have a national adaptation platform.

The platform also achieves its goal of linking to other sources for transnational information, particularly for respondents from the core audience.

The area that is considered to have the least links is sub-national information. Although there are links to subnational information from the country pages perhaps there needs to be more explicit explanation of this. In addition, this information is not comprehensive, some countries have subnational information, and some do not.

The results to Q20 reveal that the different audience types have different perceptions and needs.

The results also show that for those without a platform Climate-ADAPT is a valued source of knowledge (particularly for sectors and country information) to support decision-making in adaptation (Q6 vs. Q20).

Results and interpretation from Q21 are reported without charts.

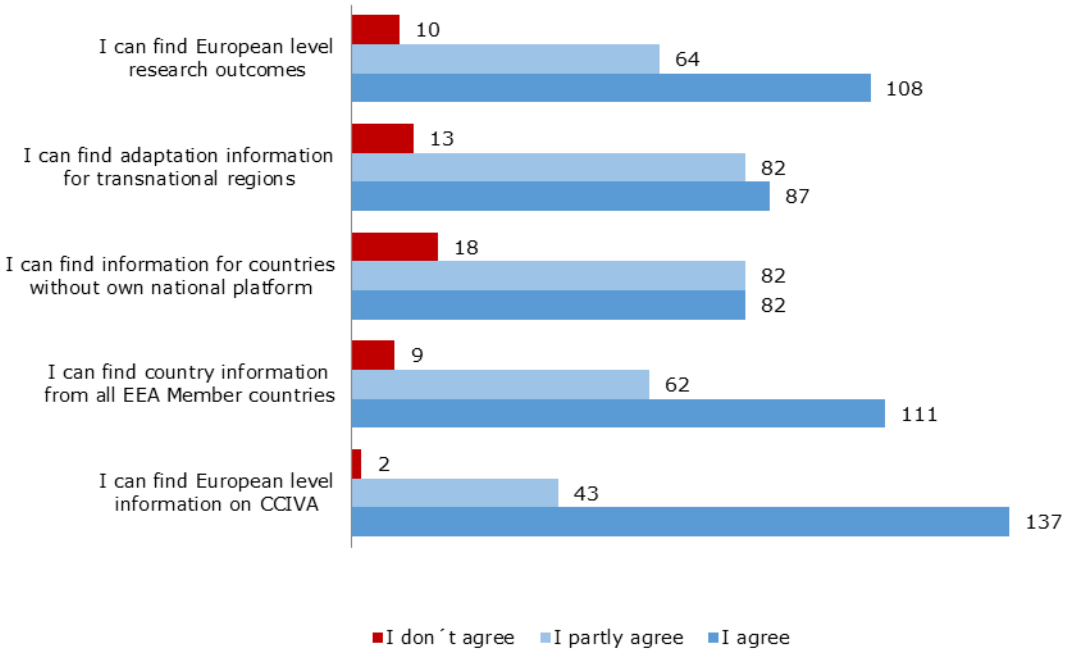
One hundred sixty two people out of 197 (82%) agree that the current process to involve users and information providers is appropriate (**Q21)**. Some respondents consider that it is not clear which user is being addressed. Some of the comments are more general, about Climate-ADAPT promoting its capabilities more, rather than to do with the development of Climate-ADAPT per se., for example (Q25): 'creating a package of promotion and dissemination activities surrounding the platform to raise awareness of the contents of the platform'.

4.2.6 Section 6: Added value of Climate-ADAPT and free-text comments

Key messages

- Many respondents recognise the added value that Climate-ADAPT provides.
- A higher proportion of Eastern European respondents, compared to rest of Europe have used Climate-ADAPT information to support participatory processes.
- Climate-ADAPT has achieved its objective of assisting the uptake of knowledge.
- More than half of respondents (97/182) have use the information on Climate-ADAPT as evidence for research or as an input into policies, plans and strategies.
- The areas of Climate-ADAPT that have been most often used to generate tailor-made products are the country information pages, urban sections, all sections of the website, case studies and Adaptation Support Tool/Urban (AST).
- Climate-ADAPT is used by organisations that are supporting decision makers to develop evidence information to support the policy process.

Figure 4.20 Added value of Climate-ADAPT [N=182]

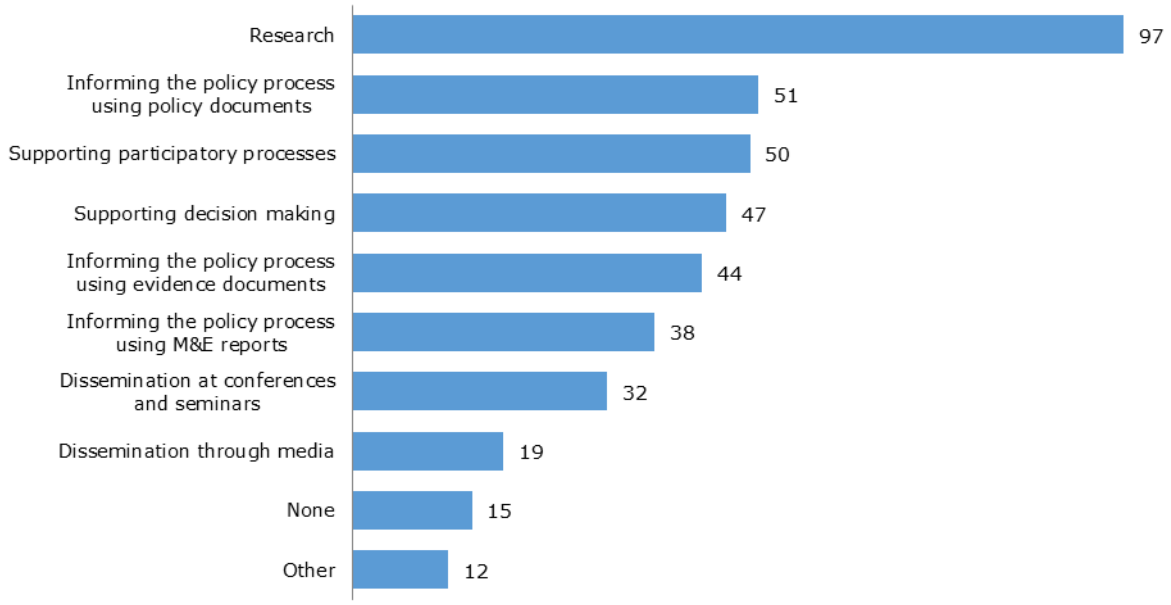


Note: The figure reflects the results of Q22 of the Climate-ADAPT user/provider survey.

There is a general agreement on the added value of providing information through Climate-ADAPT (**Q22**, Figure 4.20). Specifically, there is strong agreement that Climate-ADAPT is a good place to find information at the European Union level, for climate change impacts, vulnerability and adaptation (CCIVA) information, research outcomes, and for information on EEA Member countries. Only 2, 10 and 9 respondents, respectively, disagree. However, when it comes to transnational and countries without a platform there is still agreement that Climate-ADAPT provides an added value, but there are more partly agree and disagree responses.

The only aspect of Climate-ADAPT's added value where there were statistically significant differences among clusters was the provision of European level information on climate change impacts, vulnerability and adaptation. Whilst in all clusters the respondents mainly agreed with this statement, the communication had lowest proportion of those agreeing (61%) and the highest of 'partly agree' (40%). The highest levels of agreement were amongst pure research and strategic multitask (84% for both) ($\chi 2=19.028$; $p<0.05$; N=182).

Figure 4.21 How is the information used [N=182]



Note: The figure reflects the results of Q23 of the Climate-ADAPT user/provider survey, more than one answer was allowed.

More than half have used the information for research (**Q23**, Figure 4.21) this resonates very well with Q3, where science was chosen by the most people (refer to section 4.2.1). A lower number of people (around one quarter of respondents) have used the information either to inform the policy processes, or to support decision making and participatory processes. Fewer people (less than 20%) have used the information for dissemination purposes.

It is well known that simply putting information on a website does not mean it is used to inform decisions, it is the uptake of this information into documents, processes, research and dissemination activities that create the added value. The results show that a quarter (43 out of 162) of respondents experienced with adaptation have used the Climate-ADAPT information for informing policy processes using evidence documents compared to only 1 (out of 23) new user ($\chi^2=5.474$; $p<0.05$; N=185). Nearly 20% (32 out of 162) of the respondents experienced with adaptation have used the Climate-ADAPT information for dissemination at conference and seminars, while none of the respondents that are new to adaptation have ($\chi^2=5.493$; $p<0.05$; N=185).

The only statistically significant difference among the respondents classified into geographic European regions in relation to use of information was recorded for the use of Climate-ADAPT information to support participatory processes (χ^2=14.587; p<0.01; N=117). This type of use of Climate-ADAPT information was reported by a much higher proportion of Eastern European respondents, i.e. 11 out of 20 people or roughly half, than those from other European regions (1 out of 10 for Northern Europe; 6 out of 46 for Southern Europe, and 13 out of 41 for Western Europe). This could mean that Eastern European countries are using EU level information to make the case for adaptation and support cooperation in their countries.

The only statistically significant difference between the clusters in relation to this question is in the proportion of respondents using Climate-ADAPT information for research purposes. On average 52% of all respondents use Climate-ADAPT for research purposes, and among the pure research cluster this increases to 87%, followed by 68% of strategic multitask and 54% of operational. The lowest proportion of those using Climate-ADAPT for research purposes is among the other (22%) and communication (33%) clusters (χ2=39.498; p<0.001; N=187).

Table 4.7 How the information was used in decision-making [N=41]

Policies, plans, strategies (NAS/NAP/city)	9
Evidence for research	6
Learning and information	6
Reports/other documents	5
Used in my work/project	4
Other	7

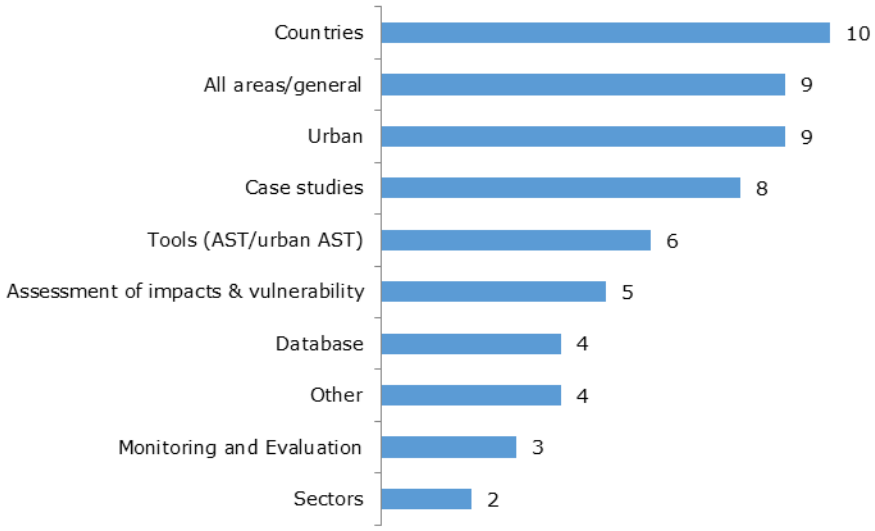
Note: The table reflects the results of Q24 of the Climate-ADAPT user/provider survey, free text answers.

The free text answers given in **Q24** suggest that information from Climate-ADAPT has been used as an input into policies, plans and strategies (9 respondents), these include a range of policies, plans and strategies at national (NAS/NAP), city, regional and 2 at sectoral level (water and transport). Climate-ADAPT has also been used as a source of information on adaptation (6 people), as evidence for research (6 people) and as inputs for reports and other documents (5 people). This demonstrates that Climate-ADAPT has achieved its objective of enhancing the uptake of knowledge. Some quotes from the responses are listed below.

- Input into NAS: 'In my everyday work I use the platform to consult, esp. when preparing the national strategic document and its supporting documents I used the platform extensively.'
- Information on adaptation: 'To find regulations on climate adaptation on European level'.
- Evidence for research: 'I used Climate-ADAPT information as evidence to support my Climate Services research and to find out more about the stakeholders included in local adaptation planning.'
- Inputs to reports: 'DG CLIMA adaptation projects: Mayors Adapt /Global Covenant of Mayors for Climate and Energy and Knowledge assessment projects'.
- It has also been used to create a variety of other products and services such as, guidance for stakeholders, a film, a source of information for developing adaptive capacity indicators and as inspiration for a portal design.

A secondary set of information has resulted from this question: which areas of Climate-ADAPT have been used to create the actions above (Figure 4.22)?

Figure 4.22 Areas of Climate-ADAPT used in decision-making [N=41]



Note: The figure reflects the results of Q24 of the Climate-ADAPT user/provider survey, free text answers.

The areas of Climate-ADAPT that have been most often used to support decision making are the country, urban, and general adaptation information, case studies and Adaptation Support Tool/Urban (AST).

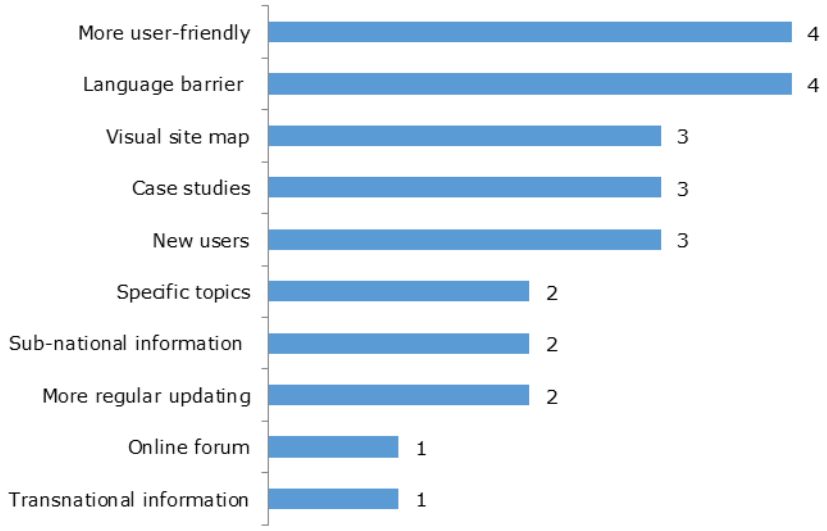
Examples include:

- country information: 'Checking the status of national policies of countries';
- urban areas: 'We are developing a tool for municipalities and we asked to the consultant to work on basis of the urban adaptation tool available on Climate-ADAPT';
- general adaptation information: 'A film documentary: 'Climate change and Albania';
- case studies: 'I have found information about examples of climate change adaptation measures in relation to water in different countries'.

The analysis then combined the type of action with the area of Climate-ADAPT. Typically, the case studies are used as information and demonstration. The general information, along with the tools (particularly the Adaptation Support Tool and Urban Adaptation Support Tool) and the country information are the key areas that are used for developing policy (strategies and plans). The country information also provides inspiration for what other countries are doing, such as methods for assessment or monitoring and evaluation. The database provides a valuable source of information to develop evidence for research and as input into documents (reports).

Three specific areas were highlighted – assessment of impacts and vulnerability, monitoring and evaluation (M&E) and urban areas. This very much reflects the current identified knowledge gaps in Europe and the stage of the policy cycle that the country or city is at.

Figure 4.23 Additional comments [N=22]



Note: The figure reflects the results of Q25 of the Climate-ADAPT user/provider survey, free text answers.

Generally, the site is well received and considered a useful and comprehensive source of European information on adaptation. The main comments (**Q25,** Figure 4.23), in priority order, most common first, are listed below.

1. The language in English only is a barrier and translation would extend its reach significantly: 'Still a problem is that the page is in English only. Why can it not integrate the Google translate tool to show the content in different languages. This will not be a perfect translation, but the user would understand the content. And if there is a disclaimer regarding the quality of the translation that should be ok.'

2. It could be more user friendly, e.g. database and search function: 'Please make the website more user friendly/easier to navigate. I feel there is a lot of valuable information but I'm not able to find it.' 'The databank is difficult to use, it is hard to find the relevant information.'

3. An area for people that are new to adaptation (beginners): 'It is of utmost importance that the general public truly has access to the information provided - not only access in the material sense (availability of the information), but also access in the intellectual sense (understanding the information and the importance of the issue) and in the psychological sense (being interested in the information).'

4. A visual overview of the content of the site: 'It is hard to find general overview about Climate adaptation which is why creation of simple infographics in first page (http://climate-adapt.eea.europa.eu/) would help user to understand the basic structure of topics, where to find information for this user needs.'

5. Case studies are useful and more would be helpful: 'It would be great if the number of case studies would be increased to have a good information source, which could be recommended for examples e.g. to decision makers on regional and local level.'

Other topics also mentioned include: overviews/summaries for specific areas/sectors, sub-national information, regular updates of the information are needed, transnational information, an online forum to enhance peer-to-peer learning.

4.3 Discussion and conclusions

This chapter provides the interpretation, discussion and conclusions for the user survey of Climate-ADAPT.

The purpose of the survey was to evaluate if Climate-ADAPT is achieving its aim of supporting decision-makers by achieving the three objectives in the mandate (MTWP, EEA 2014). Therefore, the evidence collected from the survey has been assessed against the 3 objectives and is presented in this section. The results and interpretation of the survey have been allocated to one of these 3 objectives according to where the authors consider that the evidence is most relevant to meet the objectives. In some cases the evidence is relevant for more than one objective, and in these cases both objectives are stated in that section and the evidence is not repeated.

The following three sections were written for the Evaluation Report (EEA-ETC/CCA, 2018), thus some description of results was needed, hence there is some repetition of information found in Chapter 4.2.

4.3.1 Evidence for Objective A: Sharing of adaptation knowledge in Europe to build a consistent knowledge base

Key messages

- The survey has shown that 98 respondents have submitted information to Climate-ADAPT and thus have contributed to building a consistent knowledge base. Many of those that have provided information recognise the added value for them in doing so.
- The reasons that people have not submitted information was that they did not think they had appropriate information and that they did not know it was possible. This suggests that Climate-ADAPT could do further promotion to raise awareness of the fact that it is a portal that is open to contributions and also aim to convert existing users into providers.
- The survey shows that the most used sections are the news/events pages, followed by the database, EU Adaptation Strategy, information on impacts and vulnerability and the country pages.
- Tools, such as the Map viewer or the Urban Vulnerability Map book, are used by a limited number of respondents. The respondents who use the tools the most are from the operational cluster.
- The diverse user community requested additional content on Climate-ADAPT that covered a broad range of information types, with a preference for synthesis information such as assessments and indicators, but also for guidance documents, and for case studies.

This section presents the evidence for objective A of Climate-ADAPT, to share the adaptation knowledge in Europe to build a consistent knowledge base. A series of questions were developed for each objective and evidence in the form of key messages is presented for each question.

A1) Does Climate-ADAPT successfully involve potential information providers in sharing their information?

A2) Does Climate-ADAPT provide the relevant information on the platform?

A3) Which sections of Climate-ADAPT are currently being used?

A4) Which information is also needed by Climate-ADAPT users?

The survey was successful in capturing responses from the broad range of information providers to Climate-ADAPT (

Figure 4.2). Although the sample is not statistically representative it nevertheless has the value of representing a diversity of potential opinions (Q1).

A1) Does Climate-ADAPT successfully involve potential information providers into sharing their information?

The results of the survey indicate that there is a high rate of information submission to the platform among the stakeholders. What is particularly encouraging is the fact that the submission of information was not only enforced by reporting obligations (MMR) but also stemmed from the willingness of contributors to share their experiences with others.

Ninety eight people out of 211 have submitted information to Climate-ADAPT (Q10,

Figure 4.11). This section of the questionnaire could be skipped because it was recognised that not all respondents would be information providers, hence there is a difference between the numbers of respondents answering this question (211) and the number of respondents answering question 1 i.e. 297.

66 people have contributed to more than one section. A total of 285 pieces of information have been submitted to the available sections, with a median of one and a maximum of eight per person.

Users from the core audience (Q10 vs. Q1) and those who are more experienced (Q10 vs. Q4), are more likely to have carried out submissions. A higher proportion of countries with a national adaptation platform have submitted information (Q10 vs. Q6). The highest percentage of contributors was among the strategic multitask and the administration clusters, whilst the lowest was among the operational cluster (cluster analysis applied to Q10). The database section was mainly populated by the pure research, strategic multitask and administration clusters. Case studies were largely submitted by pure research, followed by strategic multitask and communication clusters. Pure research and strategic multitask submitted research projects, whilst the strategic multitask cluster led on the contribution of news and events.

The multiple added value of presenting information on Climate-ADAPT was recognised, such as making research results more understandable in the political context and creating further outreach (Q15, Figure 4.14).

Two thirds (65%) of those who submitted information have done so because they wanted to share knowledge with other people in Europe (Q14). The other reasons for submitting information include where it is obligatory as part of the EU Monitoring Mechanism Regulation (MMR) or obligatory for EU research projects. Obligatory national adaptation reporting was a reason to contribute information for a higher number of respondents from Northern and Eastern Europe compared to Southern and Western Europe[94] (Q6 vs. Q14).

Therefore, the survey has shown that Climate-ADAPT has succeeded in involving various knowledge providers by making them aware of the added value of presenting their information on Climate-ADAPT and sharing it as part of the knowledge base on climate change adaptation in Europe.

94 Classification was done according to EuroVoc; http://eurovoc.europa.eu

The majority of people (91 people out of 111, 82%) find the submission process clear (Q11 and Q12). Two main messages are voiced by the 20 people who responded that the process is not clear: (1) more guidance is needed to understand the submission process, (2) more transparency would be welcomed on the publishing process, e.g., it is not clear why something submitted was not published.

Forty six people have given an explanation in the free text of why they have not submitted anything (Q10B). The reasons stated were that they do not have appropriate information (15 people), did not know it was possible (8 people), or did not think it was their responsibility (8 people). This suggests that further promotion would raise awareness of the fact that Climate-ADAPT is a portal that is open to contributions for sharing information across Europe. It was also mentioned that some people (4) do not know the criteria for determining what information is appropriate to submit. There were suggestions about how the submission process could be improved, including: (1) more guidance is needed to understand the submission process, (2) more transparency would be welcomed on the publishing process, e.g. it is not clear why something submitted was not published and (3) on the 'Share your information' webpage[95] there could be a webinar tutorial to go through the whole process.

A2) Does Climate-ADAPT provide the relevant content on the platform?

The survey did not explicitly ask this question but feedback from a limited number of respondents in the free text questions (Q25) can provide an impression of this.

Generally, the site is well received and considered a useful and comprehensive source of European information on adaptation. The main comments (**Q25,** Figure 4.23), were that the language in English only is a barrier and translation would extend its reach significantly (4 comments) and that it could be more user-friendly e.g. database and search function (4 comments).

In addition, 3 people provided feedback quotes that imply that they found what they were looking for on the site:

- ‘It’s (Climate-ADAPT) a good approach';
- 'Best sector platform in the EU';
- 'Climate-ADAPT is a fully functional and comprehensive info base. Congrats!'

A3) Which sections of Climate-ADAPT are currently being used the most?

The survey helps to better understand the use pattern of the homepage, indicated by the large numbers of page views in the web statistics (EEA, 2018): the most frequently used section of Climate-ADAPT is the news/events/newsletter, that is directly accessible from the homepage, suggesting that the outreach function of Climate-ADAPT is effective (Q8, Figure 4.9). Figure 4.9 also shows that the database, as the second most used content, might fulfil its role to provide a systematic access to the adaptation knowledge base in Europe. The EU Adaptation Strategy pages, adaptation strategies, vulnerabilities and risks and country information are furthermore among the most frequently used sections of Climate-ADAPT. This shows that there is interest in the actions of the EU adaptation strategy and the related areas (how to develop a strategy and vulnerability assessment and what other countries are doing in this field). It could also mean that DG CLIMA/EEA has achieved its task of informing the target audience about EU policy.

[95] http://climate-adapt.eea.europa.eu/help/share-your-info

The Climate-ADAPT core audience uses more specific information than the wider audience, such as the countries, regions, cities pages, EU policies, and the adaptation information (Q8 vs Q1). Tools, such as the map viewer or the Urban Vulnerability Map book, are used by a limited number of respondents (Q8).

The different clusters use the diverse information made available according to their needs, e.g. news/events/newsletter was used most by the communication and administration cluster, adaptation information was used most by the strategic multitask, communication and pure research clusters and operational users use the tools the most (cluster analysis applied to Q8).

Climate-ADAPT, appears to succeed in keeping users up-to-date with the news and events on adaptation across Europe and information about adaptation policy at EU level. The respondents often use the database to get access to adaptation knowledge in Europe. The platform may also succeed in assisting users across Europe by providing knowledge on adaptation policies at European and national level.

A4) Which information is also needed by Climate-ADAPT users?

According to **Q7** (Figure 4.8) assessments, indicators and case studies were the top three climate change adaptation products that respondents felt Climate-ADAPT should provide. Climate data (projections), guidance documents, maps and graphs were ranked 4-6 respectively in popularity. Environmental aspects of adaptation was the 7th most wanted product. All products received more than 100 responses (except generic adaptation options that had 80 responses) indicating that respondents would like Climate-ADAPT to provide them all. This could mean that more respondents experienced with adaptation are already quite knowledgeable on the topic of adaptation and therefore are more interested in in-depth information, not available on other websites, such as the case studies. The high share of interest in the environmental aspects of adaptation could relate to the task of the NRC's as working on adaptation in general to mainstream adaptation into the other policy fields.

Figure 4.8Figure 4.8 (Q7) shows that respondents would like a range of new information types on Climate-ADAPT in the future. These results suggest that users, (working often in various roles and at various steps of the adaptation policy cycle) appreciate the fact that they need a range of information types to support the mainstreaming of adaptation into other policy fields and systemic transformative adaptation. The four most wanted information types suggest that there is a preference for synthesis information such as assessments and indicators, but also for guidance documents and case studies. Furthermore, there is a high interest in better access to climate data and maps and graphs.

According to **Q7** (Figure 4.8) assessments, indicators and case studies were the top three climate change adaptation products that respondents felt Climate-ADAPT should provide. Climate data (projections), guidance documents, maps and graphs were ranked 4-6 respectively in popularity. Environmental aspects of adaptation was the 7th most wanted product. All products received more than 100 responses (except generic adaptation options that had 80 responses) indicating that respondents would like Climate-ADAPT to provide them all. This could mean that more respondents experienced with adaptation are already quite knowledgeable on the topic of adaptation and therefore are more interested in in-depth information, not available on other websites, such as the case studies. The high share of interest in the environmental aspects of adaptation could relate to the task of the NRC's as working on adaptation in general to mainstream adaptation into the other policy fields.

Figure 4.8Figure 4.8 (Q7) also shows that there is interest in knowledge on environmental, economic and social aspects of adaptation suggesting that experts need knowledge to assess adaptation options in a systemic way that take into account synergies, conflicts and co-benefits with other developments in society.

The cluster analysis (Table 2.5) shows that the strategic multitask cluster want the greatest number of products, while the administration cluster want the least. The strategic multitask cluster particularly

want maps and graphs, tools, adaptation options, economic aspects and environmental aspects. The communications clusters want guidance, adaptation plans and strategies and case studies.

4.3.2 Evidence for Objective B: Assisting the uptake of the knowledge and informing decision-making

Key messages

- The survey has captured opinions from a range of users since two-thirds of respondents were from the core audience of 'decision-makers in Europe and organisations that support them' and one-third was from the wider audience.
- Thirty-nine European Environment Agency countries, as well as countries outside Europe, are represented in the survey. Additional effort should be put into intensifying the involvement of the users/providers of less represented countries, particularly from Eastern Europe.
- It is clear from the survey that the platform is used beyond Europe and this offers the potential to promote European adaptation approaches at the global level.
- Climate-ADAPT has been used primarily by research organisations that are supporting decision makers to develop evidence documents that feed into the adaptation policy process. Climate-ADAPT has also been used in a variety of further processes including also participatory processes and for dissemination.
- The sections of the website that are being used to create tailor-made products and enhance the capacity of individuals are the: Country information pages, all sections of the website, urban information, case studies, the tools, assessment of impacts and vulnerability, and the database.
- Overall Climate-ADAPT is considered user friendly but, would benefit from a more straightforward structure to allow easy access to the complex content.
- Nearly half of respondents have multiple types of work such as science, policy, management and stakeholder engagement. More than half of respondents (171 out of 298) work on adaptation to climate change in general and many sectors are represented. Also, the majority (86%) of people who answered the survey have been working on adaptation for more than 2 years, and those that have been working on adaptation for less than 1 year are less represented. This suggests that that there is potential to provide different content for different roles/users (new to adaptation, science or urban users) on Climate-ADAPT.
- Eighty two percent of users/providers feel sufficiently involved in the development (content and functionality) of Climate-ADAPT, but some would like to have a package of promotion services (e.g. guidance, awareness raising and events) to make the interaction stronger.
- The low number of referrals from other sites to Climate-ADAPT suggests that there is potential to improve the uptake of information from Climate-ADAPT with more dissemination, additional promotion activities, such as training webinars and links from external websites to Climate-ADAPT, such as key partner platforms'.

This section presents the evidence that has been used to assess whether knowledge and information from Climate-ADAPT is assisting in the uptake of knowledge by decision-makers. The evidence that is

considered appropriate to determine whether Climate-ADAPT is 'assisting in the effective uptake of knowledge' has been interpreted in the following way:

B1) Who is using Climate-ADAPT?

B2) What product or process are the users using the information for?

B3) Which sections of Climate-ADAPT are used to develop tailor-made products or to support processes?

B4) Is the knowledge presented on Climate-ADAPT presented in a useful way of assisting the uptake of the information?

B6) Which additional services (promotion and training) are needed to assist in the uptake of the information on Climate-ADAPT?

B1) Who is using Climate-ADAPT? Respondents of the user/provider survey, their level of experience in the field of adaptation and their geographic location

Two-thirds of respondents of the survey (197 out of 297) were from the core audience and of these, 1/2 (91 out of 197) were from organisations that support decision-makers (interface and research organisations). In addition, one third of respondents (100/297) were from the wider audience.

Nearly half of respondents have multiple roles in terms of the type of work they do, such as science, policy, management and engagement (Q3 and cluster analysis Table 4.1). The majority of users visit the website on an ad hoc basis (when needed, Q5). This may reflect the ad hoc pattern of updating of information as new policy is agreed, new knowledge becomes available and the fact that respondents have diverse mandates and multiple roles (see cluster analysis), only part of which may be related to climate change adaptation. In addition, more than half of respondents (171 out of 298) work on adaptation to climate change in general (Q2). Urban, water, energy and 'other' are the four most represented sectors and this suggests that people who work in adaptation represent many different sectors. Therefore Climate-ADAPT should consider the multiple roles, sector representatives and types of users and provide tailor-made entry points and improved routes between the relevant areas of the platform.

The survey shows that users that have been working for longer in the field of adaptation, e.g. respondents experienced with adaptation, have accessed a wide range of webpages (Q1 vs. Q8) and can find the content they need. Respondents experienced with adaptation have also contributed a significant amount of information via the submission process, to Climate-ADAPT (Q10,). However, respondents experienced with adaptation would like to find more information on case studies (Q9). The cluster analysis shows that almost all strategic multitask, communication and pure research clusters are respondents that are experienced with adaptation (cluster analysis applied to Q8).

Only 14% (40 out of 297) of survey respondents are new to the field of adaptation (those working on adaptation for less than 1 year, Q4). Respondents that are new to adaptation are much less likely to access the EU policies, adaptation information and tools section of the platform compared to respondents experienced with adaptation (Q4 vs. Q8) and have are also less likely to have submitted information. Therefore, some effort should be put into supporting users that are new to the field of adaptation with additional promotion activities and further assistance.

Thirty-nine European Environment Agency countries are represented in the survey, with the majority of this work focused at the EU level (111 respondents, i.e. 38%, Q6). In addition, people whose work focuses on the rest of the world also look at Climate-ADAPT (30 respondents, i.e. 10% - Q6). The countries that are most frequently the focus of respondents' work on adaptation are Germany, Italy, Spain, Portugal and the United Kingdom. The countries that are the least represented are the Former

Yugoslav Republic of Macedonia, Turkey, Bulgaria, Iceland, Liechtenstein, Malta, Luxemburg and Kosovo under the UN Security Council Resolution 1244/99. It may be that those countries with small populations are likely to be the least represented by respondents in the survey.

An analysis per region was also carried out and the lowest number of participants was in Northern Europe and this may be because the majority of countries in this region already have national adaptation platforms and/or plans in place, hence less support is needed from Climate-ADAPT. Eastern countries have the second smallest number of participants (per region, Q6). This may mean that they are not aware of the possibilities offered by Climate-ADAPT or, that the awareness of adaptation is still limited to a small group of experts or, that they do not speak English.

In conclusion, Climate-ADAPT has successfully engaged people focused on adaptation at EU and national levels across all European countries. Additional effort should be put into intensifying the involvement of the users/providers of less represented countries, particularly from Eastern Europe and options to lower the language barrier should be explored. It is clear that the platform is used beyond Europe and this offers the potential to promote European adaptation approaches at the global level.

B2) What product or process are the users using the information for? Products being created from Climate-ADAPT information, used in research, informing policy or supporting participation

The majority (97 out of 182, 54%) of the information has been used for research purposes based on quantitative survey data (Q23 Figure 4.21). This may reflect the fact that 25% of the audience (Q1) are from a research organisation (74 people out of 297). It may also indicate that Climate-ADAPT has been used by organisations that are supporting decision makers to develop evidence documents that feed into the adaptation policy process (Q1 vs. Q23). This may also support previous interpretations that researchers are part of the core audience because they are preparing the information for decisions, but are not decision-makers themselves.

After research, the information is most frequently used to inform the adaptation policy process (such as adaptation strategies or plans) (51 out of 182) or, to support participatory processes (consultations, workshops) (50 out of 182), or to support decision-making (regulation, allocating funding) (32 out of 182).

Further details of what the information was used for was provided from the survey (Q24, free text) and this indicated that the uptake of information had been used to create tailor-made products and enhance the capacity of individuals. The detailed results show that Climate-ADAPT has been used as an input into policies, plans and strategies (9 out of 37 respondents that answered the question), at national (NAS/NAP), city, and regional level and 2 at sectoral level (water and transport). Climate-ADAPT has also been used as a source of adaptation knowledge (6 out of 37), as evidence for research (6 out of 37) and as inputs for reports and other documents (5 out of 37).

The information from Climate-ADAPT has also been used to create a variety of other products and services such as, guidance for stakeholders, a film, a source of information for developing adaptive capacity indicators and as inspiration for a portal design (Q 24 free text field).

Therefore, this demonstrates that Climate-ADAPT has contributed to achieving its objective of enhancing the uptake of knowledge to support decision-making for adaptation in Europe.

The analysis also shows that significantly more respondents experienced with adaptation (43 out of 162 respondents experienced with adaptation, i.e. 27%) have used the Climate-ADAPT information for informing the adaptation policy process compared to the number of respondents that are new to adaptation (1 out of 23, 4%) (Q4 vsQ23). In addition, none of the 23 respondents that are new to adaptation have applied the Climate-ADAPT information for dissemination at conference and seminars,

compared to nearly 20% of the respondents experienced with adaptation (32 out of 162). This may indicate that respondents experienced with adaptation are finding and using the information on Climate-ADAPT to generate tailor-made products and processes.

A much higher proportion of Eastern European respondents have used Climate-ADAPT information to support participatory processes, such as workshops (Q6 vs. Q23). This could mean that these countries are using EU level information to make the case for adaptation and to support cooperation between governance levels and across sectors in their countries.

B3) Which sections of Climate-ADAPT are used to develop tailor-made products or to support processes?
Sections of the website being used to create tailor-made products or processes

The sections of Climate-ADAPT where knowledge has been extracted to create tailor-made products, processes and enhance the capacity of individuals (in priority order, qualitative data, free text field, Q24) are the:

1. country information pages (10 respondents who wrote in the free text box);
2. all sections of the website (9);
3. urban (urban case studies, urban tools, cities pages) (9);
4. case studies (8);
5. the tools – particularly the Adaptation Support Tool (AST) and Urban AST (6);
6. assessment of impacts and vulnerability (5);
7. the database (4).

Climate-ADAPT aims to operate in a complementary way to national and transnational adaptation platforms in that it strives to add value at the European level and to sign-post to the original source rather than duplicate knowledge. Many respondents recognise the added value that the information on Climate-ADAPT provides (Q22,

Figure 4.20). It appears to be most successful in adding value by providing European level information on CCIVA and research outcomes, as well as national level information on adaptation in European countries.

The survey asked what benefit respondents felt they gained by submitting their information to Climate-ADAPT. The majority of respondents felt that the benefit of submitting items came from making their information more relevant (Q15), going beyond the e.g. research project website, and improving the understanding of how the work submitted may be helpful to users. Seven respondents (7%) have received direct feedback, and some respondents commented that they have asked for feedback from users to evaluate how their information was used.

Respondents who saw no benefit in submitting information to Climate-ADAPT were also less likely to use evidence from Climate-ADAPT to inform adaptation policy processes (67 out of 88 that declared they saw no added value) (Q15 vs. Q23). This has been interpreted to mean that the more familiar respondents were with the website, particularly if they had contributed items, the more likely they were to take up the information on the site to create tailor-made products and processes. Hence Climate-ADAPT should enhance its promotion of the fact that it welcomes input from users (i.e. converting users to providers) and the greater involvement of users is likely to encourage further uptake of the information.

B4) Is the knowledge content presented on Climate-ADAPT presented in a useful way of that assisting s the uptake of the information? Presentation of the content on Climate-ADAPT, e.g. user-friendliness, accessibility, functionality, navigation

The way that the content of the site is presented has an impact on how easy it is to find and gather the knowledge that people can then use to create their own products and processes and it is why it is relevant for this objective to assist the uptake of knowledge.

Overall the website is considered user-friendly with about three quarters (150/202) saying that the information on the website is easy to understand, the text is about the right length and the graphics are clear (Q18). However, respondents are not aware of the help section (88 'don't know' responses, Q17) and it is not often used (10 responses/246, Q8). This suggests that people may not be using it because they have found what they are looking for.

In addition, the awareness of the interactive functionalities is limited (Q17, 49/202 people, i.e. 25% said 'don't know'). This may be because the interactive functionalities are not very visible from the home page, and/or they are complicated to use. However, those that have used the interactive functionalities value them and would like to see improvements and this is illustrated by the following quote from one respondent in the free text box who stated that (Q9): 'An improved map viewer function. More guidance on how to get exact data points on the climate impact indicators for which there is information on the site.'

Further assessment of the individual tools is needed to determine the appropriate action for each one. There is a minor preference for the icons on the homepage as the easiest way to find the pages people need (Q19). The green navigation bar is the second most popular way of finding pages and 3rd is the search function.

An example of an individual view on the user-friendliness of Climate-ADAPT is provided in the free text answers (Q9) that also provides more detail on what needs to be changed e.g. the layout of the homepage. Quote from 1 individual: 'I think that there is not necessarily a need for more information to be available on Climate-ADAPT, rather the information that is currently available should be organised more efficiently and clearly to allow users easy access. The homepage and the dropdown menus on it can be more informative and better organised. For instance, at the moment one does not immediately see there is information about sectors or EU policies.'

This is reinforced by further free text answers (quote from one respondent, Q25): 'Please make the website more user friendly/easier to navigate. I feel there are a lot of valuable information but I'm not able to find them.'

In terms of further supporting the sharing and use of information in Climate-ADAPT the main comments from free text were, in priority order, most common first (Q9 and Q25):

1. the language in English only is a barrier and translation would extend its reach significantly (4 comments);
2. some elements of the sites function (user-friendliness) could be improved such as the database and search function (4);
3. there needs to be an area for people that are new to adaptation (3);
4. there needs to be a visual overview of the content of the site (3).

Despite the low numbers of respondents providing these comments in the free text, these opinions should be considered along with the other evidence from the survey. Few people take the time to write in the text boxes and these who have made the effort are those that want to help to improve the

platform. Secondly the survey was designed to gather both data and opinion from its users and all of the available evidence should be used.

In conclusion the information from both the closed (quantitative) and open (qualitative) questions in the survey have been used to assess if Climate-ADAPT is achieving its objectives. The qualitative data has particularly been used to suggest recommendations about how to improve the platform in the future.

Forty five respondents provided comments and of these 8 would like to have more overview information and summaries, as well as a visual site map so that they can find information that is on Climate-ADAPT and guidance (7 comments) on technical topics (Q9).

In conclusion, overall the platform is considered user-friendly, but would benefit from a more straightforward structure and improvements of the search and help functions. The use of the interactive tools could be extended by improving their profile on the website and by making them more user-friendly.

B6) Which additional services (promotion and training) are needed to assist in the uptake of the information on Climate-ADAPT? Additional services needed to assist in the uptake of information and training that improves the involvement of users and providers

The main way of learning about the Climate-ADAPT platform is through a colleague (Q17, 79 out of 202 respondents). This may reflect the influence of the main way that Climate-ADAPT interacts with its core audience (EC, NRCs/NFPs/national governments) which tends to be through invited meetings (Eionet, DG CLIMA and webinars) where the invitation is for the country and specifically requests that if an individual cannot attend that it is passed on to a colleague. The internet (Google search engine) is the second most popular way of learning about Climate-ADAPT.

The low number of referrals from other sites to Climate-ADAPT (Q16) shows that the number and position of links might not be sufficient, or users may not feel the need to visit Climate-ADAPT, because they found all they needed on the referring platform (e.g. a national adaptation platform). This suggests that there is potential to improve the uptake of information from Climate-ADAPT with more dissemination, additional promotion activities, such as training webinars and links from external websites to Climate-ADAPT, such as key partner platforms'.

The survey asked respondents to comment on whether they felt that the current process of involving user and providers in the development of Climate-ADAPT by consulting with them and requesting their feedback via webinars, workshops, conferences, ad-hoc requests and bi-monthly newsletter was sufficient. 82% (162/197) of users/providers feel sufficiently involved in the development (content and functionality) of Climate-ADAPT, but would like to have a package of promotion services (e.g. guidance, awareness raising and events) to make the interaction stronger.

Some respondents consider that it is not clear which user is being addressed. This suggests that that there is potential to provide different content for different roles/users (new to adaptation, science or urban users) on Climate-ADAPT. This is illustrated with this quote from one respondent (Q9): 'An area for beginners with no previous knowledge of climate change adaptation that forward points to other sections as appropriate'.

A variety of general comments were received (Q25) that would help Climate-ADAPT to promote its capabilities more and hence facilitate the further uptake of the information. This would assist in achieving all of the 3 objectives and ensure that the wider aim of Climate-ADAPT - to support policy makers to make evidence informed decisions, would be achieved. For example:

- create a package of promotion and dissemination activities surrounding the platform to raise awareness of the contents of the platform;

- translate some parts/key summaries into other EU languages;
- regular online and other events,
- targeted engagement to grow credibility with users rather than broad engagement.

Having key parts of the information translated into national languages and targeted engagement would help to make better use of the complex content of Climate-ADAPT, in particular for people that are new to the adaptation field. The comments about the content being only in English and the area for people that are new to the adaptation field reinforces previous conclusions and is supported by other evidence from ad hoc feedback and reviews of the platform by experts in the past.

4.3.3 Evidence for Objective C: Supporting coordination among sectors and across institutional levels

Key messages

- The strongest agreement for Climate-ADAPT being a general source of information that links to more detailed sources is for information on national adaptation, transnational information and vulnerabilities and impacts, but the agreement is not as strong for city and sub-national information.
- The availability of links to sector level information is well known by survey respondents in EU countries without a national adaptation plan or adaptation web platform and those outside the EU. This suggests that Climate-ADAPT provides a solution for an important knowledge gap for respondents from countries that do not have a national adaptation plan or an adaptation web platform.

This section presents the evidence that has been used to assess whether Climate-ADAPT has met Objective C 'to contribute to a greater level of coordination among the relevant sectoral policies, and among different institutional levels'. The benefits of horizontal coordination for adaptation are that by linking sectors together actors could address cross-sectoral issues. In addition, improving links between governance levels from national to local (vertical integration) could improve resource allocation and capacity for adaptation.

The specific questions covered by the survey are:

C1a) Does Climate-ADAPT present the information in a way that is complementary to the original source such as, sector or national platforms? In addition,

C1b) How well does Climate-ADAPT link between different sources of information.

Climate-ADAPT has a dual role, firstly to provide EU level adaptation information on the platform and secondly to link to information at other levels (such as national or sectoral). Information at the sub-EU level is not hosted on Climate-ADAPT but, made available via links to the original external source. The platform aims to avoid duplication of information that is available elsewhere and to only provide synthesis and summary information for these levels on Climate-ADAPT; hence it aims to guide users to the 'right-shop'.

The survey shows that Climate-ADAPT achieves its goal of being a general source of information that links to more detailed sources well for information on national adaptation and vulnerabilities and impacts, but not so well for city and sub-national information (Q20, Figure 4.19). The results show that for city and sub-national information the number of 'yes' responses is lower and the number of 'no' and 'not tried' answers are higher compared to the other areas of Climate-ADAPT. Hence in the areas that

are used often, the feeling is, that Climate-ADAPT is a good source of information and links well to other sources. But, in the areas that are the least tried, the feeling is, that these areas have the least amount of information. However, this is not true in reality for city level information because there is a significant amount of this information shared within Climate-ADAPT, via links to Mayors Adapt (now Global Covenant of Mayors for Climate and Energy) (Q19), but the link to the Covenant of Mayors pages is very hidden in the EU Adaptation Policy section. To improve the profile of this section it may need more promotion and more links to and from city network websites.

The subnational area is considered to have the least amount of information (Q22). This is because it is considered by the European Commission to be the responsibility of the countries. Therefore, is not considered a priority for Climate-ADAPT which has an EU-wide remit. Although there are links to subnational information from the individual country pages, perhaps there needs to be more explicit explanation on the availability of subnational information. In addition, some countries have subnational information and some do not, so the coverage is not consistent.

Climate-ADAPT also achieves its goal for sectors. This is particularly true for those respondents in the EU countries without a national adaptation plan or adaptation web platform and those outside the EU (Q6 vs. Q20). This suggests that Climate-ADAPT provides support to close an important knowledge gap for respondents from countries that do not have a national adaptation plan or an adaptation web platform. If Climate-ADAPT wants to boost its user numbers (in particular from sectoral users, Q20) it may need a campaign to raise its profile within the individual policy sectors. It will also need materials tailor-made to the selected sectors and better links to sector-specific platforms.

It also achieves its goal for transnational information, more so for respondents from the core audience compared to the wider audience (Q1 vs. Q20). This reveals that the different audience types have different perceptions and needs and that these different needs should be taken into account when developing the content of Climate-ADAPT so that they have different entry points on the home page and different routes through the site.

In a few areas (cities and sub national information) opinion is divided about whether Climate-ADAPT is general source of information that links to more detailed sources, however, in most areas Climate-ADAPT achieves its overall goal to be a place to guide users to the ‘right shop’.

Please note: questions marked with an * were mandatory

Section1. Tell us about the focus of your work

[Q1]. What type of organization/institution do you work for? *
Please choose only one of the following:

- ○ Research organisation
- ○ Business / private company
- ○ Science / policy interface organisation
- ○ Public authority / government (Please click to expand) >> European Union official
- ○ Public authority / government (Please click to expand) >> Transnational regions representative
- ○ Public authority / government (Please click to expand) >> National level/National Focal Point/National Reference Centre
- ○ Public authority / government (Please click to expand) >> Sub-national/regional level official
- ○ Public authority / government (Please click to expand) >> City level official
- ○ Non-governmental organisation
- ○ Consultancy
- ○ Other / please copy here the url of the homepage of your organization / institution:

[Q2]. What is your field of work? *
Please choose all that apply:

- ☐ Adaptation to climate change in general
- ☐ Agriculture
- ☐ Forestry
- ☐ Biodiversity
- ☐ Coastal areas
- ☐ Disaster risk reduction
- ☐ Financial
- ☐ Buildings
- ☐ Energy
- ☐ Transport
- ☐ Health
- ☐ Water
- ☐ Marine and fisheries
- ☐ Urban
- ☐ Other / please specify:

[Q3]. What is the nature of your work? * The sectors in this question reflect the sector icons on Climate-ADAPT
Please choose all that apply:

- ☐ Administration and support
- ☐ Communications and engagement
- ☐ Policy development
- ☐ Science

- [ ] Strategic/management level
- [ ] Operational/technical level
- [ ] Other:

[Q4]. How long have you been working on climate change adaptation? *
Please choose only one of the following:

- ○ Up to one year
- ○ 2-5 years
- ○ 6-10 years
- ○ More than 10 years

[Q5]. How frequently do you consult/submit information to Climate-ADAPT? *
Please choose only one of the following:

- ○ More than once a week
- ○ Once a week
- ○ Once a month
- ○ When needed

[Q6]. What country does your work focus on? *
Please choose all that apply:

- [ ] European Union
- [ ] Albania
- [ ] Austria
- [ ] Belgium
- [ ] Bosnia and Herzegovina
- [ ] Bulgaria
- [ ] Croatia
- [ ] Cyprus
- [ ] Czech Republic
- [ ] Denmark
- [ ] Estonia
- [ ] Finland
- [ ] Former Yugoslav Republic of Macedonia
- [ ] France
- [ ] Germany
- [ ] Greece
- [ ] Hungary
- [ ] Iceland
- [ ] Ireland
- [ ] Italy
- [ ] Kosovo under the UN Security Council Resolution 1244/99
- [ ] Latvia
- [ ] Liechtenstein
- [ ] Lithuania
- [ ] Luxembourg
- [ ] Malta
- [ ] Montenegro

- ☐ Netherlands
- ☐ Norway
- ☐ Poland
- ☐ Portugal
- ☐ Romania
- ☐ Serbia
- ☐ Slovakia
- ☐ Slovenia
- ☐ Spain
- ☐ Sweden
- ☐ Switzerland
- ☐ Turkey
- ☐ United Kingdom
- ☐ Other country or transnational region:

Section 2. Tell us how you use Climate-ADAPT

[Q7]. What are the types of climate change adaptation information products that Climate-ADAPT should provide? *
Please choose all that apply:

- ☐ Climate data (observation and projections)
- ☐ Indicators
- ☐ Maps and graphs
- ☐ Assessments (climate change, impacts, vulnerability, risks)
- ☐ Guidance documents
- ☐ Tools
- ☐ Generic adaptation options
- ☐ Adaptation plans and/or strategies
- ☐ Adaptation policies
- ☐ Case studies
- ☐ Information on funding opportunities
- ☐ Economic aspects of adaptation
- ☐ Social aspects of adaptation
- ☐ Environmental aspects of adaptation
- ☐ Networks, contacts and links
- ☐ News and events
- ☐ Other information:

[Q8]. Which sections of Climate-ADAPT have you used? * Based on your role and your expectations regarding information on climate change adaptation
Please choose all that apply:

- ☐ Database
- ☐ EU Policies (Please click to expand) >> EU Adaptation Strategy
- ☐ EU Policies (Please click to expand) >> EU Sector policies
- ☐ EU Policies (Please click to expand) >> EU Funding of adaptation
- ☐ Countries, regions, cities (Please click to expand) >> Mayors Adapt – City profiles
- ☐ Countries, regions, cities (Please click to expand) >> Transnational regions
- ☐ Countries, regions, cities (Please click to expand) >> Cities and towns

- ☐ Countries, regions, cities (Please click to expand) >> Country information
- ☐ Adaptation information (Please click to expand) >> Observations and scenarios
- ☐ Adaptation information (Please click to expand) >> Vulnerabilities and risks
- ☐ Adaptation information (Please click to expand) >> Adaptation options
- ☐ Adaptation information (Please click to expand) >> Adaptation strategies
- ☐ Adaptation information (Please click to expand) >> Research projects
- ☐ Tools (Please click to expand) >> Adaptation Support Tool
- ☐ Tools (Please click to expand) >> Case Study Search Tool
- ☐ Tools (Please click to expand) >> Uncertainty guidance
- ☐ Tools (Please click to expand) >> Map Viewer
- ☐ Tools (Please click to expand) >> Urban Adaptation Support Tool
- ☐ Tools (Please click to expand) >> Urban Vulnerability Map Book
- ☐ Tools (Please click to expand) >> Guidelines for project managers'
- ☐ Tools (Please click to expand) >> Additional tools developed by projects or other organisations
- ☐ Networks (Please click to expand) >> Global organizations network
- ☐ Networks (Please click to expand) >> European organizations network
- ☐ Networks (Please click to expand) >> Global Platforms
- ☐ News/Events/Newsletter
- ☐ Help section
- ☐ Other:

[Q9]. What additional information would you like on Climate-ADAPT to support your work? The sections listed in this question reflect the sections currently on Climate-ADAPT
Please write your answer here:

If you have answered this question we would welcome the opportunity to discuss your feedback in more detail so that we can develop Climate-ADAPT in the most appropriate way. Please provide your email address if you are willing to be contacted for follow-up.

Section 3. Tell us about how you contribute to Climate-ADAPT

[Q10]. What Climate-ADAPT sections have you ever contributed to? *
Please choose all that apply:

- ☐ Database item(s) (e.g. publication and reports, information portals, guidance documents, etc.)
- ☐ Observations and scenarios
- ☐ Vulnerabilities and risks
- ☐ Adaptation options
- ☐ Adaptation strategies
- ☐ Research projects
- ☐ EU policy
- ☐ Tools
- ☐ Transnational regions
- ☐ Country information
- ☐ Cities and towns
- ☐ Research projects
- ☐ Development of case studies

☐ News/events
☐ Never submitted anything
☐ Other:

[Q10B]. Please explain why you have never submitted information to any of the Climate-ADAPT sections.
Only answer this question if answer for Q10 was: 'Never submitted anything'
Please write your answer here:

[Q11]. Is the submission process clear? *
Only answer this question if answer for Q10 was NOT: 'Never submitted anything'
Please choose only one of the following:

Yes, the submission process is clear and easy
No. Please describe you experience explaining why you think that the process is not clear:

[Q12]. Are the criteria to identify the information that is eligible for publication on Climate-ADAPT clear? *
Only answer this question if answer for Q10 was NOT: 'Never submitted anything'
Please choose only one of the following:

Yes
No. Please explain:

[Q13]. Is it easy to check if the information is already in the database before you submit an item? *
Only answer this question if answer for Q10 was NOT: 'Never submitted anything'
Please choose only one of the following:

○ Yes
○ Don't know / have never tried
○ No. Please explain:

[Q14]. What prompted your decision to submit information to Climate-ADAPT? *
Only answer this question if answer for Q10 was NOT: 'Never submitted anything'
Please choose all that apply:

☐ I am obliged to submit information (outcomes of research projects as required by the European Commission's Directorate-General for Research and Innovation)
☐ I am obliged to report on national adaptation actions under the EU monitoring mechanism regulation to the European Commission's Directorate-General for Climate Action
☐ I want to share my experiences with others in Europe
☐ Other:

[Q15]. What added value did you gain from making your information visible on Climate-ADAPT? *
Only answer this question if answer for Q10 was NOT: 'Never submitted anything'
Please choose all that apply:

☐ I made my specific information more relevant by showing it in the respective policy context
☐ The people who need to use my information now have a better understanding of how my work may be helpful to them
☐ I have gained more users who are now aware of my work whereas before putting it on Climate-ADAPT they were not aware of my work
☐ I have extended the outreach of my information because partners are now passing my information to their networks
☐ I got feedback from my intended users on my information
☐ No added value at all
☐ Other:

Section 4. Tell us about the user friendliness of Climate-ADAPT

[Q16]. How did you learn about Climate-ADAPT? *
Please choose all that apply and provide a comment:

☐ Web search engine (e.g. google)
☐ Social media
☐ Colleague
☐ Link from another website (Please specify link)
☐ Workshop/Conference/Meeting/Webinar (Please specify title, date)
☐ Other (Please specify)

[Q17]. How easy is it to navigate around the Climate-ADAPT website? *
Please choose the appropriate response for each item:

	Poor	Adequate	Good	Excellent	Don´t know
How easy is it to find information using the menu (green header bar)?	○	○	○	○	○
How easy is it to use the search function?	○	○	○	○	○
How easy is it to use the interactive functionalities?	○	○	○	○	○
How easy is it to understand the drop-down menus?	○	○	○	○	○
Is the number of clicks to reach the information about right?	○	○	○	○	○
How useful is the Help section?	○	○	○	○	○

[Q18]. How user-friendly is Climate-ADAPT in terms of presentation of information? *
Please choose the appropriate response for each item:

	Poor	Adequate	Good	Excellent	Don´t know
How easy is it to understand the graphics?	○	○	○	○	○
How up-to-date is the information?	○	○	○	○	○
How relevant is the text and is it the correct length?	○	○	○	○	○
How easy is it to understand the information?	○	○	○	○	○

[Q19]. What do you use 'most' often to find the page you need? *
Please choose all that apply:

- ☐ Icons on the home page
- ☐ Quick links
- ☐ Green navigation bar
- ☐ Search Functionality
- ☐ Other / please specify::

Section 5. Tell us how Climate-ADAPT supports cooperation

[Q20]. Do you feel that Climate-ADAPT achieves its objective to be a general source of information that links to more detailed sources of information? *
Please choose the appropriate response for each item:

	Yes	No	Not tried
Sectors, such as disaster risk reduction, water management or transport	○	○	○
Transnational information	○	○	○
National information	○	○	○
Sub-national information	○	○	○
City level information	○	○	○
Climate change impacts and vulnerability	○	○	○

[Q21]. Do you feel that Climate-ADAPT involves its users and information providers enough in its development? The development and updating of Climate-ADAPT has been carried out so far, by involving users and information providers in webinars, workshops, conferences and bi-monthly newsletters. *
Please choose only one of the following:

- ○ Yes, the current processes are satisfactory
- ○ No. Please make suggestions for improvements in how your involvement could be increased

Section 6. Share Climate-ADAPT success stories with us

[Q22]. Are you aware of the added value that Climate-ADAPT provides? Climate-ADAPT is designed to be a hub for European information on climate change adaptation, mainly providing summary information with links to primary sources and detailed information in other places. As such, it is complementary to national and sectoral web-based sources. *
Please choose the appropriate response for each item:

	I agree	I partly agree	I don´t agree
I can find European level information on climate change impacts, vulnerability and adaptation	○	○	○
I can find country information on adaptation from all European Environment Agency Member countries that complies with official Monitoring Mechanism Regulation and United Nations Framework Convention on Climate Change (UNFCCC)	○	○	○
I can find information for countries that do not yet have their own national adaptation platform	○	○	○
I can find adaptation information for transnational regions e.g. Baltic Sea Region	○	○	○
I can find European level research outcomes that are specific to adaptation and searchable	○	○	○

[Q23]. How have you used the information in Climate-ADAPT? *
Please choose all that apply:

- ☐ Research
- ☐ Informing the policy process (Please click to expand) >> Evidence documents to support policy (assessments feeding into the policy and decision-making process)
- ☐ Informing the policy process (Please click to expand) >> Policy documents on adaptation strategies and action plans at different governance scales (transnational, national, sub-national)
- ☐ Informing the policy process (Please click to expand) >> Monitoring and/or evaluation reports of adaptation strategies and action plans (including e.g. indicators)
- ☐ Supporting decision making (e.g.in terms of deciding on regulations, funding)
- ☐ Supporting participatory processes (e. g consultations, workshops, surveys)
- ☐ Dissemination (Please click to expand) >> Conferences and seminars
- ☐ Dissemination (Please click to expand) >> Media (e.g. written articles, radio, TV)
- ☐ None
- ☐ Other:

[Q24]. Please share with us any story of how you have successfully used 'the information in' Climate-ADAPT in your work.
Please write your answer here:

If you have answered this question we would welcome the opportunity to discuss your feedback in more detail so that we can develop Climate-ADAPT in the most appropriate way. Please provide your email address if you are willing to be contacted for follow-up.

We are looking for concrete examples where you may have used information from Climate-ADAPT. Examples could be:

- To find out about what other countries are doing in a particular field e.g. public engagement
- As evidence to support your research
- To find out about impacts in your location
- To search the database to find documents linked to a certain topic and then used this information in a presentation, meeting, paper, blog, website or report.

[Q25]. Please share with us any additional comments regarding Climate-ADAPT
Please write your answer here:

If you have answered this question we would welcome the opportunity to discuss your feedback in more detail so that we can develop Climate-ADAPT in the most appropriate way. Please provide your email address if you are willing to be contacted for follow-up.

References

Chiu T, F. D. (2001). *A robust and scalable clustering algorithm for mixed type attributes in large database environment*. . Proceedings of the 7th ACM SIGKDD international conference in knowledge discovery and data mining (pp. pp263-268). San Francisco, CA, : Association for Computing Machinery.

COM. (2013). *An EU Strategy on adaptation to climate change.* Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions.

Downing, et. al. (2017). *Capturing and sharing knowledge on adaptation across Europe: how to support decision makers in the EU* (Session 5.4). 3rd European Climate Change Adaptation Conference. Glasgow: http://ecca2017.eu/conference/session-report/.

EEA, (2014b). *National adaptation policy processes across European countries — 2014, EEA Report No 4/2014.* European Environment Agency.

EEA, (2014). *Medium Term Work Plan (MTWP) European Climate Adaptation Platform (Climate-ADAPT)2013-2017. Version 1.0.* https://forum.eionet.europa.eu/etc-cca-consortium/library/etc-cca-2014-2018/etc-cca-2017/project-1.4.3-information-systems-climate-adapt/t: European Environment Agency.

Gancheva, M. M. (2017). *Climate-ADAPT: Dissemination and capacity-building supporting adaptation in the framework of the EU Adaptation Strategy. Final Report. Contract number 340202/2015/718400/SER/CLIMA.C.3.* Milieu Ltd (Belgium).

ANNEX 5 Analysis of Climate-ADAPT Use cases

Table of Content

5.1 Introduction

5.1.1 Purpose of the Climate-ADAPT use cases collection

In order to assess the achievement of Climate-ADAPT as one core element of the EU Adaptation Strategy, the European Environment Agency (EEA) aimed to collect external feedback on the interaction of users and providers with the platform. A tiered approach was developed to collect and analyse the external feedback to Climate-ADAPT (EEA, 2018). In tier 1, the analysis of the web statistics provided the quantitative trends of the platform use (see ANNEX 3). The Climate-ADAPT User/provider survey captured quantitative, but more specific feedback on the background of the users and providers, the actual use of and provision of information to the platform, and in which processes Climate-ADAPT supported better-informed decision making on adaptation in Europe (see ANNEX 3 and ANNEX 4). However, the survey was anonymous, and only a few participants provided additional individual feedback and their contact data for individual follow-up information.

In tier 3, Individual feedback on the platform collected via meetings and conferences between 2012 and 2016 by the EEA, the European Topic Centre on Climate Change Adaptation (ETC/CCA), and Direction General Climate Action (DG CLIMA) contractors was additionally analysed (see ANNEX 3, Section 3.2.1.4).

The third level of assessment (tier 3) was extended by evaluation case studies. Case studies are a very important means of evaluation processes, providing in -depth inside into the respective topic and allowing the verification of hypothesis. Thus, EEA decided to additionally collect more individual type of

information through evaluation case studies on the interaction of users with and the actual use of the platform in a structured way ("Climate-ADAPT use cases").

Seventeen "real-life" use cases[96] from all governance levels across Europe were collected to see comparable and varying ways of using Climate-ADAPT content, functionalities or dissemination services. The use cases[97] show the specific adaptation challenges as well as the administrative circumstances under which the stakeholders work and the individual approaches to get assistance from Climate-ADAPT. They allow to understand the added value of Climate-ADAPT complementary to the other adaptation platforms available at national and transnational levels such as the Polish national adaptation platform Klimada[98] or the Pyrenees platform (OPCC[99]). Furthermore, the use cases highlight new information needs for future activities that could be supported by additional Climate-ADAPT content and functionalities. Thus, the collection of the use cases adds on one hand more specific information to the Climate-ADAPT evaluation. Feedback on the practical usefulness of individual Climate-ADAPT features also help to understand if there are particularly useful features, which should be better promoted on the platform.

The results of the use cases analysis will feed into the 2018 EEA report on Climate-ADAPT evaluation (EEA, 2018), and will furthermore help to shape the development of the platform content and functionalities in the next phase of the EU Adaptation Strategy.

On the other hand, the use cases show in a very practical way how the Climate-ADAPT content and functionalities were applied at different governance levels across Europe. They might provide inspiration to less advanced Climate-ADAPT users or users new to adaptation for which purposes Climate-ADAPT features can be used complementary to adaptation platforms at transnational and national level.

This document describes the methodology used to collect and analyse the Climate-ADAPT use cases (chapter 2), explains the coverage of the use cases related to various aspects of the Climate-ADAPT use and provider community (chapter 3), summarizes the lessons learned (chapter 4), and to assists the selection of cases to be included into the EEA report on the Climate-ADAPT evaluation (chapter 5).

5.2 Methodology of the Climate-ADAPT use cases

5.2.1 Process of the use cases collection

The intention of collecting Climate-ADAPT use cases was introduced in the 3rd Climate-ADAPT webinar "Towards an evaluation of Climate-ADAPT" on 18 January 2017.

After the announcement of this activity, EEA contacted relevant Climate-ADAPT stakeholders to submit possible Climate-ADAPT use cases on a voluntary basis, namely:

1. Experts included in the webinar mailing list, which comprise of governmental experts working on adaptation at EU, transnational and national level (National Reference Center; NRC's) and other relevant stakeholders as well as key information providers from the adaptation research community (researchers from FP7 and H2020 projects). Experts were invited on 10 April 2017

[96] https://climate-adapt.eea.europa.eu/help/climate-adapt-use-cases

[97] The numbers of all use cases mentioned (1 to 17) refer to the list of Climate-ADAPT use cases on Climate-ADAPT and to the lists provided in the tables A1 and A2 in this document. They were not listed in the order of submission. The numbering refers to the respective governance level from EU to local/city level.

[98] http://klimada.mos.gov.pl/en/

[99] https://opcc-ctp.org/en

via personal email to provide possible use cases based on the template mentioned in section 5.2.2.

2. Experts who subscribed to the European Climate Adaptation Newsletter (4582 experts)[100], were invited in the anonymous Climate-ADAPT user/provider survey (21 March to 20 April 2017) to share with the EEA their stories of the successful use of Climate-ADAPT and to provide their email-address for further questions.

3. DG CLIMA advisory group was invited to submit use cases on 23 May 2017.

4. Selected NRC´s were asked individually to help completing the collection of the use cases in the annual EEA Eionet meeting[101] on 21 June 2017 at the EEA in Copenhagen.

These audiences were contacted being aware that they have a large overlap.

The purpose of the evaluation is to see if the design, the priority setting in the maintenance and further development of Climate-ADAPT was appropriate supporting the intended target audience of the platform. Hence, the request to provide use cases was disseminated both to the intended target audience as well as to the wider audience (see Section 5.2.2).

The definition of the intended target audience is described in the Climate-ADAPT mandate as:

'Decision makers and institutions preparing decisions on adaptation at EU, transnational, national, and city level as well as boundary and research institutions' (EEA, 2014[102]).

An interpretation of experts in terms of their characterisation as '*core'* audience of "decision-makers" or '*wider'* audience (those preparing evidence for "decision-making") was developed in the analysis of the Climate-ADAPT User provider survey (ANNEX 4, Section 4.2.1):

- *Core audience* was defined in the User/provider survey as those respondents who have selected the following options for user/provider survey question 1 "What type of organisation/institution do you work for": research organisations, public authority/government, science/policy interface;

- *Wider audience* are defined as those respondents who selected other options (consultancy, business/private company, other). Since it was not clear where to assign the option 'consultancy' it was decided to assign it to the wider audience, because they could be doing work for the private sector rather than governments.

This interpretation was used likewise here for the collection and analysis of Climate-ADDAPT use cases.

Since the stakeholders submitted the Use cases on a voluntary basis, the number of submissions was quite low. EEA additionally asked the of the ETC/CCA experts for support. Due to the strong links of the ETC/CCA experts with governmental organisations working on adaptation at all governance levels in their respective countries; the collection of use cases was substantially improved. CMCC and Freshthoughts colleagues stimulated the submission of three Use cases from the local level, three sub-national level cases, one from the national level, and two from intermediary organisations.

[100] The invitation to the survey was sent out to the recipients of the European Climate Adaptation Newsletter (http://climate-adapt.eea.europa.eu/newsletter)

[101] Annual EIONET Workshop on Climate Change Impacts, Vulnerability and Adaptation (21-22 June 2017)

[102] https://forum.eionet.europa.eu/nrc-climate-change-adaptation/library/workshops-meetings/expert-workshop-climate-change-adaptation-platforms/meeting-documents/040614_climateadapt_wp_summary

5.2.2 Structure of the template for the collection of information

EEA developed a template to collect information on the interaction with Climate-ADAPT in a structured way. Since the evaluation scheme of the EU strategy evaluation was not available yet, the content and structure of the template was aiming to capture inspiring examples rather than "evaluation case studies". Thus, the template was not explicitly aligned with the evaluation questions.

The template was revised in a stepwise-approach supported by the ETC/CCA. It consisted of seven questions:

1. What feature of Climate-ADAPT have you used? Please specify the URL of the respective page.
2. In what role did you use the specific Climate-ADAPT feature?
3. For which purpose have you successfully used or are you successfully using the specific information presented on Climate-ADAPT?
4. How did the Climate-ADAPT content enable you to achieve your goal?
5. How did the Climate-ADAPT platform functionalities enable you to achieve your goal?
6. What would you need to make the knowledge even more useful for your specific needs?
7. What was the added value of using the specific Climate-ADAPT feature?

The questionnaire was pre-filled by EEA with an example from the Secretariat of the Carpathian Convention (confirmed by the Secretariat) in order to make the requirements of the template as clear as possible. The colleagues from the Convention Secretariat described in the example how information collected from individual country pages on Climate-ADAPT helped to take stock of adaptation policies and measures in the signatory countries of the Carpathian Convention. This analysis was used as a starting point to develop a synthesis of adaptation policies at transnational level in the Convention countries, and to feed this into an UN-led global assessment of "Mountain Adaptation Outlook Series" (Alberton, 2017) (see use case 2[103]).

5.2.3 Methodology of the analysis

The 17 use cases were characterized in terms of their coverage by the following three criteria: a) coverage in terms of professional backgrounds of the use cases providers (i.e. type of organisation, general background on adaptation or sectoral-specific background); b) coverage in terms of the availability of a National Adaptation Plan (NAP) and transnational or national adaptation platform, and c) in terms of the coverage of European regions.

Furthermore, the collected feedback was presented related to the three objectives that were set out for Climate-ADAPT in the Mid-term Climate-ADAPT work plan (EEA, 2014a):

a. The collection, sharing and use of information on climate change impacts, vulnerability and adaptation to build a consistent and updated knowledge base
b. To assist an effective uptake of the relevant knowledge by decision makers
c. To contribute to a greater level of coordination among sectors and institutional levels.

A series of questions emerged for each objective in order to allow assessing the achievements of Climate-ADAPT more specifically. According to the character of the use cases as "evaluation case studies", the evidence information is presented only for those out of the fourteen questions that could

[103] https://climate-adapt.eea.europa.eu/help/climate-adapt-use-cases

be reasonably answered. It is explained in the overall Climate-ADAPT methodology that there are many overlaps in the outcomes of the analysis (EEA, 2018 Table 4.1). Thus, the outcomes were presented under the objective where they fit best.

In order to allow using the results of all elements of the Climate-ADAPT platform evaluation in a consistent way, the analysis of the Climate-ADAPT use cases was structured as much as possible in the same way than the analysis of the results of the web statistics and the user/provider survey.

5.3 Analysis of the Climate-ADAPT use cases

5.3.1 Analysis of the coverage of the use cases

Summary

- Coverage in terms of the Climate-ADAPT core audience: All use cases were submitted by users belonging to the Climate-ADAPT core audience. Fifteen cases come from public organisations working on adaptation. Two Italian use cases were provided by intermediaries (science/policy interface organisations). Thus, the use cases support to understand if the needs of the intended target audience are met by Climate-ADAPT.
- Coverage in terms of the professional background of use cases providers: Climate-ADAPT use cases were collected from all governance levels from the local to the European level. Due to the close relations of the EEA to the NRC´s, the majority of cases was provided for the national level (6 out of 17). Italy is the country with use cases from the local to the national level. Thus, Italy might be valued as a "country case study" in the Climate-ADAPT evaluation. The use cases help to understand the usefulness of Climate-ADAPT for users from different governance levels.
- There was only one submission from a sectoral perspective (Health sector) suggesting a limited outreach of Climate-ADAPT towards sectoral experts and a lack of Climate-ADAPT awareness among sectoral users. Thus, only limited insights from the use of the platform from the sectoral perspective can be expected from the Climate-ADAPT use cases.
- Coverage in terms of the availability of national adaptation platform and NAP: The majority of use cases was provided by experts working in countries/transnational regions without having a web-based national/transnational adaptation platform in place and without a NAP (11 out of 17). Consequently, the use cases represent users with needs for access to more comprehensive information supporting adaptation decision-making. Four use cases from Spain and UK were provided from experts with access to more advanced information (NAP and adaptation platform in place). Thus, this user group is as well represented by the collection of Climate-ADAPT use cases.
- Regional coverage of use cases: In terms of geographic distribution, there is a clear cluster of use cases submitted by experts from Southern Europe (10 out of 17). This might be related to the high awareness of Climate-ADAPT through the work of the ETC/CCA and the Mayors Adapt Consortium. Lower shares from Northern and Western European countries might indicate that they have access to comprehensive information sources through national adaptation platforms.
- Since the submissions for the use cases were made on voluntary basis, the number and distribution of Climate-ADAPT use cases shows varying patterns in terms of the analysed criteria. Thus, they cannot be valued as fully representative. Since they provide the full description from the definition of the individual challenges, the way Climate-ADAPT was actually used as well as the specific value added, they give a more systematic and in-depth inside into the use of Climate-ADAPT.

EEA collected the use cases in order to gather more specific feedback to better interpret the results of the Climate-ADAPT web statistics and to understand the results of the anonymous User/provider survey in terms of the success of Climate-ADAPT and the improvements needed in the mid-term perspective.

Since the use cases were submitted on a voluntary basis, they cannot be considered as representative for the whole Climate-ADAPT user and provider community. The following overview shows the coverage of the use cases in terms of the background of the use cases providers (general adaptation or sectoral background as well as the type of organisation), the availability of a National Adaptation Plan (NAP) and national adaptation platform, as well as in terms of the coverage of European regions. No information was collected on the level of experience of the use cases´ providers (providers "new" or "more experienced" in the field of adaptation). It was therefore not possible to characterize the use cases providers in this respect and to compare the content of the use cases directly with the results of the user/provider survey.

The analysis of the coverage is based on the status of 09 January 2018. All information used to describe the coverage of the use cases was taken from the Table A1 *Overview on the detailed evidence of the Climate-ADAPT use cases*[104].

a) Professional background of the Use cases providers

Table 5.1 shows the type of organisation of the use cases providers.

Whereas the User/provider survey showed that experts from sectoral backgrounds used several Climate-ADAPT features, this type of information cannot be confirmed by the Climate-ADAPT use cases. A total of 16 use cases were gathered from users working on adaptation in general across all sector policies. Only one use case from Climate-ADAPT users working on adaptation in a specific policy sector was provided (Mainstreaming of adaptation into the health sector policy at sub-national level (Sustainable Development Unit (SDU) for the Health and Social Care System in England; Use case 16).

In order to increase the number of Climate-ADAPT use cases from sectoral users, EEA additionally contacted sectoral experts through two channels. Firstly, EEA contacted sectoral experts, named by the respective Climate-ADAPT Steering Group Members. Secondly, the EEA asked the ETC/CCA Thematic experts to support the collection of potential use cases from sectoral users. Nonetheless, none "sectoral" case could be added to improve the collection in terms of its sectoral coverage.

The limited number of submissions from sectoral experts might reflect the fact that the awareness on Climate-ADAPT is still limited among sectoral experts. This assumption might be supported by the fact that the ETC/CCA Climate-ADAPT Thematic experts did not have the budget to explicitly reach out towards sectoral users (e.g., via disseminating the platform via key sector events etc.). DG CLIMA contractors also reported limited awareness of Climate-ADAPT among sectoral experts at European level in 2016. Their conclusions were based on interactions with experts from selected policy fields (agriculture, forestry, water management and finance) (Gancheva et al., 2017). Thus, detailed information on the use of Climate-ADAPT content and functionalities provided through the case studies is limited for users with a sector policy background.

[104] available on request (email climate.adapt@eea.europa.eu)

Table 5.1 Governance level and type of organisation (17 Use cases)

Governance level and type of organization	Countries covered	Number of case studies
European Union level	All	1
Transnational level representative	Czech Republic**, Hungary**, Poland, Romania**, Serbia**, Slovakia**,	1
National level/	Bulgaria, Greece, Italy, Poland, Spain, Turkey,	6
Sub-national/regional level official	Italy, UK	23
Local/City level	Italy, Portugal, Spain	3
Science/policy interface organisation*	Italy	2
Research organisation	UK	1
Non-governmental organisation	All	0
Consultancy	All	0

Notes:

*Includes intermediary organisations providing advice to governmental decision makers at various levels of governance

**Countries covered in the frame of the Carpathian Convention.

Source: EEA.

All Climate-ADAPT use cases come from organisations belonging to the Climate-ADAPT core audience (see section 5.2.1). They were provided by public administrations at various governance levels. Since the intermediary organizations (Rete Gaia (Use case 14) and Lombardy Foundation for Environment (Use case 15) are working on adaptation for the public sector at the local and regional level, they can also be counted as “core audience”. Thus, the use cases allow drawing conclusions about the achievement of the Climate-ADAPT mandate towards the intended core audience.

It was possible to capture use cases for all governance levels in Europe. This engagement suggests that stakeholders at all governance levels see an added value in using Climate-ADAPT.

In particular, six use cases were provided for all levels of governance in Italy (Use cases 4, 9, 10, 12, 14, and 15). It suggests that Climate-ADAPT is intensively promoted in Italy by the ETC/CCA experts (CMCC, Thetis) working closely together with public institutions. This could also mean that experts at all levels use Climate-ADAPT in Italy because there is not yet a web-based national adaptation platform in place. Italy might even be considered as a “country case study” for Climate-ADAPT use in the absence of a national adaptation platform.

Although a high share of Climate-ADAPT use among European level experts was indicated in the User/provider survey, only one use case was provided from the European level (DG RTD; Use case 1). The limited provision of EU level Use cases could be partly explained by the limited awareness of the usefulness of the platform for sectoral users at European levels. The largest number of cases (6 out of 17) was submitted by national level users which might be due to the close relation of EEA to the key Climate-ADAPT partners, the National Reference on Centres Climate Change Adaptation (NRC´s).

Table 5.2 Roles in which the use cases providers used Climate-ADAPT (17 Use cases)

Available information	Climate-ADAPT use cases related*	Number of use case
Predominantly strategic role	1, 2, 3, 4, 5, 6, 7, 15, 16, 17	10
Predominantly operational role		0
Both strategic and operational role	8, 9, 10, 11, 12, 13, 14	6

Notes: * Numbers refer to the respective number of the Climate-ADAPT use case.
Source: EEA.

The majority of providers of the use cases used Climate-ADAPT in rather strategic roles (10 out of 17) or both in strategic and operational roles at the same time (6 out of 17). There was no organisation that used the platform in an only operational way.

The overall broad coverage of use cases allows to draw conclusions on the usefulness of the multi-governance approach of presenting adaptation information on Climate-ADAPT from various governance perspectives.

b) Availability of National Adaptation Plan and national adaptation platforms

Since the needs of Climate-ADAPT providers and users vary due to their work conditions, it is important to understand the status of adaptation policy of the Climate-ADAPT use cases. Two classifications of the use cases coverage were applied in the analysis: the first one was based on the status of adaptation planning at national level (presence of National Adaptation Plan (NAP)), and the second one on the availability of a web-based national/transnational adaptation platform. EEA decided not to use the National Adaptation Strategy (NAS) because it did not help in differentiating the countries as the majority of countries in Europe now have a NAS. This scheme is in line with the analysis of the answers of the User/provider survey.

Table 5.3 shows the distribution of use cases in terms of the availability of a NAP and/or of a transnational and national adaptation platform.

Table 5.3 Number of use cases for countries with/without NAP and/or national adaptation platform (17 Use cases)

Available information	Countries related	Number of use case
NAP and platform available	Spain, United Kingdom, EU*	5
NAP, no platform	Turkey	1
No NAP, but platform	Poland	1
No NAP, no platform	Bulgaria, Greece, Italy, Portugal, Carpathian Convention	10

Note: * Climate-ADAPT was counted as the platform at EU level.
Source: EEA.

Table 5.3 shows that users coming from countries /transnational regions without a national/transnational adaptation platform and no National Adaptation Plan (NAP) available submitted the majority of use cases (11 out of 17 cases). The strong engagement of those users suggests that they might have used Climate-ADAPT more than users in countries with a platform and a NAP. For Italy, six

use cases were provided from all levels of governance (Use cases 4, 9, 10, 12, 14, and 15) while a NAP and a national adaptation platform are not yet available to support decision making on adaptation.

There are also four use cases (No 6, 11, 16, and 17) for countries with a NAP and a national platform (United Kingdom, Spain). This suggests that also users from in those countries that have a National adaptation platform recognise the added value of Climate-ADAPT. Thus, the coverage of use cases allows to better understand the use of Climate-ADAPT by stakeholders with different information needs in terms of the status of adaptation policy and information in EEA Member countries.

c) Regional coverage of the use cases

The analysis of the coverage of use cases was also done based on four geographical regions in Europe (in line with the analysis of the User/provider survey results): East, West, South and North (based on EuroVoc, see Table 5.4).

Table 5.4 Number of use cases per European region; 17 Use cases

Groups	Countries	Number of use case
Eastern European	Albania, Bosnia and Herzegovina, Bulgaria, Czech Republic, Croatia, FYROM, Hungary, Kosovo*, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia	3
Western European	Andorra, Austria, Belgium, France, Germany, Ireland, Liechtenstein, Luxembourg, Monaco, the Netherlands, Switzerland, United Kingdom	2
Southern European	Cyprus, Greece, Italy, Malta, Portugal, San Marino, Spain	10
Northern European	Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway, Sweden	0
Turkey** (EEA Member State)		1 use case

Note: Use case No. 1 (DG RTD) covers all regions and was therefore excluded from the list.

*Kosovo under the UN Security Council Resolution 1244/99.

** Turkey is not considered in this classification scheme.

Source: EuroVoc (http://eurovoc.europea.eu)

Use cases were provided from all European regions, but they are not equally distributed. The majority of use cases was submitted by experts from Southern Europe (10 out of 17 cases) which might be related to the fact that these countries have the most extensive climate impacts. A more probable explanation could be that there is a higher awareness of Climate-ADAPT. Higher awareness of the platform is facilitated by the ETC/CCA experts in Italy as well as via the Mayors Adapt Consortium with an overlap to the ETC/CCA consortium. The low share of submissions from Western and Northern Europe (2 out of 17) could be explained by the fact that the majority of these countries have national adaptation platforms and/or plans in place. Thus, Climate-ADAPT might be less used than in countries without NAP/platforms.

The analysis of the Climate-ADAPT Web statistics has shown that experts from Eastern European countries are less active (see ANNEX 3), among other EU Countries, in using the platform. Experts from Eastern countries have also provided only a few use cases (3 out of 17). EEA explicitly encouraged them to provide evidence of their experiences of how they have used Climate-ADAPT in order to better understand their specific needs and to inspire more experts from Eastern countries to actively interact with the platform.

5.3.2 Analysis of the Climate-ADAPT use cases

This chapter provides the analysis and interpretation, of the Climate-ADAPT use cases. The collection of Climate-ADAPT use cases helps to understand if Climate-ADAPT is achieving its aim of supporting decision makers in Europe in terms of the three platform objectives and the respective evaluation questions (see also Section 5.2.3).

5.3.2.1 Evidence for Objective A: Sharing of adaptation knowledge in Europe to build a consistent knowledge base

Key messages

- The providers of the Climate-ADAPT use cases belonging to the core audience, working mostly at strategic levels, find on Climate-ADAPT what they need. The five most often used features, i. e., the "Country pages", "EU policy", "Database", "Adaptation Support Tool (AST)", and the Case studies" are the same than identified in the Web statistics and the User/provider survey with the exception of the "News"/"Events" section. The use of these main features shows that the use cases providers are aware of the Climate-ADAPT role of sharing the knowledge on adaptation in Europe and used it on all levels of governance and for a wide variety of purposes Thus, the five features can be valued as Climate-ADAPT "core content", could be communicated as such, and should remain the first priority of the further platform development.
- The examples also used a wide variety of the other features, such as the set of "Adaptation options", and the "Research projects" pages and of specific features, such as the "Map viewer", but to a smaller extent. This demonstrates their added value for specific tasks such as the revision of adaptation policies of the development of Regional Adaptation Plans. Additional promotion of these features maybe needed.
- The urban adaptation information developed by the EU Mayors Adapt Initiative was highly valued by urban users. As strong link and better promotion of this content and emerging features of the Global Covenant of Mayors for Climate and Energy on Climate-ADAPT would be beneficial for urban users.
- Some examples show that there is particular added value in using the "Adaptation options", e.g. for helping experts to systematically explore solutions applicable at regional and local levels. Further development of the set of "Adaptation options "and to enlarge the set of "Case studies" in a complementary way could be valuable.
- Additional content is needed by the providers of the Climate-ADAPT use cases related to specific sections extension of the geographic component of Climate-ADAPT by an additional (sub-national) level was suggested to provide an entry point into the "state of the art" of adaptation at sub-national levels in Europe. It should be noted that such information is currently available on the Climate-ADAPT "Country pages".

This section presents evidence for objective A of Climate-ADAPT, to share the adaptation knowledge in Europe to build a consistent knowledge base. Specific questions that were answered with the help of the Climate-ADAPT use cases for this objective are A3) Which sections of Climate-ADAPT are currently used? A4) Which information is also needed by Climate-ADAPT users?

A3) Which sections of Climate-ADAPT are currently used?

The providers of the use cases come from the intended core audience of Climate-ADAPT, working mostly at strategic, rather than operational levels (see section 5.3.1). They can find the information they need on Climate-ADAPT.

The five most regularly used features are the "Country pages"[105], "EU policy", "Database" and "Adaptation Support Tool" (AST), and "Case studies" (see Table A1 *Overview on the detailed evidence of the Climate-ADAPT use cases*[106]).

The Climate-ADAPT use cases [107] show that these five features were used to support decision making at all stages of the adaptation policy cycle and across all governance levels, and also across almost all European regions (see Table A1 and section 5.3.1). Examples of use reach from the very early stages of "getting started with adaptation" (e.g., Rete Gaia organisation, working for the Municipality of Sorradile, Italy; Use case 14) to the development of adaptation strategies (such as the Ministry of Environment and Water (MoEW) in Bulgaria; Use case 3). Examples of use are also available for more advanced stages of the policy development, such as the revision of adaptation strategies and plans (e.g., Turkish Ministry of Environment and Urbanisation (MEU) (Use case 7). The use cases show that the platform also provides assistance for experts at all governance levels in Europe. There are examples from the local level, such as the City of Bologna (Use case 12), and from the subnational level, such as the Province of Barcelona (Use case 11) and the Lombardy Region (Use case 9). There are also use cases from the national level, such as the Ministry of Environment (MoE) of Poland (Use case 5), from the transnational level (Carpathian Convention; Use case 2), and from the European level (DG Research and Innovation (DG RTD); Use case 1). However, the majority of cases (6 out of 17) come from the national level. Two cases illustrate common patterns of use from an urban perspective, i. e., Bologna (Use case 12), and Cascais (Use case 13). Furthermore, there are examples illustrating the use of Climate-ADAPT from other perspectives; the sectoral one, i. e., on health related adaptation in England (Sustainable Development Unit (SDU) for the Health and Social Care System in England; Use case 16), from a research perspective (UK Met Office, Use case 17) as well as from two intermediary organisations; i. e., Lombardy Foundation (Use case 15) and Rete Gaia (Use case 14).

It was pointed out in 14 out of 17 use cases that the "EU policy" ("EU Adaptation Strategy") and "Country information" pages allow to stay up-to-date with the development of adaptation in Europe and that it is used as *the* reference information to identify the "state of the art" of adaptation in Europe and to apply or build on approaches widely accepted in the EU adaptation community.

It was also highlighted by many providers that they are aware that the information available in these five main features are trustful and generated in the frame of political processes.

Information on the use of the core features is explained in more detail.

"EU Policy" section - Within the EU Policy section, the "EU Adaptation Strategy" was used by the Bulgarian MOEW (Use case 3) and the Turkish MEU (Use case 7) to ensure the consistency of the national approaches with the EU Adaptation policy and to learn about the approaches available at EU level (Sorradile, Use case 14). The "EU Policy sectors" were explicitly mentioned by the users working on a sector adaptation strategy (Sustainable Development Unit (SDU) for the Health and Social Care System in England; Use case16) and by users with a research background to obtain information relevant for the

[105] References to Climate-ADAPT features, sections and pages are provided with the exact names of the feature and in quotations marks in order to allow finding the respective reference on Climate-ADAPT.
[106] available on request (email climate.adapt@eea.europa.eu)
[107] The numbers of the use cases are provided in brackets.

work related to EU funded projects (UK MetOffice; Use case 17). The very specific information on the EU Covenant of Mayors for Climate and Energy Initiative was used only by a few urban users, such as Sardinia Region (Use case 10), and the city of Bologna (Use case 12). Since adaptation policy information at EU level are among the most often used features, it confirms the results of the survey that there is interest in the activities related to the EU Adaptation Strategy. In a specific application, DG RTD colleagues used the "EU Funding of adaptation" section to map the existing funding schemes beyond the EU research funding of adaptation to identify possible synergies between the funding streams (Use case 1).

"Country information" section - The individual "Country information" pages served to benefit from experiences in other European countries to re-use front-runner approaches for various applications, such as for the mainstreaming of adaptation (Lombardy Foundation for the Environment; Use case 8), and the selection of climate change and impact indicators at national levels (ISPRA; Use case 4). Almost all providers stated that they plan to continue checking this information on a regular basis to remain up-to-date.

Climate-ADAPT "Database" - Many use cases providers, such as the UK Met Office (Use case 17), Lombardy Foundation for the Environment (Use case 15), and the Greek LIFE Task Force (Use case 8), highlighted specifically the benefit of the Climate-ADAPT "Database". They showed that the "Database" allows efficiently finding and accessing the relevant information on adaptation in Europe in one place without checking primary literature, and serving as a starting point for more detailed searches to develop tailor-made assessments and guidance for the individual users´ needs.

"Adaptation Support Tool" - The use of the Adaptation Support Tool was confirmed as the main guidance how to systematically work on adaptation policy and planning in various cases, e.g., for the MEU Turkey (Use case 7) and the MoE in Poland (Use case 5) at national levels as well as for the small municipality of Sorradile (Use case 14).

"Case studies" - Case studies were mentioned in half of the use cases (8 out of 17). They were mainly used as illustrative examples of implemented measures in meetings and in participatory processes at various governance levels (e.g., at national levels for the NAS development by the MOEW in Bulgaria (Use case 3) and for the development of guidelines for Urban adaptation plans in Poland (Use case 5), at EU level for the illustration of innovative adaptation approaches and success factors in various countries by DG RTD (Use case 1). They were used at city levels to support the development of an Urban Adaptation Plan in Bologna (Use case 12) and to replicate successful adaptation approaches for Portuguese municipalities (Use case 13). Their use in participatory processes and to support policy development at various governance levels was reported by the Greek LIFE Task Force (Use case 8), and by DG RTD (Use case 1), The case studies were also used for other purposes such as the reporting of adaptation activities at regional levels in the UNFCCC process by the Sardinia Region. The case study metadata sheet inspired the development of the national level case studies in Spain (Use case 6).

The top sections of Climate-ADAPT, that are used in the Climate-ADAPT use cases, are almost the same as the top 10 sections that were indicated in the Web statistics (Section 3.2.1.1) and in the User/provider survey (Section 3.2.1.2). The results of all three means of capturing user feedback (Climate-ADAPT web statistics, User/provider survey and the Use cases) lead to the conclusion to value these five features as the Climate-ADAPT "core content" supporting governmental decision-making on adaptation in Europe. This could be clearly communicated on the Climate-ADAPT homepage. The future priorities of the Climate-ADAPT development should also continue to focus on this "core content".

There is a quote from the Greek LIFE Task Force (GR LTF) use case (Use case 8) summarizing the added value of these main features:

"GR LTF experts, working as intermediaries, valued the added value of Climate-ADAPT in providing a trusted EU-wide information basis on climate change vulnerability, impacts and adaptation, and it can be used quite widely in different levels (local, regional, national, transnational). It allows EU citizens to get access to the same level of information and provides the same background, enhancing the cohesion of the Union and the streamlining of the measures and policies that are implemented for this global issue, respecting the limits set by the different geographical and other circumstances."

As well as the five main features, the users that provided the Climate-ADAPT use cases also used a variety of other general and more specific features, but less often:

1. general features like the "Adaptation options" and "Research projects" pages;
2. specific features such as the "Map viewer";
3. specific features related to the needs of users from the governance level of cities, such as the "Urban adaptation support tool", the "Urban vulnerability map book";
4. dissemination functionalities like the "News/events" section;
5. networking features like the "Organisations" page in the "Network" section.

"Adaptation options" - The added value of the "Adaptation options" for the systematic analysis on how to adapt to different impacts of climate change at various stages of adaptation planning and policy was explicitly highlighted in two use cases. The intermediary organisation of Green Fund operating the Greek LIFE Task Force (GLTF) (Use case 8) used them together with the "Case studies" to facilitate a systematic approach to help regional level practitioners getting a systematic understanding of adaptation. The Province of Barcelona, acting as a "Covenant Territorial Coordinator" in the Global Covenant of Mayors for Climate and Energy Initiative (hereafter also Covenant of Mayors)[108] developed a systematic adaptation options catalogue for the municipalities of the regions by using the Climate-ADAPT set of options to support the signatory municipalities designing climate change adaptation plans (Use case 11). Although not many respondents of the User/provider survey stated using the adaptation options, the Climate-ADAPT use cases show that they are a very useful element of adaptation planning and policy development providing not only selected aspects but the "full picture of adaptation". It is recommended to further update the "Adaptation options" as a basis for planning and revising adaptation activities in a systematic way and to improve the awareness of this tool by better promoting them on the platform. Further development to enlarge the set of "Case studies" in order to systematically provide practical examples for all "Adaptation options" would be valuable.

"Research projects pages" - The "Research projects" pages, providing detailed information and links to the project outcomes for the most relevant EU funded projects on adaptation, were used by DG RTD (Use case 1) to map the achievements of EU funded research as well as by the Greek LIFE Task Force (Use case 8) to support the Environment Ministry in the development and implementation of LIFE funding proposals. They used the "Research projects" pages as more advanced users to describe the state of the art of adaptation approaches and to prove the innovative character of the funding proposals. Thus, the EU funded research projects presented on Climate-ADAPT serve as one of the reference frames for ensuring a sound quality of the projects for adaptation related EU funds.

This demonstrates that even though these two general features "Adaptation options" and "Research projects" are not the most popular pages, they are very much valued for specific tasks. Additional promotion of these features for specific decision-related tasks maybe needed.

[108] https://www.covenantofmayors.eu/en/

"Map viewer" - The use of the specific feature of the "Map viewer" was only specifically mentioned in one use case, i.e., in the Lombardy Region (Use case 9). It provides access to spatial information developed by EU funded research projects. It was applied to develop a Regional Adaptation Plan by using the ENSEMBLES model. The Lombardy Region used this tool in the absence of a national adaptation platform (see Section 5.3.1). The limited use of this feature might also show that this tool could be viewed as "outdated". It could be replaced step by step by more advanced functionalities to be provided by the Copernicus Climate Services (C3S)[109] .

Tools for the specific needs of urban users - The link to the urban adaptation information developed by the EU Mayors Adapt Initiative[110] was highly valued by urban users providing Climate-ADAPT use cases. The "Urban adaptation support tool", developed by the Mayors Adapt Consortium, presented on Climate-ADAPT, as well as the EEA "Urban vulnerability map book" proved to be very helpful tools for the specific needs of urban level users (Province of Barcelona Region; use case 11), the City of Bologna (Use case 12), and the Cascais Municipality (Use case 13). Urban adaptation guidance is available on AdapteCCa, the Spanish national level adaptation platform[111]. The Province of Barcelona indicated to have used in addition the more extensive guidance available on Climate-ADAPT thus filling a temporal methodological gap.

There was also a request for more specific information dedicated to the needs of small, communities (Sorradile; Use case 14). The urban information and links to Covenant of Mayors could be better promoted.

Dissemination features ("News" and "Events" sections) - The "News" and "Events" section are accessible from a prominent place on the Climate-ADAPT homepage. On the contrary to the results of the User/provider survey where the news/events were highlighted as the most used Climate-ADAPT feature by half of the respondents (130 out of 246) (see ANNEX 3 in Section 3.2.1.2, and ANNEX 4 in Section 4.2.2), this feature is not often mentioned by the providers of the Climate-ADAPT use cases. Users from Sustainable Development Unit (SDU) for the Health and Social Care System in England; Use case 16), and the Sardinia Region (Use case 10) have used these features. These users seemed to be more familiar with the topic of adaptation. Based on the number of sections visited, the provider of the health related Climate-ADAPT use cases was also valued as a more advanced Climate-ADAPT user. The less mentioned use of the news/events section might also be due to the composition of the use cases providers covering the Southern and Eastern part of Europe with fewer resources to attend meetings and to stay closely connected to the European level. It might also mean that the providers of the use cases rely on the bi-monthly Climate-ADAPT newsletter to remain informed about the current development.

Networking features ("Network" section) - The Climate-ADAPT "Network" section includes a list of European and international "Organisations" with weblinks for further reading. This section of the platform was used in two cases. The Sardinia Region, working in many roles on adaptation at global, European, transnational, national, and sub-national level, stated to use the weblinks in the "Organisation" section to strengthen the cooperation with relevant partners (Use case 10). The UK MetOffice used both "Network" subsections to identify stakeholders to be involved in EU funded research projects (Copernicus Roadmap for Climate Projections[112] and the H2020 proposal on a

[109] https://climate.copernicus.eu/
[110] The EU Mayors Adapt Initiative was merged in 2015 with the Covenant of Mayors Initiative into the new Global Covenant of Mayors for Energy and Climate (http://www.eumayors.eu/
[111] http://adaptecca.es/
[112] https://climate.copernicus.eu/copernicus-roadmap-european-climate-projections

European Climate Predictions system (EUCP) and to make useful links with relevant organisations (Use case 17).

A4) Which information is also needed by Climate-ADAPT users?

The providers of the 17 Climate-ADAPT use cases listed some specific requests in the template under the topic "Future plans". Examples of this additional information needs related to various Climate-ADAPT sections are provided below.

General - All providers of Climate-ADAPT use cases highlighted the need to find information on implementing adaptation.

DG RTD suggests to increase the visibility of EU funded actions on ecosystem-based approaches via various Climate-ADAPT features (Use case 1).

Users might benefit from synthesis information on the added value of EU funded adaptation research projects (DG RTD, Use case 1).

The Sardinia Region acting in several roles from the European to the sub-national level (and lacking a national adaptation platform) asked for an extension of the geographic component of Climate-ADAPT. They suggest to add an additional "sub-national" level in order to learn about the state of the art of adaptation at sub-national level in Europe (Use case 10).

The Lombardy Foundation for the Environment suggested to present information on activities of non-governmental actors at all governance levels on Climate-ADAPT (Use case 15).

"EU Policy section" - The European Commission users proposed the announcement of funding calls on the "EU Policy" pages to support the better access to EU funding streams (DG RTD; Use case no 1).

"Country information" section - An additional thematic layer giving quick access to Monitoring, Reporting and Evaluation approaches from countries was suggested by Ispra, Italy, in order to support the use of front-runner approaches (Use case no 4).

Synthesis information on national level vulnerability assessment approaches was valued as very helpful from the MoE Poland (Use case 5).

"Database section" - A search option to identify projects by their "type of funding" would be beneficial for users working on the implementation of adaptation. This would allow to draw conclusions on the maturity of the activities presented on Climate-ADAPT (Greek LIFE Task Force, Use case 8).

"Cities and towns" section - Rete Gaia, the intermediary organization supporting the municipality of Sorradile, Sardinia, Italy, suggested to provide more specific content related to the needs of small, and particularly more rural communities on the Covenant of Mayors platform (Use case 14).

The City of Bologna, currently implementing the Local adaptation plan, would benefit from as stronger focus of Climate-ADAPT on information about adaptation strategies, plans and actions in cities (Use case 12 Bologna).

The Cascais Municipality as a frontrunner city supports the provision of adaptation methods in the Portuguese National Network of Adapted Municipalities. It would therefore be interested in guidance o MRE for adaptation in cities (Use case 13),

"News" and "Events" sections - DG RTD suggests to announce webinars of EC actors, such as from the Covenant of Mayors for Climate and Energy or DG RTD in these sections to increase the outreach of the Commission services.

5.3.2.2 Evidence for objective B: To assist in the effective uptake of the knowledge by decision makers

Key messages

- The use cases show that Climate-ADAPT is recognized by users from all governance levels in Europe, and used at all stages of the adaptation policy cycle. It supports both users with no and wide access to adaptation information through national adaptation platforms. The use confirm that intermediaries play a major role in using Climate-ADAPT to support governmental decision makers by preparing tailor-made products and advice for their specific adaptation challenges. This could be better reflected in the description of the intended target audience in the Climate-ADAPT mandate.
- The knowledge shared through Climate-ADAPT is used to inform the policy processes by developing evidence documents (assessments) and methodologies (such as on case studies, indicators, adaptation options) as well as plans and strategies feeding into the policy processes at all governance levels in Europe. Furthermore, participatory processes and the preparation of funding proposals for all types of EU funding are supported by Climate-ADAPT. These findings about the effectiveness of Climate-ADAPT confirm the outcomes of the User/provide survey.
- The examples show that the Climate-ADAPT knowledge base is widely accepted among decision makers and organisations supporting them as the reference frame - where to find the state-of-the-art, comprehensive knowledge on adaptation in Europe. It is often used as a starting point to widen the search to develop tailor-made products. Thus, it could be recommended to rephrase the branding of Climate-ADAPT in the EU Adaptation Strategy of being the “one-stop-shop” into a “first-stop-shop”.
- In order to recognize these use patterns and to manage expectations it could be recommended to clarify the objectives of Climate-ADAPT. An adjustment may be made that states “to provide access to state-of-the-art knowledge on adaptation in Europe for developing tailor-made information for adaptation policy processes” rather than providing tailor-made knowledge “ready to use”.
- Thus, it would be recommended to assist the better uptake of the information by making the knowledge to be used for developing tailor-made documents as easy accessible as possible by providing a visual overview on the content of the site, by publishing the use cases as inspiring examples on the website and to provide more synthesis information for various topics.
- Climate-ADAPT functionalities for the improved uptake of the information, such as the interactive map-based access to various policy information on adaptation in cities, countries and transnational regions, have been developed over the last years but they are not yet fully used. For example, compared to the overall high level of use of the “Country information” feature, only a few providers of the use cases used the interactive map-based access to these pages through thematic maps. This suggests to improve their visibility and user-friendliness.
- The uptake of the information by Climate-ADAPT could be further increased, such as by informed about the full range of information available on the platform through RSS feed and improving the performance of the database.

This section supports answering question related to the objective B of Climate-ADAPT, to assist the uptake of the information to support informed decision-making. These questions are B1 Who is using Climate-ADAPT? B2) What products or processes are the users using the information for? B3) Which sections of Climate-ADAPT are used to develop tailor-made products or to support processes; and B4) Is the knowledge presented on Climate-ADAPT in a useful way of assisting the uptake of the information?

B1) Who is using Climate-ADAPT?

Climate-ADAPT use cases are not fully representative, and show a varied distribution. However, the information also allows to draw some conclusions on the background of Climate-ADAPT users. Information related to this question is provided in the analysis of the coverage of Climate-ADAPT use cases (see Section 5.3.1).

A few selected outcomes follows.

Governance levels - The engagement of providers of use cases from all governance level s in Europe suggests that stakeholders see an added value in using Climate-ADAPT. Users acting in various roles on adaptation for more than one governance level, such as the Lombardy foundation (Use case 15), the Sardinia Region (Use case 10) or the UK MetOffice (Use case 17) particularly appreciate the added value of Climate-ADAPT in providing multi-governance information in one place.

Availability of adaptation knowledge and specific needs of adaptation knowledge according to the status of adaptation policy - Both users with limited access on adaptation information at national level (no National adaptation platform available) as well as users with access to advanced knowledge sources at national level recognize the added value of Climate-ADAPT.
Climate-ADAPT stakeholders use the platform at all stages of the adaptation policy cycle.

Experts in countries without a national adaptation platform in place and also experts in countries without a National Adaptation Plan (NAP) might have used Climate-ADAPT in a more comprehensive and more frequent way than experts in countries with a platform and a NAP.

There are also four use cases (Use cases 6, 11, 16, and 17) for countries with a NAP and a national adaptation platform (Spain, United Kingdom). This suggests that experts in those countries that have a National adaptation platform recognise the added value of sharing knowledge via the European level platform Climate-ADAPT and of using advanced functionalities. For example, experts in Spain used more extensive guidance available on Climate-ADAPT on urban adaptation (e.g., Province of Barcelona; Use case 11). This suggests that Climate-ADAPT thus fills a temporal methodological knowledge gaps. Experts from the UK were using Climate-ADAPT in advanced way applying many functionalities to create information relevant from the European perspective (e.g., Use case 17).

Geographic background of Climate-ADAPT use cases - Use cases were provides mostly by stakeholders from Southern and Eastern European countries suggesting a smaller need of Climate-ADAPT use in the Western and Northern European countries with good access to adaptation information and/or less vulnerability to climate change.

Professional background of the Climate-ADAPT use cases - The high share of intermediaries found in the User/provider survey is confirmed by the Climate-ADAPT use cases (Rete Gaia; Use cases14) and Lombardy foundation; Use case 15). More intermediary organisation seem to be involved, such as Green Fund in the frame of the Greek LIFE Task Force (Use case 8), but this was not fully clarified. This can also help to explain the large share of results for using Climate-ADAPT for “Research” in the user/provider survey.

B2) What products or processes are the users using the information for?

The Climate-ADAPT use cases confirm that the platform is effective in supporting the core audience in its decision making for various adaptation challenges at all steps of the adaptation policy development and planning and at all governance levels. The use cases help to understand more in detail how the information on Climate-ADAPT was actually used. The same categories for the ways of using the Climate-ADAPT knowledge were applied as in the User/provider survey. Overview information on the processes supported is included in Table 5.5. The detailed evidence is based on the evidence provided in Table A1 *Overview on the detailed evidence of the Climate-ADAPT use cases* and Table A2 *Overview on Climate-ADAPT features used to support policy processes*[113], overview of the Climate-ADAPT features used to develop tailor-made products for policy processes.

Evidence documents to inform policy processes - Users applied the knowledge available on the platform primarily to inform the policy processes by developing evidence documents. Examples are the assessment of adaptation policies in the Carpathian Mountains based on the country pages, carried out by the Secretariat of the Carpathian Convention (Use case 2), policy documents for the agenda setting of adaptation research funding at EU level, developed by DG RTD (Use case 1), and briefings for the Chair of the European Committee of the Regions´ Commission for Environment, Climate change and Energy, developed by the Sardinia Region (Use case 10). Other documents developed to feed into the policy processes e.g., on mainstreaming of adaptation into national and regional policies in Italy were elaborated by the Lombardy Foundation for the Environment (Use case 15).

Developing adaptation strategies and plans - The platform information is also used to develop policy documents such as adaptation strategies and plans at all governance levels such as for the city of Bologna (Use case 12), the National Adaptation Strategy of Bulgaria (Use case 2) and the Turkish National Adaptation Strategy and Plan (NASAP) (Use case 7), and a sectoral adaptation plan for the Health and Social Care System in England (Use case 16).

Methodologies and tailor-made guidance to be used in policy processes - Furthermore, Climate-ADAPT knowledge was used to develop methodologies such as on the presentation of national level case studies on AdapteCCa, the Spanish National adaptation platform, e.g., by the Spanish Climate Change Office (Use case 6). Further methodology developments supported by Climate-ADAPT are an approach to select national level adaptation indicators by ISPRA, Italy (Use case 4), and a methodology on adaptation options, developed by the Province of Barcelona (Use case 11). The development of tailor-made guidance was another application of the knowledge available on Climate-ADAPT such as the national guidelines for the development of urban adaptation strategies in Poland (Use case 5).

Supporting participatory processes - The use cases indicate further that Climate-ADAPT knowledge has been also used to support decision making via participatory processes, such as in Poland (Use case 5) and Bulgaria (Use case 3).

[113] both available on request (email climate.adapt@eea.europa.eu)

Table 5.5 Examples of processes supported by Climate-ADAPT

Number	Location	Governance level	Research	Developing evidence documents feeding into policy processes (e.g. assessments)	Informing the development of adaptation strategies and plans	Support participatory processes	Develop methodologies and tailor-made guidance	Developing funding proposals
1	DG RTD*	EU	x	x				
2	Carpathians	Transnational		x				
3	Bulgaria	National			x	x		
4	Italy	National			x		x	
5	Poland	National			x	x	x	
6	Spain	National				x	x	
7	Turkey	National			x	x		x
8	Greece	National			x	x		x
9	Lombardy Region	Subnational		x	x	x		
10	Sardinia Region	Subnational		x		x		
11	Province of Barcelona	Subnational		x			x	
12	Bologna	Local			x			
13	Cascais	Local			x		x	
14	Sorradile	Intermediary organisation l		x	x			
15	Lombardy Foundation	Intermediary organisation	x	x	x			
16	UK	Sector		x	x			
17	UK	Research organisation	x	x		x		x

Note: *DG RTD (Directorate General for Research and Innovation). The table summarizes information coming from Climate-ADAPT use cases. Detailed evidence information of this table is provided in Table A1 and A2 [114]. All use cases are provided on Climate-ADAPT (https://climate-adapt.eea.europa.eu/help/climate-adapt-use-cases).

Source: EEA.

Developing proposals for EU funding - The Climate-ADAPT use cases have shown that Climate-ADAPT supports another type of processes that was not reported in the User/provider survey: the development of project proposals for EU funding, such as for LIFE projects in Greece (Use case 8), for adaptation in Pre-Accession Assistance (IPA II) Turkey (Use case 7) and for H2020 and Copernicus Climate Services in the UK (17). It ensures that the project proposals are based on the state of the art of adaptation in

[114] both available on request (email climate.adapt@eea.europa.eu)

Europe and provide suggestions to apply this knowledge and to contribute to its further development and/or practical implementation. These more in-depth findings about the effectiveness of Climate-ADAPT confirm and refine the broader findings of the survey.

Developing regulations and deciding on funding - There is no example where Climate-ADAPT was explicitly and directly used to decide on regulations and funding.

The use cases provide information on how to better assist the uptake of the information available on Climate-ADAPT. Confirming the results of the user/provider survey there was a request for synthesis information, e.g., on methods and results of vulnerability assessments in Europe coming from the MoE to support the national vulnerability assessment in Poland (Use case 5).

B3) Which sections of Climate-ADAPT are used to develop tailor-made products or to support processes?

The five most used Climate-ADAPT features (Climate-ADAPT "core content") were mainly exploited as a starting point to do specific assessments and to develop tailor-made documents. They were also used to widen the search and to screen other sources of information searchable and accessible through the Climate-ADAPT "Database". Thus, the outcomes of the User/provider survey are confirmed in terms of high value of Climate-ADAPT as basic information source, but less direct use of the platform Climate-ADAPT information in adaptation policy and practice. Although there was no specific reference to other platforms, it is assumed that this might be supported by national adaptation platforms.

As described in Section 5.3.2 Evidence for Objective A, the whole variety of Climate-ADAPT features like the "Adaptation options", "Research projects" pages was used to create the tailor-made products and to inform the policy processes. A detailed summary of the sections used for which products is included in Table A2[115].

The level of experience of the use cases providers was not systematically captured in the collection of data for the Climate-ADAP T use cases to make the same distinction than in the User/provider survey ("working on adaptation less up to one year" – recent user, for two or more years – experienced user) in order to characterise specific use patterns and needs. However, the use cases show different levels of using Climate-ADAPT information. It reaches from a wide variety of features used by experienced users (such as Sustainable Development Unit (SDU) for the Health and Social Care System in England, United Kingdom; Use case 16), or Lombardy Foundation (Use case 15) whereas more recent users, such as the MoEW Bulgaria (Use case 3), and the Lombardy Region used a smaller variety of features (Use case 9).

B4) Is the knowledge presented on Climate-ADAPT in a useful way of assisting the uptake of the information?

There were some statements on the user-friendliness of the platform. In addition, conclusion can be drawn based on the descriptions of the platform use.

The high use of the five main features (see Section 5.3.2) might be supported by the fact that at least three of these features ("Country information" pages and "Adaptation Support Tool", and "Case studies") are prominently promoted in the main body of the homepage via icons. It also shows that users accept the main green navigation bar as an appropriate entry point into the "EU policy" information confirming the results of the user/provider survey. The "Database" accessible via two entry points, one from the main navigation bar as well as through the search window on top of the website, seems to be well accessible. It was recommended to improve the performance time of the database search and to

[115] available on request (email climate.adapt@eea.europa.eu).

add specific filter criteria to an item category ("type funding") to improve the search results for the specific needs of users preparing proposals for EU funding).

Since only one urban level user mentioned the Covenant of Mayors city profiles (Bologna, Use case 12), and the Lombardy Foundation (Use cases 15) stated that these profiles should be made accessible, it is obvious that the city profiles, located under "EU Policy" and linked on the "Cities and towns" page are not enough visible on Climate-ADAPT.

Rete Gaia, Italy (Use case 14) stressed the need to find information in national languages on Climate-ADAPT to make the platform knowledge accessible, in particular for practitioners.

DG RTD suggested to improve the access to knowledge on ecosystem-based approaches that was generated through EC activities and is presented on other relevant platforms, such as BISE[116], OPPLA[117]. This could be done via further developing the functionalities of Climate-ADAPT (Use case 1).

The UK MetOffice, using Climate-ADAPT from a research perspective, suggested to provide a functionality for users to create auto-generated comparisons of country information per topic (e.g., in a kind of traffic-light grading to highlight for example the status of the countries in a specific aspect of adaptation. It should produce a searchable database that could use artificial intelligence (Use case 17).

Interactive map-based access tools - The Use cases confirm the results of the User/provider survey that the interactive map-based access tools are not systematically applied to find information (4 out of 17 Use cases). Examples of such features are the "Thematic map viewer" available on the introductory page of the "Country information" section via a drop-down menu, and the "Case study search tool" available from the "Homepage" in the "Tools" section. The "Thematic maps" viewer" was used to find information per topic on the "Country pages" by the Ministry of the Environment and Water (Bulgaria, Use case 2), and by the MoE of Poland to identify approaches used in other European countries (Use case 5), and by the UK MetOffice to find data for country comparisons for EU funded research projects (Use case 17). It is striking that the map-based access to the thematic maps was not often used compared to the overall high level of use of the "Country information" pages (14 out of 17 use cases). The fact that the drop-down menu is not intuitive and user friendly could be the reason for this. It suggests to further improving this access tool. The "Case study search tool", was applied by the Spanish Climate Office (Use case 6) to identify the Climate-ADAPT case studies coming from Spain. It was also applied by the MoE Poland (Use case 6) to select the case studies that could be used to illustrate successfully implemented adaptation actions in other European countries in order to inspire stakeholders in Poland. The interactive access map to the Covenant of City profiles (on adaptation)[118] were used only by the City of Bologna (Use case 12). They are available under the EU policy context but not under the geographic component of the "Cities and towns".

Although the map-based access tools proved to be helpful like shown in the four applications, the awareness of their added value seems to be limited. They could better promoted on the Climate-ADAPT homepage.

[116] https://biodiversity.europa.eu/
[117] https://www.oppla.eu/
[118] https://climate-adapt.eea.europa.eu/eu-adaptation-policy/covenant-of-mayors. These profiles are now static and will be not be longer updated since a new dedicated website will be developed by the Covenant of Mayors initiative.

5.3.2.3 *Key evidence for objective C): To contribute to a greater level of coordination among sectors and institutional levels*

Key messages

- The use cases have shown that Climate-ADAPT succeeds in supporting cooperation by providing access to relevant complementary sources of information on adaptation in Europe. This is particular the case for those, who work on more than one governance level, such as the Sardinia Region, Italy where the "News/Events" section and links to key partners, as well as policy information helped to support the related policy processes (Use case 10).
- The Use case of the Carpathian Mountains has shown that Climate-ADAPT also supports cooperation among countries with similar characteristics (Carpathian Convention; Use case 2).
- A number of specific requests to support cooperation include, for example, to extend the geographic component of Climate-ADAPT by new landing pages for sub-national level information with links to the "Country information" pages (Use case 10). Another and on activities of non-governmental actors at all governance levels.
- There is specific interest in strategically collaborating with EEA in further developing adaptation platforms in a way that provides the knowledge needed for the policy processes, such with AdapteCCa (Spain), to collaboratively work on case studies and other areas of interest. This would both boost cooperation with the national level and develop and share knowledge on the development and maintenance of adaptation platforms.
- Further supporting coordination among sectors and governance levels means to strengthen physical links to the key partners based on the analysis carried out in this evaluation and on the recommendations by DG CLIMA service contracts.
- This concrete activity should be accompanied by a Climate-ADAPT dissemination strategy to strategically improve the cooperation with key partners on various governance levels and in the sector policies. Elements of such a strategy could be for example joint promotion activities by identifying key partners' events and providing instructions for Climate-ADAPT sessions.

This section focuses on two questions of the evaluation: (C1) Does Climate-ADAPT present the information in a way that is complementary to the original source? and (C2) Does Climate-ADAPT support cooperation across countries and regions with similar characteristics and neighbouring countries? The evidence that is considered appropriate to determine if Climate-ADAPT successfully achieved its objective C to support coordination across governance levels and between sectors, comes from the collection of Climate-ADAPT use cases.

C1) Does Climate-ADAPT present the information in a way that is complementary to the original source?

The Climate-ADAPT use cases provide broad evidence that Climate-ADAPT is supporting cooperation across countries and regions, among others, via guiding to complementary information sources. All experts who provided the use cases, confirmed that they were able to find relevant information, provided on other platforms through weblinks on Climate-ADAPT, for example through the "Country information" pages. One example is DG RTD (Use case 1), aiming to check the progress of adaptation in EU Member states through weblinks on the "Transnational regions" and "Country information" pages to sources of information at all governance levels. Another example is the Sustainable Development Unit (SDU) for the Health and Social Care System in England (Use case 16).), searching for detailed

information to learn from adaptation approaches in the health sector other European countries and regions.

The benefit of Climate-ADAPT was for example explicitly highlighted, where more than one governance level is represented, such in the Sardinia Region, Italy (10), where experts have used the "News/Events" section and weblinks to key partners, as well as policy information to coordinate research and policy from the global level to the subnational level. Sardinia Region is for example supporting the UNFCCC process (Under2Memorandum of Understanding), the European level (Committee of the Regions´ Commission for Environment, Climate Change and Energy), the implementation of the Italian National Adaptation Strategy, and a LIFE project at sub-national level (MASTER ADAPT).

The Sardinia Region, would appreciate to find more weblinks to partners in other European regions provided in an easy accessible way, e.g., on a landing page for sub-national policy information

Confirming the results of the User/provider survey that the weblinks to city level information on Climate-ADAPT needs to be better promoted, the province of Barcelona (Use case 11) as well as Rete Gaia, the consultancy working for the municipality of Sorradile, Italy (Use case 14), suggested a strong Climate-ADAPT link to the Covenant of Mayors for Climate and Energy Initiative to allow urban level users to benefit from the knowledge developed in this initiative.

Since there are not many references to sector policies in the Climate-ADAPT use cases, provided by users mostly working on adaptation in general, it is recommended to strengthen and increase the awareness on the "EU sector policies" pages and to strengthen the weblinks to key sector pages. It is also assumed that information on sector policies is provided on national adaptation platforms, so weblinks to this level of information could be reinforced.

Clear wishes to closely work together with Climate-ADAPT for more strategic and efficient cooperation and built strong links to Climate-ADAPT were expressed by the MoEW, Bulgaria, and by the Spanish Climate Office. Whereas the MoEW asks for the publication of national Bulgarian case studies on Climate-ADAPT in the absence of a national adaptation platform (Use case 3), the Spanish Climate Office would like to specifically exchange information on AdapteCCa case studies and for promoting ecosystem-based approaches at European level (Use case 6). The selection of common filter criteria is proposed to seek for automatic exchange of information on the platforms and to use strategic benefits for the evaluation and further development of case studies. Such a pilot development would both boost cooperation with the national level and develop and share knowledge on the development and maintenance of adaptation platforms.

C2) Does Climate-ADAPT support cooperation across countries and regions with similar characteristics and neighbouring countries?

The use case of the Secretariat of the Carpathian Convention highlights specifically how Climate-ADAPT supports cooperation across countries with similar characteristics (Use case 2). Information from individual countries, provided on the country pages, was used to support the collection of consistent information for the "Outlook on Climate change Adaptation in the Carpathian Mountains"[119]. The outlook takes stock of the impacts and vulnerabilities of climate change to the Carpathian Mountains and aims to inform decision makers for joined action. Furthermore, the information collected helped to prepare online information for adaptation in this transnational region, which was published on Climate-ADAPT in October 2017[120] and will be further updated

[119] https://www.grida.no/publications/381
[120] http://climate-adapt.eea.europa.eu/countries-regions/transnational-regions/carpathian-mountains/general/index_html

5.4 Summary and recommendations

Coverage of the Climate-ADAPT use cases

- The collection of Climate-ADAPT use cases covers examples of the use of the platform related to the professional and geographic background of the users as well as of their specific needs for adaptation knowledge. Thus, the Use cases proved to be a valuable instrument of the Climate-ADAPT evaluation. The collection of seventeen use cases helps to interpret the trends shown in the Climate-ADAPT web statistics and confirms the results of the Climate-ADAPT User/provider survey for the Climate-ADAPT core audience. It helps to understand how Climate-ADAPT was used to cope with various challenges and how it could be improved to further support decision making.

Meeting objective A: Facilitating the collection, sharing and use of information on climate change impacts, vulnerability and adaptation to build a consistent and updated knowledge base

- Use cases providers, representing the core audience of the platforms, found what they needed on Climate-ADAPT mainly using the policy information available on the "Country information" and "EU policy" pages as well as using the "Database", the "Adaptation Support Tool" and the "Case studies". Confirming the results of the Web statistics and the User/provider survey, these features can be valued as the "Climate-ADAPT core content"; they could be communicated as such, and should remain the first priority of the further platform development.

- A variety of other general and more specific Climate-ADAPT features proved to be useful, but were applied to a smaller extent due to the lower awareness of their existence and added value (such as the "Adaptation options" and the "Map viewer") and due to the fact that Climate-ADAPT is mainly used as a starting point to develop more specific tailor-made assessments and guidance documents.

- Urban adaptation features developed by the Mayors Adapt consortium ("Urban Adaptation support tool"), presented on Climate-ADAPT, as well as the EEA "Urban vulnerability map book" are very much recognized by city users, and Covenant of Mayors for Climate and Energy developments should be made accessible from Climate-ADAPT.

Meeting objective B: Assisting an effective uptake of the relevant knowledge by decision makers

- The Climate-ADAPT use cases show that Climate-ADAPT supports decision making at all stages of the adaptation policy cycle and provides assistance for users with various backgrounds at all governance levels in Europe, and also across Europe. The multi-governance approach of Climate-ADAPT is particularly appreciated by users acting in more than one role at several governance levels. Six use cases for Italy illustrate specific needs and use patterns for users without having a national adaptation platform in place. Intermediaries play a major role in using Climate-ADAPT supporting governmental decision makers.

- Use cases providers applied the knowledge available on the platform primarily to inform the policy processed by developing evidence documents (assessments) and methodologies (such as on case studies and indicators) as well as plans and strategies feeding into the policy processes at all governance levels in Europe. Secondly, participatory processes are supported by Climate-ADAPT. Using Climate-ADAPT to develop proposals for EU funded projects from various funding streams was a "use type" that was specifically reported by the Climate-ADAPT use cases.

- The Use cases show that the Climate-ADAPT knowledge is widely accepted among the target users as the reference frame and starting point to develop knowledge used in various policy contexts. Thus, it could be recommended to clarify the objectives of Climate-ADAPT better on the homepage ("provide access to state-of the art knowledge on adaptation in Europe for developing tailor-made information for adaptation policy processes" rather than providing tailor-made knowledge "ready to use" and to provide the content in the best as possible way for this type of use.

- To assist the better uptake of the information the knowledge for developing tailor-made documents, the knowledge should be made as easy accessible as possible by providing a visual overview on the content of the site, by improving the map-based access tools (e.g., the map-based access to the "Country information" pages) and by improving the performance of the "Database". Furthermore, publishing the Climate-ADAPT use cases as inspiring examples on the platform and to provide more synthesis information for various topics could also help to improve the uptake of the Climate-ADAPT knowledge.

Meeting objective C: To contribute to a greater level of coordination among sectors and institutional levels

- Positive feedback on Climate-ADAPT supporting cooperation was provided by selected use case providers, in particular by those acting in more than one role at various governance levels (such as the Sardinia Region, Italy) through using the "News/"Events"/"Newsletter" sections and weblinks to key partners as well as the descriptive policy information (Use case 10).

- An extension of the geographic component would help supporting cooperation among sub-national level actors across Europe by creating a landing page for sub-national policy information further linking to the country pages.

- Further supporting coordination among sectors and governance levels means to strengthen weblinks to the key partners.

- This concrete activity should be accompanied by a Climate-ADAPT dissemination strategy to strategically improve the cooperation with key partners on various governance levels and in the sector policies.

- Interest was expressed by the Spanish Climate Change Office to strategically collaborate with EEA to cross-harvest information on case studies and to use MRE approaches arising out of this evaluation to systematically develop the sets of Climate-ADAPT and AdapteCCa case studies in a complementary (Use case 6). This could be used as a pilot activity to boost cooperation with the national level.

5.5 Further exploring the Climate-ADAPT use cases

5.5.1 Selecting use cases for the 2018 EEA report on Climate-ADAPT evaluation

The purpose of the use cases collection was to support the evaluation of Climate-ADAPT and the further promotion of Climate-ADAPT features directly on the platform as inspiring examples.

Essential results of the Climate-ADAPT use cases collection will be presented in the EEA evaluation report as well as selected use cases in "box" formats. Since the space in the report is limited and there is also repetition in the cases, only the most relevant cases should be presented.

Two approaches are suggested to systematically select the use cases

1. A systematic one, using a criteria-based approach.
    a) Presenting by governance level (two cases for each level from European, transnational, sub-national/regional/ local/city). This relates to the complementarity of the work on adaptation platforms and to the aims of the EU Adaptation Strategy to support adaptation in all levels of Europe.
    b) Presenting by "step of the policy cycle" linked to the Adaptation support tool (1 preparing the ground, 2 assessing risks and vulnerabilities, 3 identifying and assessing adaptation options, 4 Implementation, 5 monitoring and evaluation). This relates to the overall task of Climate-ADAP to support all decision makers in Europe independently of their level of preparedness.
2. A presentation in a more flowing way to support the analysis, key messages and recommendations in the most illustrative way. For example, one use case provided by an intermediary (Greek LIFE Task Force; Use case 8) could illustrate the benefits of Climate-ADAPT features for organisations working at various levels and for sharpening the mandate and target audience of Climate-ADAPT (often used by organisations supporting governmental decision makers). Another example could be the use case from the Turkish Environment Ministry showing the use of the AST for the revision of the strategy.

Due to time constraints, an analysis of advantages and disadvantages of each option is beyond the scope of this analysis.

5.5.2 Publishing use cases on Climate-ADAPT pages as inspiring examples

The Climate-ADAPT use cases can be used to inform potential users about the added value of using Climate-ADAPT as a whole. This could be done by publishing the Climate-ADAPT use cases as a package prominently visible on the Climate-ADAPT "Homepage".

They can also be used to inspire potential new and current users to apply individual Climate-ADAPT features. This could be facilitated by publishing individual use cases additionally directly or via links from an improved "Help" section on several Climate-ADAPT webpages.

Some examples of use cases to be published individually on different Climate-ADAPT pages are:

- Further promoting the use of "Adaptation options": Publish the use cases 7 (Turkey), 8 (Greece), and use case 11 (Province of Barcelona) on the page "Identifying adaptation options" of the "Adaptation Support Tool"[121].
- Promoting the use of the "Research project" pages: Publish the use cases 8 (Greece) on the "Research projects" pages[122] to illustrate its use for or preparing funding proposals.
- Urban Adaptation Support Tool: Publish the use cases 11 (Province of Barcelona, 12 (Bologna), and 13 (Cascais) to promote the use of the "Urban Adaptation Support Tool"[123].

5.5.3 Further developing the use cases

Since it was not possible to cover all aspects of the platform use and provision by the voluntary submission of use cases in the given time (January 2017 to August 2017), it is recommended to systematically complete the collection of the use cases in terms of the criteria used in Section 5.3.1.

a) Professional background of users:

- use cases from sector policies;
- use cases from the European and transnational levels.

b) Availability of national adaptation platforms and National Adaptation Plans (NAPs).

This criterion relates to the access of information at complementary sources of information. Use cases from countries with national adaptation platforms and National Adaptation Plans (e.g. from Northern and Western European countries) should be added to the collection of Climate-ADAPT use cases.

c) Cases of successful submission of information to Climate-ADAPT.

So far, there are only Climate-ADAPT use cases for the use of the platform information. It could be recommended to add "Climate-ADAPT provider cases" to collect lessons learnt on the provision of information to the platform.

References

Alberton, M.; Andresen, M.; Citadino, F.; Egerer, H.; Fritsch, U.; Götsch, H.; Hoffmann, C.; Klemm, J.; Mitrofanenko, A.; Musco, E.; Noellenburg, N.; Pettita, M.; Renner, K.; Zebisch, M. (2017). *Outlook on climate change adaptation in the Carpathian Mountains*. United Nations Environment Programme, GRID-Arendal and Eurac Research, Nairobi, Vienna, Arendal and Bolzano. http://www.grida.no/publications/381

EEA, 2014, European Climate Adaptation Platform (Climate-ADAPT): medium term work plan, 2013-2018.

EEA, 2018, *Sharing adaptation information across Europe. Evaluation of the European Climate Adaptation Platform – Climate-ADAPT*.

Gancheva, M., et al., 2017, *Climate-ADAPT: Dissemination and capacity-building supporting adaptation in the framework of the EU Adaptation Strategy — Final report*, Milieu Ltd.

[121] http://climate-adapt.eea.europa.eu/knowledge/tools/adaptation-support-tool/step-3
[122] http://climate-adapt.eea.europa.eu/knowledge/adaptation-information/research-projects
[123] http://climate-adapt.eea.europa.eu/knowledge/tools/urban-ast/step-0-0

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