

Disaster Pilot 2021 Call for Participation

Prospective Respondents Webinar

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May 2021

The world's leading and comprehensive
community of experts making location information:



Findable



Accessible



Interoperable



Reusable



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What is OGC?

A Hub for thought leadership, innovation, and standards for all things related to location



Our Vision

Building the future of location with community and technology for the good of society



Our Mission

Make location information Findable, Accessible, Interoperable, and Reusable (FAIR)



Our Approach:

A proven collaborative and agile process combining consensus-based standards, innovation projects, and partnership building



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- Pilot sponsors:
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 - NRCan
 - NASA
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 - CONIDA – Peruvian National Commission for Aerospace Research and Development



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Disaster Pilot 2021 Overview

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- What is an OGC Pilot?
- Critical Challenges in sharing information during disasters
- Pilot Objectives
- Scenario Focus
- Pilot design
- Pilot deliverables
- Pilot schedule
- How to respond
- Q&A



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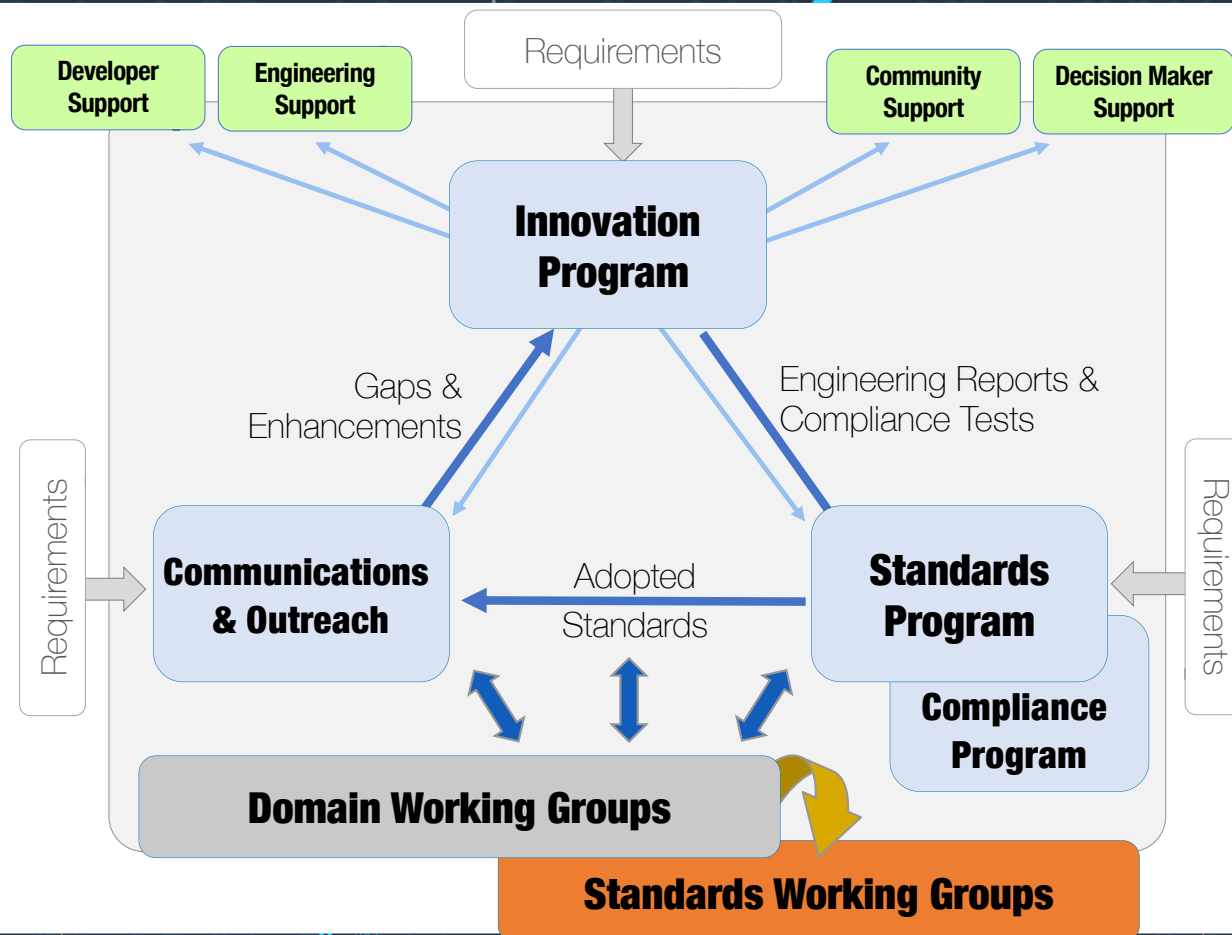
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What is the Innovation Program

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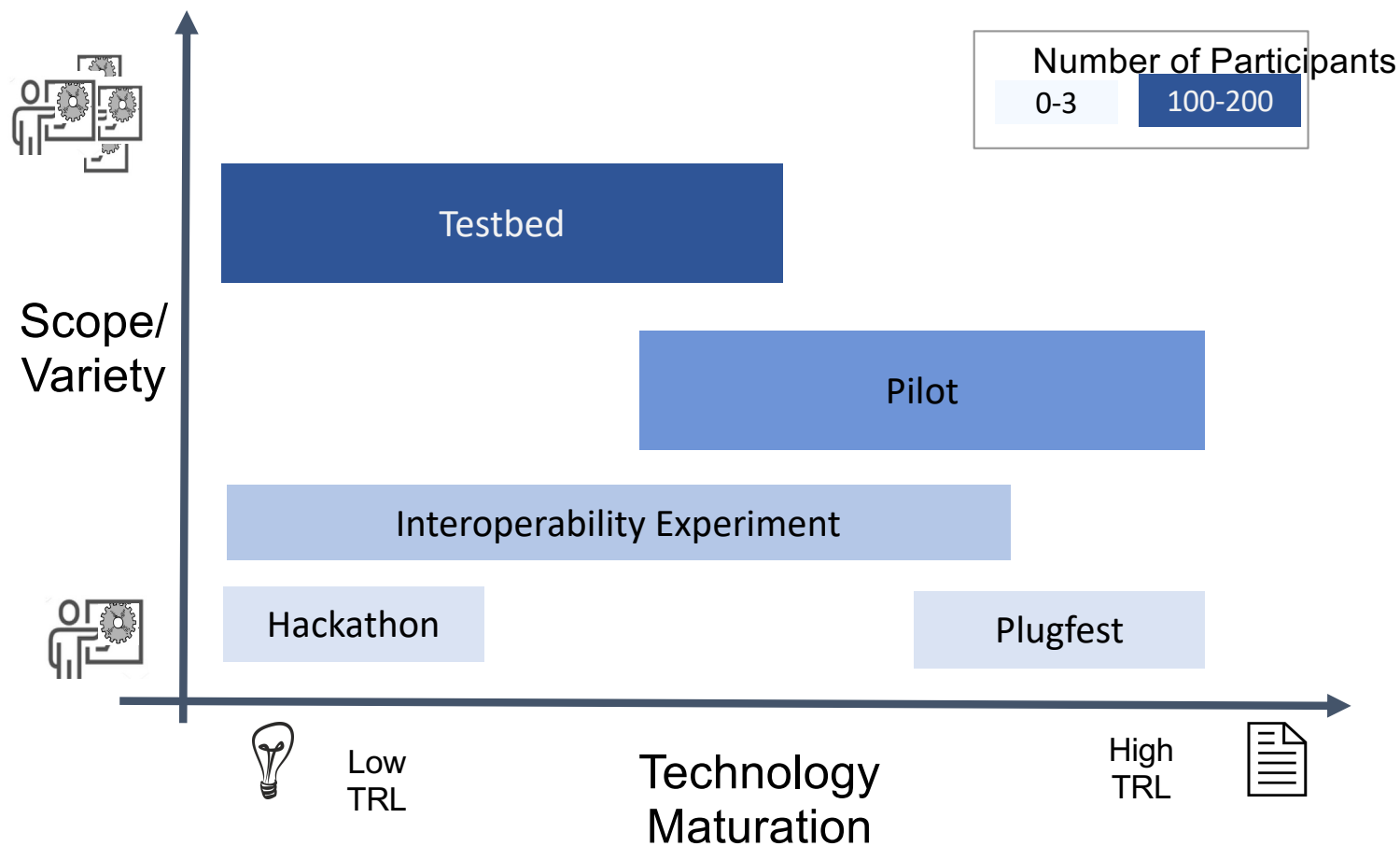
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IP Initiative Types

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Addressing a need

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2019: a need for more informed disaster responses and relief

Disasters in 2019 touched every region across the globe



820
Catastrophes
9000
Fatalities
\$150B
Global Costs

Source: World Health Organization

Fast-forward to 2021: addressing new threats on a global scale

Climate Change

Global temperature
+2.1 degrees



Sea level
+ 3.1mm a year



Arctic ice
- 13.1% a decade



Source: NASA

COVID Pandemic

Total cases in 2020
+ 80M



Active cases high
+20M



Pandemic spread
+210 territories



Source: World Health Organization



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Added Complications

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Managing a disaster in hard to access areas during an infectious epidemic



Using key technologies

Hybrid applications, edge computing systems, and cloud exploitation platforms



To provide vital information

Analysis and decision ready, flexible, structured, and on-demand disaster data



To key stakeholders

The general public, policy makers, first responders, and healthcare officials



Eyes in the sky to feet on the ground

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Health Spatial Data Infrastructure

Empowering Healthcare with Findable, Accessible Interoperable and Reusable (FAIR) Location Information



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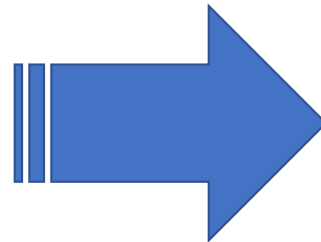
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- From the [Disasters Resilience Pilot](#) as well as other [Innovation Program \(IP\) initiatives](#), has been recognition and acknowledgement of the need to address:
 - Key components in the value chain,
 - Stakeholder-identified value chain gaps,
 - Optimal workflows and services necessary to produce both analysis ready data (ARD) and decision ready information (DRI) products and services so as to support timely decision making.
- By some estimates, 80% of response time is spent procuring and preparing data, so that 20% can be spent learning from it.

- **Integrating and Transforming Provider Data:** Hybrid applications-to-the-data EO cloud exploitation platforms that seamlessly bring analysis-ready imagery, in situ, social, economic, environmental, health, and other data streams into scalable cloud environments where advanced processing, modeling, and algorithms can be directly and flexibly applied to them.
- **ARD and DRI Services:** assessing and validating ARD standards, then integrating both space-based and local data sources on demand, providing targeted information products to local analysts and field responders through modern convenience API's, optimized hybrid-cloud services, and mobile-ready online-offline Geopackage tools.
- **Web Search Optimization for Disasters:** Web publication of linked "structured data" that connects well-known local geography with up-to-date conditions, observations, and predictions.

- Landslides
- Flooding and Inundation
- Pandemics
- Droughts
- Wildfires
- Hurricanes
- Maritime Domain Oil Spills



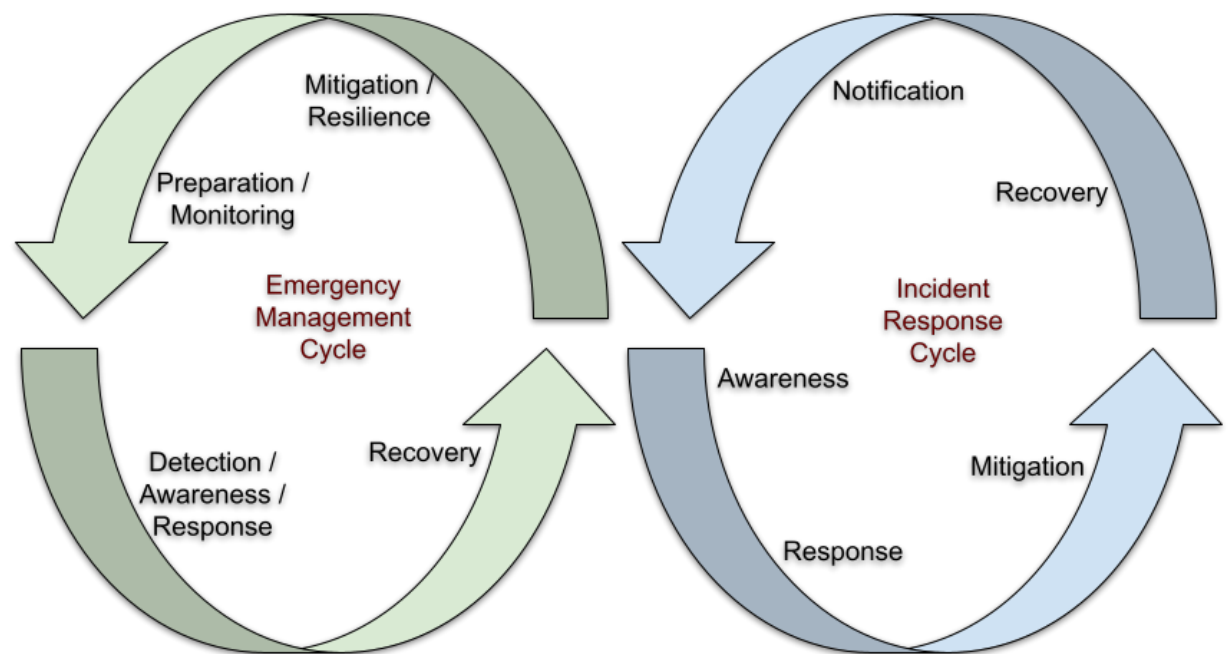
- Landslide / flooding hazards and pandemic impacts within the Rímac and Piura river basins in Peru.
- Flooding hazards and pandemic impacts within the Red River basin in Manitoba, Canada
- Integration of Health and EO data and services for pandemic response in a region of the United States.

Disaster Emergencies and Incidents Cycles

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- Risk and vulnerability assessment and preparation.
- Hazard monitoring and threat prediction.
- Disaster detection and tracking.
- Impact awareness and reporting.
- Disaster response and mitigation activities.



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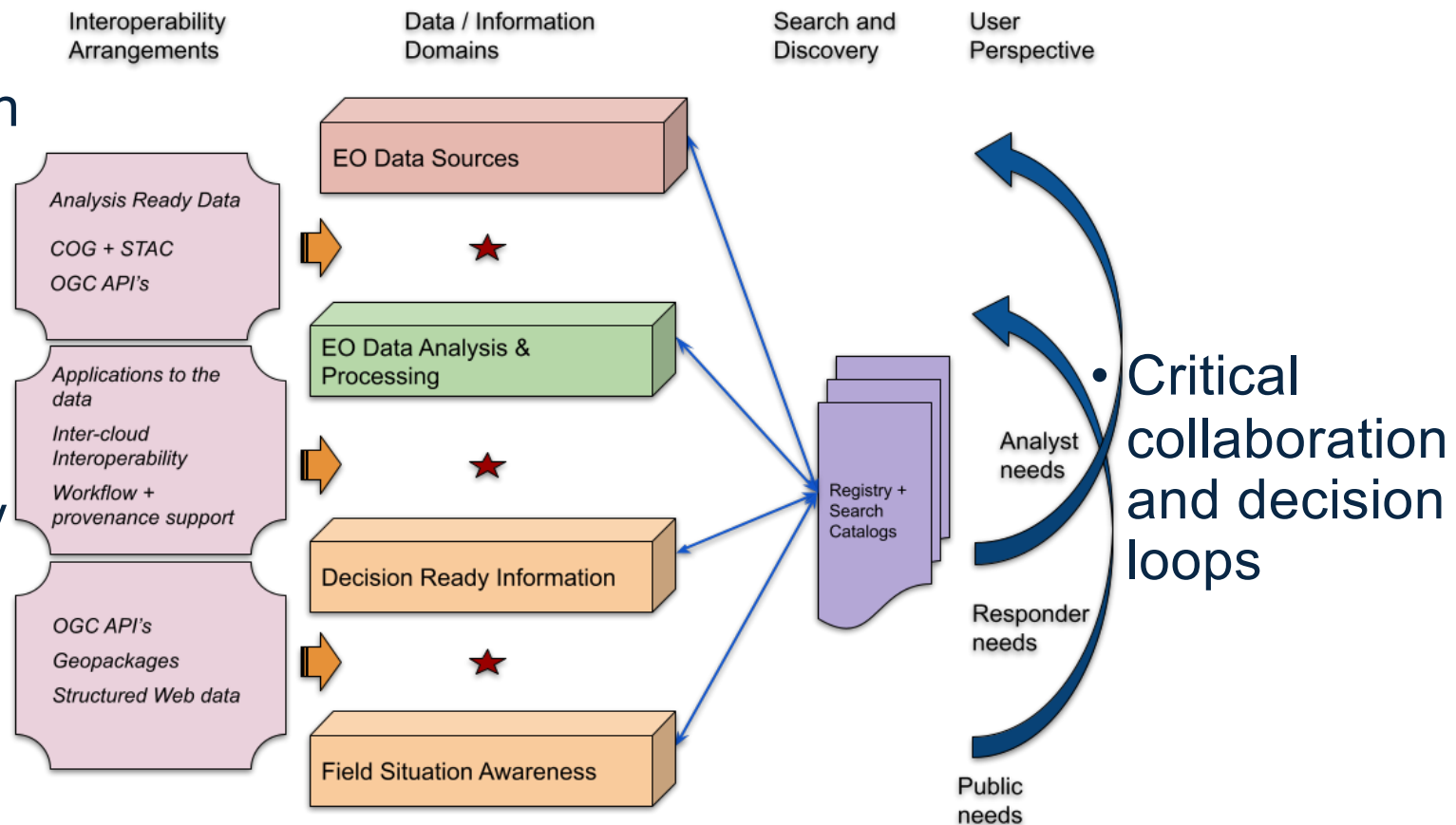
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Pivotal Points of Interoperability

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- What information sharing doesn't
- Occur at all,
- Occur fast enough,
- Occur frequently enough, or
- Occur fully enough



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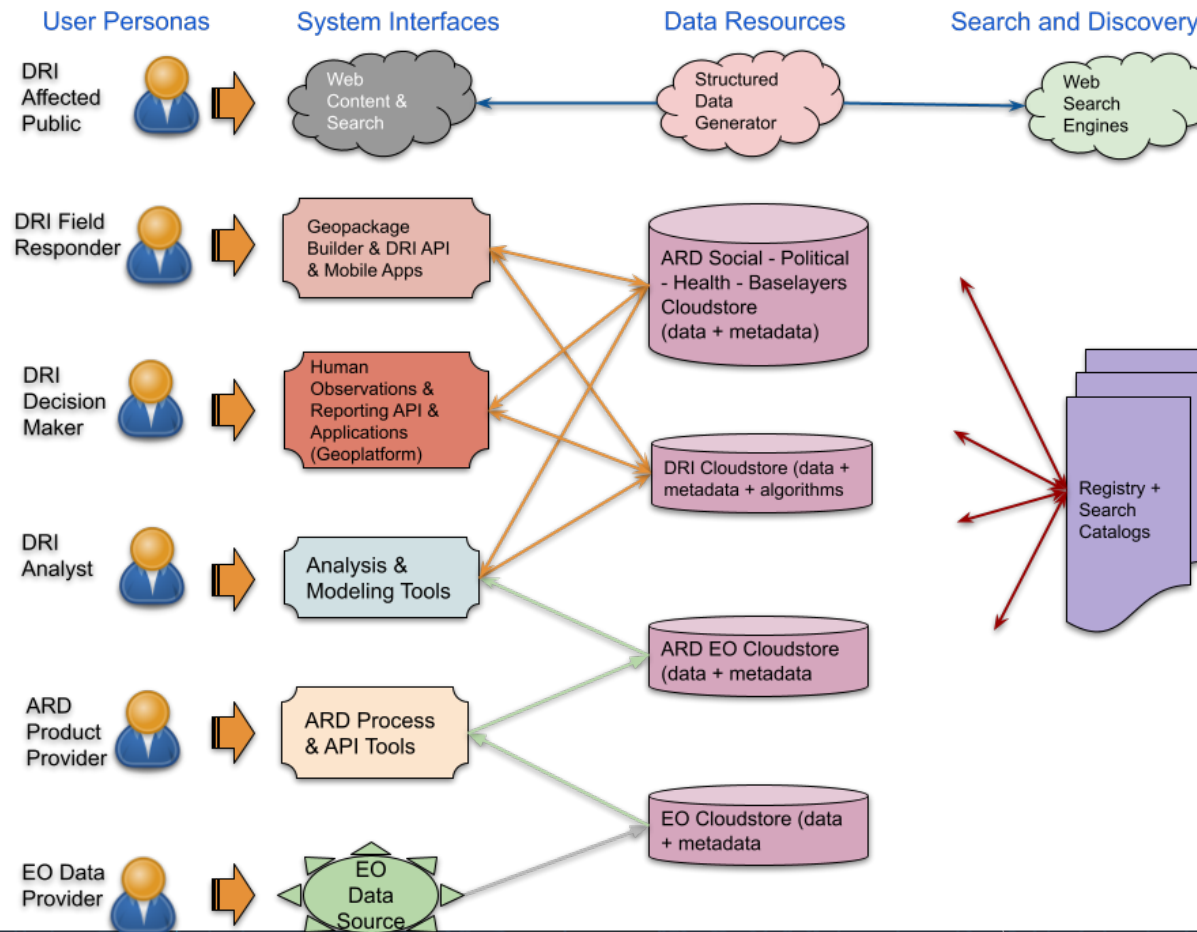
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Value Chain Stakeholders

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- How do these stakeholders communicate and collaborate across the globe?



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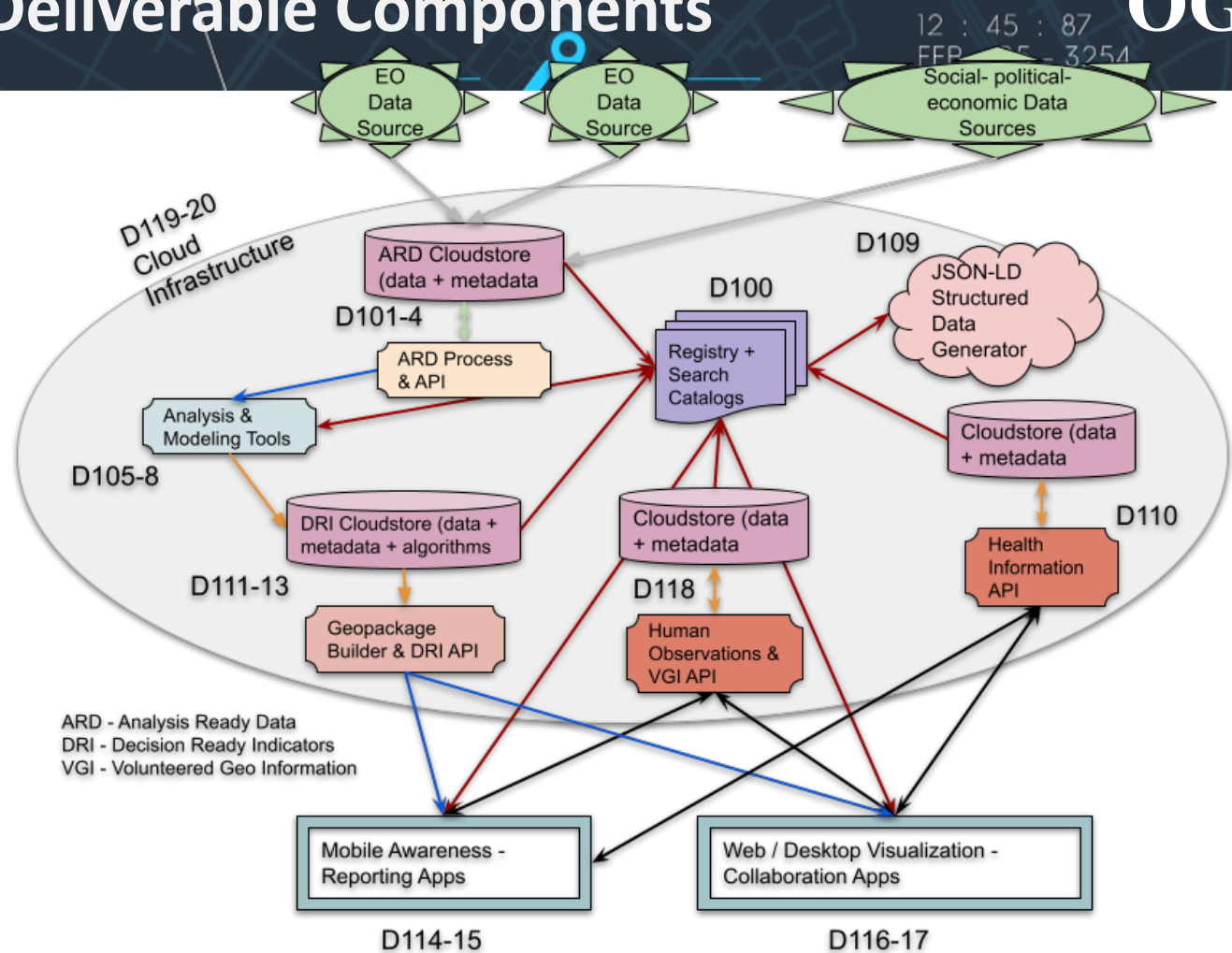
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Pilot Participant Deliverable Components

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- One or more of each type of component for coverage and interchangeability
- Cost share funding is limited, but in-kind contributions are not



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Pilot Schedule

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Table 1. Master schedule

Milestone	Date	Activity
M01	21 April 2021	Release of Call for Participation (CFP)
M02	21 May 2021	Responses due
M03	4 June 2021	Participant selection and agreements
M04	9-10 June 2021	Virtual kick-off meeting
M05	14-15 July 2021	Workshop #1: critical indicators and data flow coordination
M06	22 September 2021	Workshop #2: guidance for disaster readiness
M07	30 October 2021	Draft Pilot Report and Guides
M08	18 November 2021	Final Pilot Report and Guide
M09	08 December 2021	Final Pilot Demonstration
M10	23 December 2021	Pilot Report, Guide & Video Public Release



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- 45+ Domain Working Groups
- 25+ Years of Not for Profit Work
- 10+ Regional and Country Forums

Innovation

- 120+ Innovation Initiatives
- 380+ Technical reports
- Quarterly Tech Trends monitoring

Standards

- 65+ Adopted Standards
- 300+ products with 1000+ certified implementations
- 1,700,000+ Operational Data Sets Using OGC Standards

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