



ISBE Infrastructure
for Systems Biology
Europe

ISBE - Infrastructure for Systems Biology in Europe

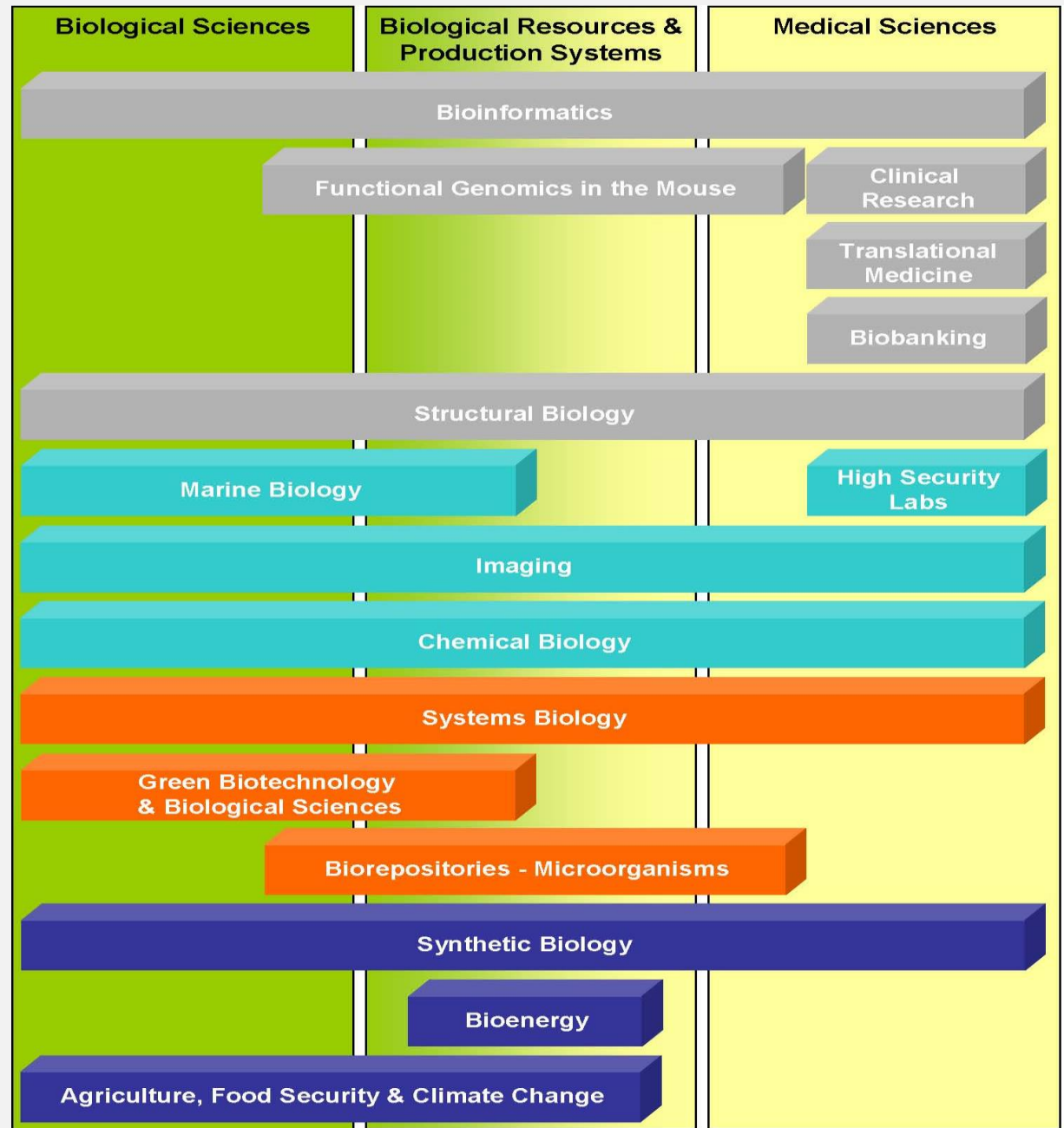
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Wageningen University*





Scientific Landscape of RIs in BMS

ISBE





Why do we need a SB Infrastructure? The Challenge

- Amount and complexity of detailed data and information on components of living systems continues to increase
- Ability to understand dynamic interactions within systems remains a challenge (modelling and simulation)
- Not possible to tackle challenges effectively because of:
 - Technical limitations
 - Limited access to (a small number) of specialist groups
 - Fragmented knowledge and expertise



The ISBE Facility - Objectives

1. The ISBE will interconnect hubs of technological excellence in Systems Biology

- Through offering the best expertise, and experimental and modelling facilities, necessary for systems biology

2. Establish and make available repositories of data, tools and models

3. Enable real-time connections

- Within and between centres
- With external user laboratories



Challenges

Connecting the nodes

Data generation:

- High throughput of imaging/anatomical information
- Integration of other levels of information into molecular models
- Standards, SOPs

Data analysis/stewardship:

- Automation of data analysis
- Training for non-bioinformaticians

Data integration/modeling:

- Toolbox for non-SBists, model repository
- Model building, coupling of scales (temporal, spatial)
- Support for planning and generation of appropriate data

The ISBE Infrastructure

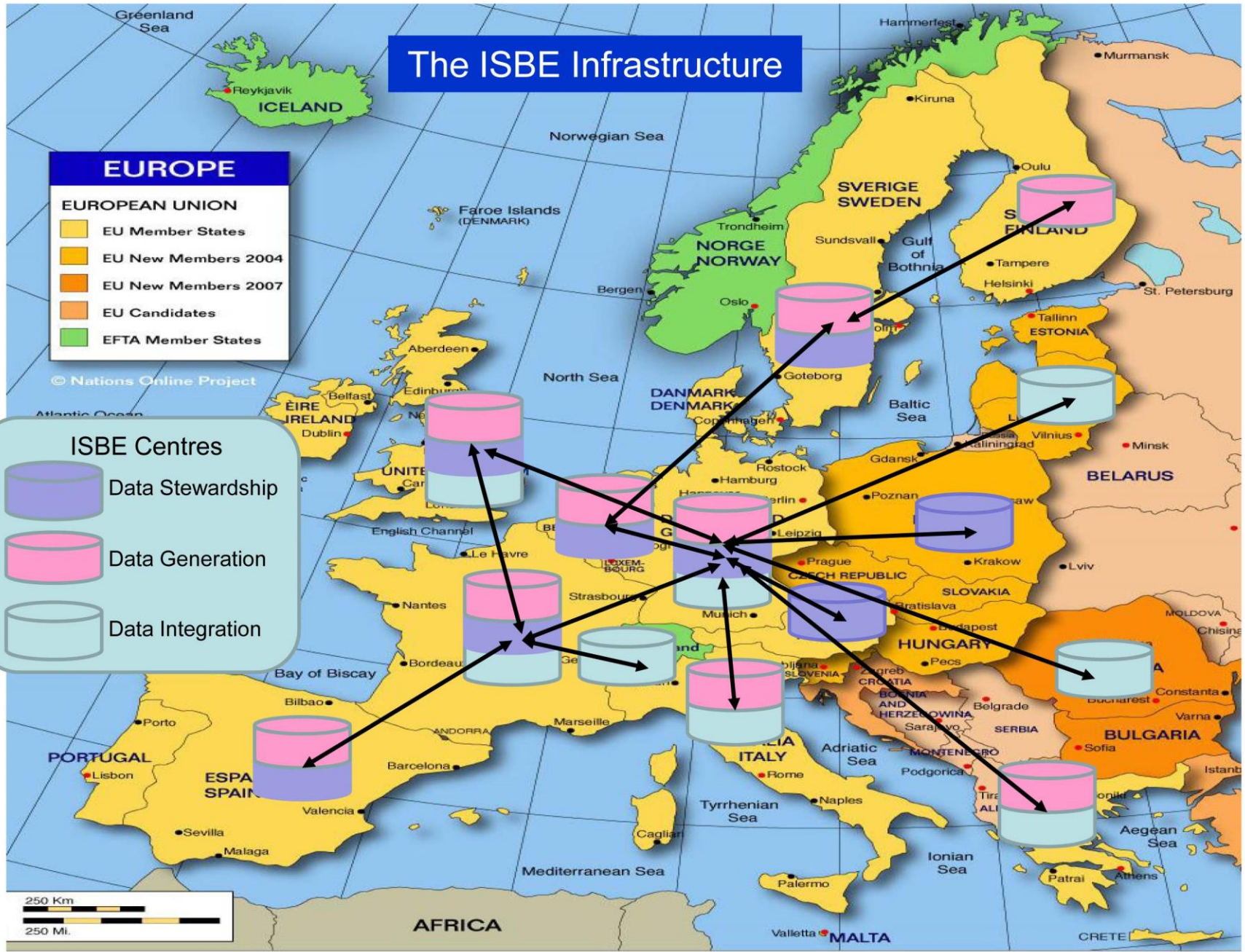
EUROPE

EUROPEAN UNION

- EU Member States
- EU New Members 2004
- EU New Members 2007
- EU Candidates
- EFTA Member States

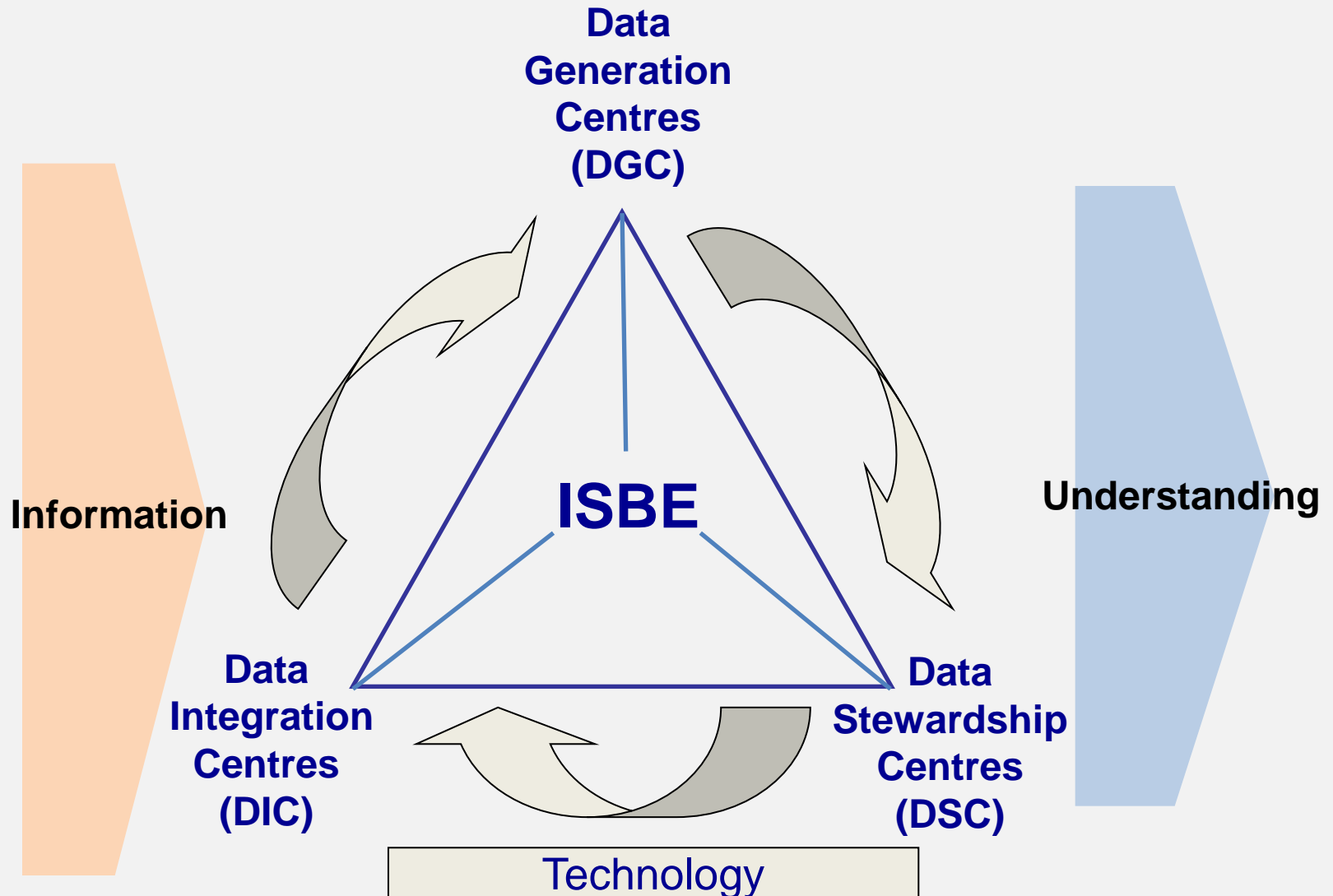
ISBE Centres

- Data Stewardship
- Data Generation
- Data Integration

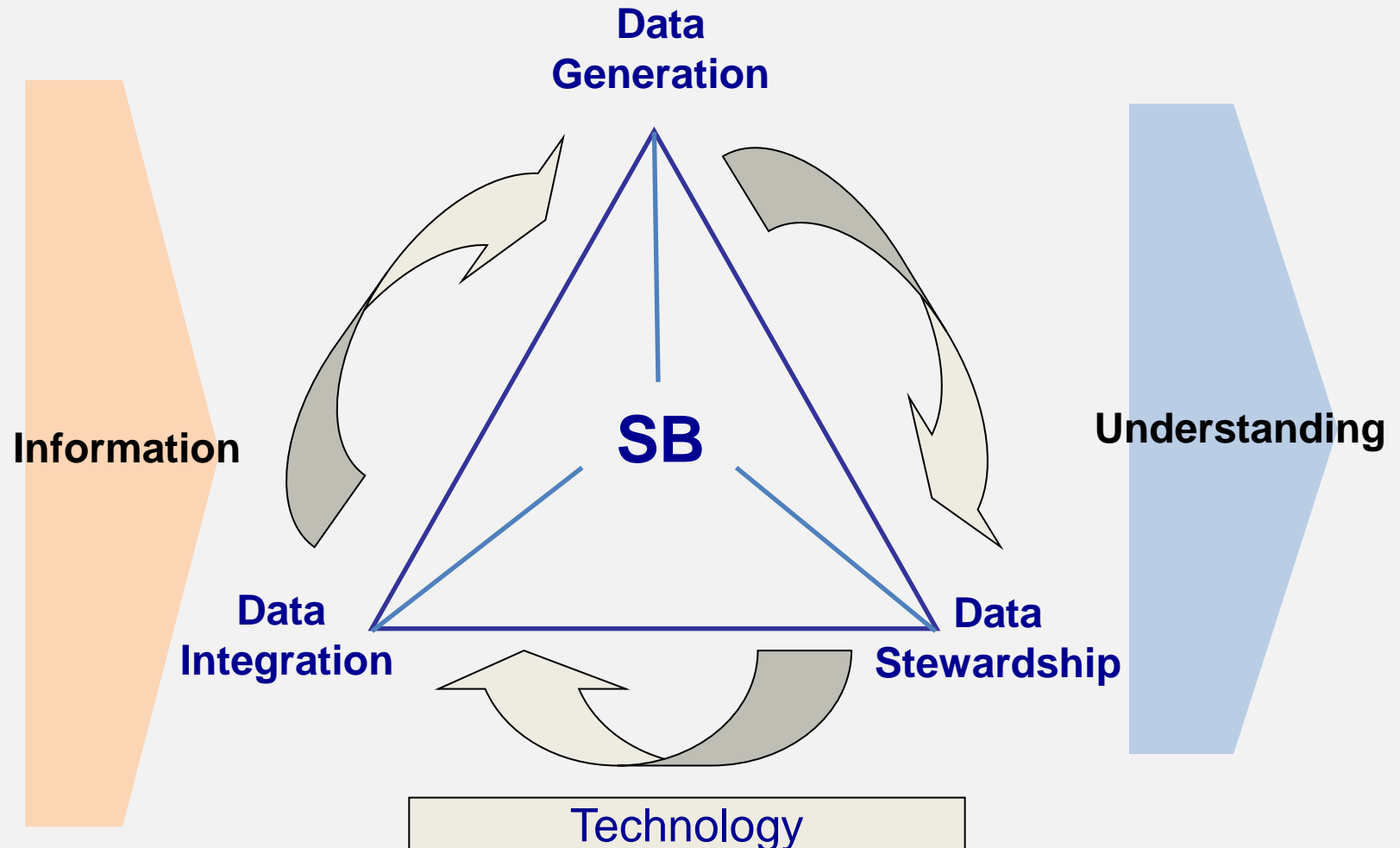




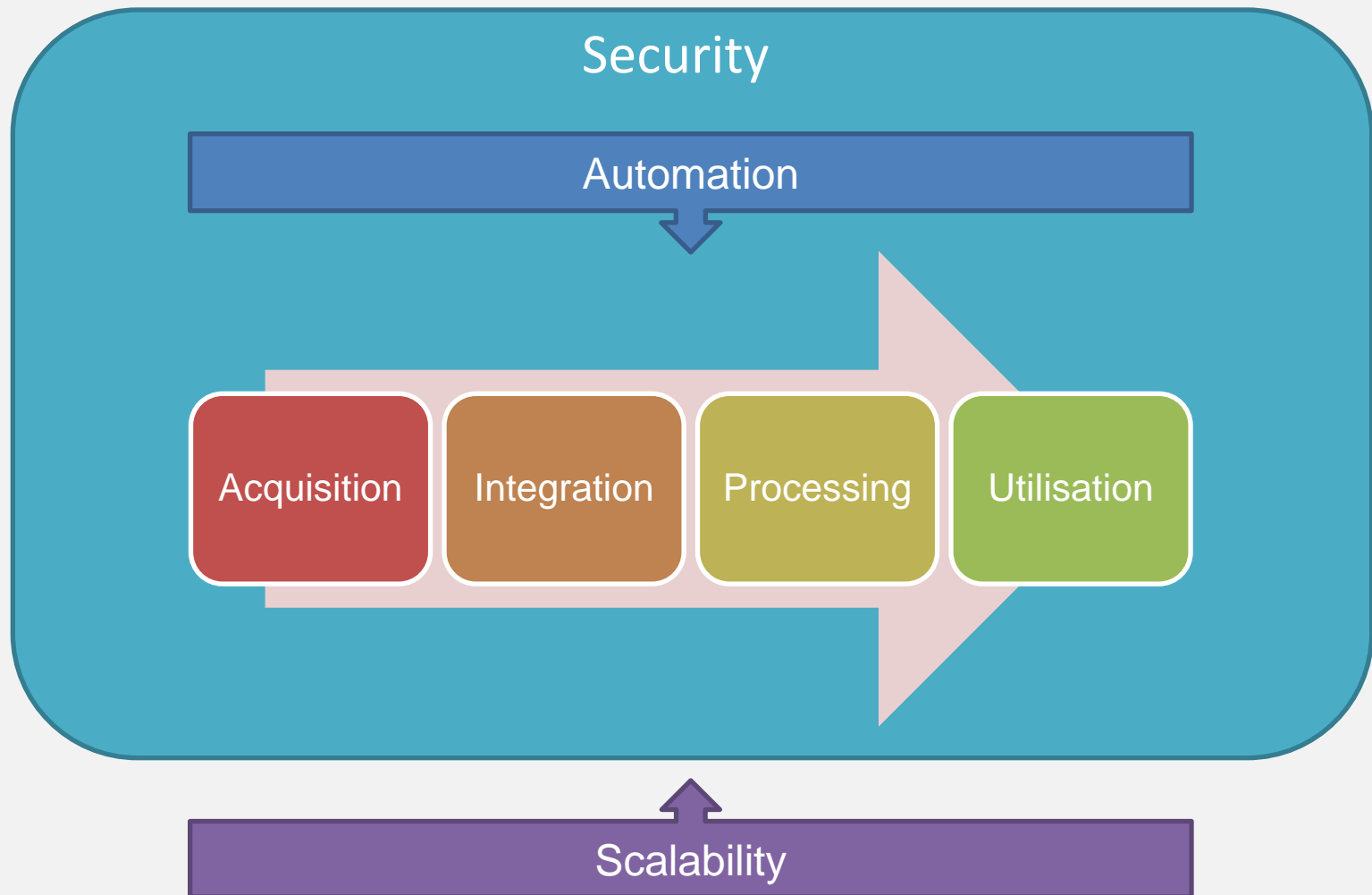
ISBE - Structure



SB - Driver for standards and SOPs



Standards are needed along the whole (data) pipeline





SB Community Website

<http://community.isbe.eu/>

European Systems
Biology Community



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This site is currently in **beta**, and the preliminary data-set is not yet accurate. Please [click here](#) to read why.

Are you in the System?

Explore the connections between
7.381 researchers in Systems Biology from
715 institutions around Europe





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Search for researchers



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[Click a graph node to get more information.](#)

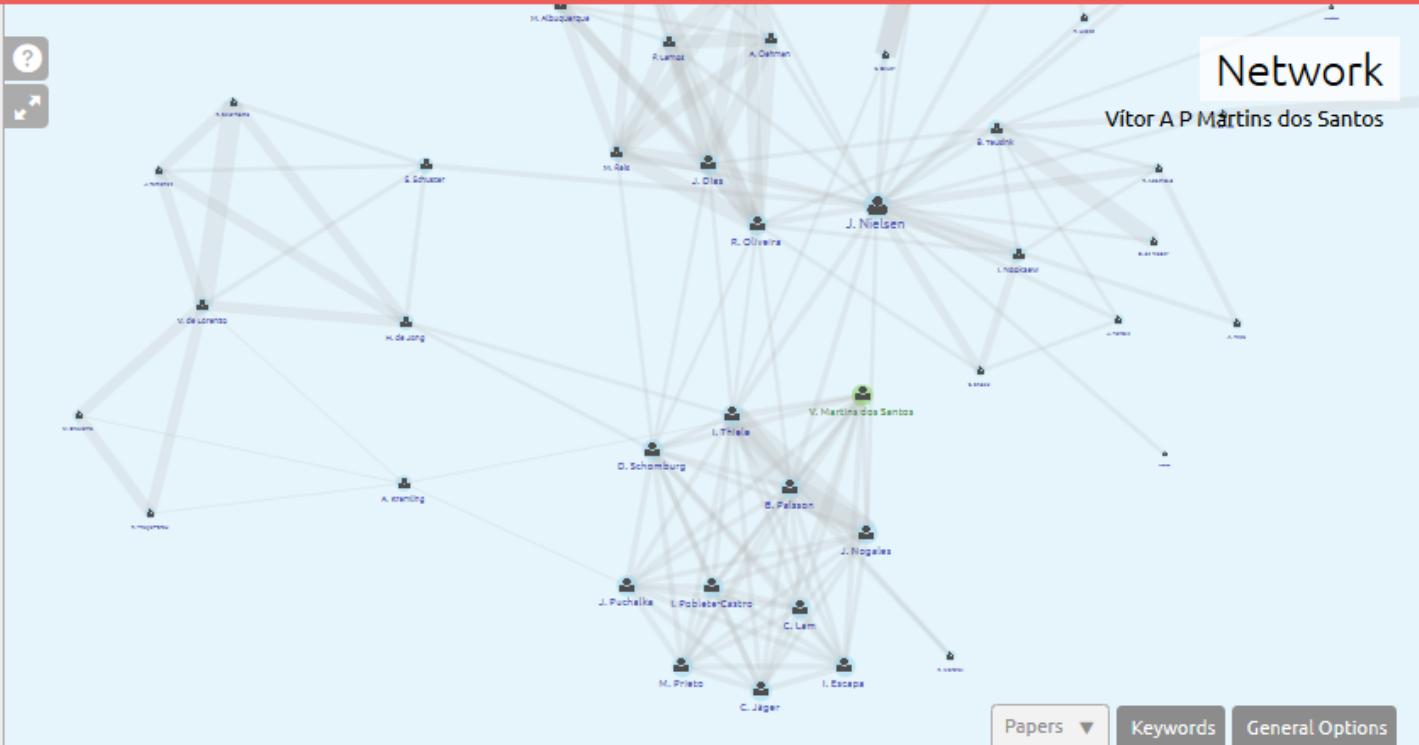
- To get the community network started, the database has been populated with almost 2000 papers from PubMed which had connections to both systems biology and European institutes.
- Due to the automated nature of this search many relations will be incorrect. We therefore encourage researchers to claim their own profiles and edit their lists of keywords.
- For every change you make, you will immediately be able to see the resulting impact to the dynamic network structure.
- Coming soon! - The ability for researchers to add and correct their list of papers.



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From 0 to 100

ON

0 - 100



Apply



Participate!

Please join us and help with your experience and information!

- a) Invitation to register at *community.isbe.eu*
- b) Invitation to participate in the ISBE survey at *www.isbe.eu*
 - To identify needs in systems biology
 - To identify important infrastructures and institutions in Europe
 - To get information about ongoing activities to create synergies
 -

Your information will be very important and helpful!



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Europe

Thank you very much!

For more information please visit

www.isbe.eu

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