

European Environment Agency

GMES Initial Operations

**Expectations, upcoming reporting requirements
lessons learned from previous fast track activities**



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Outline

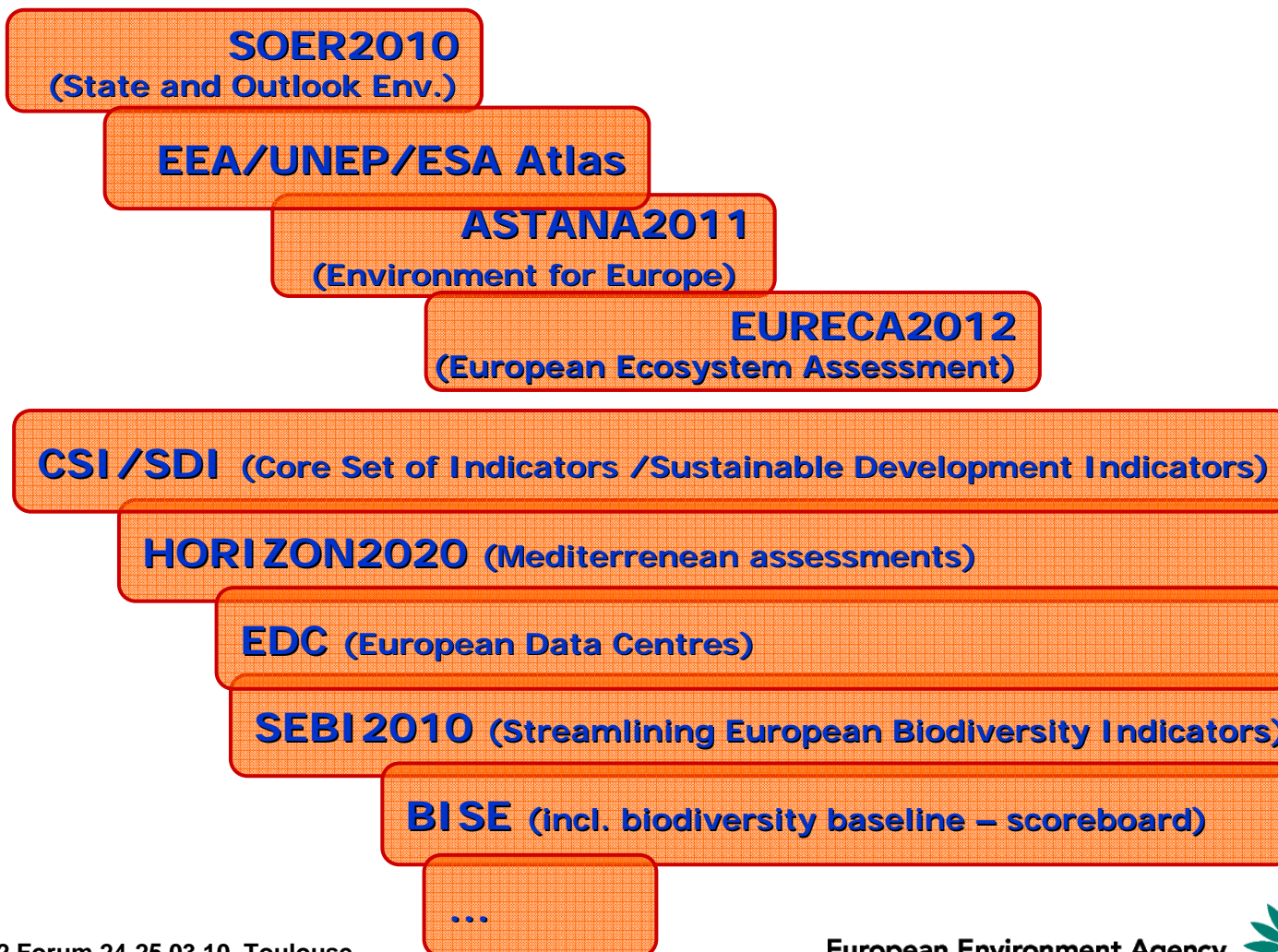
- EEA land use and land cover change information needs 2009-2013 strategy
- EEA use of GMES land monitoring services in 2010
- Support to upcoming international and national reporting obligations
- EEA proposed service elements GIO Land 2011-2013
- EEA specific user requirements
- Lessons learned from GMES land fast track activities



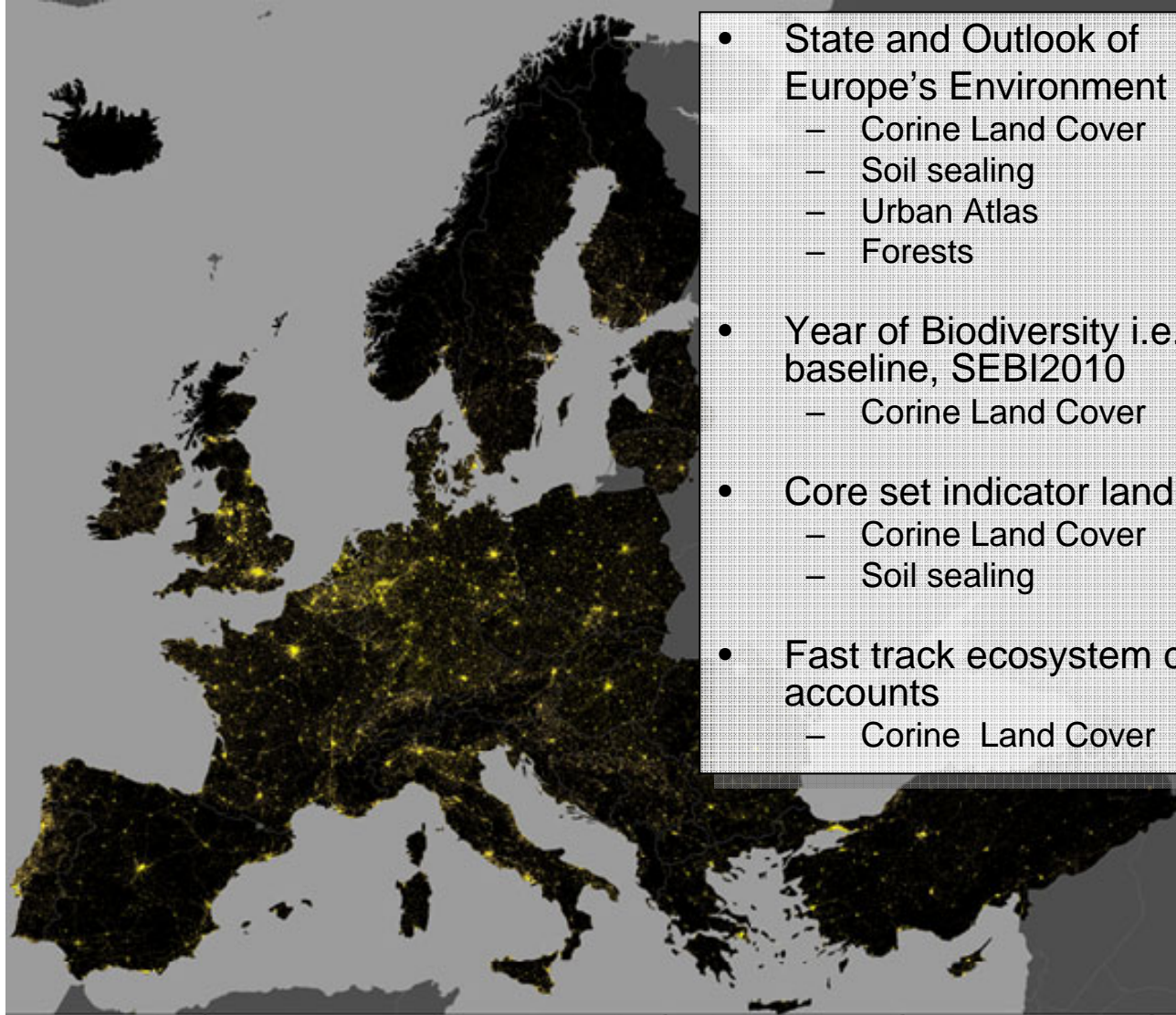
EEA LULCC information needs 2009-2013

	2009	2010	2011	2012	2013
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Services and key products



EEA use of GMES land services 2010



- State and Outlook of Europe's Environment 2010+
 - Corine Land Cover
 - Soil sealing
 - Urban Atlas
 - Forests
- Year of Biodiversity i.e. biodiversity baseline, SEBI2010
 - Corine Land Cover
- Core set indicator land take
 - Corine Land Cover
 - Soil sealing
- Fast track ecosystem capital accounts
 - Corine Land Cover



Potential use of GIO Land for supporting upcoming international and national reporting

- Habitats and Birds Directive
- Water Framework Directive
- Renewable energy resources. i.e. bio-fuels
- Agri-environmental indicator reporting
- Biodiversity scoreboard
- Territorial indicators
- Conventions i.e. climate change, biodiversity, desertification, air pollution,
- Water, land and ecosystem accounts
- ...

=> Confirmed demand for basic up-to-date Global, European and local land use and land cover change data to support reporting needs in 2011-2013



External use of EEA view services

(x1000 interactions / year)

	2007	2008	2009	Trend*
Airbase (Air)	76	160	204	<i>growing</i>
EPER (Emissions)	395	608	563	<i>stable**</i>
EUNIS (Biodiversity)	131	131	101	<i>stable</i>
CLC (Land)	258	1055	1326	<i>growing</i>
Ozone (Air)	285	763	529	<i>stable</i>
WISE (Water)	208	1328	986	<i>stable</i>

* supported by 2010 figures

** replaced by ePRTR – with lowering demand



EEA proposed service elements

GIO Land 2011-2013*

- CLC++ 2006-2012 including high resolution data
 - Built up area
 - Forest area
 - (semi-) Natural grassland
 - Wetlands
 - Water bodies
- Urban Atlas 2006-2012
- Hotspots ecosystems
- Global land cover change

Main input data:

- *IMAGE2012+*
- *LUCAS2012*

**To be available for work programme 2012-2014*



EEA specific user requirements GIO2011-13

- Shorter production times
- Continuity of time series
 - Land use and land cover mapping
 - Monitoring LULCC dynamic
- Enhancements of current LULCC data flows
 - Change in land use/land cover intensity
 - Improved ground surveys and validation
 - Dynamic monitoring of hotspots i.e. Natura2000 sites
- Synchronization, integration and harmonization of National land cover activities through GMES
 - European data derived from national data whenever possible
 - National-European co-ownership (i.e. joint production)
 - Standards to ensure ESDI compatibility i.e. INSPIRE
- Integration of European with Global initiatives
- Guaranteed access & archiving of underpinning satellite data



Lessons learned from fast track activities (1/2)

Satellite data component

- Proven advantages of multi-dates (faster-better)
- Cloud-free/gap-free coverages remain problematic
- Cloud masking missing as a GMES service element
- Coordination European and the national requirements
- Online web services for exploring, viewing and downloading recommended

In-situ data component

- GCP/DEM open issues
- Synchronisation with LUCAS survey a.o.
- Access to national/regional ancillary data



Lessons learned from fast track activities (2/2)

Production process

- Problems with satellite data input
- Moving from a “fast track” parallel production towards an “operational” sequential processing chain
- Several remaining methodological issues i.e. change monitoring, high resolution data, object oriented data modelling,...
- Significant reduction of production time needed

Programming

- Budget planning (Y-2)
- Continuity

Thank you!



Geoland2 Forum 24-25.03.10, Toulouse

European Environment Agency

