



OPEN SCIENCE
AND RESEARCH

Open Data Available for Research (AVAA)

18.10.2017 HELDIG – Anssi Kainulainen, CSC

Services support stages of the research process

Utilising research

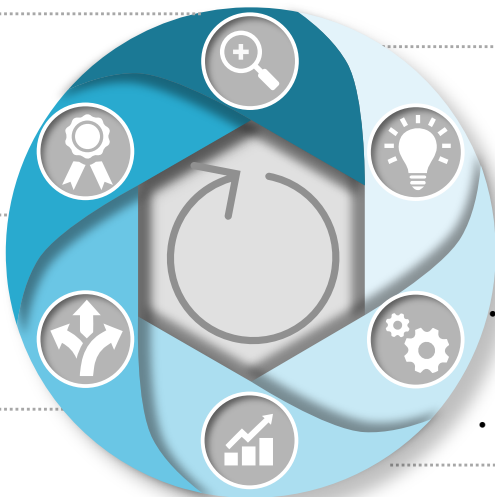
- Utilising research results
- Utilising research outputs
- Measurement
- Curating research outputs

Assessing results

- Assessing results
- Assessing preservation requirements

Publication and dissemination

- Evaluating and publishing research outputs
- Distributing research outputs
- Disseminating research results
- Ensuring long-term accessibility



Planning research

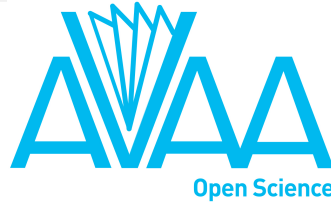
- Defining the research problem
 - Planning research
- Research environment specification
 - Funding and resourcing research
 - Organising research

Implementing research

- Choosing or developing research methods
 - Choosing and collating research data
 - Processing research data
 - Documenting research events
- Discovering and identifying research results

Generating research outputs

- Generating research outputs and describing research results
 - Storing and preserving research outputs and methods

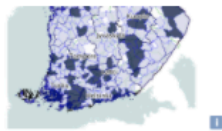


- AVAA is a platform for publishing open research data
- Enhances accessibility and reusability of open research data
- Serves both the producers and users of open data
- Offers applications and interfaces for utilizing open data
- Continuous service offered by MINEDU and produced by CSC

avointiede.fi/avaa

avaa.tdata.fi

Data in AVAA



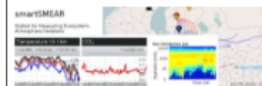
**Distribution of books
in Finland before
1850**



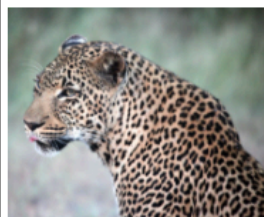
**Paituli spatial data
service**



OpenFIRE



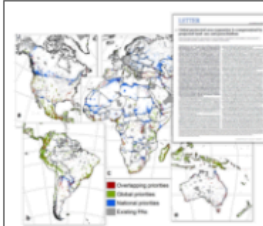
SmartSMEAR



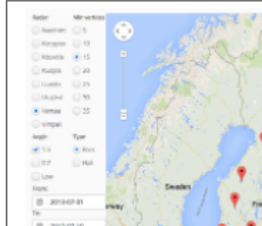
CBIG Carnivores



**Kotus Language
Atlas**



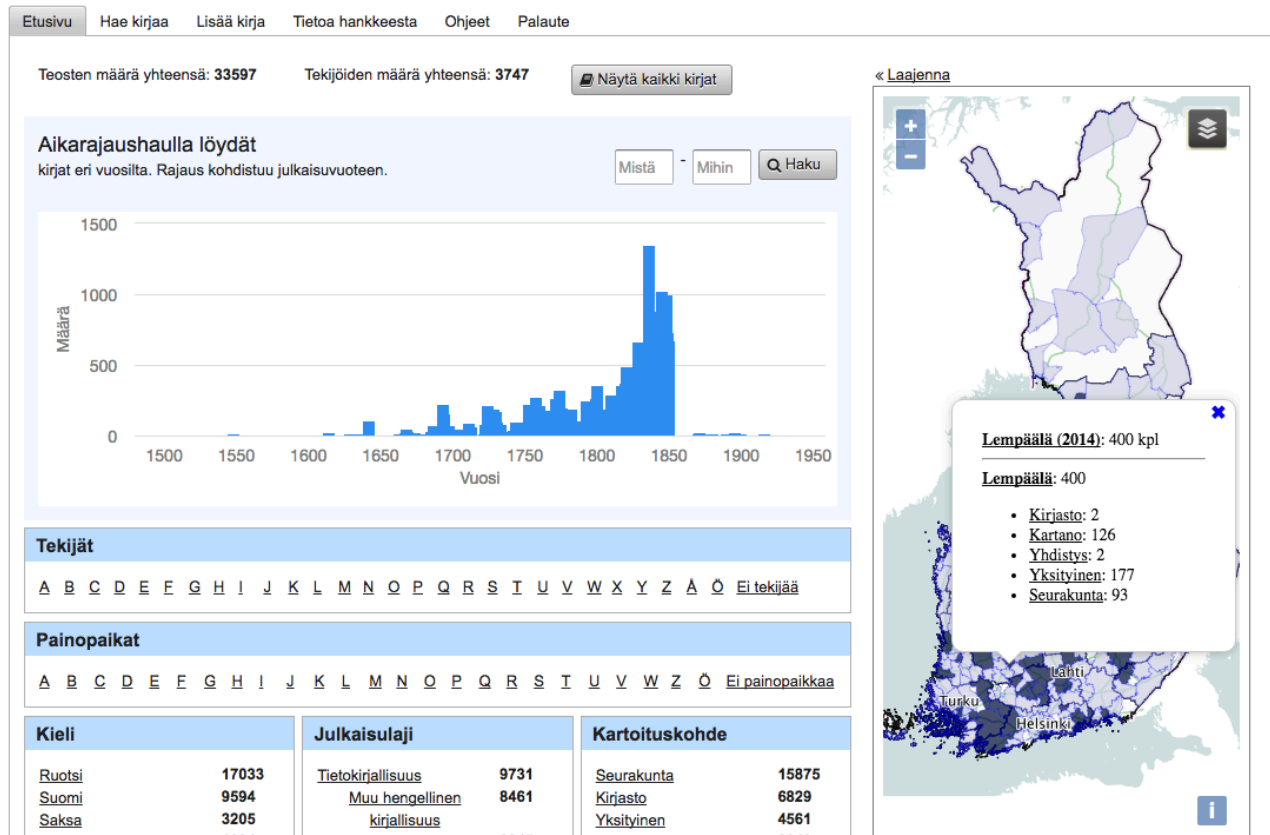
CBIG GPAN



RadarUI

Distribution of books from before 1850 in Finland

Kirjojen levinneisyys Suomessa vuoteen 1850



Language Atlas application

Ryhvät / Ilmiöt

Hakusana: kalajsääski s.

kalajsääski

kalajsääski

Ilmiö ID: 378005
Ilmiö: *kalajsääksi*
Tyyppi: muoto
Kuvaus: Hakusana: kalajsääski s.
Aineisto: Suomen murteiden sanakirjan levikkikartat
Kuuluu ryhmiin: Hakusana: kalajsääski s.

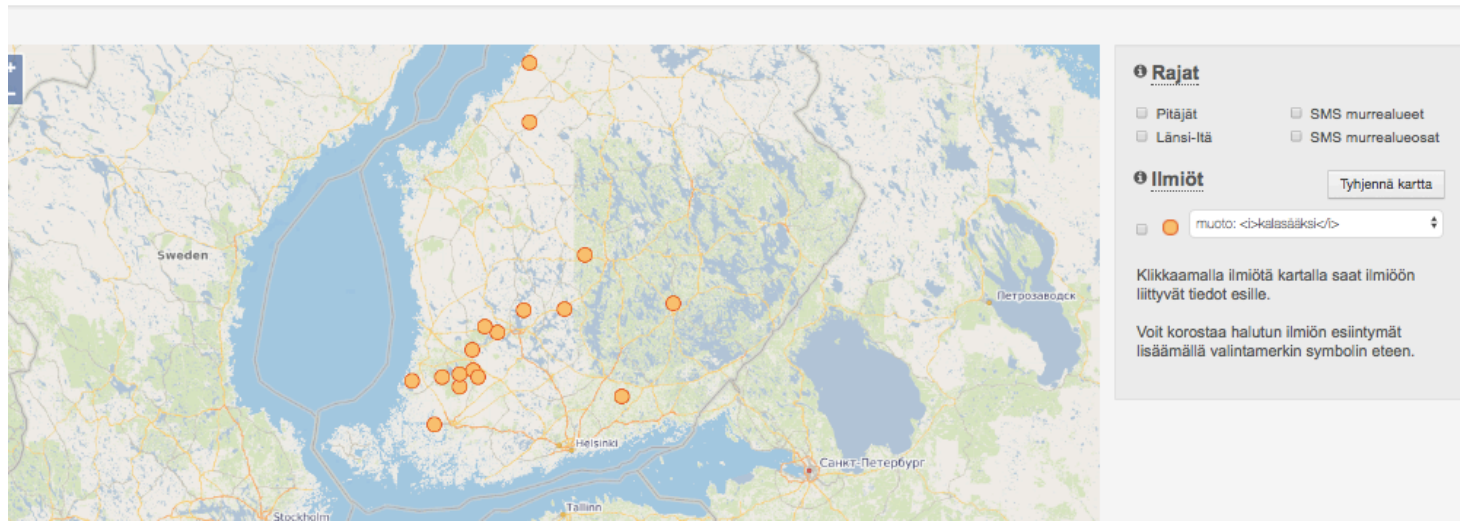
[Siirry karttaan](#)

Lataa ilmiön paikatiedot tiedostona: [CSV](#) [SHAPE](#)-[ZIP](#)

Sijainnit:

Alastaro, Artjärvi, Hinnerjoki, Kalajoki, Keikyä, Längelmäki, Merimasku, Mikkeli, Mouhijärvi, Petäjävesi, Pyhämaa, Suoniemi, Säskylä, Teisko, Ullava, Vampula, Yläne

[tietoihin](#)



SmartSMEAR application

☐ Show data availability

Variables:

▲ SMEAR II Hyytiälä forest

▲ Meteorology

Air pressure

Air temperature 125 m

Air temperature 67.2 m

Air temperature 50.4 m

Air temperature 33.6 m

Air temperature 16.8 m

Air temperature 8.4 m

Air temperature 4.2 m

Air temperature 67.2 m (2)

Dew point 16 m

Relative humidity 16 m

Relative humidity 67 m

Relative humidity 125 m

RH 125 m (IRGA)

RH 101 m (IRGA)

RH 67.2 m (IRGA)

RH 50.4 m (IRGA)

RH 33.6 m (IRGA)

RH 16.8 m (IRGA)

RH 8.4 m (IRGA)

RH 4.2 m (IRGA)

Wind speed 67.2 m

Wind speed 50.4 m

Wind speed 33.6 m

Wind speed 16.8 m

Wind speed 8.4 m

Wind speed 4.2 m

Wind direction 50.4 m

Wind direction 33.6 m

Wind direction 16.8 m

Wind speed 74.0 m (sonic)

Wind speed 67.2 m (sonic)

Wind speed 33.6 m (sonic)

Wind speed 16.8 m (sonic)

Wind speed 8.4 m (sonic)

From: 2016-02-28 To: 2016-03-06 Shift: << Week >> **Q PLOT >>**

Download type
Choose type

Download

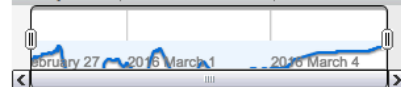
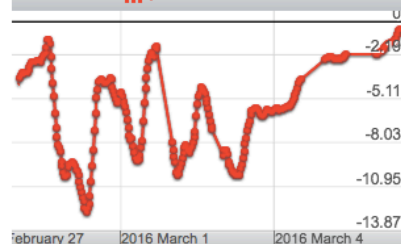
Reset

Hide search Help

SMEAR II Hyytiälä forest: Air temperature 16.8 m

Zoom 15min 1h 12h 1d 5d 1mth 3mth 6mth

Chart mode T168



SMEAR II Hyytiälä forest: CO2 concentration 16.8 m

Zoom 15min 1h 12h 1d 5d 1mth 3mth 6mth

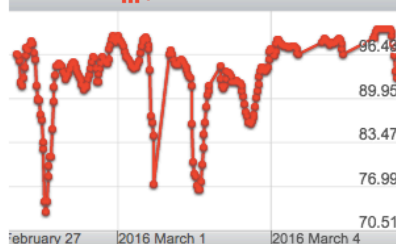
Chart mode CO2168



SMEAR II Hyytiälä forest: Relative humidity 16 m

Zoom 15min 1h 12h 1d 5d 1mth 3mth 6mth

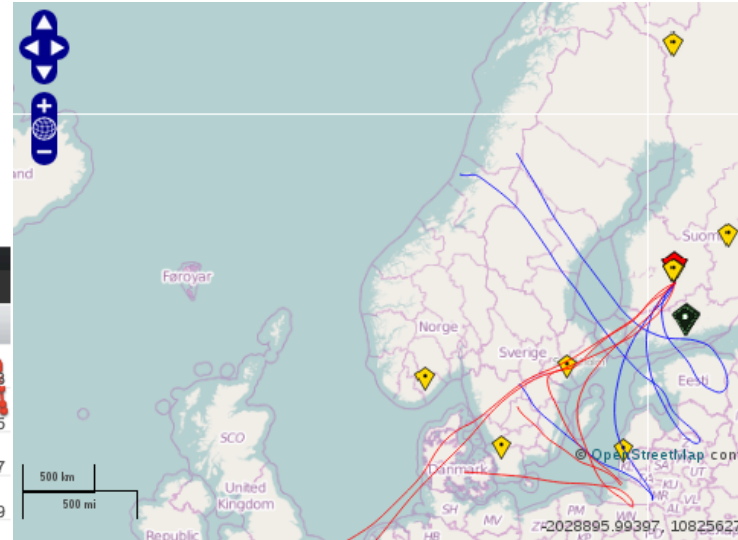
Chart mode RHTd



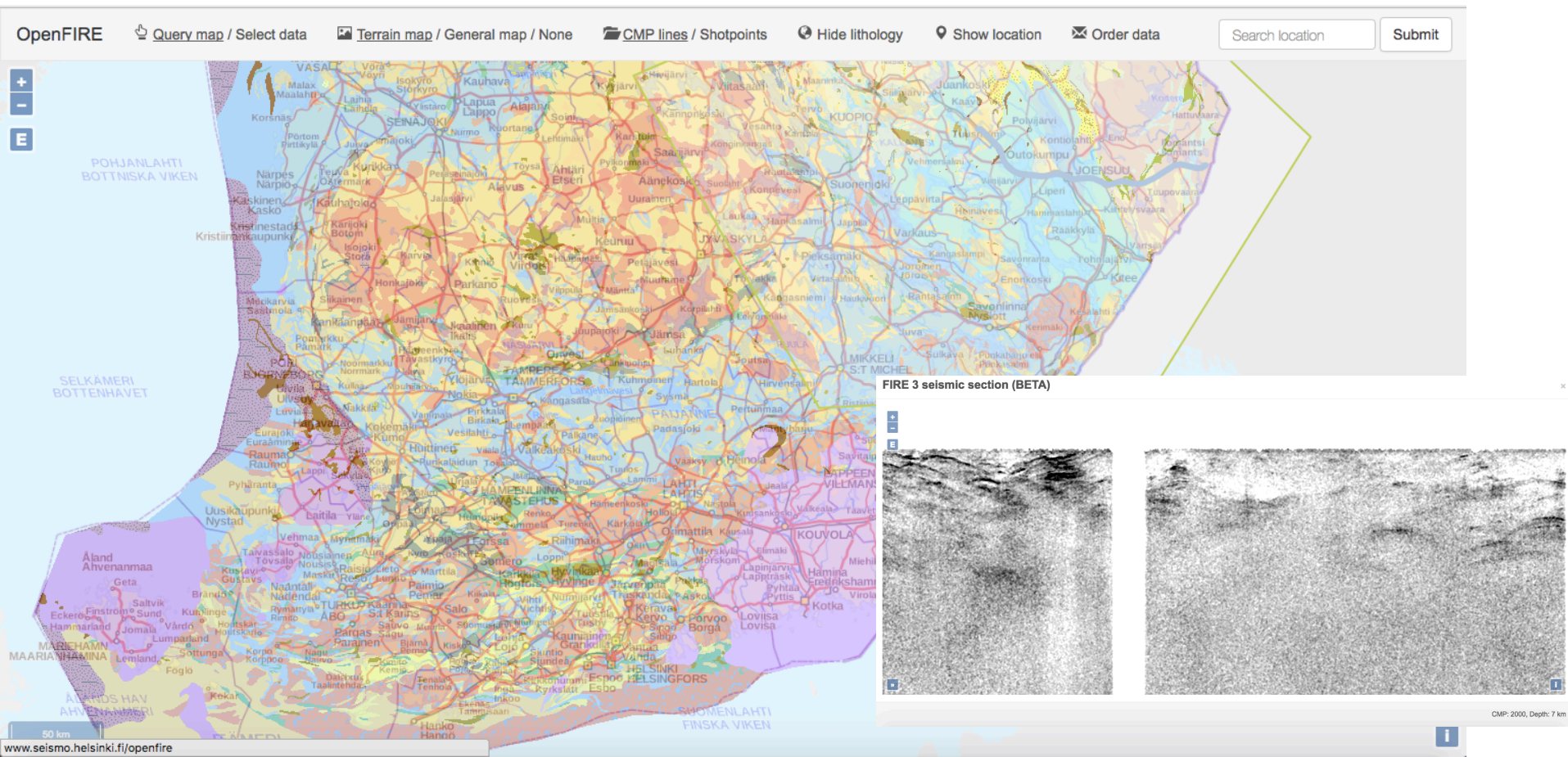
SMEAR I Värriö forest: Air temperature 15 m

Zoom 15min 1h 12h 1d 5d 1mth 3mth 6mth

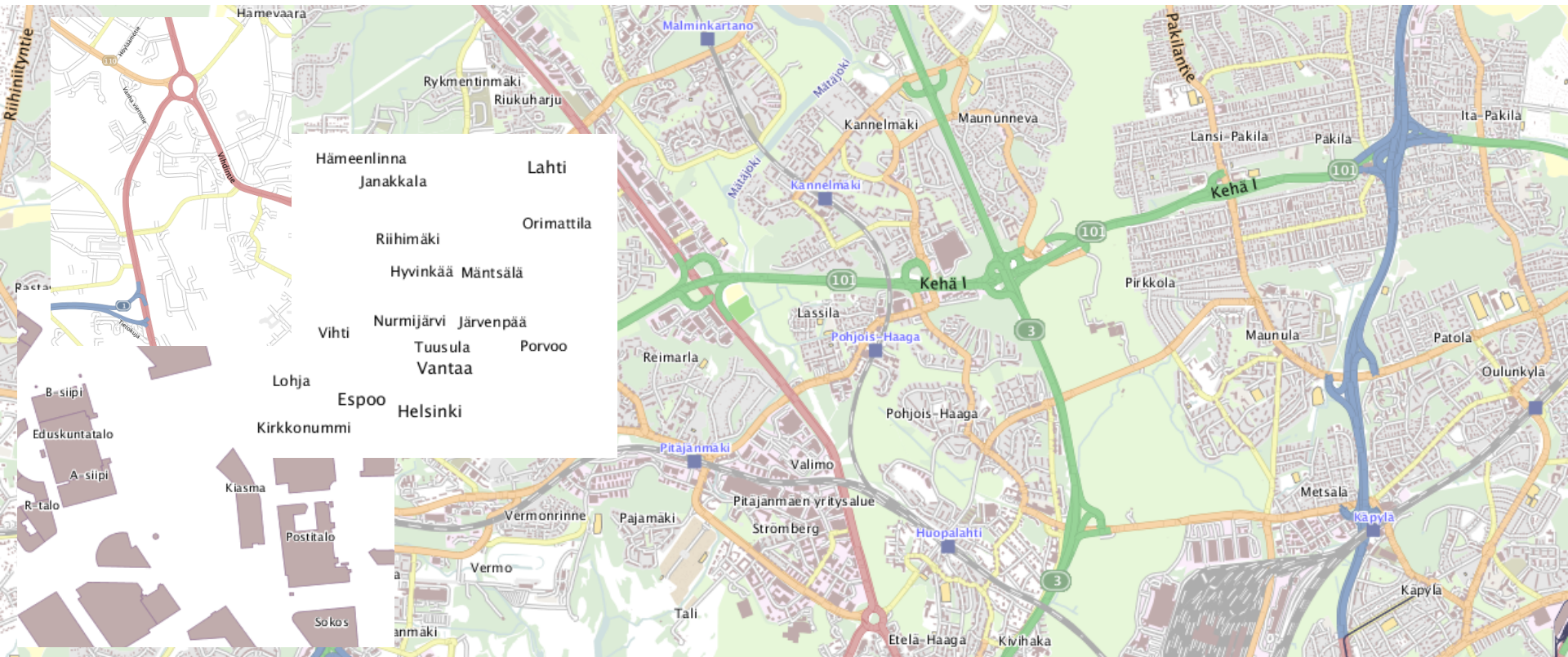
Chart mode TDRY0



OpenFIRE application



OpenStreetMap API



How to publish in AVAA

- Contact us: servicedesk @ csc.fi / asiakaspalvelu @ csc.fi
- A proposal for the initiative
 - Description of data (structure, format, significance)
 - Description of application (contents, features, UI sketches)
- Development with AVAA team



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Thank you!