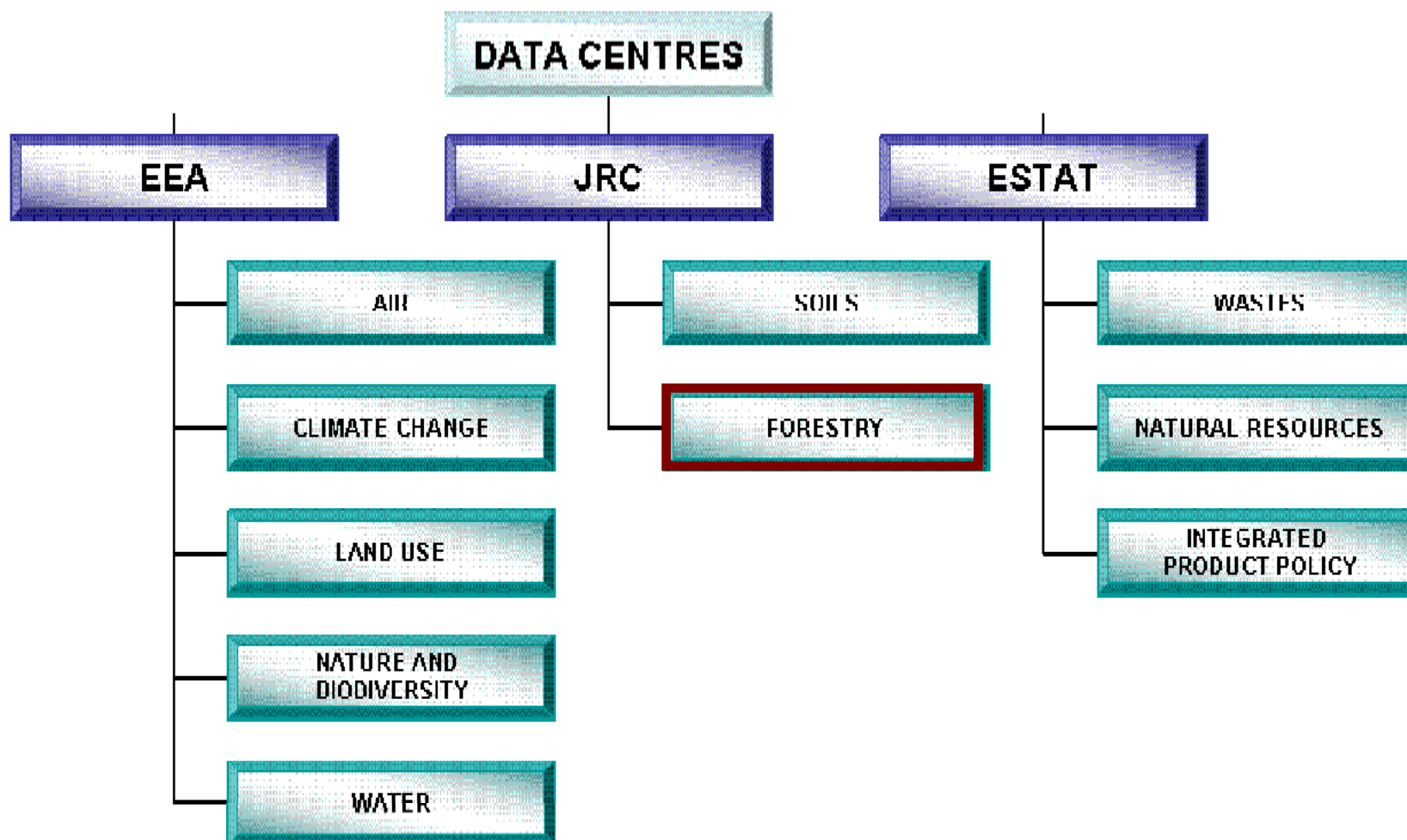
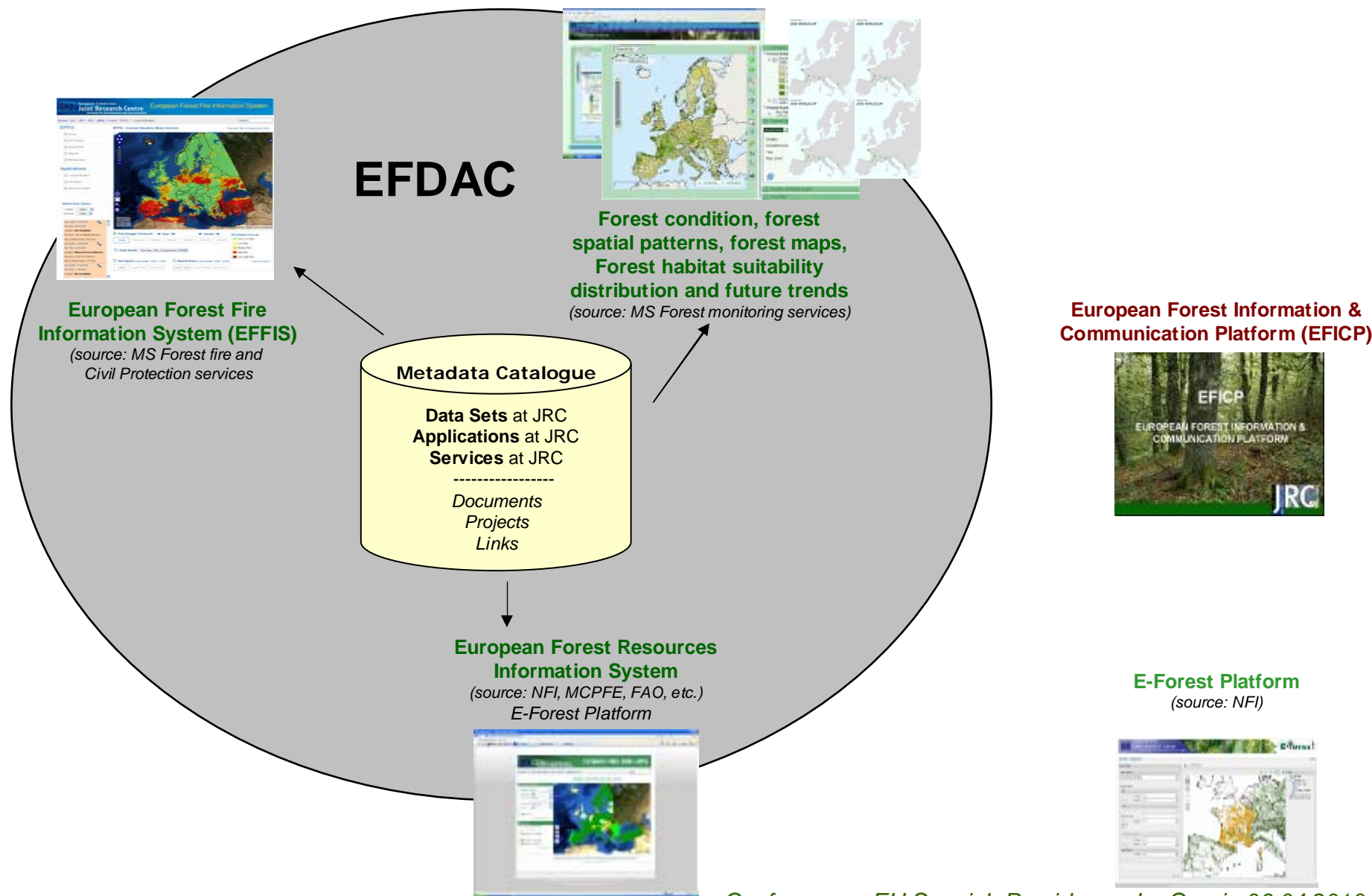




The European Forest Data Center (EFDAC) and the European Forest Fire Information System (EFFIS)

*J. San-Miguel,
G. Gaigalas , C. Whitmore,
A. Camia, G. Liberta, C. Giovando, R. Boca*





EFDAC entry page <http://efdac.jrc.ec.europa.eu>

[Legal Notice](#) [Contact](#) [Sitemap](#) [Members](#)



[Europa](#) ▶ [EC](#) ▶ [JRC](#) ▶ [IES](#) ▶ [LMNH](#) ▶ [Forest](#) ▶ [EFDAC](#)

search...

EFDAC

- ① Home
- ① About EFDAC
- ① Key Documents / Events
- ① Other Data Centres
- ① Useful links

Applications

- ① Metadata Catalogue
- ① Forest Condition / Patterns
- ① Species Habitat Suitability
- ① Forest Resources
- ① Forest Fires (EFFIS)
- ① GUIDOS software

WELCOME TO THE EUROPEAN FOREST DATA CENTER

The specific goal of European Forest Data Center (EFDAC) is to become a focal point for policy relevant forest data and information by hosting and pointing to relevant forest information as well as providing web-based tools for accessing information located in EFDAC. The following applications are the core elements of the EFDAC:

METADATA CATALOGUE



The technical platform consists of a lightweight system that allows users through the web to search, browse and access the forest resources from the metadata catalogue.

FOREST MAPS / PATTERNS & FOREST CONDITION

The Map Viewer application is the customized web map service (WMS/OGC) that allows the user to visualize and navigate the forest maps, forest spatial patterns maps as well as other forest related geodatasets on forest condition available at the JRC.



EUROPEAN FOREST FIRE INFORMATION SYSTEM (EFFIS)



The European Forest Fire Information System (EFFIS) supports the services in charge of the protection of forests against fires in the EU and provides the European Commission services and the European Parliament with updated and reliable information on wildland fires in Europe.

EUROPEAN FOREST RESOURCES

The European Forest Resources Map Viewer allows the user to visualize, navigate and query the European forest resources thematic maps and datasets derived from National Forest Inventories (NFI) and international forest data providers.



TREE SPECIES MAPS & SPECIES HABITAT SUITABILITY



The application (the customized web map service) allows the user to visualize, navigate and download dominant tree species distribution as well as actual and future species habitat suitability maps of 30 main tree species according to the different climate model projections, scenarios and years.

GUIDOS SOFTWARE

A spatial pattern analysis software toolbox containing generic image processing utilities, an entire GIS system, exporting raster image overlays to Google Earth, and much more...



Metadata
Catalogue



Forest Maps, Patterns,
Forest Condition



Forest Fires EFFIS



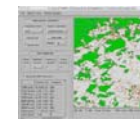
European Forest
Resources



Tree species
distribution /
suitability maps



GUIDOS software



sh Presidency, La Granja 06.04.2010

Metadata Catalogue




Resource Type

- Datasets / Maps
- Applications / Services
- Documents
- Projects
- Links

Forest Subthemes

- Forests & Climate Change
- Forest international
- Forest inventory
- Forest condition
- Forest products
- Forest mapping
- Forest biodiversity
- Forest information systems
- Forest fires

Legal Notice Contact

 European Commission
Joint Research Centre
Institute for Environment and Sustainability

EFDAC Metadata Catalogue
European Forest Data Centre

Europa ▶ EC ▶ JRC ▶ IES ▶ LMNH ▶ Forest ▶ EFDAC ▶ EFDAC Catalogue

EFDAC Catalogue

② Home / Catalogue Free Search
② Catalogue Guided Search

Resource Types

② Datasets / Maps
② Applications / Services
② Documents
② Projects
② Links

Forest Subthemes


② Forests & Climate Change
② Forest International
② Forest inventory
② Forest condition
② Forest products
② Forest mapping
② Forest biodiversity
② Forest information systems
② Forest fires

The Metadata Catalogue is one of the main elements of European Forest Data Centre (EFDAC).

The technical platform for Metadata Catalogue management consists of a lightweight system that allows users through the web to browse and search for forest resources information from the metadata catalogue. The metadata catalogue is being populated with metadata of JRC in-house data and build around a metadata model that, for geo-spatial data, is compliant with INSPIRE specifications. The metadata management interface gives the user the possibility to search metadata by forest subthemes or resources types. Through the metadata record the user can directly access the data source (in case the use of original data is not restricted).

Search in EFDAC Catalogue:??

[Advanced]



European Commission
Joint Research Centre
Institute for Environment and Sustainability

EFDAC Metadata Catalogue

European Forest Data Centre

Europa > EC > JRC > IES > LMNH > Forest > EFDAC > EFDAC Catalogue

EFDAC Catalogue

- Home / Catalogue Free Search
- Catalogue Guided Search

Resource Types

- Datasets / Maps
- Applications / Services
- Documents
- Projects
- Links

Forest Subthemes

- Forests & Climate Change
- Forest International
- Forest inventory
- Forest condition
- Forest products
- Forest mapping
- Forest biodiversity
- Forest information systems
- Forest fires

Forests & Climate Change

- [+] Related **JRC Datasets / Maps (6 Results)**
- [+] Related **JRC Applications / Services (1 Results)**
- [+] Related **Documents (3 Results)**
- [+] Related **Projects (3 Results)**
- [+] Related **Links (6 Results)**

datasets / maps

applications
/ services

documents

projects

links



Europa > EC > JRC > IES > LMNH > Forest > EFDAC > EFDAC Catalogue

EFDAC Catalogue

Home / Catalogue Free Search

Catalogue Guided Search

Resource Types

Datasets / Maps

Applications / Services

Documents

Projects

Links

Forest Subthemes

Forests & Climate Change

Forest International

Forest inventory

Forest condition

Forest products

Forest mapping

Forest biodiversity

Forest information systems

Forest fires

Forest mapping

[+] Related JRC Datasets / Maps (2 Results)

Forest / Non-Forest Map 2000

Abstract: Pan-European Forest / Non Forest Map with target year 2000, Data Source: Landsat ETM+ and Corine Land Cover 2000, Classes: forest, non-forest, clouds/snow, no data; Method: automatic classification performed with an in-house algorithm; spatial resolution: 25m

Last update: 11/08/09

Forest / Non-Forest Map 1990

Abstract: Pan-European Forest / Non Forest Map with target year 1990, Data Source: Landsat 4, 5 (1985-1995) and Corine Land Cover 2000, Classes: forest, non-forest, clouds/snow, no data; Method: automatic classification performed with an in-house algorithm.

Last update: 11/08/09

[+] Related JRC Applications / Services (1 Results)

[+] Related Projects (3 Results)

[+] Related Links (4 Results)

Expanded list

European Commission
Joint Research Centre
Institute for Environment and Sustainability

EFDAC Metadata Catalogue
European Forest

Europa > EC > JRC > IES > LMNH > Forest > EFDAC > EFDAC Catalogue

EFDAC Catalogue [Back](#)

Home / Catalogue Free Search

European Forest Spatial Pattern 2000

Title

European Forest Spatial Pattern 2000

The pattern map is available over Europe for year 2000 with a spatial resolution of 100m. The map is divided into seven pattern classes: 1) "core forest", 2) "edge" of core, 3) "perforation edge" (inside core patches), 4) "connection: loop", 5) "connection: bridge" (between core patches), and 6) "islet" (small forest patches). The map has been obtained from the binary forest cover map of CORINE Land Cover 2000. The morphological image filtering techniques. On the basis of pattern maps, Forest Pattern indicators were developed.

forest spatial pattern; fragmentation; connectivity; Forest biodiversity

Geographic Extent

West: -15.0
East: 40.0
South: 35.0
North: 75.0

Date

Publication: 2009-02-11
Revision: 2008-12-07
Creation: 2007-05-22

Online Resource

Information: <http://forest.jrc.ec.europa.eu/forest-pattern/pattern-products>
Download: <http://forest.jrc.ec.europa.eu/download/data/MSPA-Maps>
Application: <http://efdac.jrc.ec.europa.eu/Mewer>

Responsible Party

Organisation Name: European Commission, Joint Research Centre, Institute for Environment and Sustainability

Constraints

Access constraints: copyright

Topic Category

environment

Language

eng

Forest Subthemes

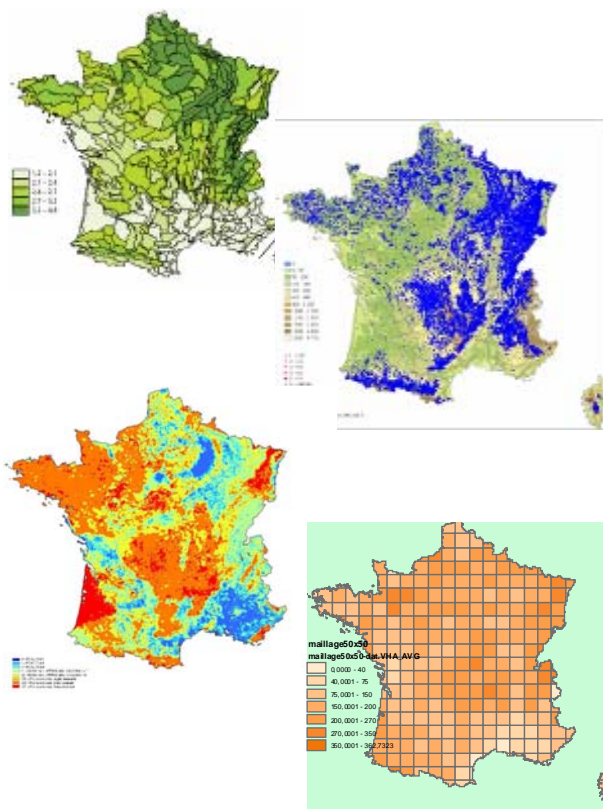
- Forests & Climate Change
- Forest International
- Forest inventory
- Forest condition
- Forest products
- Forest mapping
- Forest biodiversity**
- Forest information systems
- Forest fires

Application

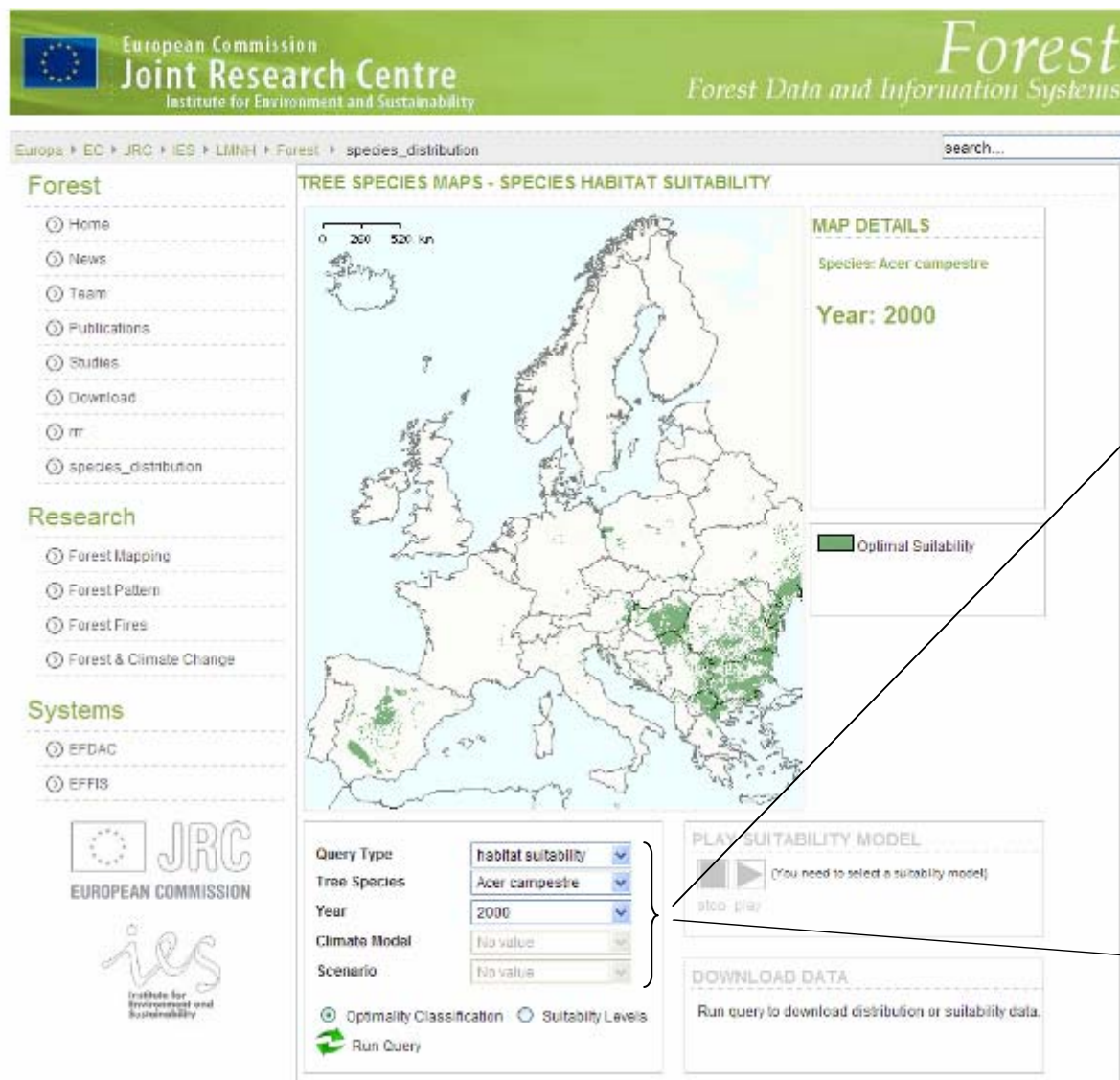
Information

Download

E-Forest - JRC EFDAC Framework Contract



Display	Grid levels used	Description	Comments
Qualitative variables			
Inventory Plot Distribution	INSPIRE Grid 1x1 km	Display forest plots	
Inventory Plot Distribution	INSPIRE Grid 1x1 km	Display forest and non-forest plots	To show the richness of NFI data
Tree Species Groups	INSPIRE Grid 1x1 km	Majority of conifers or broadleaves	2 classes: conifers and broadleaves. Sum of basal area for each class (comparison)
Tree Species Groups	INSPIRE Grid 1x1 km	Majority of conifers or broadleaves for harmonized dbh ≥ 12 cm	2 classes: conifers and broadleaves. Sum of basal area for each class (comparison)
Occurrence (presence/absence) of one tree species	INSPIRE Grid 1x1 km	Display all the plots + highlight those with the chosen tree species	Qualitative variables chosen by the user
Occurrence (presence/absence) of one tree species	INSPIRE Grid 1x1 km	Plots where the tree species is present	WFS service with a tree_species parameter to fill (in accordance with the tree species nomenclature)
Quantitative variables			
Basal Area	INSPIRE Grid 50x50 km	Data retrieval on demand for one tree species	The user chooses: - the tree species - the aggregation method
Basal Area	INSPIRE Grid 50x50 km	Basal area where the tree species is present	WFS service with a tree_species parameter to fill (in accordance with the tree species nomenclature)



Actual and future species habitat suitability

Tree species

- *Castanea sativa*
- ...
- ...

Year

- 2000 (current)
- 2020
- 2050
- 2080

Climatic model projections

- CCCMA
- CSIRO
- HADCM3
- ENS

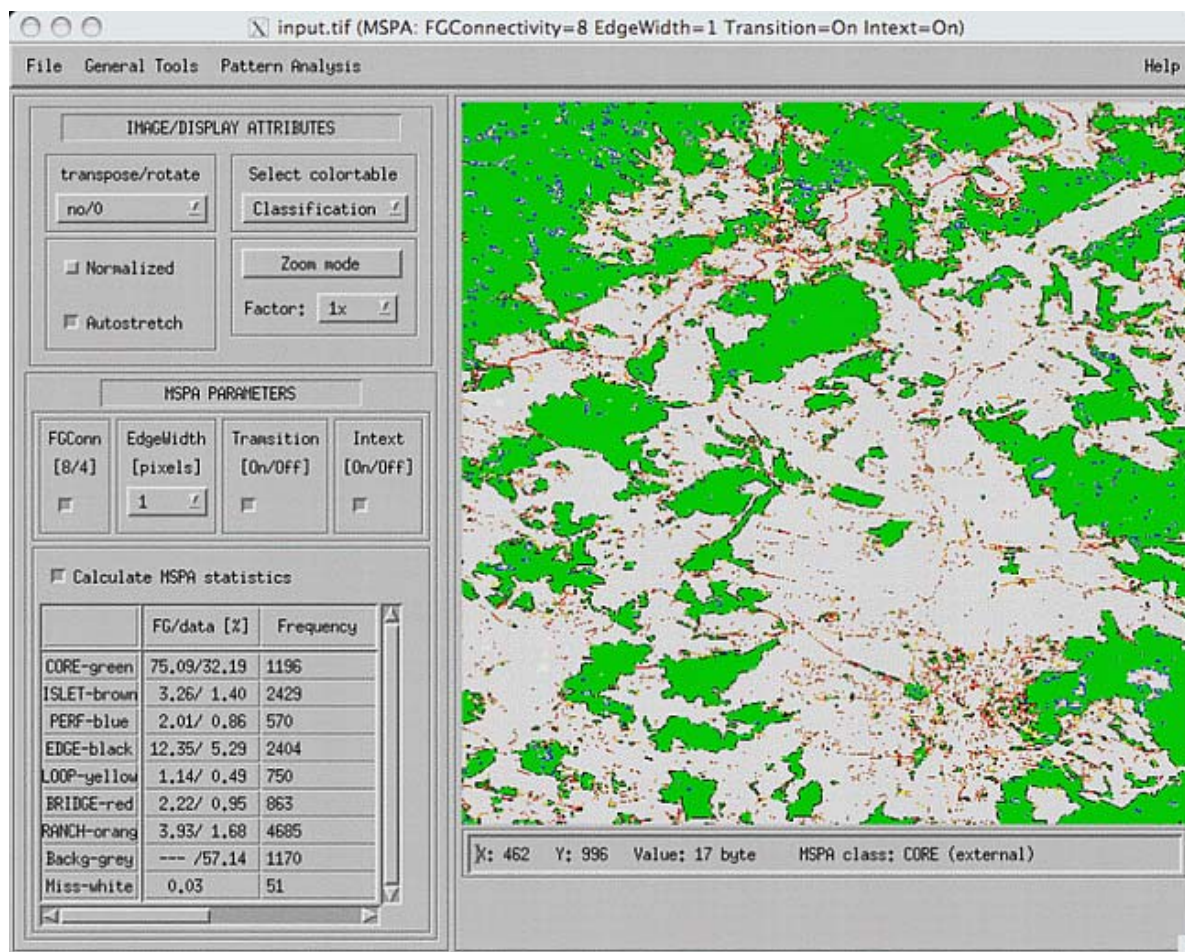
IPCC SRES scenarios

- A2a
- B2a

Dominant tree species distribution

Tree species

- Year • 2000 (current)



GUIDOS software

MSPA (Morphological Spatial Pattern Analysis) is a customized sequence of mathematical morphological operators targeted at the description of the geometry and connectivity of the image components.



European Forest Fire Information System
(source: MS Forest Civil Protection)



[Europa](#) > [EC](#) > [JRC](#) > [IES](#) > [LMNH](#) > [Forest](#) > [EFFIS](#)

EFFIS

- [Home](#)
- [EFFIS News](#)
- [About EFFIS](#)
- [Member Area](#)

Applications

- [Current Situation](#)
- [Fire News](#)
- [Advanced Viewer](#)

WELCOME TO EFFIS

We are pleased to announce the launch of the new EFFIS website on 19/06/2008. We apologize for any inconvenience that might be caused by this transition phase and welcome your [feedback](#).

The European Forest Fire Information System (EFFIS) supports the services in charge of the protection of forests against fires in the EU countries and provides the European Commission services and the European Parliament with updated and reliable information on wildland fires in Europe.

CURRENT FIRE SITUATION



The most up to date information on the current fire season in Europe and in the Mediterranean area. This includes today meteorological fire danger maps and forecast up to 6 days, daily updated satellite images of the last 7 days, maps of the latest hot spots and fire perimeters also updated daily.

Fire News

website:
<http://www.google.it/news/url?sa=T&ct=it/4-0&fd=R&url=http://notizie.a...>
2008-06-18 07:08:00

Incendi, 42 roghi nella notte a Palermo (EMM Search Italian)

A selection of news from the press on wildland fires in Europe updated daily by the EFFIS team. News can be browsed for specific countries selected by the user from the news map.

FIRE NEWS



EFFIS ADVANCED VIEWER



The traditional EFFIS web mapping interface providing access to all main EFFIS modules, historical data and advanced analysis capabilities to experienced users.

MEMBER AREA

Private area for data and information exchange among the EC services, the fire protection services of the EU Member States and all the countries of the EFFIS network.



Last Updated (Friday, 20 June 2008 15:24)

- *The European Forest Fire Information System (EFFIS) has been **established by the Joint Research Centre (JRC) and the Directorate General for Environment (DG ENV) of the European Commission (EC)** in close collaboration with the Member States and neighbor countries.*
- *It **supports the services** in charge of the protection of forests against fires **in EU and neighbor countries**, and provides the **EC services** and the **European Parliament** with information on forest fires in Europe.*
- *Aims at providing **up-to-date, reliable information on forest fires at the European level**, providing European level assessments during both pre-fire and post-fire phases, thus supporting fire prevention, preparedness, fire fighting and post-fire evaluations.*
- *EFFIS is intended as **complementary system to national and regional systems** in the countries, which provides **harmonized information required for international collaboration** on forest fire prevention and fighting and in cases of trans-boundary fire events.*

Forest fire events

*Danger
Forecast*



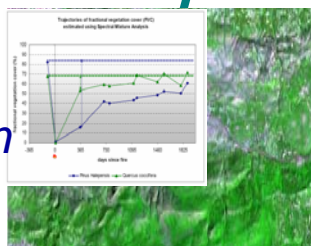
*Fire
Detection*



*Burnt area
maps*



*Vegetation
regeneration*



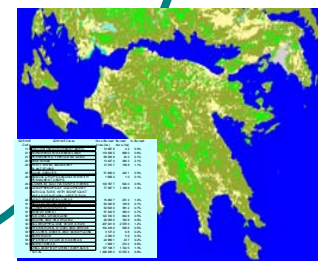
*Potential soil erosion
estimates*

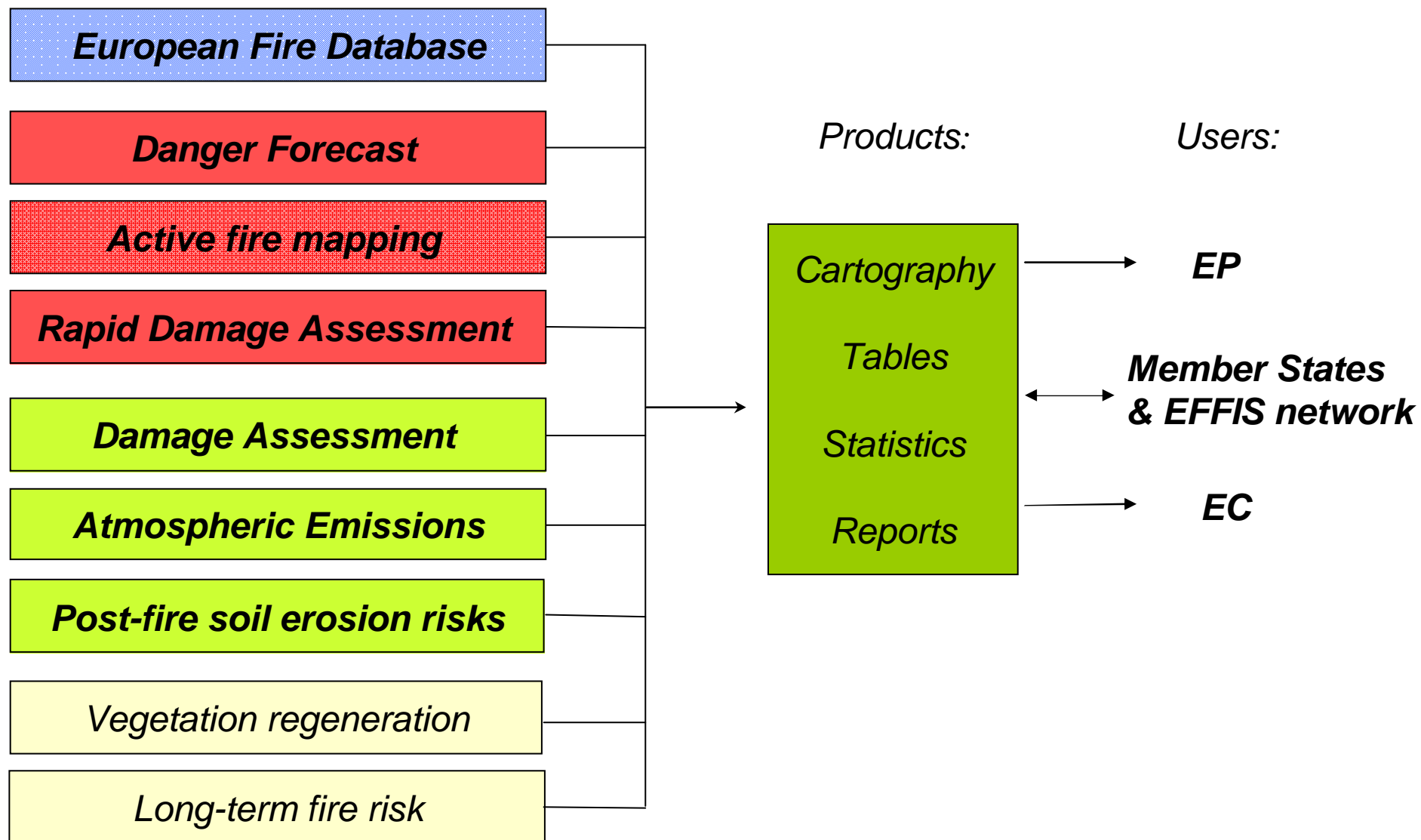


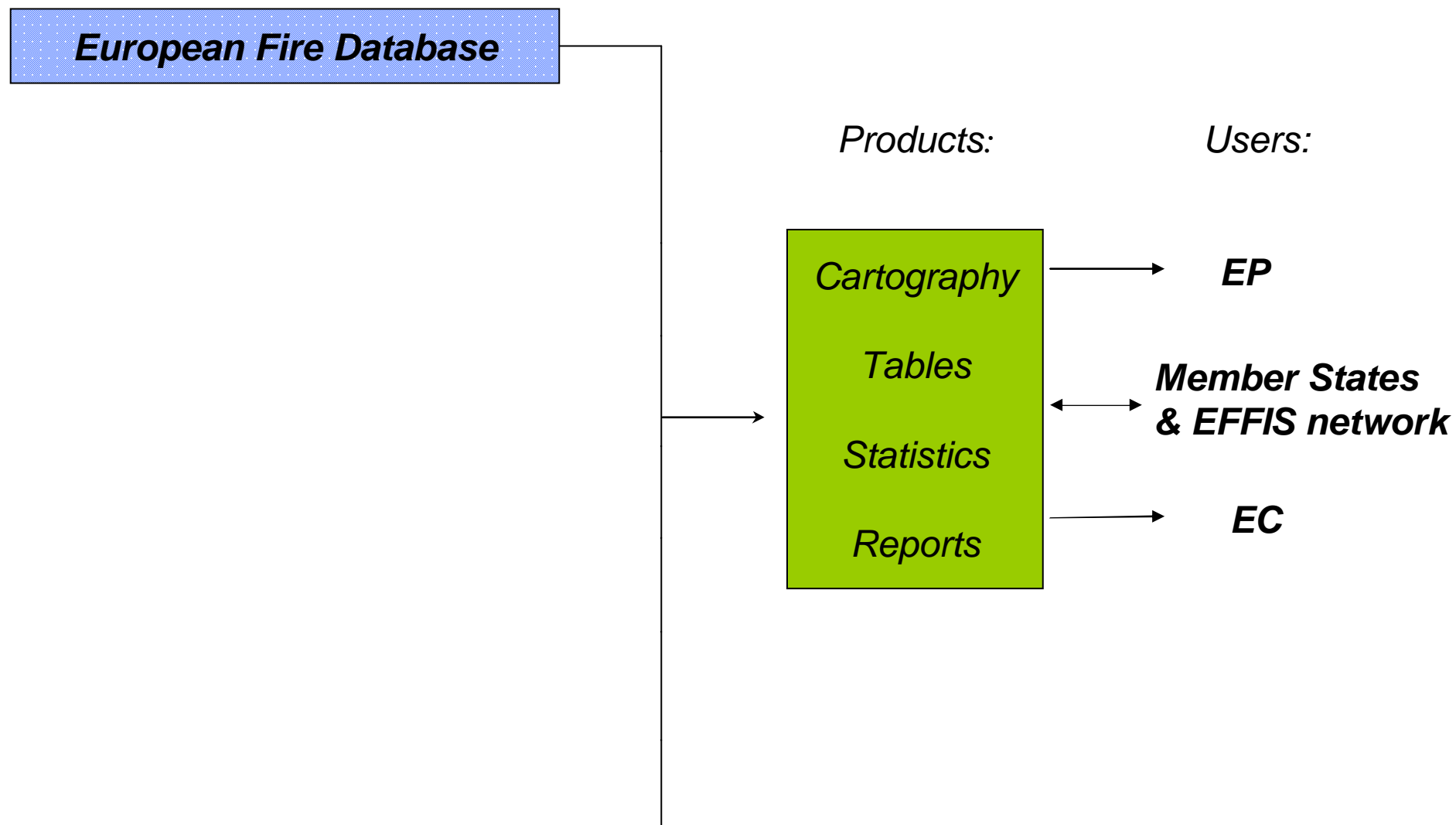
Emission assessment



*Land cover
damage assessment*







WHEN ?

FIRE TIME

Date and Time of first alert

Date and Time of first intervention

Date and Time of fire extinction

WHERE ?

FIRE LOCATION

Country

NUTS level 3 code (province)

NUTS level 5 code (commune)

HOW ?

FIRE SIZE

Total Burned Area

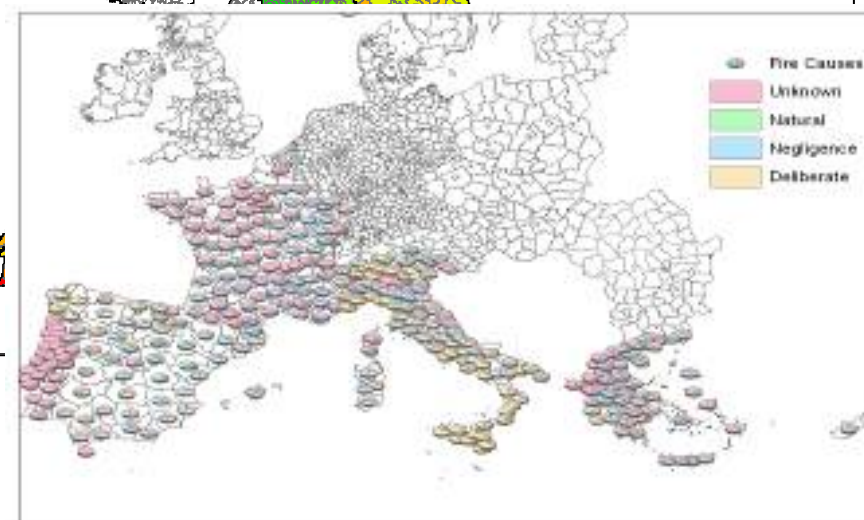
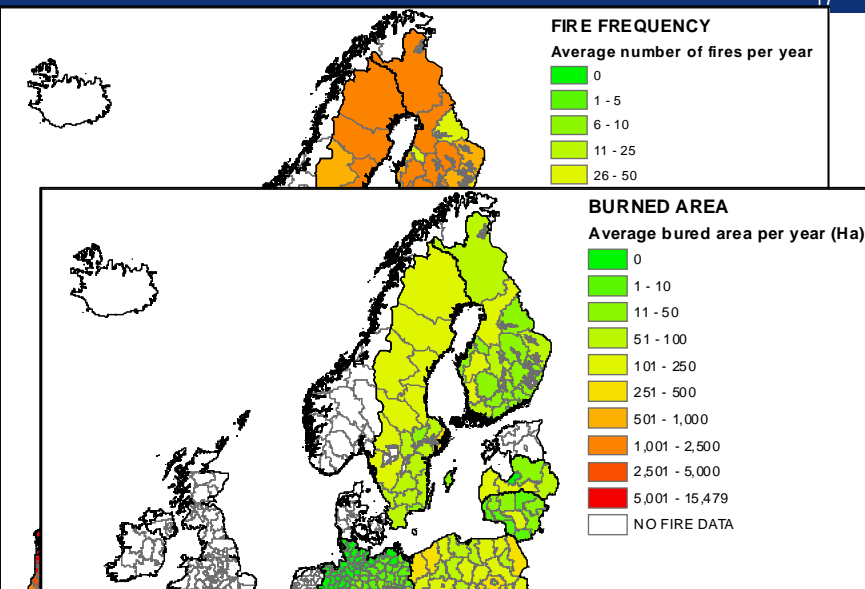
Forest Burned Area

Non Forest Burned Area

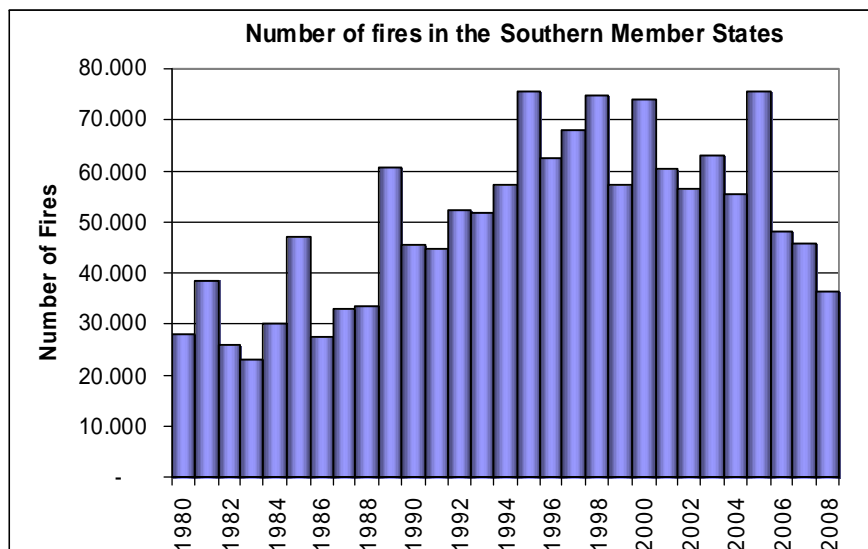
WHY ?

FIRE CAUSES

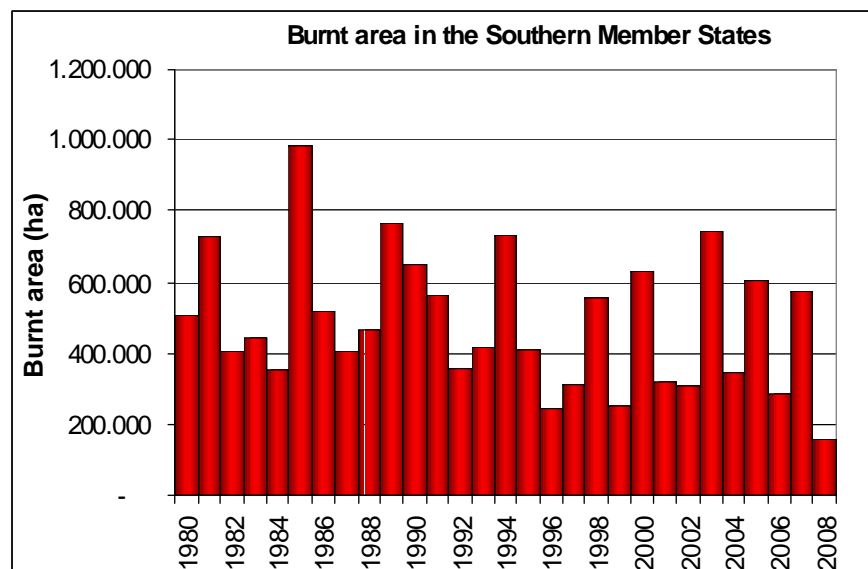
Presumed cause (4 classes)



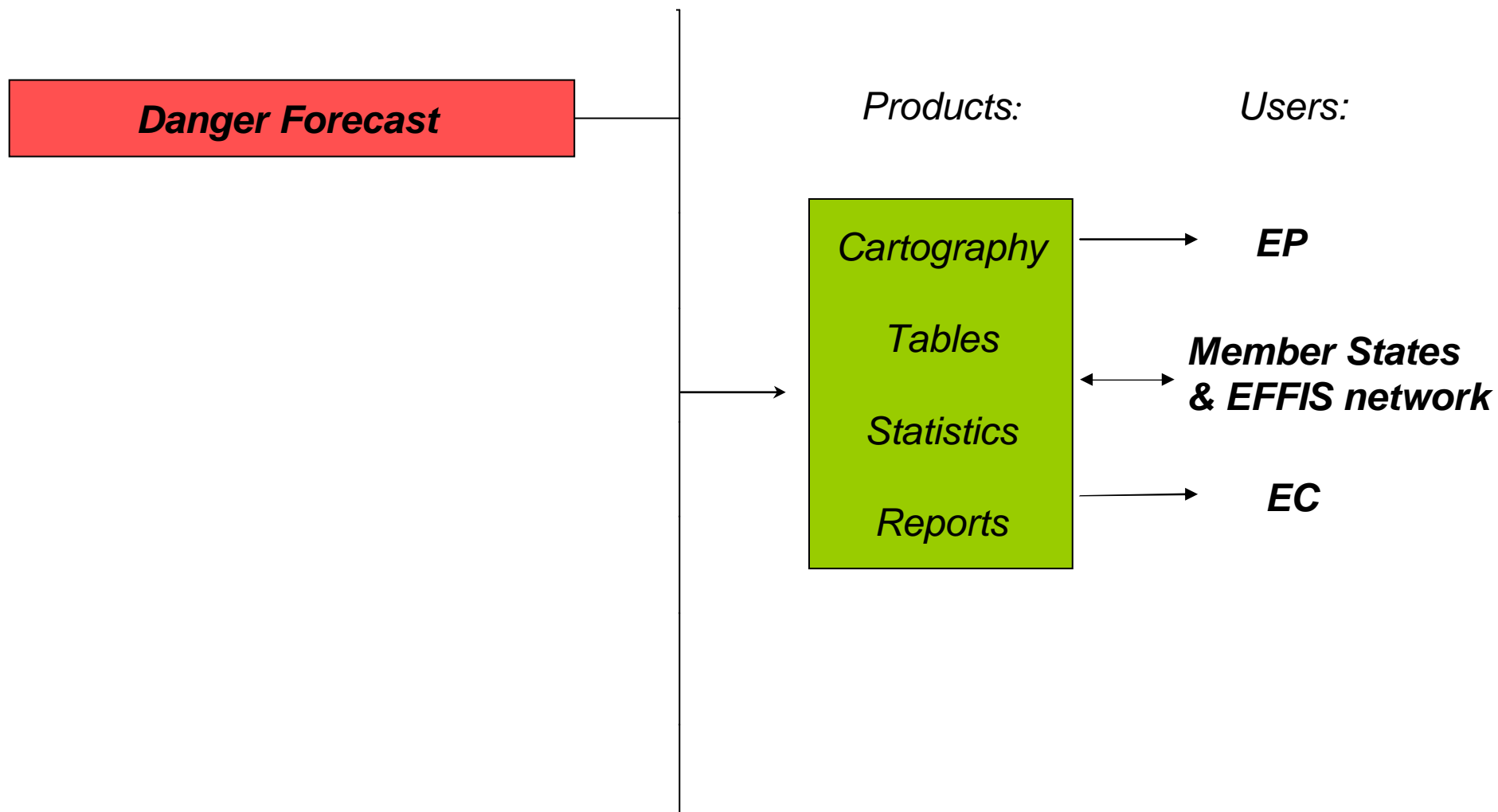
- Effort of national and EC services
Work of 26 Countries
at 1.8 million records
-
- The map shows Europe and surrounding regions. Countries are colored orange or black. Circled areas highlight specific regions: Iceland, the British Isles, the Balkans, and North Africa.



*About 75000 fires in the EU every year
70% in the EU Med region*



*About 500000 ha burnt in the EU per year
85% of the burnt area in the Med region*



1 to 6 days forecast at 30 km resolution

European Commission
Joint Research Centre
Institute for Environment and Sustainability

European Forest Fire Information System

Europa > EC > JRC > IES > LMNH > Forest > EFFIS > Current

EFFIS

- Home
- EFFIS News
- About EFFIS
- Reports
- Member Area

Applications

- Current Situation
- Fire News
- Fire History
- Advanced Viewer

Burnt Area Locator

Country: ...Select...
Province: ...Select...

Last Update: 31-08-2009
Start Date: 30-08-2009
Location: Rio Douro
Province: Tamega (Portugal)
Size of Burnt Area: 272 (ha)

Last Update: 31-08-2009
Start Date: 30-08-2009
Location: Rio Douro
Province: Tamega (Portugal)
Size of Burnt Area: 86 (ha)

Last Update: 31-08-2009
Start Date: 30-08-2009
Location: Sao Gens

Projection EPSG:31466

500 km
200 km

Fire Danger Forecast

Today Tomorrow

Hot Spots (Last Update: 01/09 : 10:09)

Burnt Areas (Last Update: 01/09 : 14:09)

Latest Last 7 Days Last 90 Days Last 7 Days Last 30 Days All season

EUROPEAN COMMISSION
Joint Research Centre

EUROPA > European Commission > Joint Research Centre > Institute for Environment and Sustainability > Land Management & Natural Hazards Unit > Forest

European Forest Fire Information System

Location: EFFIS Home > Map Viewer

EFFIS Modules

Risk Forecast System

☒ Fire Risk

Index: Canadian FWI

Days: 2007-06-14

Period: 2007-06-05

Function: Average

Forecast: 1 days

Damage Assessment System

☒ Burnt Areas (>50 ha)

☐ Year 2000

☐ Year 2001

☐ Year 2002

☐ Year 2003

☐ Year 2004

Rapid Assessment System

☒ Burnt Areas (>50 ha)

☐ Year 2004

THEMES

☒ Adm. Boundaries

☒ Country Names

☒ SRTM DEM

☐ Land Cover

☐ Corine-2000 Lev1

☐ Fuel Map

☐ Forest Mask

☐ Spatial Patterns

☐ Corine-90

☐ CCN River Network

☐ NASA Landsat7 Mosaic

LEGEND

Administrative Boundaries

Fire Risk

Lowest 1 hour D

Global Forest Fire Danger 16 May 2009
FWI Fire Danger Classes - 3 hours time step

Fire Weather Index (FWI)

FWI Fire Danger Classes used in EFFIS

1

2

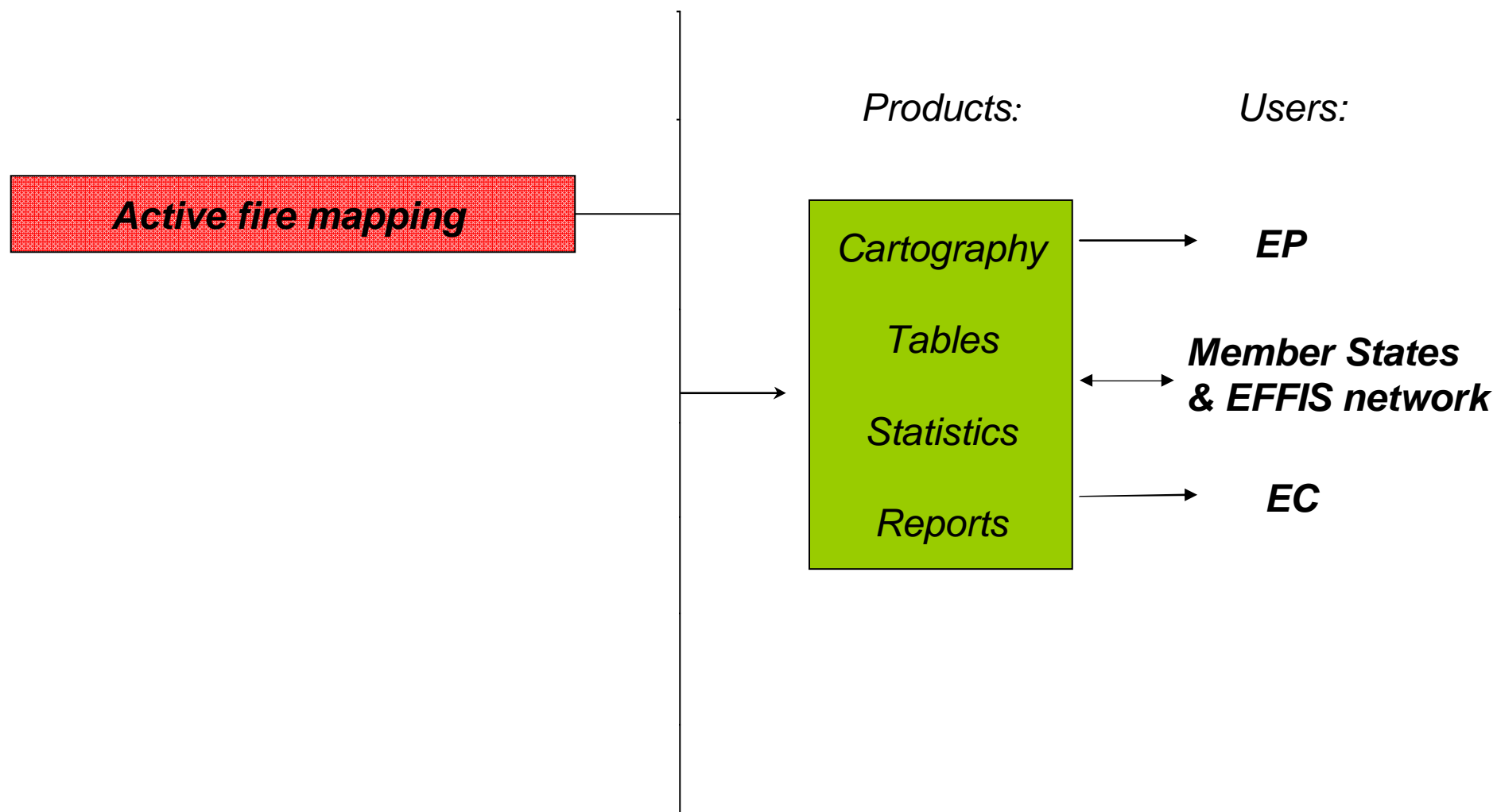
3

4

5

Testing of 3 day forecast
at 7 km resolution

Test on a global
fire danger assessm



European Commission
Joint Research Centre
Institute for Environment and Sustainability

Europe > EC > JRC > IES > LMNH > Forest > EFFIS

EFFIS

- Home
- EFFIS News
- About EFFIS
- Reports
- Member Area

Applications

- Current Situation
- Fire News
- Fire History
- Advanced Viewer

Burnt Area Locator

Country: ...Select...
Province: ...Select...

Last Update: 31-08-2009
Start Date: 30-08-2009
Location: Valadares
Province: Tamega (Portugal)
Size of Burnt Area: 828 (ha)

Last Update: 31-08-2009
Start Date: 30-08-2009
Location: Rosem
Province: Tamega (Portugal)
Size of Burnt Area: 438 (ha)

Last Update: 31-08-2009
Start Date: 30-08-2009
Location: Gouveia (Sao Simao)

European Commission
Joint Research Centre
Institute for Environment and Sustainability

Europe > EC > JRC > IES > LMNH > Forest > EFFIS > Current Situation

EFFIS

- Home
- EFFIS News
- About EFFIS
- Reports
- Member Area

Applications

- Current Situation
- Fire News
- Fire History
- Advanced Viewer

Burnt Area Locator

Country: ...Select...
Province: ...Select...

Last Update: 31-08-2009
Start Date: 30-08-2009
Location: Valadares
Province: Tamega (Portugal)
Size of Burnt Area: 828 (ha)

Last Update: 31-08-2009
Start Date: 30-08-2009
Location: Rosem
Province: Tamega (Portugal)
Size of Burnt Area: 438 (ha)

Last Update: 31-08-2009
Start Date: 30-08-2009
Location: Gouveia (Sao Simao)

European Commission
Joint Research Centre
Institute for Environment and Sustainability

Europe > EC > JRC > IES > LMNH > Forest > EFFIS > Current Situation

EFFIS - Current Situation

Projection EPSG:3035

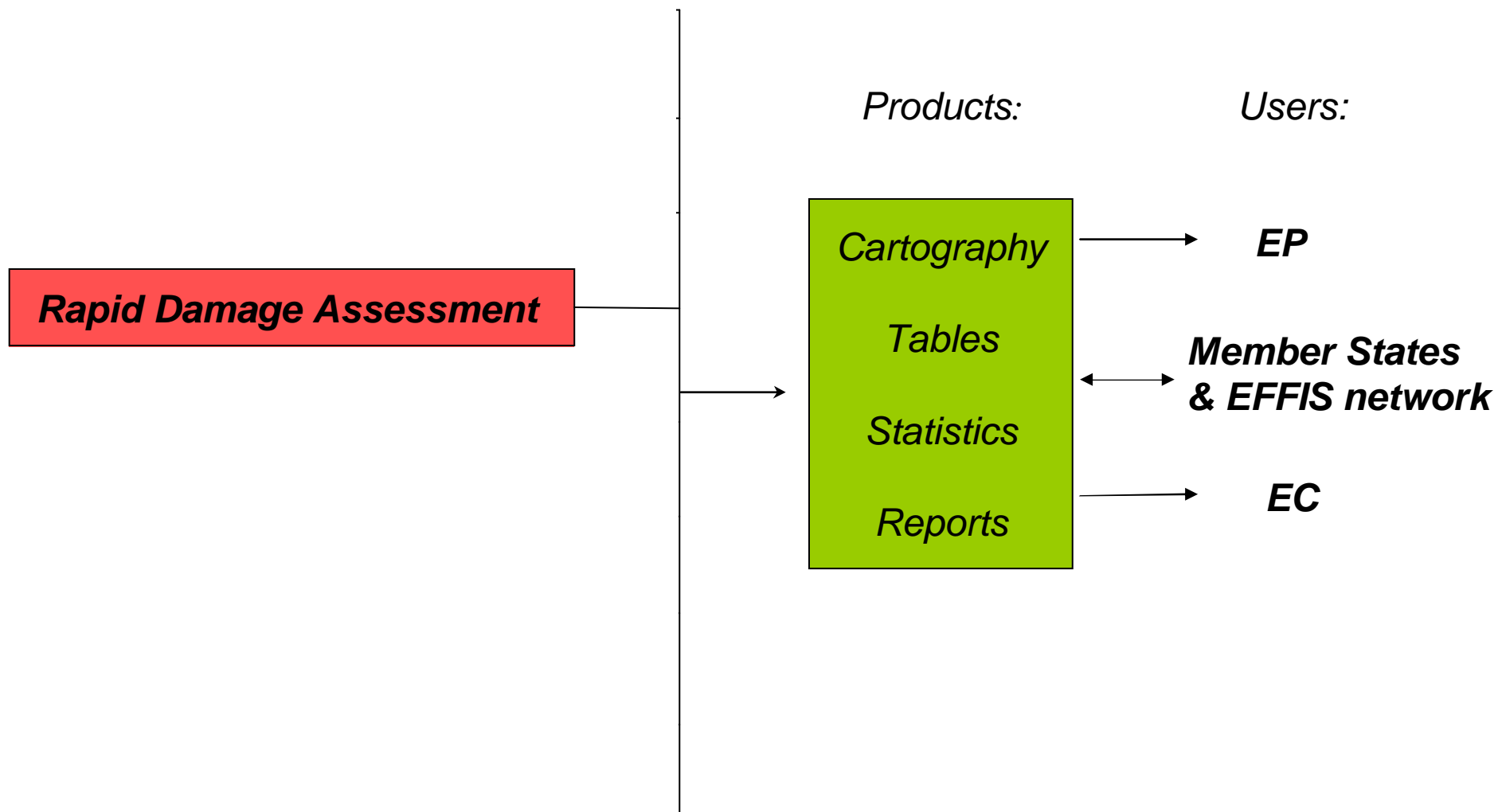
Fire Danger Forecast <- Days +> <- Opacity +>

Today Tomorrow 03/09/09 04/09/09 05/09/09 06/09/09 07/09/09

Daily Modis Tuesday 1st of September 2009

Hot Spots (Last Update: 01/09 : 16:09) Burnt Areas (Last Update: 01/09 : 16:09)

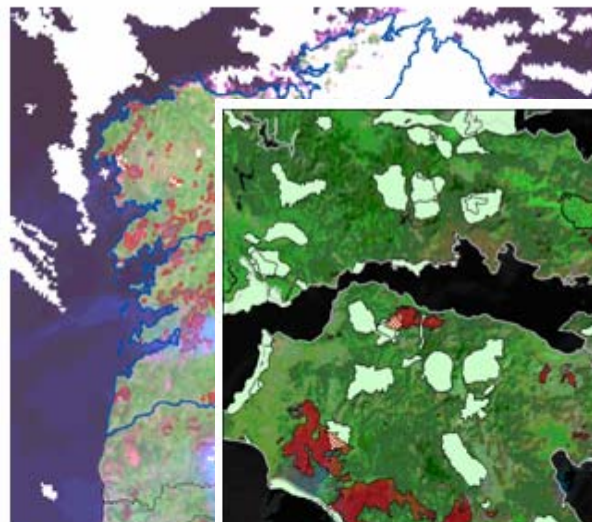
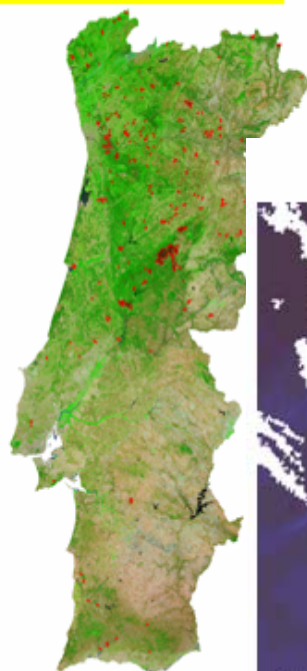
Latest Last 7 Days Last 90 Days Last 7 Days Last 30 Days All season



76 238 ha - 31 July 2005

221 062 ha - 22 August 2005

242 537 ha - 4 September 2005



Burnt area: 939

Damage to Nat

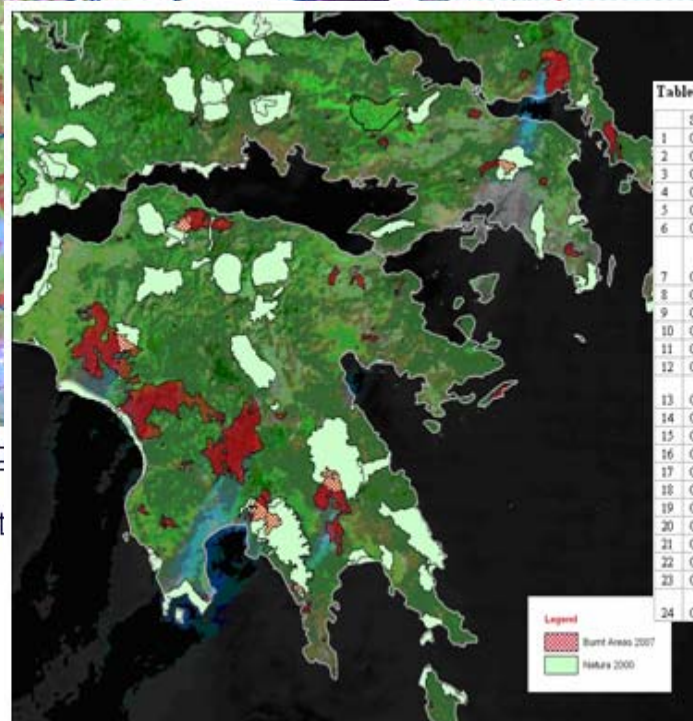
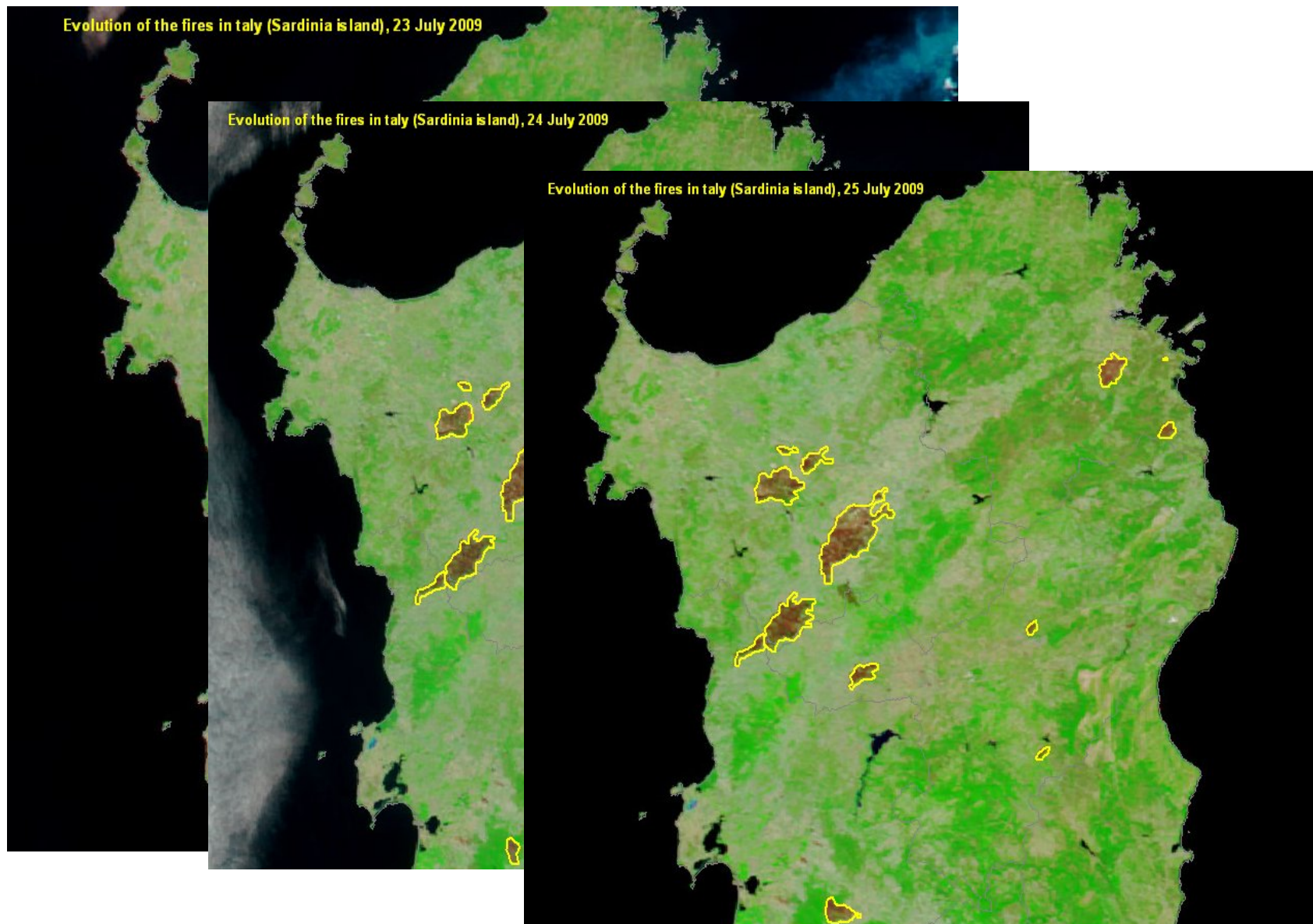


Table 2 Natura2000 sites directly affected by forest fires in Greece

	SITECODE	SITENAME
1	OR1230002	PIERIA ORI
2	OR1340001	ETHNIKOS DRYMOS PRESPO
3	OR1430001	OROS PILLO KAI PARKATIA THALASSIA ZONI
4	OR2120009	ORI TSAMANTA, FILIATRON, FARMAKOVOUNI, MEGALI RACHI
5	OR2130008	OROS MITSIKELI
6	OR2210001	DYTIKES KAI VOREIOANATOLIKES AKTES ZAKYNTHOU DELTA ACHELOOU, LIMNOTHALASSA MESOLONIOIU-AITOLIKOU KAI EKVOLES EVINOU, NISOI ECHINADES, NISOS PETALAS, DYTIKOS
7	OR2310015	ARAKYNTHOS & STENA KLEISOURAS
8	OR2320003	FARAOI VOURAIKOU
9	OR2320005	ORI MARMPAS KAI KLOKOS, FARAOI SELINOUNTA
10	OR2320010	ZOUMPATA-AOIOS CHARALAMPOS-MARMPAS-KLOKOS
11	OR2330002	OROFEDJO FOLOS
12	OR2330004	OLYMPIA
13	OR2330005	THINES KAI PARALIAKO DASOS ZACHAROS, LIMNI KAIAPA, STROFYLIA, KAKOVATOS
14	OR2410001	LIMNES YLIKI & PARALIMNI - SYSTIMA VOROTIKOU KIPISSOU
15	OR2440002	KOILADA KAI EKVOLES SPERCHEIOU - MALIAKOS KOLPOS
16	OR2520006	OROS PARNONAS (KAI PERIOCHI MALEVIS)
17	OR2530003	AKROKORINTHOS
18	OR2540005	LAOKADA TRYPSIS
19	OR2550006	OROSTAYOETOS
20	OR2550009	OROSTAYOETOS - LAOKADA TRYPSIS
21	OR3000001	OROS PARNITHA
22	OR4130001	VOREIA CHIOS KAI NISOI CINOUSES KAI PARAKTIA THALASSIA ZONI
23	OR4200011	ANATOLIKI KEA
24	OR4340010	DRAFANO (VOREIOANATOLIKES AKTES) - PARALIA GEORGIPOULIS - LIMNI KOURNA





European Commission
Joint Research Centre
Institute for Environment and Sustainability

Europa > EC > JRC > IES > LMNH > Forest > EFFIS > Current Situation

EFFIS

- Home
- EFFIS News
- About EFFIS
- Reports
- Member Area

Applications

- Current Situation
- Fire News
- Fire History
- Advanced Viewer

Burnt Area Locator

Country:
Province:

Last Update: 31-08-2009
Start Date: 30-08-2009
Location: Valadares
Province: Tamega (Portugal)
Size of Burnt Area: 828 (ha)

Last Update: 31-08-2009
Start Date: 30-08-2009
Location: Rosem
Province: Tamega (Portugal)
Size of Burnt Area: 438 (ha)

Last Update: 31-08-2009
Start Date: 30-08-2009
Location: Gouveia (Sao Simao)

☐ Fire Danger Forecast
Today Tomorrow

☒ Daily Modis

☐ Hot Spots (Last Upda
Latest Last 7 Days

European Commission
Joint Research Centre
Institute for Environment and Sustainability

European Forest Fire Information System

Europa > EC > JRC > IES > LMNH > Forest > EFFIS > Current Situation

search...

Tuesday 1st of September 2009

EFFIS

- Home
- EFFIS News
- About EFFIS
- Reports
- Member Area

Applications

- Current Situation
- Fire News
- Fire History
- Advanced Viewer

Burnt Area Locator

Country:
Province:

Last Update: 31-08-2009
Start Date: 30-08-2009
Location: Valadares
Province: Tamega (Portugal)
Size of Burnt Area: 828 (ha)

Last Update: 31-08-2009
Start Date: 30-08-2009
Location: Rosem
Province: Tamega (Portugal)
Size of Burnt Area: 438 (ha)

Last Update: 31-08-2009
Start Date: 30-08-2009
Location: Gouveia (Sao Simao)

☐ Fire Danger Forecast
Today Tomorrow

☒ Daily Modis

☐ Hot Spots (Last Update: 01/09 : 16:09) ☒ Burnt Areas (Last Update: 01/09 : 16:09)
Latest Last 7 Days Last 90 Days Last 7 Days Last 30 Days All season

Projection EPSG:900913

Imagery ©2009 TerraMetrics - Terms of Use
2655804.54777, 4689890.67447

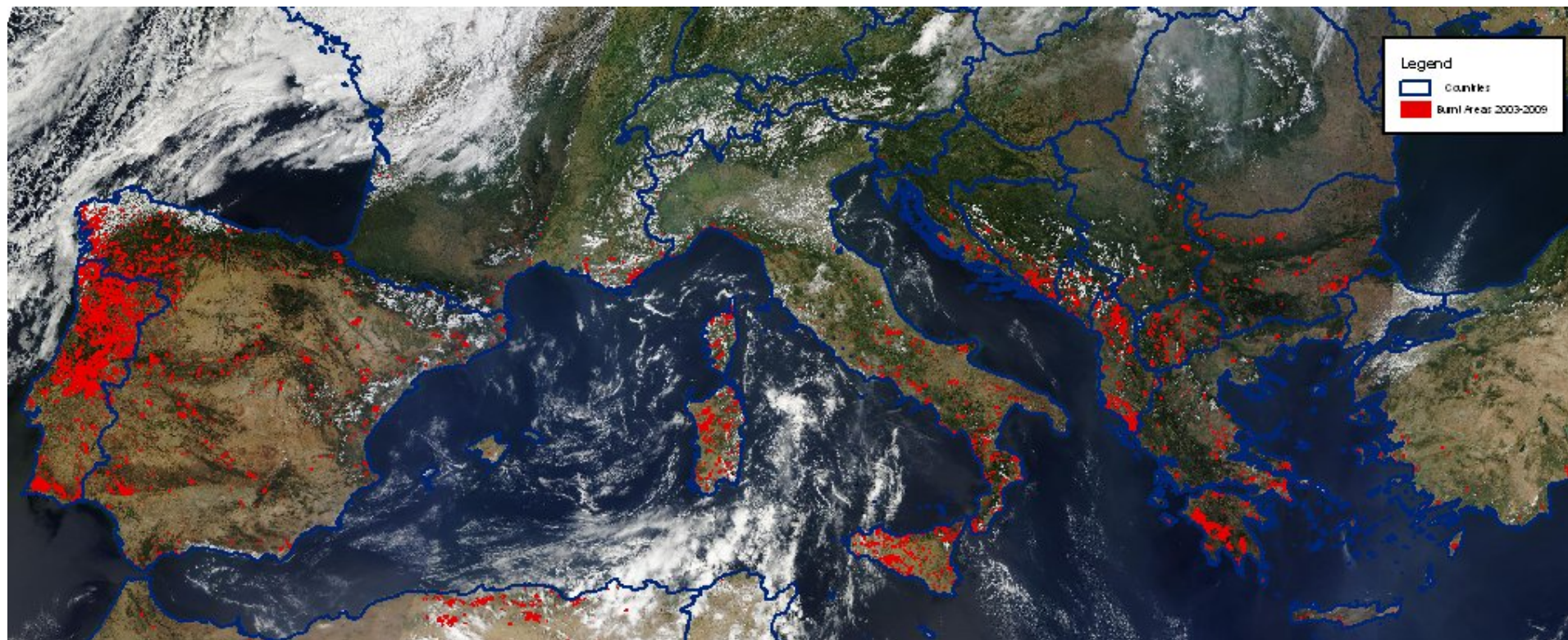
☐ Fire Danger Forecast
Today Tomorrow 03/09/09 04/09/09 05/09/09 06/09/09 07/09/09

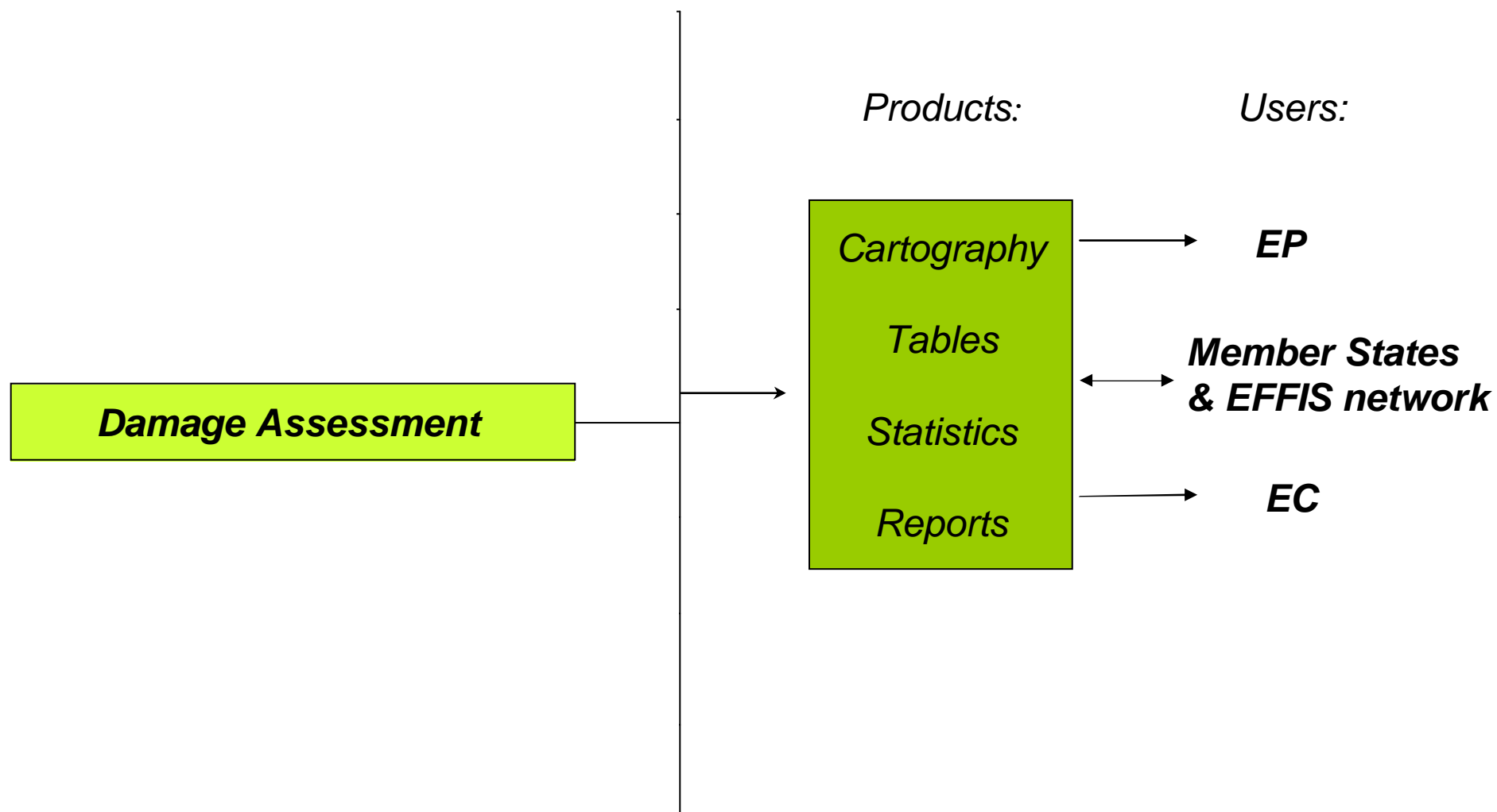
☒ Daily Modis

☐ Hot Spots (Last Update: 01/09 : 16:09) ☒ Burnt Areas (Last Update: 01/09 : 16:09)
Latest Last 7 Days Last 90 Days Last 7 Days Last 30 Days All season

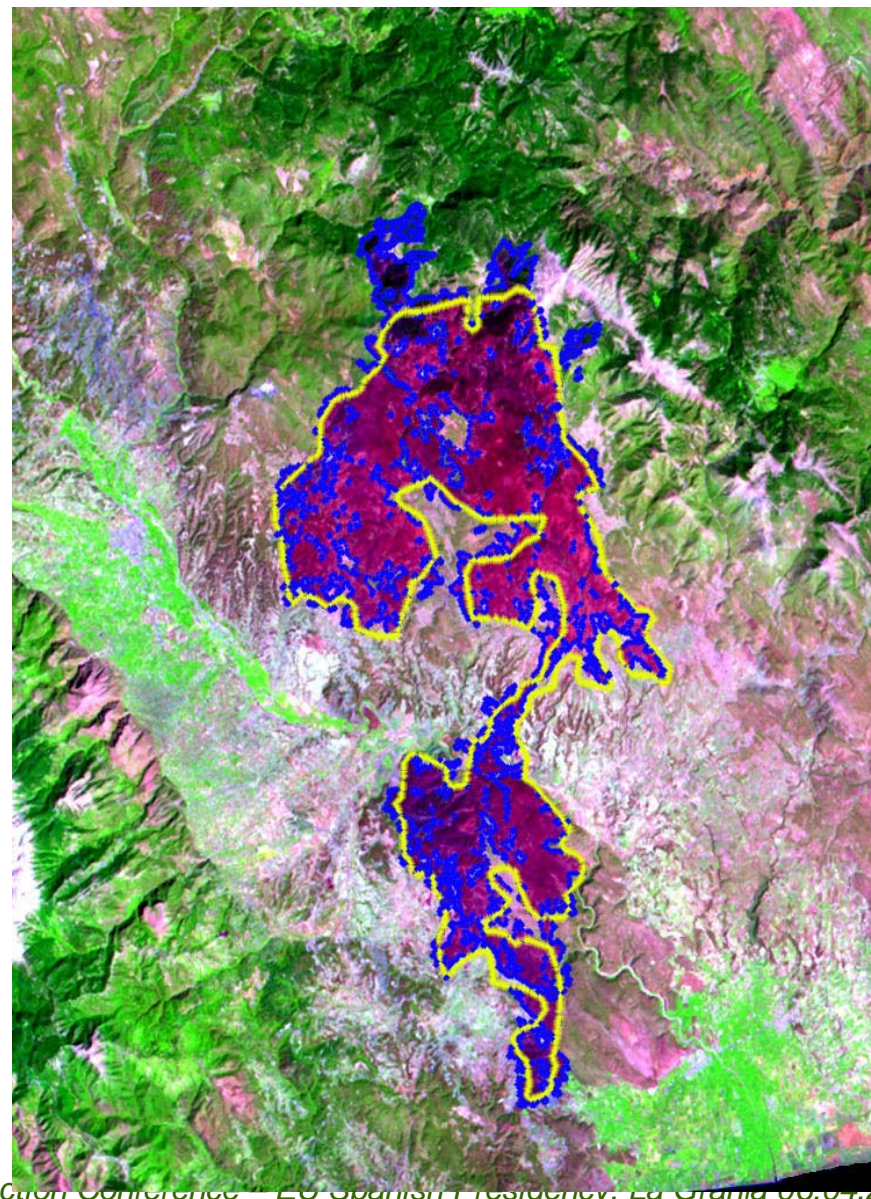
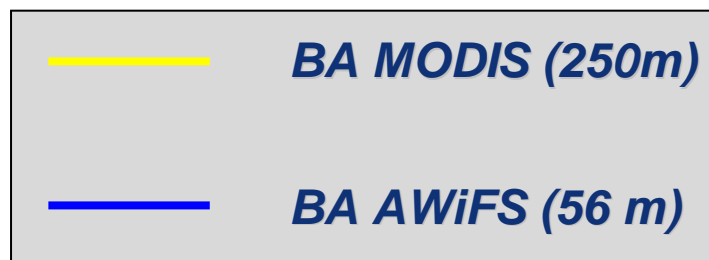
Fire Danger Forecast
layer unavailable at this zoom level.
layer information

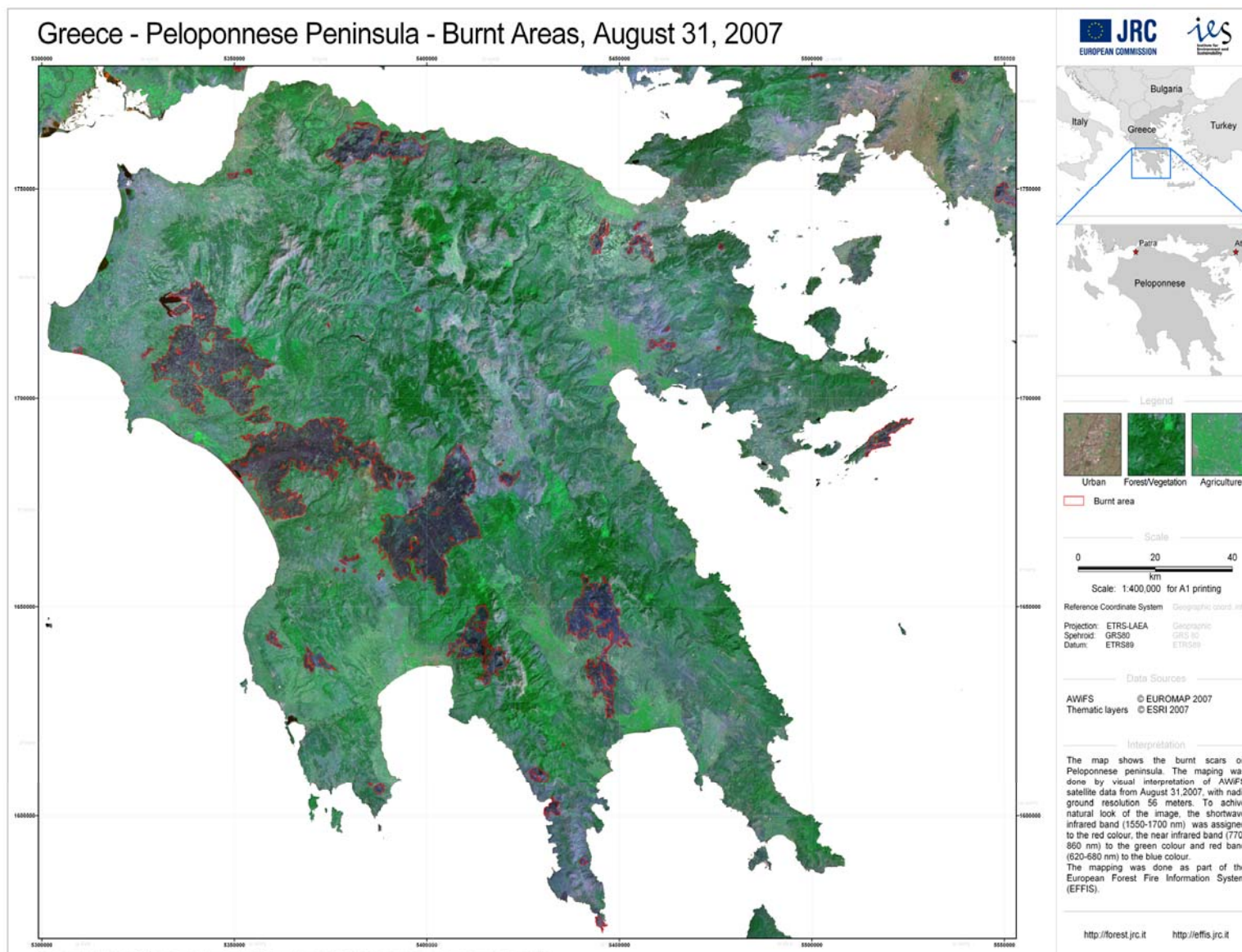
Daily Modis
layer unavailable at this zoom level.
layer information

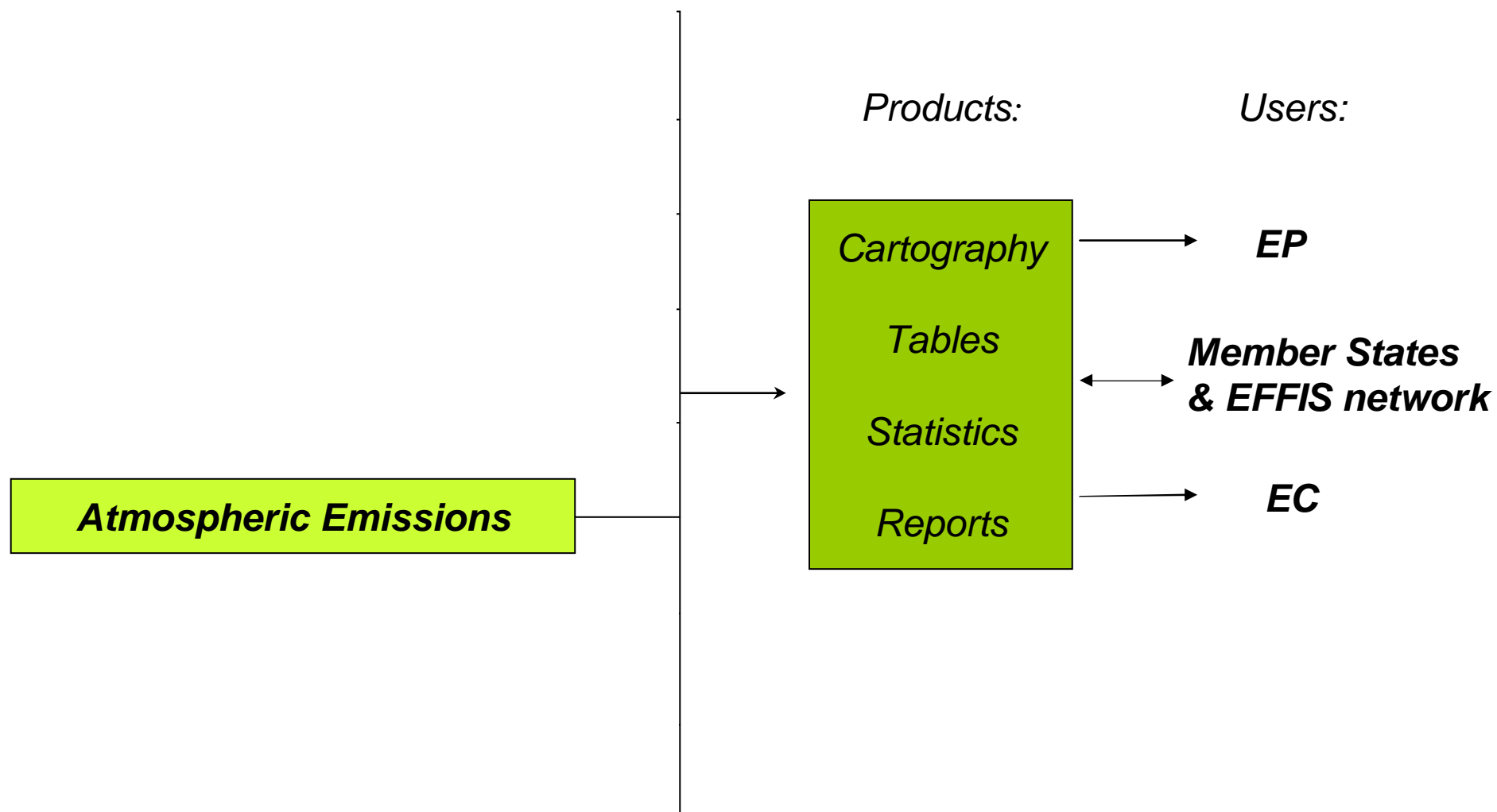




BA level of details on HR imagery



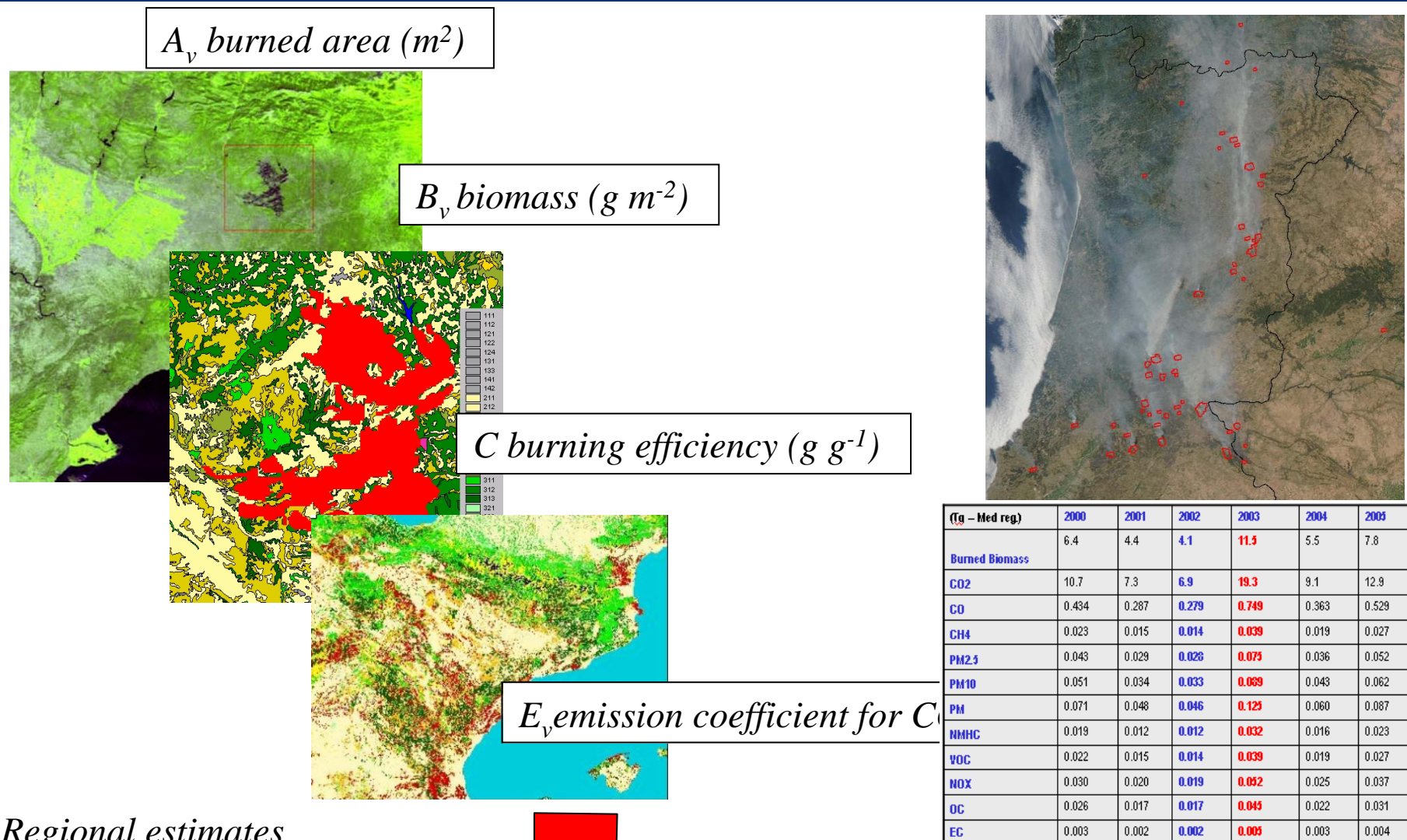




Forest fire emissions and dispersion

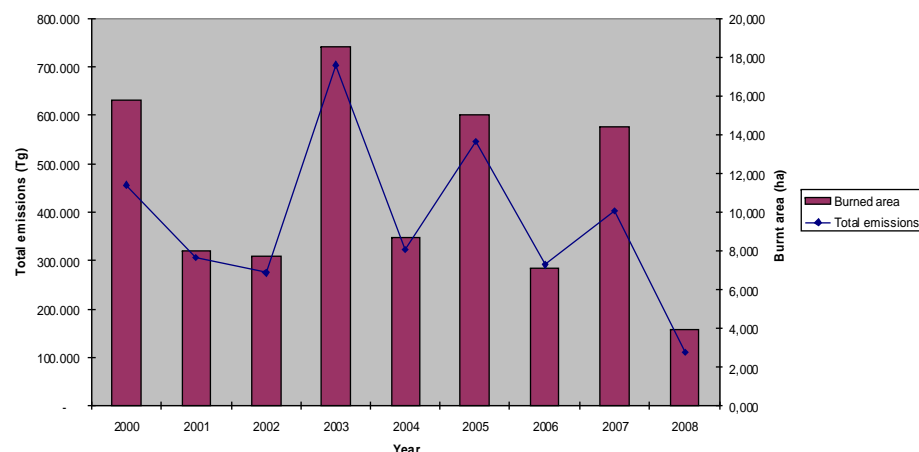
Institute for Environment and Sustainability

33

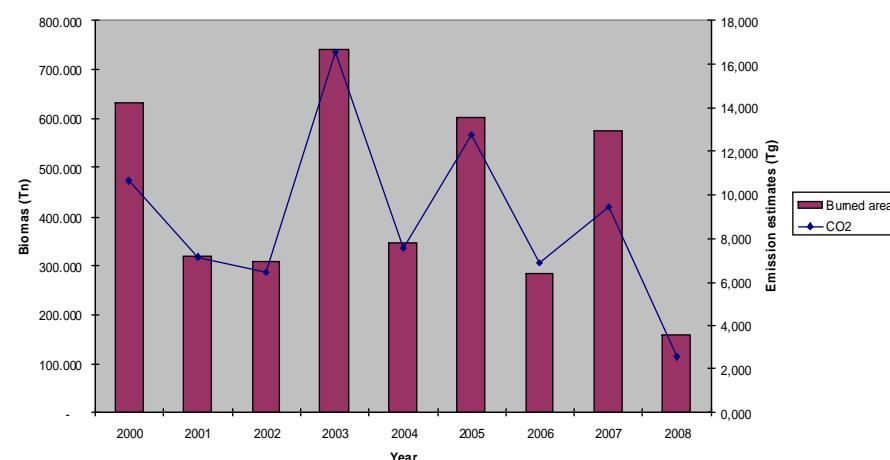


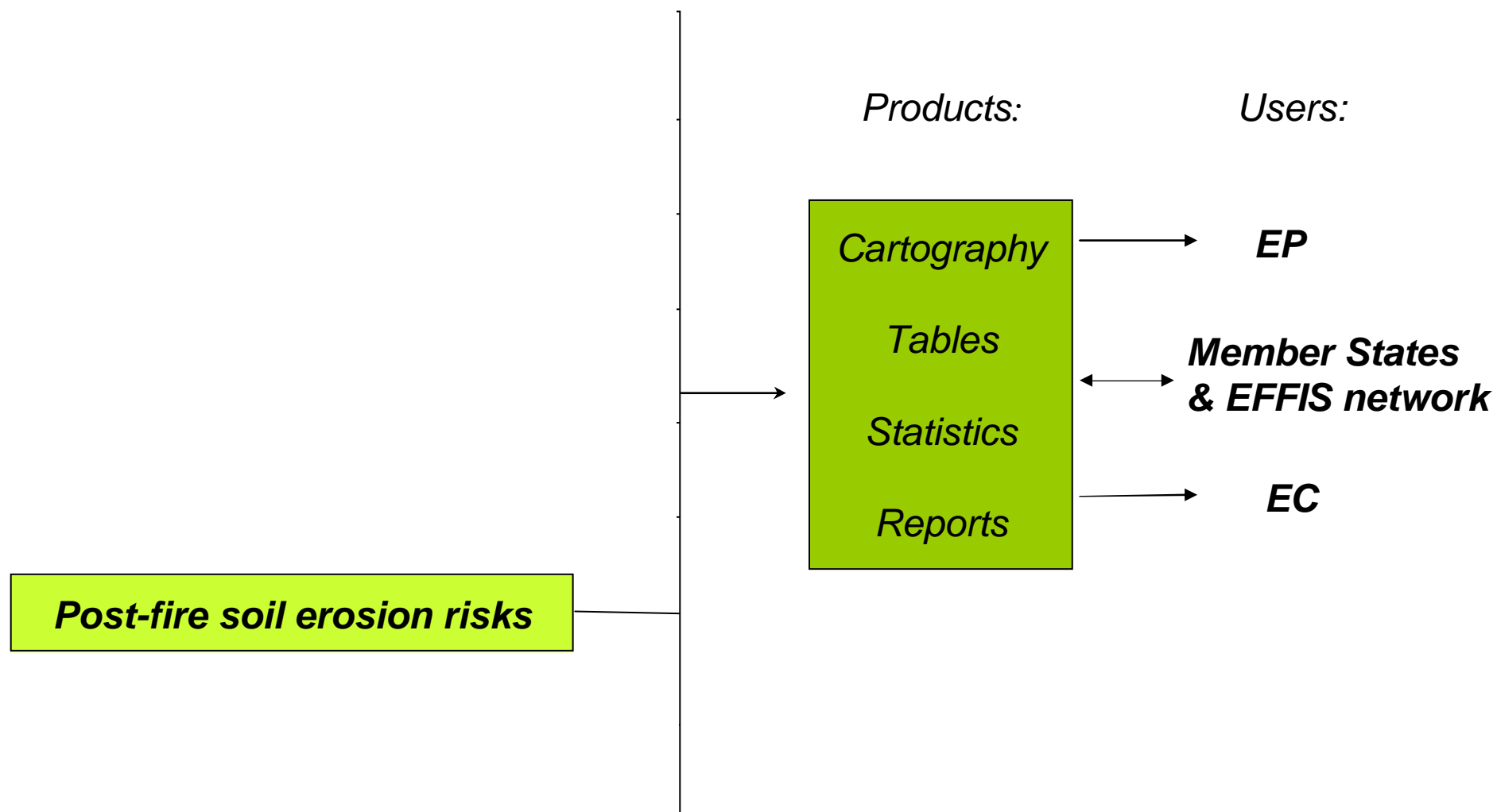
Year	2000	2.001	2.002	2.003	2.004	2.005	2.006	2.007	2.008	TOTAL
Burned area	631950	320437	308839	742498	347886	603106	284788	575531	158621	3973656
CO2	10,67	7,171	6,430	16,538	7,567	12,787	6,861	9,427	2,587	80,036
CO	0,43	0,281	0,257	0,644	0,299	0,523	0,264	0,384	0,104	3,185
CH4	0,02	0,015	0,013	0,034	0,016	0,027	0,014	0,020	0,005	0,166
PM2_5	0,04	0,028	0,026	0,065	0,030	0,052	0,027	0,038	0,010	0,319
PM10	0,05	0,033	0,030	0,077	0,035	0,061	0,032	0,045	0,012	0,376
PM	0,07	0,047	0,043	0,108	0,050	0,086	0,044	0,063	0,017	0,528
NMHC	0,02	0,012	0,011	0,028	0,013	0,022	0,012	0,016	0,004	0,137
VOC	0,02	0,015	0,013	0,034	0,016	0,027	0,014	0,020	0,005	0,166
NOX	0,03	0,020	0,018	0,045	0,021	0,036	0,018	0,027	0,007	0,222
OC	0,03	0,017	0,015	0,039	0,018	0,031	0,016	0,023	0,006	0,191
EC	0,00	0,002	0,002	0,005	0,002	0,004	0,002	0,003	0,001	0,023
Total emissio	11,38	7,64	6,86	17,62	8,06	13,66	7,30	10,07	2,76	85,348
BIOMASS	6403251	4290683	3859431	9908460	4535918	7685453	4108085	5660832	1552997	48005110

Burnt area and emission estimates in the EU Med. Region



Burned areas and CO2 emission estimates in the EU Med Region

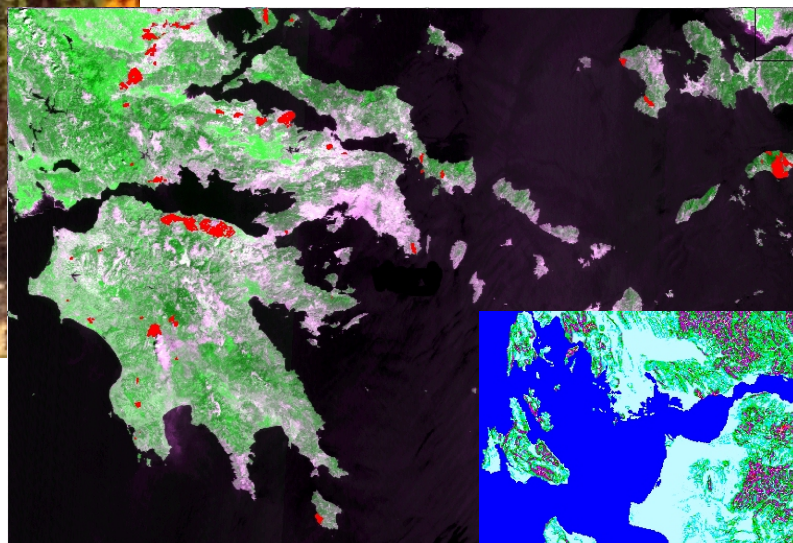




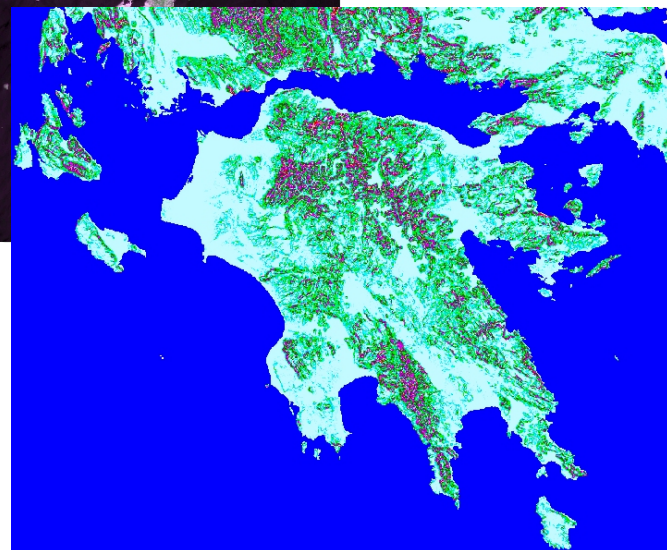
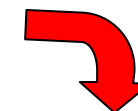
Fire event



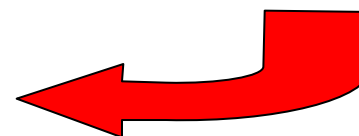
**Map of
burnt areas**

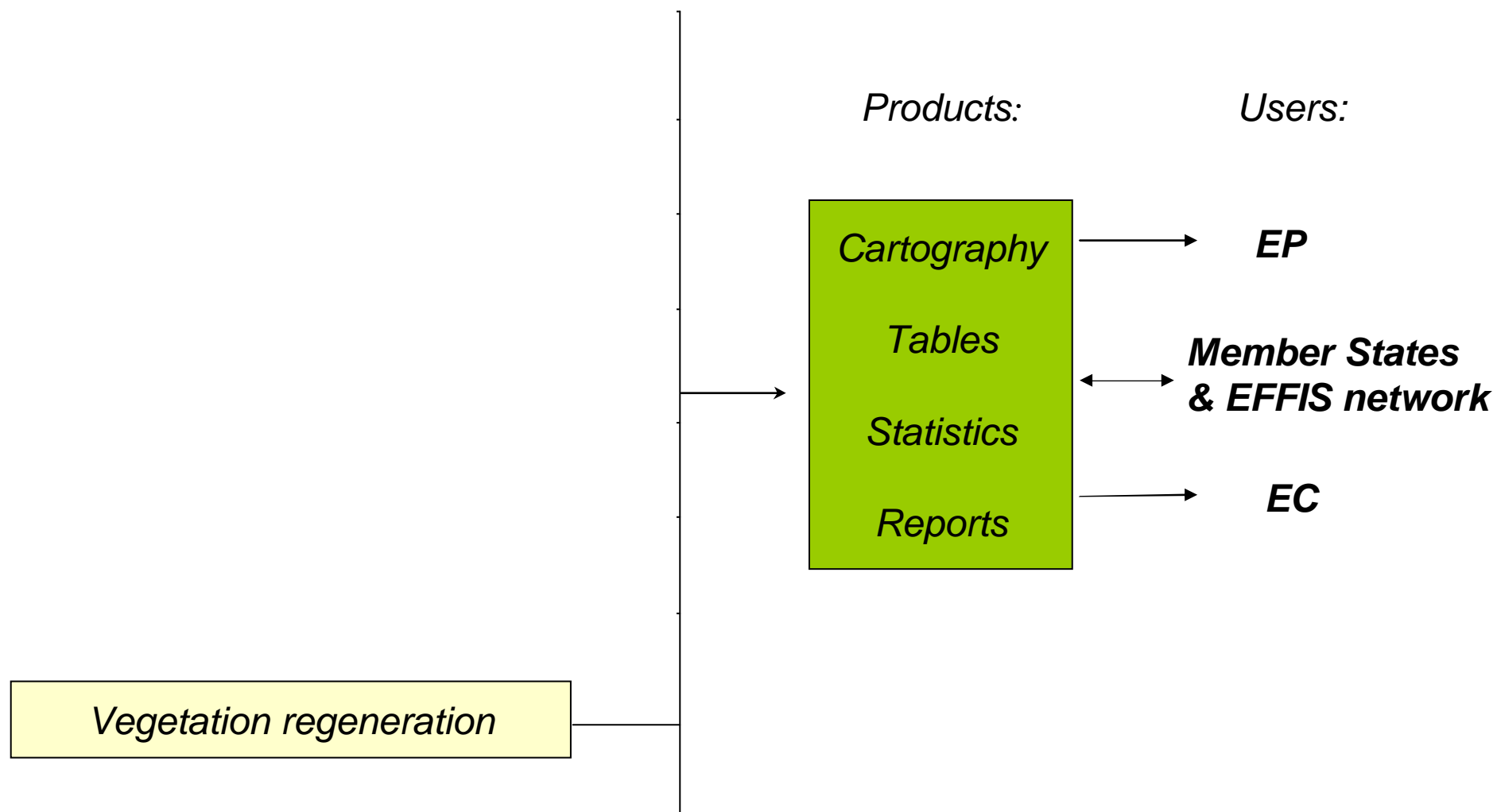


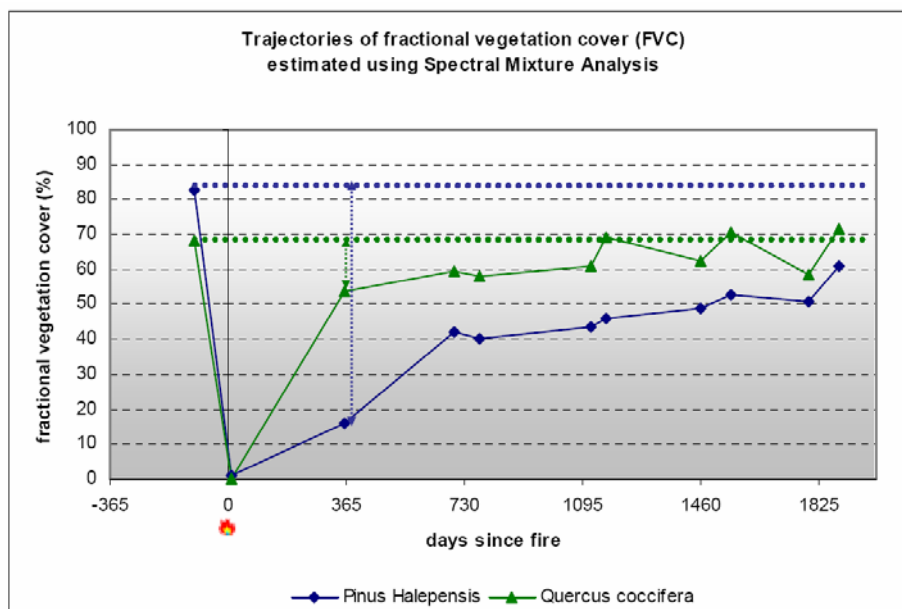
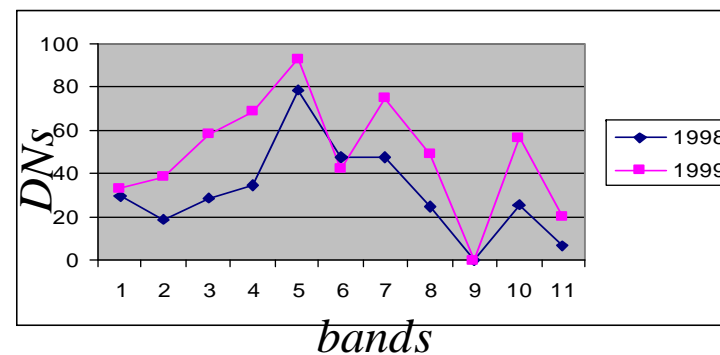
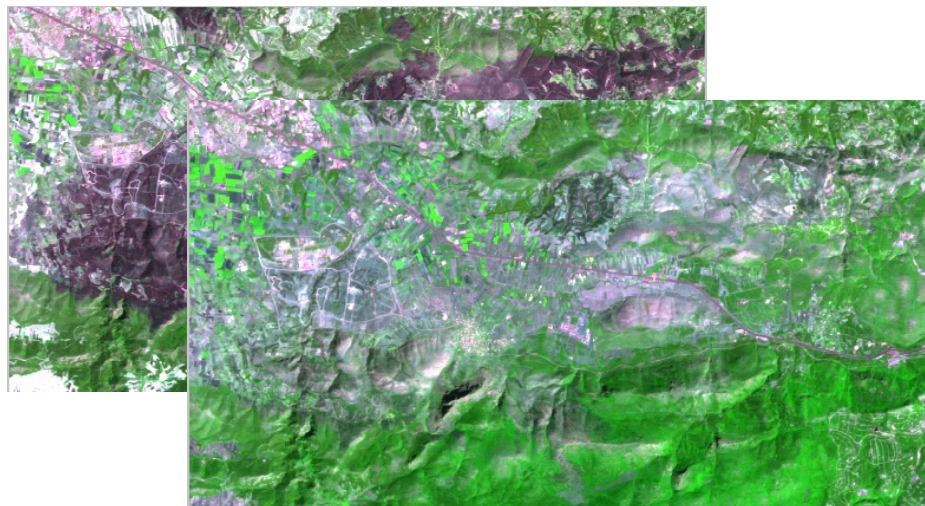
**Land cover – Soils –
Topography**



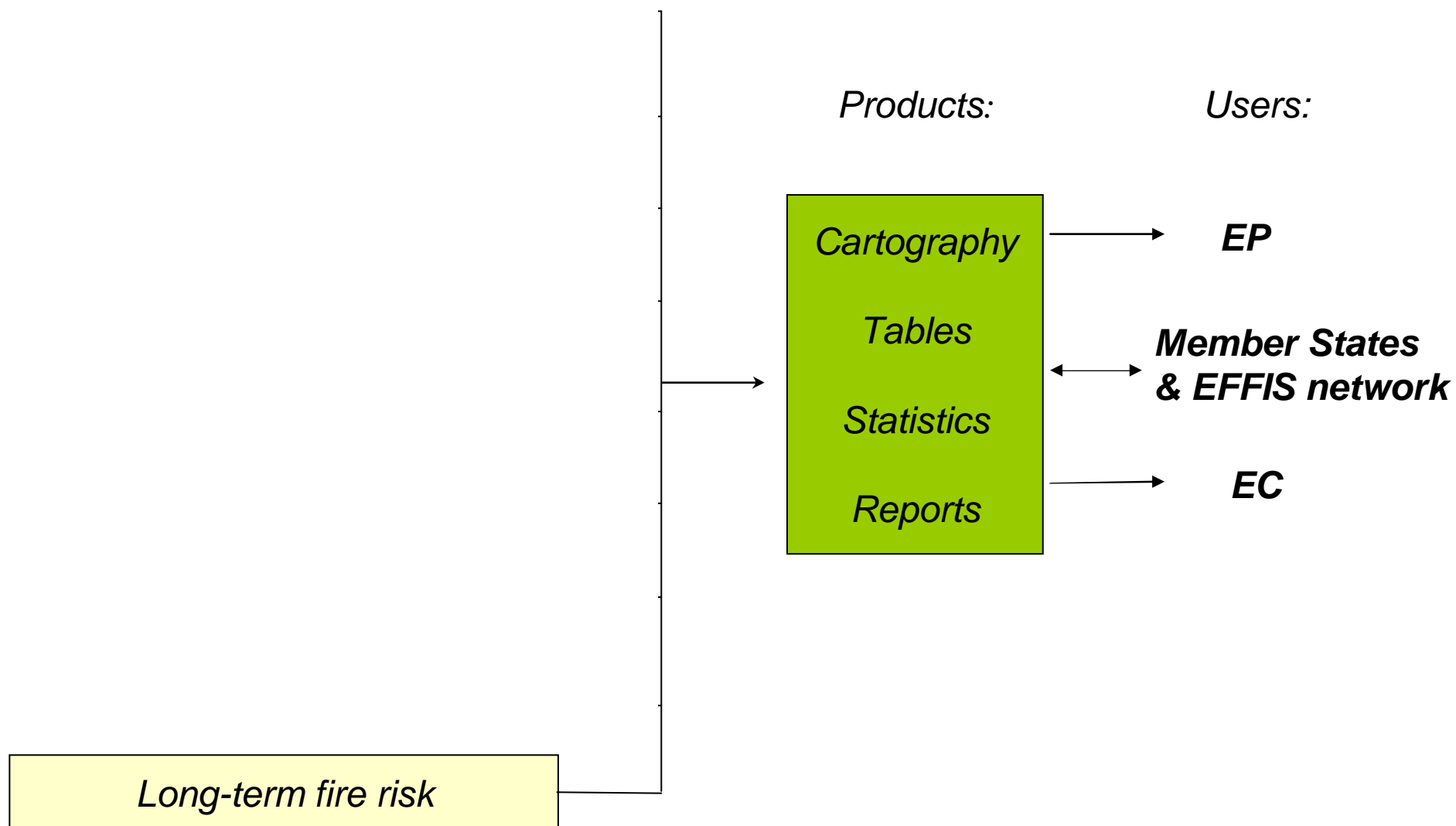
Identifies burnt areas on steep slopes and fragile soils that are subject to further damage such as soil erosion, landslides, etc.







*Fraction of vegetation cover
(regeneration) within the burnt area*





The European Forest Fire Information System Newsletter

Issue 2008 (2)
3 September 2008



<http://effis.jrc.ec.europa.eu>



- CONTENTS
1. Introduction
 2. Forest fire risk trend up to 31 August 2007
 3. Land Cover and NATURA 2000 areas burned up to 31 August 2007
 4. Assessment of atmospheric emissions



- CONTENTS
1. Introduction
 2. Forest fire risk trend up to 30 September 2007
 3. Land Cover and NATURA 2000 areas burned up to 30 September 2007

*The Commission is implementing the pilot project "**forest protection and conservation**" following the European Parliament Resolution of Sept. 2006 for the further development of the European Forest Fire Information System (EFFIS) (Tenders published 17/06/2008, started Jan. 2009 for a 2 year duration)*

- *Budget of 3 million EUR and duration of 40 months, includes the development of the following modules:*
 1. *- EFFIS rapid damage assessment (RDA) and damage assessment (DA) – further development of the existing system;*
 2. *- Development of a fuel map of Europe;*
 3. *- Forest fire causes determination and harmonization.*
 4. *- **Economic and social impacts of forest fires;***
 5. *- Estimation of forest fire emissions and modeling of smoke dispersion;*

Gracias por su atención

EFFIS: <http://effis.jrc.ec.europa.eu>

EFDAC: <http://efdac.jrc.ec.europa.eu>