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GEONETCast

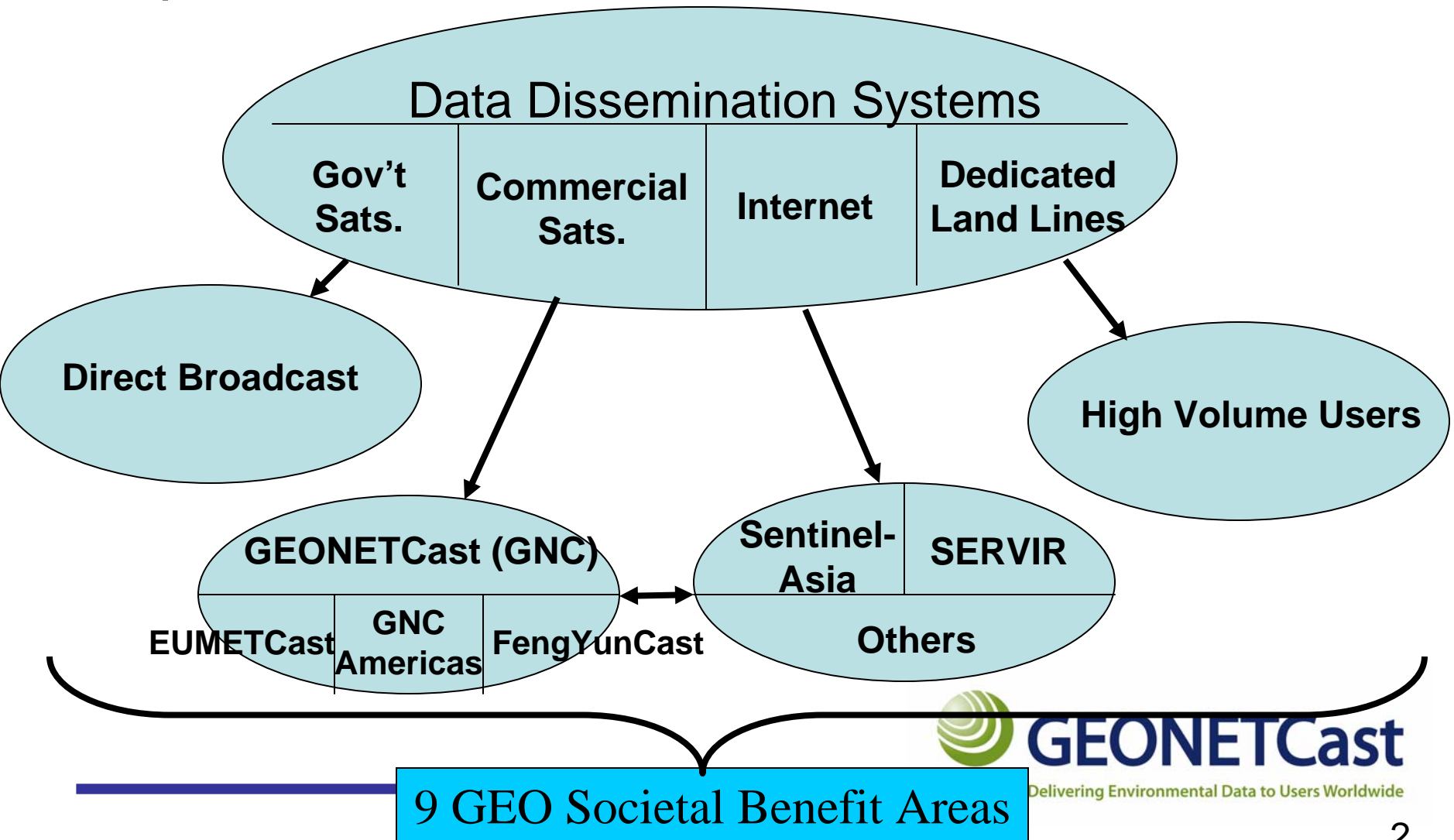
Delivering Environmental Data to Users Worldwide



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Notional Graphic of GEOSS Data Dissemination Systems

GEONETCast is one component





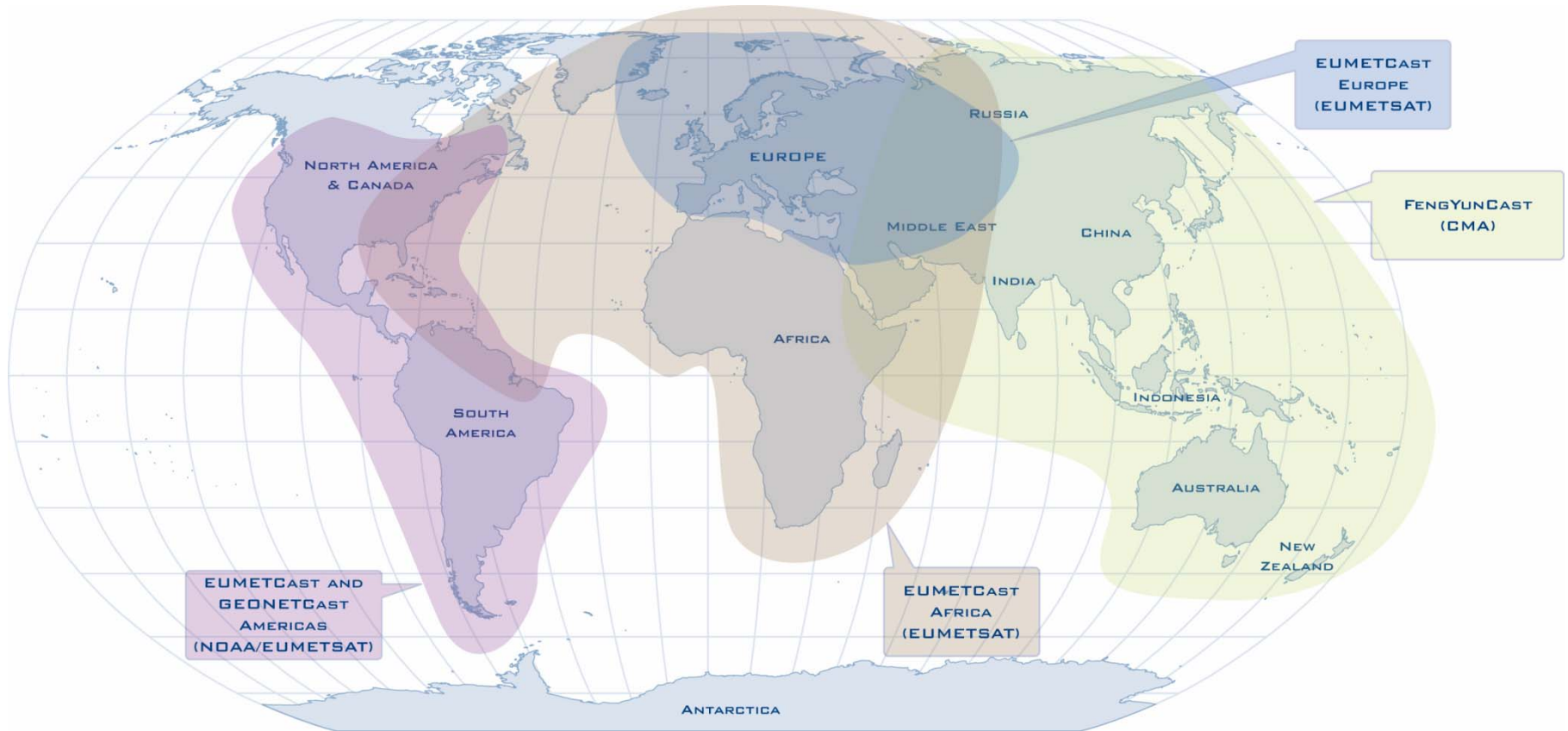
GEONETCast: Major Components

- GEONETCast is a distribution system using communication satellites and low cost, self-contained, stand alone, off-the-shelf reception stations.
 - The global GEONETCast system, supported by 3 regional broadcasts, was made operational in early 2008.
- Provide near-global coverage with established data exchange between regional broadcasts.
 - CMA (FENGYUNCast, over Asia and parts of the Pacific),
 - EUMETSAT (EUMETCast, over Europe, Africa, and Americas)
 - NOAA (GEONETCast Americas, over the Americas and Caribbean)
- GEONETCast Product Navigator provides GEOSS-compatible collection, discovery, and product registration capability.



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Global Coverage



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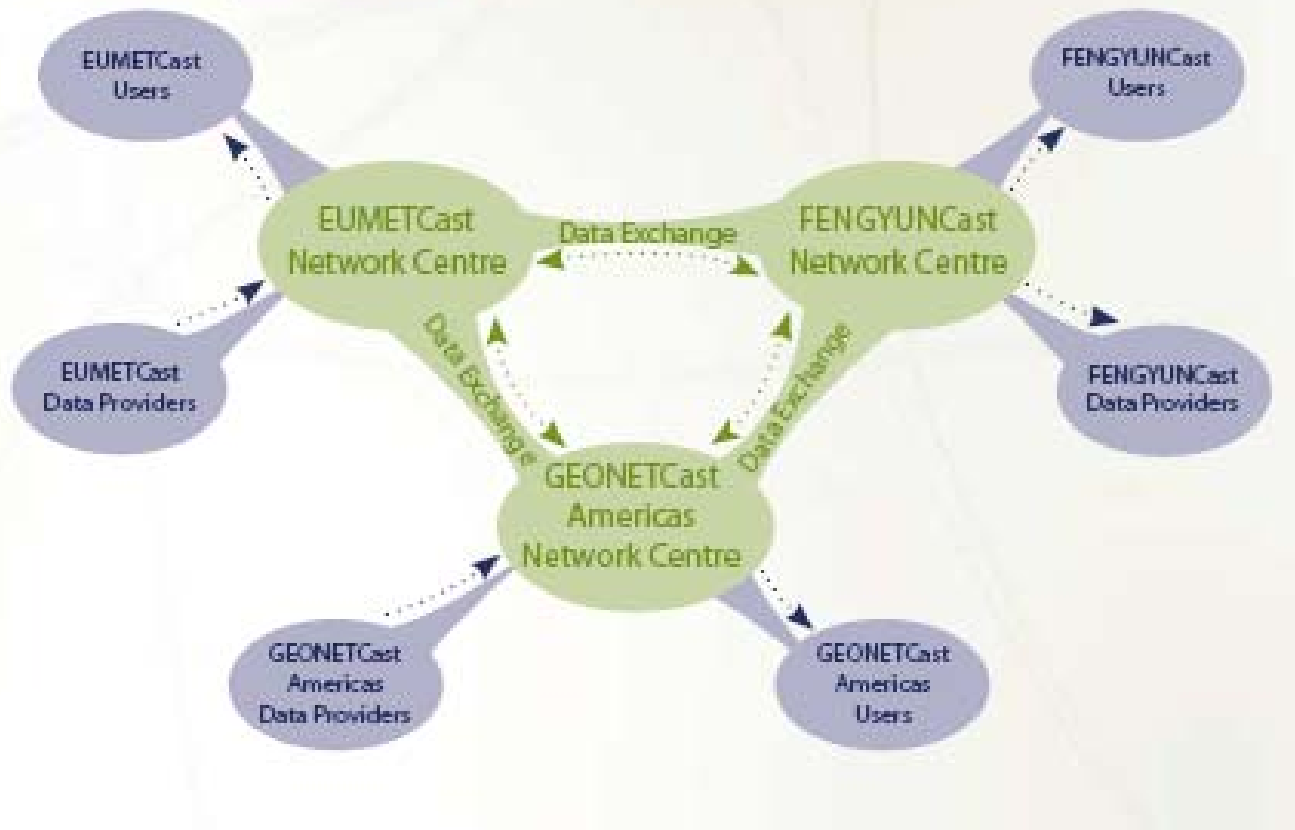


GEONETCast for Users?

- Receiving stations use low-cost, off the shelf DVB-S broadcast technology – Receive station cost ~ \$2,000 - \$3,000.
- Information includes climate, weather, agriculture, air quality, disasters, and more, in support of GEOSS Societal Benefit Areas.
- Access to products from all regional systems.
- No internet connection required by users
- No format restriction for providers or users.

GEONETCast Architecture

GEONETCast System Overview





User Engagement

- Each region working directly with its Users;
- In Europe there are over 3000 EUMETCast stations;
- In Africa, there are about 250 EUMETCast stations;
- In the Asia/Pacific region, there are approx 200 FENGYUNCast stations;
- In the Americas there are about 50 stations deployed.



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User Engagement (continued)

- Enhance utility of the GEONETCast service by adding training and alert capabilities.
 - Included on GEONETCast over Europe, Africa, and the Americas in 2009.
 - Initial product sets for the Alert Channel are currently being broadcast, with plans to augment the offering.
 - Initial talks are underway with the International Charter for Space and Major Disasters on including Charter activation data on regional broadcasts.
 - The Training Channel is operational and being used on demonstration basis in Africa and the Americas. Products will be augmented in line with Users' requirements.
- Working with partners, Users and potential Users to determine alert and training channel needs.



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User Engagement (continued)

- Training and Capacity Building:
 - EU-funded research projects (DevCoCast, EAMNET, AIDA)
 - EU development funded projects (AMESD and GMES-Africa)
 - Cooperation with existing training networks (ITC in Africa, Chloro-GIN-Africa, CREST/Puerto Rico)
 - EUMETSAT & WMO initiative to build capacity in Balkan and East European states (DAWBEE)
 - Cooperation with NASA-SERVIR in Americas and Africa
 - NOAA-supported pilot project using GEONETCast to augment regional flash flood guidance/warning in Costa Rica
- Coordinated User Requirement gathering:
 - WMO Conference on RA III & IV in Brazil in Feb; also work in Pacific and RA I (Africa)
 - NOAA efforts in Central America and Caribbean



GEONETCast

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System Evolution

- CMA is planning a technical evolution of FENGYUNCast to be introduced in 2010. The new system will have a much larger data capacity and will incorporate new training and multimedia broadcast capabilities.
- Inclusion of Russia's MITRA system under discussion at the technical level.
- EUMETCast: Inclusion of Meteo-France RETIM data flow to Europe and Africa and improving availability of ocean and sounding products outside Europe.
- Currently exploring operations for expanding GNC coverage into the Pacific region, including gauging potential user interest and potential avenues for operations of an expansion.



Issues and Gaps

- System is operational - usage of newer capabilities (Training and Alert Channels) is developing
 - Request additional feedback from Users on required data and products, in particular for the Training and Alert Channels
- Pacific Island states have noted the low availability of environmental and EO information to users in the region
 - Mainly due to poor internet access and communications infrastructure
 - There have been calls to expand the GEONETCast broadcast footprint over the Pacific region to address this issue.
 - GEO could assist in determining requirements and securing funding for the expansion of the system into this region.



Highlights

- GEONETCast is operational and broadcasting GEOSS data to users across the globe 24/7
 - Considered to be a very reliable means of data dissemination
- GEONETCast is low-cost (stations cost ~\$2-3000) and simple to operate – no internet connection is required.
- Potential users can learn about the products available over GEONETCast by using the GEONETCast Product Navigator.
- Mechanism established for Users to request the inclusion of additional data or products on broadcasts.



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Highlights

GEONETCast's offerings are increasing

- Alert and Training channels are in operation. These channels require additional feedback from Users to evolve content.
- GEONETCast has the potential to support larger numbers of users in various SBAs, including water, climate, health, agriculture and disasters.



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