

Introduction Framework Development

How to combine overall architecture and practical prototyping?

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Context: some highlights ICT development

1940s 1950s	1960s 1970s	1980s	1990	2000s
1st (digital) computers	Main-frames	PC's	EDI	Mobile networks
	Software development	Architectural frameworks	ERP	Social Media
			Internet Break-through	T&T
			EDI platforms	Internet of Things
				Web-services
				Cloud Computing
				Intelligent Agents
				Semantic Webs
				XML
				ebXML
				RFID
				.com bubble

Context

- Explosion of applications
- Shift from architecture-driven to implementation-driven approaches
 - centralized → decentralized
 - sequential → incremental prototyping
 - greenfield → legacy
 - common goals → diverse interests
- Great, but...
 - Complexity and fragmentation
 - Reinventing the wheel



Key challenge regarding the methodology





How to combine overall architecture and practical prototyping?



Objective agriXchange WP4





- to develop a reference framework for interoperability of data exchange in agriculture in the EU

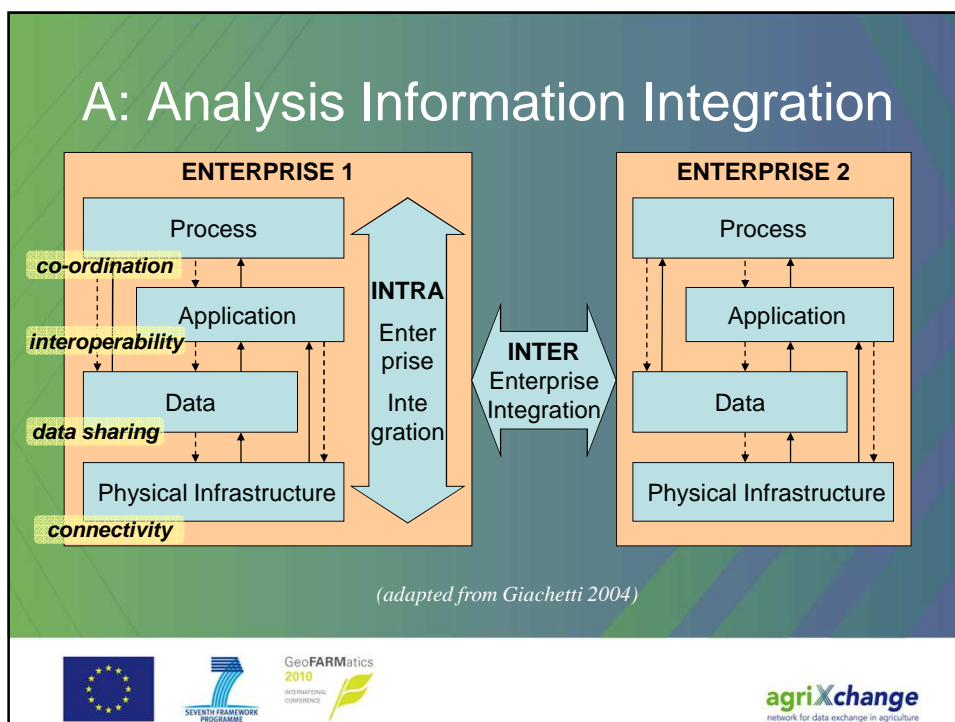
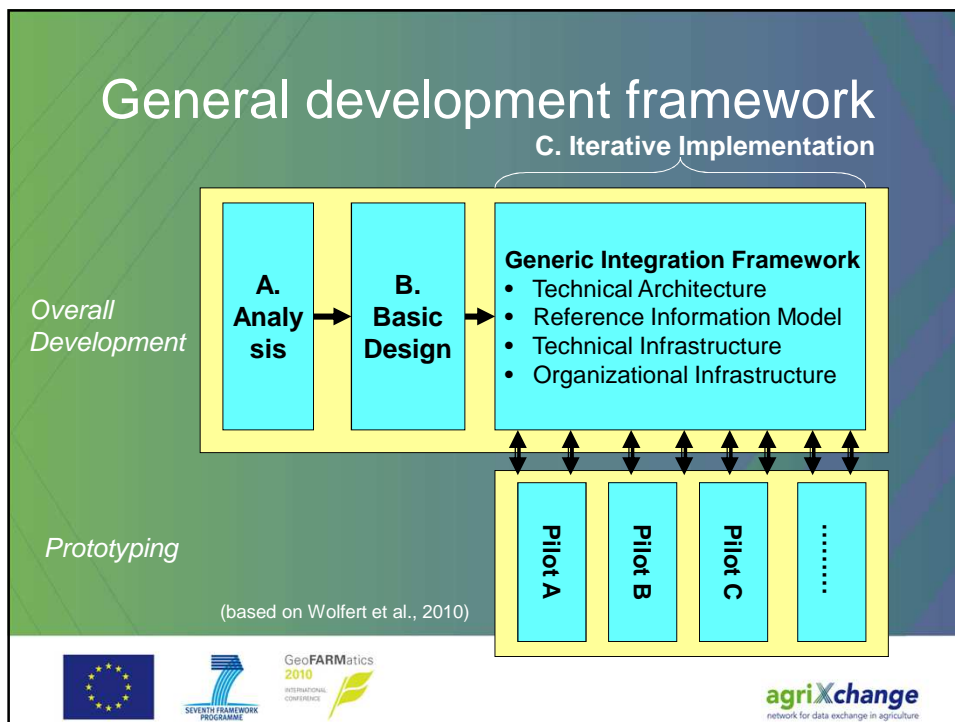
The framework is used as a core vehicle to combine overall architecture and practical prototyping in use cases

What is a reference framework?



Architectural framework	<ul style="list-style-type: none"> • A systematic taxonomy of concepts of how to organise the structure of information models • Define the required types of information model types in different views and at various levels of abstraction, and show how these are related.
Reference model	<ul style="list-style-type: none"> • A predefined information model that captures 'recommended practices' and that is used as a 'frame of reference' (i.e. blueprint, template) to construct company-specific information models
Reference framework	<ul style="list-style-type: none"> • Combination of an architectural framework and a reference model • Serves as a frame of reference for modelling specific use cases • Continuously updated with designs developed in use cases





Analysis: method

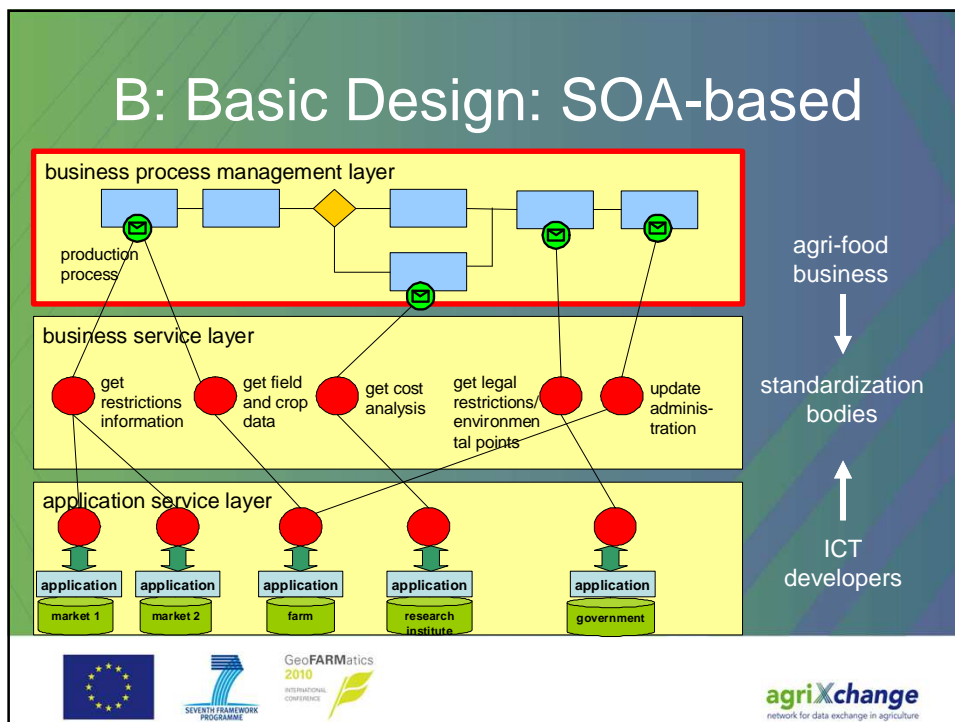
- Overall Analysis
 - Based on State of the Art inquiry (previous session)
- Use Case Investigation
 - Updating of LPIS (Land Parcel Identification System)
 - Geo-farmer and fertilizing
 - Animal registration
- Template
 - Text
 - Supporting graphical models

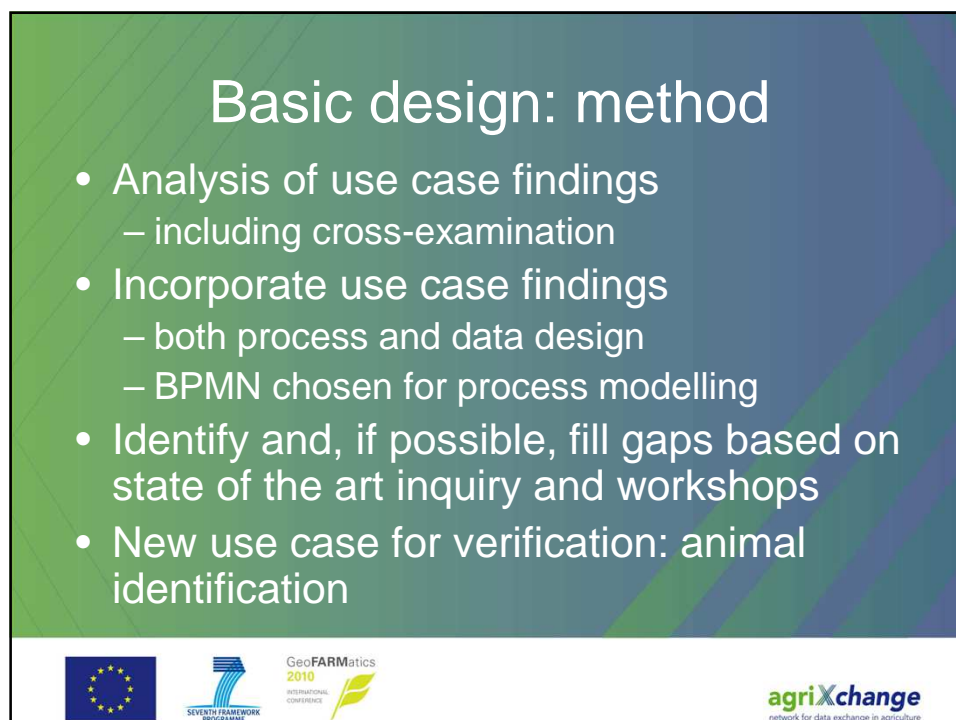
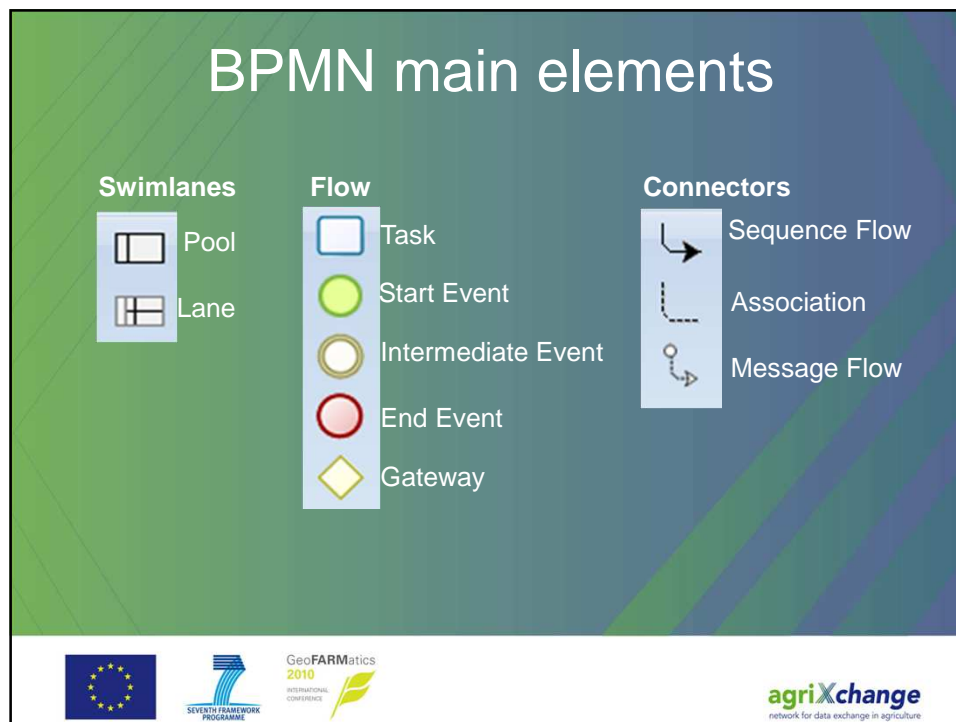



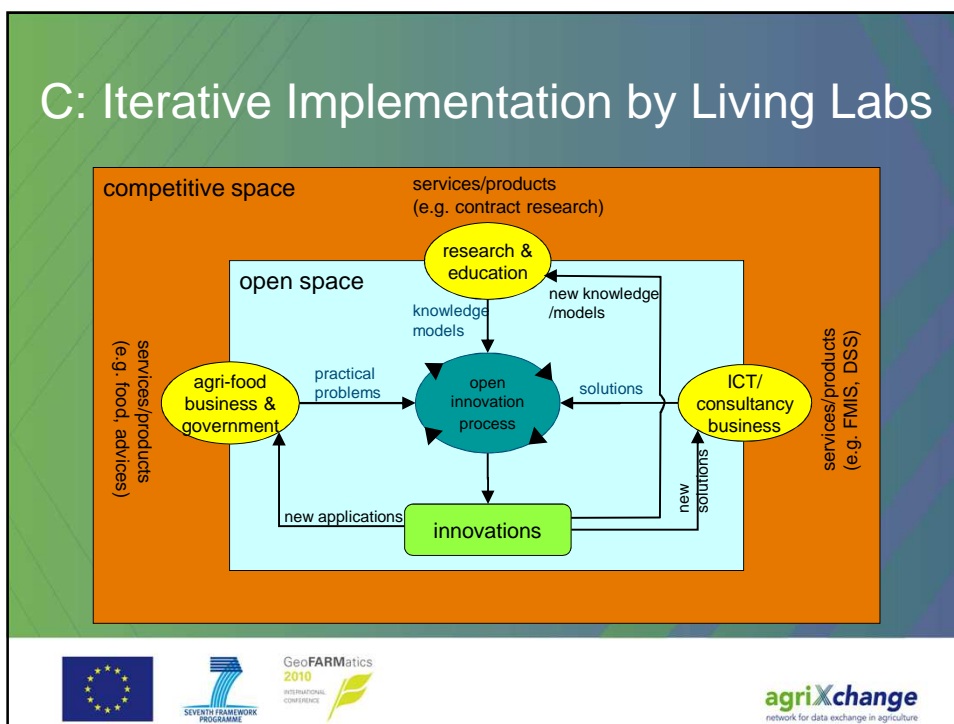
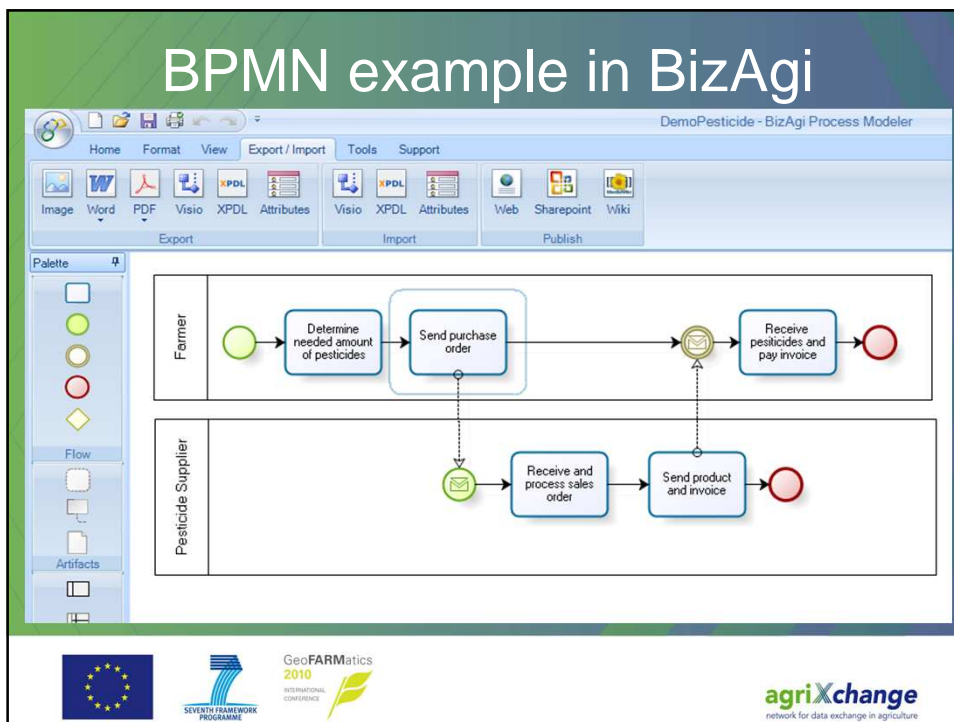
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Use Cases

- Updating of Land Parcel Identification Systems (LPIS)
- Geo-farmer and fertilizing
- Animal registration



Thank you for your attention!

