Near-real time Air Quality Data (*Ozone web and future actions*)

Jaume Targa

EEA – ETC/ACC
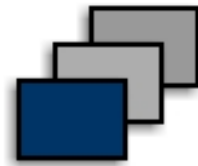
National Air Quality Forecasting Seminar

London City Hall

14th May 2008

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Content

■ **Overview of current status**

- *What is it?*
- *What's the coverage?*
- *How does it work?*
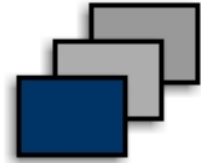
■ **Objectives in 2008**

- *Consolidation*
- *Extension to other pollutants*
- *Summer Ozone reporting*

■ **Conclusions**

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What is the Ozoneweb?

- An active exchange of near real time provisional air quality data between European Member States.

- The concept has evolved since its' inception in 2001.

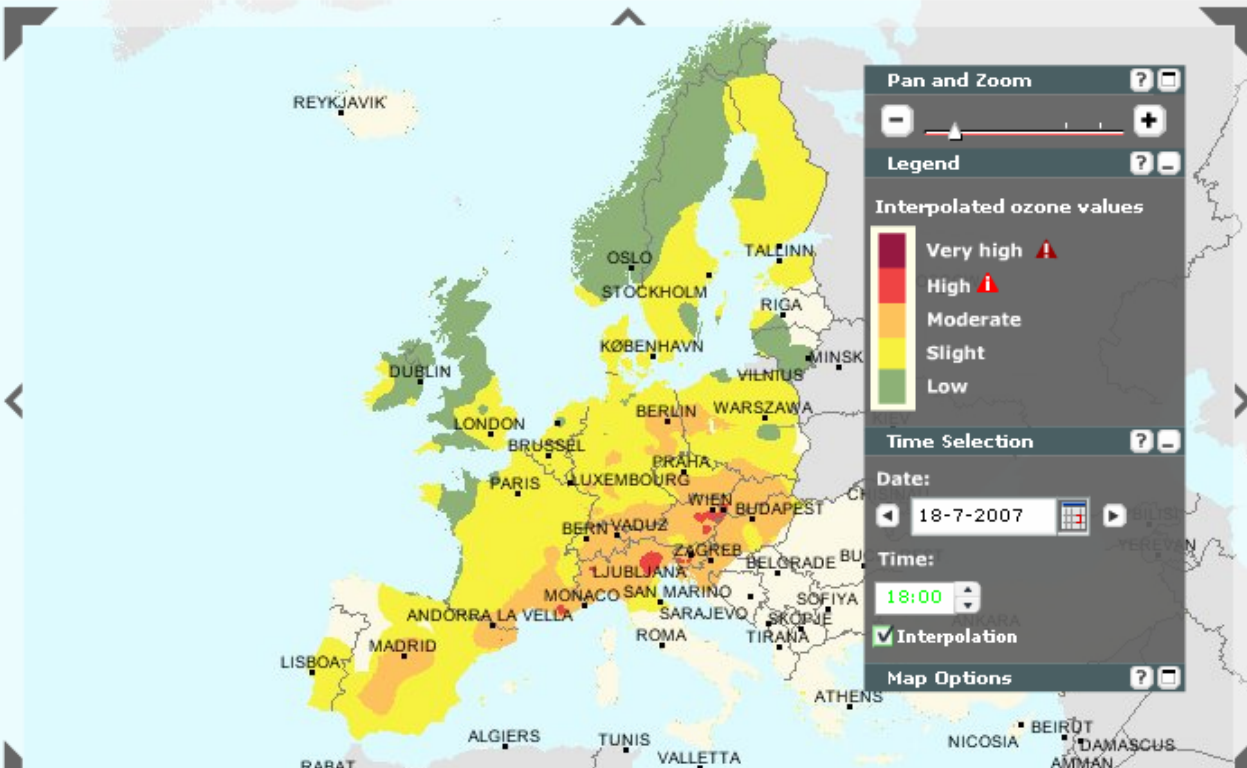- In July 2006, Ozoneweb was published on the EEA website (*http://www.eea.europa.eu/maps/ozone/map/*).

http://www.eea.europa.eu/maps/ozone/map/

Geographical coverage

Ozone data status
- Providing data
- Sign-up underway
- Not providing data
- Out of area

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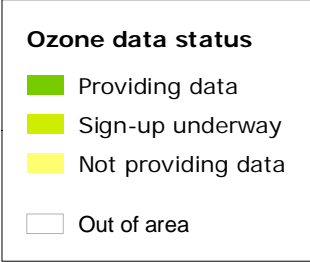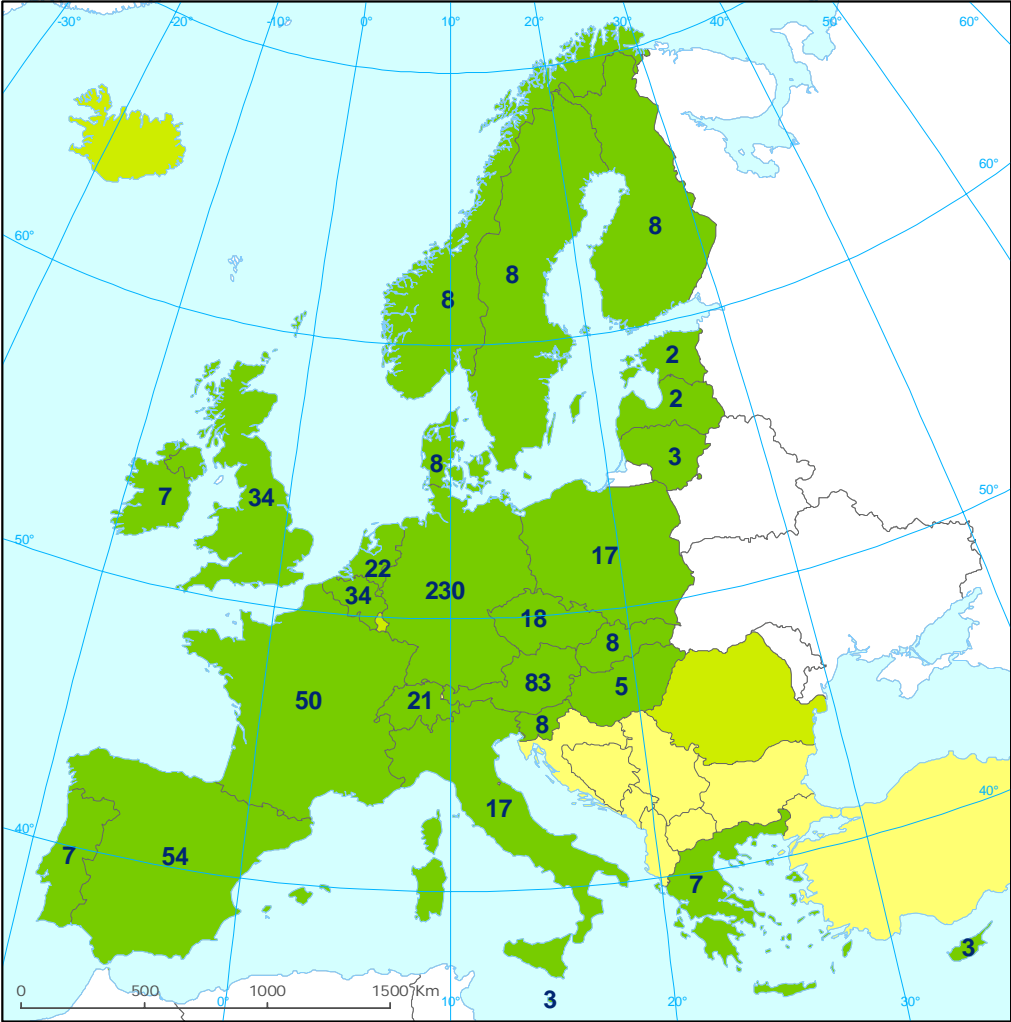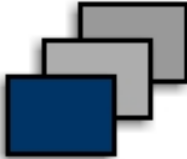
Current active ozone stations

Where is all the data coming from?

EEA NRT Database

EEA website

Data exchange

Internet

Sampler

FTP Get

FTP Put

HTTP Post

HTTP Get

Public

logger

sources

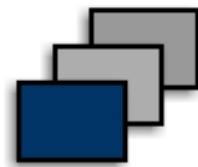Annual data transfer

Airbase

national database

Compliance reporting

Regional database

Internet

QA/AC

transfer

report

Public

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How does it work?

Http post:
FTP get:
FTP put:
Http download:
Data to come:

Ozone data - hourly delivery…

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Data exchange mechanisms

CSV/ftp
CSV/ftp, local
CSV/http, local
XML/ftp
XML/ftp, NOLP
XML/http, NOLP

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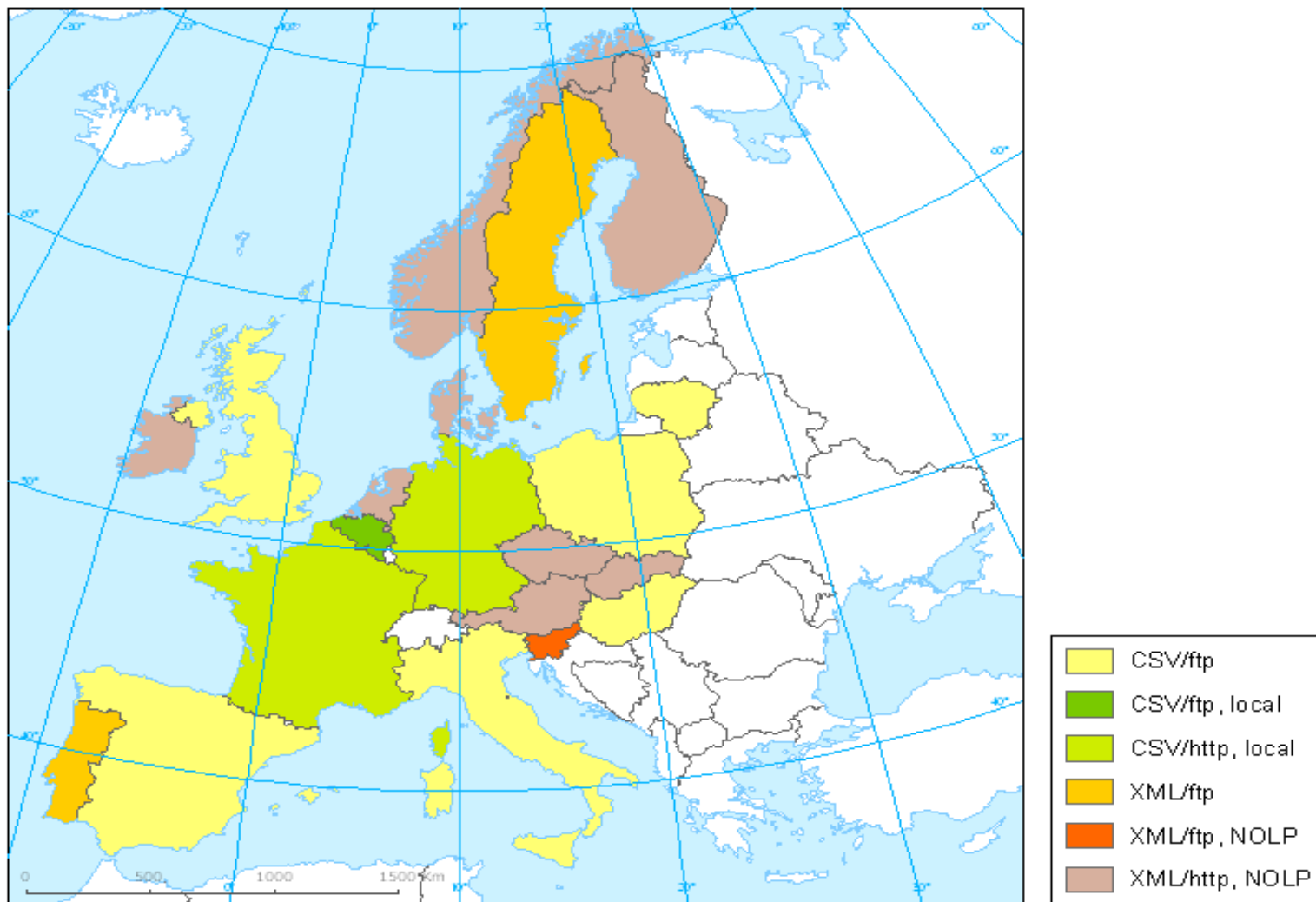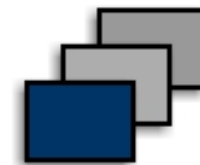
Principles of data exchange

- **Control:** Data providers remain in control of data provision and use.

- **Visibility:** Visibility to data providers (branding and their services).
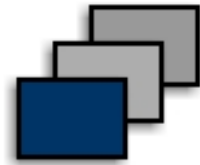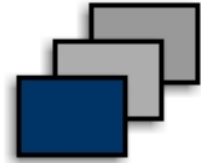
- **Quality control:** Data received in real-time by EEA will be filtered for data outside pre-set limits and null or error values.

- **Added value services:** EEA aims to provide added value services back to the data provider organisations.

Added value services – map viewer

- Presents O3 data in a mini map on website
- Presents European, national or regional level
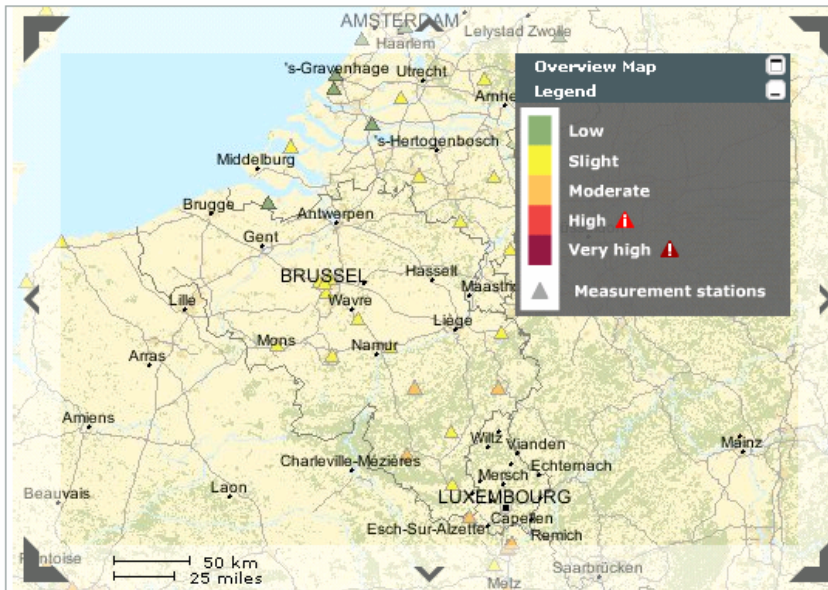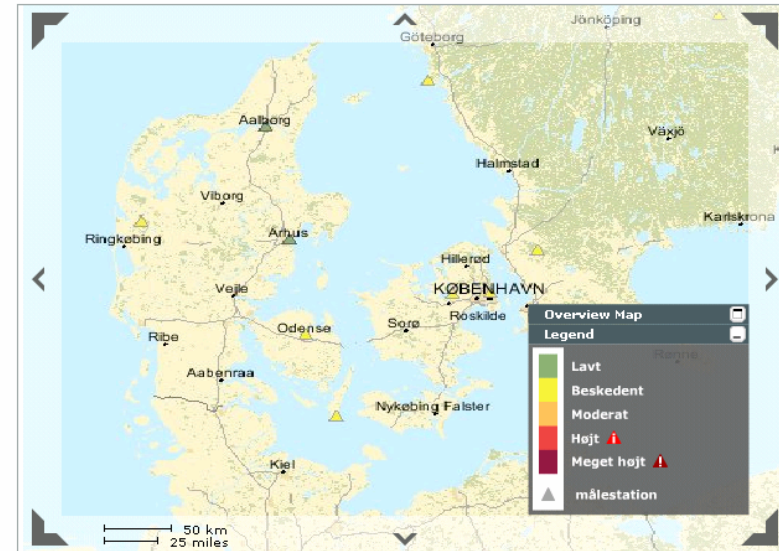
Objectives in 2008
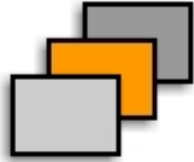
- Consolidation of data exchange

- Extend the NRT data exchange

- Summer Ozone Reporting

Consolidation of data exchange
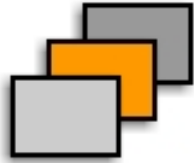
- Maintain current data exchange

- Increase number of stations of current participants (if necessary)

- Incorporate ozone data from none participants (both Member States and Regions)

Consolidation of data exchange
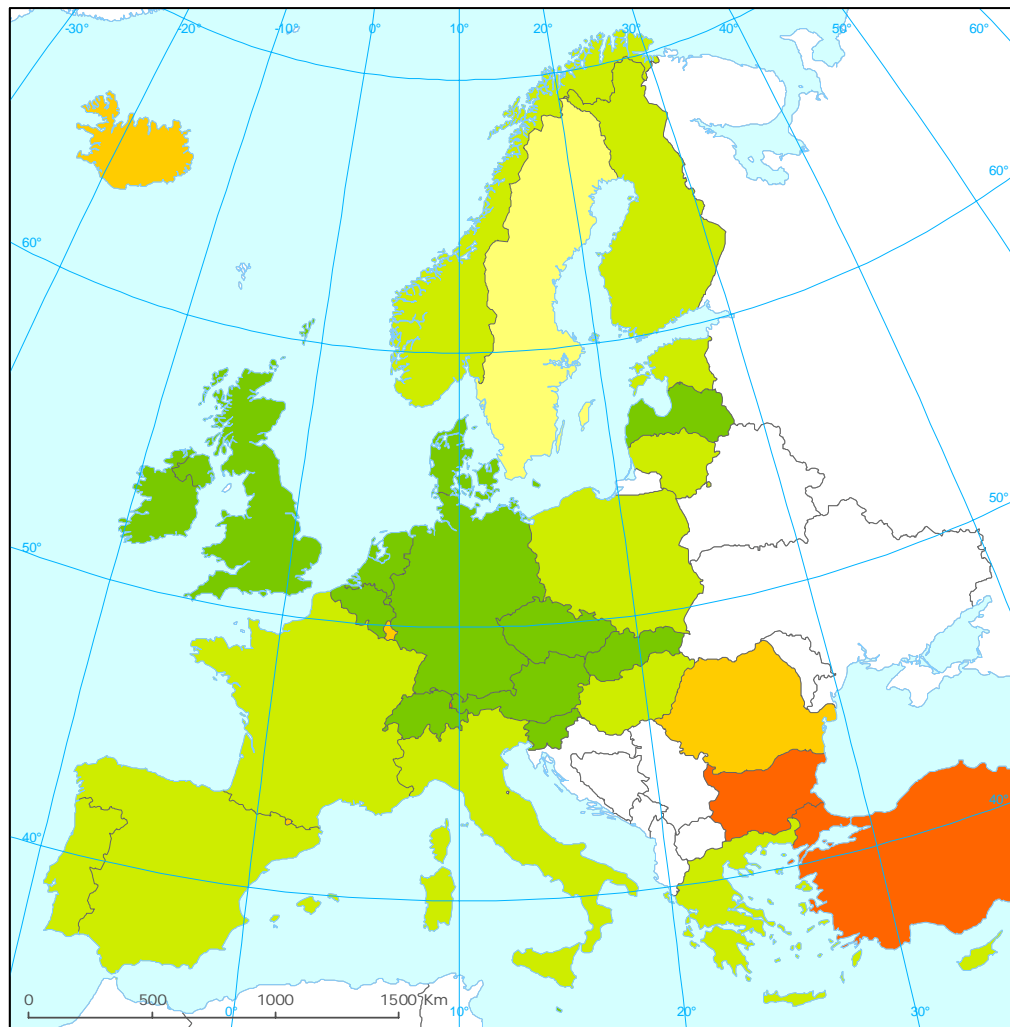
Ozone data sufficiency

- OK at 100
- OK at 200
- Not sufficient
- Sign-up underway
- Not providing data

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Priorities in 2008 for ozone

- Romania
- Bulgaria
- Iceland
- Luxemburg
- Turkey
- Italy - Southern and Central regions
- Spain - Consolidate some regions + EMEP
- Greece – increase coverage

Some already on board now...

Extension to other pollutants
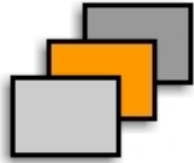
- EEA has extended the data exchange system to cater for particulate matter and NO_2

- Pro-actively encouraging air quality data exchange for Particulate Matter

- PM is strong candidate data to demonstrate that the successful ozone data exchange can be repeated for other parameters

Extension to other pollutants
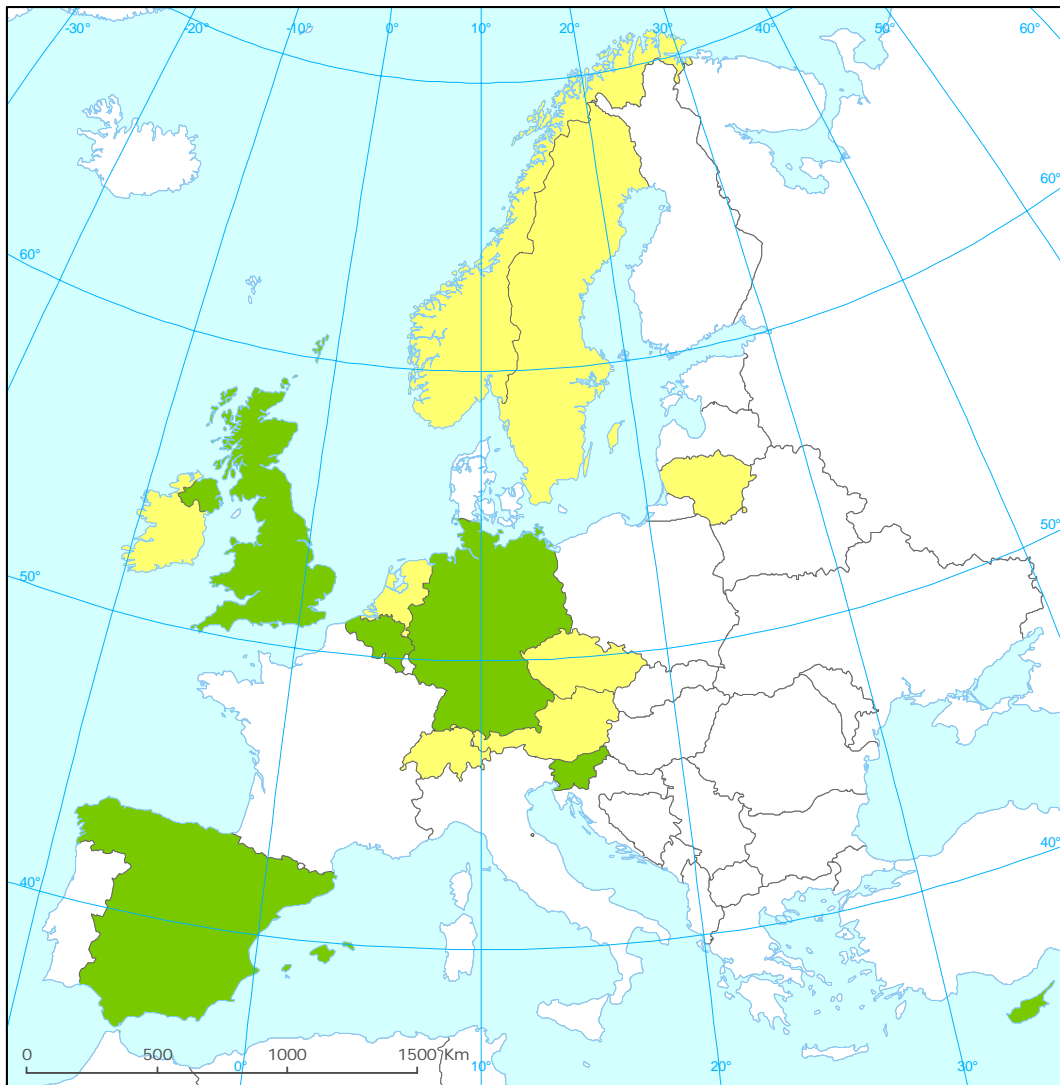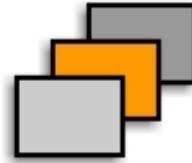
Particulate matter
(data status)

- Providing data
- sign-up underway
- data expected 2007

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Latest list of PM data providers

- Austria (AT)
- Belgium (BE)
- Cyprus (CY)
- Czech Republic (CZ)
- Germany (DE)
- Ireland (IE)
- Liechtenstein (LI)
- Malta (MT)
- Netherlands (NL)
- Norway (NO)
- Slovenia (SI)
- Spain – (Region of Andalucia)
- Switzerland (CH)
- United Kingdom (GB)

500 stations +

14 Member States

Using NRT data for summer ozone reporting
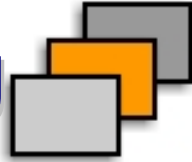
- Demonstrate that the system can be used to provide information relating to provisional ozone exceedances

- Provide a basis upon which countries and the Commission can discuss streamlining summer ozone reporting by countries to the European level.

Using NRT data for summer ozone reporting
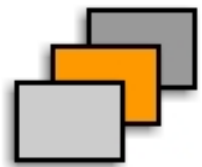
Encouraging results with 2006 data

EEA NRT Database

FTP Get FTP Put

HTTP Post HTTP Get

national database

Regional database

Summer ozone data for 2006 (compiled by ETC)

NRT ozone data

comparison

Summer ozone data

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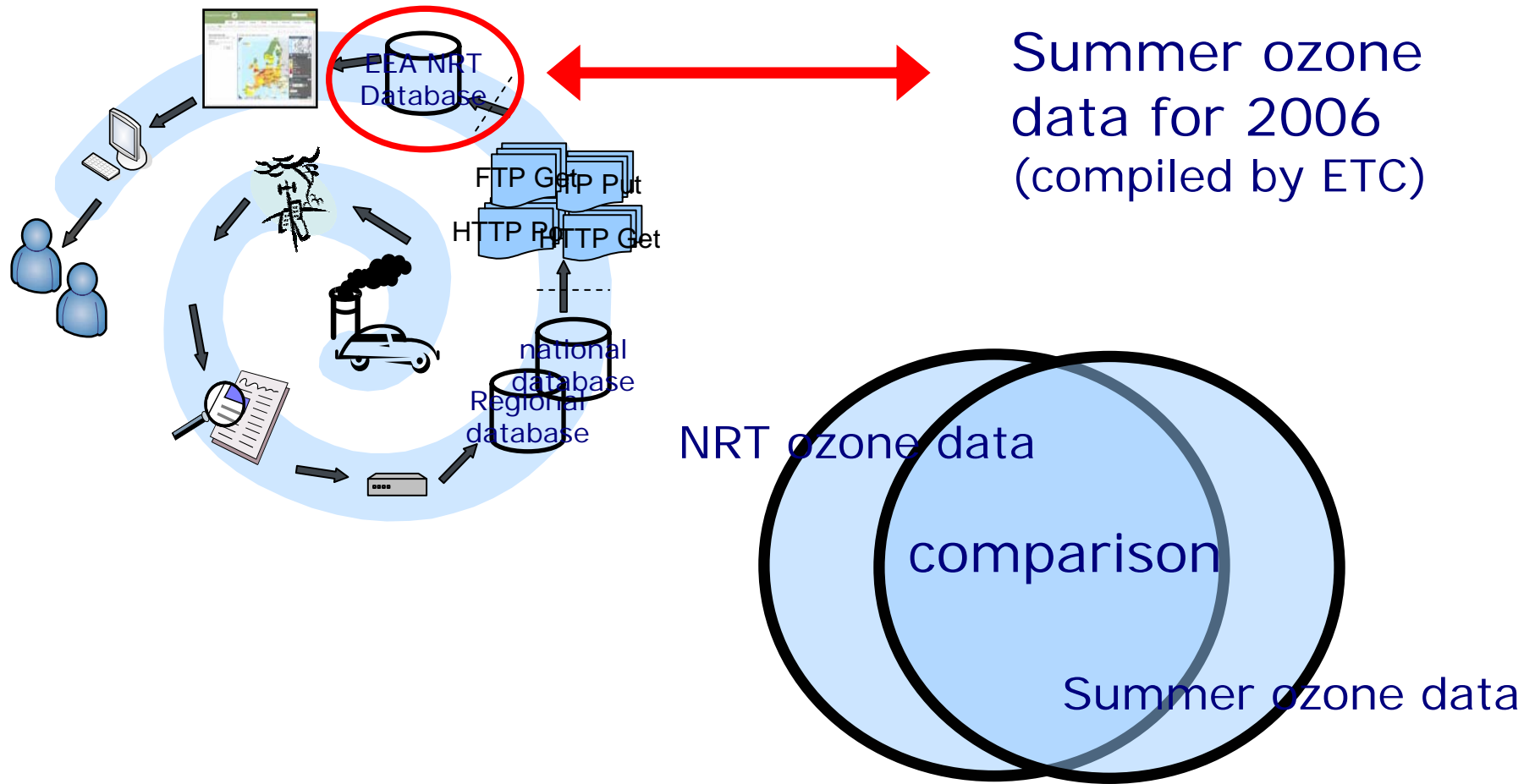
Using NRT data for summer ozone reporting
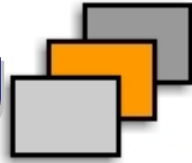
- Currently developing an interactive tool for data providers to administrate summer ozone data

- Pilot study with more than 10 Member States will be carried out this summer

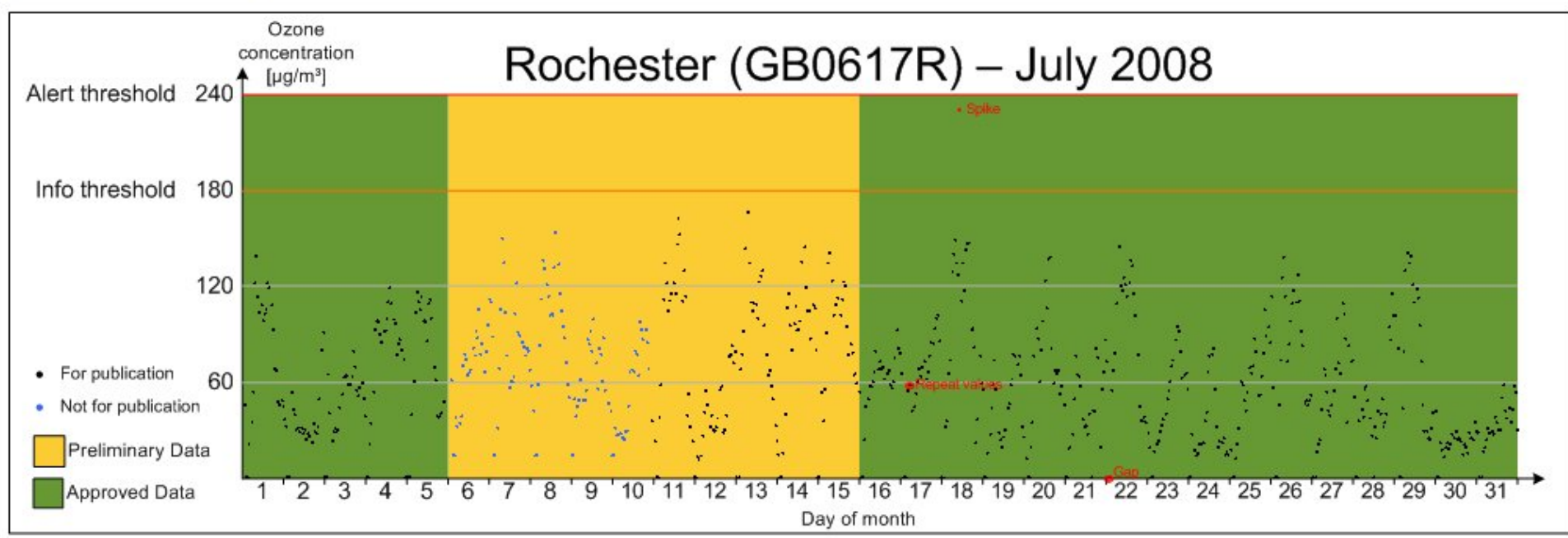| Select for approval	Station name	Station ID	Status						Hours exceeding thres		Days exceeding thres		Max value	Data capture		% Filtered by EEA
			Apr	May	Jun	July	Aug	Sep	Info	Alert	Info	Alert		%Preliminary	%Approved	
☐	**All stations**	-							20	7	15	5	327	40	40	30
☐	Click to select all stations GB0002R								2	1	1	1	279	30	60	20
☐	Lough Navar	GB0006R							0	0	0	0	50	22	60	20
☐	Yarner Wood	GB0013R							1	0	1	0	199	25	60	20
☐	High Muffles	GB0014R							2	0	2	0	215	0	95	0
☐	Strath Vaich	GB0015R							0	0	0	0	49	0	100	0
☐	Rochester	GB0617R							0	0	0	0	160	20	75	15
☐	Great Dun Fell	GB0035R							0	0	0	0	41	0	100	10
☐	Harwell	GB0036R							0	0	0	0	41	95	0	0
☐	Ladybower	GB0037R							0	0	0	0	50	0	90	15
☐	Lullington Heath	GB0038R							1	0	1	0	201	25	60	40

Legend | ?

Click to select all stations

Approve all selected

Rochester (GB0617R) – July 2008

Ozone concentration [µg/m³]

Alert threshold 240
Info threshold 180
120
60

· Spike
· Repeat values
· Gap

- For publication
- Not for publication
- Preliminary Data
- Approved Data

Day of month (1–31)

European overview

189 of 217 stations across Europe exceeded the EU information threshold since April

Overview map

Threshold values [?]

- ⦿ Information threshold (>180 µg/m³)
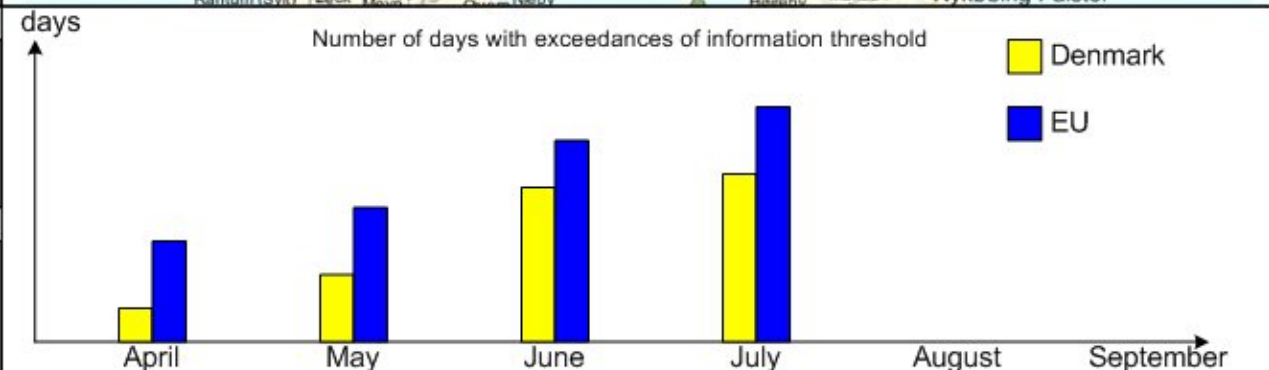- ◯ Alert threshold (>240 µg/m³)
- ◯ Long-term health objective

Summary

There have been 15 exceedances of the EU information threshold in May in Denmark. Denmark provides measurements from 7 stations, 7 exceeded the EU information threshold at least once in May.

Links

Ozone status today

View data from previous years

Map

Days with excee-
dances in this season

- ▲ >10
- ▲ 6-10
- ▲ 3-5
- ▲ 1-2
- △ 0

Number of days with exceedances of information threshold

days

- 🟨 Denmark
- 🟦 EU

April   May   June   July   August   September

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Conclusions

Near real time data exchange

- *Current and active data exchange*
- *Very good coverage across Europe*
- *Hourly delivery from more than 40 data providers…*

Objectives in 2008

- *Consolidation*
- *Extension to Particulate Matter*
- *Summer Ozone Report Piloting…*

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Many thanks…

Any questions?

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