

Data-management

LifeWatch-NL

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SARA / LifeWatch-NL



1. For example...
2. Data-centric systems & grid technology
3. Services needed in LifeWatch
4. Highlight: Real-time data access
5. Highlight: Database access
6. Input for the discussion

For Example: bird tracking



<http://www.uva-bits.nl/>

40 oystercatchers tagged

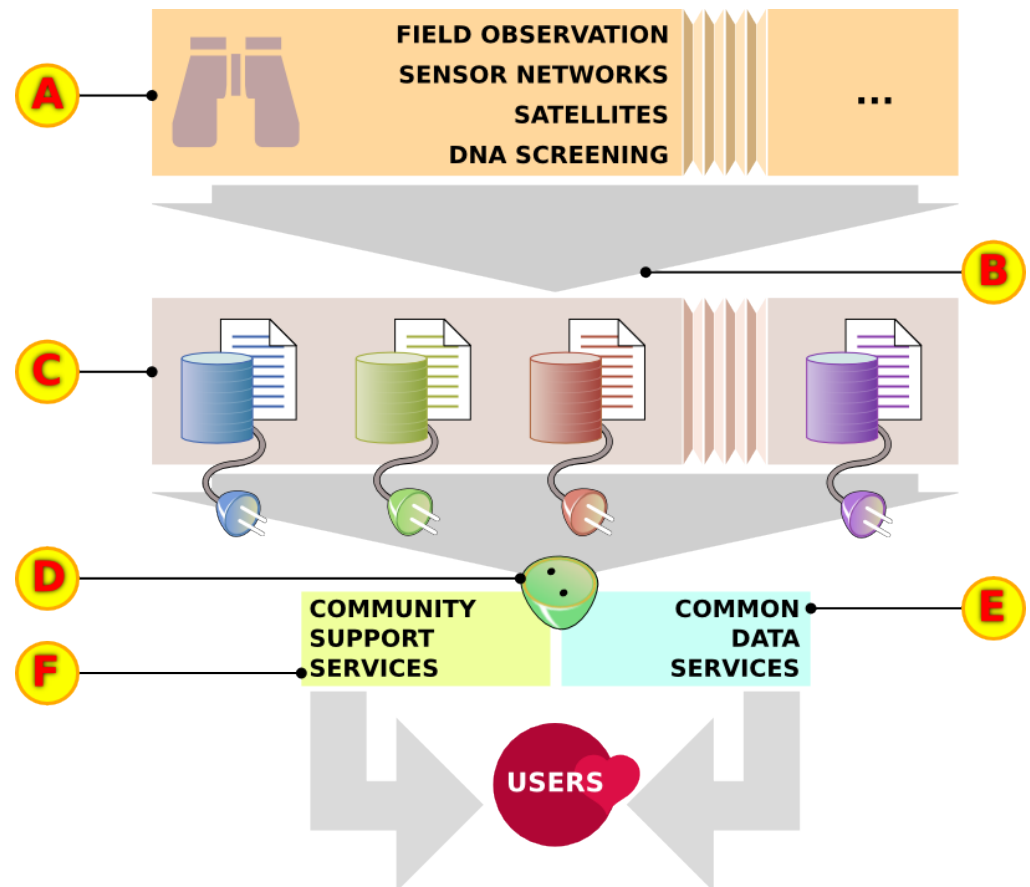
Behavioral patterns
combined with tidal data
and shellfish stocks

What causes the decline?



Data-centric systems?

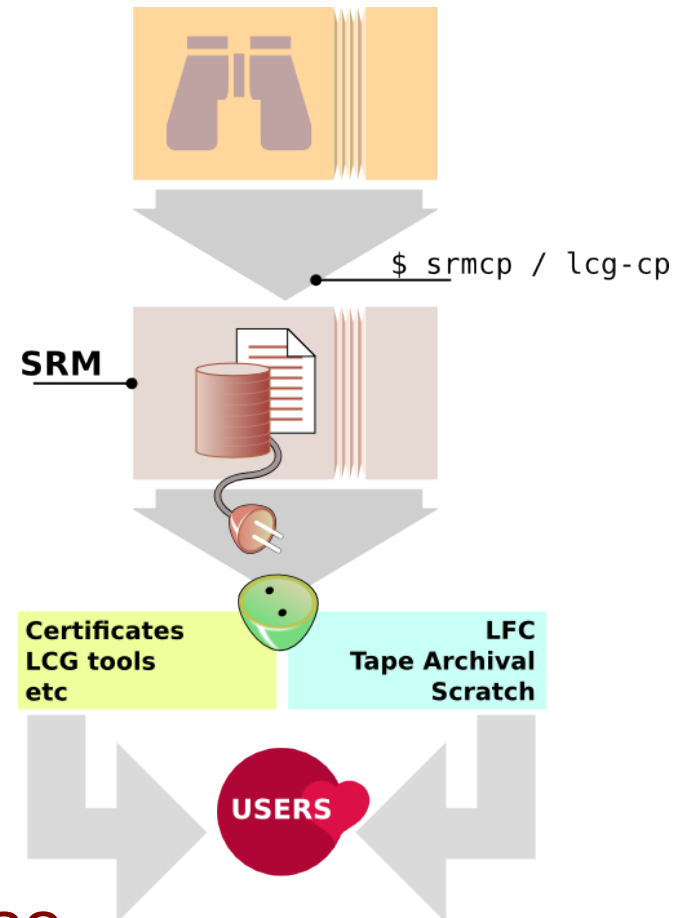
- A) Data Collection
- B) Data Ingestion
- C) Data Storage
- D) Data Aggregation
- E) Common Data Services
- F) Community Support Services



Based on *Riding the Wave*

Grids fit on this model...

- A) Data comes from somewhere
- B) Using SRM clients...
- C) ... to save data on SRM
- D) Dealing with distribution
- E) Performing meta-operations on SRM
- F) Using the data in batch-jobs



... just for certain cases, of course

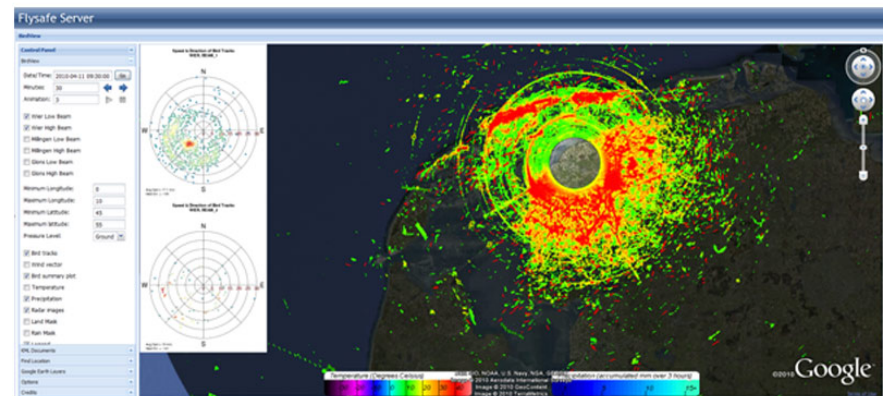
LifeWatch needs

- Ingestion: Interfaces to storage
 - _ Real-time streaming
 - _ Database access
 - _ File System access
- Storage
 - _ File Systems
 - _ Databases
 - _ Column storage
- Aggregation
 - _ Real-time access
 - _ Coupling of datasets
 - _ Large-scale random access
- Common Data services
 - _ Archival
 - _ Metadata services
 - _ Annotation
 - _ Persistent identification
 - _ Information Retrieval
- Community Support Services
 - _ Access to compute
 - _ Access to hosting
 - _ AAA
 - _ Collaboration tools
 - _ Integrated development tools
 - _ Solid APIs

Highlight: Real-time data access

For web based services, e.g.:

- Live coupling of data
- Live plotting of datapoints
- Live generation of statistics
- Live search of large indexed (meta)datasets



Highlight: Database access

- For scalable services
- For fast experimentation with query languages

Input for the discussion

How can EGI & EMI facilitate real-time access to data, so that we can build scalable web services for the users of our infrastructure?

How can EGI & EMI facilitate access to scalable databases?