

ENHANCING CONNECTIONS ACROSS

CLIMATE
ADAPTATION
PLATFORMS

Canada's Virtual Knowledge Exchange Event

FINAL REPORT



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Executive Summary of Canadian Event

Climate adaptation gains in importance, and the Paris Agreement calls on Parties to strengthen cooperation on enhancing action on adaptation. This, along with recognition that policymakers require high quality and relevant information to support decision-making, has led many countries to establish web-based climate adaptation platforms whilst other countries are now actively planning such platforms. Funded by the European Commission, the *Stepping-Up Knowledge Exchange between Climate Adaptation Knowledge Platforms* (KE4CAP) project provides a forum for climate and adaptation platform developers and operators to come together to compare and learn from their individual approaches, to share knowledge and best practices, and to work together to address common and emerging challenges.

As a partner of the KE4CAP project, the Government of Canada hosted the event *Enhancing Connections across Climate Adaptation Platforms* from May 11-20, 2021. The event was composed of four virtual sessions which brought together international and domestic experts to better understand the adaptation platform landscape, explored opportunities to connect and expand their 'network of networks', and develop better services to meet evolving platform user needs. The objectives of the workshops were to enhance knowledge exchange on climate adaptation platforms and other related adaptation policy frameworks, including experiences in developing National Adaptation Strategies (NAS).

This report was drafted by the Canadian Centre for Climate Services, at Environment and Climate Change Canada.

Key messages

This section provides a high-level overview and key messages from each of the four sessions.

Session 1: National Adaptation Strategies: Lessons Learned from the International Adaptation Community

- This session brought together 67 climate adaptation experts, analysts and practitioners into a focused discussion on international best practices and lessons learned in the development of National Adaptation Strategies (NAS), with the aim to inform Canada's efforts to develop its first NAS.
- Best practices highlighted by presenters include grounding NAS development in science (i.e., linking to cyclical impact and
 risk assessments), engaging stakeholders in development and implementation, drawing concrete links between NAS and
 other strategic policy documents, establishing and reporting on clear and agreed upon indicators to measure
 implementation progress and adjusting implementation actions as needed.

Session 2: A Diversity of Needs, A Diversity of Platforms: Linking Platforms to Facilitate Users' Adaptation Journeys

- This session brought together 55 participants to explore why platform connections are important and how connections add value to a user's journey to implementing and evaluating adaptation measures.
- Participants from Canadian and international platforms shared examples of challenges they have encountered, as well as suggestions for enhancing connections between platforms which include:
- The need for data interoperability and standards to maximize possible outcomes, and that partnerships and networks will be necessary to achieve this.

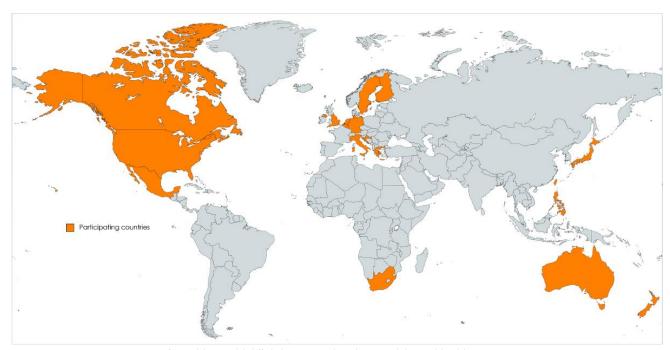
- Highlighting that standardization of keywords is a barrier that prevents better connection across platforms.
- The need for upskilling and capacity building and the role of academic institutions and networks across institutions to support capacity building.
- Emphasizing the power of human relationships and inter-regional collaborations as a strategy for increasing connections between regional and national platforms.

Session 3: Enhancing Platform Impact: The Power of In-Person Connection and Diversification

- This session brought together 45 participants to discuss how in-person platform components play a central role in complementing digital efforts, and how this relates to efforts to meaningfully include and benefit under-represented and other 'non-traditional' communities into platforms and their networks.
- Participants concluded that although the COVID-19 pandemic has pushed platforms to convene virtually and enhance
 virtual offerings, in-person connections are invaluable because they build trust, and create spaces for honest, confidential
 and safe conversations. In-person meetings were also identified as being preferred by communities with less developed
 information technology infrastructure, and as an effective means for engaging with and onboarding new and non-traditional
 users.

Session 4: From Knowledge to Action: Exploring Approaches to Integrating Identified User Needs into Platform Offerings

- This session brought together 61 participants to engage and answer questions around the importance of user needs
 considerations in platform offerings to support the 'knowledge-to-action' transfer in adaptation decision-making, and
 discussed the possible approaches for how to integrate identified user needs into platform offerings.
- Conversations highlighted the importance of putting users at the centre of climate service delivery, and the need for coproduction, which builds trust, credibility, and increases service relevance. Another common theme across discussions was the value of having a trusted voice, which may not necessarily be a service provider, to work with users to both understand their needs and bring services to different communities. Finally, when prioritizing user needs, participants highlighted the importance of defining users in an inclusive way to make sure that vulnerable and non-traditional user groups are at the table.



A world map highlighting countries that participated in this event.

Session Reports

The following sections provide a summary of the participants, presentations and discussions that took place at each of the four sessions. The sections also include a synthesis of key messages from the session.

Session 1. National Adaptation Strategies: Lessons Learned from the International Adaptation Community

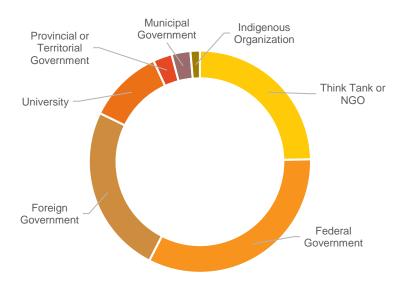
Overview of Session

This session brought together participants from a range of sectors and representation from 13 countries. The session explored lessons learned from other participating KE4CAP countries, including tools for effective engagement of key partners in the process to develop a NAS, governance mechanisms, and monitoring and evaluation. The discussions were an opportunity to share knowledge and learn from the international adaptation community's experience in developing successful adaptation strategies and best practices for engaging multiple partners, stakeholders, and the public. Speakers from the OECD, Japan and Germany provided insights on approaches and challenges to developing national adaptation strategies. The session concluded with a "fireside" conversation on the latest trends and considerations for national adaptation strategies.

Links to supporting documents can be found here: https://www.weadapt.org/knowledge-base/climate-change-adaptation-knowledge-platforms/national-adaptation-strategies

Participant Breakdown

Breakdown of Registered Participants



Note: breakdown represents registered participants. Actual participant breakdown varies.

Key questions discussed

Dr. Gamper from the OECD provided an overview of common challenges and best practices in OECD countries concerning the development and implementation of national adaptation strategies and plans. This insight is founded on significant experience, given most OECD countries (33 out of 37) have climate adaptation plans or strategies in place. Dr. Gamper noted that common challenges across adaptation strategies are limited financial resources for implementation, and limited discussion of monitoring and evaluation plans, which have a significant impact on the ability of countries to implement measures and evaluate progress.

The presentation also highlighted best practices of countries that are taking in the development of their national strategies and plans. This includes tangibility of proposed actions; the ability to make cohesive links to other national strategic planning documents; a broad an inclusive stakeholder engagement; strong indicators and monitoring; and a strong governance structure.

The second presenter, Shohei Okano from Japan's Ministry of the Environment, provided an overview of Japan's experience in formulating its national adaptation plan, developed in 2015 following a climate change impact assessment. Japan's *Climate Change Adaptation Act* (2018) provides legislative cover and a formal governance structure to the adaptation plan, and requires local governments to develop and implement local adaptation plans.

Japan's national adaptation plan development is based on its impact assessment reports, which are updated every five years based on the most recent scientific literature, and covers seven policy areas assessing actions from high to low in terms of significance, urgency and confidence. Shohei Okano also highlighted that national adaptation plan development includes stakeholder engagement, and, importantly, has built-in flexibility to allow implementation actions to shift to changing conditions.

In the discussion that ensued, participants raised questions including whether Japan is currently considering slow onset impacts, like changing snowfall, on different sectors such as tourism. Shohei Okano recognized the negative economic impact on different sectors due to climate change, and noted that the government provides the best scientific data to businesses and sectors, so that they can make informed decisions on where, when and how to invest to adapt to the impacts of climate change. A participant also asked what the role is of the adaptation council in terms of seeking integration with local authorities. Shohei Okano clarified that the council is only composed of central government ministries. However, the Minister of Environment has developed a strong relationship with local governments, and other ministries leverage their contacts with local governments to receive sectoral feedback.

Dr. Abeling from the German Environment Agency shared four lessons that the German government learned from developing their adaptation strategy and implementing the subsequent adaptation plans.

- Lesson 1: Develop a strategic timeline for key products
 Dr. Abeling noted that adaptation planning in Germany consists of different products (Climate Risk and Vulnerability
 Assessment, Adaptation Action Plans, Evaluation, Monitoring, and National Adaptation Strategy Progress Reports) that
 have been sequentially added over time. Dr. Abeling noted the importance of planning how each product will align so that
 the timeframes will inform strategy development in the best possible way. For example, Germany recently published a
 Progress Report and Adaptation Action Plan, which would have been better informed by the climate risk and vulnerability
 assessment set to be published later this year.
- Lesson 2: Set up informal platforms that support governance structure While having a strong governance structure that coordinates the development and implementation of adaptation measure horizontally (at the federal level) and vertically (at the regional level) is critical, setting up informal expert platforms to feed the formal governance structure has helped the federal government build trust, create a community of practice, and facilitate coordination. In addition, Dr. Abeling suggested that problems and challenges are more effectively identified and mitigated at informal platforms than at the formal ones.

- Lesson 3: Invest in strategic coordination both horizontally and vertically.
 Dr. Abeling noted that investing time and effort in strengthening Germany's formal governance mechanisms have produced positive results, including the development of a methodology for the external evaluation of the national adaptation strategy, a monitoring and indicator system, and, a climate preparedness portal. Although coordination across ministries was time intensive, it legitimized the results of the evaluation, which were then widely accepted and significantly informed development of the progress report. Time was also invested to develop a consistent indicator system, which aligned indicators across all regions, and increased legitimacy of monitoring results.
- Lesson 4: Engage implementing actors in adaptation action planning
 Dr. Abeling recommended involving federal states, municipalities, and civil society actors in the development of an adaptation "policy mix". He highlighted that bringing new stakeholders to the table provides benefits such as new innovative ideas and a revitalized process.

In the discussion that ensued, participants asked about changes between the first and second iteration of the national adaptation plan. Dr. Abeling noted that the evaluations of the adaptation strategy usually help inform a progress report that includes action adaptation plans. An external contractor conducts the evaluation and presents results and recommendations to an inter-ministerial group, which can accept or reject the recommendations. Most of the recommendations are usually accepted and help shape the action plan.

The session concluded with a conversation between Alice C. Hill, Senior Fellow for energy and the environment, Council on Foreign Relations, United States and Anne Hammill, Senior Director, Resilience, International Institute for Sustainable Development (IISD).

Alice Hill provided insights on why a national adaptation strategy is needed in the United States, what it could look like, and what could be done to start its development. Alice Hill notes that current approaches for disaster response will not be sustainable in the near future. Notably, funding is being allocated for post-disaster reconstruction and not on building longer-term resilience in communities, which results in more losses, risks death, and leaves longer-term impacts on the communities. For Alice Hill, a national adaptation strategy would need to look at how Americans live, take into consideration the U.S.'s large coasts, wildfires, land use, and outdated building codes, among other factors. Alice Hill also noted that a national adaptation strategy would need to think through how insurance industries can respond to climate change and help prioritize investments and identify areas where they can bring dividends.

Following Alice Hill's remarks, Anne Hammill spoke about IISD's global initiative to help developing countries implement their national adaptation plans, and noted her enthusiasm for Canada's first-ever national adaptation strategy. Anne Hammill highlighted that while most countries are currently developing adaptation plans or policies, there is an implementation gap in both developed and developing countries as a result of a lack of capacity and finances allocated to implementation. She also highlighted limitations in available data and understanding of climate change present challenges in tracking progress. Anne Hammill also noted that adaptation is as technical as it is relational and, thus, soft skills are critical to implementing adaptation plans and policies.

Conclusions

Throughout the session, presenters highlighted a number of best practices and opportunities, synthesized below, which will be useful for Canada to consider as it develops its own first National Adaptation Strategy.

- Setting appropriate indicators. Multiple presenters emphasized the value in taking time to develop good indicators and to secure buy-in. This allows implementation progress to be monitored and adjusted as needed, and evaluations are credible and can inform future planning.
- Horizontal and vertical integration. Governance structures, whether formal or informal, that integrate federal
 departments and agencies horizontally, and integrate different levels of governments vertically are key for
 communication, buy-in and implementation. Adaptation cannot be addressed by one organization alone.
- Leadership. It is useful for one organization, typically the federal ministry of the environment, to lead the national adaptation strategy development process. Pressure agents are also useful to increase the prominence of climate adaptation more in climate change discussions, and change agents to drive adaptation implementation.
- Resources. Resources, both financial and human, are critical to achieving plan implementation.
- Stakeholder engagement. Meaningful engagement, especially with local non-traditional actors, is needed to develop an effective adaptation strategies. Capacity building should precede engagement, so that all players understand their climate change risks and vulnerabilities before providing input to an adaptation strategy.
- Science and Indigenous Knowledge. Adaptation strategies should be based on the best available science. Science
 should also inform the monitoring process. Strategies should also include Indigenous Knowledge. Indigenous expertise
 is an essential element in the implementation of adaptation measures and actions.
- Equity. Canada should commit to using Gender-based Analysis Plus (GBA+) and Diversity and Inclusion lens in
 developing its national strategy. There needs to be an understanding of how people are differentially impacted by both
 climate change and by climate change policies, but also opening the conversation to see what solutions different
 communities can bring to the table. Representation from diverse communities should be built into the governance
 structure.

Session 2. A Diversity of Needs, A Diversity of Platforms: Linking Platforms to Facilitate Users' Adaptation Journeys

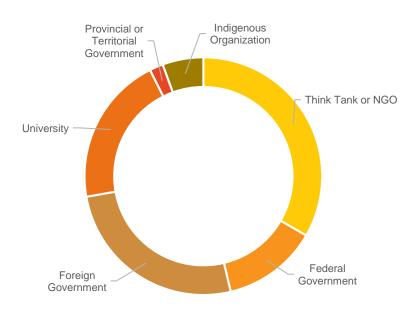
Overview of session

This session focused on why platform connections are important and how they add value to a user's journey to implementing and evaluating adaptation measures, by exploring examples of productive collaborations, the essential attributes of positive connections, and opportunities for future connections. Four presenters from across the globe showcased examples of platform connections. Participants then entered breakout groups to facilitate deeper conversations about platform connections across three themes: data related products and tools, resources and capacity services.

Links to supporting documents can be found here: https://www.weadapt.org/knowledge-base/climate-change-adaptation-knowledge-platforms-to-facilitate-users-adaptation-journeys

Participant breakdown

Breakdown of Registered Participants



Note: Breakdown represents registered participants. Actual participant breakdown varies.

Key questions discussed

Opening remarks from Julia Barrot, weADAPT platform, highlighted that making connections across platforms creates a knowledge ecosystem, which allows a wider range of users to access information and learn about climate change and climate services available elsewhere. Connections can be simple, like Really Simple Syndication feeds (RSS feeds) or Uniform Resource

Locators (URLs) to other platforms, but can also be done in deeper ways like content integration and dynamically linking across platforms to make it easier for users to pull and use information across platforms.

Alain Bourque, Ouranos, identified challenges to platform connections, in particular, the issues of data interoperability. Data interoperability is critical to maximizing the outcomes that can be generated with the data that is currently available on different platforms. To address this challenge, more robust networks of people are required to form partnerships between platforms and develop standards for data. For instance, he illustrated how there is an important number of 'boundary organizations' and a substantive academic network that provide expert support to those who are looking to adapt and build resiliency in Canada. Alain Bourque also pointed to the unique challenge that Canada faces as a geographically large and diverse country. Canada takes a decentralized approach to climate and adaptation services, with each province and territory leading their own approach to address the unique adaptation needs for their region. This creates a challenge of connecting platforms and connecting diverse networks across the country.

Robin Cox, Royal Roads University, emphasized connections created through the Adaptation Learning Network, a platform that aims to increase the province of British Columbia's capacity to prepare for and adapt to climate change by enhancing working professionals' knowledge and skills. Recognizing that upskilling and capacity building is critical to adapting to climate change, the network undertook a gap analysis of training and capacity building needs. The network then worked with continuing education programs at six partner universities to develop ten courses, resulting in a distributed delivery model and capacity building in different organizations. The courses have a creative commons licence with material saved in repositories to facilitate the sharing of information. In the discussion that followed, Robin Cox highlighted that this network is part of the Canadian Building Regional Adaptation Capacity and Expertise (BRACE) program and connects to other projects through the BRACE platform, in addition to developing podcasts, webinars and social media outreach. Robin Cox also shared that building personal connections across organizations and disciplines is critical, noting that the issue is not that resources do not exist, but that they are not connected. Robin Cox also highlighted the need for a platform that provides a way finding function to allow people to connect to the sites that already

Kim van Nieuwaal, Climate Adaptation Services/Delta Alliance International, highlighted a number of best practices for connecting platforms, using the example of the Netherlands national climate adaptation platform and their portal, which makes strong connections to policy. Given that policy frameworks shape adaptation discourse, it is useful for resources and services like the portal to use this discourse too. However, recognizing that not all users are driven by the same policy framework, to appeal to a larger number of users, tools are also clustered by sectors and themes. To further increase accessibility of their platform the language has been standardized at the B1 level, the average of all users, which was determined by a user panel that provides continuous feedback on how information is portrayed. Kim van Nieuwaal also highlighted that the usefulness of human interaction should not be underestimated and that their helpdesk is a high-value service that connects users to offerings. As a final lesson learned, Kim van Nieuwaal shared that people take action in light of opportunities rather than threats. Therefore, offering opportunities should be part of the DNA of every platform. In the discussion that followed, Kim van Nieuwaal emphasized that people are the key ingredient needed to generate connections between scales (national, provincial, municipal) and sectors. One suggestion to build these connections was to invite representatives from different jurisdictions to meetings, and to collaborate across regions when applying for funding. Climate platforms play a role in connecting people.

Offering a concrete example of connections between multiple platforms, Sukaina Bharwani, Stockholm Environmental Institute, provided an overview of the functionality of PLAtform for Climate Adaptation and Risk reDuction' (PLACARD's) Connectivity Hub tool. This is a new "search and discovery" tool that helps users find relevant knowledge and organizations working on climate change adaptation and disaster risk reduction issues. In other words, the Hub harnesses and links data from a wide set of platforms and uses a targeted glossary to both connect content and to address differences in the ways the two communities use common terms. This tool also aims to address the issue of a lack of interpretation of an abundance of information. It uses common tags to connect platforms and related knowledge and resources on other platforms through a visual keyword map. The tool provides the added benefit of increased general traffic to source platforms especially by users who may not have visited otherwise. The tool allows users to find resources more easily using keywords, identifies linkages between terms with similar meanings but different uses, and provides a glossary of all key words. Sukaina Bharwani highlighted that one of the largest barriers to connections between platforms is the different use of terminology across platforms.

The themes of human connections, data interoperability, standardized taxonomy and user journeys were raised again in the breakout discussion groups. Breakout discussion groups represented a key component of the session, and were facilitated by

three experts. The bullets below present a high-level summary of these discussions. A visual snapshot of the discussion is also available in Annex 2.

- The data breakout group suggested that case studies are viable offerings that can be shared across platforms, but would depend on standardization including a common taxonomy and tags. The group also identified a lack of top down funding as a barrier to facilitating connections between platforms, and the added challenge of facilitating lateral connections between platforms in different countries. Venues such as this KE4CAP event are useful for facilitating connections and should be continued in the future.
- Building on the theme of human connections, the capacity group also emphasized the importance of human networks
 and the underlying capacity needed to build relationships. When building a platform, an equal importance should be
 placed on the capacity to deliver the service as was given in the actual development of the resource. Challenges that
 were raised included how to sustain long-term human connections and networks, especially in a virtual context, and a
 common taxonomy to link resources and help users find information.
- The resources breakout group built on the theme of helping users find information and suggested that standards and consistency across entry points is needed. A road mapping process can help platforms understand what information is needed, and then take a user journey approach to better understand how users take information, use it and learn from it. The group highlighted the challenge of a huge and varied user base, ranging from experts to users who are still trying to understand their information needs. Having interoperability of the technical side of platforms can help different users navigate to the right resources. The group also emphasized the importance of institutional partnerships in facilitating connections across platforms.

Conclusions

The presentations and discussion in this session distilled a number of challenges and key features of successful connections between platforms, highlighted below. International knowledge exchange events that support international networks, such as this weADAPT event, play an important role in identifying these common issues and identifying solutions.

- Data interoperability is currently a barrier to enhanced platform connections but also presents enormous opportunities to maximize outcomes given the quantity data currently available.
- Networks of people are critical to establishing platform connections. This is especially true for connections between
 regions and scales. Networks of people also underlie efforts to standardize information, further deepening connections
 across platforms.
- Taxonomy standardization and the lack thereof is a barrier to platform connectivity. In addition, the different uses of key terms across platforms, for example, in tagging content, prevents users from accessing relevant information.

Session 3. Enhancing Platform Impact: The Power of In-Person Connection and Diversification

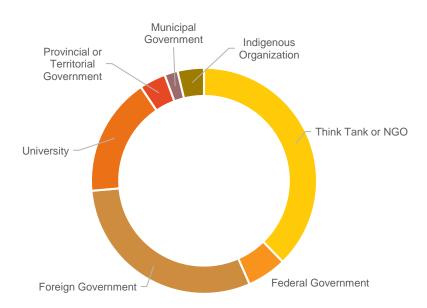
Overview of session

In this session, four speakers elaborated on the significance of in-person connections alongside digital activities to enhance the impact of adaptation platforms, and touched on strategies to expand and mainstream platforms beyond traditional and existing partners. This was followed by a facilitated discussion with participants. Presenters include: Sanna Luhtala, ClimateGuide Finland; Prakash Bista, Bureau of Policy and Programme Support, United Nations Development Program (UNDP); Dr. Robin Cox from the ResilienceByDesign Lab, Royal Roads University, Canada; Geoff Gooley, the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Climate Centre in Australia.

Links to supporting documents can be found here: https://www.weadapt.org/knowledge-base/climate-change-adaptation-knowledge-platforms/enhancing-platform-impact

Participant breakdown

Breakdown of Registered Participants



Note: Breakdown represents registered participants. Actual participant breakdown varies.

Key questions discussed

Virtual Platforms provide opportunities for mass engagement and discussion; however, limitations in the form of trust, security, diversity, accessibility, expression, and communication can inhibit Platform growth and participation. Sanna Luhtala and Prakash

Bista both highlighted the importance of in-person connections when addressing local barriers to digital engagement. In Finland, the Climateguide.fi and Citizen Panel platforms face challenges associated with multilingualism, where language barriers limit engagement from the Swedish-speaking community. Accounting for translation costs in budgetary proposals is crucial to ClimateGuide.fl's target of ensuring adequate provisioning of climate knowledge to all populations. Prakash Bista, who works with the African Hub of Experts Platform, underlined four primary obstacles related to scaling up participation in virtual adaptation platforms across the African continent. These include: a lack of adequate IT infrastructure (i.e., weak connectivity, expensive data plans); limited incentives (i.e., travel, consultation certificates) that are normally associated with in-person gatherings; reduced opportunity for closed-door, frank discussion (which are often made available via in-person engagements); and a lack of continuity across discussions, given digital participation is often delegated to rotating junior civil servants.

In-person meetings have a key role to play in building trust, and supporting engagement and participation from non-traditional users and underrepresented actors. Overall, platform design, function, content, and outreach can work to either facilitate or impede capacity building. As outlined by Robin Cox, a robust climate adaptation platform requires involvement from less engaged populations, which relies on relationship building and trust, which is best developed in-person. In Australia, meaningful engagement between climate scientists and Indigenous communities began in the last three years. Geoff Gooley described his engagement with Indigenous communities in the Pacific, emphasizing the difficulties associated with rebuilding lost trust and the physical and transitional risks they face. Therefore, a virtual environment may not be suited for all relationships, groups, or communities, while recognizing that we live in a digital age where technological innovations can assist relationship building with other communities.

Chris Jennings, Chair of Canada's Climate Change Adaptation Platform (Natural Resources Canada), spoke to the role of many in-person connections in this multidimensional platform. These include a plenary, a series of theme-specific working groups, and a managerial secretariat. The platform works closely with municipal, provincial, professional, academic, and Indigenous representatives to create a "network of networks". In this example, the in-person fosters an essential sense of trust that allows for frank, national-scale discussion on aligning adaptation directions between stakeholders. Recognizing the limitations of an internally focused digital space, methods of knowledge dissemination and engagement are being explored for the purpose of reaching new audiences.

In the discussion that followed, presenters answered a number of questions from participants.

- Is there a concern that budgets will not allow for in-person meetings following the COVID-19 pandemic?
 Response summary: As a result of the COVID-19 pandemic, it was speculated that travel could remain suspended until full global recovery. While in-person meetings provided spaces for "corridor conversations," allowing discussions to flourish beyond the conference room, virtual meetings can increase accessibility and participation, especially for those limited by financial, physical, or mental constraints. A good path forward is a hybrid approach that combines the benefits of in-person interactions with the efficiency of digital platforms.
- How do we see competition in the digital space? Response summary: The competition for attention is fierce. In-person connections allow organizations to identify their key stakeholders and send direct invitations to their intended audiences. It was noted that sessions hosted by trusted speakers tend to be favourable, highlighting the importance of connectivity and coordination. Such dynamics can reduce timing conflicts, promote coherent messaging, and help build trustworthy relationships between adaptation experts and their stakeholders. Other recommendations included running social media campaigns and inviting high-level speakers for gaining audience traction.
- Any experience on how to work with Traditional Leaders in the African context with regards to face-to-face interactions as 'protocol' and limited opportunities for online engagements?
 At the community level, Traditional and Local Knowledge that has been passed down from generation to generation was noted as often providing effective adaptation solutions. However, some Traditional Leaders and communities may express

discomfort with sharing their knowledge on digital platforms. Consequently, adaptation practitioners must build cultural competency to understand how to respectfully work with Traditional Knowledge holders, while acknowledging and respecting that Traditional knowledge may not always be shared.

• How can we influence the spheres outside of our own mandate?
Climate change exacerbates pre-existing vulnerabilities in marginalized communities. To mainstream adaptation, it was highlighted that social justice and equity must be brought to the forefront. Constant collaboration, communication and coordination between policymakers, climate experts, stakeholders, Indigenous partners and vulnerable communities is required if an effective Climate Adaptation Platform is to be developed. Advocacy from decision makers, supporters and climate leaders can increase digital engagement, help communicate scientific knowledge and encourage climate action.

Conclusions

Although digital platforms offer numerous benefits and advantages, especially in a COVID-19 reality, in person connections are still imperative for building trust, long-term connections, and engaging underrepresented and non-traditional users. The following bullets distill the best practices and advantages of in person connections shared throughout the session.

- Co-design. Adaptation Platforms are effective tools to accelerate adaptation action, given the condition that they are inclusive, well organized, and easily accessible. This is best accomplished by co-designing and co-creating platforms.
- Trust building. In-person meetings have a key role to play in building trust, and supporting engagement and
 participation from non-traditional users and underrepresented actors, in part by providing anonymous and safe
 discussion spaces.
- Hybrid approach. By combining the effectivity of in-person meetings with the convenience of digital platforms, participants can engage in the way they feel most comfortable, while ensuring opportunities to support participants in engaging with the Platform.
- Democratization of climate knowledge. Both virtual platforms and in-person meetings play a vital role in sharing more
 information with a broader range of users for a wider range of purposes. Platforms must decrease the technicality of
 climate science during communication, and structured governance must be flexible, inclusive and culturally sensitive.
- Equity. Barriers arising from inequity and injustice must be addressed if adaptation is to be mainstreamed, which includes considerations for the ways we design and deliver our Adaptation Platforms.

Session 4. From Knowledge to Action: Exploring Approaches to Integrating Identified User Needs into Platform Offerings

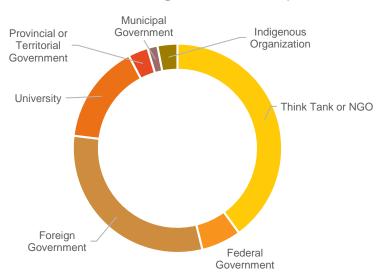
Overview of session

In this session, presenters and participants discussed the importance of user needs considerations in platform offerings to support the 'knowledge-to-action' transfer in adaptation decision-making. The session also explored barriers and approaches to integrating identified user needs into platform offerings. Five presenters shared insights on how different international platforms have addressed user needs; including details on how platforms gather, analyze, prioritize, confirm, and take action on addressing user needs. Participants then entered breakout discussion groups to explore methods and approaches to assessing, prioritizing, and addressing user needs.

Links to supporting documents can be found here: https://www.weadapt.org/knowledge-base/climate-change-adaptation-knowledge-platforms/integrating-user-needs-into-platforms

Participant breakdown

Breakdown of Registered Participants



Note: Breakdown represents registered participants. Actual participant breakdown varies.

Key questions discussed

To open the session, Barry O'Dwyer, University College Cork, highlighted that the climate service user base is broad and diverse. In order to meet user needs, information needs to be tailored to the wide range of users and their needs, and platforms need to understand evolving user capacities and anticipate what they will need in the next stage of planning. To achieve this, Barry O'Dwyer highlighted that climate service providers need to shift from top-down and unidirectional approaches to being user-centred to enhance the usability of climate data and information.

Building on the theme of user-centered services, Chris Stewart, Copernicus Climate Change Service, shared experiences with user engagement. User engagement serves many purposes including to facilitate the co-creation of solutions, enhance user comfort, promotion and marketing of the platform by users to other users, training and knowledge transfer, liaising and collaboration, and allowing platforms to amplify the voice of users internal to platform organizations. Chris Stewart emphasized that user support is key and is achieved in part through a user forum where users can interact and facilitate human contact.

Providing concrete examples of how user needs are reflected in products, Michiko Hama and Andreas Fischer, National Centre for Climate Services (NCCS), Federal Office of Meteorology and Climatology MeteoSwiss, provided an overview of two projects. Using a range of anticipated impacts (dry summers, heavy precipitation, hot days, and snow scarce winters) the NCCS created four user groups, represented by characters, and told stories that dealt with the above impacts. Depending on the user group, different products were developed, for example videos for the public, or scenario data for researchers. The second example project "Decision Support for Dealing with Climate Change in Switzerland," took a cross sectoral approach to fill the gap between science and users in adaptation and mitigation actions. In this project, stakeholders from a range of sectors were integrated from the start of program planning. User needs were identified in a scoping meeting, which then informed a basis report on current knowledge and user needs. This report then informed six interlinked projects with climate scenarios as a common basis.

To further the lesson that user integration is a process and not a single step, Laura Dalitz, German Environment Agency, shared the experience of the German Climate Preparedness Portal (KLiVO). The German government initiated this portal with the aim to connect users to relevant and quality-assured climate and adaptation services. Users are engaged throughout the development and operational phases, including in the needs assessment, usability testing, stakeholder feedback group, and through a KlimaAdapt User-Provider Network. This network supports local actors and on-the-ground implementation by identifying gaps in services provided and emerging user needs.

Using a Canadian example, Etienne Bilodeau, Canadian Centre for Climate Services (CCCS), explained how the CCCS uses a systemic, five-stage approach to scaling up the successful implementation of a user-focused tool, shown below.

- Stage 1: Ask and listen. Take a multi-pronged approach to collecting user information, including literature, surveys, workshops, meetings and other formats.
- Stage 2: Record and distill. Only some needs are actionable, and useable information must be extracted from the collected information.
- Stage 3: Organize and categorize needs. Organize needs based on the service type or product requested.
- Stage 4: Prioritize and confirm the needs to be addressed. This stage raises questions such as who should be prioritizing? How often should we prioritize and refresh? What criteria are being used?
- Stage 5: Act and implement. Report back to users to confirm and nuance their needs. Pivot if something is not working.

Following the presentations, participants entered focused discussion groups on the topics of data related products and tools, resources and capacity services. Breakout discussion groups represented a key component of the session, and were facilitated by three experts. The bullets below present a high-level summary of these discussions. A visual snapshot of the discussion is also available in Annex 2.

- The data related products and tools group agreed that surveys, although popular, are not always useful in understanding and prioritizing user needs. A preferred method is undertaking coproduction exercises where users work directly with producers. This also builds trust and builds relationships, which facilitates coproduction. The group also highlighted that platforms typically cater to a narrow slice of the population and are not reaching people with low internet bandwidth, or who are less familiar with science languages.
- The capacity services group emphasized the importance of evolution, agility and iteration by "failing forward" and learning from mistakes. The group also agreed that people are over-surveyed and surveys are not effective at collecting broad or representative data. They noted that it is also important to meet users where they are to address

capacity-building needs, and use conversation and listening to drive prioritization of needs. The group suggested that peer-to-peer learning is an effective mechanism to understand user needs. Climate service providers should not always be the group interacting with users, but instead could find a trusted voice or ally to work with users and communicate their needs back to the provider. In terms of challenges, the group cited a lack of capacity for implementation support, particularity in building adaptive capacity.

• The resources group suggested that embedding climatologists in user groups (i.e., through co-location) could help user groups and also build trust in and credibility of a platform. The group also suggested connecting with public authorities and looking to sectoral policies in different jurisdictions, as these also drive user needs. Building private-public partnerships was identified as a challenge and opportunity, and how to connect with procurement processes to provide climate information. Finally, using social media was suggested as an effective way to connect with a younger audience.

Conclusions

Through the presentations and the discussions that ensued, the following best practices to integrating user needs into platform offerings were identified.

- User-centred platforms: Climate services need to shift from taking a top-down and unidirectional approach to being more user-centered to enhance the usability of information.
- User group tailored products: Depending on who is in the user group, different products should be developed, for example case studies, maps, or more advanced data sets.
- Comprehensive stakeholder engagement: Stakeholders from a range of sectors should be integrated from the start of program planning, through to implementation and evaluation. User integration is a process and not a single step.
- Co-promotion: Sectors and some user groups may take information more readily from other users or trusted voices and allies, rather than from service providers themselves.

Concluding remarks

Over the course of four sessions, over one hundred participants from around the world gathered to share insights, best practices and common challenges around climate and adaptation platforms. Many informative views on best practices and challenges of platform connections were shared. The sessions in this event contributed to the following desired outcomes and impacts of the KE4CAP project:

- Supporting a wide range of users with different capacities and decision-making culture;
- Demonstrating the value of web-based and in person adaptation platforms, including in terms of contributing to monitoring, evaluation and reporting on adaptation at national and international levels;
- Enhancing collaboration and harmonisation of platforms to promote quality and utility from the perspective of users;
 and
- Providing examples of good practices related to supporting evolving users' requirements.

This report highlights a number of challenges and opportunities for platforms to enhance and strengthen their connections and improve the way they identify and respond to user needs. We hope that in addition to summarizing the event, that this report can also serves as a springboard for other platforms to connect and innovate. This event is part of a larger journey; visit the KE4CAP Platform to learn more about the project goals, initiatives, and outcomes.

The KE4CAP project is funded by the European Commission, as part of the <u>Strategic Partnerships for the Implementation of the Paris Agreement (SPIPA)</u>. It builds on and complements existing European climate policy dialogues and cooperation with Argentina, Australia, Brazil, Canada, China, Mexico, India, Indonesia, Iran, Japan, Russia, South Africa, South Korea, Saudi Arabia, and the USA.

Acknowledgements

Domestic Collaborators

The Canadian Center for Climate Services (Environment and Climate Change Canada), the Adaptation Policy Division (Environment and Climate Change Canada) and the Climate Change Impacts and Adaptation Division (Natural Resources Canada) would like to thank the session contributors and all participants.

International Collaborators

This event, coordinated by the KE4CAP team, is organized with the financial support of the European Union's Partnership Instrument and the German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety (BMU) in the context of the International Climate Initiative (IKI). The opinions expressed are the sole responsibility of the organizers and do not necessarily reflect the views of the European Union.

Annex 1: Agendas

Canada's Virtual Knowledge Exchange Event
Session #1: National Adaptation Strategies: Lessons Learned from the International Adaptation
Community

May 11, 2021 10 am - 12:00pm EDT

	Vancouver	Ottawa	London	Paris/Berlin	Helsinki	Tokyo
Time zones:	7:00 am PDT	10:00 am EDT	3:00 pm BST	4:00 pm (CET)	5:00 pm (EEST)	11:00 pm (JST)

Overview: This session will explore lessons learned from KE4CAP countries, including tools for effective engagement of key partners in the NAS process, governance mechanisms, and monitoring and evaluation. This will be an interactive virtual event, with opportunities throughout for attendees to ask questions and engage with event speakers.

10:00-10:15	Welcome and Introduction to Canada's efforts to develop a National Adaptation Strategy • Jeff MacDonald, Director General, Environment and Climate Change Canada • Roger Street, University of Oxford
10:15-10:40	Innovative approaches and common challenges in OECD countries in developing and implementing national adaptation strategies • Dr. Catherine Gamper, OECD
10:40-11:05	Key elements of Japan's adaptation strategy, including discussion of the alignment between adaptation and disaster risk reduction policies • Shohei Okano, Ministry of the Environment, Japan
11:05-11:30	Lessons learned from developing a German adaptation strategy • Dr. Thomas Abeling, German Environment Agency
11:30 -11:55	Fireside chat: Latest trends and considerations for national adaptation strategies Anne Hammill, Senior Director, Resilience, International Institute for Sustainable Development Alice C. Hill, Council on Foreign Relations, United States
11:55-12:00	Concluding Remarks Jeff MacDonald, Director General, Environment and Climate Change Canada

Canada's Virtual Knowledge Exchange Event Session #2: A diversity of needs, a diversity of platforms: linking platforms to facilitate users' adaptation journeys

May 13, 2021 (7-9:30am PDT) (10-12:30pm EDT) (4-6:30pm CET)

	Introductions I a Chang (CCCS)
40-00 40-45	Introductions – Lo Cheng (CCCS)
10:00-10:15	Introductory remarks
	Context-Setting – Julia Barrott (SEI) & Lo Cheng (CCCS)
10:15-10:30	
	An overview of how connections and linkages across platforms can enhance their offerings
	Examples – Lo Cheng (CCCS) & Climate Adaptation Providers
	Examples of how platforms have fostered connections from across the globe and how they are implemented:
10:30-11:05	Alain Bourque, Executive Director, Ouranos
10.30-11.05	 Robin Cox, Program Head Climate Action Leadership, Royal Roads University Kim van Nieuwaal, Strategic Advisor/Director, Climate Adaptation Services/Delta Alliance International
	 Sukaina Bharwani, Senior Research Fellow and co-lead of climate services, Stockholm Environmental Institute
11:05-11:10	Break
	Break-Out Group Discussion – All
	Participants will split out into groups under the following topics and explore the what, why and how related to connections/links
44 40 40 05	Topics:
11:10-12:05	Data-related products and tools (i.e. datasets, indices, decision-support tools)
	 Facilitated by David Huard, Science Advisor, Ouranos
	Resources (i.e. case studies, guidelines, best practices, standards)
	Facilitated by Al Douglas, President, Climate Risk Institute
	3. Capacity services (i.e. training, client support, communities of practice)
	 Facilitated by Ewa Jackson, Managing Director, ICLEI Canada Lessons Learned – Lo Cheng (CCCS) & Break-Out Group Facilitators
12:05 -12:20	Lessons Learned - Lo Cheng (CCC3) & Break-Out Group Facilitators
12.00 - 12.20	Report back on group discussions and key messages
	Concluding Remarks – Lo Cheng (CCCS)
12:20-12:30	
	Closing remarks and information on the next session



Canada's Virtual Knowledge Exchange Event
Session #3: Enhancing Platform Impact – The Power of In-Person Connection & Diversification

May 18, 2021 - 10 am - 12:00pm EDT

10:00 – 10:10	Welcome (Chris Jennings, Canada's Climate Change Adaptation Platform & Julia Barrott, Stockholm Environment Institute) Welcome participants, overview session objectives, and provide connections to KE4CAP work.
10:10 – 10:20	In-Person Connections and Adaptation Platforms – Introduction (Chris Jennings, Canada's Climate Change Adaptation Platform) Introduce the role of in-person components as a piece of Adaptation Platforms, and present
10:20 – 10:40	 experiences from Canada's Climate Change Adaptation Platform. In-Person Connections and Adaptation Platforms – Presentations Sanna Luhtala, Climateguide.fi, Finland: in-person, local engagement through Finland's Climateguide.fi and Citizen Panel, and the context of multilingualism in Adaptation Platforms. Prakash Bista, Bureau for Policy and Programme Support, UNDP: the role of in-person components to address barriers such as community trust or access to digital participation.
10:40 – 11:00	Group Discussion #1
11:00 – 11:10	Diversification of Adaptation Platforms – Introduction (Chris Jennings, Canada's Climate Change Adaptation Platform) Introduce the role of Adaptation Platforms in deeper mainstreaming to include non-traditional and under-represented actors.
11:10 – 11:30	 Diversification of Adaptation Platforms – Presentation Dr. Robin Cox, Royal Roads University / ResiliencebyDesign Lab: deeper mainstreaming within adaptation platforms, referencing capacity-building and guidance functions as key to 'expanding the tent' for both non-traditional and underrepresented actors. Geoff Gooley & Mandy Hopkins, The CSIRO Climate Science Centre, Australia: experiences around mainstreaming and the in-person connection, including relevant experiences with Aboriginal and Torres Strait Islander peoples.
11:30 – 11:50	Group Discussion #2
11:50	Session Close

Canada's Virtual Knowledge Exchange Event Session #4: From knowledge to action: exploring approaches to integrating identified user needs into platform offerings

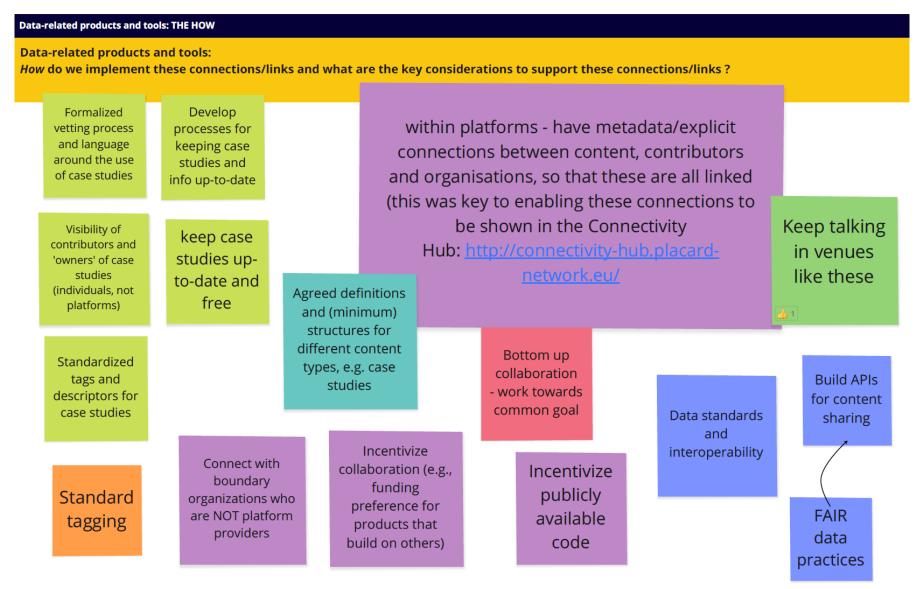
May 20, 2021

(7-9:30am PDT) (10-12:30pm EDT) (4-6:30pm CET)

10:00 - 10:10	Introductions – Lo Cheng (CCCS)
EDT	Introductory remarks
	Context-Setting – Barry O'Dwyer (University College Cork) & Lo Cheng (CCCS)
10:10 - 10:25	
EDT	An overview of user needs analysis, what it can entail, and why user-driven adaptation platforms are important enablers of adaptation
	Presentations – Climate Adaptation Providers
	Insight on how platforms have addressed user needs; including details on how platforms gather, analyze, prioritize, confirm, and take action on addressing user needs.
10:25 - 11:15	 Chris Stewart, Copernicus Training and Knowledge Transfer Officer, European Centre for Medium-Range Weather Forecasts
EDT	 Michiko Hama and Andreas Fischer, National Centre for Climate Services (NCCS), Federal Office of Meteorology and Climatology MeteoSwiss
	 Laura Dalitz, Scientific Officer, Competence Centre for Climate Impacts and Adaptation, German Environment Agency
	Etienne Bilodeau, Manager, Outreach and Engagement, Canadian Centre for Climate Services
11:15 - 11:20	Break
	Break-Out Group Discussion – All
	Participants will split out into groups under the following topics and explore methods and approaches of how platforms have assessed, prioritized, and addressed user needs
11:20 - 12:05	Topics:
EDT	Data-related products and tools (e.g. datasets, indices, decision-support tools)
	Facilitated by David Huard, Science Advisor, Ouranos
	 Resources (e.g. case studies, guidelines, best practices, standards) Facilitated by Al Douglas, President, Climate Risk Institute
	3. Capacity services (e.g. training, client support, communities of practice)
	Facilitated by Ewa Jackson, Managing Director, ICLEI Canada
12:05 - 12:20	Lessons Learned – Lo Cheng (CCCS) & Break-Out Group Facilitators
EDT	Depart has been sure discussions and less masses are
	Report back on group discussions and key messages
12:20 - 12:30	Concluding Remarks – Lo Cheng (CCCS) & Roger Street (University of Oxford)
EDT	Closing remarks and event conclusions

Annex 2: Miro Board frames from breakout discussions (Session 2 and Session 4)

Session 2. A Diversity of Needs, A Diversity of Platforms: Linking Platforms to Facilitate Users' Adaptation Journeys



Resources: THE HOW

Resources:

How do we implement these connections/links and what are the key considerations to support these connections/links?

Making connections work via formal and informal networks, demonstrating the value added of such connections and a willingness to collaborate.

Living Website FAQ Champions/Power users these multiple levels of understanding are critical for mainstreaming adaptation

search functions that visualise results efficiently

Active

partnerships

broad awareness of what is happening elsewhere, to allow for informal linking/connections These interconnections are not just a matter of simplifying subject matter but making it accessible from more than one perspective

With regard to entry points and collaborations, it is key to enhance ownership (e.g. cocreation) and expectation management (e.g. expected roles). E.g. the platform operators might have certain roles, so do others, but that is not always an easy notion to get across.

step by step guide to entering platforms, especially for new users

simplify entry points Identify trusted sources

Co-explore priority needs WITH users Road-mapping process to understand what is available in canada and internationally

> user needs: provide interfaces (IT) to improve user experience, e.g., find what they're looking for

having user needs central to prioritizing connections focusing on where the greatest need/benefit is. Dashboard of dashboards

Years ago, the climate scenario store looked like a small roadside stand. Now, it looks like a big box store without a guide/info map.

Building on the analogy of a store, there is a recognition of the effectiveness when shopping in a mall there is an information booth that directs people to the most appropriate shop (platform) to address your specific requirements. This is a real requirement

Making connections work should start from a user focus and looking at and targeting and recognizing that through connections the results can be better

Capacity Services: THE HOW

Capacity Services:

How do we implement these connections/links and what are the key considerations to support these connections/links?

workshops and webinars to help advance the capacity building resources (involving experts)

For every tool/resource release, as much energy/effort put into networking/training around it.

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how can we work to build connections that cut ACROSS sectors? Yes engineers to engineers, but how do we connect engineers to planners to Indigenous practitioners, and others?

Indigenous Specific events, webinars, training etc.

produce tools, trainings, resources to enhance positioning for use/action

Co-develop/co-

events that include the experts/users in the rollout of the product/service

wrap-around/threading through events, embedding links and communities to relationship build outside of the event itself

Transdisciplinary approaches/gathe rings (breaking down professional silos)

vertical and

horizontal

integration

of taxonomy

Helping people understand the skills/knowledge they want to build (i.e. through selfassessment) with next steps

Effectively harnessing technology, especially where people already are (e.g. LinkedIn?)

encouraging sidechats

provide long-lasting support for users

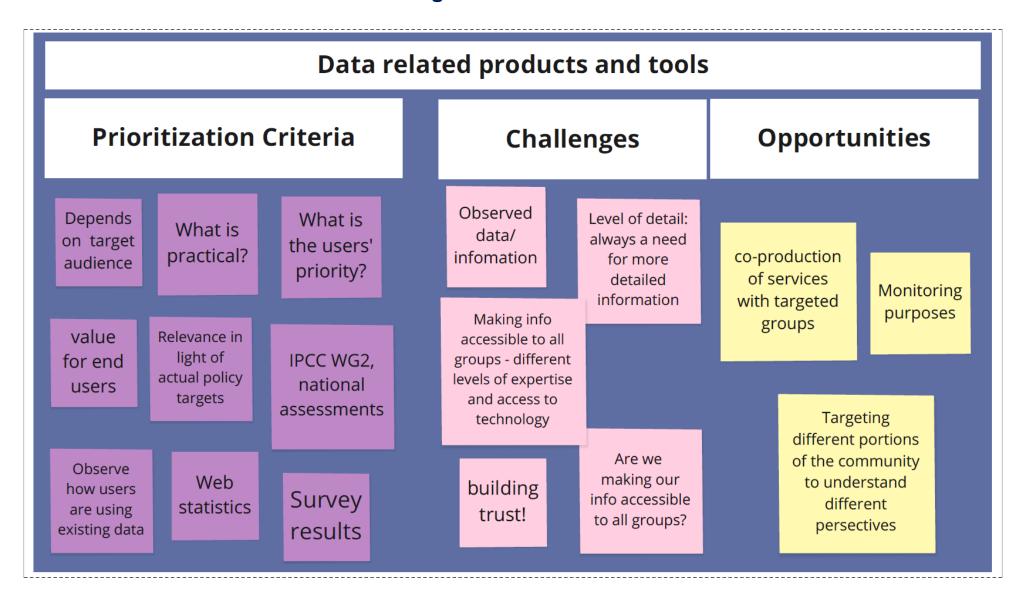
Some good platforms for informal connections networking-Wonder

LinkedIn Groups built from training participants, and then continuing to share blog posts or updates with them ... triggers ongoing conversation and thinking

events and conferences that intentionally bring sectors together

Emphasizing regionality, regional communities of practice (like the RACs)

Session 4: From Knowledge to Action: Exploring Approaches to Integrating Identified User Needs into Platform Offerings



Resources

Prioritization Criteria

who is your user? A farmer may not care about concepts, but will want to know of information specific to them. Rural/off grid areas may not watch videos/listen to podcasts, but radio could be popular...

based on evaluation on Climate-ADAPT we learned that synthesis information is appreciated

As a user: social media is a key source of information, specifically for the younger population infographics can be nicely dropped into social media and picked up by the media important for amplification/uptake Any regulatory drivers in existence

Where can you get the biggest bang for your investment? Large group? High-priority group? Are there areas where a champion can be used?

making things sector specific is good for capturing attention this material can be incorporated into continuing professional development etc.

Plain language is important for reach many different users - this material can be used (and reused) widely

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Challenges

Some things are high priority (ie providing materials in local languages) but resources can be restricted so this can become lower priority



knowing user preferences (communication channels etc.) and thier capacities for understanding the information we want to convey

Level of uncertainty. Low capacity within organization(s) identifying entry points for resources/climate info in different sectors and communities

Opportunities

Having local people embedded to develop products

Timely and clear communications between all parties

representative user groups or champions (e.g. practitioners, sectoral professionals) for codeveloping and feeding back on resources

working with research teams to help understand users needs, and also their knowledge, and how this can be integrated with climate/adaptation information

Capacity Services

Prioritization Criteria

Lines in the sand:
Are we best positioned to do this?

Challenges

moving beyond academia/science /identifying problems and into the solutions space

Silos

Keeping conversations going after plans are made. pushing forward implementation

tools skip over implementation and into evaluation/monitoring

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seeking quickly accessible data, low tolerance/time for "Digging"

Opportunities

interdisciplinary & transdisciplinary approaches are necessary!

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dedicated support

better clarity in climate change information requirements

Annex 3: Presenter biographies (Session 2 and Session 4)

Session #2: A diversity of needs, a diversity of platforms: linking platforms to facilitate users' adaptation journeys

PRESENTER and BREAKOUT GROUP FACILITATOR BIOGRAPHIES



Julie Barrott
Research Fellow and weADAPT Knowledge Manager
Stockholm Environment Institute

Julia Barrott joined SEI Oxford in December 2015 as a weADAPT Knowledge Manager and part-time Research Fellow. Julia manages and curates content for and supports the development of the weADAPT platform, fostering current and new collaborations with internal and external partners. She has contributed towards research outputs related to the COBAM project and she is currently involved in research relating to SEI's initiative on Climate Finance

Julia holds a master's degree in Environmental Geoscience from Imperial College London and a DPhil in Earth Sciences from the University of Oxford. Her undergraduate masters degree included modules in systems science, environmental engineering, hydrology, waste management, natural resources, and both geological and geochemical (water contamination) mapping. Her postgraduate research focused on reconstructing past climate change in NW Africa, where she lead several week's fieldwork. Inspired by her time in the field and the current global state, she is now looking to pursue a research path relevant to sustainable development, climate change adaptation and mitigation.



Sukaina Bharwani Senior Research Fellow Stockholm Environment Institute

Sukaina Bharwani is an interdisciplinary senior researcher with a background in both social anthropology and computer science, providing her with a unique range of qualitative and quantitative skills to further climate adaptation research in innovative ways. Sukaina co-leads the SEI Climate Services initiative and several work streams in large European and international projects. She also coordinates the strategic and technical development of the weADAPT global platform and network for climate change adaptation.

Her current research includes supporting urban adaptation in southern Africa, connecting communities working on climate change adaptation and disaster risk reduction in Europe, and contributing to the field of climate services. Sukaina has a Ph.D. in Applied Computing (Social Sciences) and a BA (Hons) in Social Anthropology.



Alain Bourque Executive Director Ouranos

Alain Bourque holds a Master's in atmospheric science from Université du Québec à Montréal (UQAM). He was a meteorologist/climatologist with Environment and Climate Change Canada from 1989 to 2001 where he worked on the Saguenay flood of 1996, the ice storm of 1998 and on climate services. At Ouranos since its creation in 2001, Mr. Bourque has implemented the Vulnerabilities, Impacts and Adaptation program which includes more than 200 projects. Since 2013, he has served as Executive Director of Ouranos, a non-profit organization bringing together about fifty employees and more than 500 researchers, experts, practitioners and decision-makers. During his career, he has completed many regional, national and international scientific summaries and regularly contributes to media stories and policy discussions about climate change and adaptation.



Dr. Robin Cox Director, ResilienceByDesign lab Royal Roads University

Dr. Robin Cox advances leadership in climate and disaster resilience. As the Director of the ResilienceByDesign lab (RbD) at Royal Roads University, she designs and oversees a diverse applied research agenda focused on building leadership for climate action and disaster risk reduction. The goal of this work is to enable and optimize the capacity of working professionals, youth, and communities to design and implement innovative strategies and collaborative projects that contribute to climate adaptation and resilience, disaster risk reduction, and youth empowerment. Cox is currently directing the \$2M Adaptation Learning Network to increase adaptation leadership and capacity among working professionals. Robin and her team developed the first comprehensive Climate Adaptation Competency Framework, and she is about to launch the new MA in Climate Action Leadership, a cutting-edge, transdisciplinary graduate program designed to prepare practitioners across disciplines and sectors to create the social, political, environmental and economic changes necessary for a climate resilient future.



Al Douglas President Climate Risk Institute

Al is the President of the Climate Risk Institute. Since 2002 he has been developing and delivering adaptation resources to domestic and international decision-makers. Al played leading roles in two regional vulnerability assessments in Ontario and co-authored an ecosystems vulnerability assessment guidebook for Ontario. He has contributed content to previous National Assessments of climate change impact and adaptation and acted as an expert reviewer for the Intergovernmental Panel on Climate Change (IPCC). Al has expertise in climate science; climate change impact, vulnerability and risk assessments; policy development; and adaptation planning in natural resource sectors. In 2016 Al co-chaired Adaptation Canada 2016, Canada's first national symposium on climate change adaptation since 2005 and was a member of Canada's Expert Panel on Climate Change Adaptation and Resilience Results.



David Huard Climate Scenarios and Services Specialist - Research and Support to Innovation Ouranos

David Huard is a physicist working at Ouranos as a climate scenarios and services specialist, translating data from Earth observations and climate model simulations into information supporting decision-making. David leads efforts at Ouranos to develop a platform for climate data analysis, and is co-chair of the IPCC Task Group on Data Support for Climate Change Assessments.



Ewa Jackson Managing Director ICLEI Canada

Ewa is a leader in the field of climate adaptation and resilience. Since 2002 she has been engaging with communities from coast to coast to coast on the issue. Ewa works to help communities understand that collaborative approaches to adaptation planning that include a variety of perspectives and voices are necessary to move forward with the implementation of adaptive actions. She has worked with municipal governments for over 19 years in the fields of climate change, public participation, and communications. Ewa's particular field of interest is in the area of collaborative climate action and specifically on building social resilience.



Kim van Nieuwaal Strategic Advisor Climate Adaptation Services

Kim van Nieuwaal is a specialist in science-policy interactions, particularly in the fields of adaptation to climate change and delta management. As a seasoned knowledge broker he has been advisor to ministries, provinces, municipalities, universities, knowledge institutes, ngo's and businesses. He has an extensive network in academia, policy and practice. Currently, Kim is strategic advisor at Climate Adaptation Services foundation. He is director of Delta Alliance International. Kim is also chairman of the board at the Dutch Wadden Sea Society. Kim was program manager of the Netherlands national research program Knowledge for Climate (90 mln. Euros). Kim was one of the lead authors of the National Adaptation Strategy of the Netherlands which was published in 2016. Also, Kim has been involved in climate adaptation strategies for Rotterdam, The Hague, Mainport Schiphol Airport, the South-west Delta, the Wadden Sea and the major rivers in the Netherlands. Kim has been teaching on public administration, strategic management and adaptation to climate change. He has also published in those fields. Kim van Nieuwaal holds an MA in Public Administration from the Erasmus University Rotterdam and a PhD in Public Administration and Organization Studies from VU University Amsterdam. Kim is one of the initiators of the KE4CAP project.

Session #4: From knowledge to action: Exploring approaches to integrating identified user needs into platform offerings

PRESENTER and BREAKOUT GROUP FACILITATOR BIOGRAPHIES



Dr. Barry O'Dwyer Lead Research Scientist, Impacts and Adaptation Group MaREI Centre, University College Cork

Dr Barry O'Dwyer has worked in the area of climate change science, policy and practice for over 9 years. Barry is leading the development and delivery of the EPA/DCCAE-funded <u>Climate Ireland</u> Programme, recognised through the NAF (2018) as the key national resource for climate change adaptation information. Barry has worked closely with the EPA and DCCAE providing advice on the development of the Climate Action and Low Carbon Development Act (2015) and NAF (2018). Barry has authored Sectoral and Local Guidelines for Climate Change Adaptation in accordance with international best practice and the requirements of national climate policy (e.g. NAF, 2018). Barry also leads the impacts and adaptation research group at the Centre for Marine, Climate and Energy (MaREI) at University College Cork (UCC). In this role, Barry acts as principal investigator on a wide range of nationally and internationally funded research projects which address the science of climate change and adaptation with a particular focus on developing fit-for-purpose decision making tools and supports for adaptation planning.



Dr. Chris Stewart
Copernicus Training and Knowledge Transfer Officer
European Centre for Medium-Range Weather Forecasts

Chris is the Copernicus Training and Knowledge Transfer Officer at ECMWF. He supports user engagement and manages training activities for the Copernicus Climate Change and Atmosphere Monitoring Services entrusted to ECMWF. He has a background in Earth observation and a PhD in radar remote sensing. Prior to ECMWF Chris worked at the European Space Agency where he carried out research in Earth observation exponential technologies and for over 10 years supported training activities in downstream Earth science satellite applications.



Dr. Angela Michiko Hama Director, National Centre for Climate Services (NCCS) Federal Office of Meteorology and Climatology MeteoSwiss

Dr Angela Michiko Hama's background is in climate services, climate change adaptation, disaster risk reduction as well as science management and education. She currently holds the position of Director National Centre for Climate Services (NCCS) at the Federal Office of Meteorology and Climatology MeteoSwiss in Zurich, Switzerland. In this function, she leads and coordinates the strategies and activities of the NCCS – the national coordination mechanism for climate services comprised of seven government offices and two key national research bodies. Michiko and her team are in charge of ensuring the positioning of the NCCS as national knowledge broker and network agent for climate services by means of bundling climate services, co-developing new services and strategies and promoting dialogue. In the context of the World Meteorological Organization (WMO), she serves as a member of expert teams on climate information and climate services. Michiko is also regularly active as external expert for the European Commission's EU Framework Programme for Research and Innovation Horizon2020.



Dr. Andreas Fischer
Deputy Director, National Centre for Climate Services (NCCS)
Federal Office of Meteorology and Climatology MeteoSwiss

Dr Andreas Fischer serves as Deputy Director of the National Centre for Climate Services (NCCS) in Switzerland with long-standing experience in the development of climate scenarios. From 2015 until 2018 he led the NCCS focus area on generating new national climate change scenarios CH2018 in close collaboration between academia and administration. He further has a strong link to the climate user community with ongoing climate-related projects that encompass stakeholder dialogues, user-tailored communication and dissemination approaches and co-production. Since 2019 Dr Fischer is a member of the external advisory board of KNMI'21 – the new climate scenarios of the Netherlands and since 2021 he leads a new NCCS program on decision support and climate impacts to be launched this year.



Laura Dalitz Scientific Officer, Competence Centre for Climate Impacts and Adaptation German Environment Agency

Since 2020, Laura has worked as a research associate at the competence center for climate impacts and adaptation within the German Environment Agency. Her main research topics are on climate adaptation services for local and regional actors and integrated assessment methods for climate adaptation measures. Laura studied Economics at the Freie Universität Berlin, University of Potsdam (Germany) and Örebro University (Sweden). She wrote her master thesis on the effects of climate adaptation investments in the DICE model at the Mercator Research Institute on Global Commons and Climate Change (MCC) Berlin.



Etienne Bilodeau

Manager, Outreach and Engagement

Canadian Centre for Climate Services

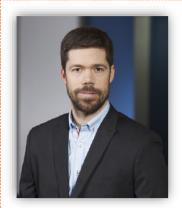
Etienne Bilodeau joined the Canadian Centre for Climate Services in January 2021. As Manager of Outreach an Engagement, he oversees efforts to better understand and integrate user needs in all aspects of climate services, and to raise awareness of the products and services offered by the Centre. This work involves engaging with existing and potential users, researchers in academia, and professionals in not-for-profit and private sectors to continually identify gaps in climate information products and services vis-à-vis user needs and ways to bridge those gaps. It also involves promoting the Centre's services with target audiences to maximize the number of Canadian professionals and organizations accessing the information they need to consider climate change impacts as part of their work and build resilience across various sectors. Prior to joining the Centre, Etienne helped implementing Environment

and Climate Change Canada's Low Carbon Economy Fund and the Climate Action Incentive Fund, which support climate change mitigation through investments in projects that reduce greenhouse gas emissions.



Al Douglas
President
Climate Risk Institute

Al is the President of the Climate Risk Institute. Since 2002 he has been developing and delivering adaptation resources to domestic and international decision-makers. Al played leading roles in two regional vulnerability assessments in Ontario and co-authored an ecosystems vulnerability assessment guidebook for Ontario. He has contributed content to previous National Assessments of climate change impact and adaptation and acted as an expert reviewer for the Intergovernmental Panel on Climate Change (IPCC). Al has expertise in climate science; climate change impact, vulnerability and risk assessments; policy development; and adaptation planning in natural resource sectors. In 2016 Al co-chaired Adaptation Canada 2016, Canada's first national symposium on climate change adaptation since 2005 and was a member of Canada's Expert Panel on Climate Change Adaptation and Resilience Results.



Dr. David Huard Climate Scenarios and Services Specialist - Research and Support to Innovation Ouranos

David Huard holds a Doctorate in water science from INRS-ETE (Institut national de la recherche scientifique—eau, terre, environnement) and conducted postdoctoral studies on modeling sea ice at McGill University. He taught at the college level and at l'Université du Québec à Montréal, and has worked as a scientific consultant to various companies, departments and agencies. At Ouranos since 2009, he produces studies of climate change issues affecting rainfall, hydrology and electricity production.



Ewa Jackson Managing Director ICLEI Canada

Ewa is a leader in the field of climate adaptation and resilience. Since 2002 she has been engaging with communities from coast to coast to coast on the issue. Ewa works to help communities understand that collaborative approaches to adaptation planning that include a variety of perspectives and voices are necessary to move forward with the implementation of adaptive actions. She has worked with municipal governments for over 19 years in the fields of climate change, public participation, and communications. Ewa's particular field of interest is in the area of collaborative climate action and specifically on building social resilience.