



R. Monsorno, B. Ventura, A. Vianello, D. Marsh-Hunn

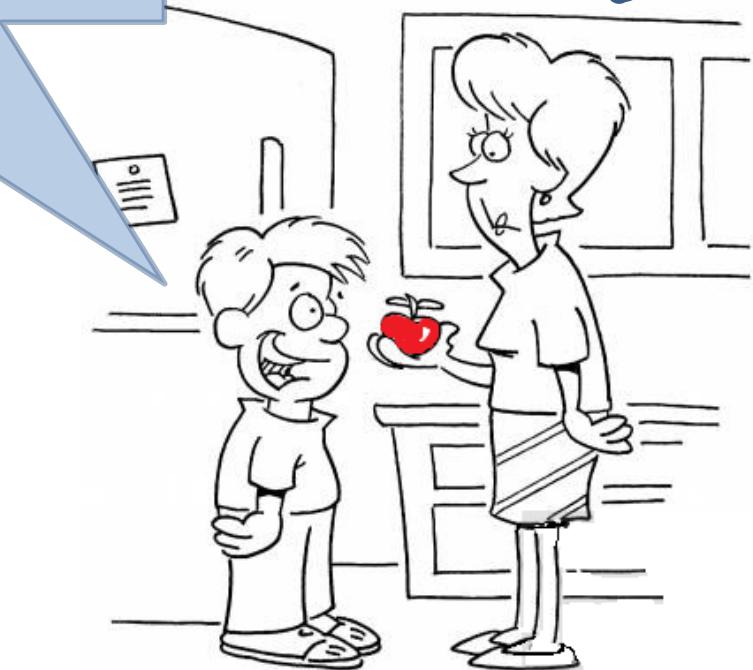
Bolzano, 25.11.16

The Apple Story

Where does this apple come from?

Why is it not as tasty as last year's apple?

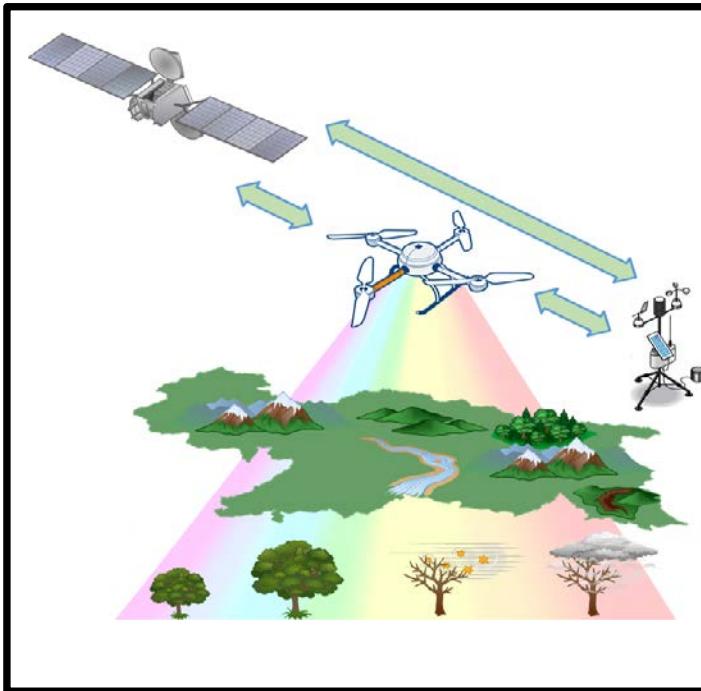
? !



The Apple History

- How did the apple grow in the orchard?
 - How much water, how much sun, how much rain?
 - How many pesticides?
 - ...
- When did the harvest happen?
 - How was it stored?
 - ...
 - How was it transported to the market?

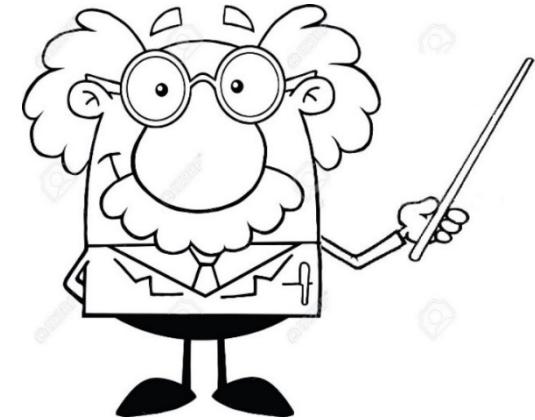




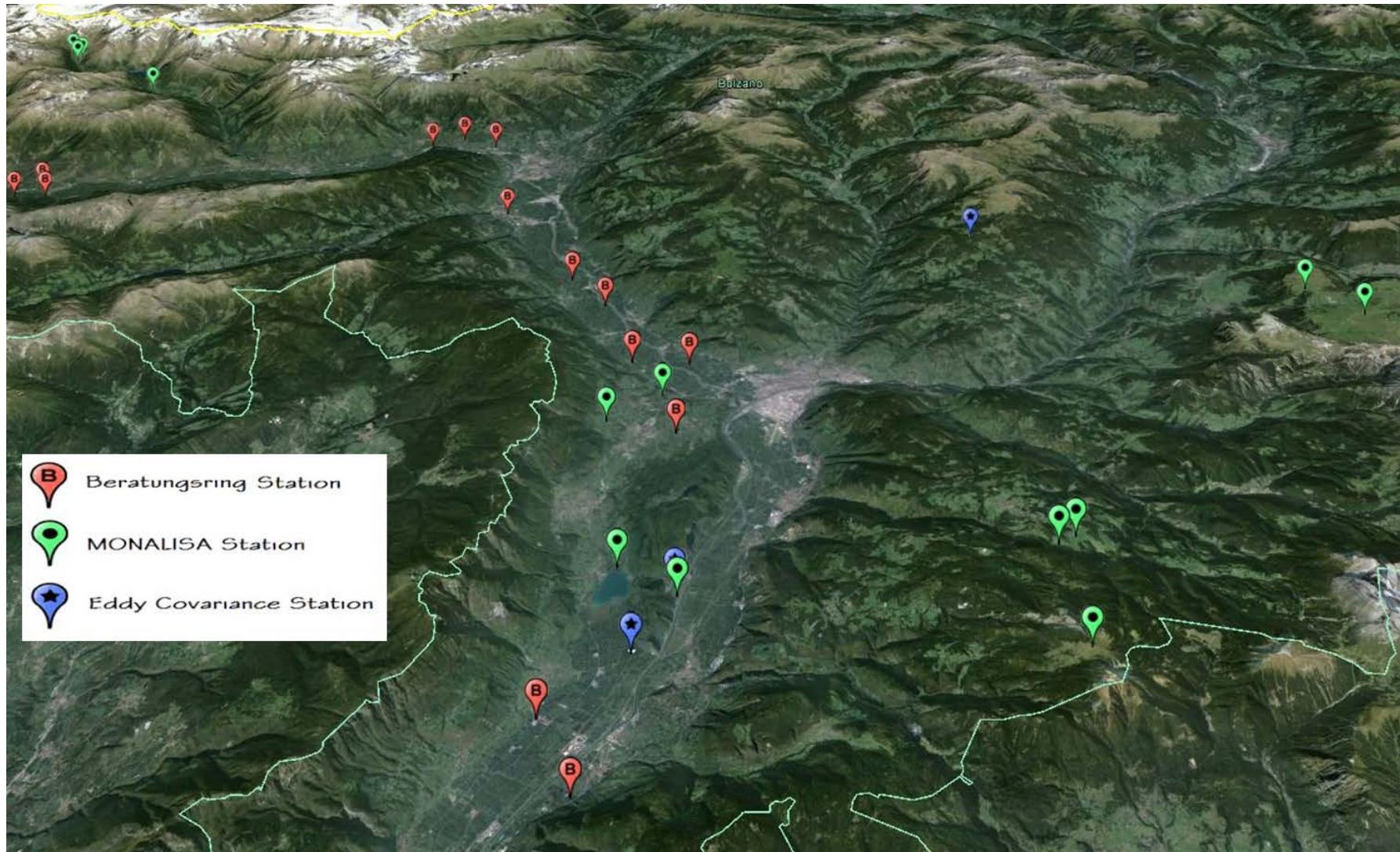
MONALISA DataBase

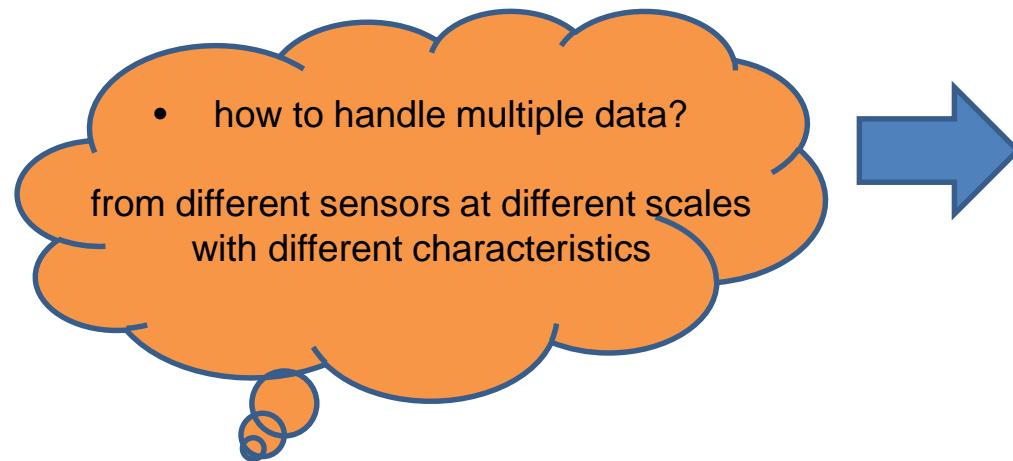
Collects biophysical parameters and all information coming from different sources:

Remote Sensing, UAV, ground stations,
laboratory



MONALISA Sensors Distributed Network

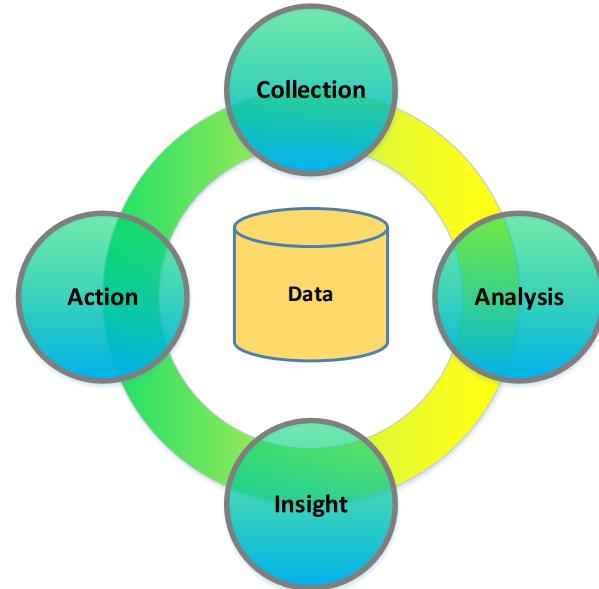
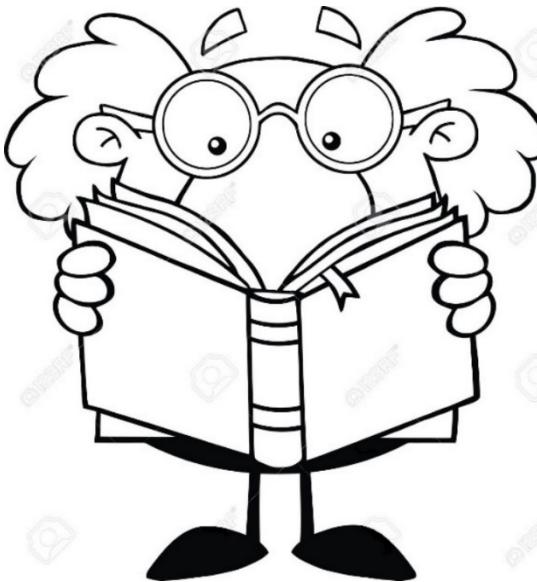




Common Technology Platform

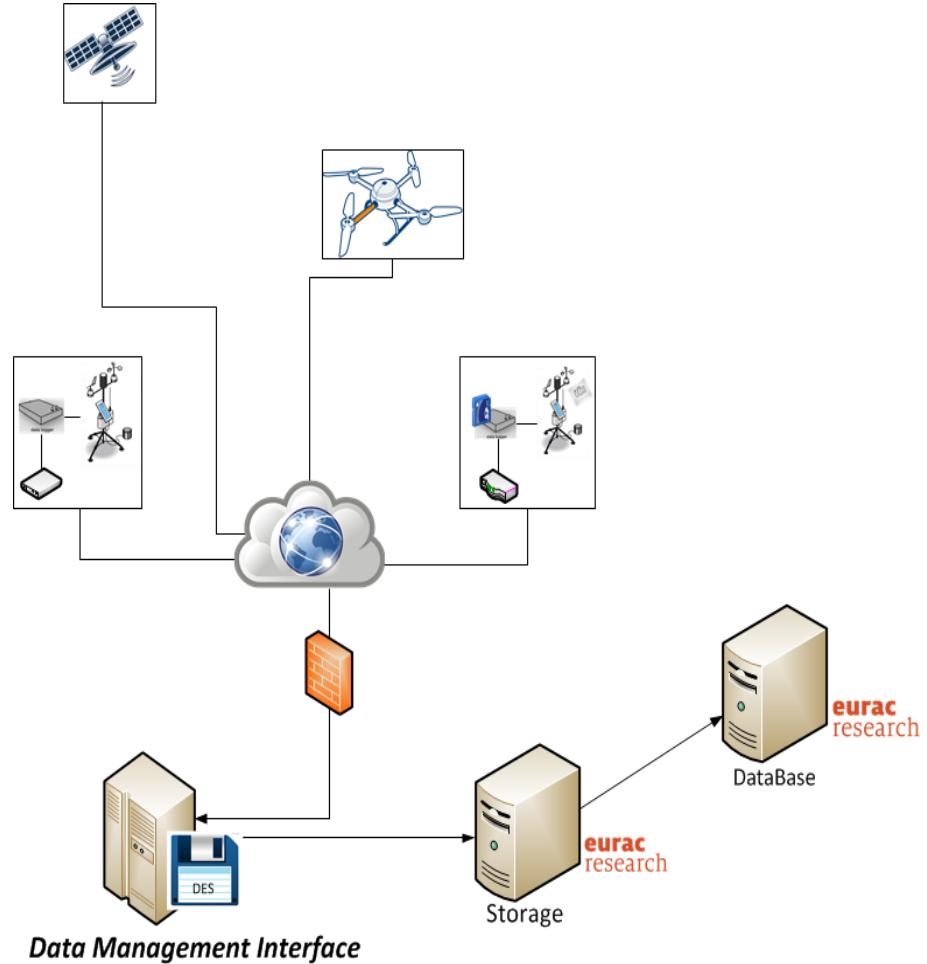


Automation of the Data Life Cycle

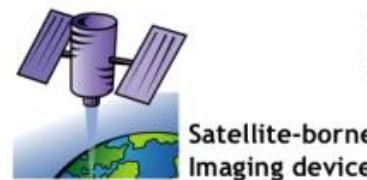
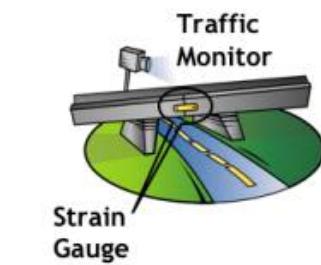
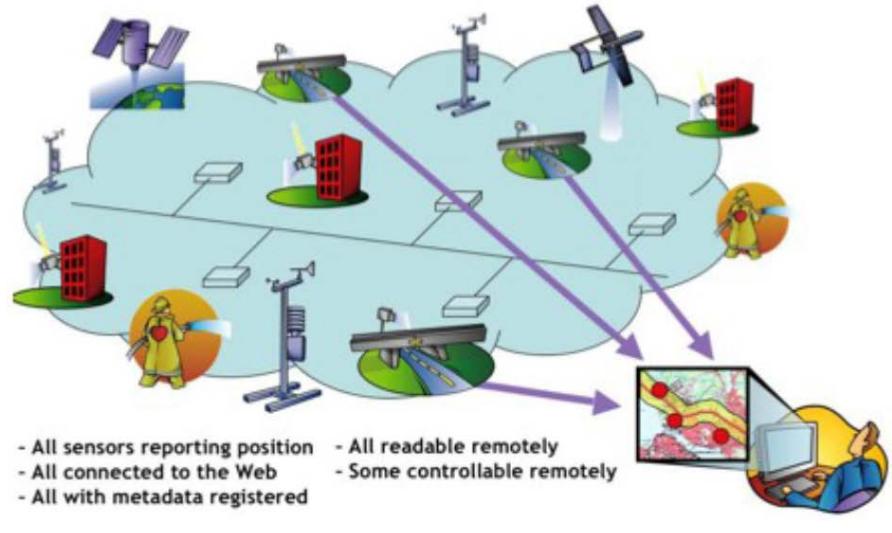


A DES (**Data Exchange Server**) has been implemented.

This application allows to create dedicated workflows for data to be managed or processed.



The MONALISA Database has been implemented following the OGC Sensor Web Enablement standards



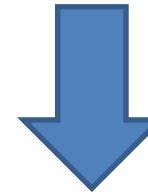
- All sensors reporting position
- All connected to the web
- All with metadata registered
- All readable remotely
- Some controllable remotely



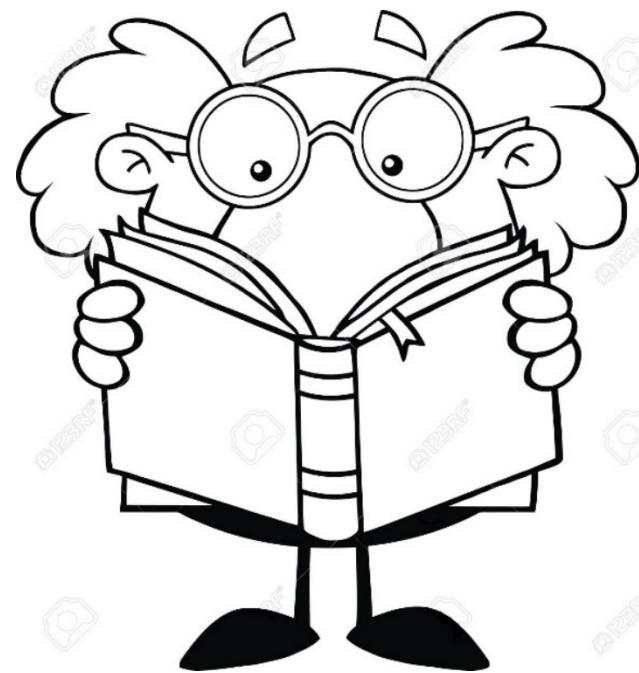
Metadata: data about the data

XML from
SensorML

XSLT processor

*metadata compliant with:
ISO-19139-2, INSPIRE, OGC CSW*

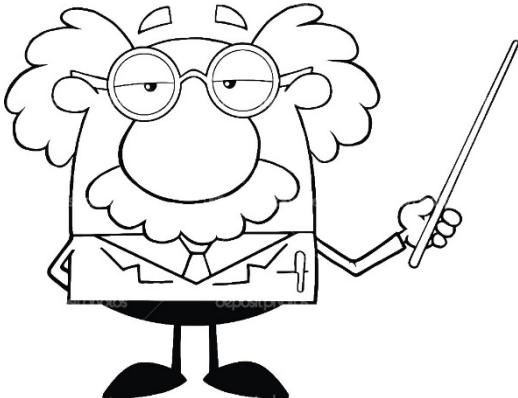
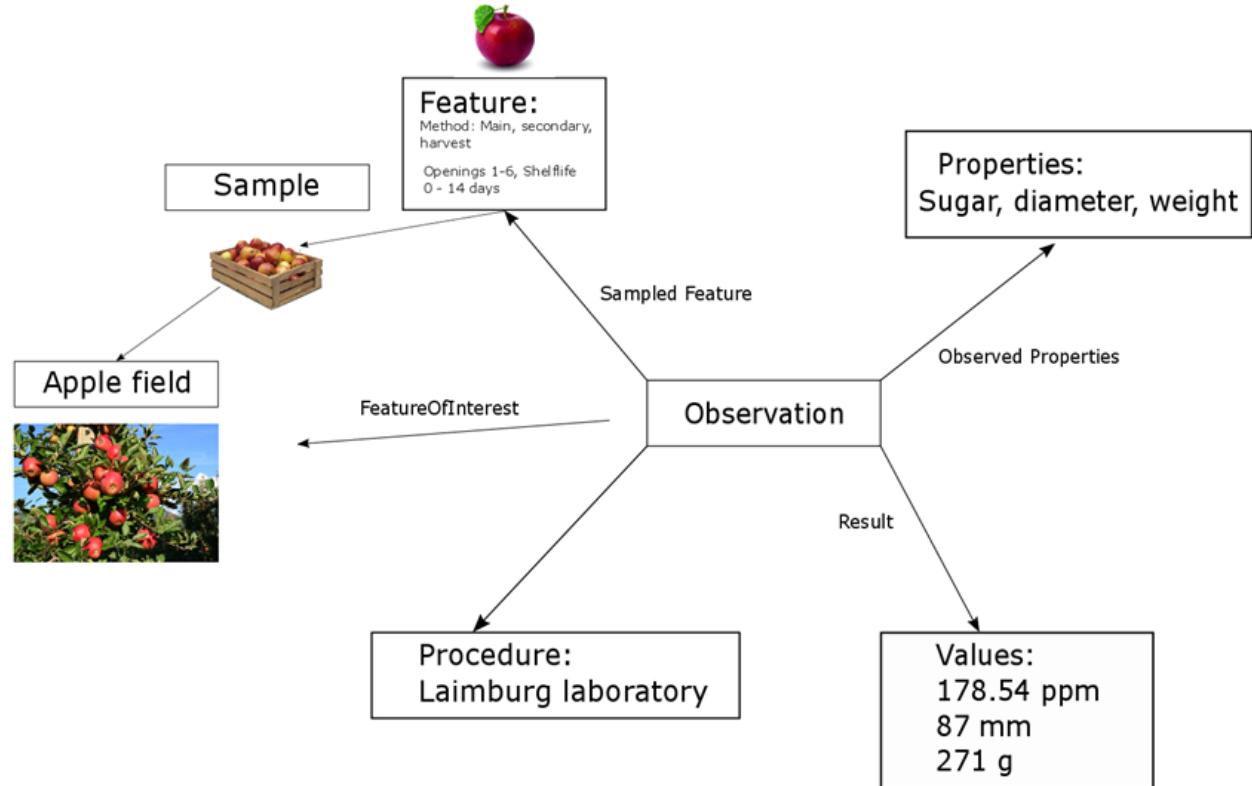
Search and Discover sensors and
their data information

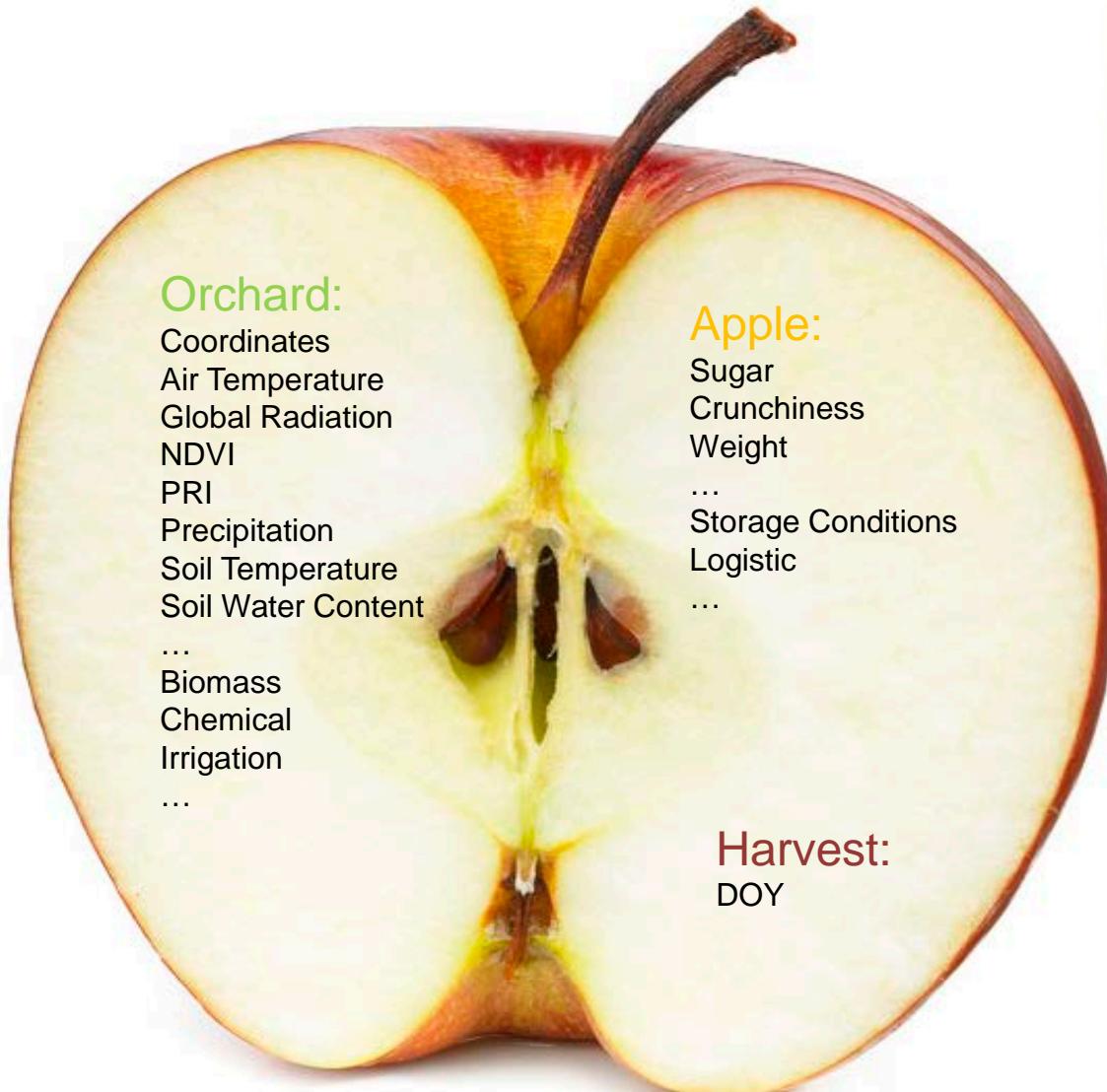


- Environmental DB
 - implemented with Sensor Observation Services, Observation&Measurements and SensorML using open source. [<http://52north.org/>]
- Data cover the project period August 2013 - December 2016,
 - accessible for partners only.
- Demo-website
 - restricted sample of the data



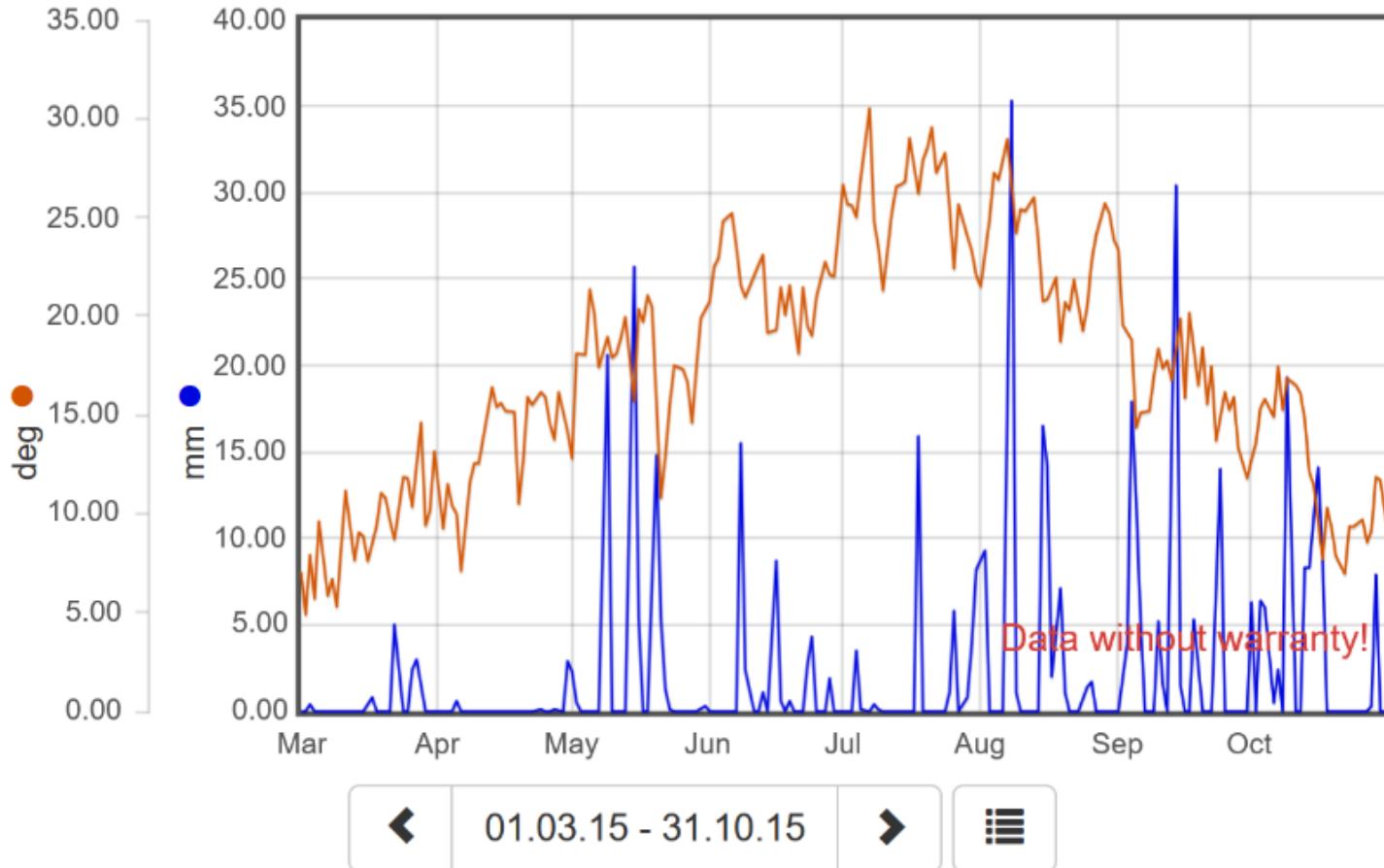
SOS handles
environmental data
as well as laboratory
quality analysis





Cognome	DELICIOUS
Name	GOLDEN
nato il	09/09/2016
(otto n.	P..... S.....)
a.....	(.....)
Cittadinanza	ITALIANA
Residenza	VADENA
Via	LAIMBURG 6
Stato civile	SINGOLE
Professione	DISOCCUPATO
CONNOTATI E CONTRASSEGNI SALIENTI	
Satura	bassa
Capelli	biondi
Occhi	chiari
Segni particolari	poco zucchero





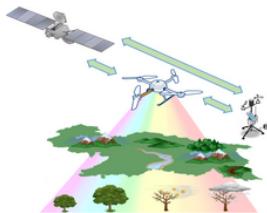
MONALISA DATA SERVICE

PUBLIC DEMO

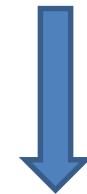


Environmental DB

- + 30.000.000 record collected
- For scientific analysis
- DB expects more data:
 - Environmental
 - Farming activities
 - Post Harvesting



Lead partner: EURAC research
Funding scheme: Special Research Area (Autonomous Province of Bolzano)
Period of project: 08.2013 - 12.2016
Scientific Partners: Free University of Bozen-Bolzano, Innovation, Development e Marketing, Laimburg Research Centre for Agriculture and Forestry, University of Innsbruck
Industrial companies: GECOSistema, Territorium OnLine, CISMA, MOUNTAIN-EERING



Open DB for SMEs
and users
Internet of (Agri)Things

Thank You



<http://monalisasos.eurac.edu/sos/>

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