

Joint Research Centre

Guido Schmuck

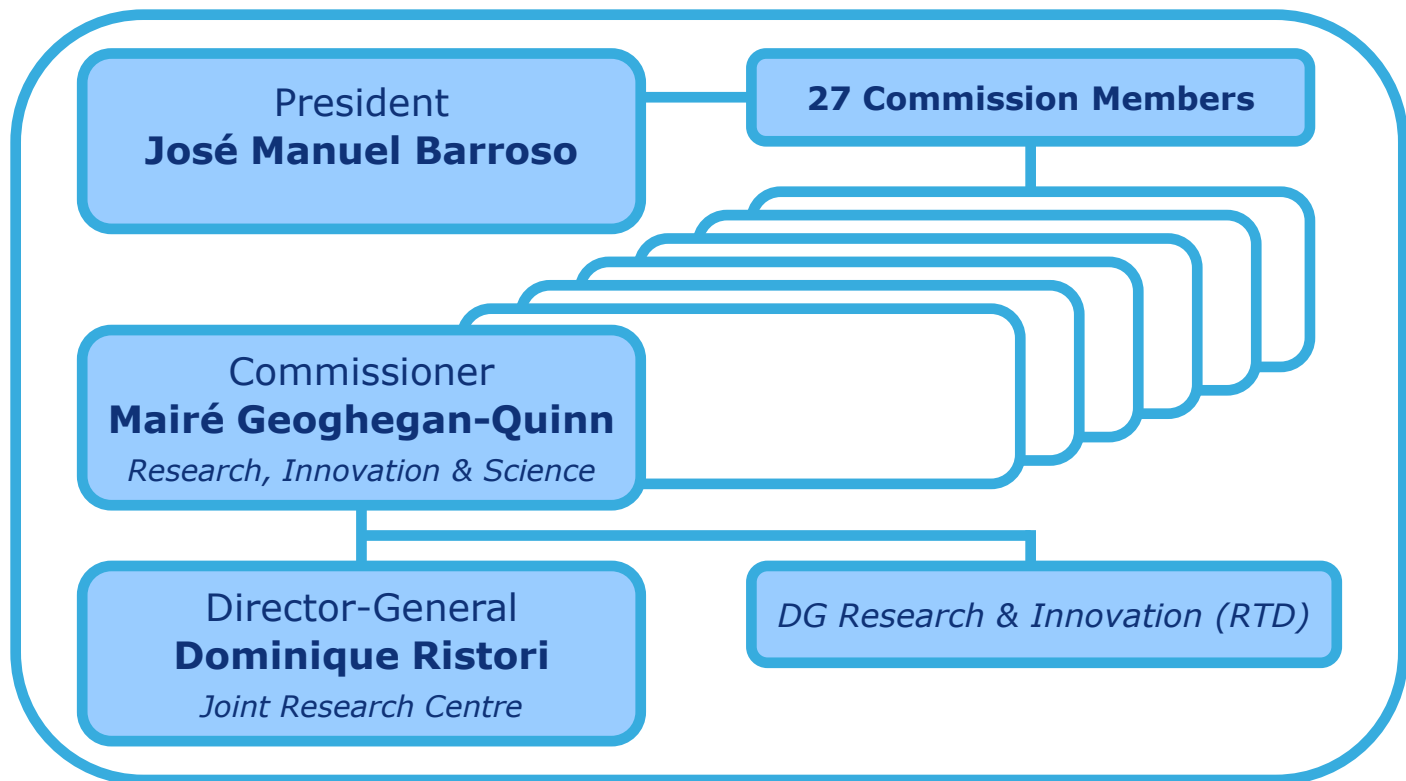


Who are we and what do we do?

JRC is the European Commission's in-house science service. It provides the science for policy decisions, with a view to ensuring that the EU achieves its Europe 2020 goals for a productive economy as well as a safe, secure and sustainable future.

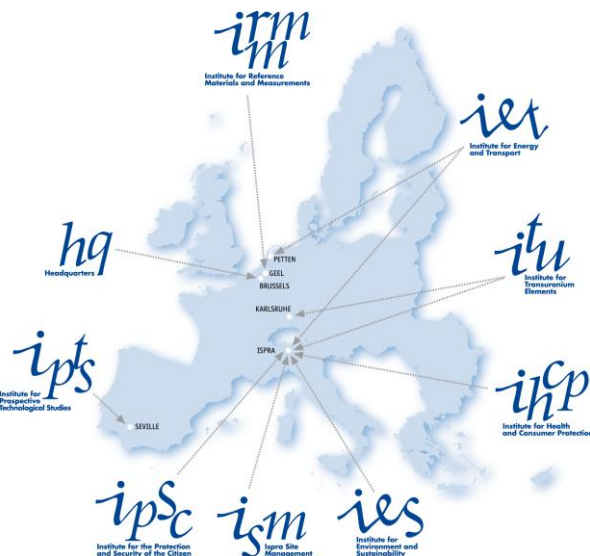


The JRC inside the European Commission



Established 1957

- 7 institutes in 5 countries: Italy, Belgium, Germany, The Netherlands, Spain
- 2,845 permanent and temporary staff in 2010
- 1,398 scientific publications in 2010
- 125 instances of support to the EU policy-maker annually
- Budget: €356 million annually, plus €62 million earned income



Where you can find us

• **Corporate Services** – *Brussels*

• **IRMM** – *Geel, Belgium*

Institute for Reference Materials and Measurements

• **ITU** – *Karlsruhe, Germany and Ispra, Italy*

Institute for Transuranium Elements

• **IE** – *Petten, The Netherlands and Ispra, Italy*

Institute for Energy

• **IPSC** – *Ispra, Italy*

Institute for the Protection and Security of the Citizen

• **IES** – *Ispra, Italy*

Institute for Environment and Sustainability

• **IHCP** – *Ispra, Italy*

Institute for Health and Consumer Protection

• **IPTS** – *Seville, Spain*

Institute for Prospective Technological Studies

Mission of IES

To provide scientific and technical support to EU policies for the protection of the environment and the more efficient and sustainable management of natural resources at global and continental scales.

- Multi-policy dimension – towards policy coherence
- European and global perspective
- Mapping, monitoring, modelling, scenario analysis, impact assessment
- Collaboration with MSs, international community, private sector
- Multi-customer profile

Policy Environment

Europe 2020 - Resource Efficient Europe, Digital Agenda, Innovation Union, Integrated Industrial Policy,

Eco-design (DG ENTR; DG ENER)
Waste directive (DG ENV)
Bio-economy (DG ENTR, DG RTD)
SCP/SIP Action Plan (DG ENV)

EU Marine strategy (DG ENV, MARE)
Biodiversity Action Plan (DG ENV)
Soil Thematic Strategy (DG ENV)
Water Blueprint – 2050 (DG ENV)
EU Air Policy (DG ENV)
UNCCD
UNCBD
Cohesion funds (DG REGIO)

INSPIRE (DG ENV, ESTAT)
GEO (DG RTD)
e-government (DG INFSO)
GMES (DG ENTR)

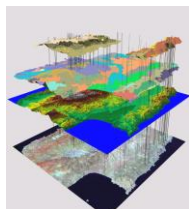
Greening the CAP (DG AGRI)
G20 Action Plan
Global agri. monitoring
(DG AGRI, DEVCO)

20/20/20 targets (DG CLIMA)
UNFCCC
EU strategy for adaptation to
climate change (DG CLIMA, ECHO)
REDD

Green production & consumption



Managing our natural resources



Food Security



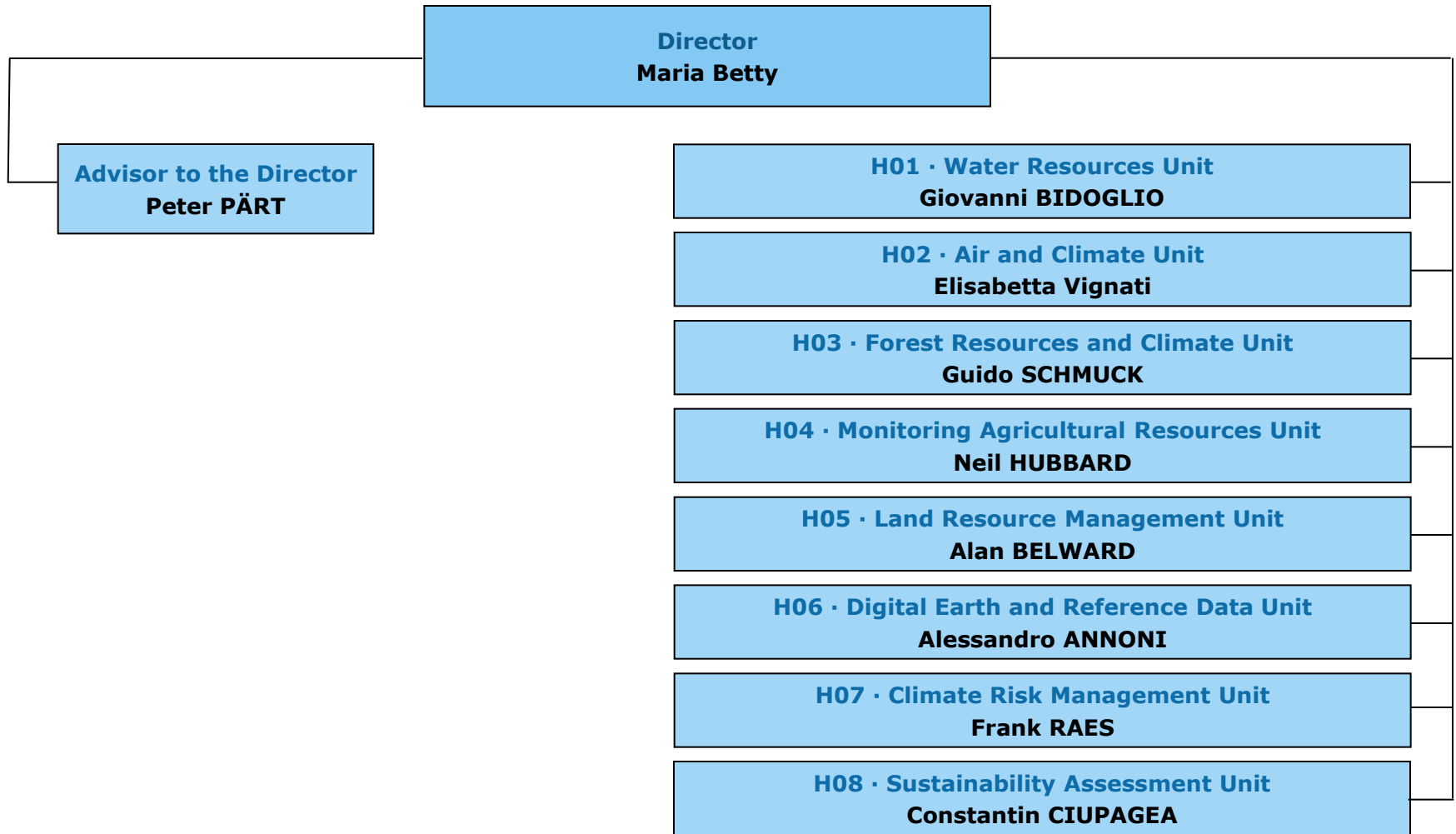
Digital Earth



Living with climate change



Organisational Chart



Forest Resources and Climate Unit

Forest Mapping and Monitoring

Forests and Biodiversity

- Green infrastructure
- Forest fragmentation
- Forest Ecosystem services
- LULUCF
- REDD
- Species distribution

Forests and Climate Change

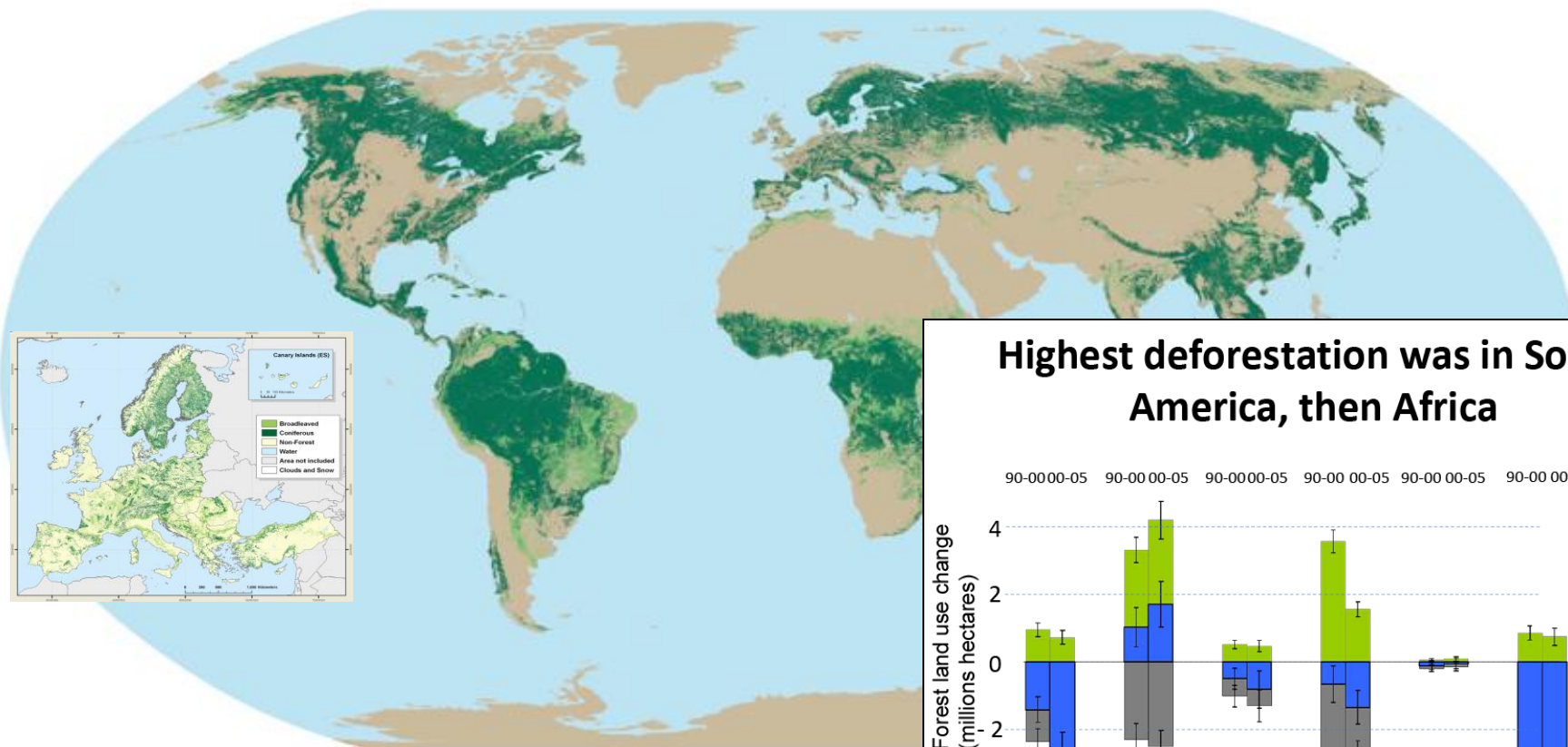
Forests and the Bio-economy

- Resource modeling
- Product modeling
- LCA
- Economic modeling

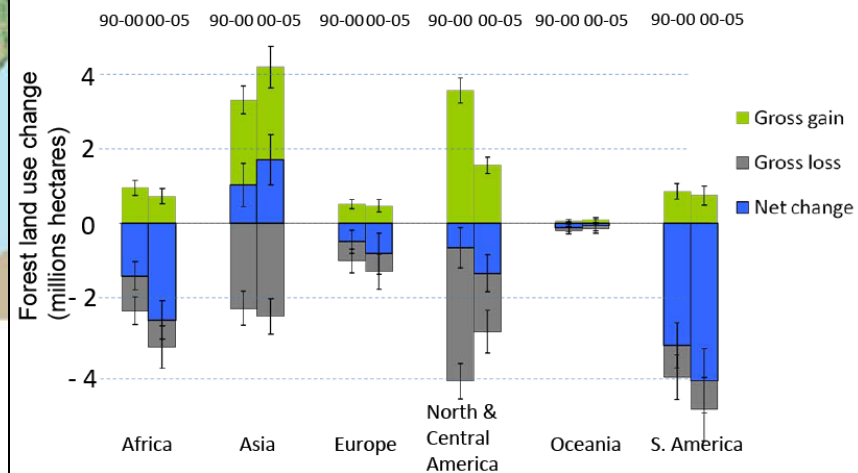
Forests and Natural Disturbances

- Fires
- Pests
- Windstorms

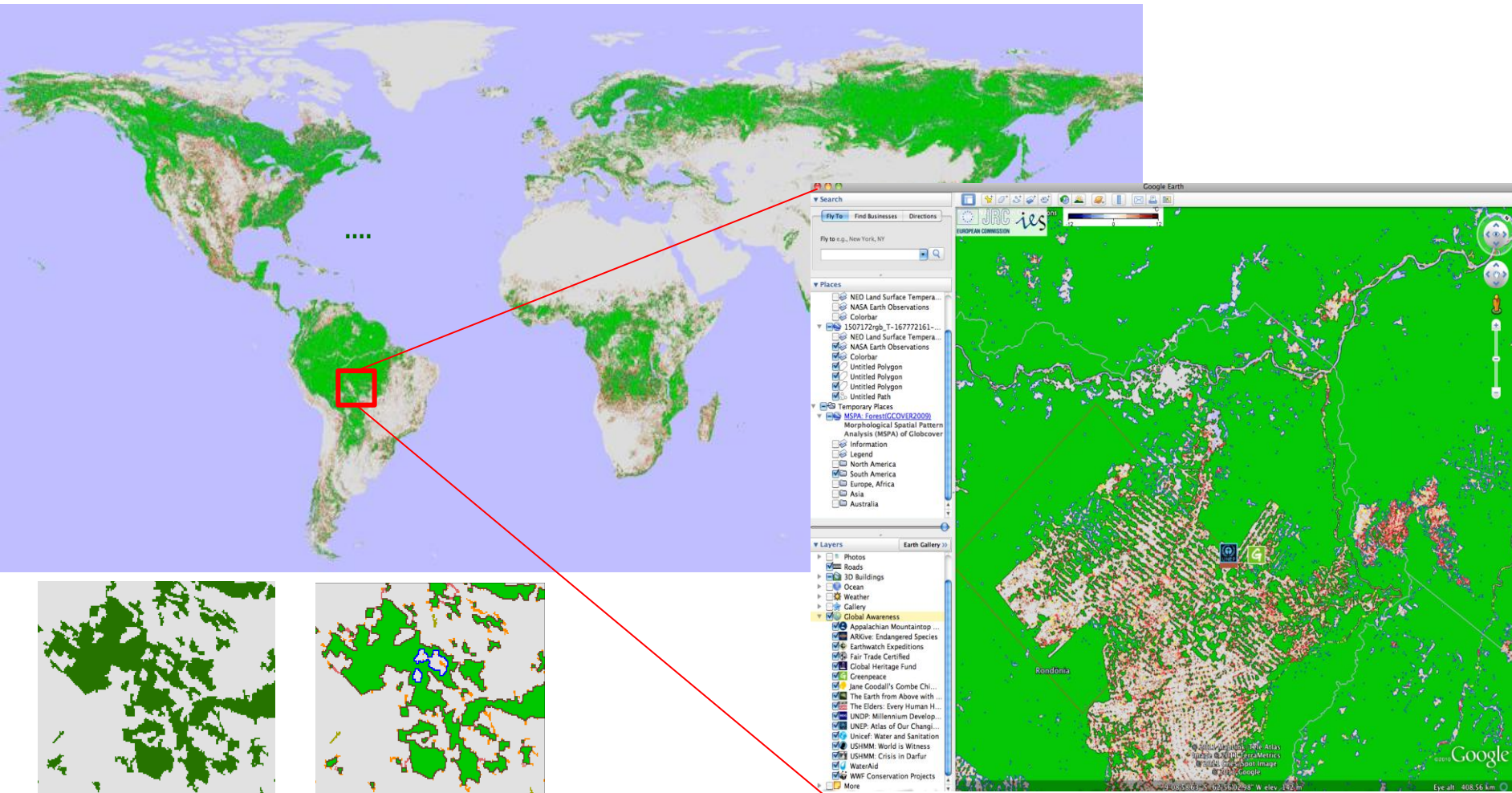
Forest Mapping and Monitoring



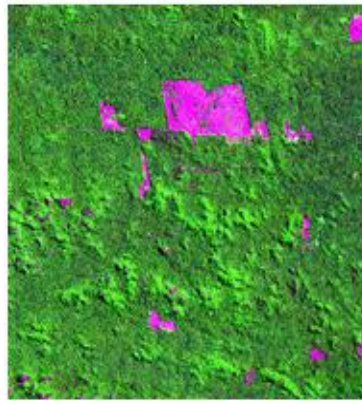
Highest deforestation was in South America, then Africa



Forests and Biodiversity



Forests and Climate



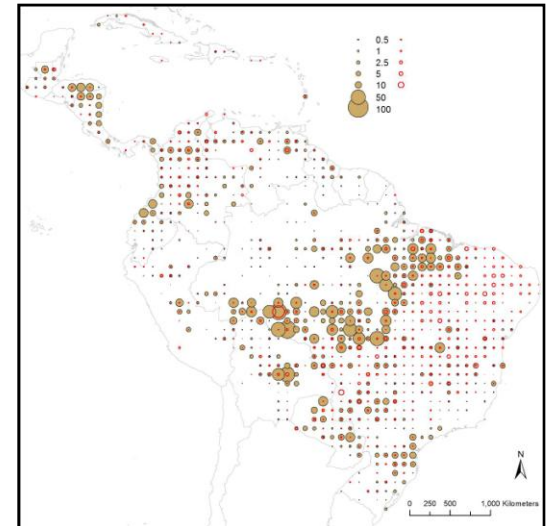
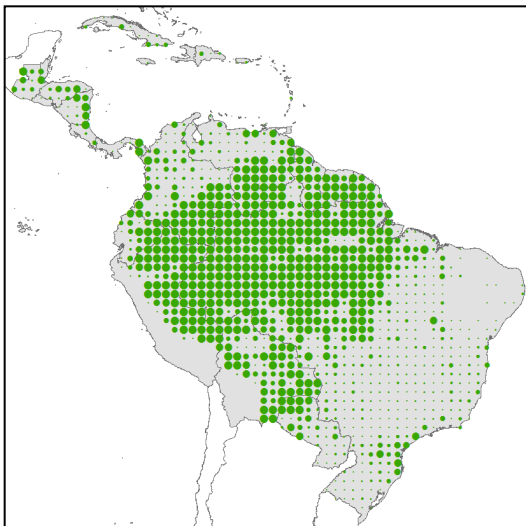
Year 1990



Year 2000

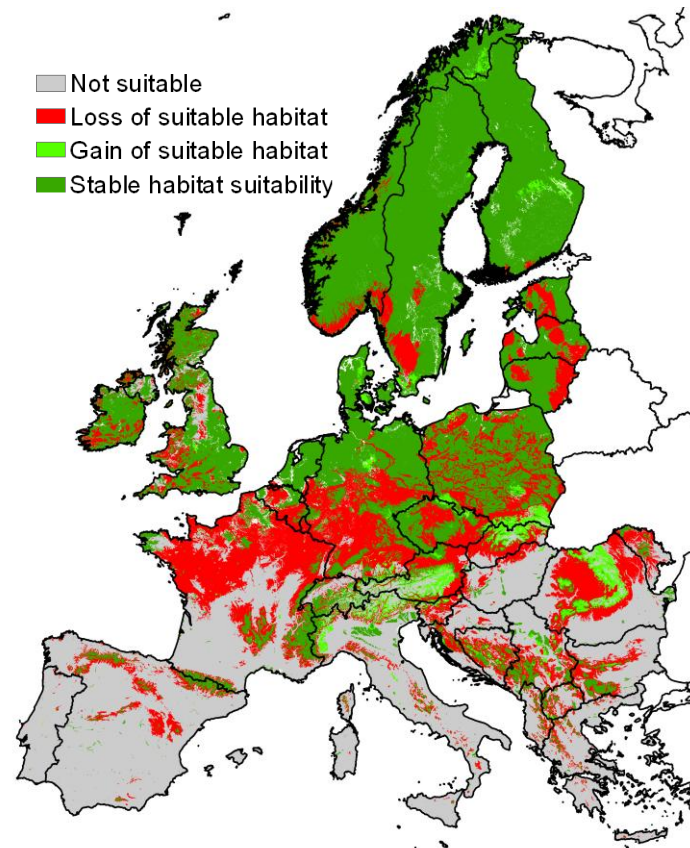
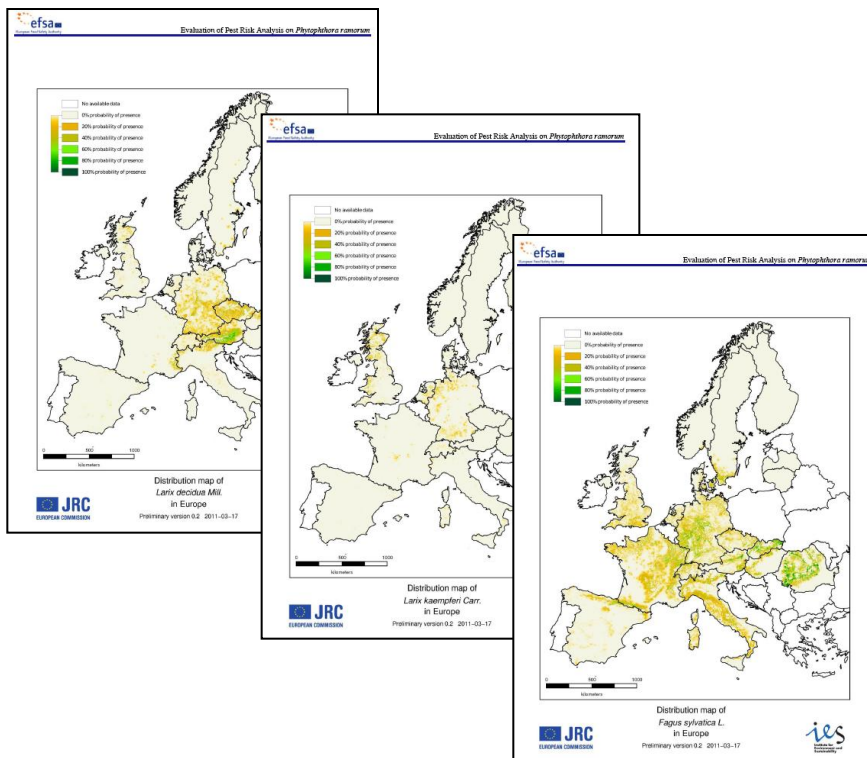


Year 2005



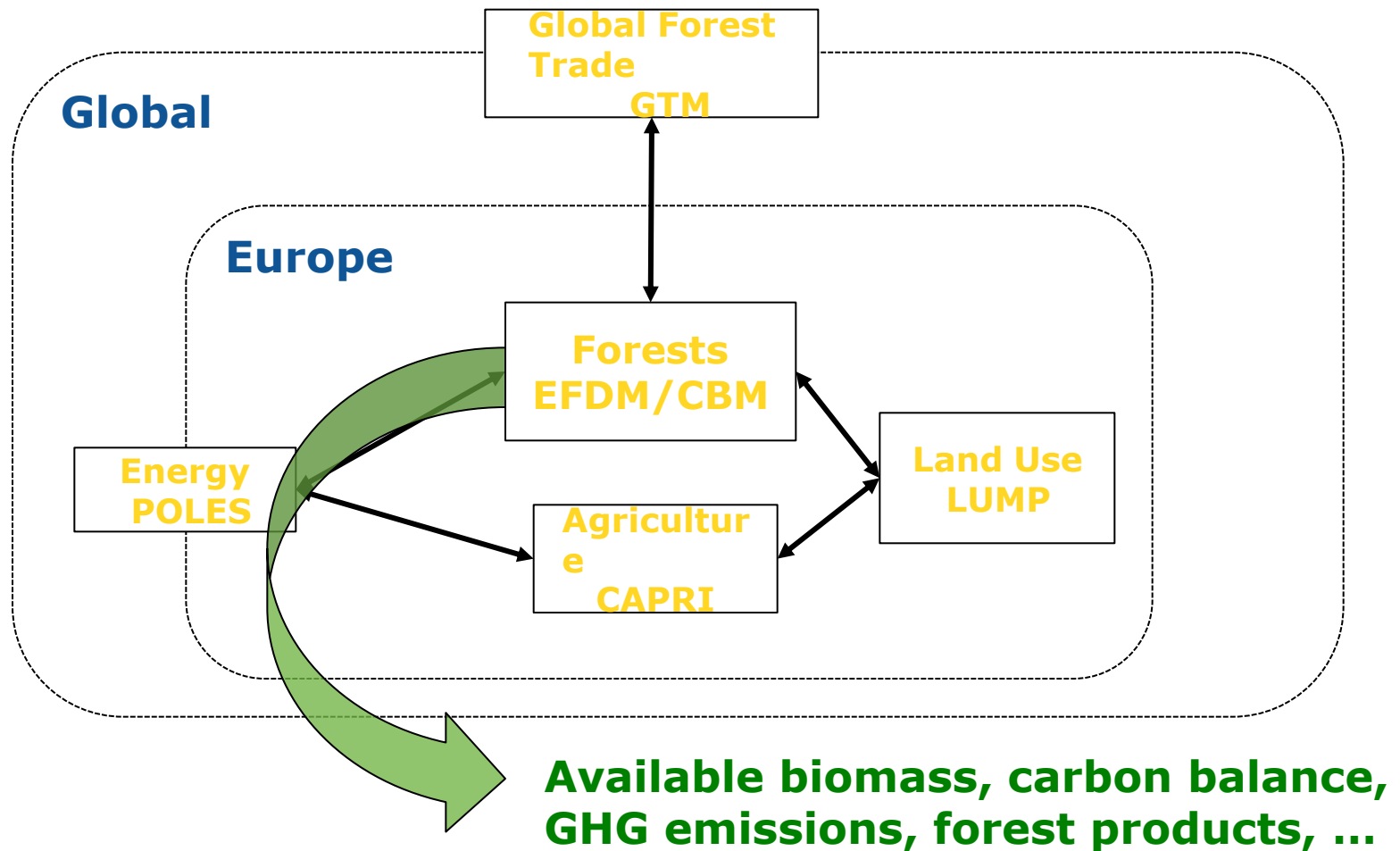
Forests and Climate

**Current and future habitat distribution of Scots Pine (*Pinus sylvestris*, Pinaceae).
IPCC SRES A1B Scenario, 2000-2100 vegetation shift projection under 710ppm CO₂, +1.8°C**

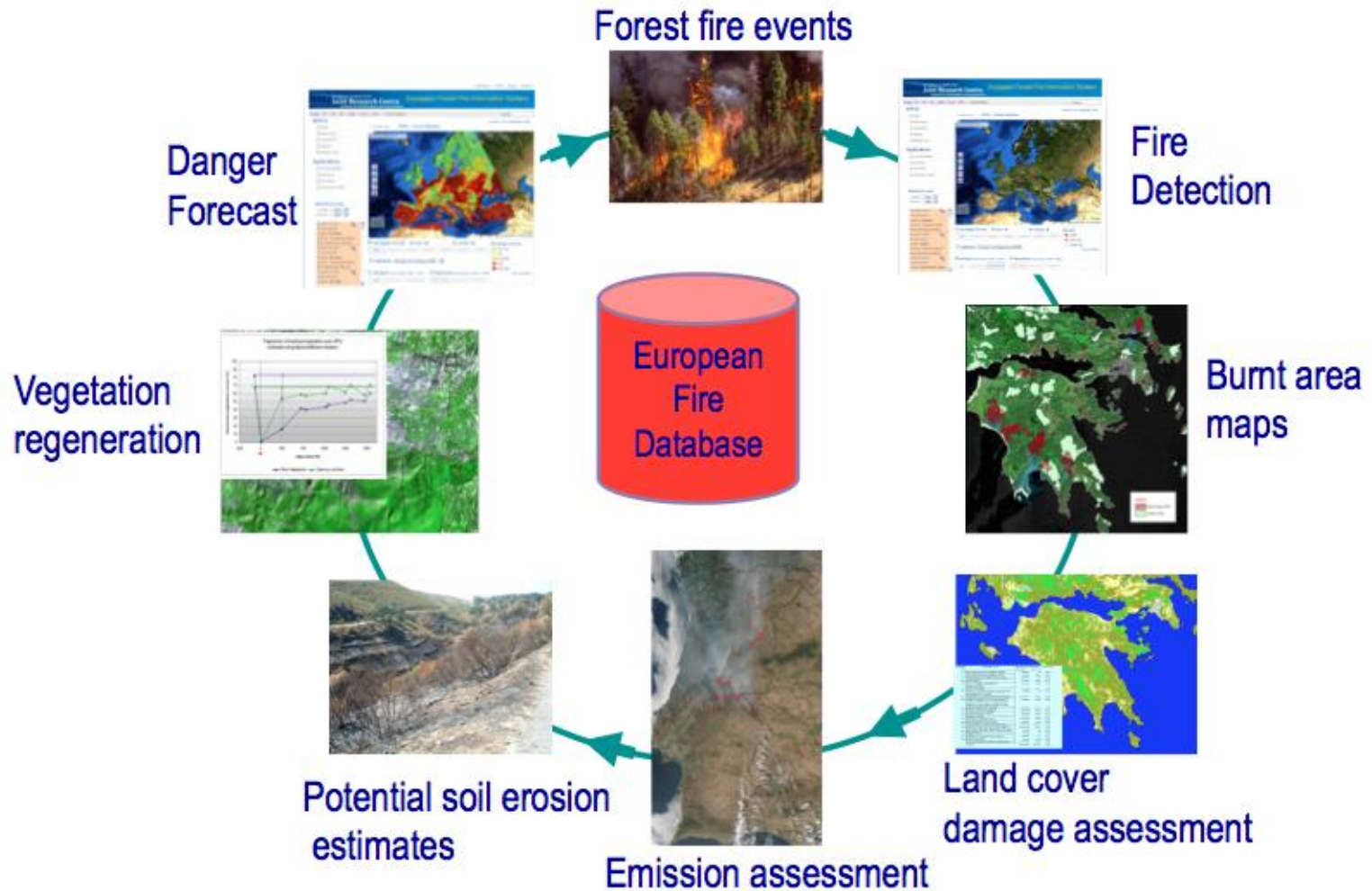


**Current and future
habitat suitability of Scots Pine**

Forest modeling and Policy Impact Analysis



Forests and Fires - EFFIS



OUTLOOK

Setting up a **European Forest information System**

including

- Baseline data (EFDAC)
- Modeling tools
- Information services like EFFIS

Thank you for your attention!