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Ubicasting and Testbed projects' phases and linkage

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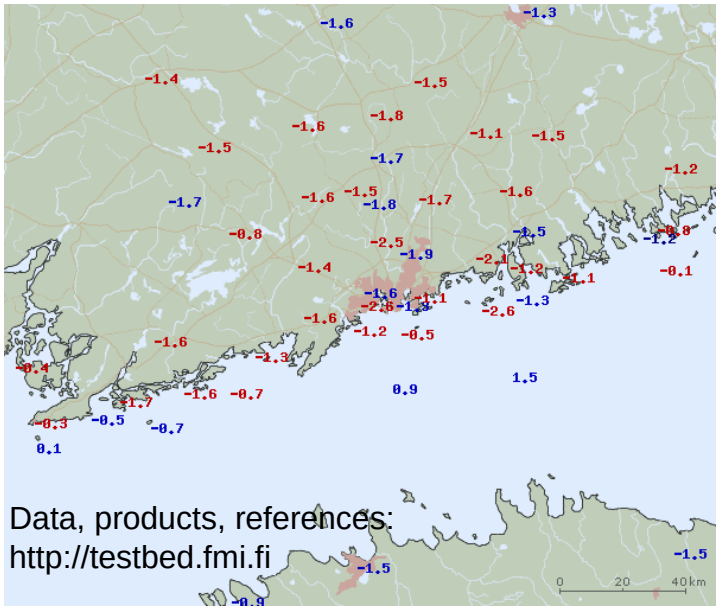
Helsinki Testbed 2005-2007

Helsinki Testbed Baseline Network 2007-

Mesoscale weather research
Forecast and dispersion models development and verification
Information systems and technology integration
End-user product development and demonstration
Data distribution for public and research community



Data, products, references:
http://testbed.fmi.fi

Original partners:


→ Baseline partners:


→ Other partners, e.g.:


see: http://testbed.fmi.fi/Links.html

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Some recent definition suggestions

Testbed

- A testbed is a working relationship in a quasi-operational framework among measurement specialists, forecasters, researchers, private-sector, and government agencies aimed at solving operational and practical regional [insert phenomenon or forecast challenge] problems with a strong connection to the end-users. Outcomes from a testbed are more effective observing systems, better use of data in forecasts, improved services, products, and economic/public safety benefits. Testbeds accelerate the translation of R&D findings into better operations, services, and decision-making. A successful testbed requires physical assets as well as long-term commitments and partnerships.

Helsinki Testbed

- General term referring to any activity related to observation network originally established in TEKES funded Helsinki Testbed project 2005-2007.

Helsinki Testbed Baseline Network

- Observation network infrastructure serving as research and innovation platform for research and development projects, and to any operational non-commercial or commercial weather or safety service.

Helsinki Testbed Consortium

- Partner organizations who provide essential and continuous type of funding for Helsinki Testbed Baseline Network operations. Additional organizations may be invited to Helsinki Testbed Consortium by funding partners. Non-funding partner may act as *Helsinki Testbed Scientific Advisor*, for instance.

Helsinki Testbed Joint Project

- Any project which provides information to Helsinki Testbed central data warehouse or uses information in accordance with Helsinki Testbed data policy, for any data provided by Helsinki Testbed. Joint project may be also any agreed project benefiting from Helsinki Testbed or its name. Any such organization may be referred to as *Helsinki Testbed Project Partner* or *Helsinki Testbed Cooperative Partner*. Organization submitting such data that is stored to the Central Data Warehouse is called *Helsinki Testbed Data Provider*.

e.g. Ubicasting

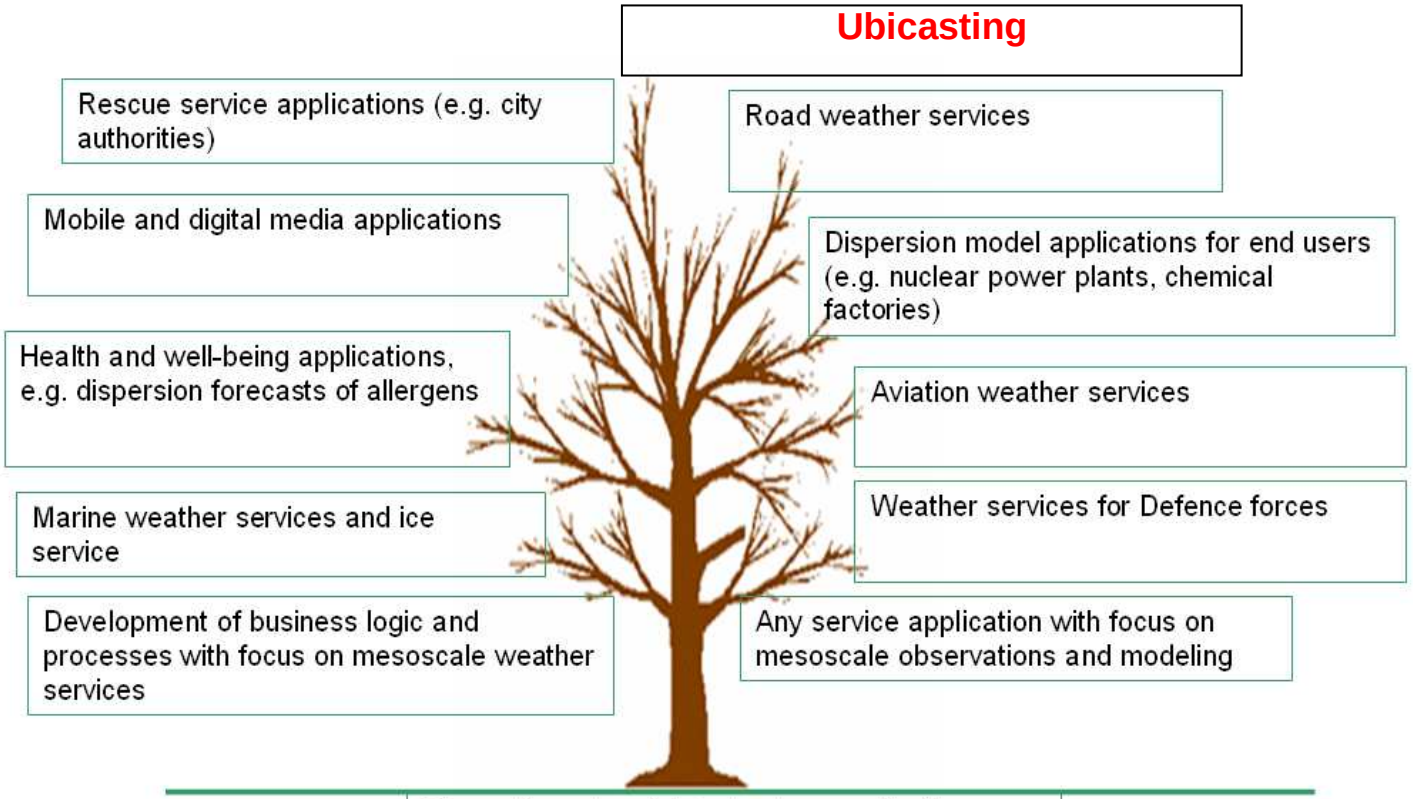
Helsinki Testbed User

- Specifically identified user or anyone using information made available by Helsinki Testbed.

Helsinki Testbed Stakeholder

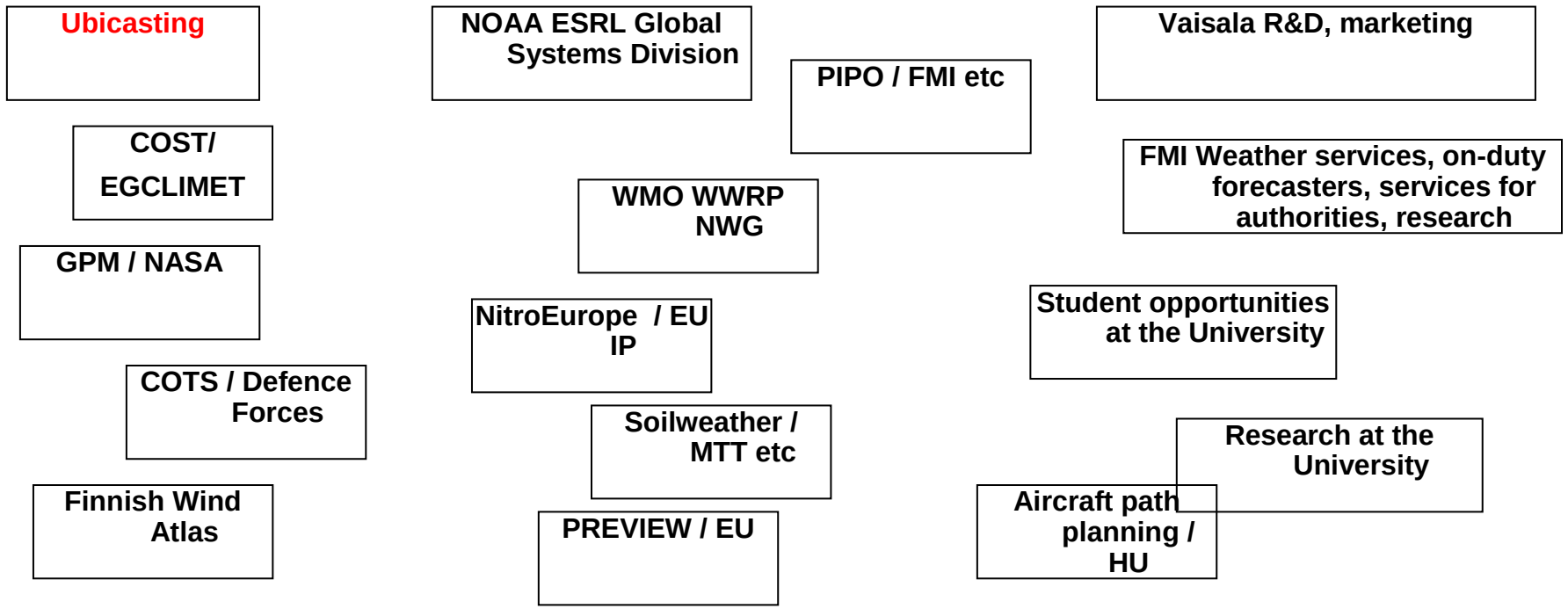
- Anyone funding Helsinki Testbed in continuous or periodic manner, any Helsinki Testbed Data Provider, or Helsinki Testbed User.

Service tree analogy with focus on atmospheric mesoscale phenomena



Helsinki Testbed Baseline Network	FMI national network	Other platforms

Some essential active Testbed relations



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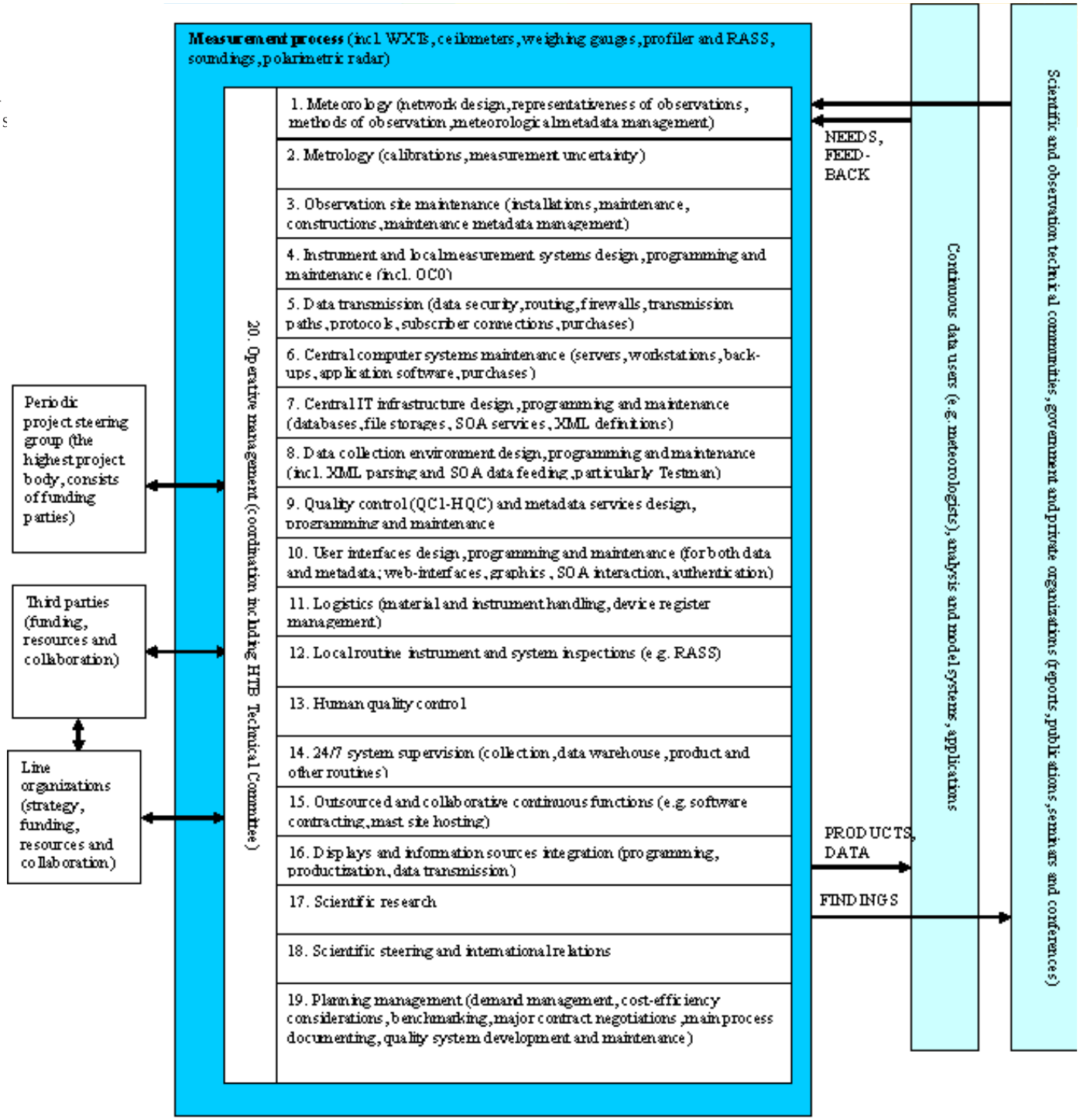
Helsinki Testbed Baseline Network process approach – prerequisite for (quasi-) operational activity

- manageability
- reponsibilities
- staff resources
- operations planning
- financial planning
- customer loop
- gaps/overlaps

Is this too heavy (expensive) approach?



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Survey on the net 2008, sneak preview 8.9.:

7. Which of the following purposes for use are of your interest in using Helsinki Testbed data (check as many as apply)?

Number of question respondents: 5180 (avg: 3,5)

(7.1) Scientific research / Tieteellinen tutkimus	1,6%	84
(7.2) I utilize this information in my profession / Hyödynnän tietoa ammatissani	14,9%	770
(7.3) General interest on weather / Yleinen mielenkiinto säätä kohtaan	74,4%	3856
(7.4) Private use / Yksityinen käyttö	75,1%	3891
(7.5) Other (please specify) / Muu (täsmennys)	12,6%	653

9. How interested would you be to use this service in future / Miten kiinnostunut olisit tulevaisuudessa käyttämään tätä palvelua:

Number of question respondents: 5160

	1	2	3	4	5	
Not interested at all / En ole lainkaan kiinnostunut (avg: 4,795; total: 5160)	0% 2	0,1% 6	2,1% 107	15,9% 818	81,9% 4227	Extremely interested / Erittäin kiinnostunut
avg: 4,795; total: 5160	0% 0	0,2% 1	3,7% 17	21,2% 97	74,8% 342	

2008

2006

12. Would you recommend this service to others / Olisitko valmis suosittelemaan palvelua muille:

Number of question respondents: 5181 (avg: 2,1)

	2008	2006
(12.1) Yes / Kyllä	47,3%	55,6%
(12.2) No / En	0%	0%
(12.3) I already have recommended / Olen jo suositellut	52,6%	44,2%
(12.4) I have not yet used the service / En ole vielä käyttänyt palvelua	0%	0,2%

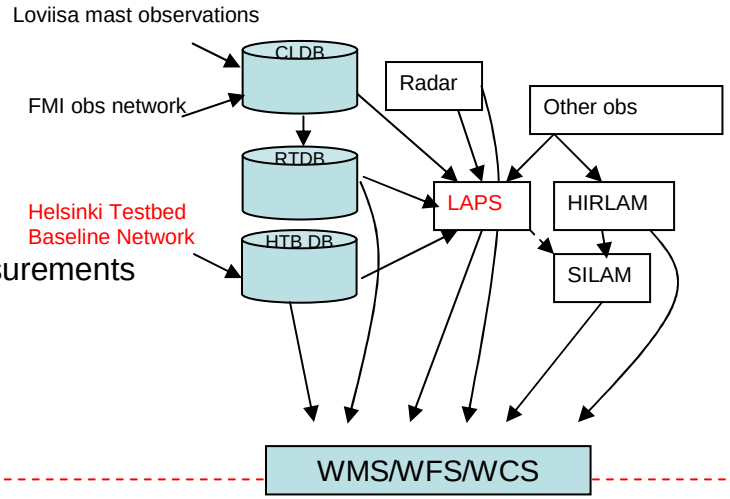
Ubicasting

- public project partners
- commercial project leaders

Ubicasting - Public project essentials

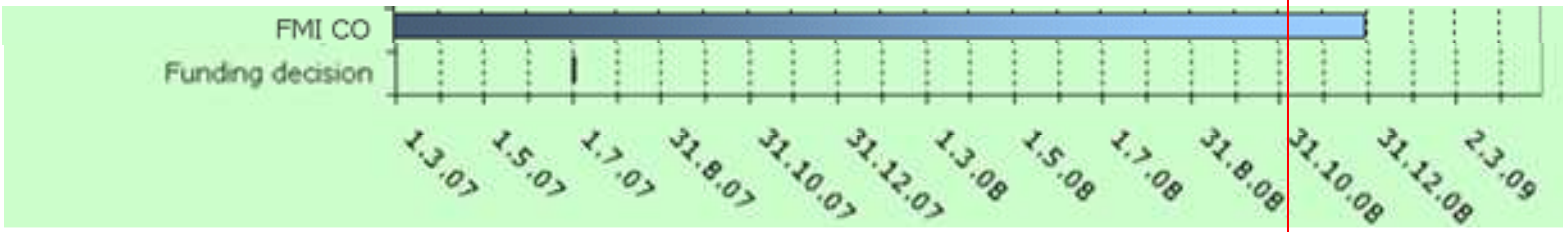
- **Coordination**
- **Observation Engine**
  - Preprocessing of remote sensing data
  - External remote sensing data interfaces
- **Nowcasting Engine**
  - Data ingest
  - Configuration for Testbed area
  - Interfaces and visualization of output
  - Evaluation
- **Air Quality Applications**
  - Industrial air quality applications
  - Urban air quality information system
  - Urban dispersion parameterizations utilizing real-time measurements
- **Road Weather**
  - FMI road weather model
- **Helsinki University Research**
  - Atmospheric boundary layer

FMI: selected Ubicasting application background components



- **System Architecture / Delivery Engine**
- **Piloting**
  - Kokkola industry applications
  - Loviisa nuclear power plant application
  - Road weather application

Ubicasting public project view



Helsinki Testbed

01/2005

Helsinki Testbed Baseline Network

Continuation..

- Baseline Network
- Ubicasting