

GEOSS

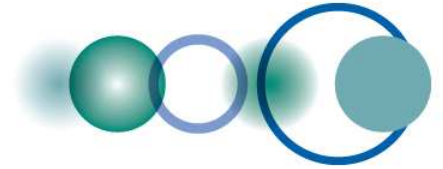
Architecture Implementation Pilot, Phase 3

- AIP-3 Initial Concepts -

Hervé Caumont
George Percivall
Open Geospatial Consortium

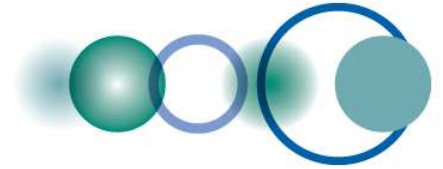
GEO Task AR-09-01b
November 2009





Agenda

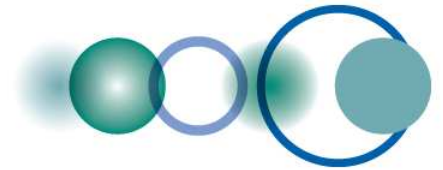
1. Quick overview of the Architecture Implementation Pilot (AIP) process and results from 2009 activities (AIP-2)
2. Identified topics for 2010 activities (AIP-3) and coordination with UIC



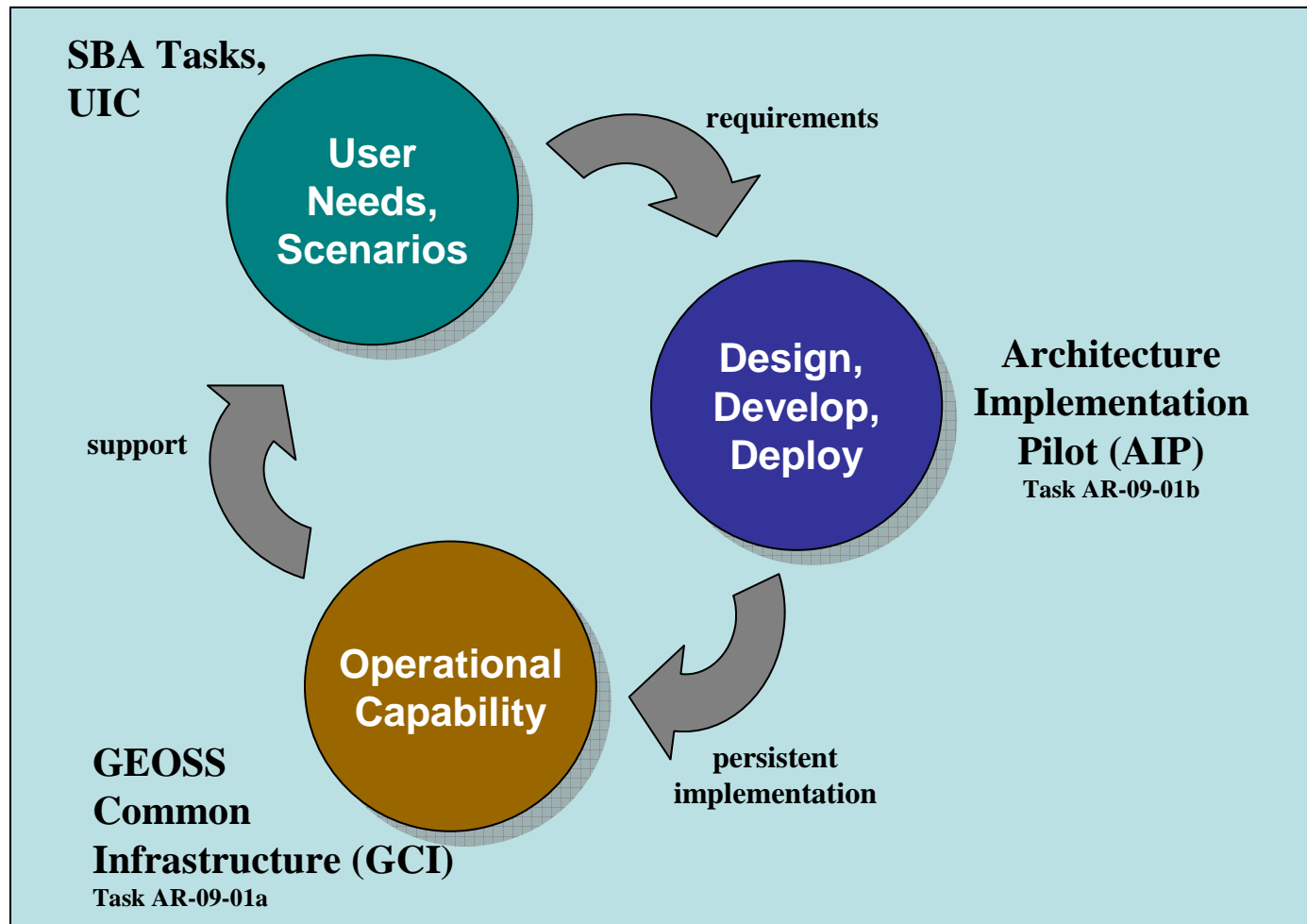
GEO Task AR-09-01b

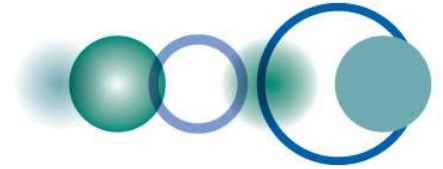
Architecture Implementation Pilot

- Develop and pilot new process and infrastructure components for the GCI and the broader GEOSS architecture



Elaboration of GEOSS Architecture





Example of a CoP as seen through GEOSS AIP



UNITED NATIONS
Office for Outer Space Affairs



Caribbean Flood Pilot Sensor Web

GEO Architecture Implementation Pilot – Phase 2 (AIP-2)



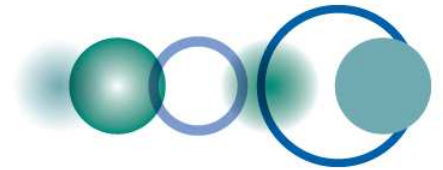
Flood and Disaster Management in British Virgin Islands

Interests : drainage and flash floods are critical

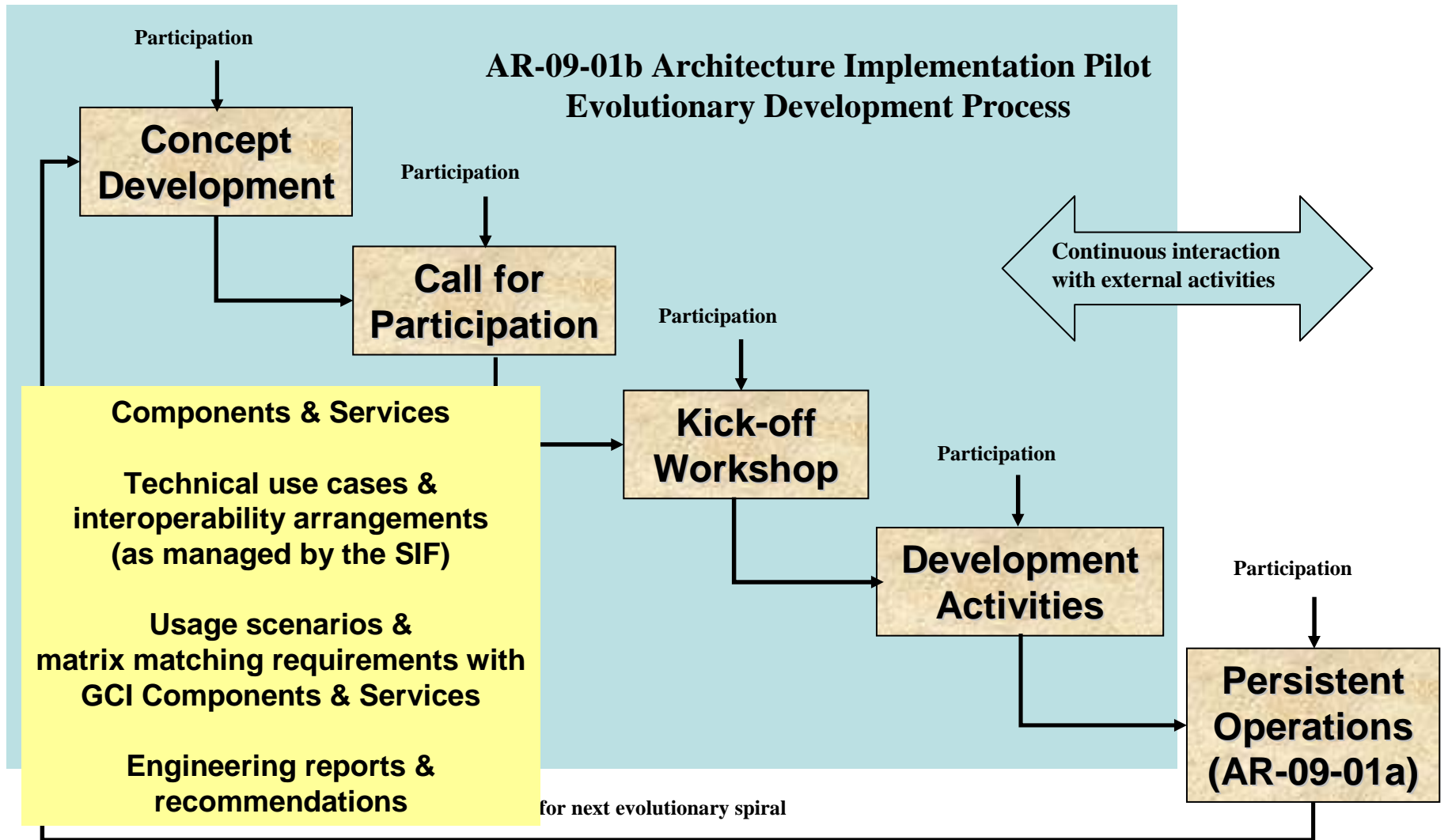
Needs : use hazard maps to identify areas at risk, estimates of floods-caused loss, perform what-if scenarios, create map templates, ...

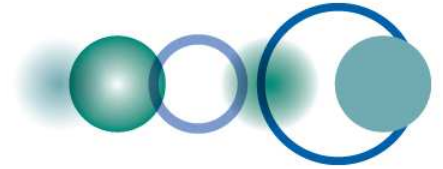
Team :

- the Caribbean Disaster Emergency Response Agency (CDERA)
 - the Water Center for the Americas (CATHALAC),
 - the University of the West Indies (UWI)
 - the United Nations Office for Outer Space Affairs (UNOOSA)
- senior technical planning manager
 - climate change officer
 - emergency communications manager
 - national GIS coordinator
 - civil engineer
 - CAD Specialist



AIP Development Approach





Agenda

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2. Identified topics for 2010 activities (AIP-3) and coordination with UIC

GEOSS AIP-3 Summary



- Build on service architecture of GCI and AIP-2
 - Build on both content and process
 - Increase emphasis on data provider point of view
 - Promote mash-ups in a "link-rich" environment
- Engage Communities of Practice (CoP)
 - Continue AIP-2 CoPs
 - Identify new CoPs working with UIC and SBA Tasks
- Focus on data; Promote content
 - Coordination with ADC Data Tasks
 - Vocabulary registries and ontologies as resources for scenarios
 - Data Sharing Guidelines implementation
- Schedule to support Ministerial Summit, November 2010

AIP-3 Communities of Practice - DRAFT



Scenario	GEO Task/ CoP	Status/comment
Emergency Management	DI-06-09: Use of Satellites for Risk Management	AIP-2, GIGAS
Air Quality	HE-09-02b	AIP-2, ESIP Cluster
Biodiversity and Ecosystems	(BI-07-01a)	AIP-2, EuroGEOSS, GIGAS
Energy	EN-07-03	AIP-2
Hydrology and drought management	(WA-06-07c) (Water CoP)	EuroGEOSS, SDSC, FCU, (ESIP)
Oceans and coastal zones	(Coastal Zone CoP)	(Oceans'09 GEOSS Workshop: Robert Weller) (Mediterranean workshop – Rob K)
Environmental Monitoring Sensor Webs	?	(EPA, EEA)

Data in AIP-3 –

in support of ADC Way forward on Data



- global datasets;
 - Task DA-09-03 includes several categories of global datasets: Land Cover; Meteorological and Environmental; Geological; and DEM
- data quality;
 - Task DA-09-01a - quality assurance of EO data.
 - [QA4EO](#) information propagated into information systems using international standards for data quality
- licenses and user management;
 - Data Licenses that implement the DSTF guidelines; consideration of rights expression languages. (GeoRM)
 - Evaluation of the need for authentication, authorization, user management in a distributed systems. Single Sign on (Security)
- Harmonized information architecture allows sharing across different disciplines.
 - DA-09-01b (data harmonization task) and AIP-3 can be a starting point for such information architecture.
 - Multiple topics in an information architecture that must accommodate dataset lifecycle
- Registries for Observables
 - Observables for EO, including discussion of registries and ontologies.
 - Coordination with the User Requirements Registry regarding observables and other topics relevant to AIP-3.

AIP-3 Master Schedule – Draft

– All dates are preliminary estimates



Post AIP-3 CFP	January 2010
Responses to AIP-3 CFP	Early March 2010
Kickoff Workshop (Europe)	Mid March 2010
Demo Capture Workshop (US)	2 nd Half of 2010
(ExCom/GEOSec prior to Summit)	(July 2010?)
Ministerial Summit & GEO VII (China)	Oct/Nov 2010
Finalize AIP-3 deliverables	2 nd Half of 2010
AIP-3 results transition to operations	2 nd Half of 2010



Water in AIP-3

- Relevant GEO Tasks
 - Capacity Building for Water Resource Management – Asia (WA-06-07c) – PoC, Chu Ishida, JAXA
 - (Water CoP - Rick Lawford - Drought)
- Responses to GEO Decision Support CFP
 - Assessing and predicting climate change effects on Water Resources in South East Asia – SDSC, Univ. of Melbourne, Univ. of Malaya.
 - Assessment and allocation decision model of limited water resource by open standards-based techniques – Feng Chia University
- Further resources
 - EC FP7 EuroGEOSS Drought Scenario
 - ESIP Federation: Water ontologies – Bill Sonntag

Data Provider Perspective



- AIP-3 increase data access services and ensure services are correctly registered in the GEOSS CSR.
 - Discovery of ASTER GDEM via the GCI should become a case study in how the GCI is failing
 - WIS is registered but you need to go to WIS to find services

Actions



- Contact UIC on coordination of scenarios/CoPs
- Contact SBA tasks seeking participation