The road to an inspired e-government

eEnVplus National Workshop, 18 september 2013 Leuven

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Topics

- INSPIRE/SDI State of play
  - Metadata, discovery, services and portals

- Bridging the last mile to the user
  - Make your SDI return on investment
  - Apps in the SDI landscape – Clint Eastwood app strategies
    - Courtesy of Christian Elfers (Conterra)
  - Use Case demo – Geopunt

If we got time left

- INSPIRE, ISA, EULF, ELF, Are3NA … ??
  - It's about realizing the potential of INSPIRE

Part 1
INSPIRE/SDI – State of Play in BE 2013

Metadata & Discovery

- Geonetwork implementations in the Regions. All available by the end of 2013.
- Federal metadata node and federation principles still need elaboration.

Legislation

- The INSPIRE directive has been transposed into Federal and Regional law.
- We're fine here.

Services

- Services are emerging and being documented in metadata.
- QoS has to be addressed.

Portals

- Walloon geoportal online
- Brussels geoportal online
- Flemish geoportal online by November 2013.
- Federal geoportal is planned.

I checked it out from
a users perspective.
I briefly read the INSPIRE
member state report
and then went online
to see what
is really available for me.

Metadata & Discovery

In Brussels, Flanders and Wallonia metadatamanagement and publication is implemented using Geonetwork.

Geonetwork is opensource and provides suppport for INSPIRE metadata and discovery services. Support for INSPIRE ATOM Download feeds is coming.

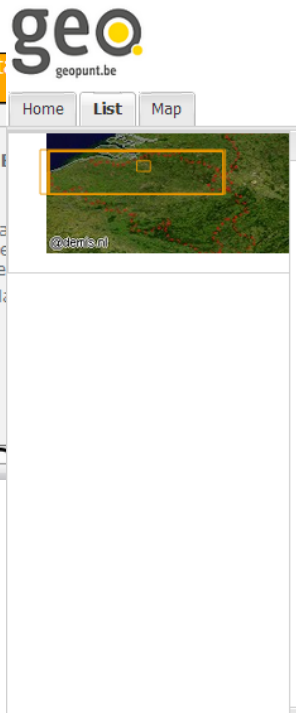
Harvesting at Federal State level of the Regional discovery services should be straightforward.

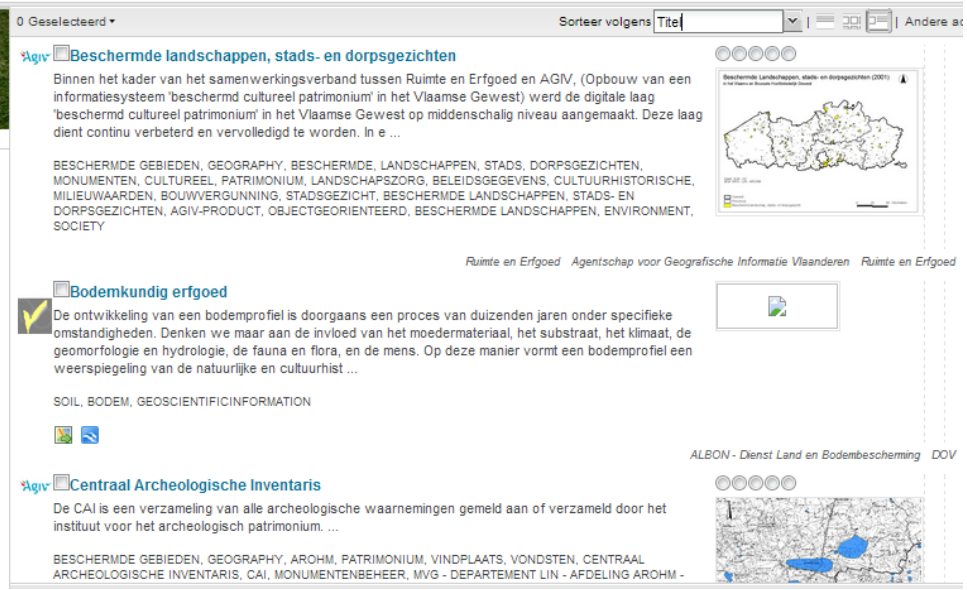
The Brussels and Walloon INSPIRE conform discovery services are online, the new Flemish discovery service will go online in October 2013.

Metadata and metadata search is or will be integrated in the portals as well. This will provide a low-threshold access to data and service offerings for non-specialized as specialized audiences. Metadata management will be done on Geonetwork instances.

At Federal State level the NGI has a metadata application on their website that offers INSPIRE conform metadata, but only for NGI data.

Metadata & Discovery: live systems in 2013



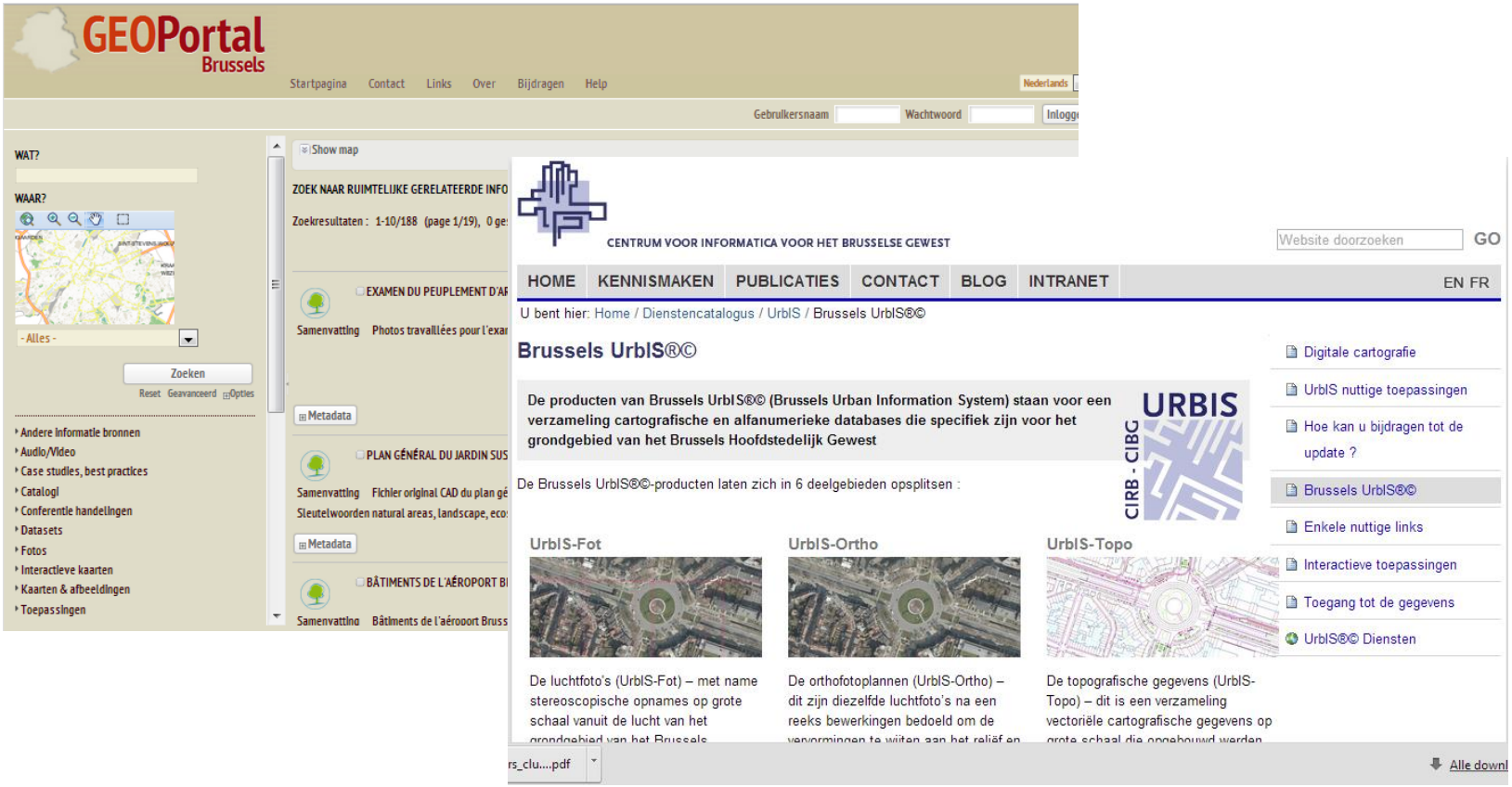


Portals, viewers & services: Wallonia

Wallonia has released their new geoportal (Géoportail de la Wallonie) in February 2013. It is a very nice portal with integrated viewer and catalog functionality. The viewer offers orthoimages, historical data, planning data, etc.. Only a limited amount of these services can be found when browsing the catalogue. It is not clear whether the data offering in the viewer is also available as a service (WMS, WMTS, WFS) for integration in 3rd party applications.

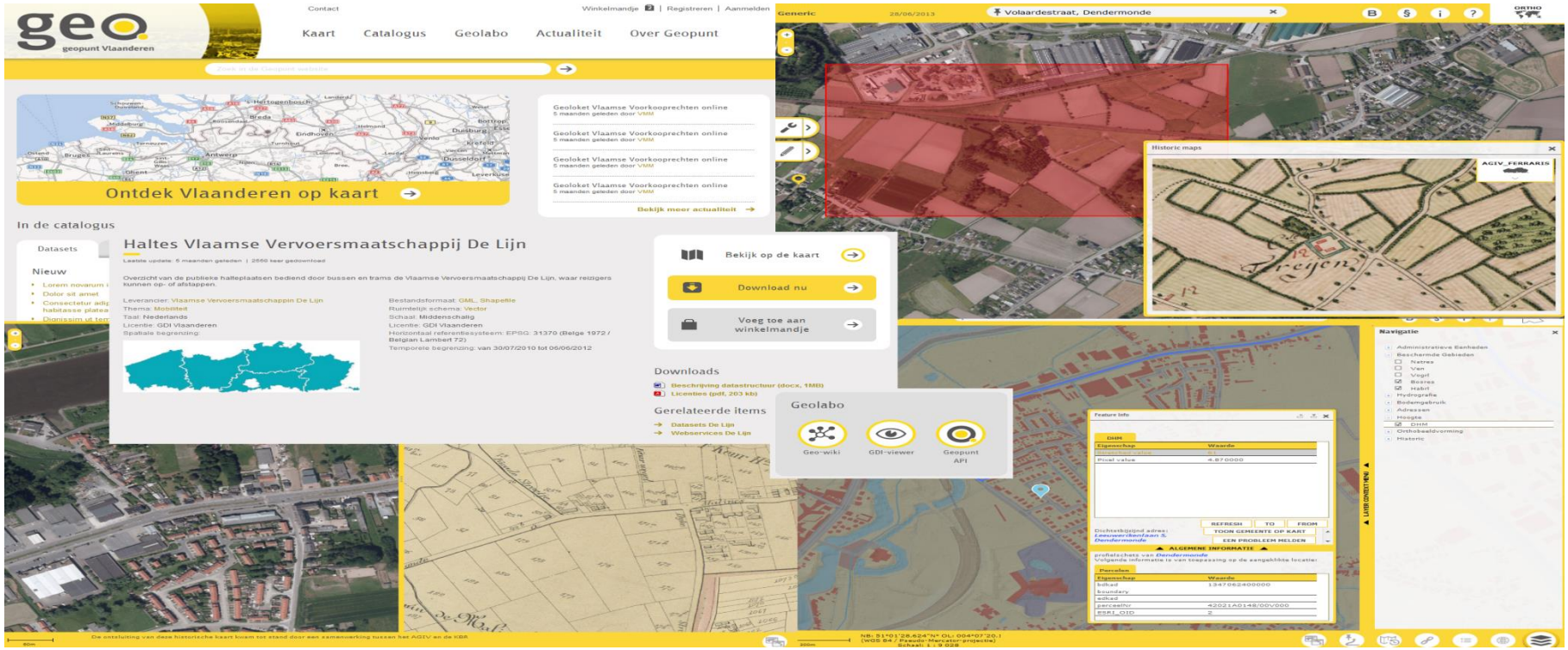
Portals, viewers & services: Brussels

Brussels has a Geonetwork based geoportal online. They are working on their GeoBru Brussels Geoportal with advanced map making functionality witch should be released by the end of 2013. A lot of open data on Irisnet, but limited public service offerings.



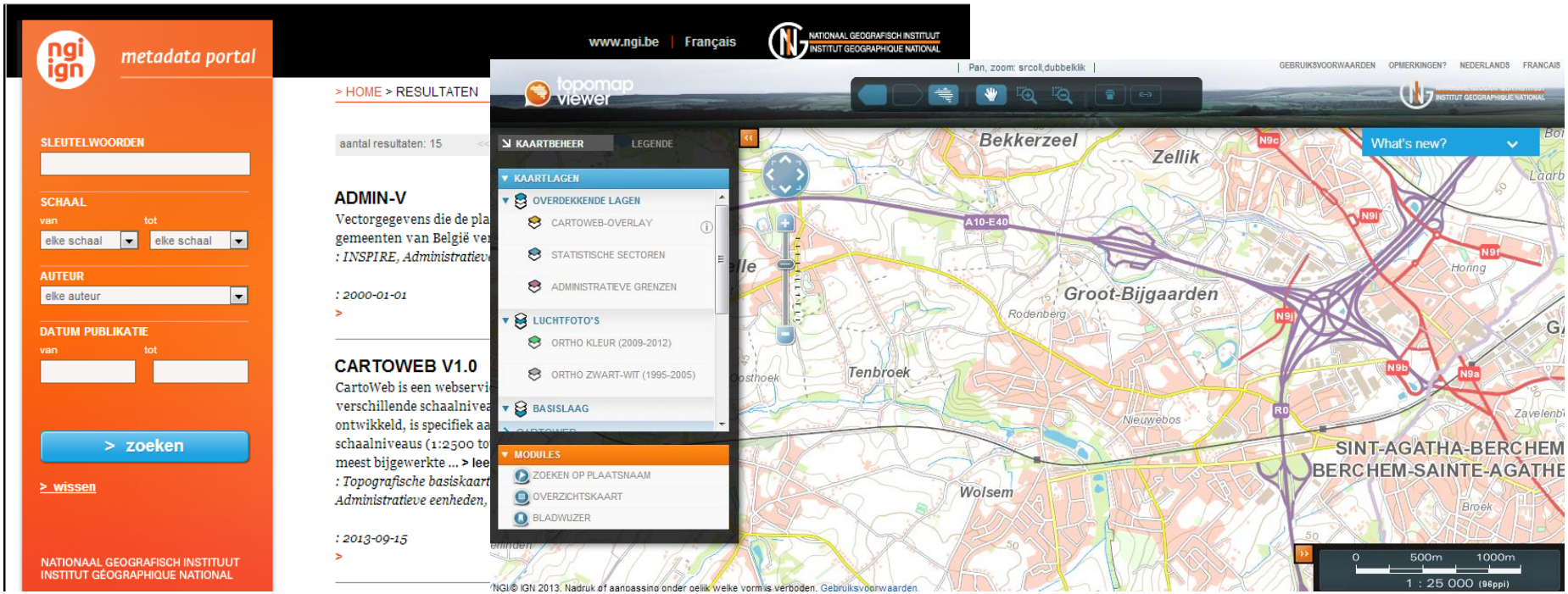
Portals, viewers & services: Flanders

Flanders is working on geopunt, the new Flemish geoportal. This portal will be released in November 2013. For the moment metadata, services and data is available from AGIV and DOV websites. The new geoportal will have a viewer and a metadata catalog integrated for all geodata in Flanders. Metadata is harvested from different metadata catalogs. The data offering will consist of reference data (large scale map, aerial photo's, streetmap, DHM), POI, historical data, …



Portals, viewers & services: Federal State

The NGI will provide a national infrastructure for metadata discovery. For the moment there is only a viewer and INSPIRE conform metadata available for NGI Data (topographic map, aerial data, administrative borders, …). The metadata application only holds metadata for data, no information available for services.



Overview of available services in Belgium.

In anticipation of fully documented data and services and a metadata federation Appsforgeo has compiled a nice overview of services and API's available in Belgium

http://appsforgeo.be/?page_id=114

Part 2
Bridging the Last Mile to the User

Setting the context

- INSPIRE is a means to an end, not an end itself.
  - We are not doing INSPIRE, just for INSPIRE. We should make our investment worthwhile.
- eGovernment services need to bring value to governments, companies and citizens.
  - This is also true for geospatially enabled eGovernment services which use INSPIRE and SDI resources in order to provide this added value.
- The INSPIRE infrastructure in particular is focusing on the technical plumbing and the legal regulations to provide data.
  - The gap between 'people-and-theirproblems/tasks' and the INSPIRE infrastructure still needs to be overcome to realise the benefits of it.
- Not everybody is an SDI expert or expert in the field of spatial data. It is impossible to reach everybody via common geoportals or artificial multi-purpose geo-viewers.
  - Reach the public with solutions apps that are easy to use and efficient. They need to be very focused on the problem and solution fit.

Make your SDI a Success

- The SDI's success depends on it's use in the public and the private domain (geo & non-geo). Tune your service offering to make it happen.
  - Interfaces / API's
  - Performance / infrastructure
- Diversification is key to attract a broad audience of experts and non-experts in- and outside the geo field (including the general public).
  - Clint Eastwood app strategies
    - Courtesy of Christian Elfers (Conterra), father of the "Clint Eastwood app strategies"

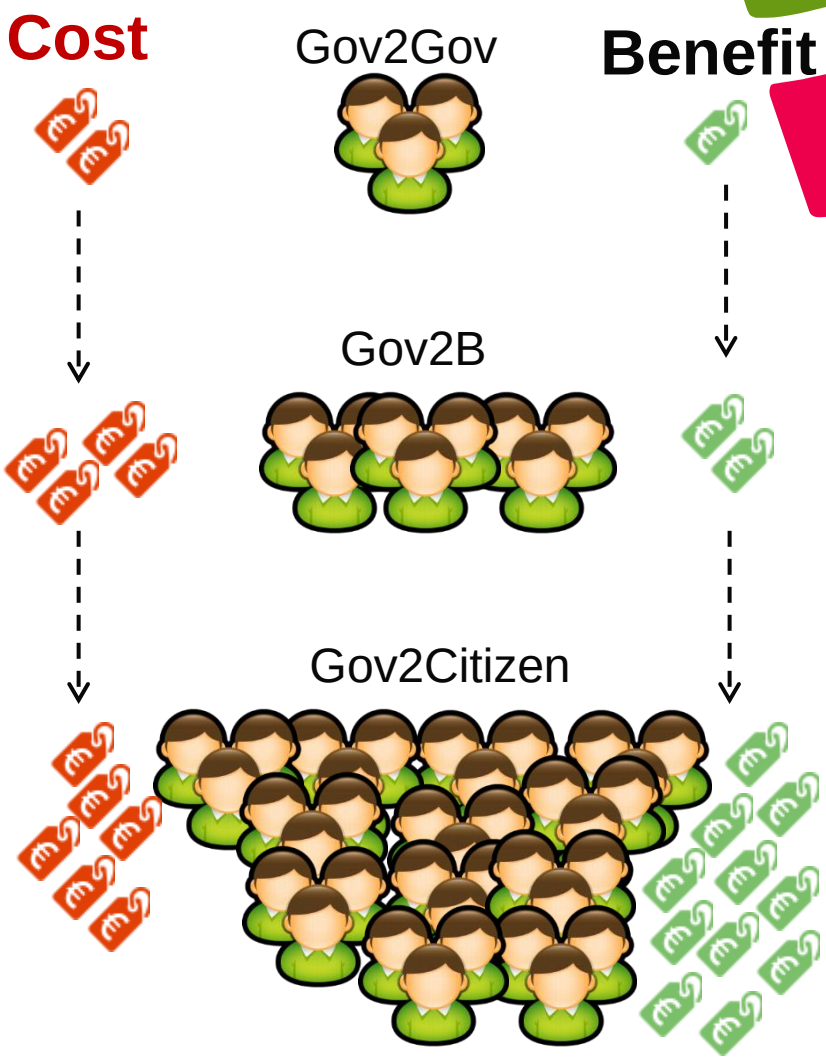
A lot of users to satisfy

- Primary group:
  - SDI Flanders participants;
    - Local governments
    - Flemish government
    - Emergency services
    - Education institutes
    - Other public institutes
  - Utility companies
  - Software providers

- Secondary group:
  - Other governments;
  - Private sector: Surveyors, notaries, architects

- Tertiary group:
  - Citizens
  - Private sector: Building companies, real estate companies, …

Economies of Scale



Tuning your service offering

Some things to consider

- Support for national SRS, ETRS for INSPIRE and WGS84/WSM for integration support with Google, Bing Maps, OpenStreetMap
- INSPIRE conform WMS, WMTS, WFS for geo-professionals
- TMS for the refence data services in the portal, app builders and geo-integrators
- Generic REST API’s for address and POI services
- Service performance is key
- Services and data made available under an Open Data license (CC2)
- If you go to the masses, you better have the infrastructure to support it. (24/7 – 99.9% - <2s – 100.000 users)
- Useability: be easy to use, fast, responsive and use case driven

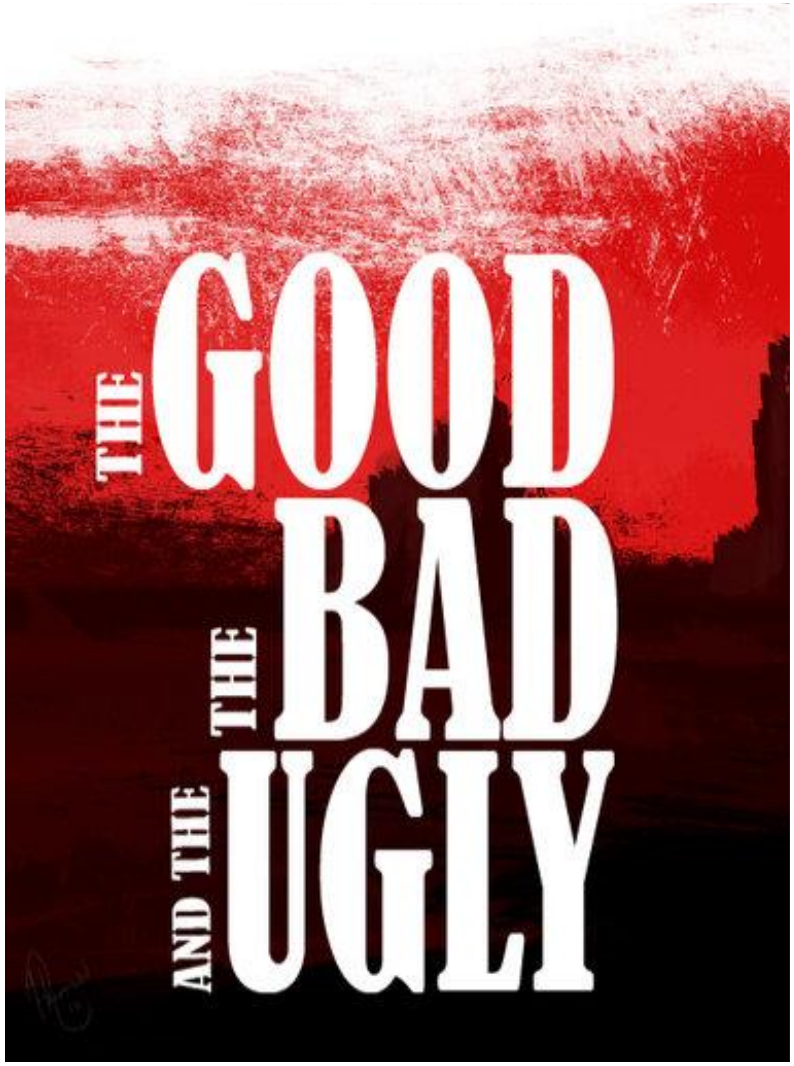
Cracking some numbers in a performance reality check. Are you up to it?

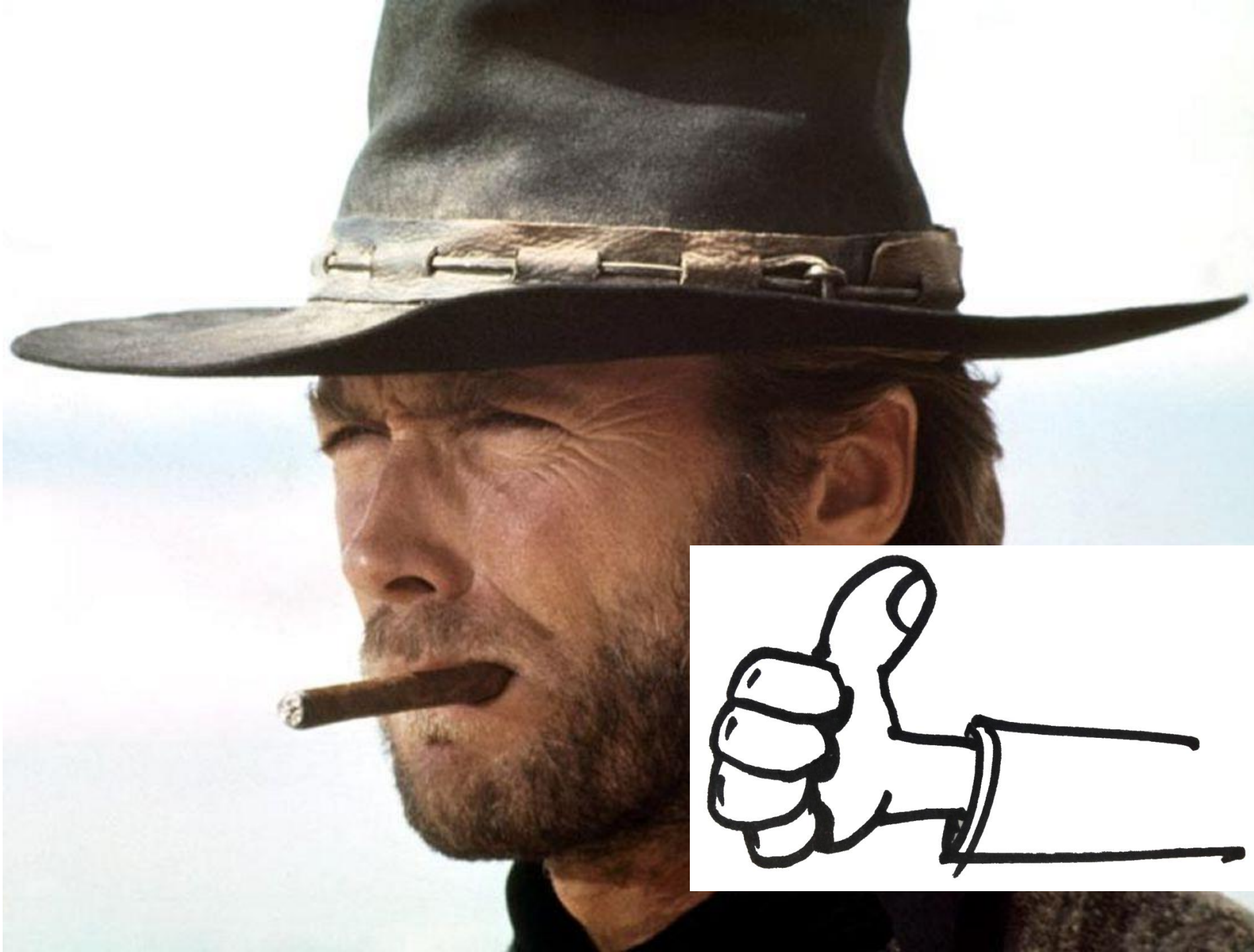
- **WMS test, random requests**
  - **Generally a WMS needs one CPU core per second for one request. If you have one service served by an infrastructure with 10 CPU's, you can serve 10 simultaneous user requests per second (+- 50 simultaneous users). How many simultaneous users do you want to support?**
  - Limit: # Cores
  - Optimization: # Cores, type CPU & speed, less virtualisation
- **WMTS/TMS test, random requests, all tiles seeded**
  - **With a one Gigabit ethernet line you can serve up to 80 megabit/seconde. That accounts for about an average 6500 tiles a second or 200 simultaneous WMTS/TMS users.**
  - Limit: bandwidth
  - Optimization: larger bandwidth, multiple server sites
- **If you are just doing INSPIRE QoS, you better hope you don't have to much success (20 simultaneous users, getting a bitmap of 800x600 pixels within 5 seconds 99% of the time)**

Bridging the Last Mile to the User

Apps in the SDI Landscape

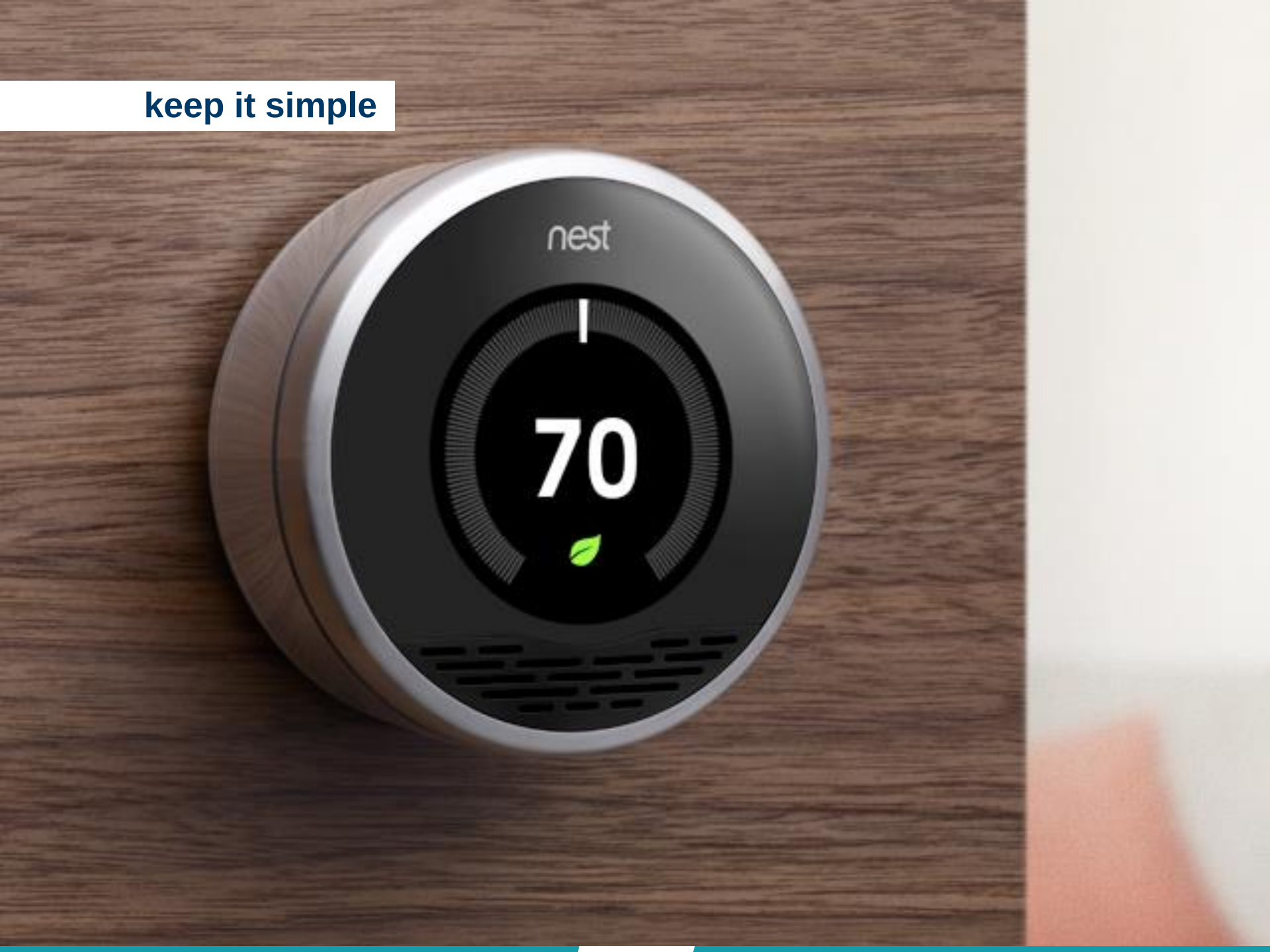
(courtesy of Christian Elfers, Conterra)



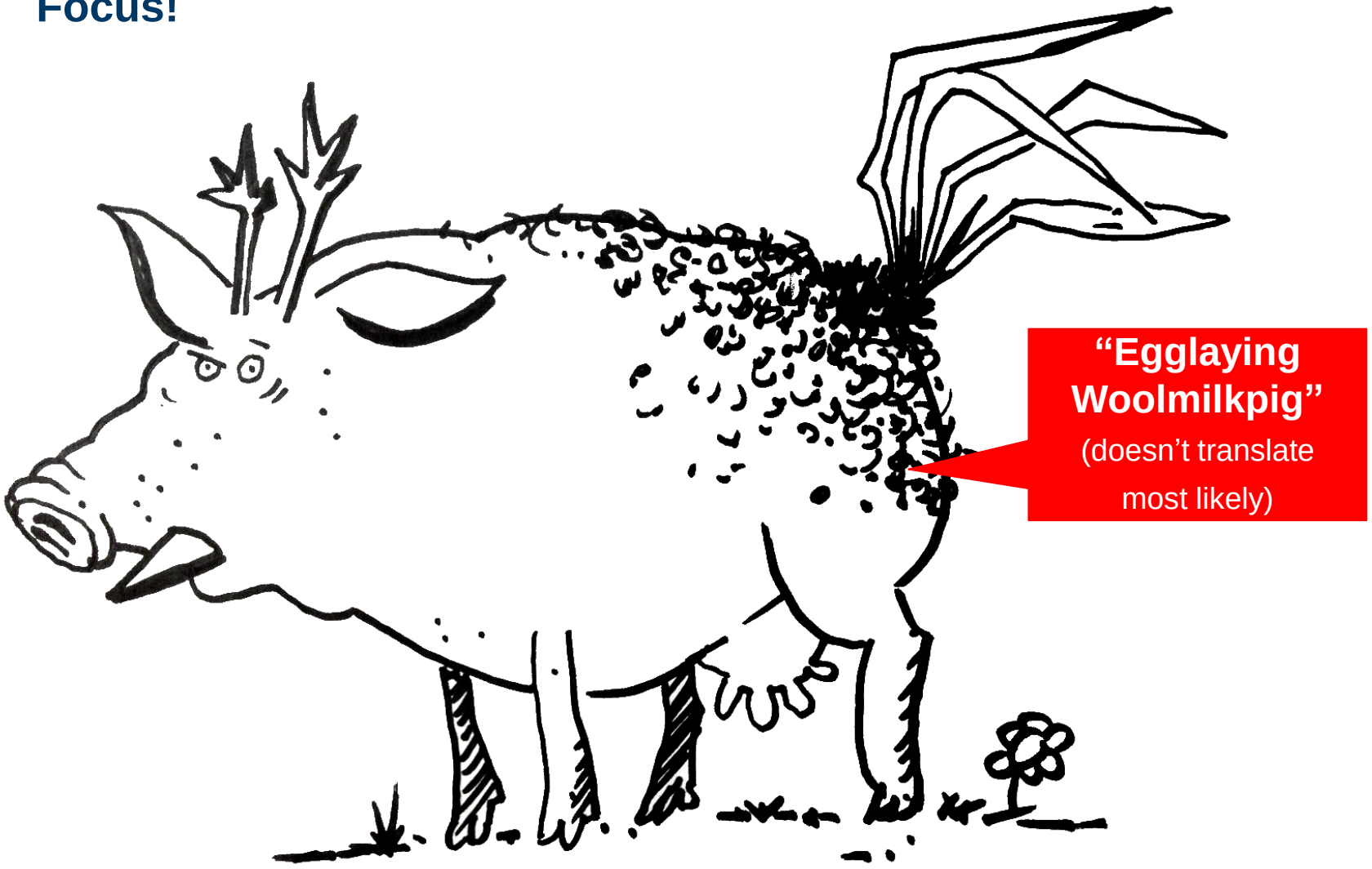


Clint Eastwood App Strategies

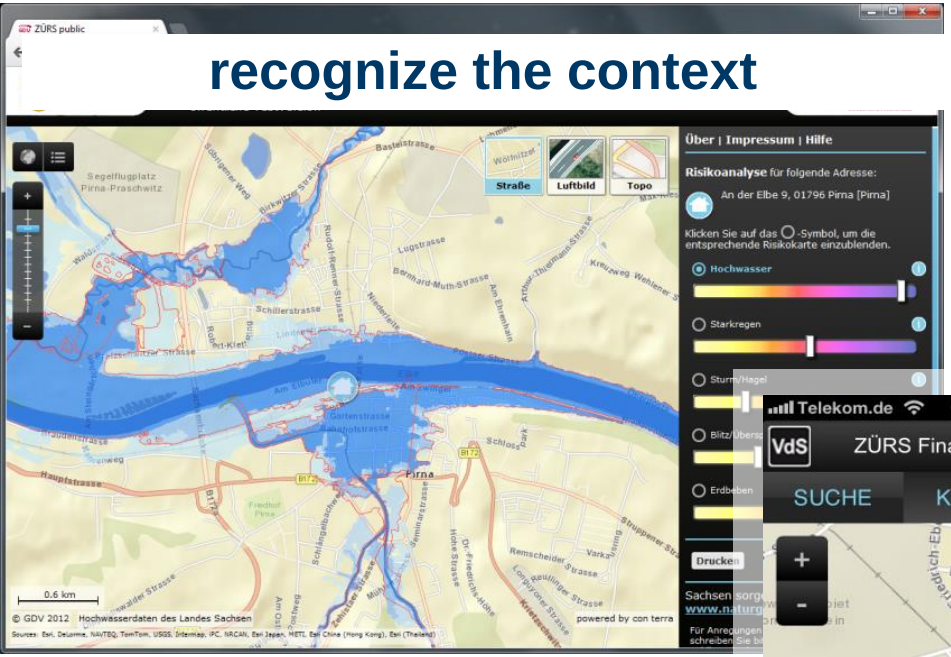
keep it simple

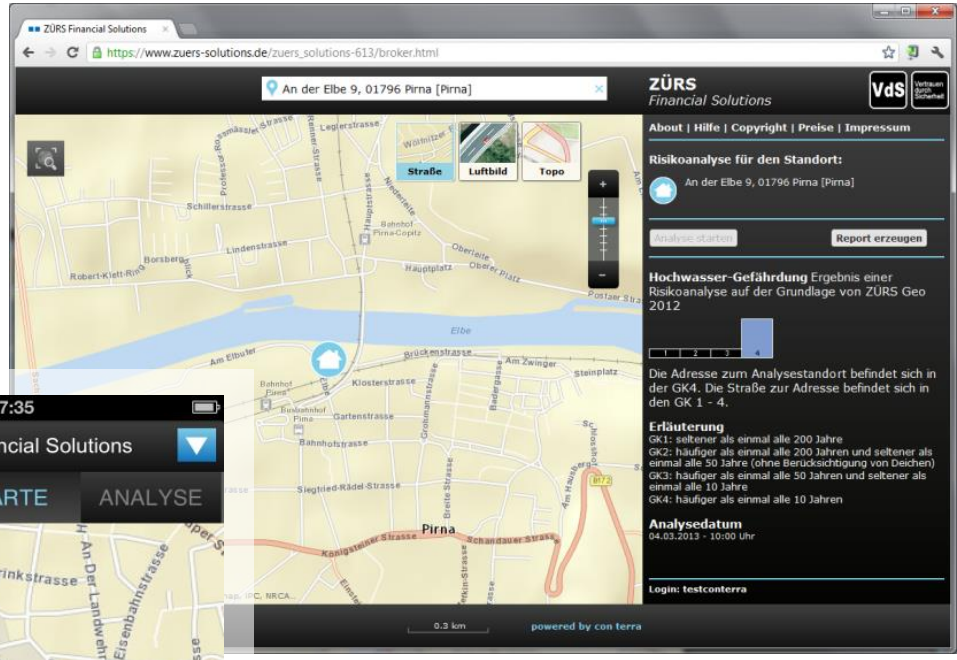


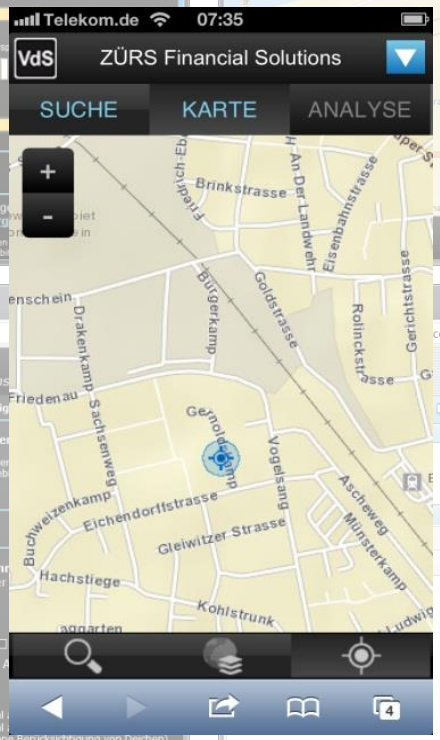
Focus!

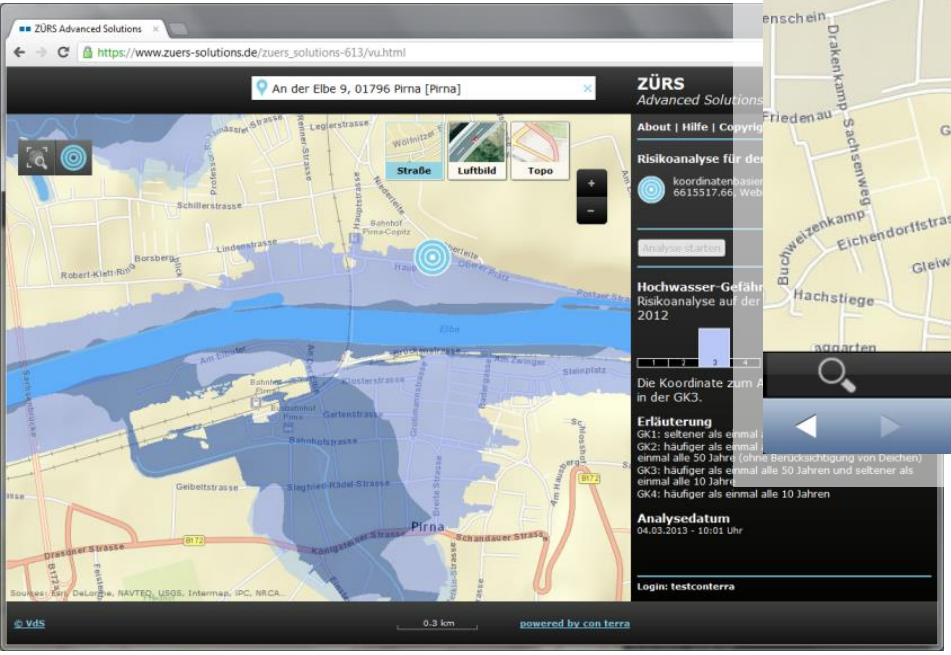


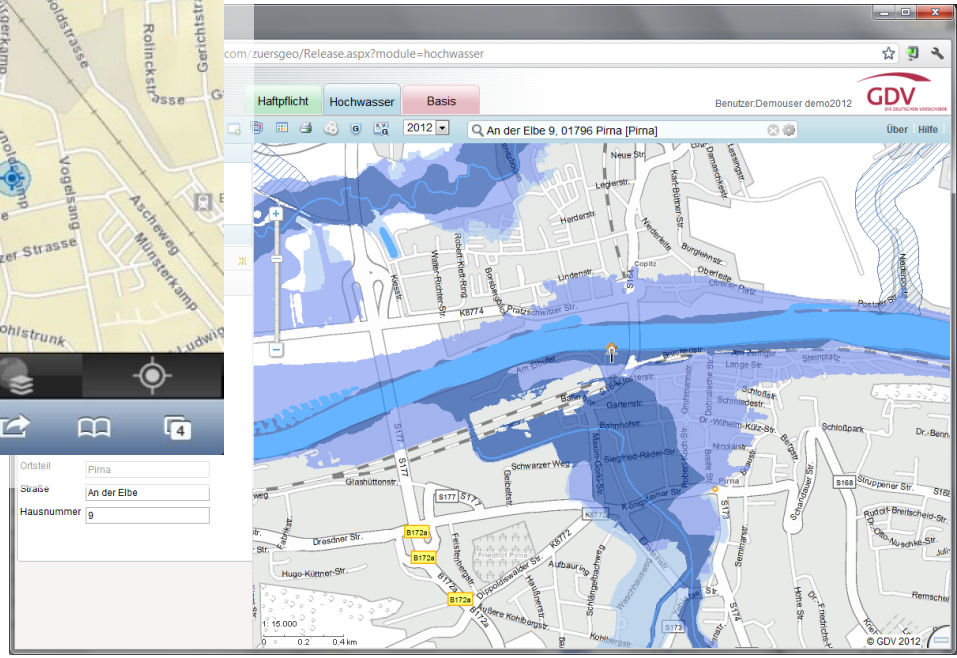
recognize the context



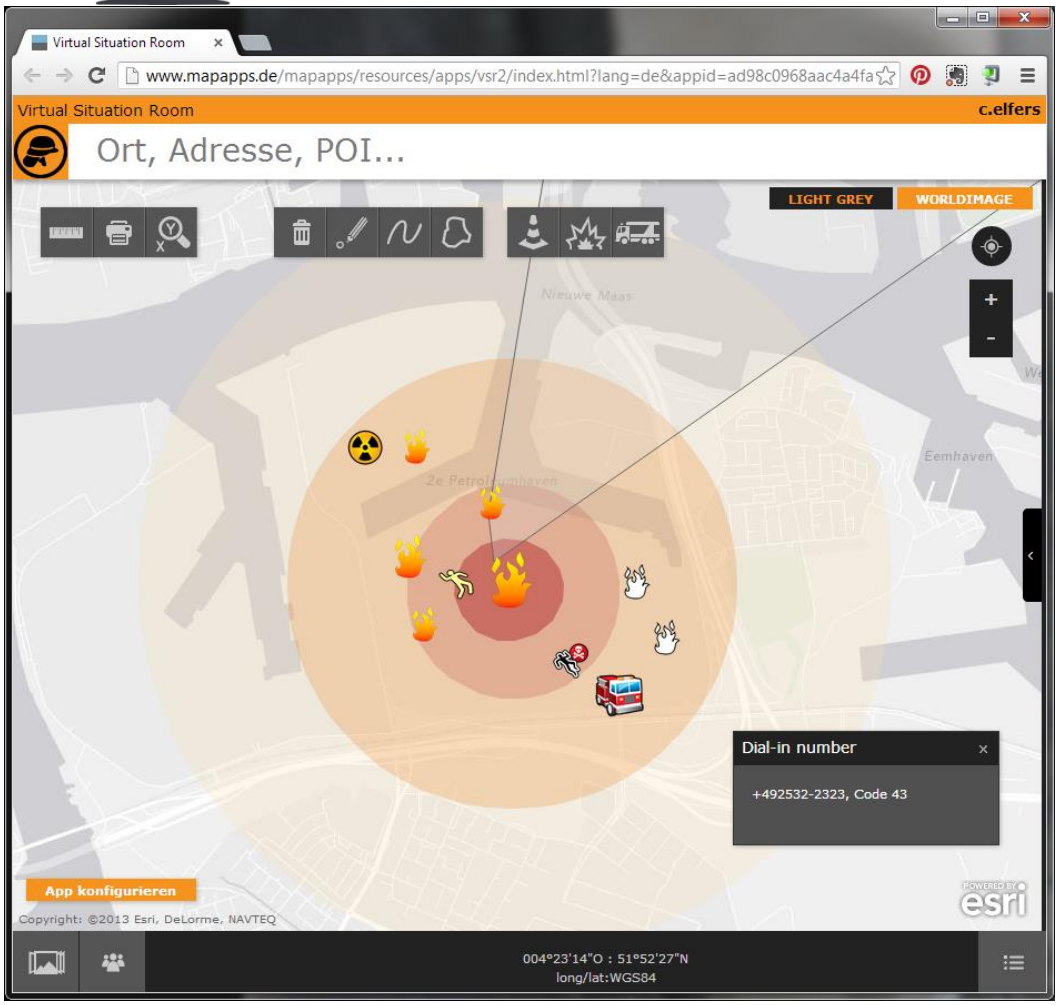


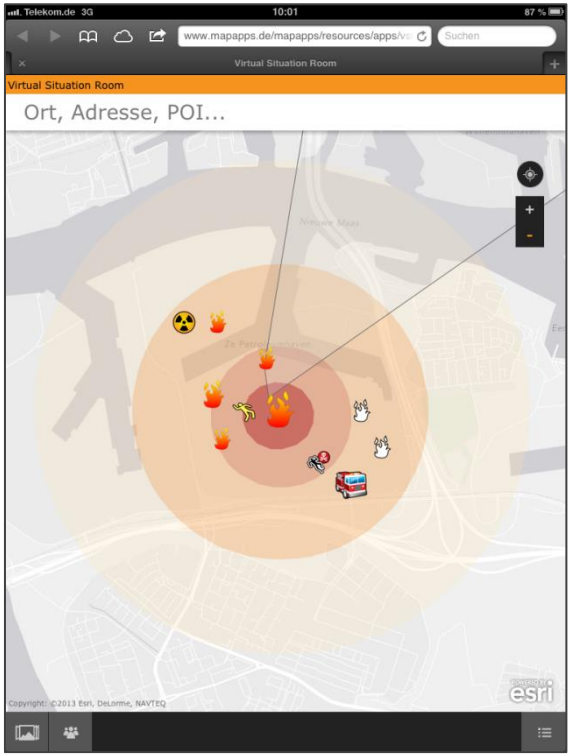






Recognize the context
Different Purposes, Different Users, Different Sizes





take care of aesthetics and delight your users

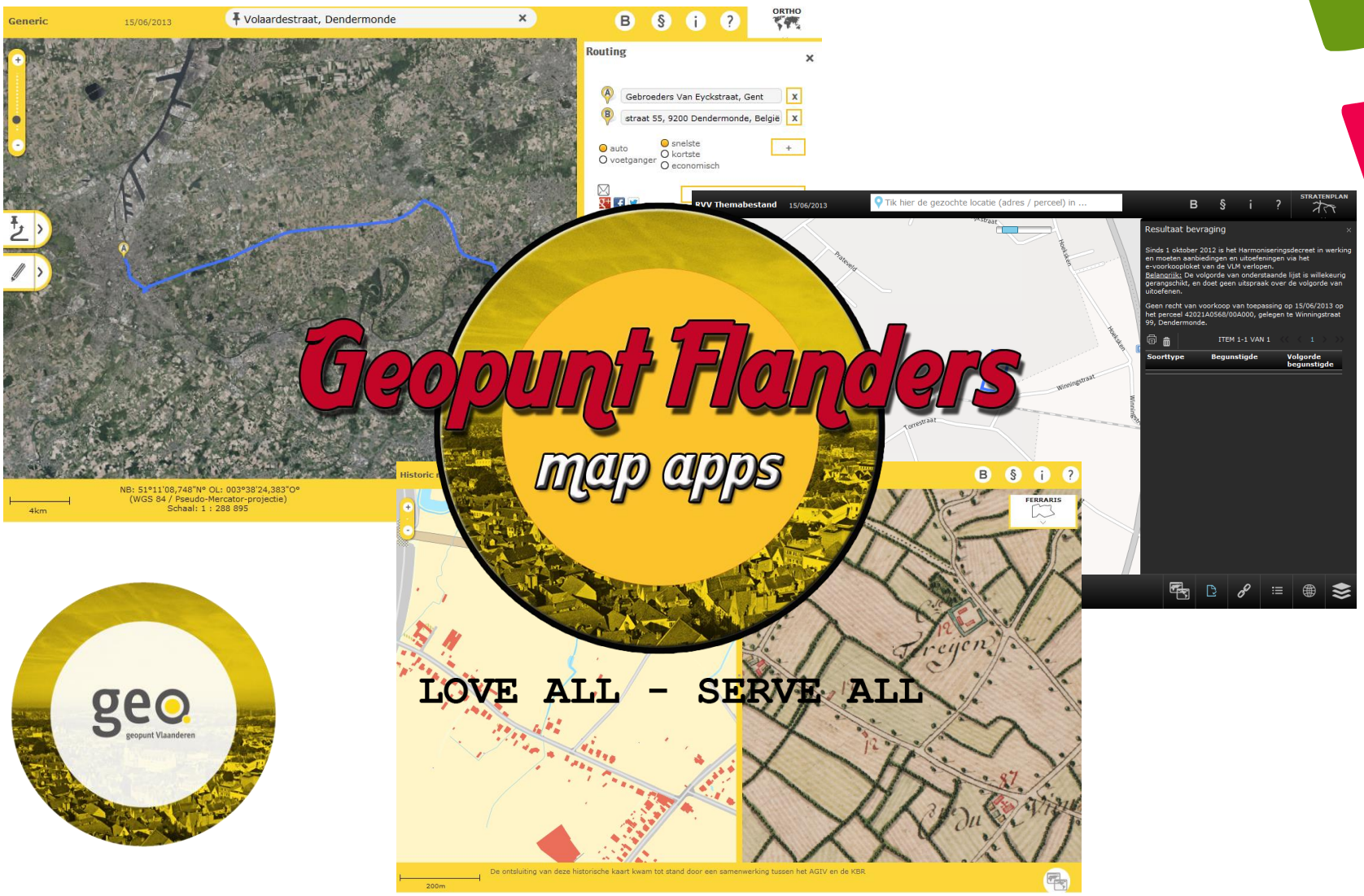
Some App Travel Tips for The Journey

- **Be single purpose (use case) driven**
  - > Provide exactly whats needed: Content, Functions, Context
  - > Provide it in a easy to use way
- **Be attrictive**
- **Be responsive**
- **Be fast**

- **There are also costs**
  - > New Tasks and Responsibilities, new Skills, new technical approaches, new challenges

Bridging the Last Mile to the User

Putting things together - demo



Part 3

INSPIRE, ISA, EULF, ELF, Are3NA … ???

INSPIRE, ISA, EULF, ELF, Are3NA … ???

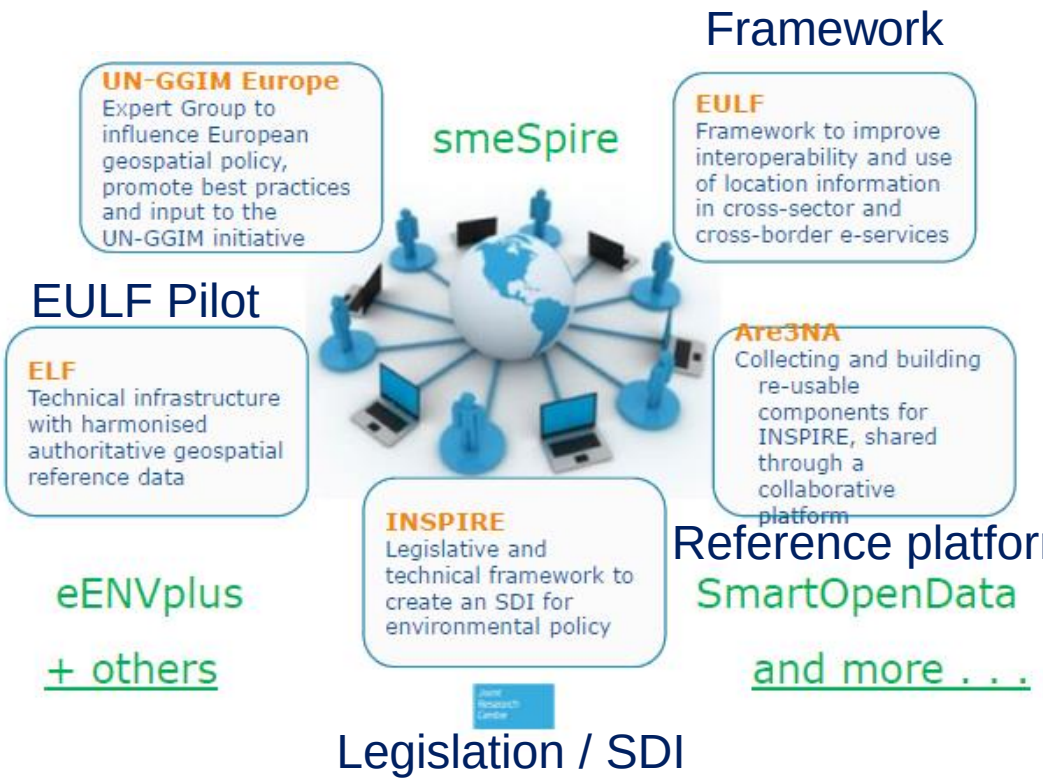
Clearing the Mist (a little bit, because elaborating on this probably needs a session on its own).

INSPIRE in a broader perspective to release its wider potential.

isa Interoperability Solutions for European Public Administrations

- **ISA** is a European Commission-driven EU programme, running from 2010 to 2015 to support interoperability solutions, provide an architectural framework for seamless exchange of information and develop guidelines, methodologies and components for cross-sector and cross-border ICT solutions

- ISA is funding two Actions relevant to cross-sector and crossborder location-based services:
  - **EULF** to develop the policy and implementation framework, and
  - **Are3NA** to facilitate sharing of relevant technical components



E(U)LF – European (Union) Location Framework

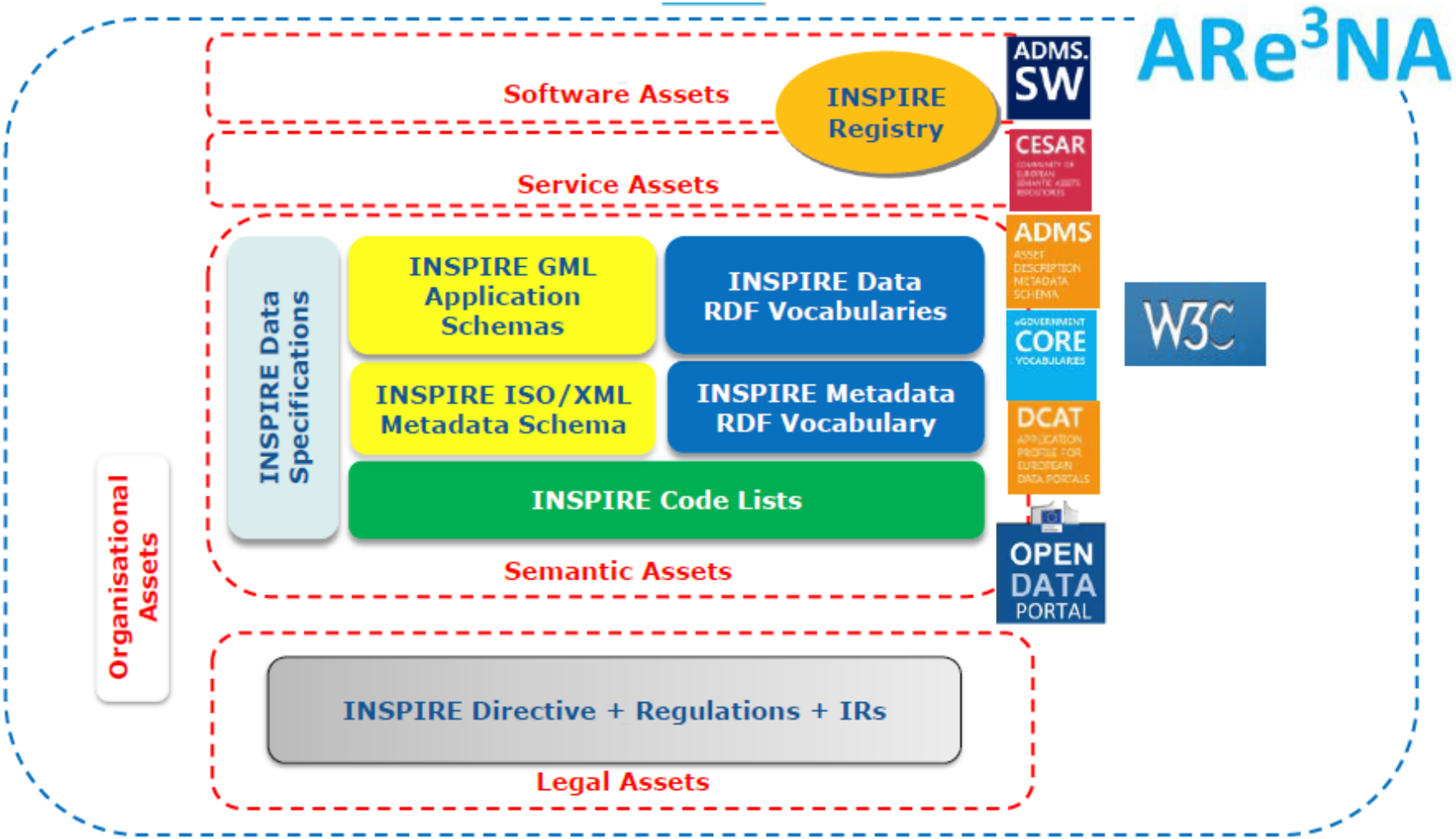
- **EULF** is **a strategic framework** of standards, case studies, guidelines and actions:
  - to realise the potential of **location information** in Europe
  - To facilitate a more **aligned** approach in **policy** areas, improve the way location information is used in MS **e-Government** services, and increase interoperability and re-use of data and services
  - To improve the conditions for building **cross-border applications**
- **based on INSPIRE**.

- **ELF** is a 36 months project to develop operational services which support the policy and legislative programme being developed in parallel with EULF

Are³NA – A Reusable INSPIRE Reference Platform

- Address interoperability issues between systems in the European INSPIRE SDE
- identify and develop common components for the successful implementation of the INSPIRE Directive in relation to European e-government.
- Support INSPIRE implementation by:
  - Inventory of existing platforms and tools spanning multiple policy areas;
  - Support existing or initiate new open source projects to address identified gaps;
  - Produce extended multilingual documentation to help create an INSPIRE node based on existing Member States' relevant initiatives;
- Collaboration platform : Joinup (https://joinup.ec.europa.eu/)

ARe³NA architecture – From ISO/OGC to W3C



Joint ISA-INSPIRE Working group

- promote the two geospatial ISA Actions (EULF and ARE3NA);
- identify policy areas where a more integrated, efficient or innovative approach to location information is required;
- identify gaps and demand for reusable technical components and pilot / test opportunities;
- identify relevant barriers or good practices;
- identify the role for INSPIRE and where it will need to be adapted to support cross-sector or cross-border activities;

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