Open Source GIS voor Water Management in Ontwikkelingslanden
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Open Source GIS in Education

- MSc programmes (3 out of 4, 62 students)
  - Introduction to GIS (QGIS)
    - Georeferencing, digitizing vectors
    - Import tables, join, interpolation
    - Map algebra
    - Catchment delineation
    - OpenStreetMap, Open Data, Mapathon
  - Fieldwork preparation (ES)
  - Fieldwork implementation (WSE)
  - MSc thesis (all programmes)

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Mapathons

MAPATHON

MAPPING PARTY

READY TO SAVE LIVES WITH YOUR LAPTOP?

Help Red Cross to Map the streets and features of **Bangladesh** and **Malawi** in Openstreetmap using satellite imagery

**Wednesday, 20th September
IHE Delft Restaurant
17.30 - 20.00 hrs**

Bring your laptop and mouse
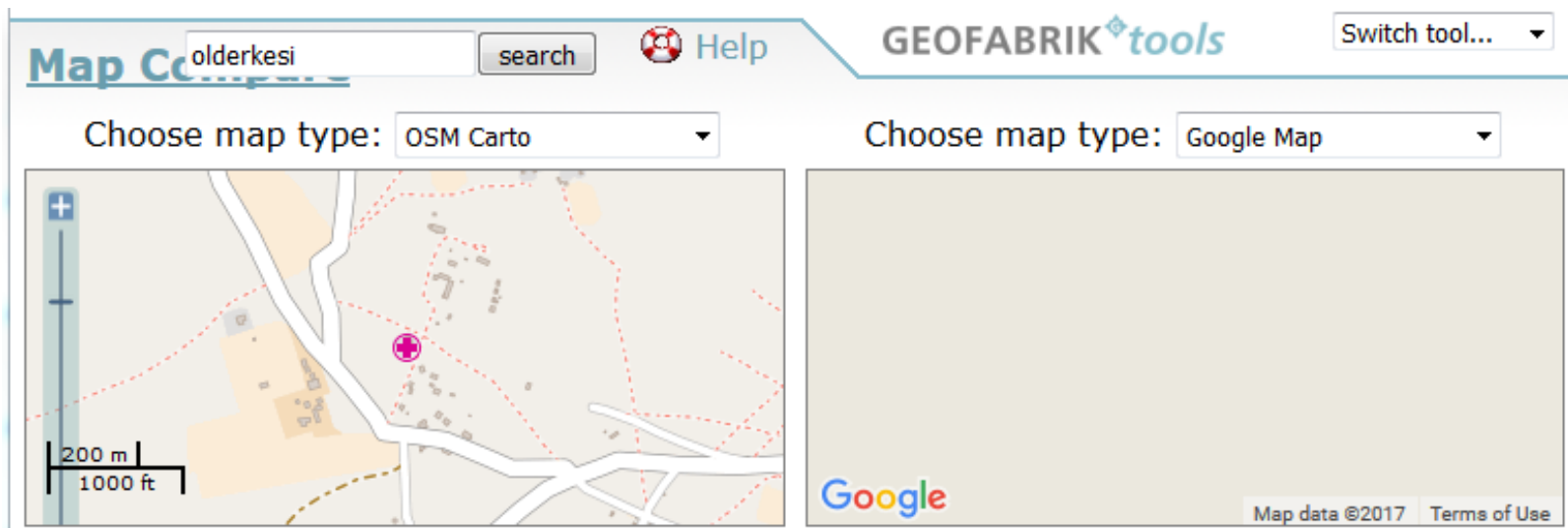
Pizza and music is on us

Missing Maps

IHE DELFT

Rode Kruis

Register through http://www.un-ihe.org

www.missingmaps.org

OpenStreetMap vs. Google Maps

Olderkesi, Narok County, Kenya

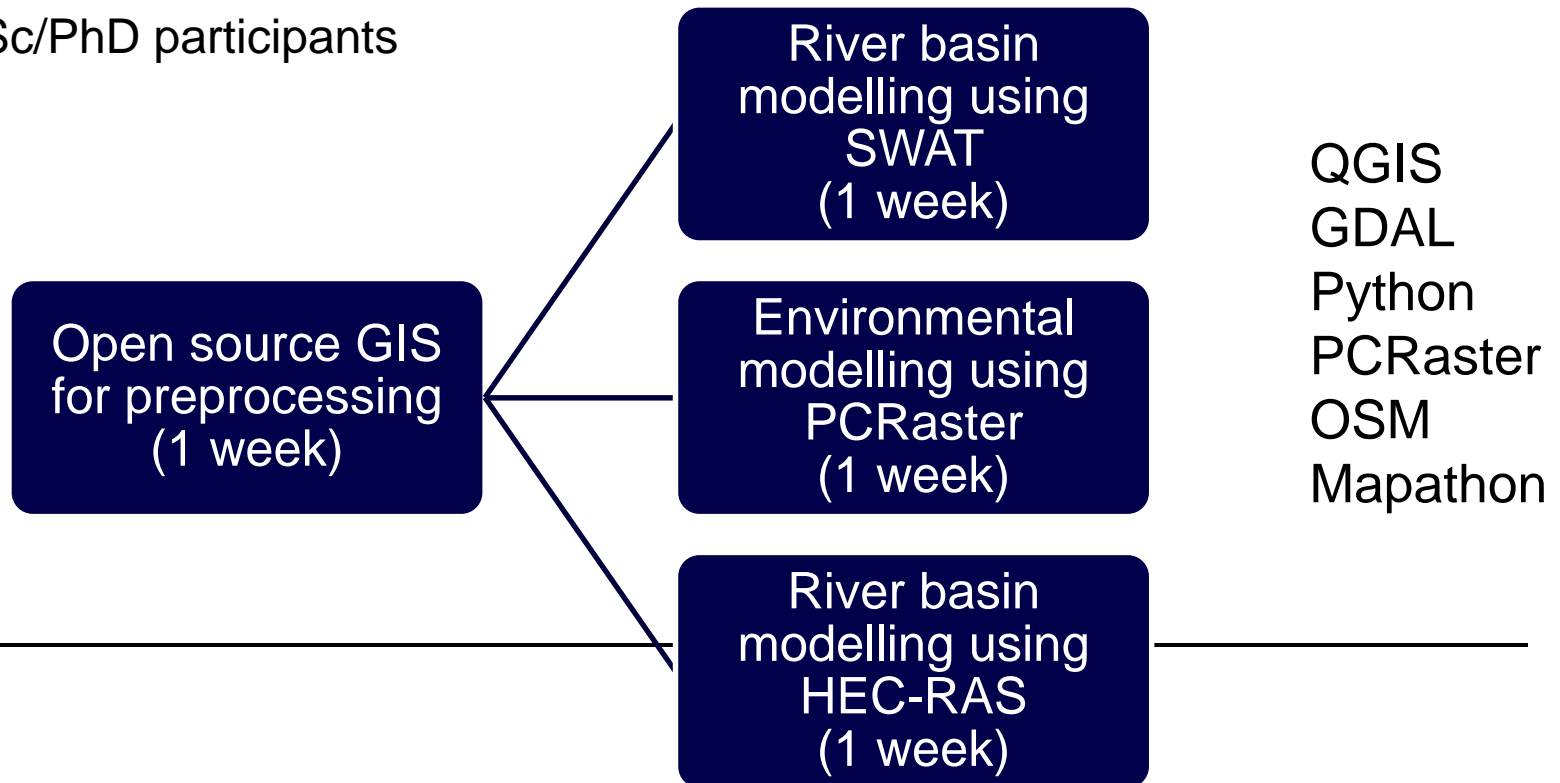OpenStreetMap   Google Maps

Open Source GIS in Education

- Short courses (50 students 2017):
  - External participants
    - Scholarships
    - Self-payers
    - Project partners
  - MSc/PhD participants

www.un-ihe.org/short-courses

Open source GIS for preprocessing (1 week)

River basin modelling using SWAT (1 week)

Environmental modelling using PCRaster (1 week)

River basin modelling using HEC-RAS (1 week)

QGIS
GDAL
Python
PCRaster
OSM
Mapathon

Certification

Capacity development

To strengthen knowledge and capacity base of

- universities
- research institutes
- ministries
- water sector organizations
- in Africa, South-America and Asia/Pacific

Capacity development activities

- training water professionals on-the-job
- creating water education networks
- joint research
- policy advice
- distance & e-learning
- participation in innovative projects
- facilitating knowledge sharing

Tailor Made Trainings

- QGIS
- GDAL
- Python
- PCRaster
- SDI
  - GeoNode
  - Geoserver
  - OpenLayers
  - OCG standards
  - SLD
  - ...

Tweet

Hans van der Kwast
@hansakwast

Day 2 of #waterproductivity training #Benin using #FAO #WaPOR portal for #SDG 6.4.1 and other applications @DUPC_2 @UnescoIHE @fao #opendata
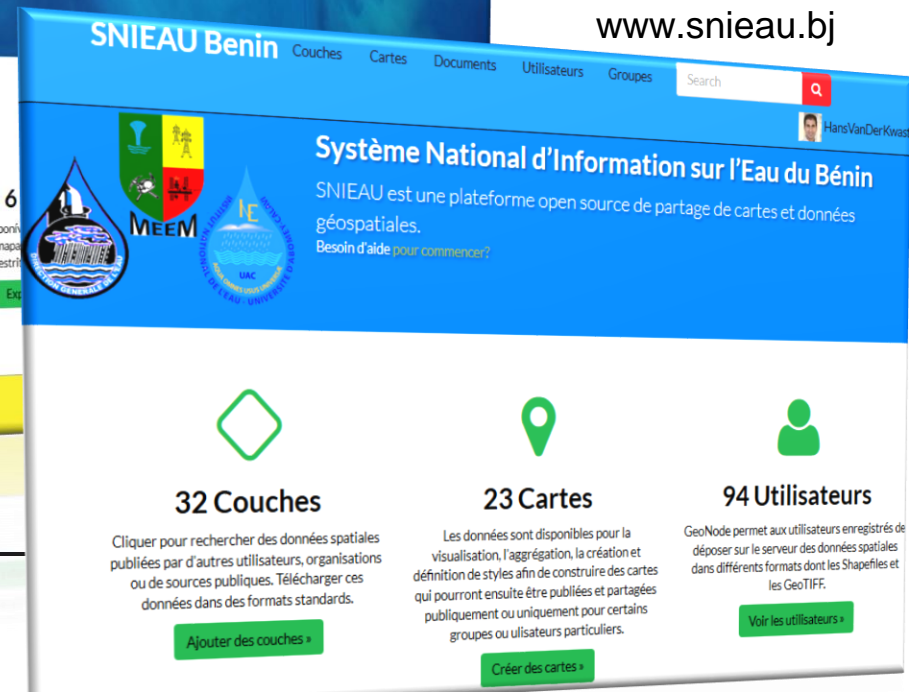
8:04 a.m. · 20 Jun 17 from Benin

VIEW TWEET ACTIVITY

Examples:
QGIS for water companies in Uganda
SDI for the water sector in Benin
SDI for water managers in the Mara River Basin, Kenya
Water productivity training in Benin

SDI and trainings

www.snieau.bj

www.mamase.org

Mozam-agua.net

SDI and trainings
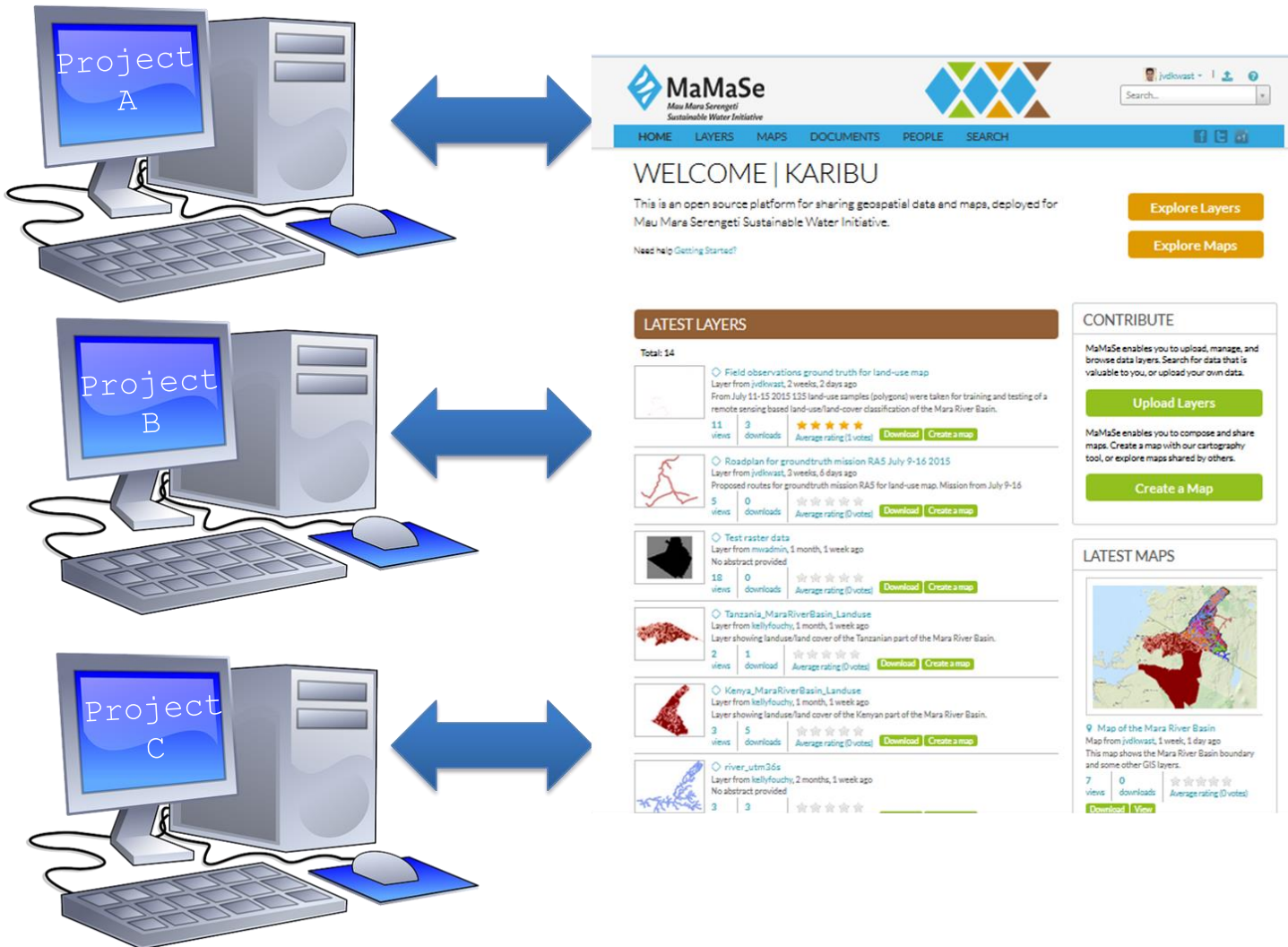
Sharing of:
- Spatial data
- Metadata
- Documents (e.g. Open

Access papers)
- Profiles (social media)

Capacity developement example

GROUNDTRUTH 2.0

URBAN

RURAL

GE⊕DAB

CITIZENS

OPERATIONAL SERVICES

COOPERATIVE PLANNING

FULL IMAGE

ENHANCED DECISION SUPPORT SERVICES

DATA AGGREGATORS

Dynamic Map Generator
year 2020
indicators

POLICY MAKERS
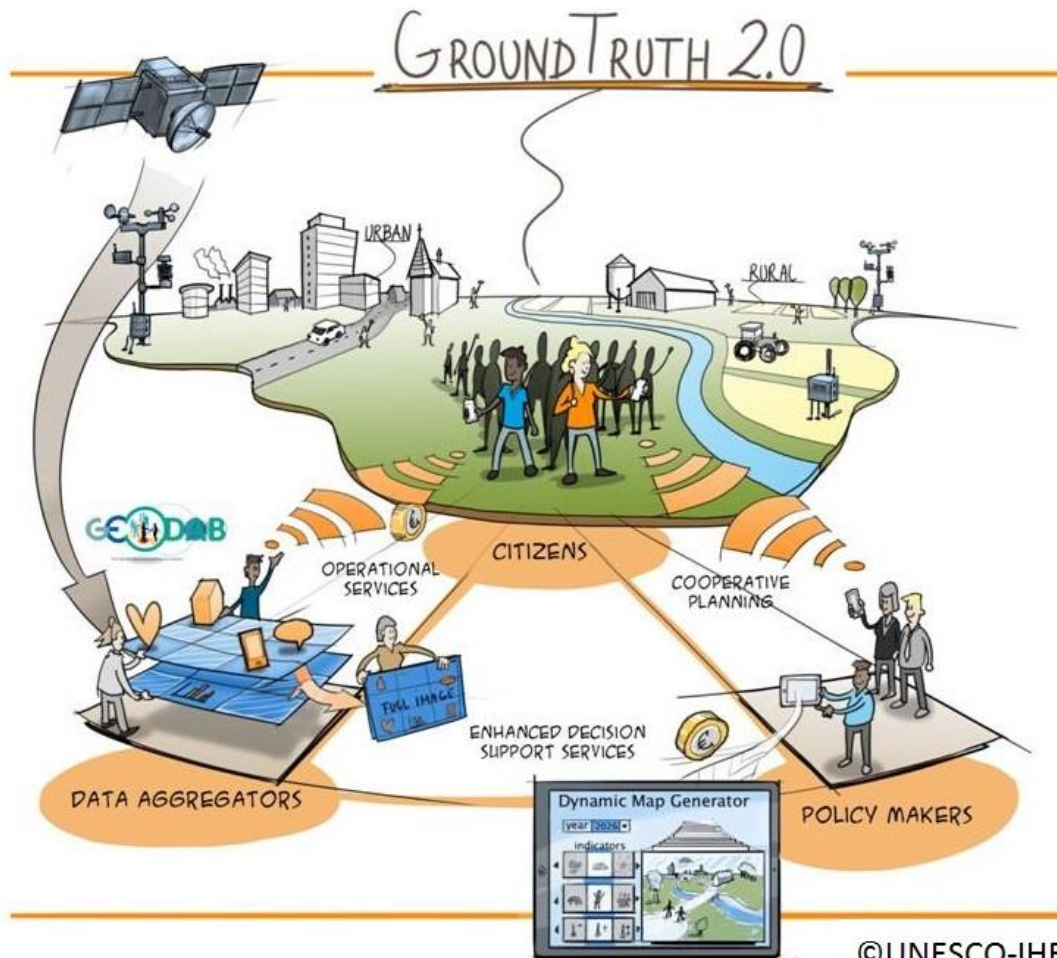
©UNESCO-IHE

… from citizen-based data collection to knowledge sharing for **joint decision-making**, **cooperative planning** and **environmental stewardship**

Overgrazing in the Mara

○ ● ○ ○
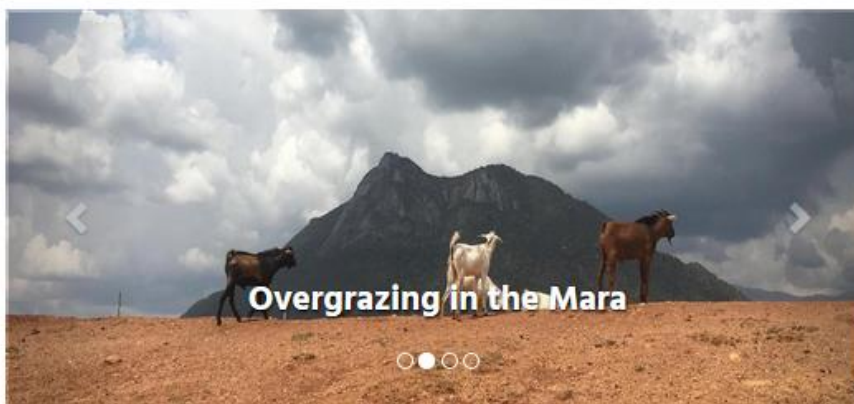
Tweets by @marainfoke

Mara Citizen Observ. Retweeted

TAHMO
@TAHMO_World

Weather station with a view. Great start of the year 2018: together with @SWC_IHewa & @MeteoRwanda we jointly installed an Automated Weather Station at Meteo HQ in Kigali, Rwanda. Data will be used to develop weather and climate services. Supported by @vtawater
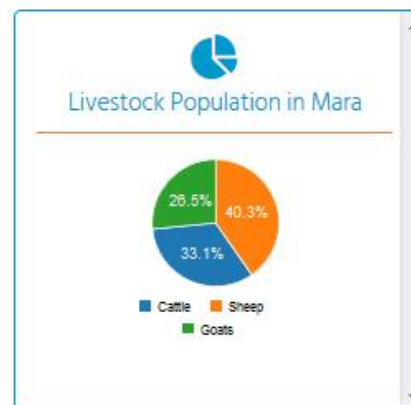
News

News from **MAMASE**

BUILDING PROFITABLE BUSINESS MODELS FOR ENTERPRISES ALONG THE MARA BASIN - *loise wachira*

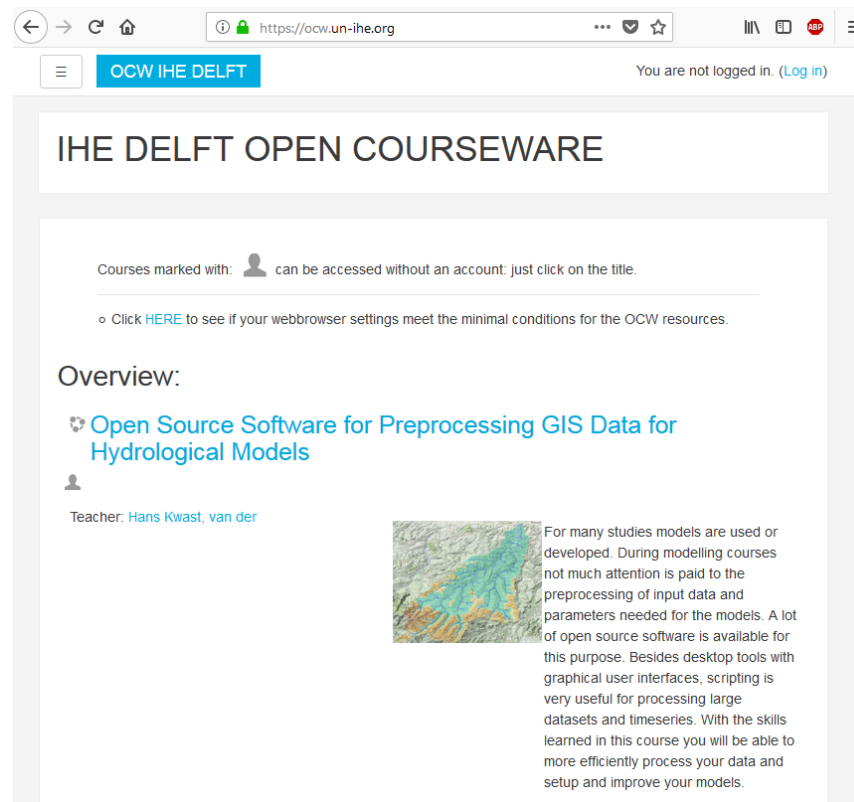**GRAZING FOR CHANGE EVENT** - *loise wachira*

TAHMO Weather

Station	Temperature (°C)
Longisa High School	22.5
Mararianda Primary	20.8
Olderkesi Primary School	18.6
Irbaan Primary	null

Livestock Population in Mara

26.5% 40.3% 33.1%

■ Cattle ■ Sheep ■ Goats

Partners

Gavagai

TAHMO

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Upande

OpenCourseWare
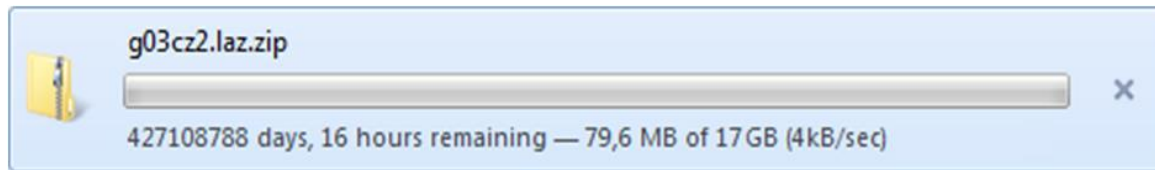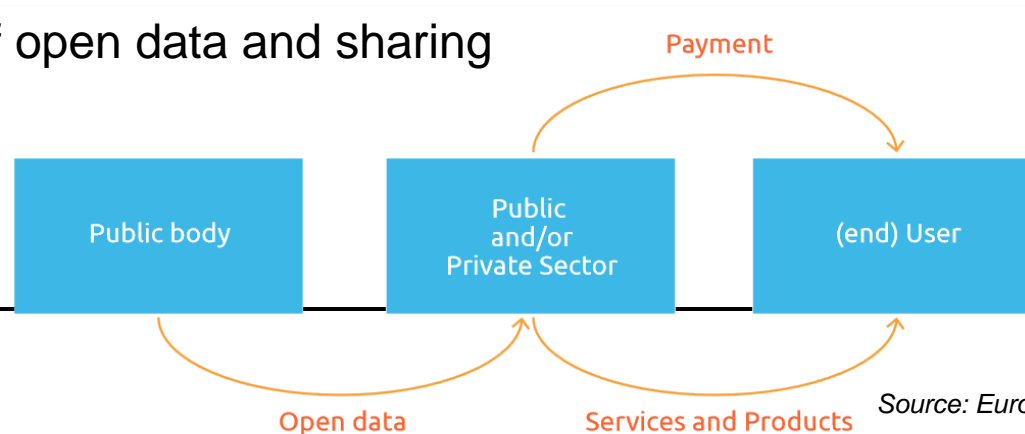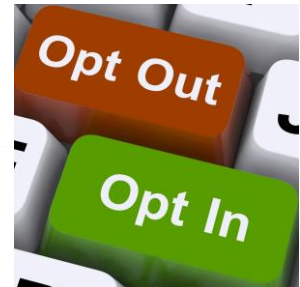
OPEN ACCESS

ocw.un-ihe.org

Challenges

- Diversity of MSc participants
    - Didactic issues
    - Computer literacy
    - Language
- For tailor made trainings: internet connection on location

g03cz2.laz.zip

427108788 days, 16 hours remaining — 79,6 MB of 17GB (4kB/sec)

- Acceptance of open source (internal and external)
- Acceptance of open data and sharing

Payment

| Public body | Public and/or Private Sector | (end) User |

Open data   Services and Products

Source: European Commission

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