

KE4CAP VKE4: Communications, knowledge brokering and stewardship to stimulate and enable action

14 January 2021

Event report

This event focussed on knowledge brokering and the work of Climate Adaptation Platforms (CAPs) in helping to bridge the gap between the production of climate and other relevant information and its use in supporting climate change adaptation on the ground.

An introductory presentation from SEI Oxford is at: <https://www.weadapt.org/knowledge-base/climate-change-adaptation-knowledge-platforms/vke4-enhancing-knowledge-exchange>.

For agenda, please see [Appendix 1](#).

Introduction

Knowledge brokering supports the appropriate production and use of climate information for adaptation and thereby helps users to take action. As knowledge brokers, CAPs support this process by, for example, building trust, building capacity, making information more accessible, providing guidance on its appropriate use, and translating and transforming information to increase its relevance in the decision-making context.

The CAPs engaged in this network are very diverse and broker different types of knowledge in a wide range of ways to meet various users' needs. We thank the following platforms for sharing specific examples of their knowledge brokering activities on the [KE4CAP VKE4 webpage](#):

- European climate change adaptation platform, [Climate-ADAPT](#)
- Canadian Centre for Climate Services, [CCCS](#)
- [National Adaptation Plan Global Network](#)
- Taiwan Climate Change Projection Information and Adaptation Knowledge Platform, [TCCIP](#)
- Adaptation to Climate Change in Spain, [AdapteCCa](#)
- Climate Finance Knowledge Portal India, [CFKP](#)
- Climate Guide Finland, [ClimateGuide.fi](#)
- [Adaptation Scotland](#), including [Climate Ready Places](#)
- Australia and the Pacific: [The Pacific Adventures of the Climate Crab](#), [Cloud Nasara](#)

CAPs rarely provide just relevant climate data and information; they also provide an array of services and knowledge products to support, inspire and encourage users. This raises questions about how best to develop products and packages that help users progress on the adaptation journey and links to the ongoing challenge of how to meet the needs of a diverse and growing array of users with different capabilities and evolving decision contexts.

Participants (see [Appendix 2](#))

Over 40 participants working on adaptation platforms in 18 countries (Australia, Canada, Europe, Finland, Germany, Greece, India, Ireland, Netherlands, Northern Ireland, Philippines, Scotland, South Africa, Slovenia, Spain, Sweden, Taiwan, UK) joined the discussions together with members of the Climate

Knowledge Brokers group, the Copernicus Climate Change Service and the National Adaptation Plan Global Network.

Breakout discussions

Two breakout sessions enabled discussions in three groups, each focused on a specific level where adaptation actions are needed:

1. National government/national adaptation planning
2. Local government/local adaptation planning
3. Citizens/community level adaptation

Session 1: What do we need to know about users and providers to better communicate and broker knowledge effectively? Specifically, what do we need to know about their knowledge and technical capacities, decision context, perceptions, culture and values to help them move from knowledge to action?

Summaries from these discussions are given as Mapped Outcomes created on-line using Miro (Appendix 3).

Session 2: How have/should this knowledge inform how we go about knowledge brokering? Specifically, what do platforms provide and why? How were these designed to meet user needs and why were they developed this way? How do we work with providers and connect information provision and information needs? How can we do this better?

These discussions are summarised below. More details by country are given in [Appendix 4](#) and the linkages and differences between national, local and community level aspects will be further developed as we expand the KE4CAP Synthesis report (first full draft based on survey available [here](#)).

1. Key messages - national government/national adaptation planning

- Role of CAPs and the private sector: in many countries the private sector hosts a significant amount of data. This presents CAPs with challenges, including: how to persuade the private sector to make data available, how to better understand the role of the private sector in translating information and data, and how to balance public good and private commercial goals (where the provision of data for revenue is linked to private business models).
- Understanding what people value in their daily lives can help platforms identify what hooks they can use to engage effectively with users, for example new policies or standards they need to align with (e.g. Climate-related Financial Disclosures, ISO1490) or how climate change affects their (and their constituents') daily lives. These can be used to develop relevant indicators that appeal directly to the daily lives of people (e.g. eroding cliffs, food availability, etc.)
- Platforms are using web statistics (analytics) to identify changing use patterns and are using these and use-case studies to understand evolving user needs and to guide future platform developments.
- The challenges around effective communication and knowledge brokering highlight an increasing role for working with behavioral sciences for improving communications (c.f. the success, or otherwise, of campaigns to influence public behavior for smoking and COVID)
- In general, there are four possible approaches that are used by CAPs to stimulate action (balancing 'push' (data/knowledge provision) versus 'pull' (user demand)):
 - Require people to take action,
 - Encourage people to take action (by explaining options and solutions),
 - Explain what is happening and hope greater understanding leads to action,
 - Accommodate existing cases where there is energy and initiative and promote this work (empowering champions).

2. Key messages - local government/local adaptation planning

- It is recognized that successful platforms need a variety of skills and capabilities to address the wide range of information provision and capacity-building tasks needed by users. CAPs are increasingly taking a holistic approach to achieving this, i.e. moving beyond just a digital website to working with and within local communities to support them in using the information.
- Platforms are also engaging increasingly effectively with the various producers of information and data. Thus, many CAPs are acting as multi-actor platforms bringing multiple producers together to address identified user needs.
- Many platforms are now moving from a risk-based approach to a more outcomes-based approach by changing the overall narrative towards framing likely impacts and options in ways that reflect local interests e.g. changes to health and well-being, access to the environment etc.
- Platforms are starting to develop tools that allow users, to some extent, to adjust parameters within datasets (e.g. thresholds, heatwave indicators) to meet their own specific requirements. This allows users to better understand the data and its implications, and CAPs to better understand what users want from platforms and how does in vary across users.
- Platforms also have an increasing role in providing authoritative information, e.g. the full range of information rather than just one scenario. This also links to providing authoritative guidance on what should be done in certain circumstances e.g. when local authorities work with consultants, how best to ensure the consultants understand relevant standards and data sets to provide robust outputs.

3. Key messages – citizens/community level adaptation

- Platforms are often funded by organisations who are not the end users and / or are from outside the locale. When designing the platform, CAPs need to be clear on the audience and how this is changing/expanding with time.
- The evolution of platforms is interesting as whilst many platforms have moved from information provision to be more focused on capacity building, others have expanded their focus to take account of the whole value chain. The initial platform design is often influenced by funders, with users then having an increasing role as the platform develops but it was noted that there are good examples of early co-design in many countries.
- Feedback was identified as a key aspect in informing how CAPs can do things better (become as relevant as possible at community level). A number of tools are being developed which specifically include feedback loops to help gather and feed information back from the community level to national and international providers. Also need to consider how better to feed back the learning experience to help drive transformation by showing good examples of successful action on the ground.
- Within the decision-making context, in some geographical areas platforms are driven by government mandate, but in others which are more susceptible to climate impacts (frequently or magnitude) they can be driven by incidence and the level of vulnerability.
- Community and citizen-level users is a very large and diverse group. On-going internal evaluation of users by CAPs can help identify those with similar capacities and requirements which allows more tailored information to be generated and shared efficiently.
- On how to do this better, the feedback loop is crucial. CAPs need to get information back from users to better understand their context, drivers and ability to access information, which enables CAPs to adjust their offering accordingly. As such it is essential that the pathways for feedback are both in place and easy to use.

Summary and looking forward

The final plenary discussion considered the question “what can we do better?” - in terms of knowledge brokering for moving from knowledge to action. Key messages raised include:

- Peer-peer learning to accelerate adaptation is valuable, e.g., government and private sector representatives working together, south-south sharing, enabling technical support to continue on-going progress (see the [KE4CAP VKE4 webpage](#) for a related presentation by the NAP Global Network).
- Regarding working with data providers, it is important to understand what we as technical specialists and ‘brokers’ of various data can do with a cohort of information, to make it more useful and useable for users – what are the IP issues, how can it be used (funding obligations) before we tailor the information into a more bespoke product. Related to this, we need to understand what freedom (including permission) we have to operate with raw material/data which has often been collected previously and subject to different terms and conditions, funding arrangements etc.
- Platforms can learn and should feel comfortable from sharing information on what didn’t work or didn’t work as well as was expected. This would be very valuable to all. The KE4CAP team will explore how to support this, building on the existing KE4CAP survey responses and inspiration provided by others (e.g. KNMI).
- The UK is hosting the 26th UN Climate Change Conference of the Parties in Glasgow in 2021 and national reporting and the Global Stock-take will feature in these discussions. This is an opportunity to highlight the role of platforms in supporting and (from previous discussion) recording adaptation efforts. Now is a good time to think about how this information will filter down through countries to locals on the ground, and what messaging is needed to identify and use international and strategic hooks to drive the adaptation agenda at different levels.
- Climate finance and adaptation finance is one area that hasn’t been explored in detail yet within the KE4CAP community and it would be good to think about ways to share learning and collectively progress this agenda.
- Platforms are increasingly exploring/seeing the need for engagement with the private sector. Policies such as the need for climate-related financial disclosures are creating new ‘markets’ for climate change information. The upshot of this is that consultancy firms are increasingly taking information and knowledge from CAPs and translating them for the financial sector and other businesses. This raises the issue of how the data we provide is used by third parties, and whether CAPs need to take steps to ensure the data and knowledge that platform provides is not taken out of context (which risks maladaptation). It was highlighted that this use of CAPs by consultants also creates a disconnect which can make it harder to track the ultimate use and value of the data. This topic - engaging with the private sector – is one that the KE4CAP team will definitely consider for a future VKE.

Supported by:



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Appendix 1. Agenda

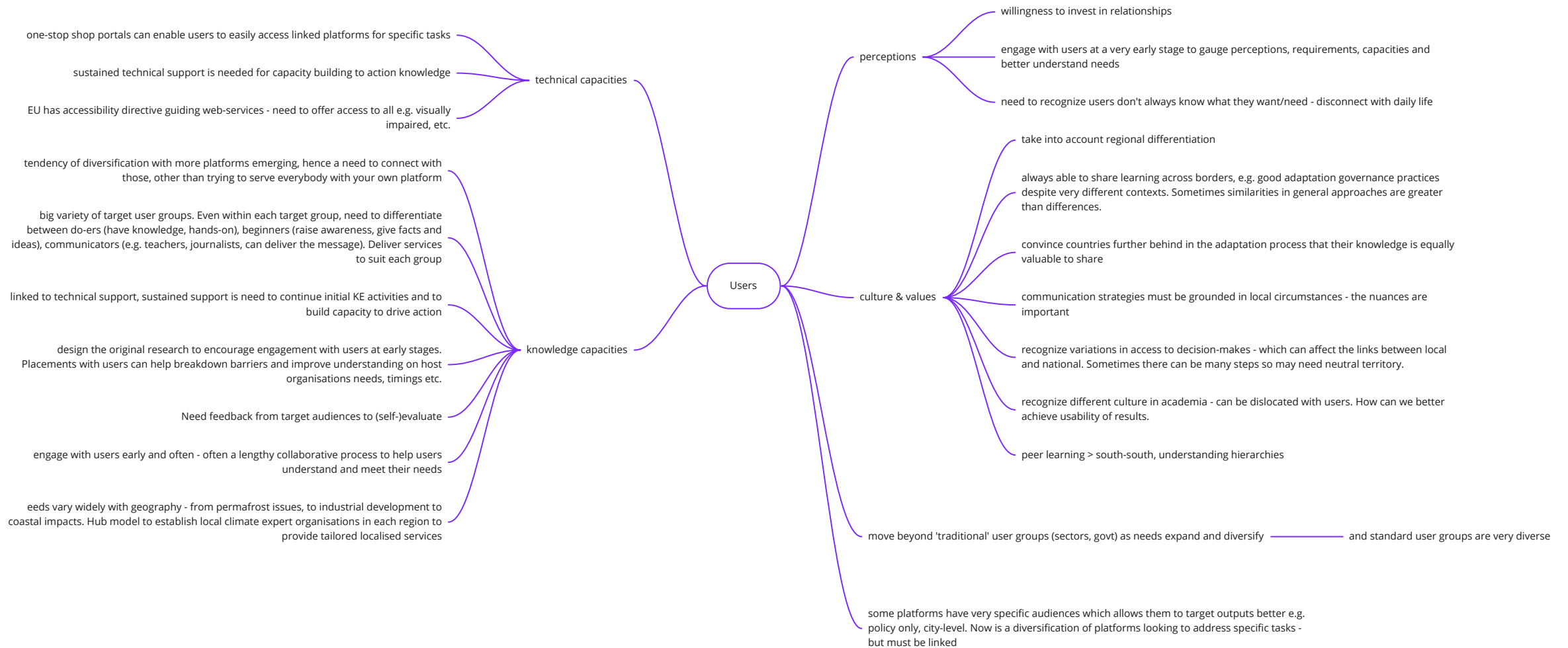
Chair: Julia Barrott, SEI Oxford

11.30 (CET)	Welcome and introduction
11.35	The importance of communication and knowledge brokering; showcasing examples
	Breakout discussion 1: what do we need to know about users and providers to communicate and broker knowledge effectively? Specifically, what do we need to know about their knowledge and technical capacities, decision context, perceptions, culture and values to help them move from knowledge to action?
11.45	Three breakout groups: <ol style="list-style-type: none">2. National government/national adaptation planning3. Local government/local adaptation planning4. Citizens/community level adaptation
12.25	Plenary discussion
	Breakout discussion 2: how have/should this knowledge inform how we go about knowledge brokering?
12.40	<ul style="list-style-type: none">• What do platforms provide and why? How were these designed to meet user needs and why were they developed this way?• How do we work with providers and connect information provision and information needs?• How can we do this better?
13.30	Plenary discussion
13.55	Next Steps. VKE5 (March 2021: 'The role of CAPs in monitoring, reporting and evaluating progress'); on-going work on survey responses.
14.00	Close

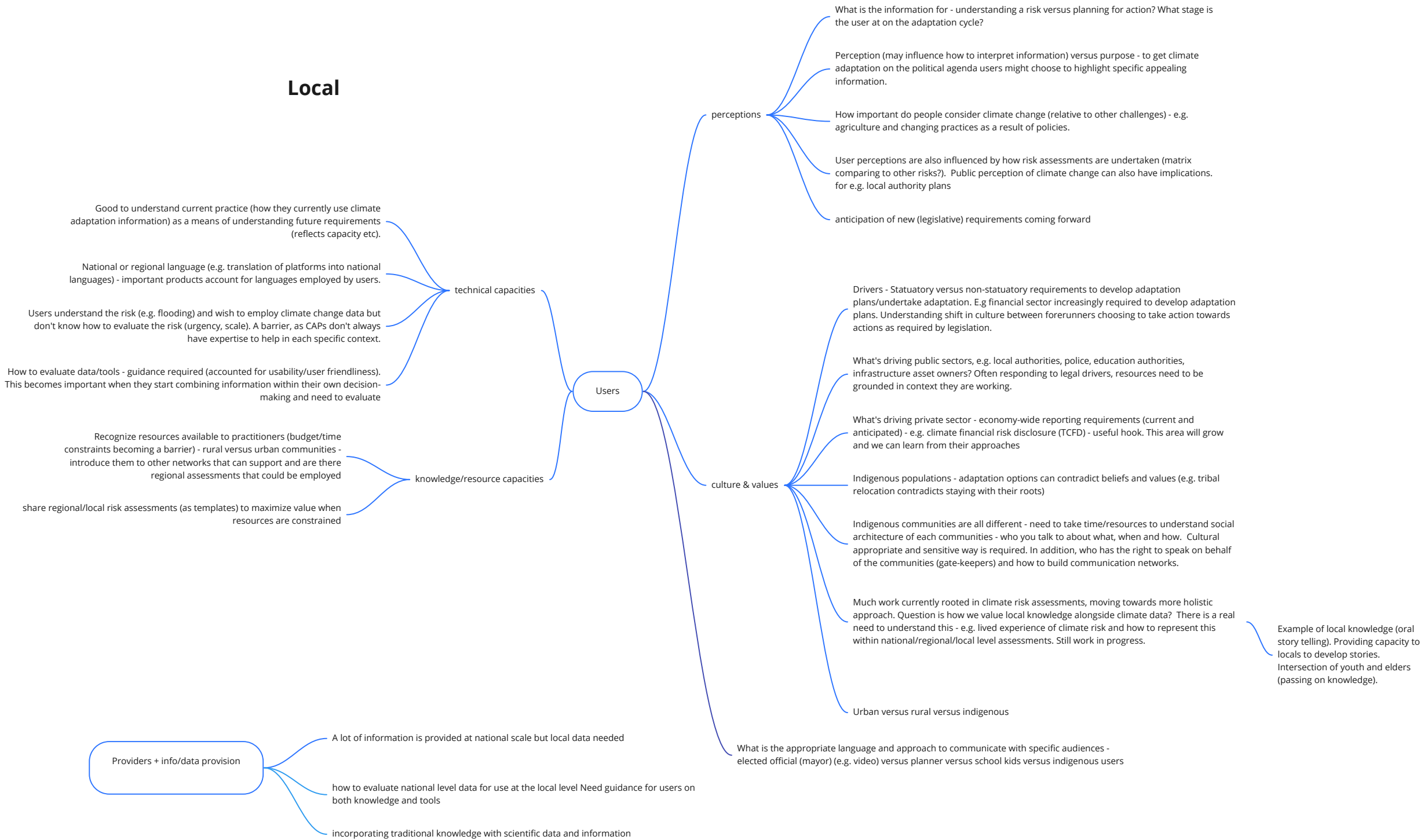
Appendix 2. Participants

Julia	Barrott	UK	https://www.weadapt.org/
Janette	Bessembinder	KNMI Netherlands	https://www.knmi.nl/home
Anna	Beswick	Scotland	https://www.adaptationscotland.org.uk/
Eva	Boon	Netherlands	https://klimaatadaptatienederland.nl/
Samantha	Burgess	Copernicus	https://climate.copernicus.eu/
Tanja	Cegnar	Slovenia	
Joyce	Chang	Taiwan	https://tccip.ncdr.nat.gov.tw/index_eng.aspx
Kayleigh	Chaston-Vickers	Canada	https://www.canada.ca/en/environment-climate-change/services/climate-change/canadian-centre-climate-services.html
Lo	Cheng	Canada	https://climatedata.ca
Valerie	Cote	Canada	https://climatedata.ca
Laura	Dalitz	Germany	https://www.klivoportal.de/
Anindya	Das	India	https://climatefinanceknowledge.nabard.org/
Jeremy	Gault	Ireland	http://www.climateireland.ie
Valentina	Giannini	Europe	https://climate-adapt.eea.europa.eu/
Geoff	Gooley	Australia	https://www.climatechangeinaustralia.gov.au/en/
Ingrid	Gudmundsson	Sweden	http://www.klimatanpassning.se/en
Catherine	Hartigan-Go	Philippines	platform in development
Vicky	Hayman	KE4CAP	
Stephen	Jones	Northern Ireland	https://www.climateinorthernireland.org.uk/ni-adaptation-programme
Dimitra	Konsta	Greece	https://www.adaptivegreece.gr/en-us/
Ana	Lancho Lucini	Spain	https://www.adaptecca.es/en
Christian	Ledwell	IISD	National Adaptation Planning Global Network
Cheng-Ting	Lin	Taiwan	https://tccip.ncdr.nat.gov.tw
Kate	Lonsdale	UK	www.ukclimateresilience.org
Sanna	Luhta	Finland	https://ilmasto-opas.fi/en/
Tsepang	Makholela	South Africa	https://ccis.environment.gov.za/
Kati	Mattern	Climate-ADAPT	https://climate-adapt.eea.europa.eu/
Lindsay	Matthews	Canada	See above
Silvia	Medri	Climate-ADAPT	https://climate-adapt.eea.europa.eu/
Frank	Mischler	GIZ/SPIPA	
Tsheamo	Mogale	South Africa	https://ccis.environment.gov.za/
Barry	O'Dwyer	Ireland	http://www.climateireland.ie
Kim	Olsen	Canada	See above
Denise	Recheis	CKB	Climate Knowledge Brokers
Bernadette	Roxas	Philippines	platform in development
Monica	Sanchez	Spain	https://www.adaptecca.es/en
Per Emil	Stenholm	Sweden	http://www.klimatanpassning.se/
Anna	Stolk	Netherlands	https://klimaatadaptatienederland.nl/
Roger	Street	KE4CAP	
Kim	van Nieuwaal	Netherlands	https://ruimtelijkeadaptatie.nl/
Stijn	Vermoote	Copernicus	https://climate.copernicus.eu/

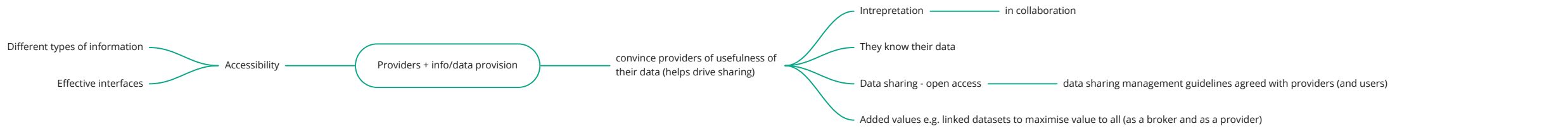
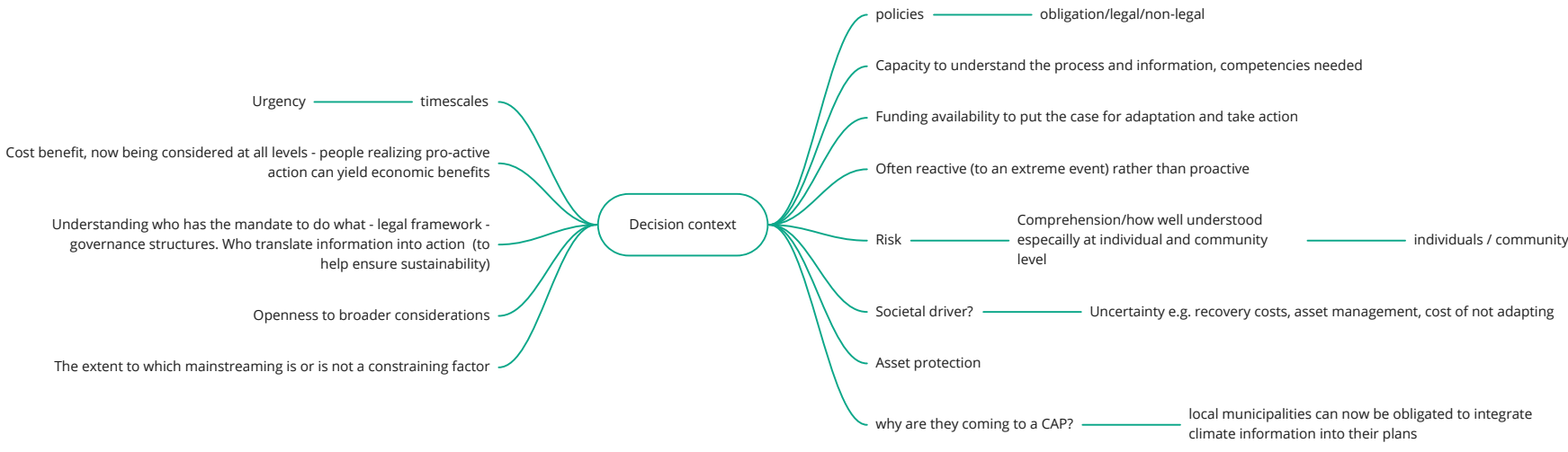
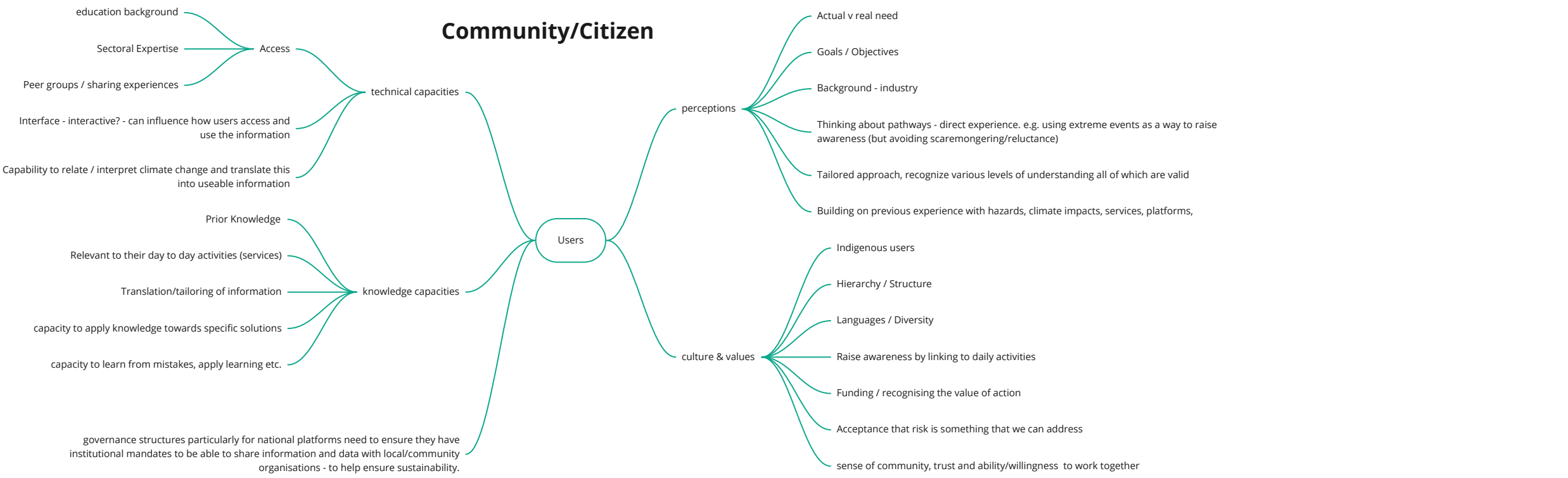
National



Local



Community/Citizen



Appendix 4. Breakout Session 2

- How have/should this knowledge inform how we go about knowledge brokering?
- What do platforms provide and why?
- How were these designed to meet user needs and why were they developed this way?
- How do we work with providers and connect information provision and information needs?
- How can we do this better?

1. National

Copernicus Climate Change Service (C3S)

Engaging with users is v complicated and no 'one size fits all'. C3S has 65,000 users from around the world – with widely varying levels and areas of interest. Many need a global perspective, others require high resolution data. C3S has a large user support network, maintains a user database, and reports quarterly on on-going plans to meet emerging user requirements.

On communications: span the range of users, from climate monitoring communicated regularly via social media for the public, to advanced technical information for researchers.

On knowledge brokering: have developed sectoral information systems that engage with professional representative bodies in each sector to co-create products and information. Also work with consultancies etc. who also add value for commercial gain, but there is a disconnect here which can make it harder to track the ultimate use and value of the data.

On knowledge stewardship: investing in capacity building globally to ensure there is no limitation to accessing information, many tools and applications available (inc. source code) and feedback is always invited.

C3S data is available for free to all, including private users. Co-creation and co-design with the private sector continue to be important. C3S data provides a trusted source of publicly-funded data for all consultancies etc. to use (and profit from) ensuring customers can be certain the baseline data is reliable and of high-quality.

COVID has allowed more general engagement via virtual meetings which helps to share the message, but has made it more difficult to really dig deep to understand and resolve individual issues.

NAP Global Network

Engaging the private sector in national climate adaptation plans is difficult if they are perceived as only government led and policy driven. Make sure the private sector is in the room in peer-learning activities and engaged in the process at an early stage. Identify champions and talk about values in private sector terms where possible. Action by the private sector is usually required to help meet adaptation targets, so must be involved in implementation. Also need to incentivize them to share data and information despite their 'for profit' mandate.

Indigenous engagement – translate information into appropriate local languages especially when initiating engagement.

CAPs can:

- document and share best practice
- identify and document (national) policy misalignments e.g. property not built on flood plains v insurers paying out after a flood event.

- Play a role in accommodating and sharing existing initiatives.

UK

Understand what people care about and the context before even starting to explain the implications of climate change etc.

Seek hooks e.g. TCFD, ISO standards, to help people understand different climate impacts on issues they care about (eroding footpaths and cliffs, sporting events, food availability etc). ISO1490 is a new adaptation standard so find organisations that are using it and help tell and share the story. Adaptation does not have a strong framework in the UK so it is difficult to understand the vision and pathways and therefore communicate risks and solutions.

A greater need for CAPs to help here by, for example:

- Identify and make available indicators at the appropriate level and connected to real life (no. days train tracks buckling, time taken for ambulances to respond during flooding)
- Case studies and examples of action
- Work with youth drama companies, history societies etc. - telling stories.
- Use hooks to connect to private sector in terms of staff, reputation risks, management procedures, ISO standards, TCFD – showcase good practice.

Climate-ADAPT

To help understand users and their requirements, Climate-ADAPT has used web stats to identify common use patterns and how these are changing with time. Have then gathered use studies from longer-term users to showcase their evolving approach to using the CAP and have built on the information to further improve the information available.

Sweden

Value web stats as a tool to track changing and maturing user requirements (as users move from requiring information on impacts to those wanting tools and data).

Avoid the 'Doomsday' perspective – trying to turn this round by highlighting solutions and opportunities as a messaging tool to give hope.

The CAP is a portal to other sources of information. They work very closely with the service providers to feed in the needs of the adaptation sector as the providers develop data and information. Help identifying gaps and work with service providers on new products.

Finland

Communicating the big picture – move beyond threats (heatwaves, flooding) to identify benefits to explain why adaptation measures should be adopted. Incentivize action. But is there a limit to the overall effect this approach can have? Is there a point at which this is not sustainable and effective anymore and needs to be replaced with requirements for action to meet targets etc. How to measure the success of this approach?

Learning from COVID: can we better make the economic case for taking early action.

Canada

Need to strike a balance between persuading people to act but also ensuring they understand the urgency to act. People are already experiencing the impacts of climate change – so CAPs can tell the stories in a

relatable manner and then steer people on a path to informed decision-making. Need to speak to the opportunities within adaptation but ensure that you are not undermining the seriousness of the situation. Careful packaging of the story to relate to particular stories.

Strong acknowledgement that platforms could work more with the behavioral sciences. This is work in progress.

2. Local

Scotland

CAPs can inspire users. Adaptation Scotland use climate information to illustrate both an adapted and unadapted future for Scotland which acts as both inspiration and translate data into something accessible to people (Climate Ready Places). An important resource which is still extant 5 years after launch. Powerful communication tool. Part of a package of resources which deliberately move away from 'risk focused' approach to adaptation more towards an 'outcomes' focus – how can adapting to climate change help make progress against wider societal challenges. Also have a co-created Adaptation Capability Framework tool to help larger organisations reach a more positive future. Aiming to balance motivation and hope with an understanding of the seriousness of the situation.

Recognize different countries and cultures may have different approaches (UK/Scotland tend to like processes etc.)

Community engagement e.g. working in islands of Outer Hebrides bring Met Office, Adaptation Scotland and communities to develop new story lines for climate trends which they hope will drive community understanding and action.

Climate Ireland

Have also worked at the nexus between scientists and communities to develop local narratives. One area they failed on was the actual communication of the outcomes - still provided graphs, talked about thresholds etc. which were not particularly useful for the community.

Working with providers to translate raw data from climate models into robust and consistent information and visualizations useful for e.g. local authorities. But haven't yet gone further to looking at ensembles of climate data, smaller time steps etc.

Sweden

How to move from knowledge and information to adaptation action – key tool is how to illustrate possible options and consequences. The Dutch CAP is particular good with Climate Atlas showing local heatwaves, flooding; the Climate Damage Atlas which illustrates how much non-adaptation can cost at the local level (great for decision-makers); Climate Proof City Toolbox where you can individually assess different future scenarios at the local level (planting trees, adding drainage).

KNMI & Netherlands

Combined information from all different sectors and knowledge institutes and combined in the Dutch Climate Impacts Atlas. KNMI provided past and future climate information; other groups added to that. All tools developed in discussion with users. CAP provides an important collaborative space to bring together the multiple providers to produce useful information.

Also developed story maps to explain the information available in the tools – e.g. what information is available, how can I use it, can it be used to guide action? Really helpful for municipalities.

Canada

Aim to get the users engaged early to drive co-operative development. First sector available is Health – developed a tool which allows people to input their own definition of e.g. heatwaves, thresholds, when looking to future events. To a certain extent, users can customize the indicators to meet their own needs. Users are not scientists but know what they are looking for e.g. number of days above 30oC. Looking to balance making data available and ensuring it is used appropriately. Will study use of this first tool to better understand what users require in their day job and help inform development of future tools.

Climate Ireland

Currently developing a Social Vulnerability tool which will allow a degree of weighting by the user.

Strong focus on capacity building aspects – working directly with users to understand how they may use a product in their work environment. CAPs brokering user needs.

Example of measuring and articulating impact:

Scotland

The Adaptation Capability Framework helping organisation develop a holistic approach to adaptation includes a benchmarking tool. Now in second year of using the tool so have a project in place to track how capabilities develop over time so can better understand the impact towards tangible progress.

Canada

Support desk includes feedback via a simple satisfaction rating.

Taiwan

Information from feedback surveys after events etc. help inform future events but is also reflected in the home page in terms of prominent icons directing to most useful data, tools etc.

Sweden

How do platforms speak with different voices given the range of information providers? Data and information may not always be standardized and this can affect usability by different groups and their motivation to respond.

KNMI

There is a limit to how much Met Offices/CAPs can control once users have taken the data and information and used it for their own purposes (e.g. consultancies). There is a risk that it can be taken out of context and give false impressions of climate change. How can CAPs help address or avoid this risk?

Scotland

Have guidance targeted at project managers of infrastructure projects which includes a section on information they should consider if they have to commission consultancies to undertake work. Particularly with the growth in private sector, the use of consultancies to carry out the required analytics etc. is likely to increase. This market will increase, but can CAPs provide high-level recommendations for people commissioners these services about the standards they should be looking for when they procure these services.

Australia/Pacific

What we provide and why we provide them the way that we do is determined ultimately by who pays. This relates in a transactional way when working with the private sector but also when working at the public good/private gain nexus especially as platforms shift towards a more outcome focus. Who is paying will determine both the process and final products.

Also true in the Pacific, where the private sector is increasingly being engaged to offset the existing majority public funding for climate knowledge platforms – towards a reasonable and appropriate sharing of costs (lot of impacts are driven by industry).

Interesting discussion going on as to how we navigate through this process, what are the guiding principles and business rules around how any one project is put together, who pays for it and therefore what the design process looks like and what measurable outcomes can be achieved.

Learnt the hard way that the digital delivery of climate information via portals and platforms has not provided the outcomes that we had hoped for. Even the best platforms only offer a part-solution towards meaningful tangible action on the ground. So, platforms have to offer a combination of both digital aspects and domain capability (face-to-face engagement with specialists – scientists, knowledge brokers etc.) In designing platforms, need to ensure all the above skills are available as part of a multi-faceted offering through the platforms – has provided best results in both Australia and the Pacific.

3. Community/citizens

Climate Ireland

All services tailored to one particular audience – local authorities (that have a statutory requirement to develop and implement adaptation strategies). Help build capacity and provide (online) training. User needs have been developed over the years with local governments and has now been integrated with training to help them use the information.

Northern Ireland

Northern Ireland doesn't have any specific adaptation legislation yet so the majority of work within NI local authorities is voluntary. So NIAdapt is working out how best to make use of limited resources both with the platform and in local authorities. Have developed a dual approach – a website to introduce users to the adaptation cycle and provide overviews of climate data etc., and then capacity building work to take local authorities through the process.

Work with data providers (Met. Office). Still working on first adaptation plans, so generally using headline climate data but will develop this as users become more mature. Bringing people from a very basic level of understanding so the platform is there to provide information and to allow LAs to start the process, to begin to understand the relevance to different local government departments and to build capacity within users. Can act as a signpost to other data and information sources e.g. C3S.

Philippines

Still working on building platforms. Dual audience, so two platforms – one to help local government units who are required to do climate change expenditure tagging. The tool is being developed to both help users and also to promote uniformity in response. The other platform, 'project upturn', is looking to provide a database of possible adaptation responses to climate impacts to a much wider audience.

The platform is privately funded by an NGO so don't have a government mandate as many CAPs do. Was established as the Philippines are very vulnerable to climate change and there was a lack of scientific and other information on which to base adaptation strategies. Don't know yet exactly how the platform will develop as not responding to a specific statutory driver, more a societal need.

Canada

Canada is very large, so needs to find ways to segment users and relies on a number of CAP. CAPs aim to provide national leadership and coordination and national scale information, but at the local scale, collaborative work has been key.

Mandate is not particularly tailored to a specific audience, but it became clear early on that local municipalities and communities need the most support. So decided to partner with a network of regional organisations across the country to help tailor information and services for local support. Have a support desk for one-on-one help. Have a continuum of portals: climatedata.co to disseminate data and information; partner with The Prairie Climate Centre to develop the Climate Atlas of Canada for more introductory information using interactive storytelling etc.; and also partner with OURANOS to develop a platform geared towards researchers and expert users. Also, co-developing community profiles to build climate profiles to highlight trends, impacts etc. Working with the Federation of Canadian Municipalities (>2,000 local governments) to co-develop products for their use. Also need to build capacity so users understand limitations in the use of data.

Also segmenting Canada sectorally starting with the Health sector. Working with professional organisations in each sector to build on surveys, focus groups etc. to really understand what municipalities need. Co-developing services.

Considering feedback from users by keeping a database of questions being asked (from service request desks, from outreach sessions and from surveys etc.). Continually analyze these data to identify key themes and needs which can subsequently be prioritized.

Taiwan

Provide a general climate data service (free to all to download) but also categorize users internally. For those needing higher resolution data etc. users need to contact the CAP to talk through their requirements and explain how they want to use the data. Helps avoid mis-use of information and helps the CAP really understand what users need. Can also lead to co-development of products to suit new requirements – so continual improvements.

Spain

Adaptecca was developed as part of the Spanish National Adaptation Plan (NAP). The NAP includes local and community initiatives and users, and the platform aims to develop and share products and services for all levels of users. Key challenge is making information consistent across scales.

Have created working groups for governance of specific tools – they include technology developers, responsible government groups, data providers and the platform secretariat. There is a clear pathway to communicate with users which also provides direct opportunities for feedback. This approach to governance has helped facilitate a coordinated response mechanism allowing for future directed improvements.

South Africa

First phase of platform was focused on providing data and information from providers – a system of systems. Then started training users which also helped better understand if the information was relevant and useable, and how it could be improved. During this stage, looking to focus on issues of public good (as opposed to financial gain). Now need to engage with sectoral and other experts to co-develop products and services but this is difficult as no funding is available for them. So working with government departments to identify appropriate funding to take this forward.

Learning: need to move beyond just considering data and information to considering the whole value chain including the infrastructure that is required for interpretation and analysis.

Plan is to have data sharing principles and guidelines in place with data providers and sectoral experts and then see how best we can meet the needs of users. By working with sectoral experts, hopefully they can also act as platform champions.

Greece

Still very early in the process; currently working with a company to develop the structure of the platform. Looking to identify appropriate approaches for gathering user needs including meeting both beginner and advanced user needs.

India

Platform was developed specifically for two separate categories of users: NGOs and community-based organisations, and financial institutions. An early 'needs' assessment showed that the capacity of the two users is very different, so the platform is built to take this into account – e-learning and capacity building products are included. Given the sectoral focus, they then categorized information by content type e.g funding opportunities, examples of best practice, interventions used by other (finance) organisations. Motivate peer-learning using an online, moderated discussion forum to create an interface between and across users. This also gives insight into evolving user needs.

Copernicus

A data provider. C3S is a European and global programme but all data and products do need to feed down to communities and citizens. Doing this by working with intermediaries as part of a data value chain which includes national member states, private entities etc. All have access to the data, which provides a reference on which people can build their own products as required. Also starting to provide information more broadly to citizens via news outlets, apps, social media etc. Working with international and national players (inc. CAPs) as to how best to collaborate to make value-added services and products useful at the local level. Knowledge exchange and transfer are key, but also need to be v clear on appropriate use and limitations.