

AgriXchange WP4

Basic Design:

Starting point for interoperability of data
exchange in EU agriculture

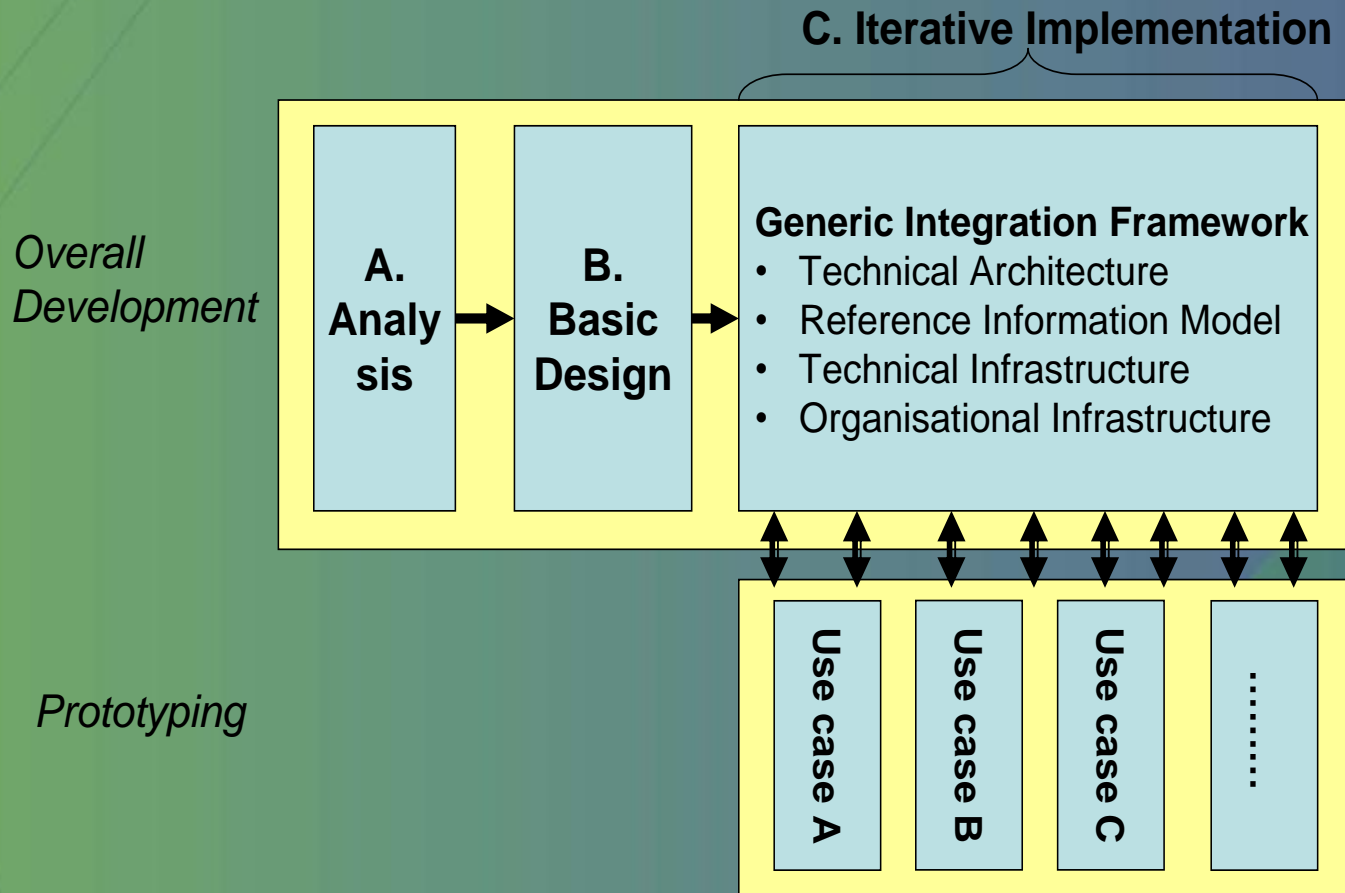
GeoFARMatics2010, 25th of Nov 2010

Liisa Pesonen

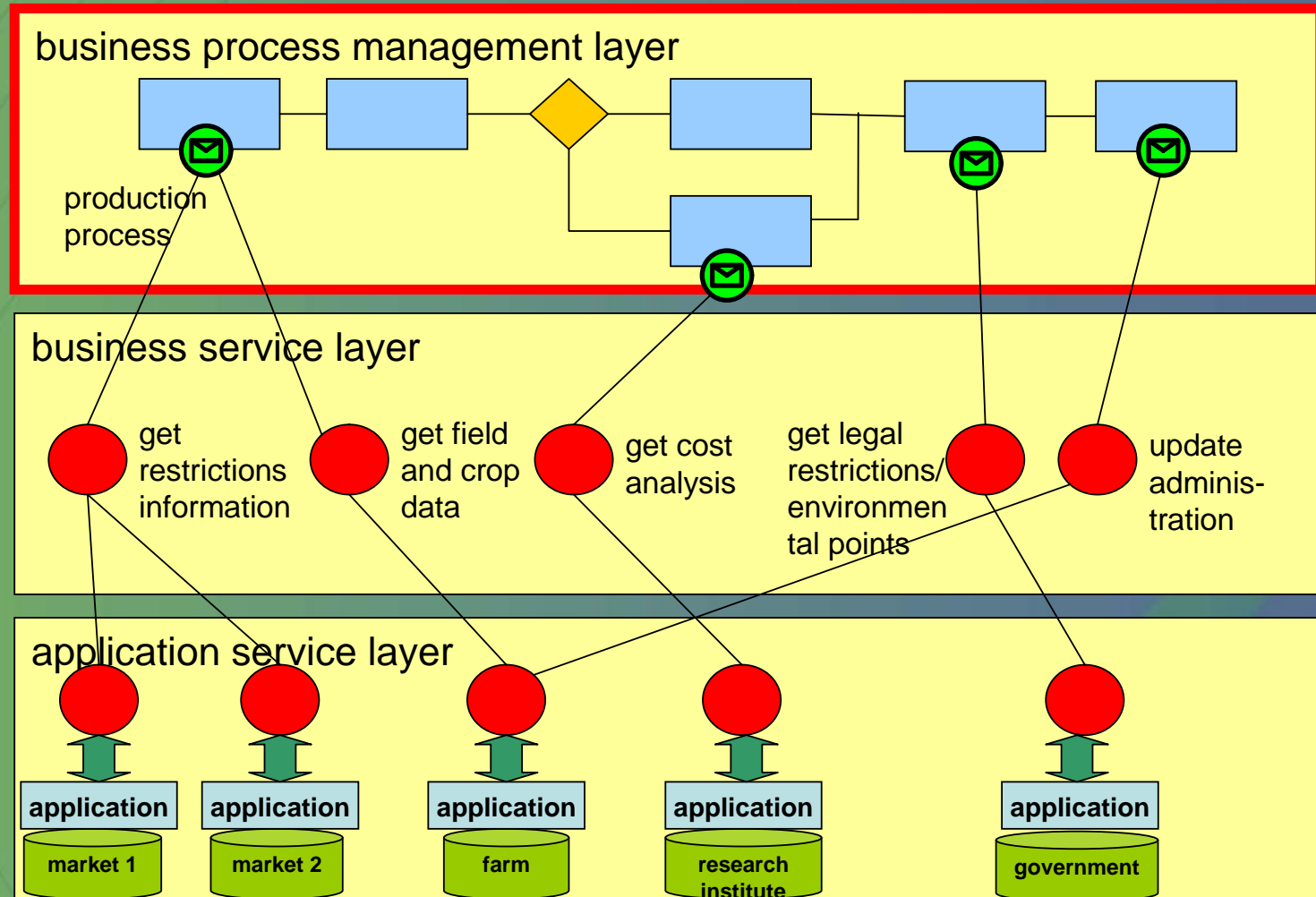
MTT Agrifood Research



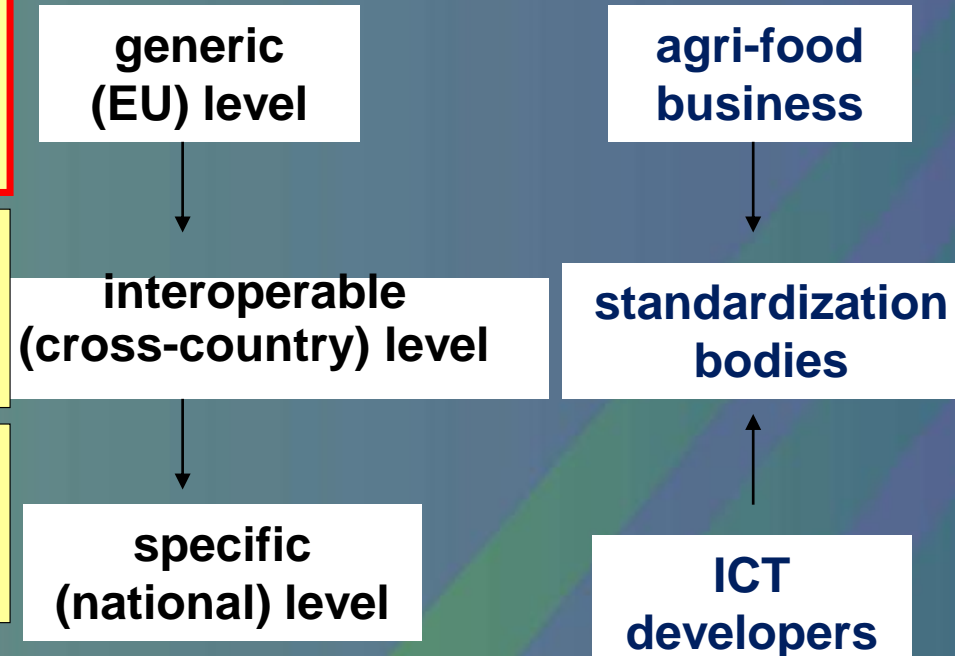
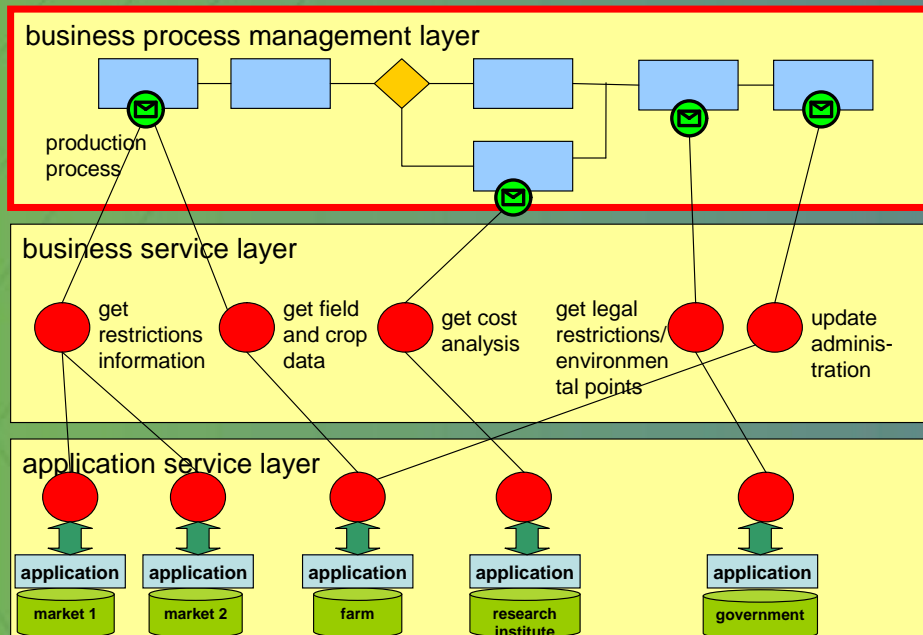
agriXchange methodology



Basic Design: SOA



3-layer architecture



EU > Regional > National



Process-driven approach

The need for data exchange is real

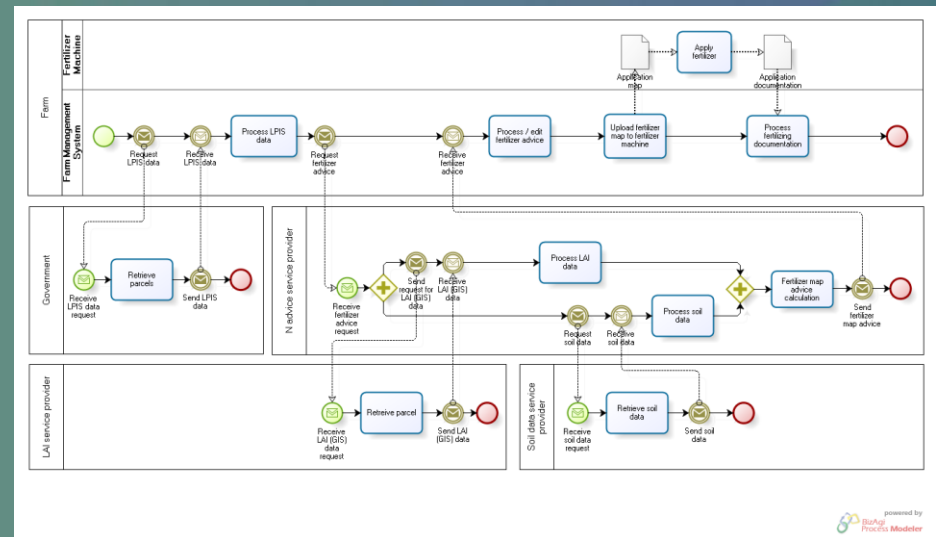
The context of data exchange is clear

The content of data exchange is defined

The actors and stakeholders of the data exchange are determined

The focus on **inter enterprise** level

- Intra farm systems are often inter enterprise systems



Interface classes

By actors

- Farm machines
- FMIS
- External service
- Government
- Processing industry
- Trade
- Consumers

Data and communication

- Data content:
 - control, status
- Type of data:
 - files, message strings
- Amount of data
- Communication needs:
 - speed, frequency



Advantage of process-driven approach

- **Clasification of**
 - Technical architecture,
 - Technical infrastructure for communication
 - Actors and institutional embedding

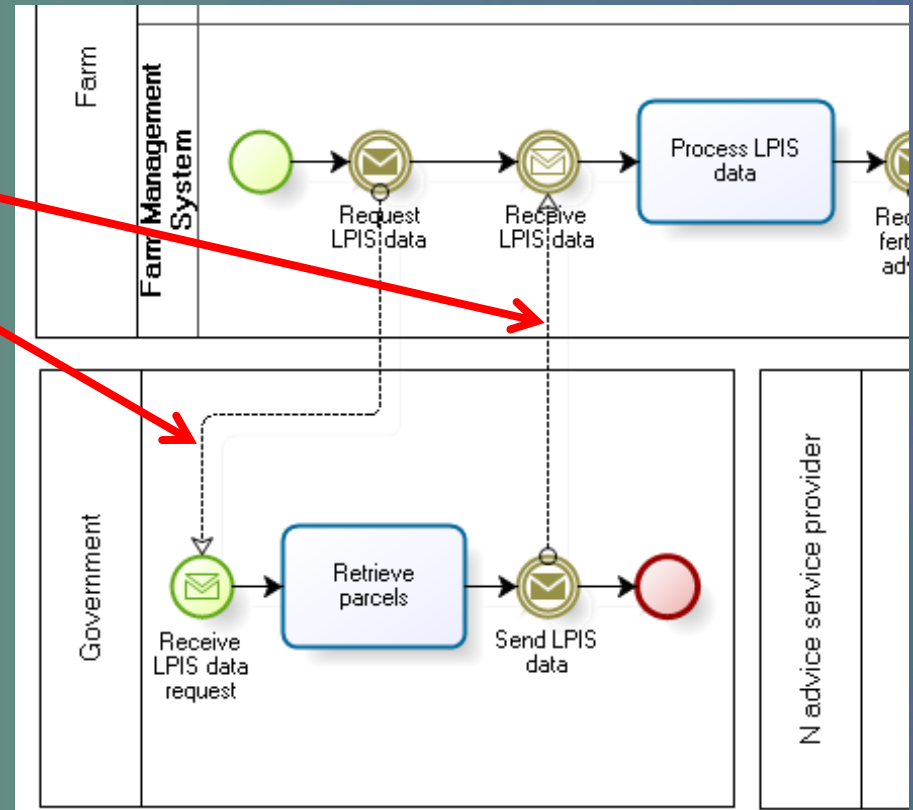


Data-oriented approach

Interfaces between actors can be picked up

”Arrows”

- data content
- data format
- protocols
- existing standards
- best practices
- dictionaries, ontologies



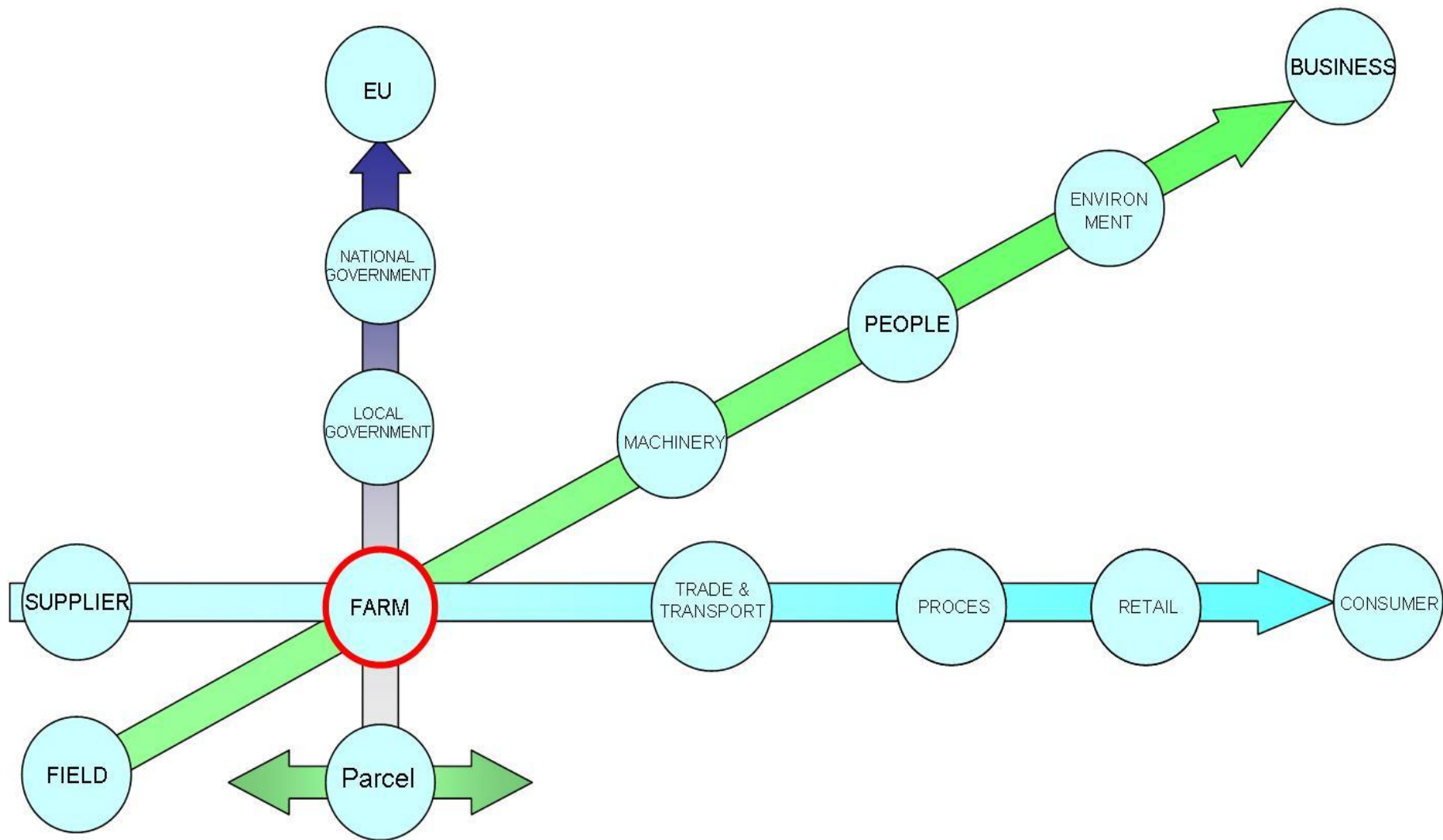
Classification of data > **Reference Information model**



Mix of process-driven and data-oriented approach

- Process driven approach sets the data exchange problem to a "map" and real context
- **Collection of interfaces** representing different type of data exchange transactions with description of the context in agri-food branch
- **SOA** as a basic concept
 - solutions can be copied and applied in other countries, processes, applications



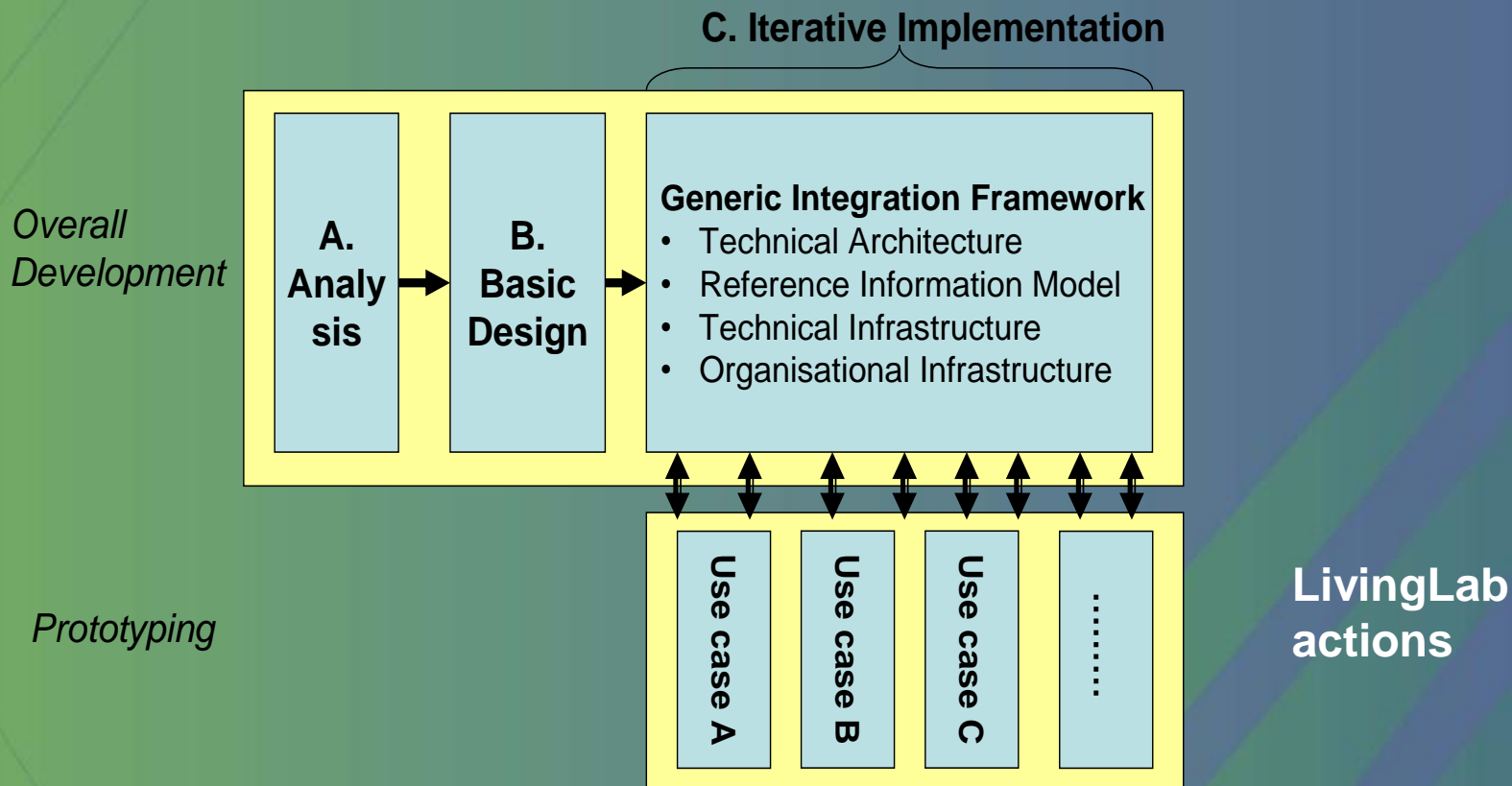


Agri-Food branch



Basic Design

is a starting point for interoperability of data exchange in EU agriculture



The work has just started,
follow our progress at
[www. agrixchange.eu](http://www.agrixchange.eu)
and the platform
[www. agrixchange.org](http://www.agrixchange.org)

Thank you!

