Deltares
Enabling Delta Life

Coastviewer

A tool to enable the visualization of marine and coastal data

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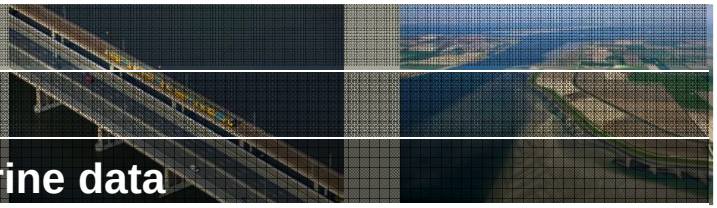


Background

www.deltares.nl

- *Deltares is a leading, independent, Dutch-based research institute and specialist consultancy in matters relating to water, soil and the subsurface.*

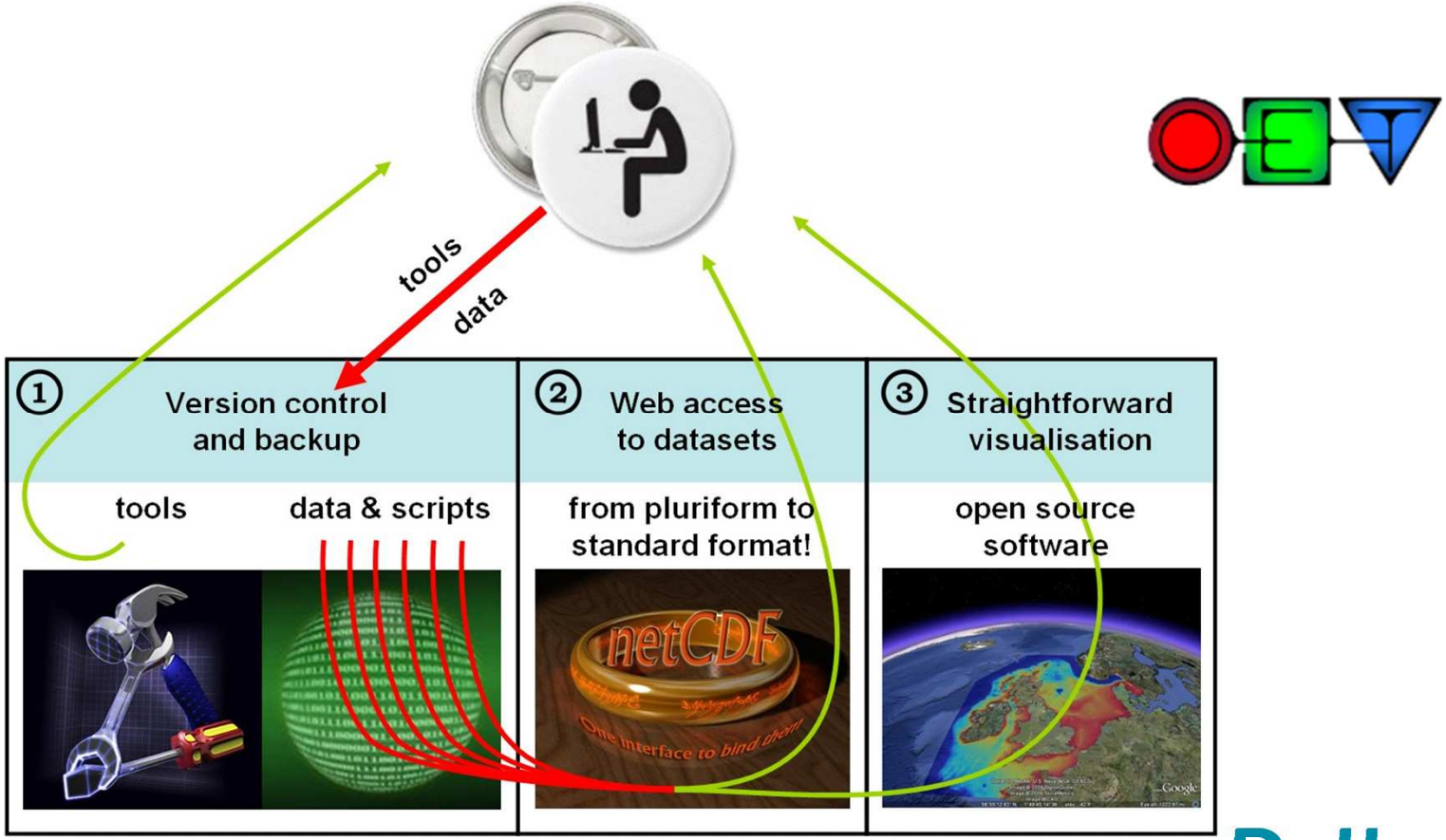
From handcrafted file formats, exchanged through FTP servers for small communities to a web of open data sources that provide data in easy consumable services

- **Organization**
- **Data architecture**
- **Share of functions and models**

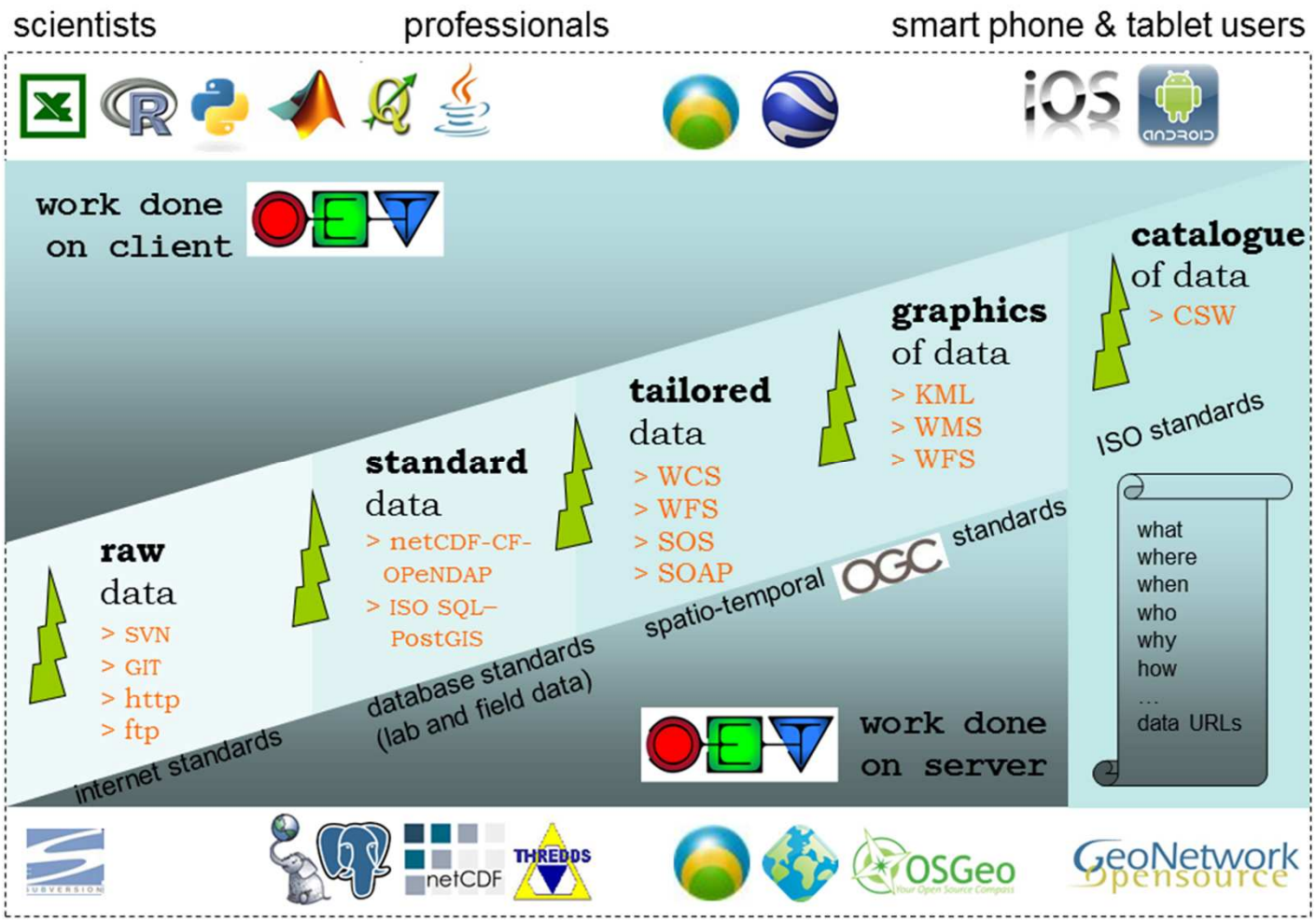
Data management

The OpenEarth experience (openearth.eu)

1. Tools/Repository **2. Standard data** **3. Visualization**



The OpenEarth experience



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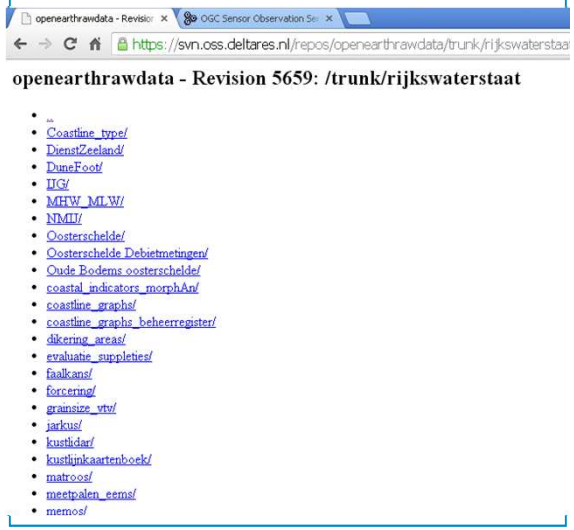
The OpenEarth experience

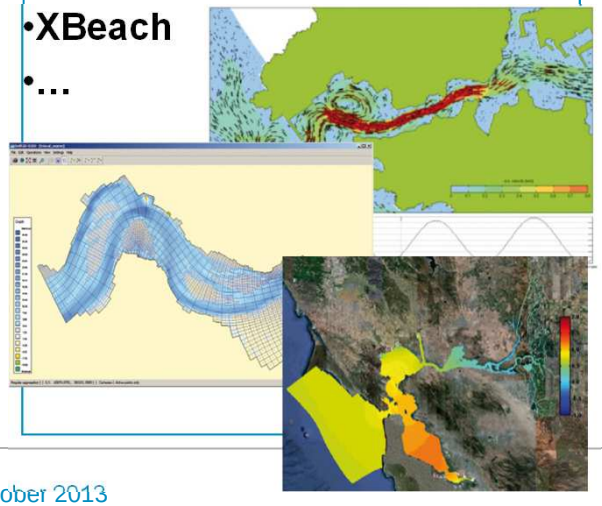
1. Repository, Models and Tools

Raw data (SVN)
- Guidelines for a structure
- Any format
- Any specific function
- Project based / Research



Models (SVN)
- Dune erosion
- Statistical models
- Probabilistic graphic models
- …

- DELFT3D
- XBeach
- …



Tools (SVN)
- Functions of:

- Any programming language
- Standardization
- Visualization

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The OpenEarth experience

2. Standard data

- Interoperability
- Open and efficient access

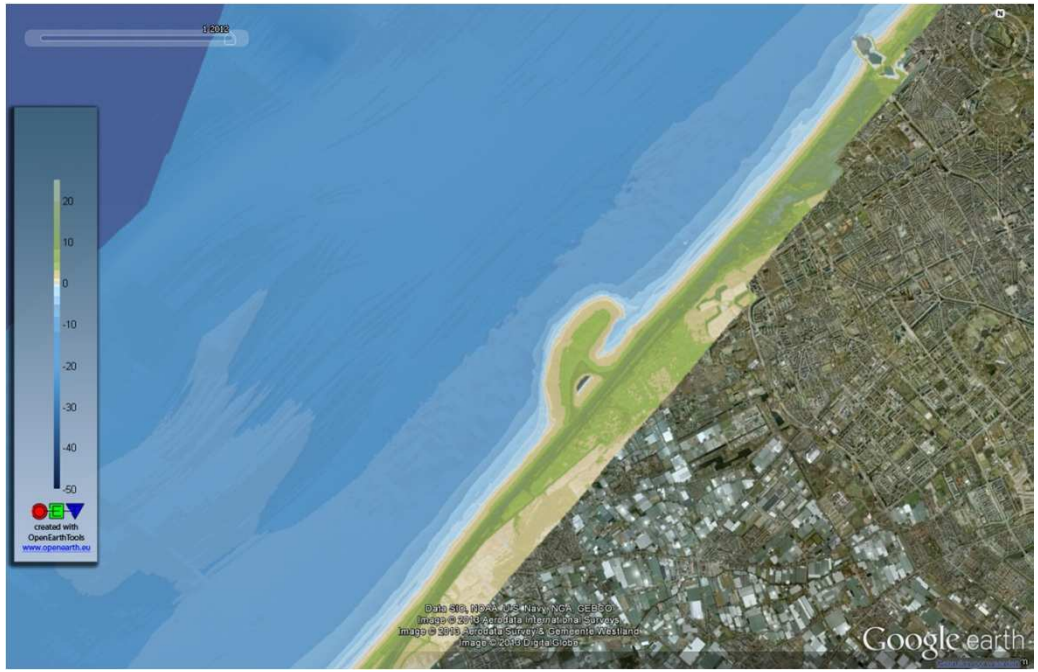
https://publicwiki.deltares.nl/display/OET/Tech+Notes

OGC netCDF-CF-
OPENDAP-server

PostgreSQL-
PostGIS database

The OpenEarth experience

3. The interface: OGC KML



Dutch government

- Open access
- Tool for decision makers
- Layers linked to different sources

The OpenEarth experience

Standard data to standard visualization

http://publicwiki.deltares.nl/display/OET/KML+Screenshots

http://kml.deltares.nl/kml/rijkswaterstaat/

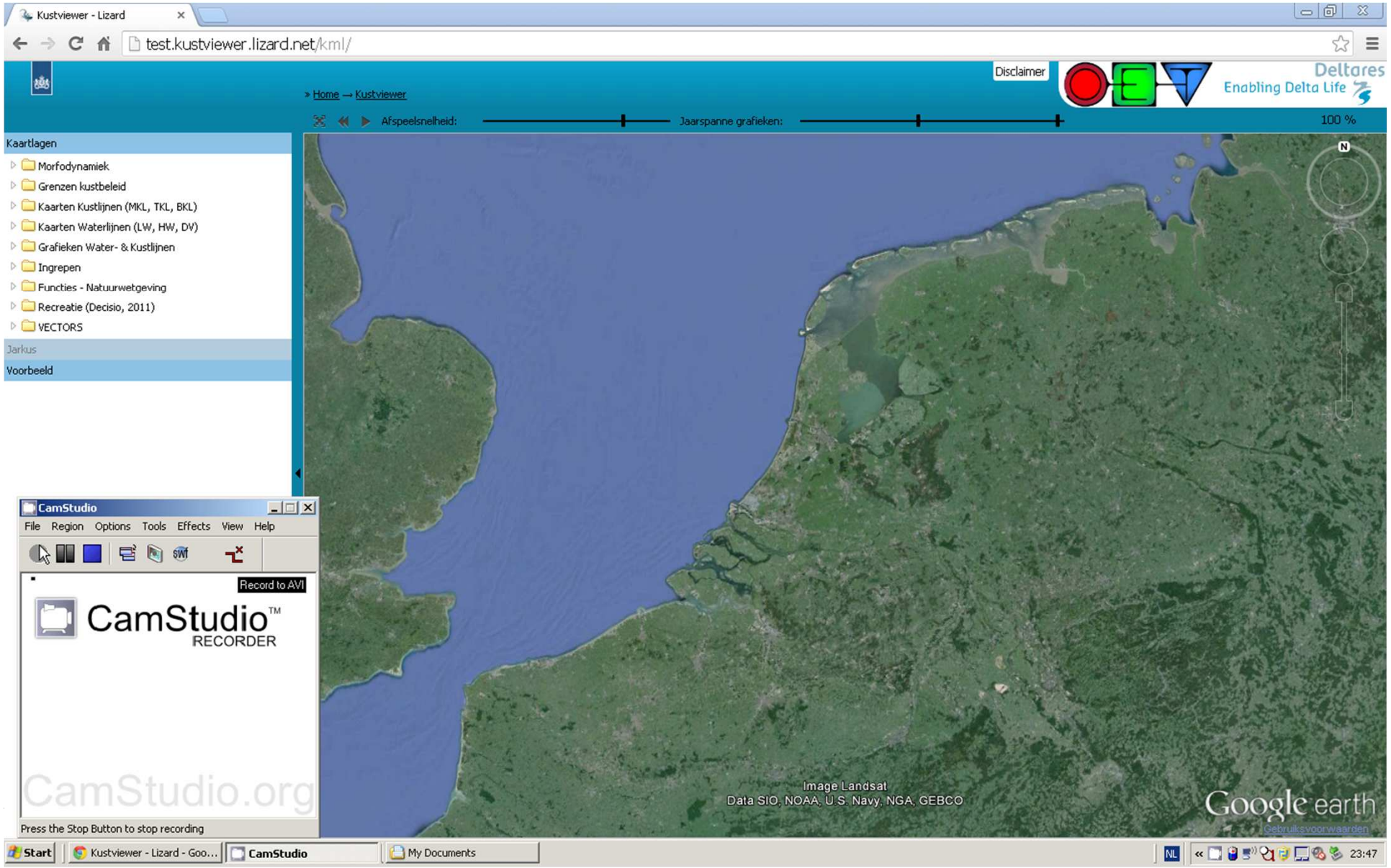
DELTARES + Nelen & Schuurmans
WEB framework (Pyramid) - Opendap netCDF

The Coastviewer

Support the decision making of coastal managers and building of expert advice by scientists and engineers.

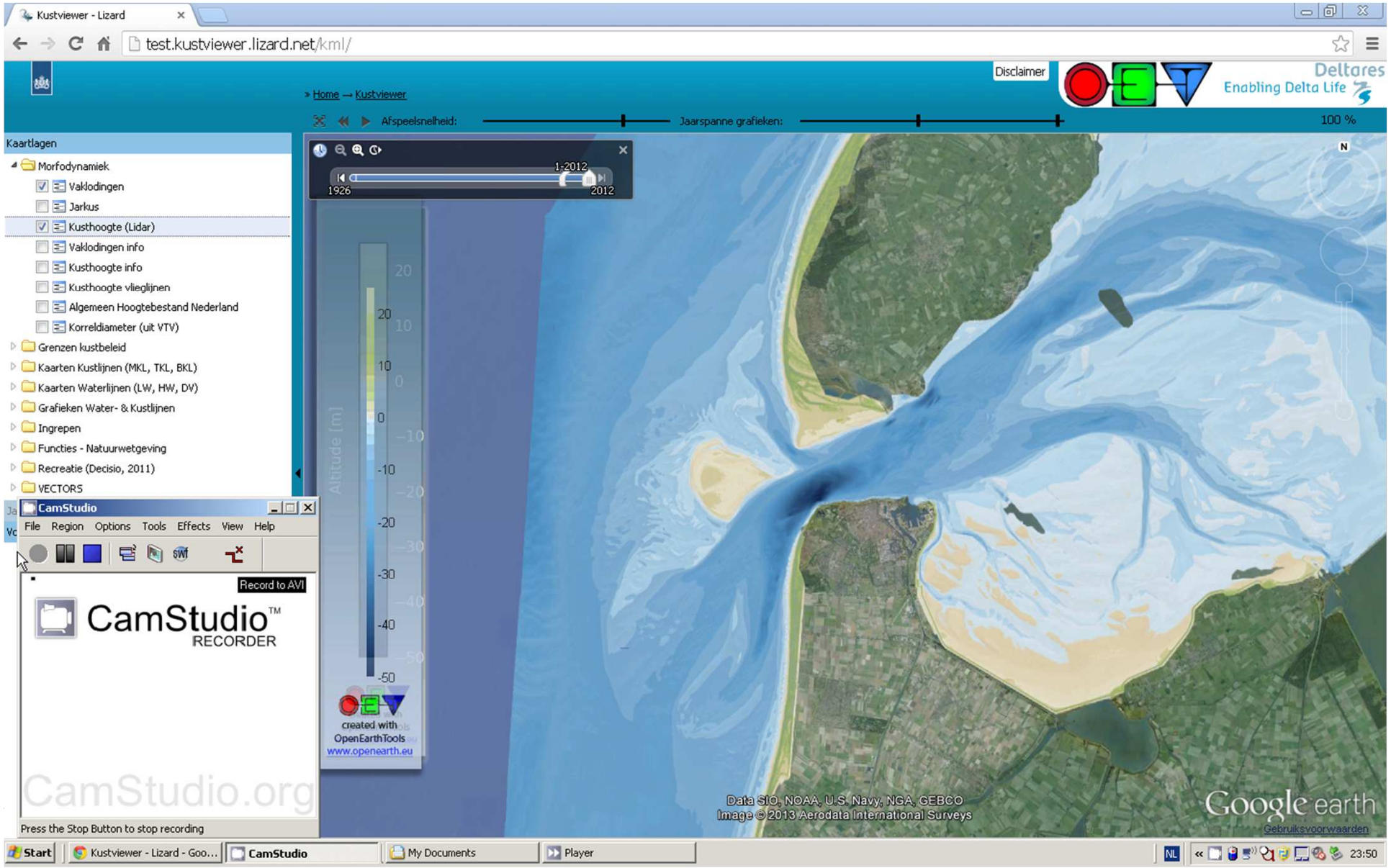
Coastviewer

A tool to enable the visualization of coastal and marine data



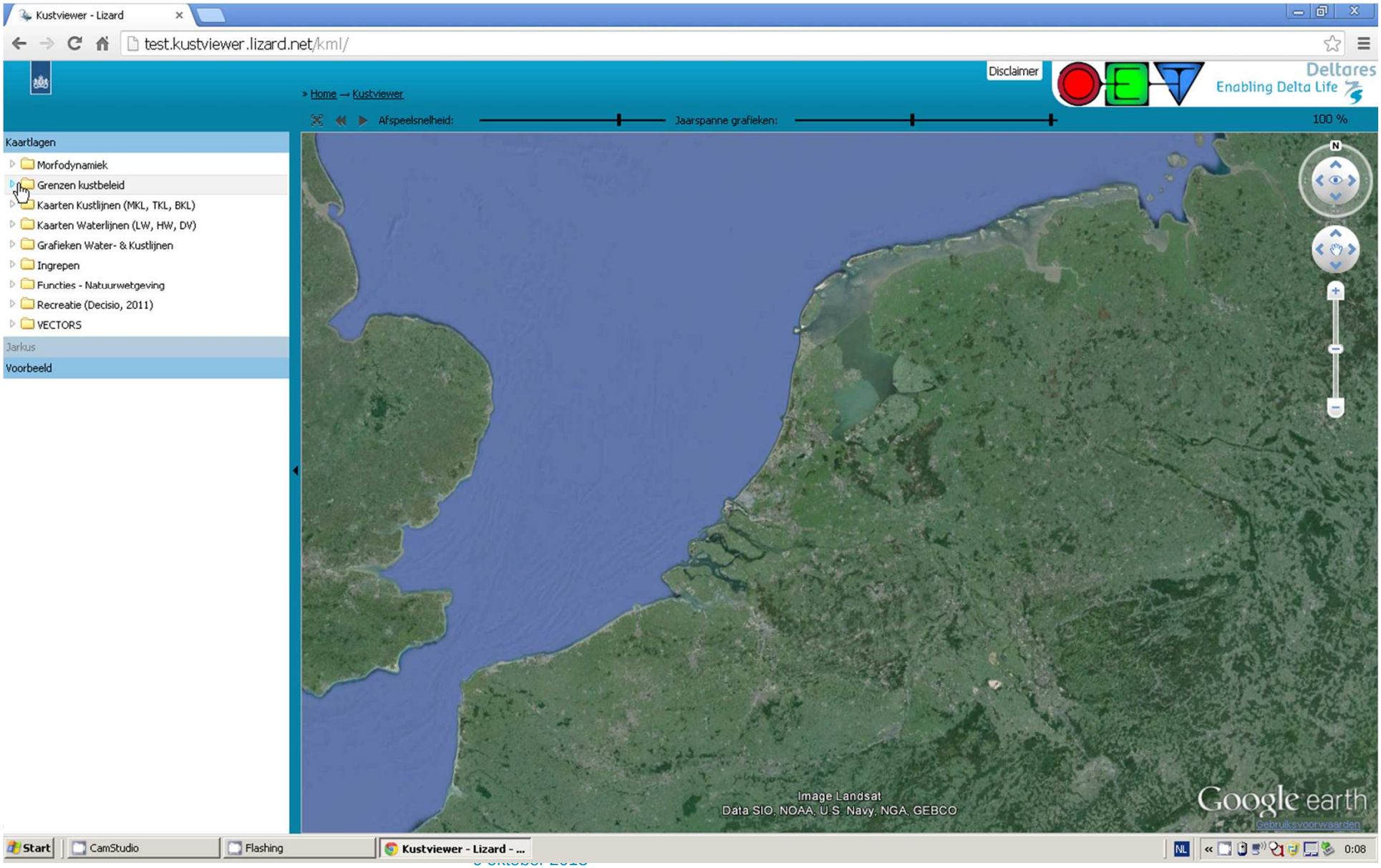
Coastviewer

A tool to enable the visualization of coastal and marine data



Coastviewer

A tool to enable the visualization of coastal and marine data



Conclusions

- OpenEarth has had a successful experience over the years, confirmed by the still growing number of users. Users and developers can use OpenEarth at different technical level.
- OpenEarth services potentially allow to use data from different systems.
- OpenEarth organizes several Sprint Sessions and hand-on Workshops during the year.
- Coastviewer allows to combine different sources, available from Opendap.

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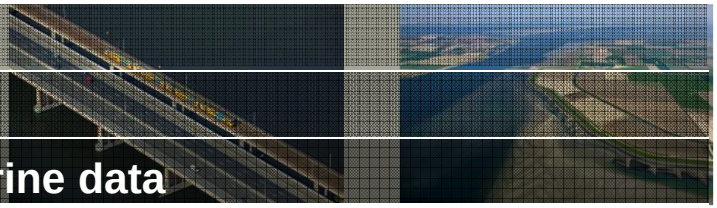
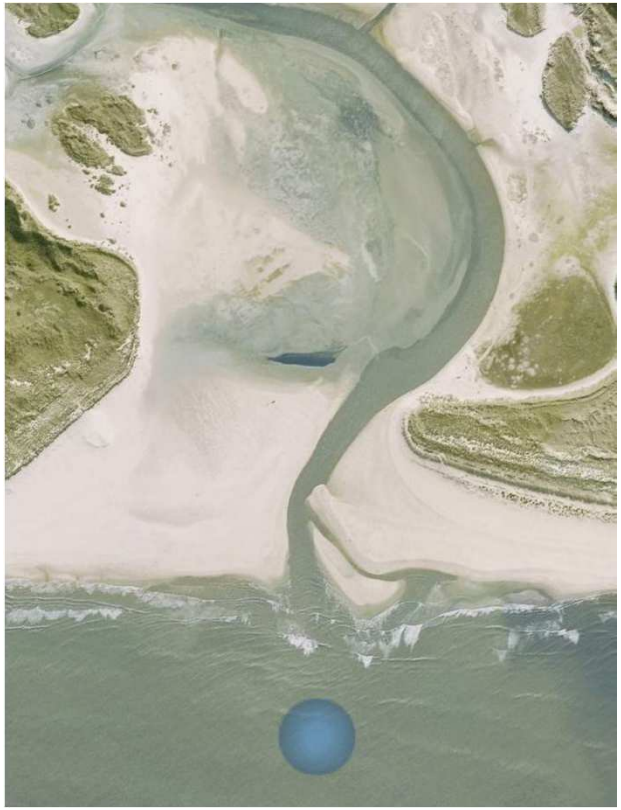


Work in progress…

- Extend on-the-fly functionality to other indicators. Direct link to the Opendap server. Get the visualization from NetCDF.
- More user interaction with the viewer.
- Aiming at *full* conformity with the ISO meta-data standards (ncISO)
- Usage of additional sources. Capability to show different layers for quick and easy dissemination.
- Building Web Applications, Apps, …

openearth.eu



Thank you.
Questions

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