Outline

1. CAP and GIS
2. What did INSPIRE do so far?
3. Future
The CAP anno 2012
(Common Agricultural Policy)
From an EU perspective...

Over the years...
1. What kind of measurable area?
2. How ensure commonality over 27 EU member states?
3. How to improve accountability?

Decoupled aid
A annual income for farmers:

For the land by
1. either activation of payment entitlements or declaration of utilized agricultural land
2. where agricultural activities occur (growing crops, raising livestock, maintain GAEC)
3. upon agricultural area (arable land, permanent crop, permanent grassland)
4. AND on condition (≡ cross-compliance) that the farmer respects
   1. Statutory Management Requirements (EU Directives on health, animal welfare,..)
   2. Good Agricultural and Environmental conditions (local measures on erosion, minimum maintenance,..)

→ isn’t this a textbook GIS challenge?
worth 40.000.000.000 €/year ☺

Article 20
The identification system for agricultural parcels (=LPIS) shall be established on the basis of maps or land registry documents or other cartographic references. Use shall be made of computerised geographical information system techniques, including preferably aerial or spatial orthoimagery, with an homogenous standard....
How was it done?

Development of standalone systems
• national design and implementation options
• dedicated contractors (often spin-off)
• parallel development path from UNIX workstations to proprietary client applications
⇒ Technologically isolated solutions
⇒ Estimated creation cost: 750 man/years.

By contrast, is a driving force behind imagery (VHR satellite, digital aerial)

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What happened?

The LPIS community took things on board:
- application of the Generic Conceptual Model
- adoption of the 20 INSPIRE interoperability elements
- Awareness and application of ISO191xx, W3C and OGC standards
- introduction of the GML and XML exchange formats
- CAP-experts participated to various INSPIRE TWG

Primarily driven to highlight the 3 commonalities that all LPISs share

As a result:
- LPIS ‘technology’ grew out of its isolation and to become part of the mainstream GI and opened up to external data and “clouds”
- Individual custodians started sharing documentation and applications
- The outside world became aware of the existence of LPIS
What did not (yet) happen?

Few, if any, MS designated LPIS as a dataset for the INSPIRE annex themes
• There is no explicit obligation to provide metadata
• There is no explicit obligation to make data publicly available
• There is no reporting under the INSPIRE Directive (but under CAP)
• And even if there were, it seems hard to enforce

Despite the many openings at technical level, the potential of this evolution seems not to be fully appreciated during the (ongoing) political discussions of the CAP reform (as considered too technical).

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What will change?

1. One scheme has become three (spatially interrelated schemes), with no opt-out and linked by area percentages
2. the agricultural activities are redefined (other uses are possible as long as agriculture is "predominant")
3. the agricultural area is fundamentally affected
   1. differentiation for the area values required by the upper schemes
   2. inventory of the newly eligible features
4. the cross-compliance conditions became more apparent
   1. partly shifted into the green payment scheme (crop rotation, retention of habitats, buffer strips \(\Rightarrow\) EFA of the green payment)
   2. introduction of spatial features as site-specific conditions to limit erosion and protection of wetland and carbon rich soils
5. Formal link to RD for payments to areas facing natural or other specific constraints and agri-environment-climate payments:
   - This is no longer a simple GIS challenge
   - But still worth 40.000.000.000 €/year
still ‘undefined’ spatial CAP concepts

**Pre-2014**: implied
- **Crop** = unit of cultivation
- **Holding** = unit of exploitation / responsibility
- **Landscape feature** (*topographic element*)

Today: spatial concepts from external sources
- Areas of **farming restrictions** (LFA, buffer strips)

**Post-2013**: Greening is area based → identify + quantify land
- **permanent grassland**
- **carbon rich soils and wetlands**
- areas that are **naturally kept in a state suitable for grazing** or cultivation without minimum activity
- 7% EFA? GAEC LF require separate identification (as today) and quantification
- areas with **natural constraints** / GAEC could require further identification E.g. AECP zones or site specific erosion

**Expected Trends**

All these “green payment” elements are essentially environmental constraints, so the LPIS may be subject to

1. Further interoperability and more data exchange with other parties seems very likely
2. more focus on the location and spatial dimension of the activities (from CC: holding → land)
3. Stronger convergence between MS to deal with the complexity?
**Conclusion**

- LPIS: spatial **database**
  - driven and quality assured by the **CAP**
  - under national competence and implementation
  - with standardized interface (SDI/INSPIRE compliant)

- **Scope**
  - is primarily **agriculture**,
    - detailed **land administration** (management)
    - **land cover** as spatial mask,
    - specific **land use** mostly as alphanumerical record
  - Some are **multifunctional** and implemented wall to wall
  - Annual with a history since 2005

- As a geodatabase in the national CRS, its derived information can be **used** in complement with other databases

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**Thank you!**

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