

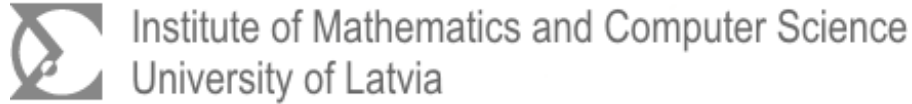


*Services design in a collaborative network
for multidisciplinary research projects*

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IT services for research partnerships

- EU annual funds for collaborative research and innovation in technology, energy, environment, health and biomedicine:

~5 790 mln EUR

- Annual funds per consortium:

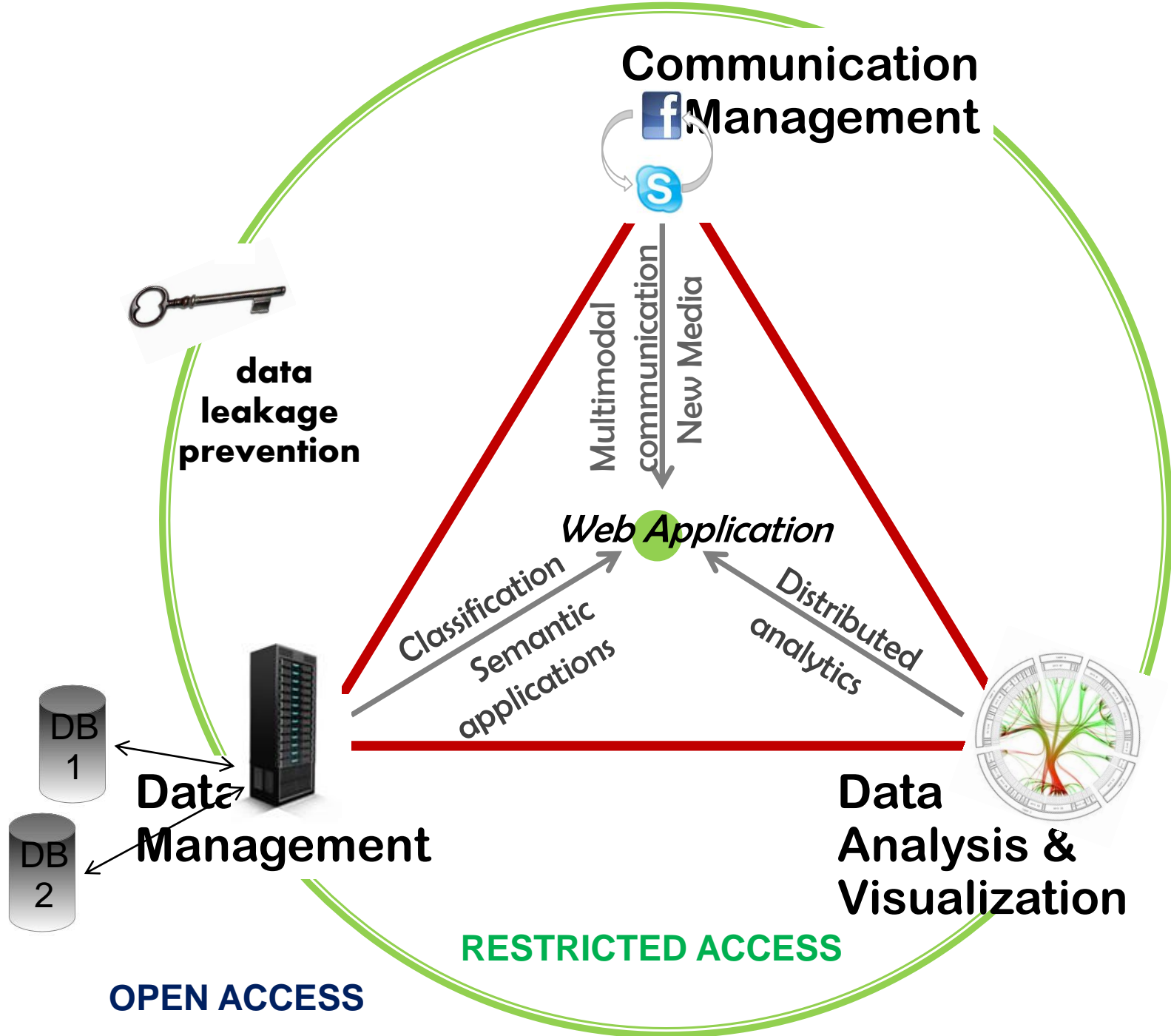
~4.8 mln EUR (eqv 1200 consortia)

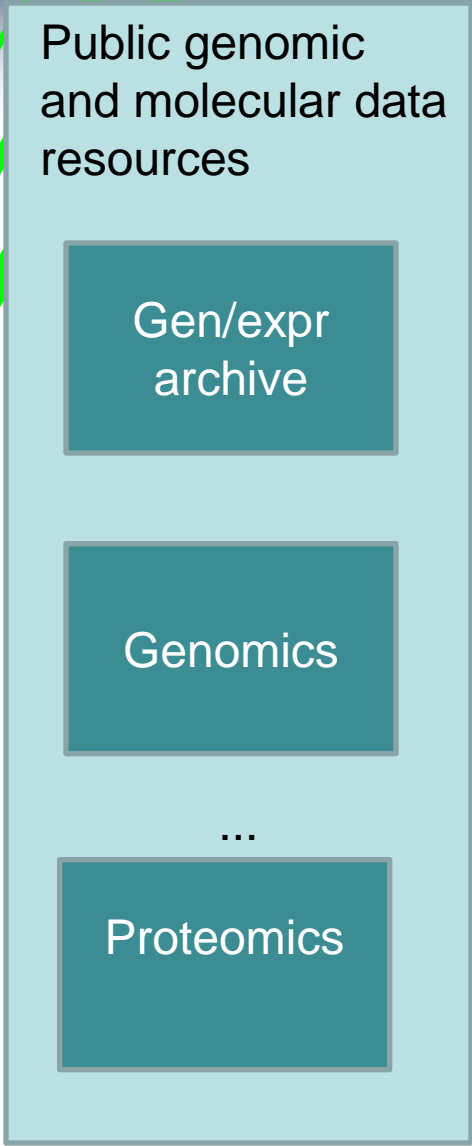
- Funds to consortia's IT services:

~405 mln EUR

Our goals as a service provider

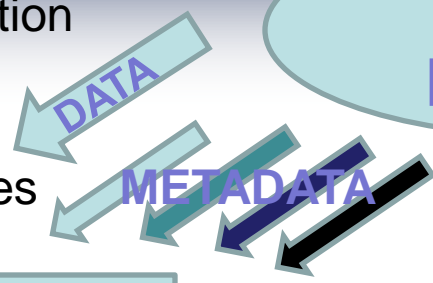
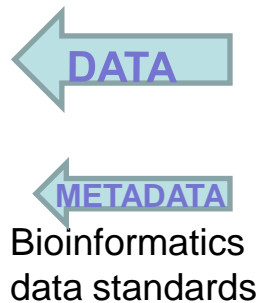
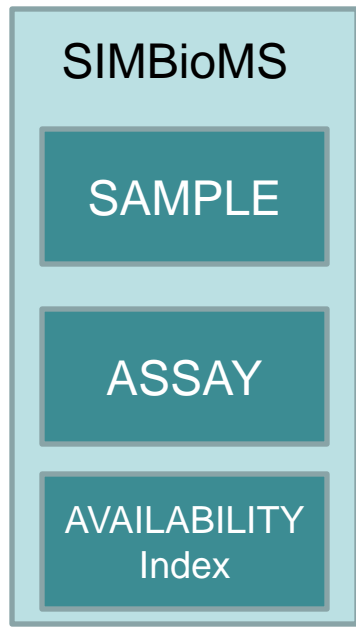
- Facilitate formation of a research collaboration
- Speed up data analysis and study design
- Support data re-annotation, curation and mapping
- Contribute to data Q/A, consistency and sanity checks





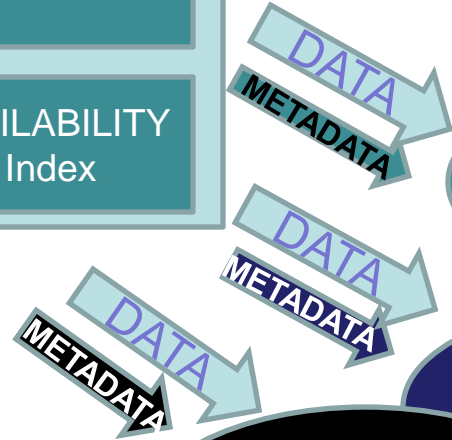
Data enrichment and curation. Accessible to the scientific community

Dynamic implementation of user-provider requirements; broad range of different types of data transactions



DIRECT communication on:

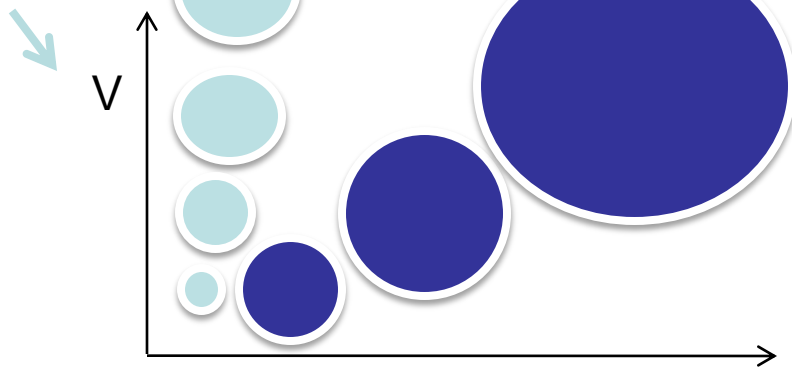
- project goals
- framework
- expected outcomes





Volume vs Complexity cost model

Project	Samples	Research subjects	Studies/ data types	Assays	Files/ volume	Users/roles/ user groups	Publ-s per year
Mol PAGE	16.5k	2.2k	300/11	26 000/ 11	27 000/ 0.7 TB	80/1/1	1
EN GAGE	>100k	100k	400/13	***	400/ 0.25 TB	30/5/13	10

volume



-  Growth of complexity is slower than volume
-  Both volume and complexity grow fast

complexity

C ~ data types * user roles * scripts

The big picture

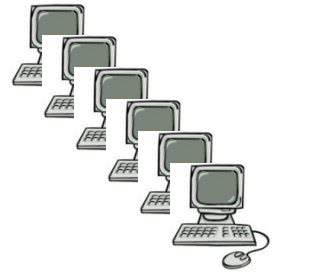
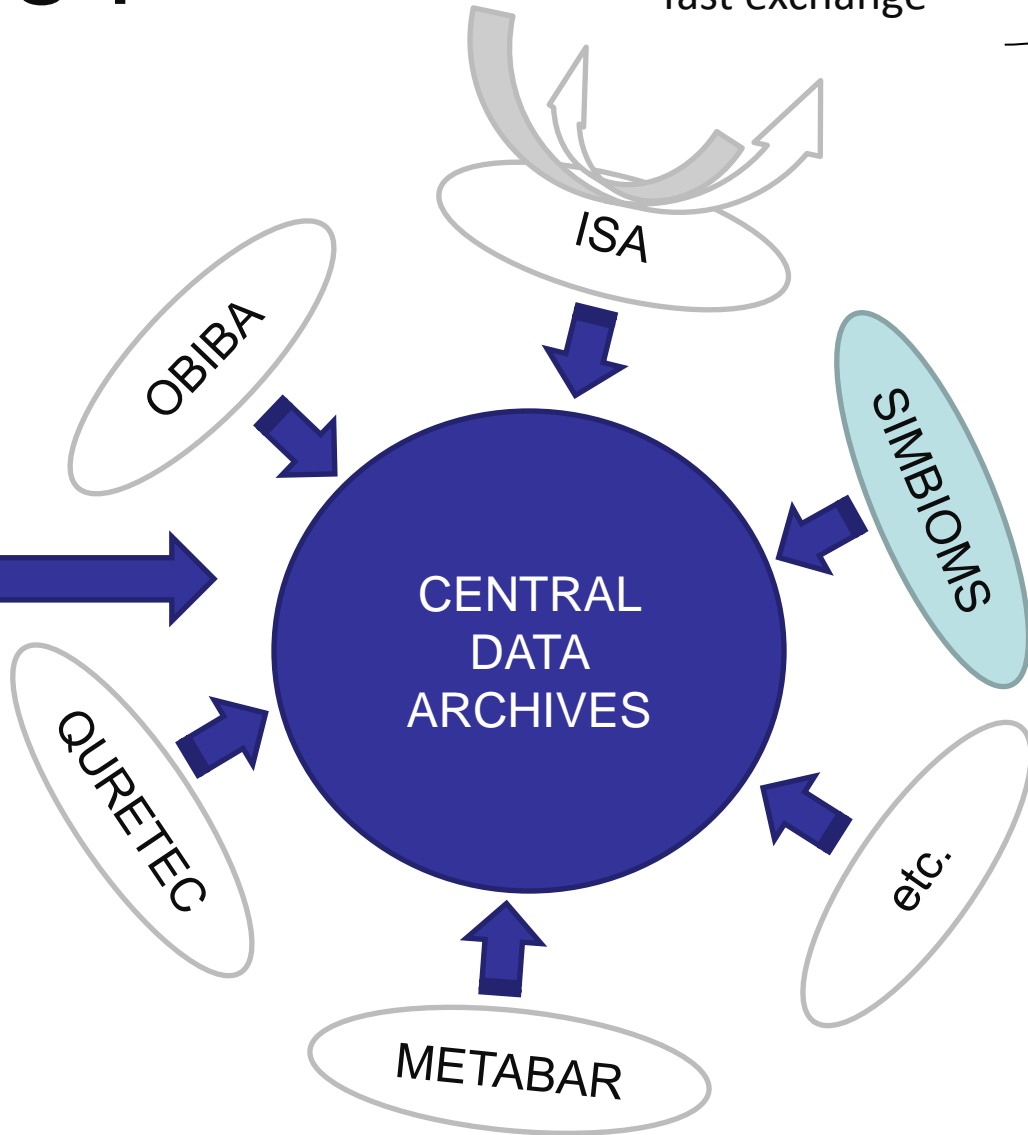
- dynamic storage
- project hosting
- fast exchange

support for collaborative discovery



- permanent deposition
- large volumes
- open access

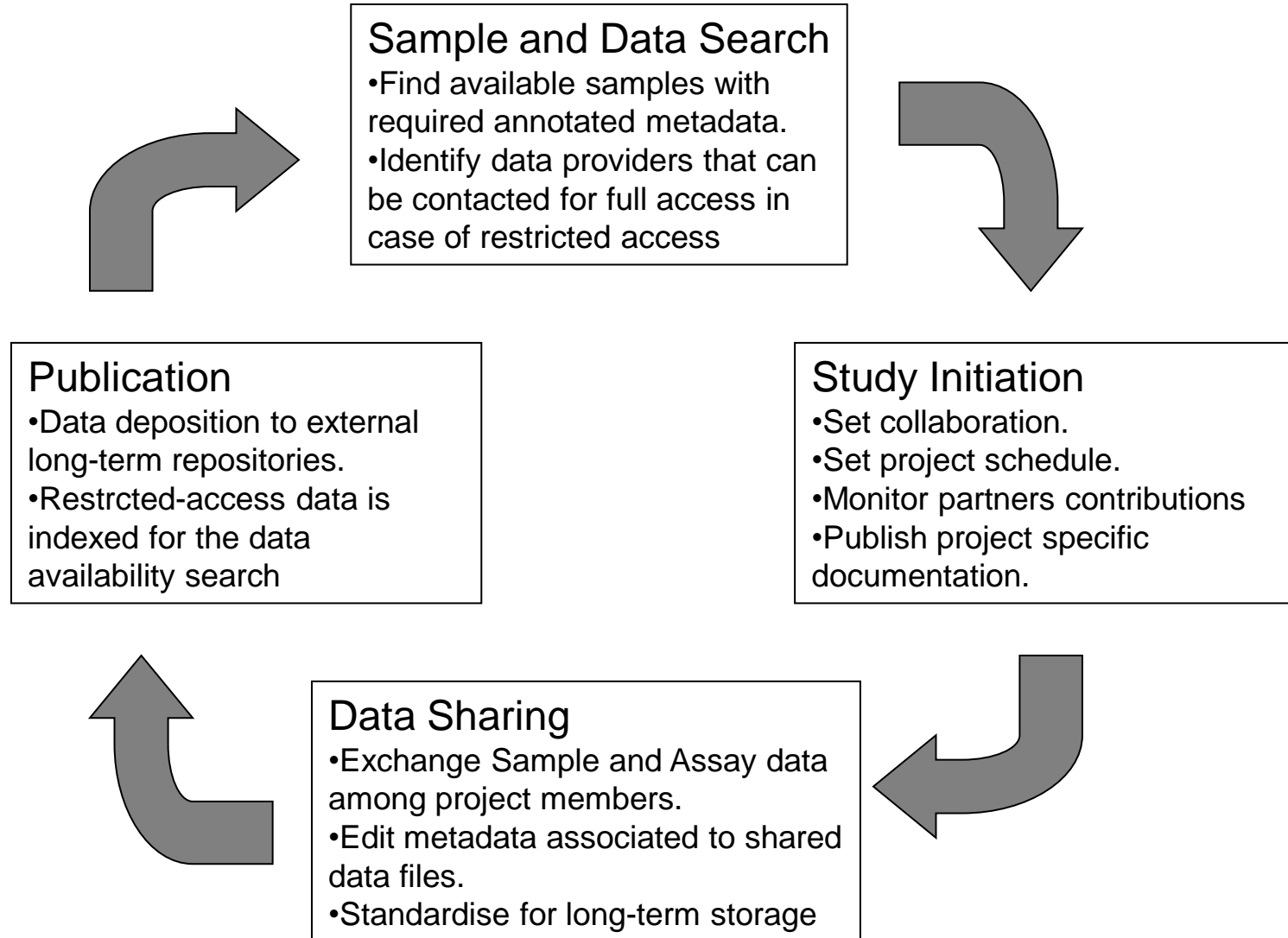
knowledge access and sustainability



large consortia



Research flow



John Christopher Jones (John Chris Jones) is a Welsh [designer](#). He was born in 1927, in [Aberystwyth, Wales](#). He studied [engineering](#) at the [University of Cambridge](#), and went on to work for [AEI](#) in [Manchester, England](#). His 1970 book *Design Methods* is considered a major text in [design](#).

Collaborating with engineers, Jones advocated [ergonomics](#) and the consideration of user-centred issues not part of [engineering](#) skills and attitudes at the time. When the results of his ergonomic studies of user behavior were not utilized by the firm's [designers](#), Jones set about studying the [design process](#) being used. Jones was also frustrated with the superficiality of [industrial design](#) at the time and become involved with [ergonomics](#).

[Design methods](#) as an area was driven by:

- Inability to balance individual, group, societal, and ecological needs;
- Lack of purpose, order, and human scale;
- Aesthetic and functional failure in adapting to local physical and social environments;
- Development of materials and standardized components that were ill suited for use in any specific application;
- Creation of artifacts that people did not like

Jones wasn't actually addressing [design](#) as presently conceived. He set out an entirely original philosophy of design—one that questioned the aims, goals and purposes of designing. He stated that one of the reasons why he focused on Design Methods was

"... it's not another way of doing design, you see, it's a way of doing what designers don't do at all."

At the end of the 1950s he published an article "A Systematic Design Method" articulating ways to integrate ergonomic data into the engineering design process. His emerging ideas about Design Methods was to integrate both [rationality](#) and [intuition](#)—a common thread in the formalization of Design Methods and how it was interpreted by other groups.

He also realized that designers needed to move out of focusing on [expression](#)^{[\[disambiguation needed\]](#)} and modes of production and begin to address the definition of a problem to be solved. He commented that

"the future job of a designer is to give substance to new ideas while taking away the physical and organizational foundations of old ones. In this situation, it is nonsense to think of designing as the satisfaction of existing requirements. New needs grow and old needs decay . . ."

Books

[\[edit\]](#)

- Jones, John Christopher, *Design Methods: seeds of human futures*, John Wiley & Sons Ltd., London, 1970; 2nd edition, John Wiley & Sons Ltd., 1992
- Jones, John Christopher, *Designing Designing* (London: Architecture Design and Technology Press), 1991

Design Methods is a broad area that focuses on:

[Divergence](#) – Exploring possibilities and constraints of inherited situations by applying [critical thinking](#) through qualitative and quantitative research methods to create new understanding (problem space) toward better design solutions

Transformation – Redefining specifications of design solutions which can lead to better guidelines for traditional and contemporary design activities (architecture, graphic, industrial, information, interaction, et al.) and/or multidisciplinary response

[Convergence](#) – [Prototyping](#) possible scenarios for better design solutions that incrementally or significantly improve the originally inherited situation

[Sustainability](#) – Managing the process of exploring, redefining and prototyping of design solutions continually over time

[Articulation](#) - the visual relationship between the parts and the whole.

The goal of design methods is to gain key insights or unique essential truths resulting in more [holistic](#) solutions in order to achieve better experiences for users with products, services, environments and systems they rely upon. Insight, in this case, is clear and deep investigation of a situation through design methods, thereby grasping the inner nature of things intuitively.



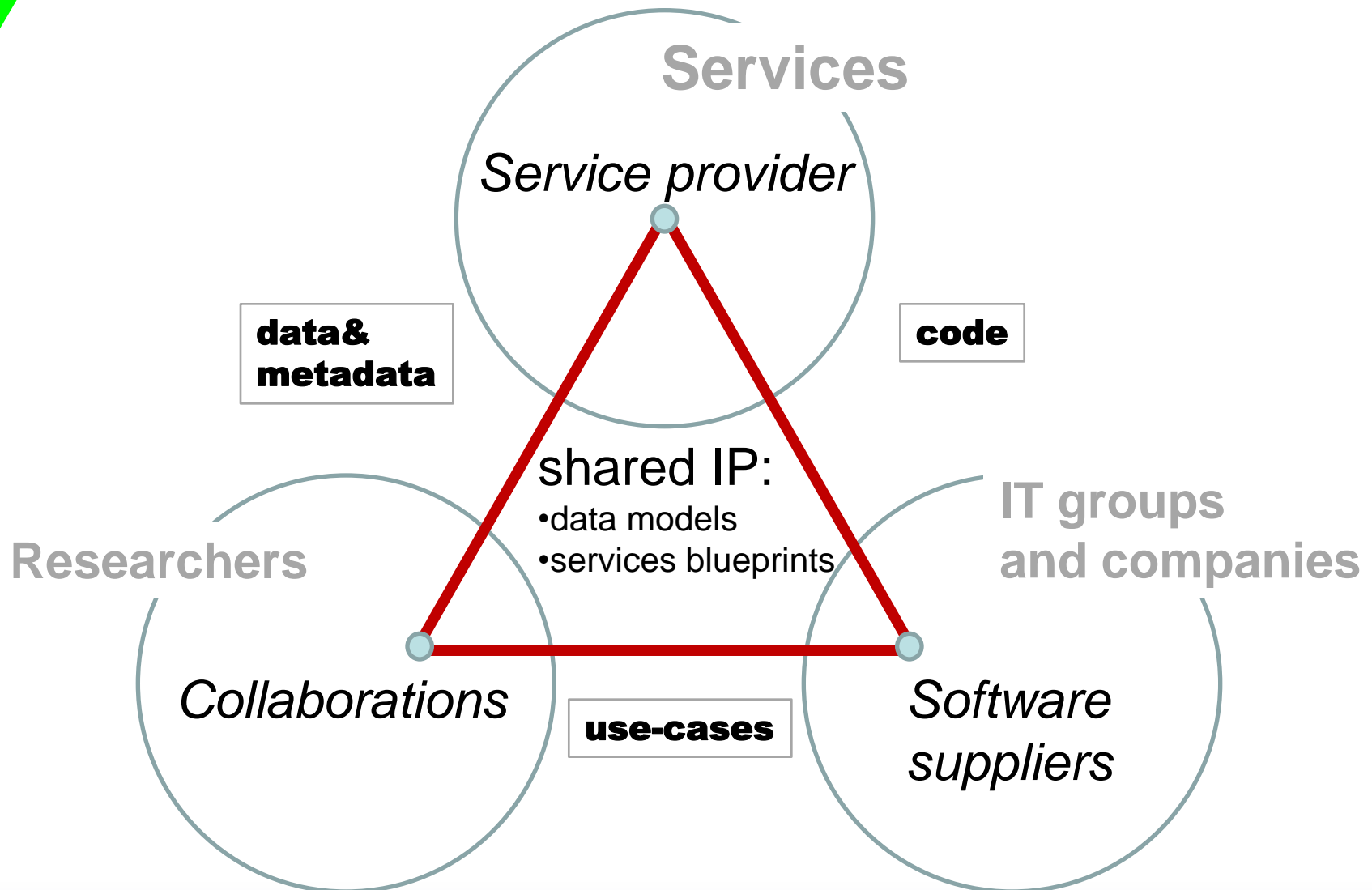
John Chris Jones



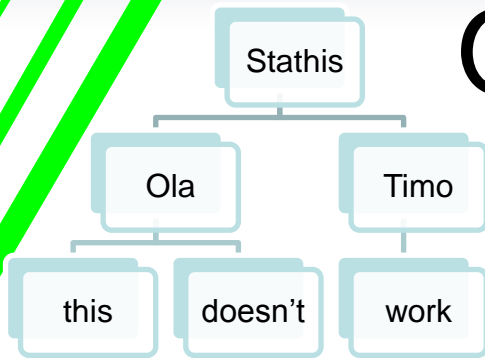
Metadesign

Participation level (individual/ collective)	Analysis	Concept design	Concept communication	Distribution	End-of-life
none					
indirect					
consultative					
Shared control					
Full control					

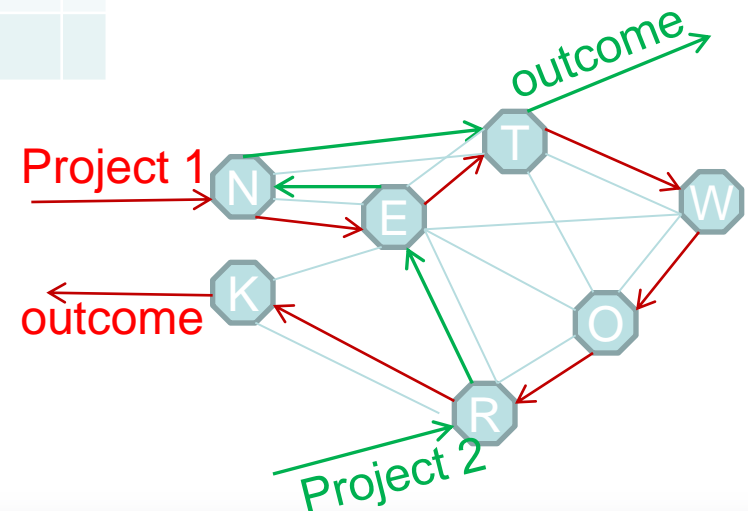
Co-design and co-creation of services



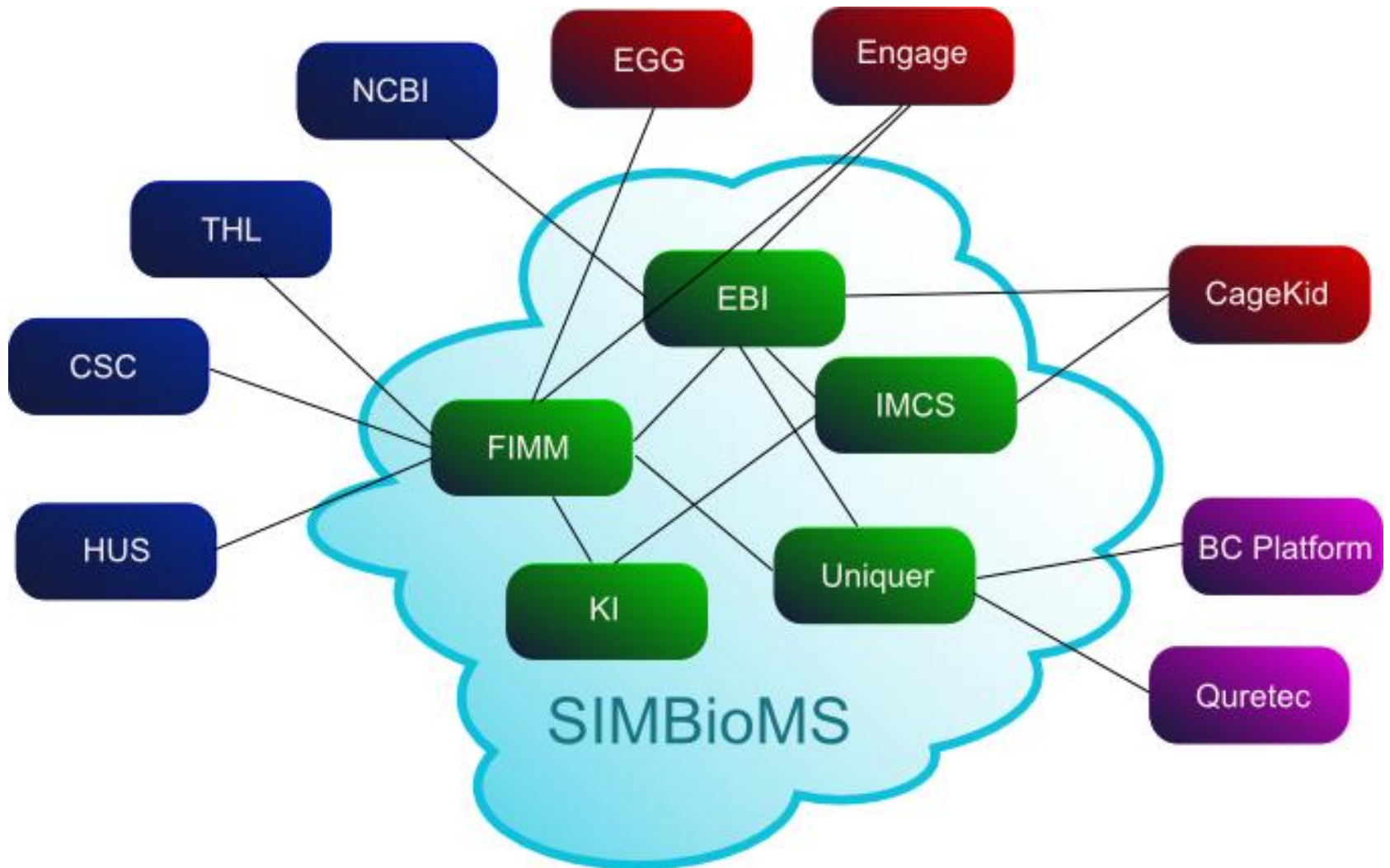
Organisation (internal)



	Teemu	Ola	Maria	Jani	Stathis	
Jani	yes	no	no	?	no	
Joern	yes	yes	yes	no	no	
Stathis	no	yes	yes	no	?	
Teemu	?	no	yes	no	no	
Russell	no	no	yes	no	no	



Organisation (external)



Conclusion



- *Service blueprints and data models as the outcomes of co-design*
- *Partnerships with open-source and proprietary software suppliers*
- *Connectivity with large public data archives*
- *Experience in customised IT services provision for data analysts and researchers*
- *Expertise in data annotation and quality assurance*