A sustainable path to interoperability

Fit–to–Inspire

– INSPIRE Conference 2015 –

in brief

We innovate for spatial data interoperability

DAO → **GIS**
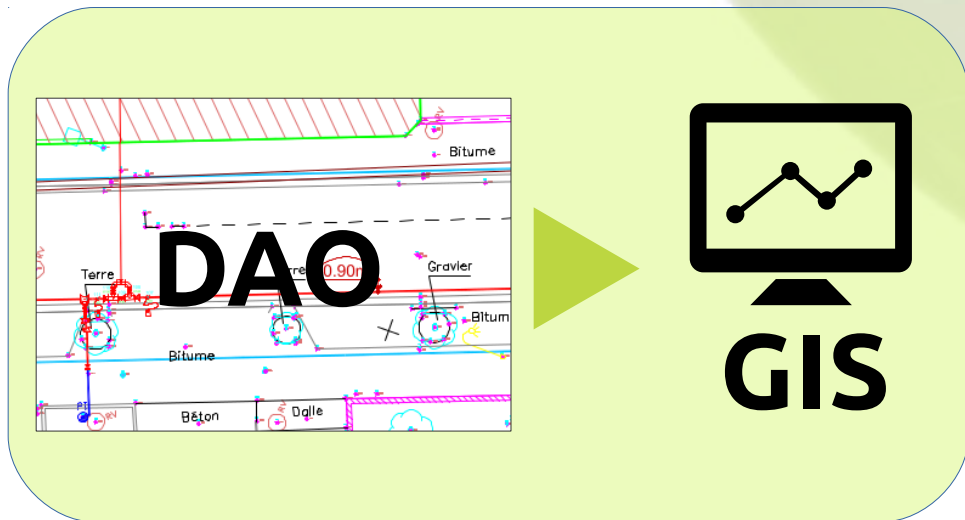
Heterogenous data integration
FOR
GIS data updating

GIS → INSPIRE · Infrastructure for Spatial Information in Europe

Download service
FOR
GIS data sharing

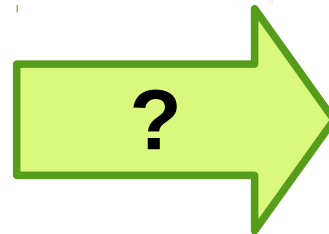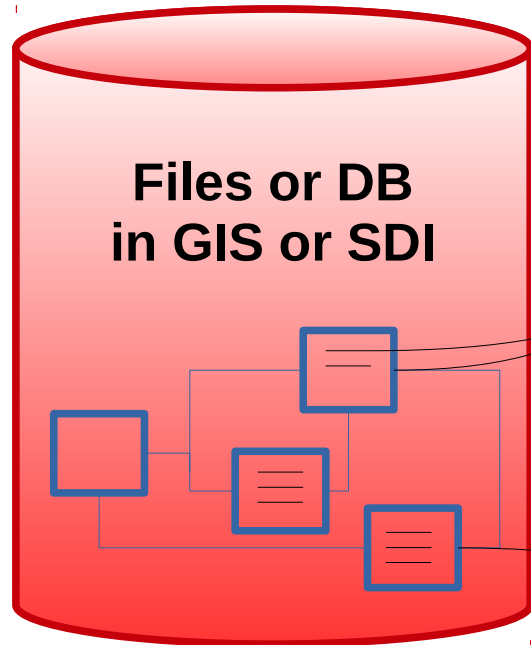# A transformation story

- **The job to be done**
- **Our transformation drivers**
- **How does it work ?**
- **What's different ?**
- **Feedback**

The job to be done

Interoperability's realm

Existing spatial data

Files or DB in GIS or SDI

?

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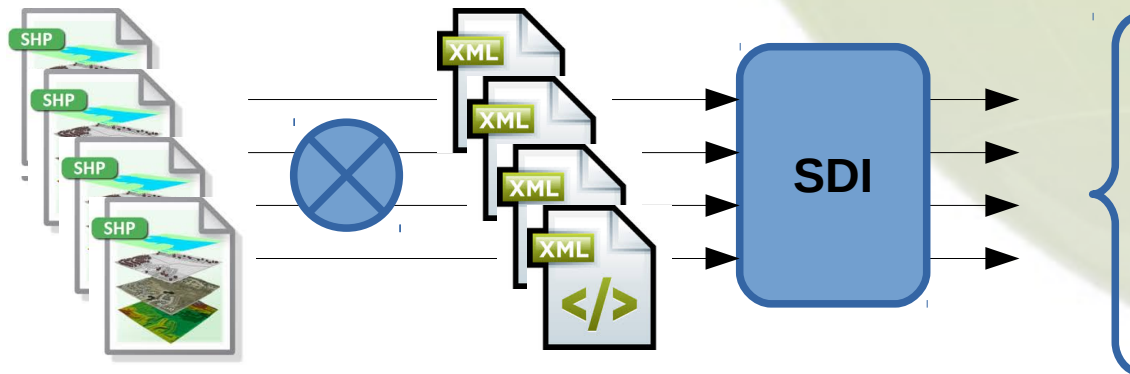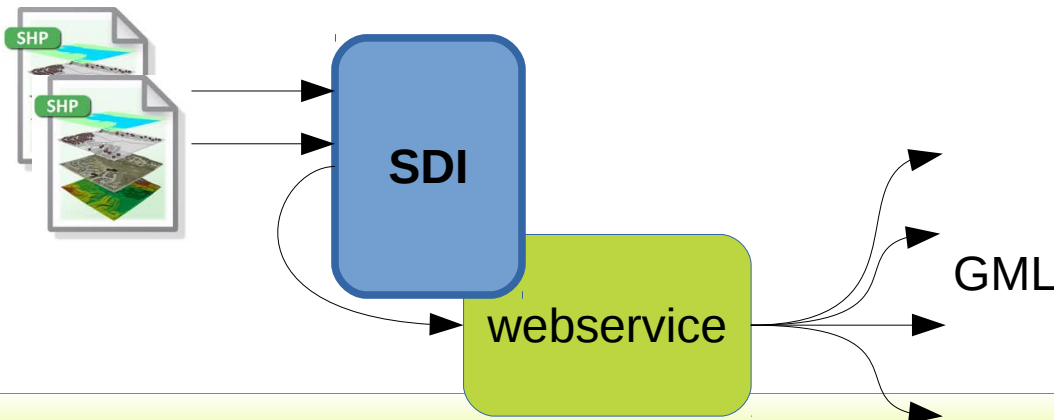
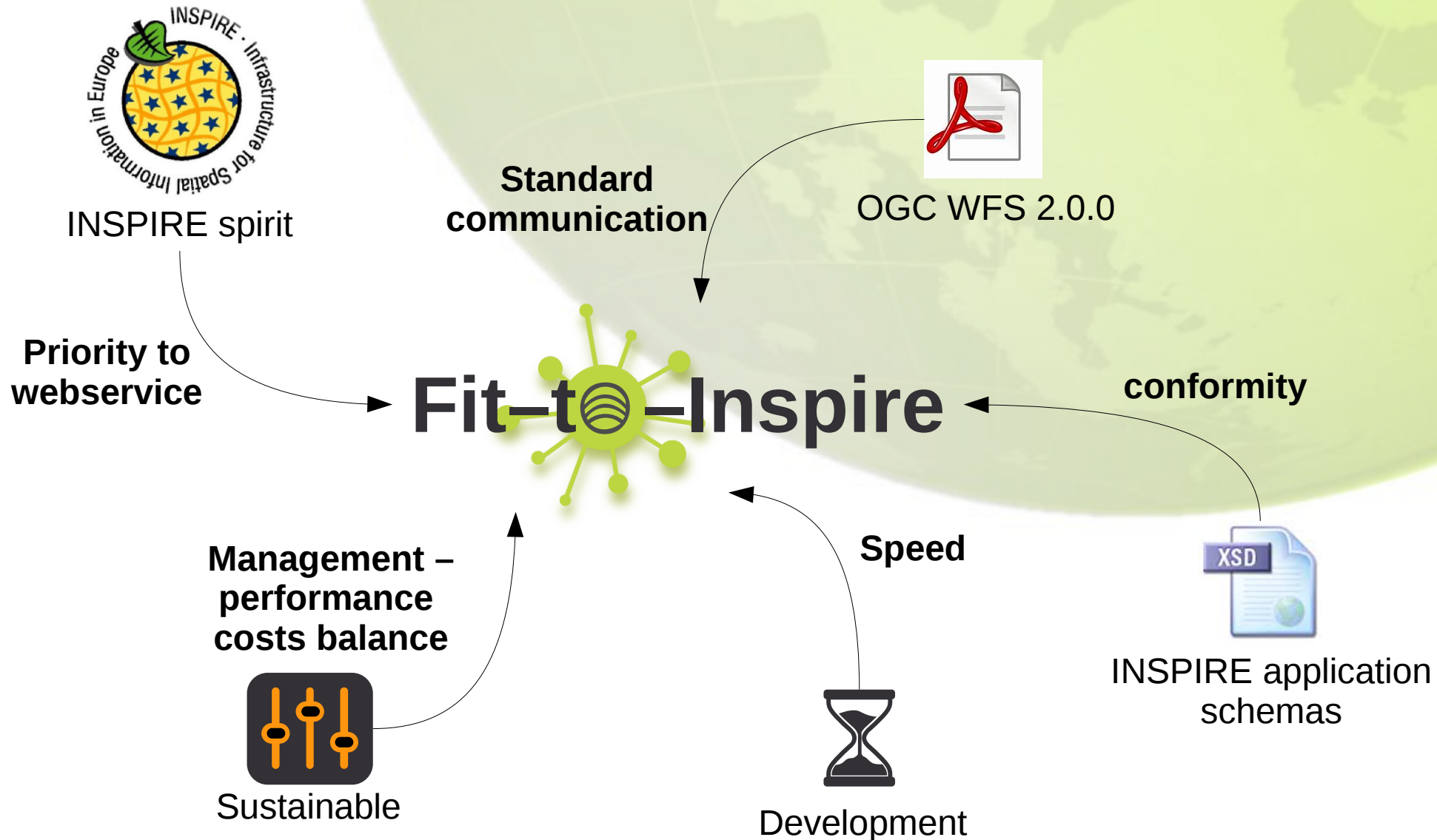# Possible approaches

⊙ Offline transformation

> Predefined datasets

> New file = new metadata

> Needs XML skills

⊙ Online transformation

GML

> Direct and custom access to data

> "XML-free"

> Hard to setup

Main drivers

INSPIRE spirit

OGC WFS 2.0.0

Standard communication

Priority to webservice

Fit–to–Inspire

conformity

Management – performance costs balance

Sustainable

Speed

Development

INSPIRE application schemas

Transformation recipe

Existing SDI

Catalog

DB

Files

WS

Fit2INSPIRE
« featured to run in existing SDI »

1 - standardize

2 - serialize

ETL

Spatial data store

Thematic WFS2 service

talend
*open data solutions

mongoDB

gSOAP Toolkit

springeo

GIS Users

INSPIRE GML data

Soft users

Applications

GIS   SDI
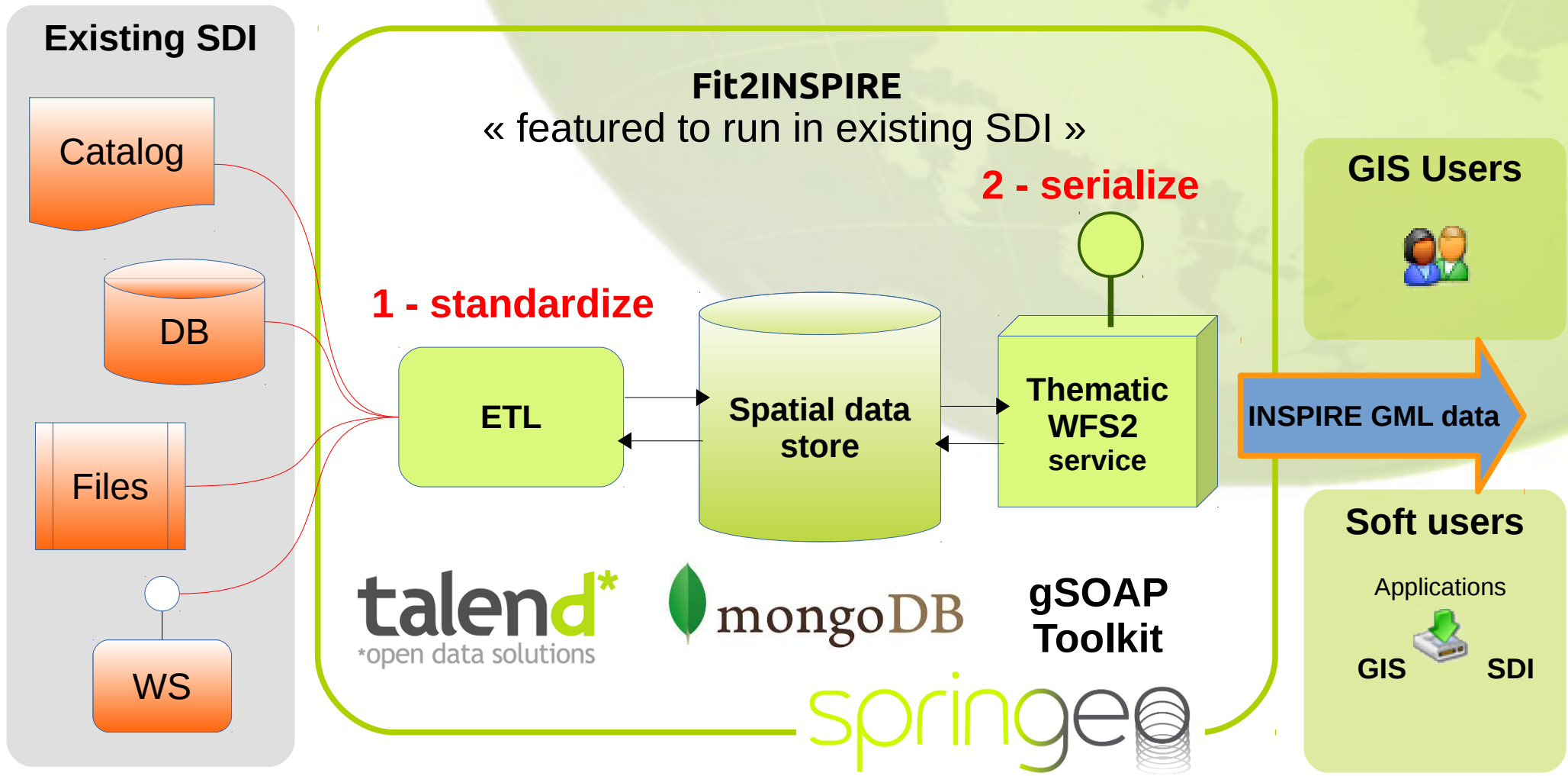
Why are we different ?

- **Domain specific :** 1 theme, 1 webservice
- **Schema driven for a strict interoperability**
- **Customization**
  - > Rich GML output according to user needs
- **New cocktail of technologies**
  - > Stand-alone server rather than existing servers
  - > NoSQL rather than RDBMS
  - > Open software

MapServer **-free**   PostgreSQL **-free**   FME **-free**

Feedback

◉ **Planned Land Use demo**

> 300h of development

> 1 server running for 6 months

◉ **The interoperability challenge is complex**

> Work together : bet on your favorite SDI !

> Aggregate data before its delivery : one endpoint is better for users

◉ **SDI are still far from the beginning**

Pros & cons

Advantages

> Less data and metadata to manage
> XML-free backoffice
> Complex schema support
> Lightweight server
> Fast coding

Drawbacks

> Suitable only for a significant amount of data
> Manual standardization step
> Not scalable in case of many heterogeneous data

Coming soon

- We are working on a UI to facilitate data harmonization on step 1
- We are open to partnerships to share our know-how

Thanks !

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