European Union Location Framework

The integration of INSPIRE services in e-Gov processes: a case in the health policy domain

Danny Vandenbroucke (KU Leuven)
Glenn Vancauwenberghe, Joep Crompvoets (KU Leuven)
Francesco Pignatelli and Ray Boguslawski (JRC)

www.jrc.ec.europa.eu

Serving society
Stimulating innovation
Supporting legislation
EULF Focus Areas

**Policy and Strategy Alignment:**
Consistent EU and Member States policy and legislative approach

**Return on Investment:**
Strategic funding and procurement to minimise costs and realise benefits

**Effective Governance and Partnerships:**
Fostering a collaborative, knowledgeable and skilled community to share and adopt best practices

**e-Government Integration:**
Location is a key enabler in e-Government services, addressing user needs and expectations

**Standardisation and Interoperability:**
Standards and technologies for interoperability and re-use are consistently applied
e-Government Integration (Blueprint)

EULF - Repository of governmental processes described using BPMN

Make use of data and network services provided by INSPIRE for delivering new and better e-government services

The key public sector processes should be central in the development and actual use of SDI’s

EULF - Documented experiences on how to integrate INSPIRE spatial data sets and services in e-Government applications
**Business Processes**

- What are business processes?
  - They consist usually of many G2G, G2B and G2C interactions
  - They involve many organisations and individuals
  - They often involve multiple levels of authority
  - They are more and more cross-border
  - They increasingly connect to other processes in other sectors
Examples of business processes

- Obtaining a building permit
- Maintaining an address register
- Declaring set-aside land under the CAP
- Assessing the impact of a planned TEN-T project on a region and on the environment
- Moving to another place and changing someone's address
- Delineating flood areas to provide “space for water”
- Choosing a location for a new industrial plant
- …
From policy ... to processes

- The implementation of policies mainly takes place through **processes**
  - Example: Health and Consumer Protection
    - Animal Health and Animal Welfare
      - on the farm
      - during transport
      - at time of slaughter or killing
  - Process: Monitoring Animal Transport
    - Regulation (EC) No 1/2005 on the protection of animals during transport

- TRACES system
Monitoring animal transport

- According to several EU Directives and national legislation
- Monitored by DG SANCO
- Closely related to agricultural and transport sector, potentially also to environment
- Involving the private sector – farmers and transport companies
- National, regional and local authorities play a central role at several stages
  - Veterinarian bodies, Customs, Border control
- Private actors
  - E.g. Veterinarians, NGO’s, media
Monitoring animal transport - TRACES

- Intra trade or Common Veterinary Entry Document for animals (CVEDA) consignments
  - file a route plan
  - identify the commercial transporter and verify any authorisations needed
  - identify any necessary transfer points and staging posts

| Estimated journey time | GPS tracking |

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>% of consignments</th>
<th>2009</th>
<th>% of consignments</th>
<th>% difference 2005 – 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>315,237</td>
<td>100 %</td>
<td>399,988</td>
<td>100 %</td>
<td>+ 27 %</td>
</tr>
<tr>
<td>Travelling time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;8 hours</td>
<td>214,831</td>
<td>68 %</td>
<td>261,387</td>
<td>65,5 %</td>
<td>+ 21 %</td>
</tr>
<tr>
<td>8-19/24/29 hours</td>
<td>83,513</td>
<td>26.5 %</td>
<td>114,820</td>
<td>28.5 %</td>
<td>+ 37 %</td>
</tr>
<tr>
<td>&gt;19/24/29 hours</td>
<td>15,731</td>
<td>5 %</td>
<td>16,619</td>
<td>4 %</td>
<td>+ 5 %</td>
</tr>
<tr>
<td>Time not available</td>
<td>1,162</td>
<td>&lt; 0,5 %</td>
<td>7,162</td>
<td>&lt; 2 %</td>
<td></td>
</tr>
</tbody>
</table>
Journey planning

- This can become very complex
  - Travel time is estimated, reality can be different
  - Extending travel time can change the route
    - 8 hours and 19/24/29 hours thresholds
  - Other events can influence the route plan
    - E.g. Outbreak animal disease
    - Now a separate system

Location information
and services
Could help supporting
The process
Mapping the process

- Use of BPMN for describing processes

Example: Flood mapping
Mapping the process

LI = location information

Animal Disease Notification Process
Location information integration

- Location information is currently used (TRACES) at the moment of defining the consignment
  - Transporter
  - European Commission (control)
  - Checks on vehicles via satellite, use of GPS

- Location information could also be used at several other points in the process
  - By border control / customs
  - By veterinarian bodies
  - By staging point managers (~ animal hotels)
  - By ADNS
  - ...

- TRACES could evolve towards a paperless system
## Estimating the benefits

- This is not a validated estimate, just a first rough estimate based on:
  - Number of journeys (consignments)
  - Average number of controls per journey (estimate)
  - Time gain of 0.25h per control (using location information)

<table>
<thead>
<tr>
<th></th>
<th># transports</th>
<th># controls</th>
<th>Time gain</th>
<th>Gain in PD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short journeys</td>
<td>250000</td>
<td>2</td>
<td>0,25</td>
<td>15625</td>
</tr>
<tr>
<td>Long journeys</td>
<td>125000</td>
<td>3</td>
<td>0,25</td>
<td>11719</td>
</tr>
<tr>
<td>Very long journeys</td>
<td>25000</td>
<td>5</td>
<td>0,25</td>
<td>3906</td>
</tr>
</tbody>
</table>
Conclusions

• One of the EULF recommendations in the Blueprint is to work more **process oriented**
• Processes could be described using **BPMN** to get an insight in the data/information flows
  ▪ At general, as well as detailed level
  ▪ Indicating at which points location information could support the process
• Optimal integration of location information at the different process steps could **create important benefits**
• This could be achieved by using **INSPIRE and other services**
Contact and join us!

http://ec.europa.eu/isa/actions/02-interoperability-architecture/2-13action_en.htm

https://joinup.ec.europa.eu/community/eulf/description


https://twitter.com/EULocation

#EULF

e-mail: Danny.vandenbroucke@sadl.kuleuven.be eulf-info@jrc.ec.europa.eu