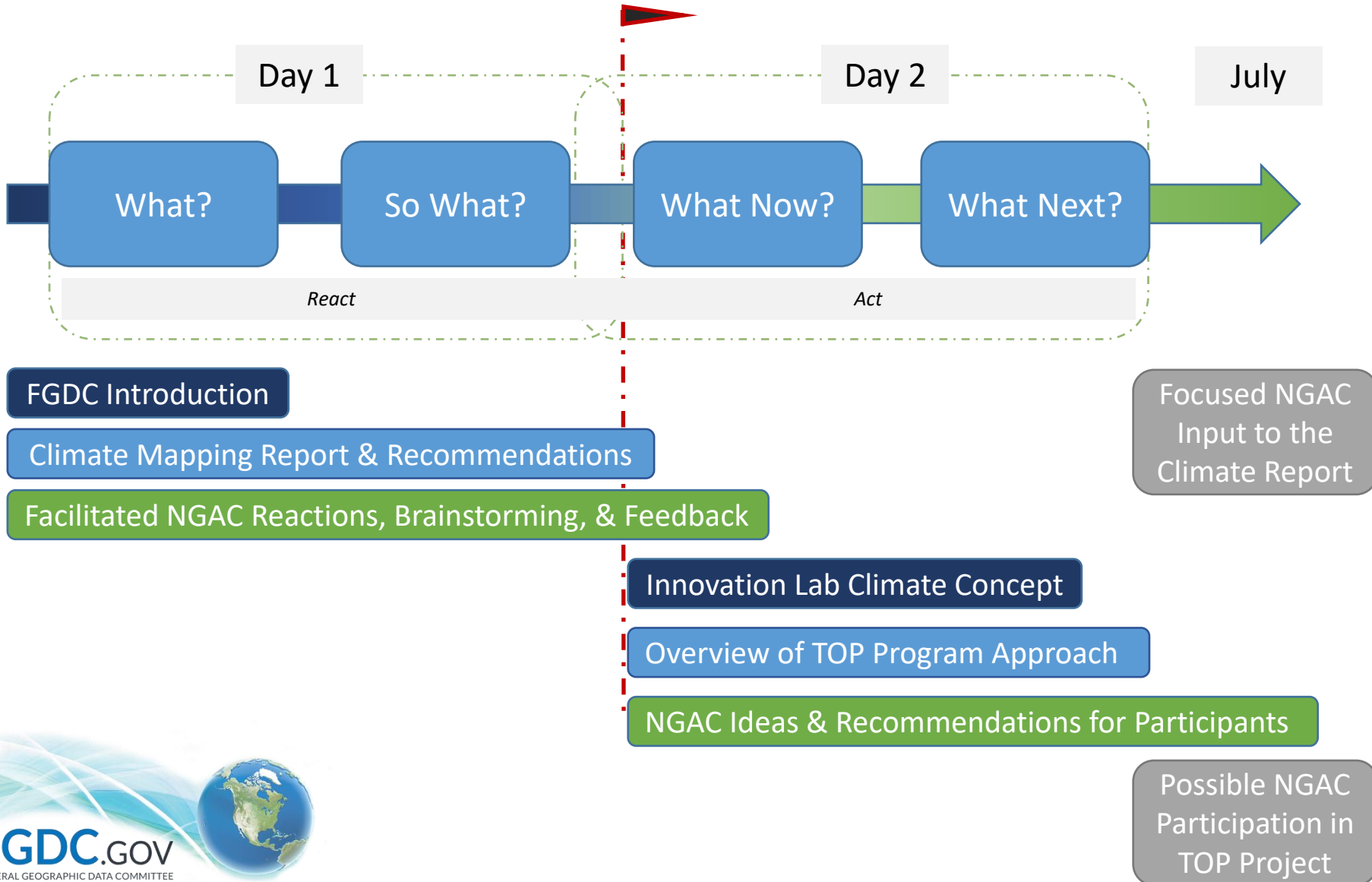


FGDC Climate Mapping Session Summary of NGAC Feedback



NGAC Meeting
June 29-30, 2021

Our Journey to Support the Climate Report



Themes from Day 1

Aggressive but still workable timetable – Interagency working group is drafting this report within existing FGDC review/approval processes in coordination with other related administration initiatives

General Feedback from NGAC Members Based on our Day 1 Discussion

Find Data

- **Findable vs. Approachable Data Regimes** - Decision makers will include nontechnical users without climate data experience. Consideration should be paid to how best to make any collaborative mapping service relevant and relatable to these end user communities.
- **A clearinghouse** for not just federal data but also State, Tribal and local plans, models and maps could increase findability and also contribute to greater usability.

Use Data

- Needs to be **analysis ready** and, as such, consideration should be given to the **role of data curation** and perhaps domain specific **data management plans** can have in making climate data more easily usable.
- **Data Authoritativeness vs. Data Pedigree:** If data authoritativeness is too high a bar, an alternative option is to share more descriptively (metadata) where the data came from and its fitness for use.
- **Federal vs. Federated Mapping Service** - All data is local - Federal climate data can be too coarse or inconsistently maintained, and scattered amongst varied Departments/Agencies. A global → local data paradigm is needed if supported by the science. The report recommendations may need to consider a 'bi directional' approach for how state/local/tribal data can come back into the ecosystem of any collaborative mapping service that is developed.

Themes from Day 1, Continued

Machine Ready

- **Training Data** will be a key component for making any climate data machine ready for AI/ML applications. What role (if any) will the collaborative mapping service play in the creation storage and consumption of well labeled training data sets.
- **Standards for AI , ML & Data Labeling** will need to be created and applied.
- **Machine Ready vs Human Usable** – in striving to make climate data machine usable we must not overlook or trade off the human usability aspects of a collaborative mapping service. Balancing the two to service technical and non-technical audiences will be key.
- **Analysis Ready Data and Decision Ready Information** – workflows (or recipes) to process climate related information into ARD and DRI to minimize complexity for the decision maker. How these processing workflows can be managed as part of Climate Services to benefit different communities at the State, Tribal and local levels.

Sharing Knowledge

- **What role should State Climate Task Forces (and similar orgs) play** in the use of a Federal Collaborative Mapping Service? Should this be discussed within the draft report?
- **Open Data Licenses** should be maximized to the greatest extent possible to promote sharing and reuse
- **Open shareable ‘cookbooks’ for applied models, science and best practices** - in addition to open data ‘ingredients’
- **Domain Centric Perspective vs Data Centric Perspective** – ensure any collaborative mapping service has the capability of aligning or tagging data/models to how they help solve/address specific climate domain problems. Shared use cases that showcase how a set of data/models were applied to address a climate issue will be key.

Equitability

- Knowing that aspects of climate change impacts many disproportionately, how might any collaborative mapping service be built and configured in such a way as to be a resource for this critical administration priority as well?

Themes from Day 2

The Opportunity Project (TOP)

- Brings together technologists, government, and communities to co-create digital tools with open data.
- Operates in three-month sprint cycles. Almost all TOP projects have involved geospatial, maps, and/or location in some way
- Engaged over 25 federal agencies, 1,300 stakeholders from outside of government, 15 universities, and over 300 datasets.
- Federal Agencies and NGOs develop problem statements on a wide range of topics.
- To address these challenges, sprint participants are identified representing diverse roles and expertise.
- Roles include tech teams, user advocates, data stewards, and product advisors.
- Federal Depts/Agencies may collaborate with TOP by working with TOP in a sprint or collaborating on TOP 2021 grand challenge. There is also an open-source playbook available.
- All results are intended to be sustainable independent of government

NOAA / FGDC Sponsored TOP Project Challenge Initiative

- Climate-driven impacts cause cascading problems in our built environments and networked, independent economy.
- Poor, underserved, disadvantaged, & communities of color are the most vulnerable populations.
- Practitioners and local decision makers want climate change data and tools that are tailored for their purposes.
- NOAA and FGDC TOP sprint challenge goals include creating tools to help local governments efficiently identify and select Federal Agencies' data that are relevant to their resilience planning efforts.
- Aim to create tools that enable underserved, poorly funded communities to stand up their own locally customized resources for resilience planning purposes.
- Is strongly considering avenues to attach prize money to be incorporated and awarded to the challenge winner(s)

Themes from Day 2, Continued

NGAC Discussion & Feedback on TOP & NOAA / FGDC Sponsored Initiative

- Possible opportunities for NGAC members and/or the sectors they represent to participate in TOP as a:
 - Tech Teams
 - Product Advisors
 - Judge Committee
- Numerous NGAC members signaled their interest in being involved with this effort to help meet the desired TOP challenge goals.
- The chance to develop concrete solutions is valuable and appears to be a results-oriented way to engage stakeholders in an incremental and targeted way.
- Advised all involved to consider using/adopting open standards upfront and not as an afterthought following implementation.
- Encourage sponsors to sure that any resulting apps/tools are not only successful but sustainable and maintainable into the future.
- Eagerly waiting to learn more about next steps and to get regular updates on progress/results.