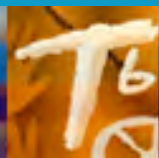


OPAALS Project

Open Philosophies for Associative Autopoietic Digital Ecosystems

Workshop
Digital Ecosystems: Policies and Projects
Roma 11th June 2009

Andrea Nicolai
Partner
T6 Eco



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T6Eco and Digital Ecosystems

- **DBE project:**
 - Project management
 - Communication and dissemination
 - Regional analysis (former CENSIS)
 - Analysis of local engagement process (former CENSIS)
 - Research on DBE governance and sustainability models (former CENSIS)
- **Opaals Project:**
 - Project management
 - Scientific coordination (integration between social science and computer science)
 - Analysis of the relationship between DE and Community Networks
 - Development of a methodology for evaluating the impact of DE on local innovation
 - Development of policy recommendations
- **Effort Project:**
 - Analysis of SMEs cluster governance pattern and compatibility with the DE approach
- **DBE Lazio Project**
 - Full project: research, stakeholders engagement, test



Network of Excellence (NoE)

- “Network of Excellence” implies focus on academic research collaborations, events, and conferences
- The 1st priority of a NoE is to build a network of collaborations and research



Opaals High Level view

Context: Sustainable socio-economic development at the regional scale

OPAALS

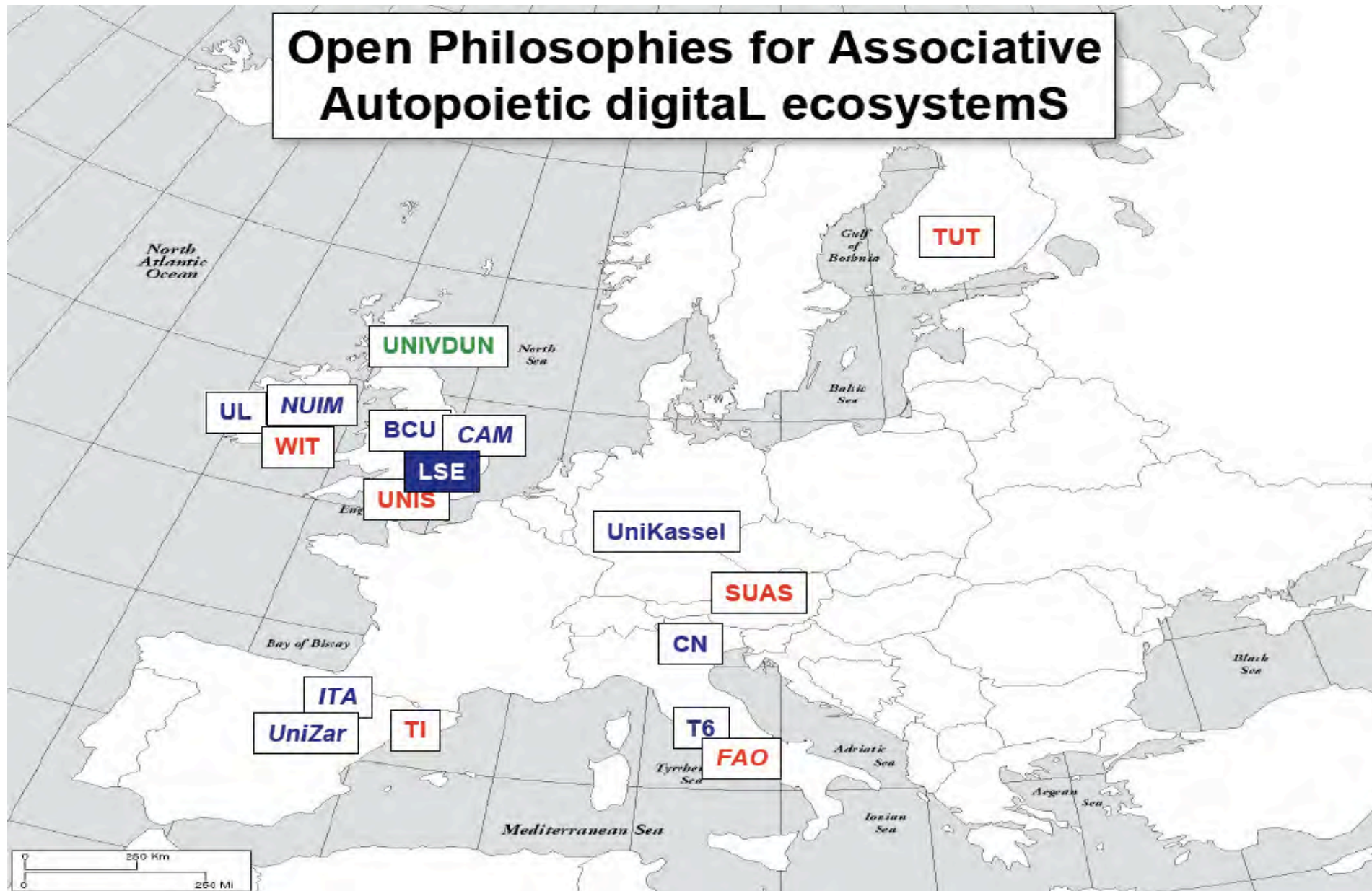
1-Build a community of research <

2-Develop an integrated theory, methodology
> And ict tools for Digital Ecosystems



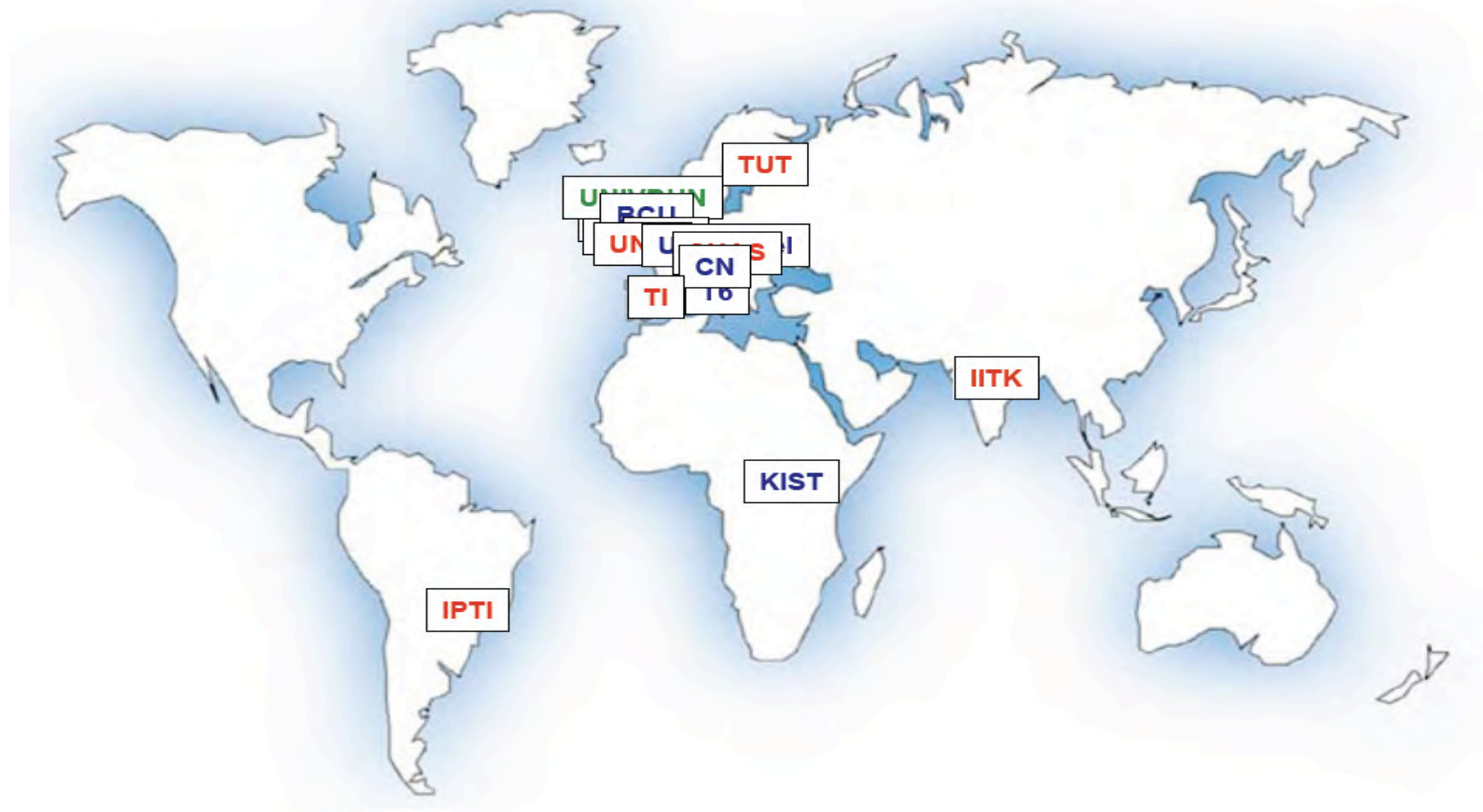
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Open Philosophies for Associative Autopoietic digital ecosystems



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OPAALS



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Digital Ecosystems Objectives

- **The Digital Ecosystems objective is to support the achievement of sustainable socio-economic development catalysed by ICT through a multi-stakeholder process founded on local ownership not only of the technology but also of the terms of engagement, the policies, and the customisation of development/innovation goals to local needs**
- **We hypothesized that engagement at the local/regional scale would be more effective than national policies, and so far this has proven correct**



- **The Digital Ecosystem does not, itself, create services. Its main service is the infrastructure that gives the SMEs the opportunity to share a language, work collaboratively, and share information, services and software components**

(F Botto, Create-Net, and A Passani, T6, 2007)



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Evolution of the layered view of Digital Ecosystems

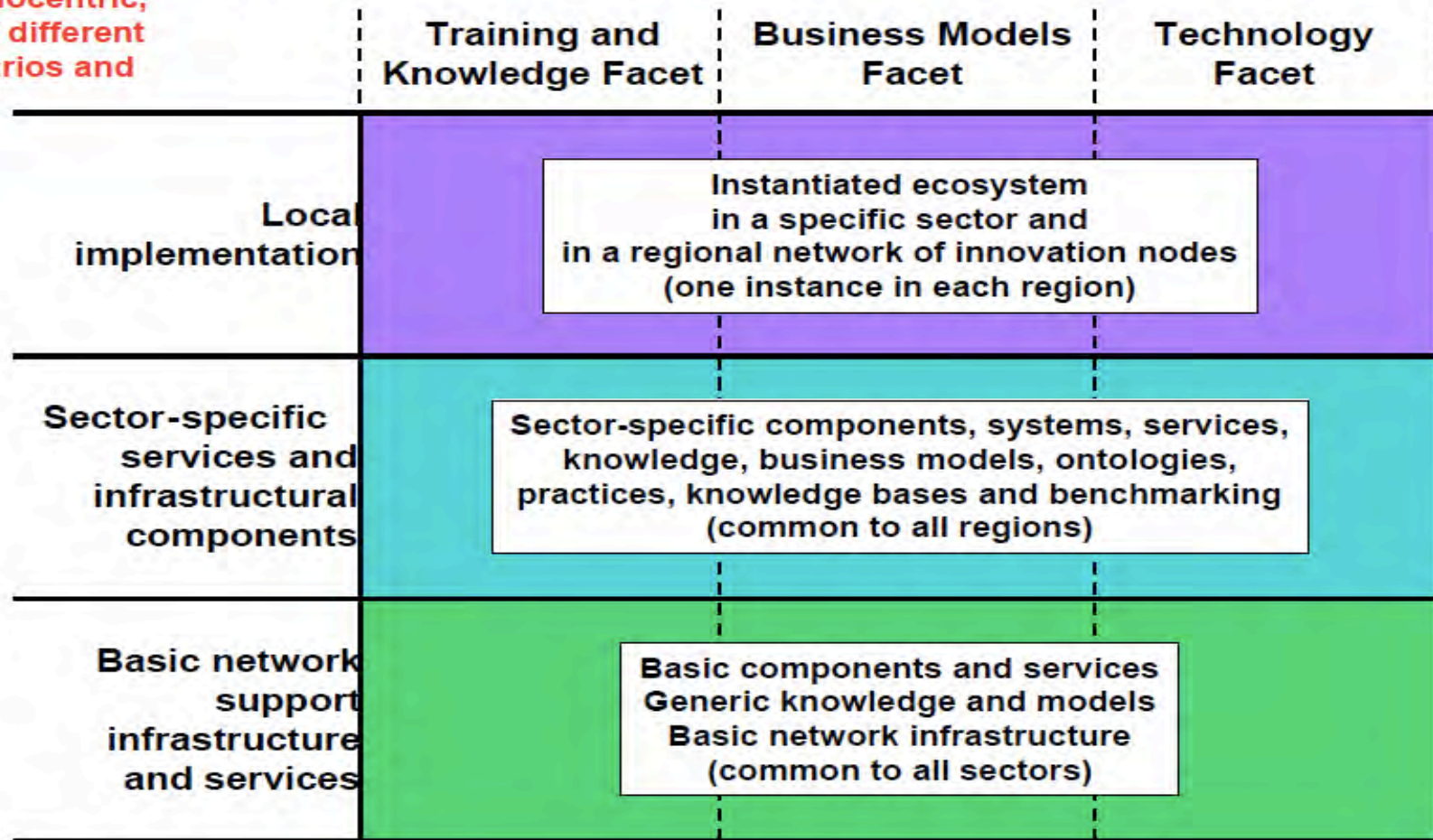
based on the work of Paolo Dini, LSE



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EC's View of a Sector-Specific Digital Business Ecosystem (DBE, 2002)

Rather technocentric,
but aware of different
usage scenarios and
contexts



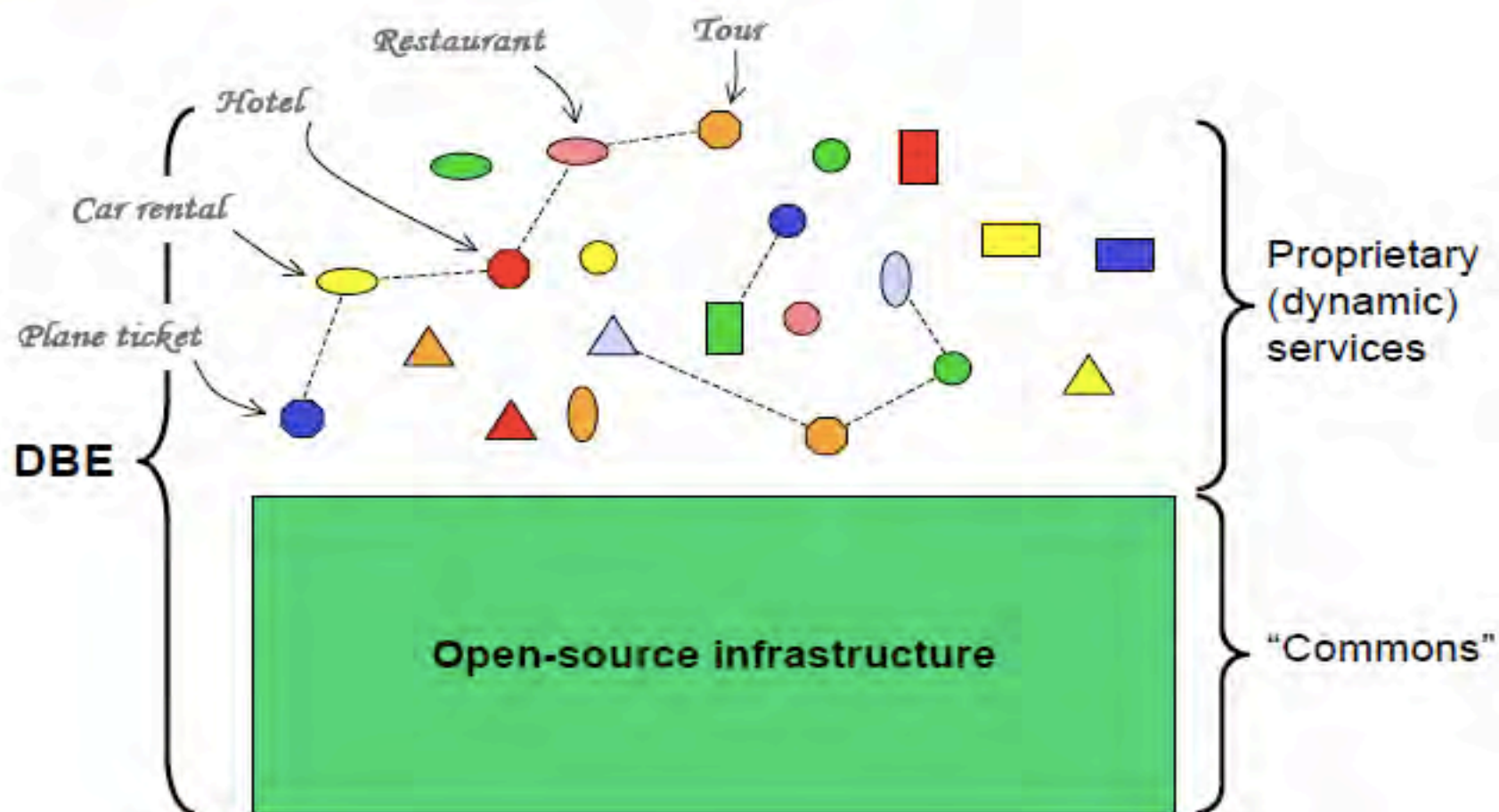
Based on work by Francesco Nachira, EC



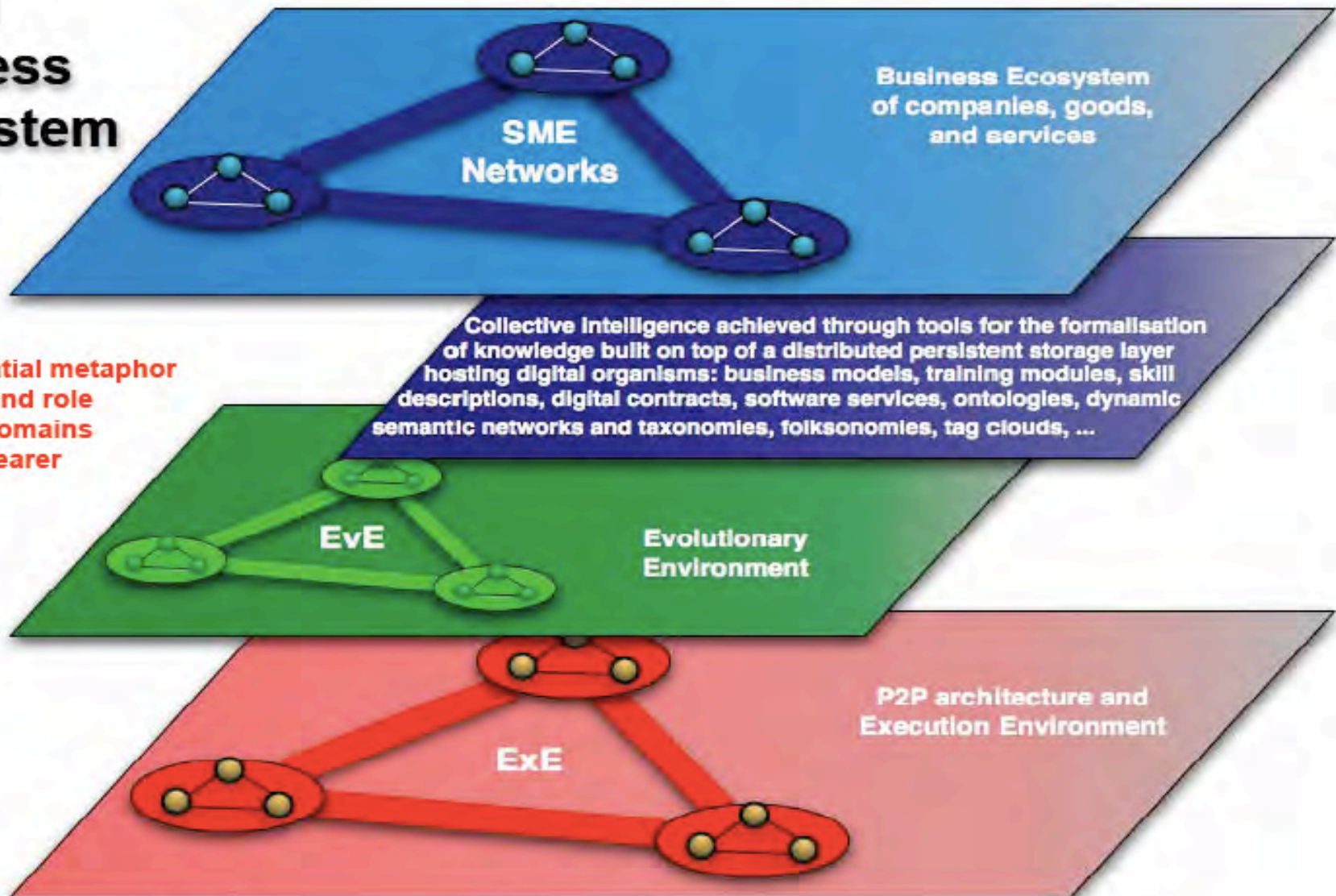
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DBE Vision (2003)

Minimalist view, in fact reductionist.
Just trying to get the basics across



Digital Business Ecosystem (2006)



Effective spatial metaphor emergence and role of multiple domains becoming clearer

Based on work by Thomas Kurz, SUAS



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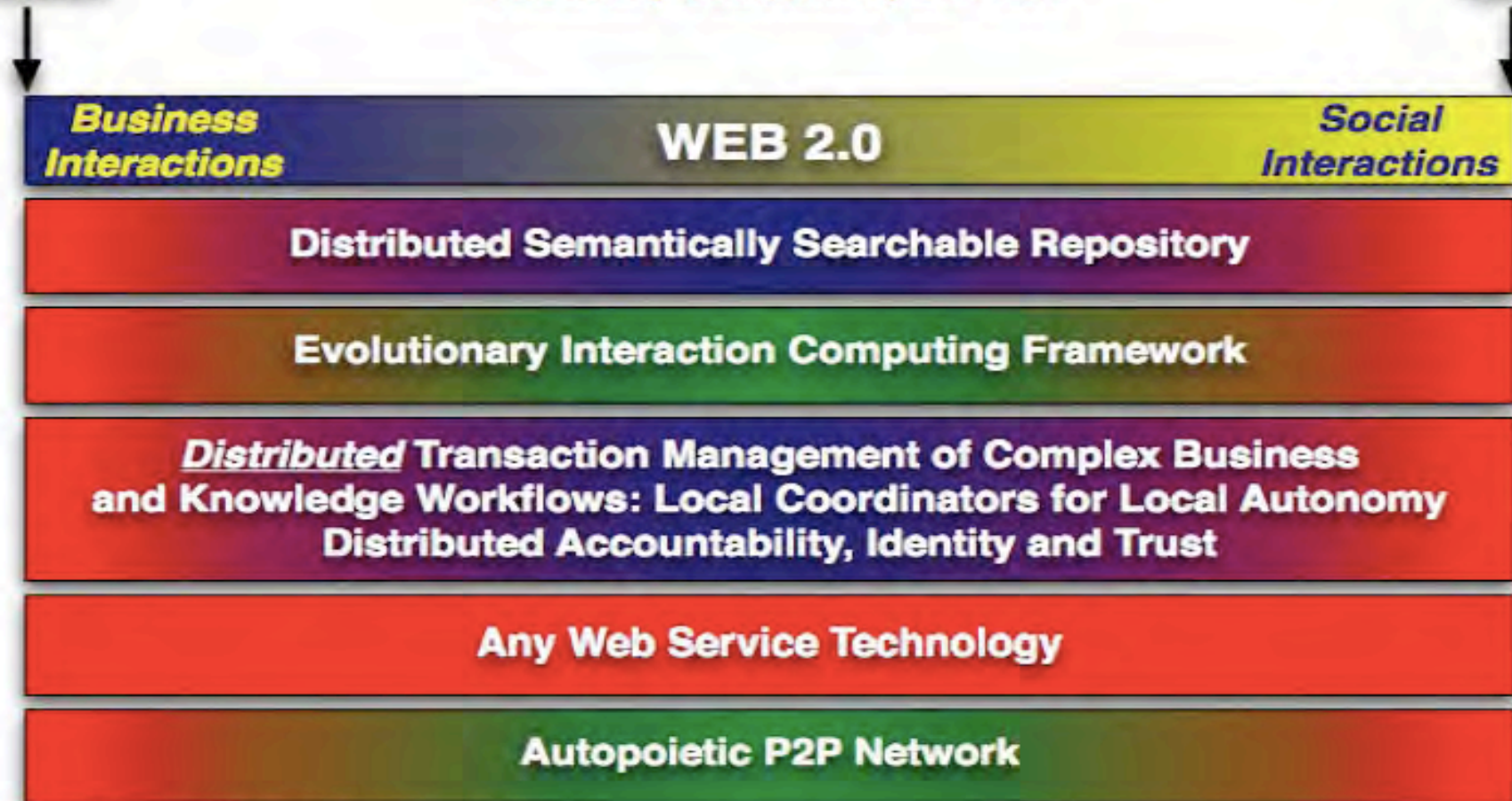
Digital Ecosystems Technology Vision

(2008)

Digital
Business
Ecosystem

Open
Knowledge
Space

Consciously technocentric partial view

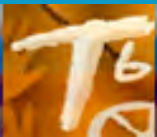
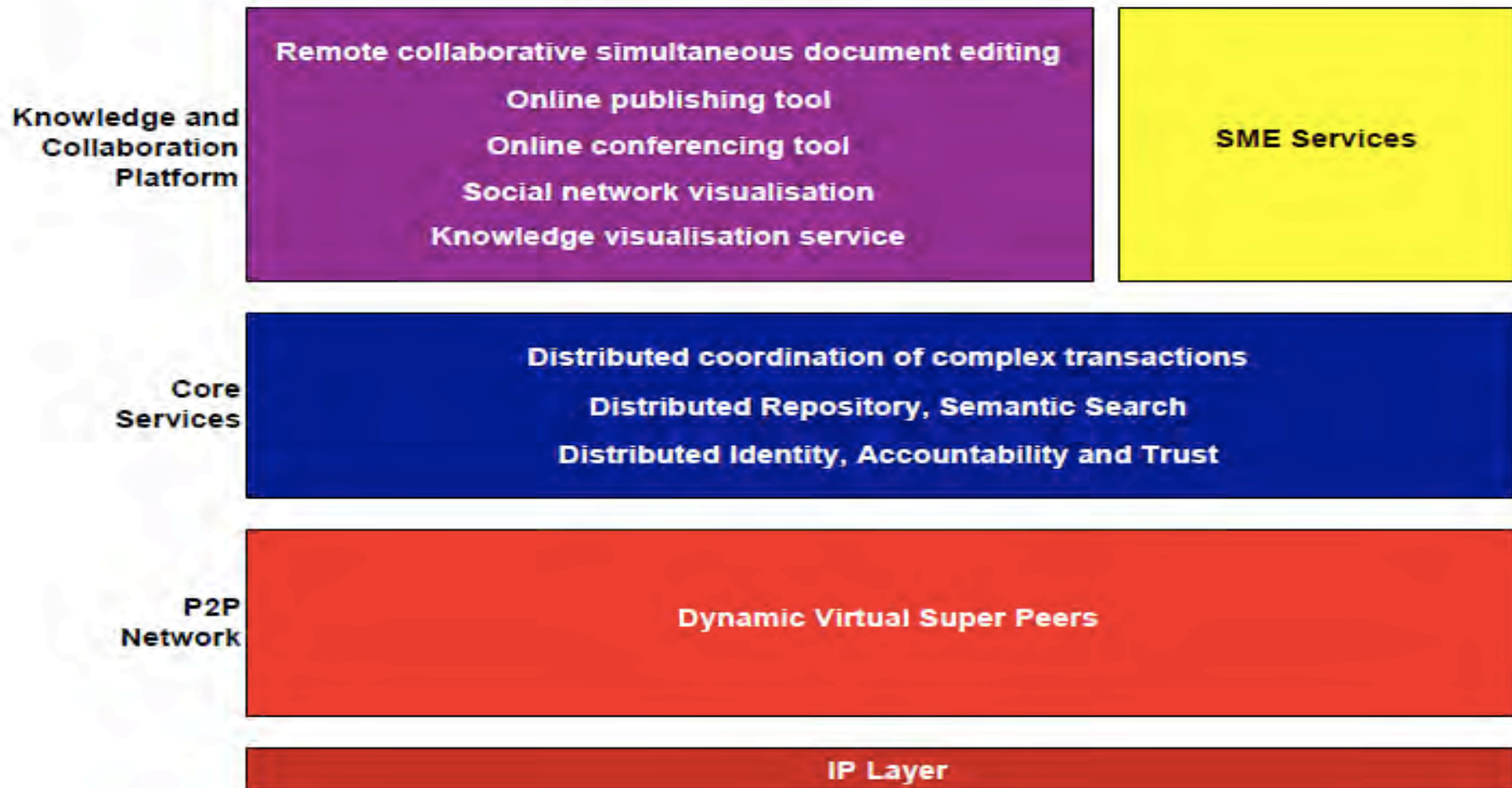


Based on work by Paul Krause, Amir Razavi and Sotiris Moschoyiannis, Surrey

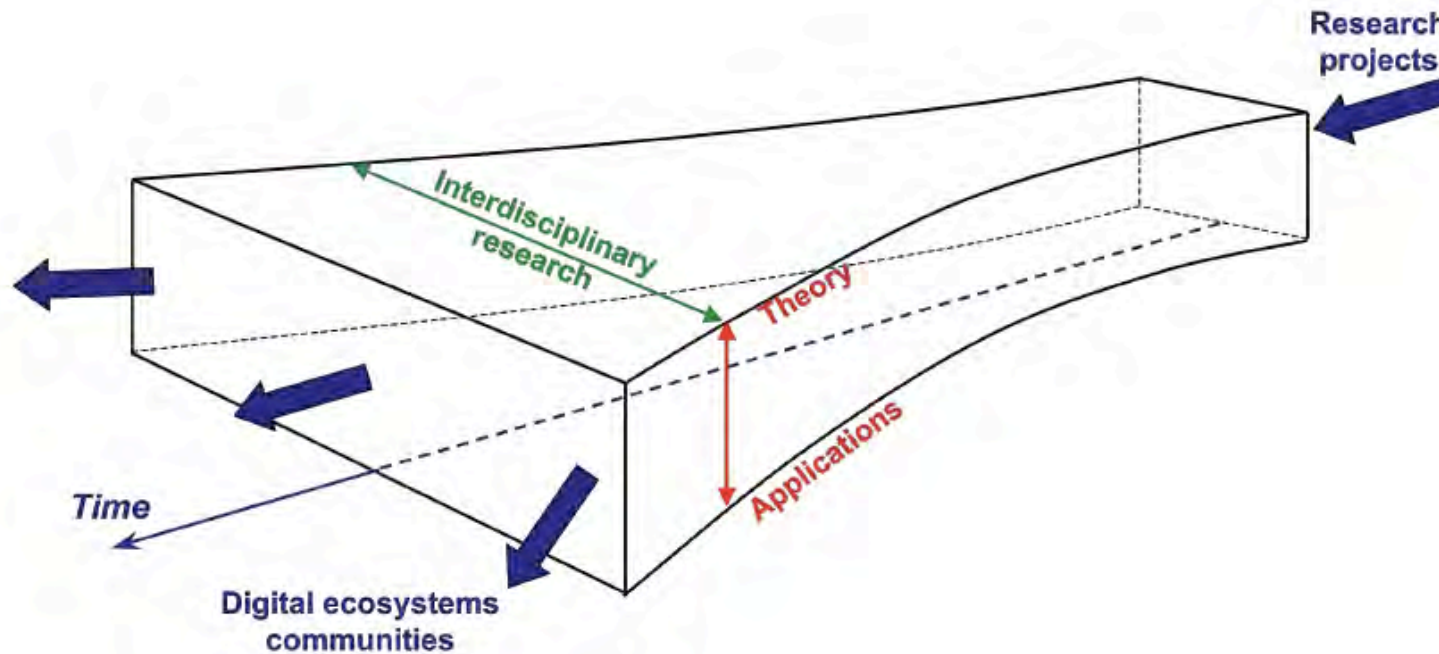


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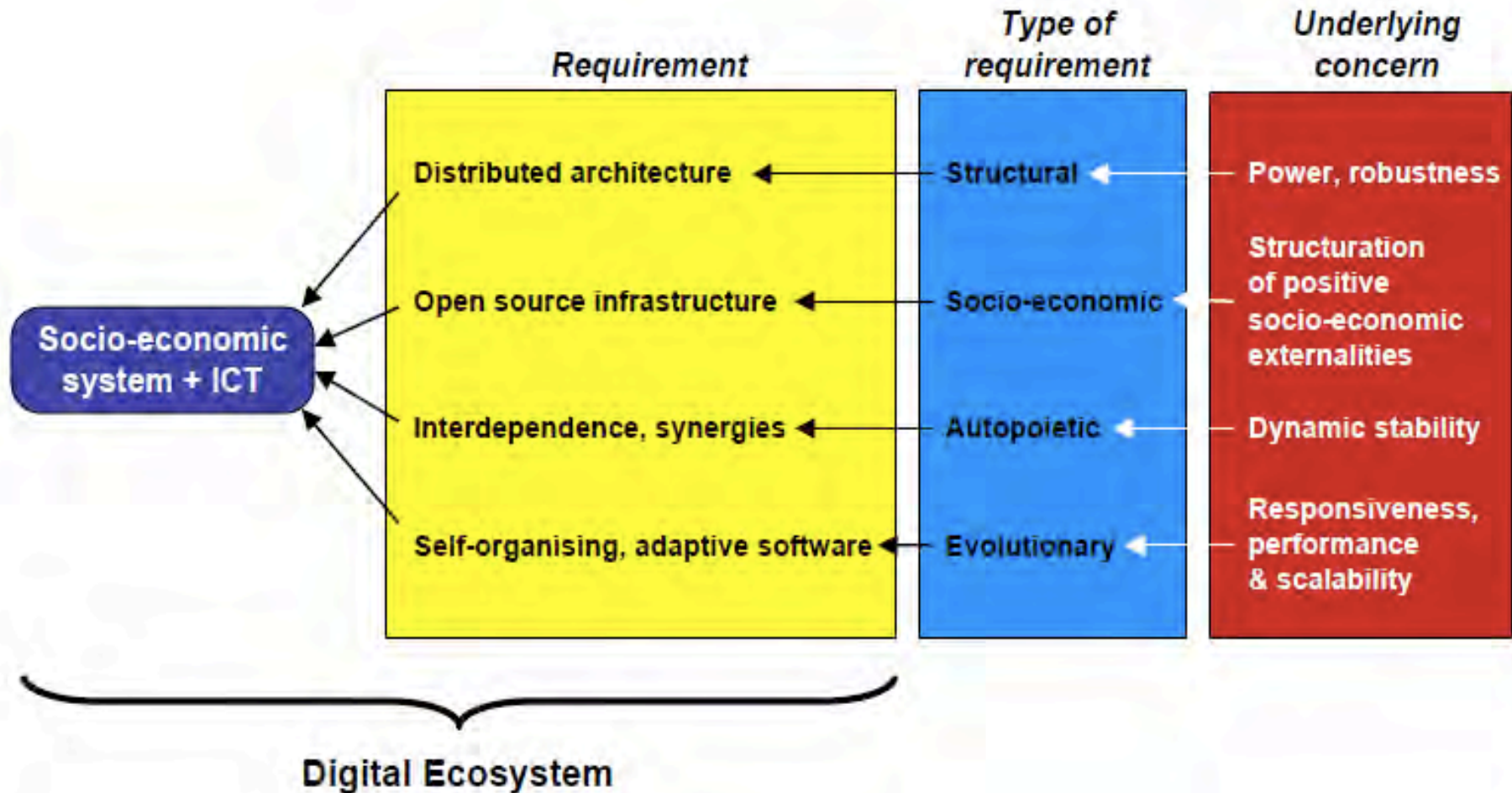
Another simplified view of the DE



Digital Ecosystem Research Process



From socio technical system to DE

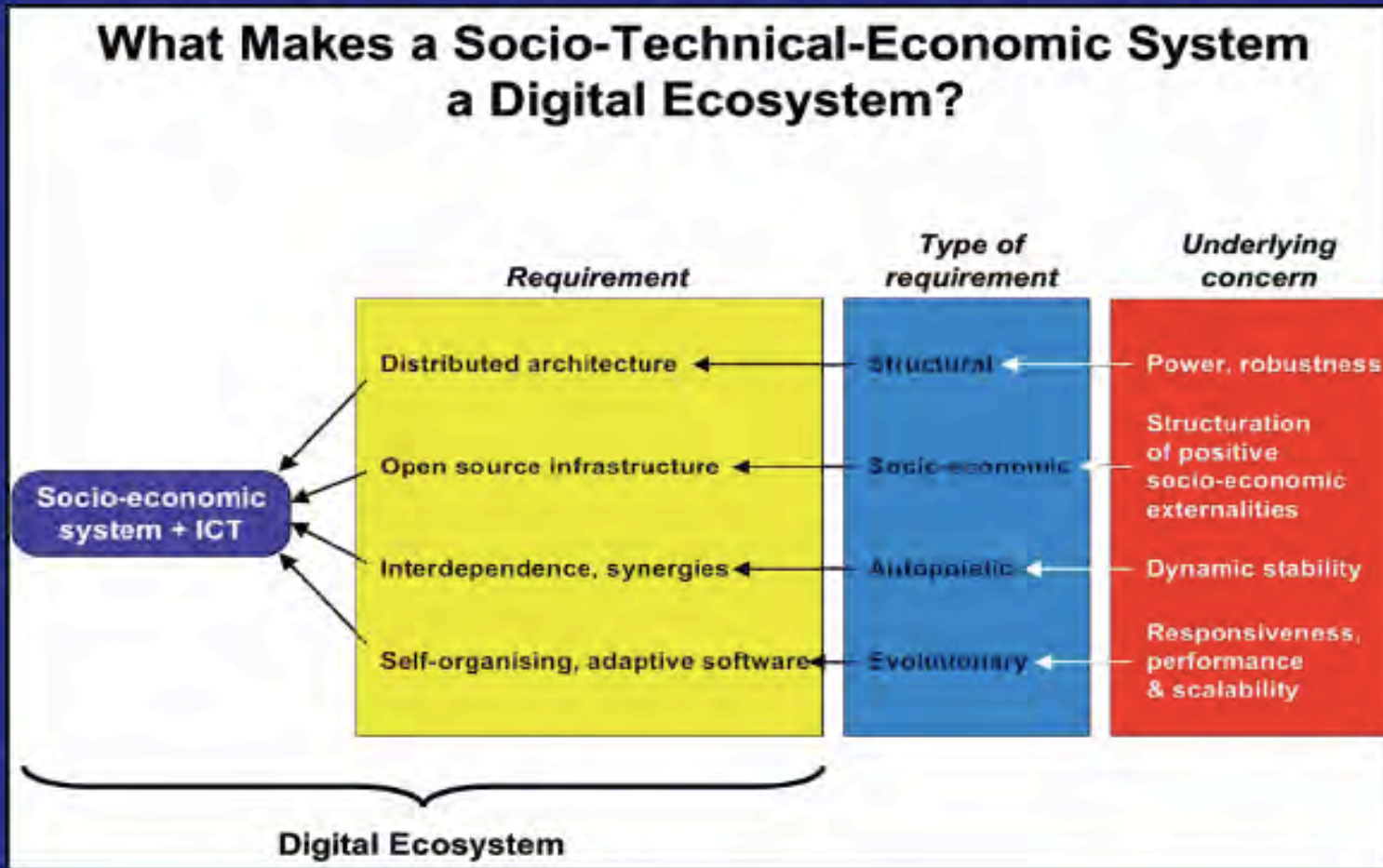


From the model to DE deployment

Language and Knowledge Communities

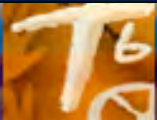
What Makes a Socio-Technical-Economic System a Digital Ecosystem?

Democratic Processes



Multi-Stakeholder Processes

Collaboration



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DE in a nut-shell

Interdisciplinary



Interepistemological



Governance and new economics model

Distributed architecture

Dynamic Evolutionary behavior



Digital Ecosystems



Sustainable development catalysed by ICTs



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**A view of Digital Ecosystem
as an
Open Knowledge Space - OKS**



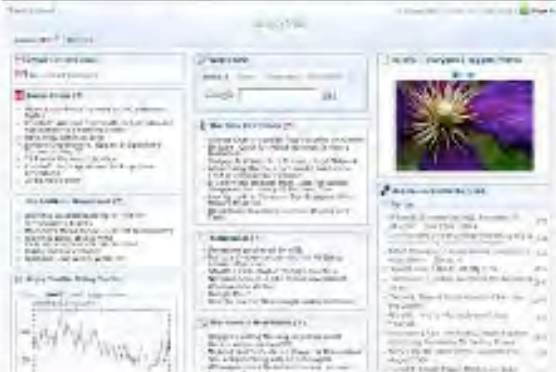
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Open Knowledge Space

OKS GUI (web 2.0 based)

OKS Collaboration Space (modular interface and topic specific)

Unify technologies available to support collaborative research. Including forums, blogs, RSS/Atom feeds, WEB-START web-conferences, IM, etc.



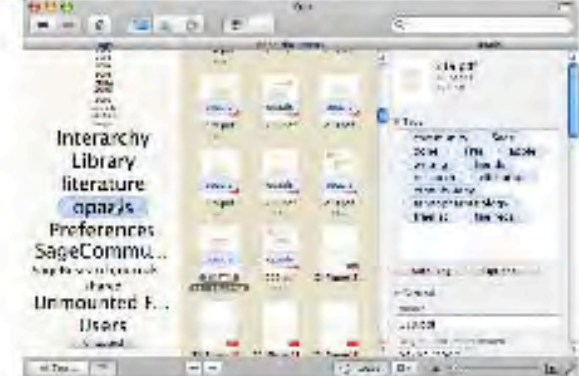
OKS Personal Space (modular interface)

To include news, public personal profile, OKS Collaboration Spaces user is involved with, etc.



OKS Content Manager (OKS Repository viewer)

Pluggable architecture for different views, including an OKS Visualisation. Integrated content viewers (and editors) will provide an effective File manager, Photo Manager, etc.



OKS Back-end (distributed)

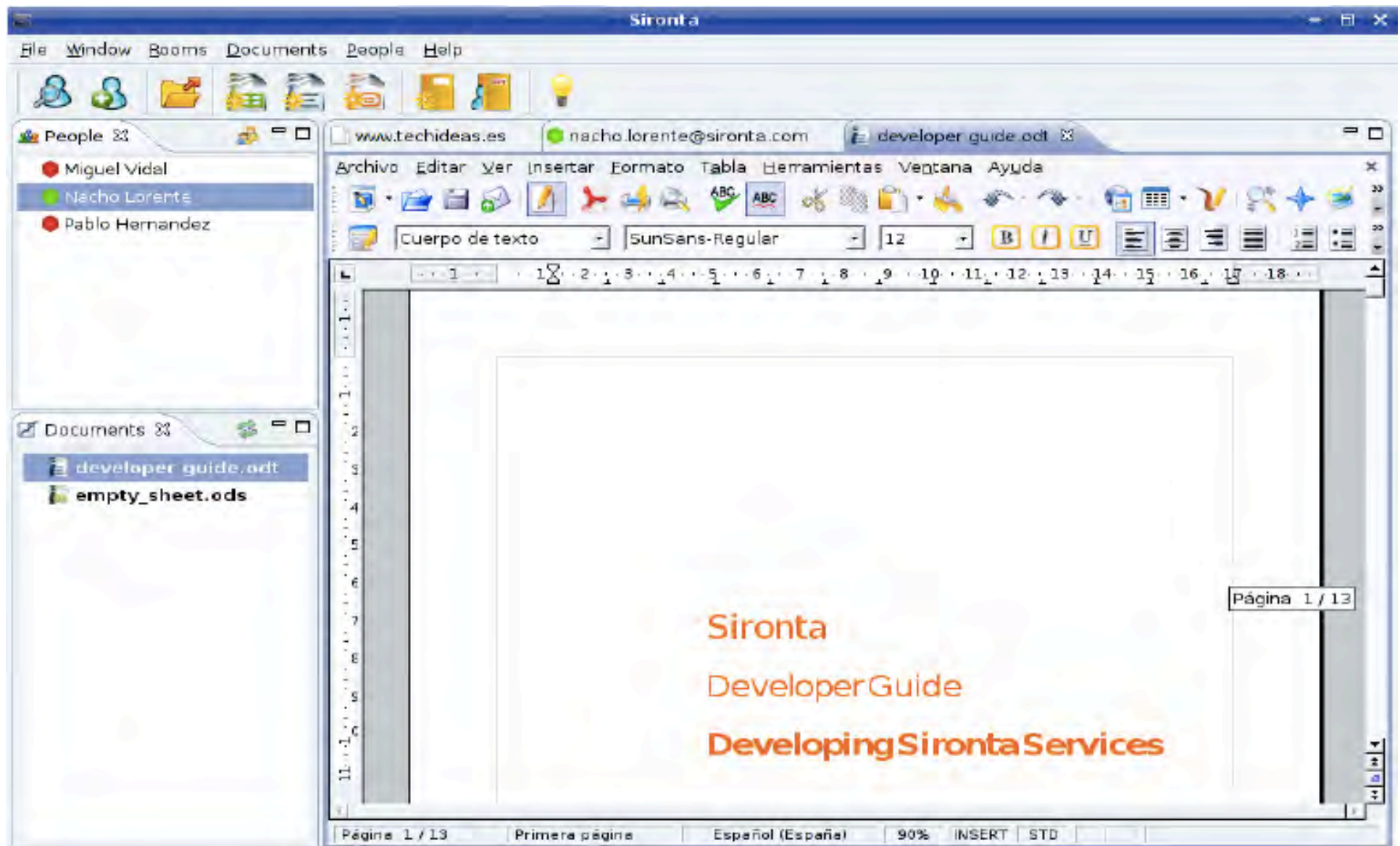
OKS Repository (distributed relational database)

To store content reference (url) or content with tags. Including documents, mailing list archives, blogs, forums, web-pages, RSS feeds, iCalendar feeds, etc.

OKS Auto-Tagging System (folksonomy based)

Auto-tagging techniques, initially simple, progressing to data-mining like techniques and integration with the forthcoming OKS folksonomy.

Sironta



Guigoh

OPAALB 25 682 734 membros cadastrados

sobre este AMBIENTE sobre a ETS

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Silvia Maria Ferreira
Membro desde
04/07/2008

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documentos

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Rede Social [58] ver todos + ampliar rede Renato

Profile picture:

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Guigoh

Rede Social [58] ver todos + ampliar rede Renata 🔍

Grid of Profiles:

- Row 1: Afete Silveira, Marcelo Silva, Maria Luísa, Teresa Borges
- Row 2: Maria Luisa, Teresa Borges, Maria Almeida, Marcelo Silva
- Row 3: João Pedro, Teresa Borges, Maria Almeida, Marcelo Silva

Calendar:

Novembro 2008

DOM	SEG	TER	QUA	QUI	SEX	SAB
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9	10	11	12	13	14	15
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Event Listings:

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Conferências

Conferência - Gestão ip exora atum v dolore faccum in handrectum dolobor
Convidado de - Michele
Participantes - 27
Data - 09/10/2008 - 9hr

Agendas

Adicional compromisso

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Data - 09/10/2008 - 9hr
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T6Eco
Opaals development
DE impact index and Regional deployment strategies



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Multi-stakeholder policy framework for regional economic development through Digital Ecosystems

- The final objective for T6 is to translate the OPAALS research into a **regional policy framework** for DE adoption and local ICT implementation

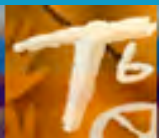
In order to do this we:

- developed a methodology able to measure the **socio-economic impact** of DE adoption
- developed a multi-stakeholders **policy framework** for DE local implementation
- will be able to provide tools and base enabling technologies

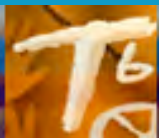
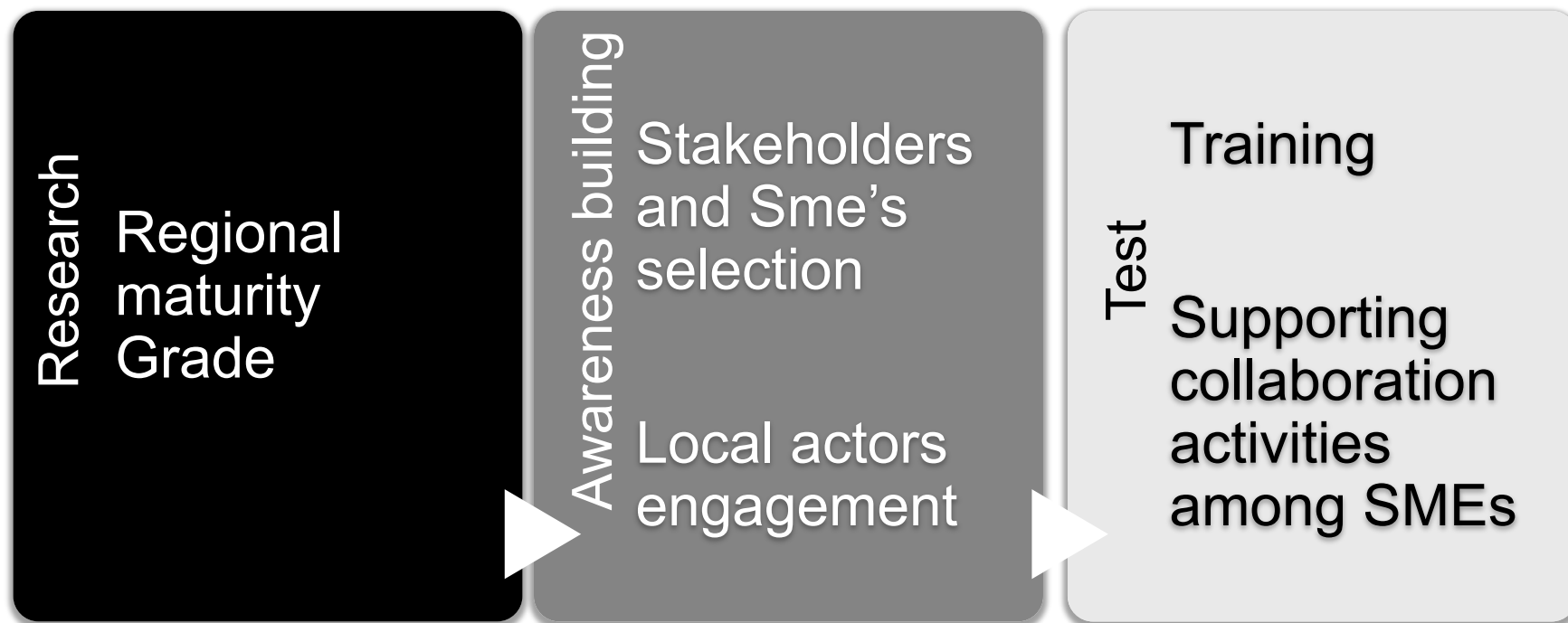


Which regions deploy Digital Ecosystems as a development strategy?

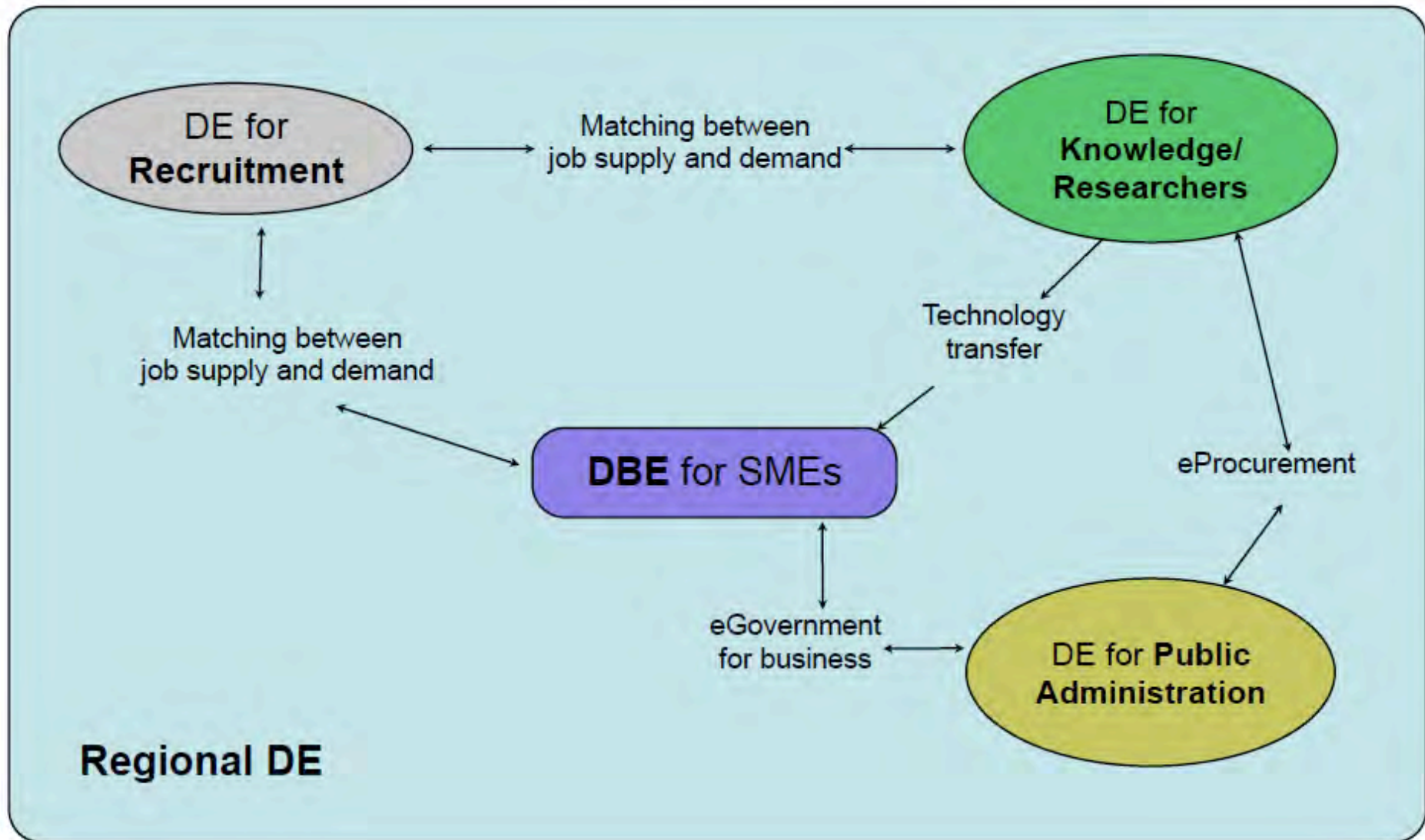
- Interest in developing the business sector at the regional/local level (DBE)
- Business structure dominated by SMEs
- Open diffusion of knowledge within clusters
- Interest in the principle of 'open knowledge'
- Interest and support in *Open Source*
- Good integration of the private sector, academia and the public sector



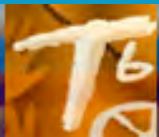
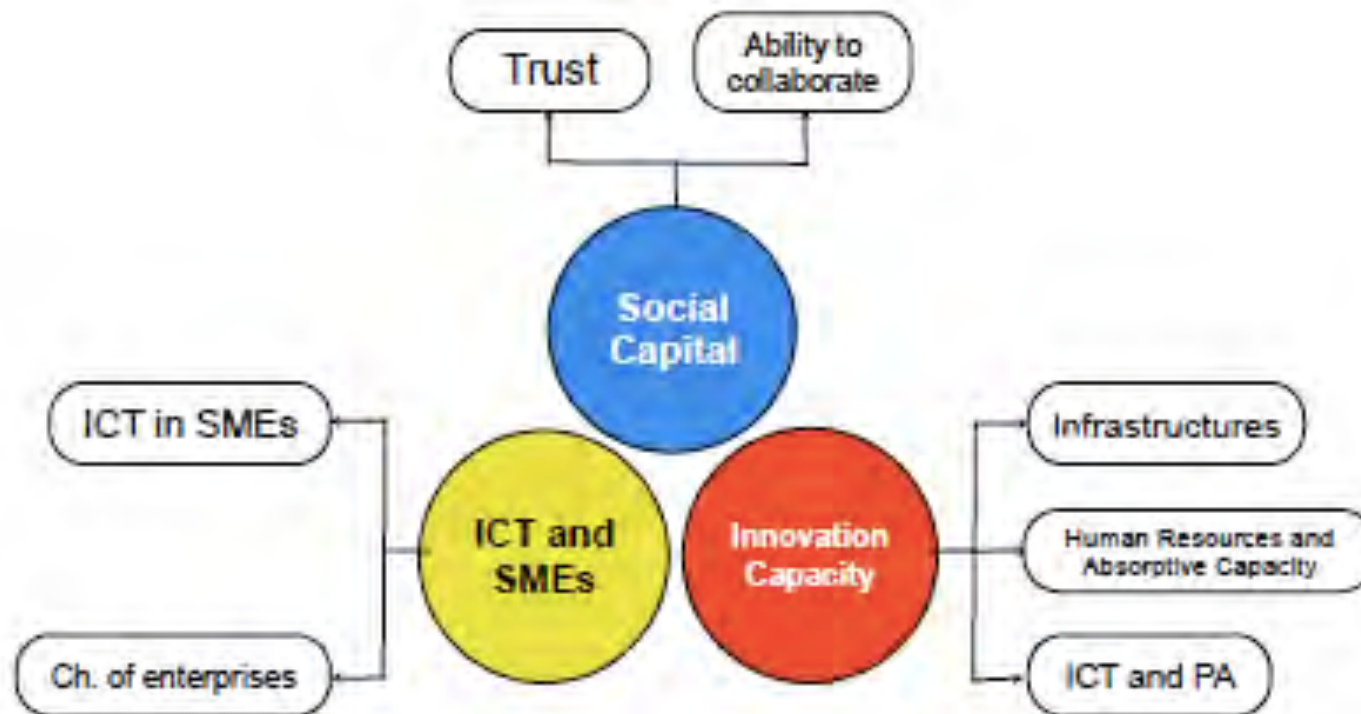
The process



Regional Digital Ecosystem

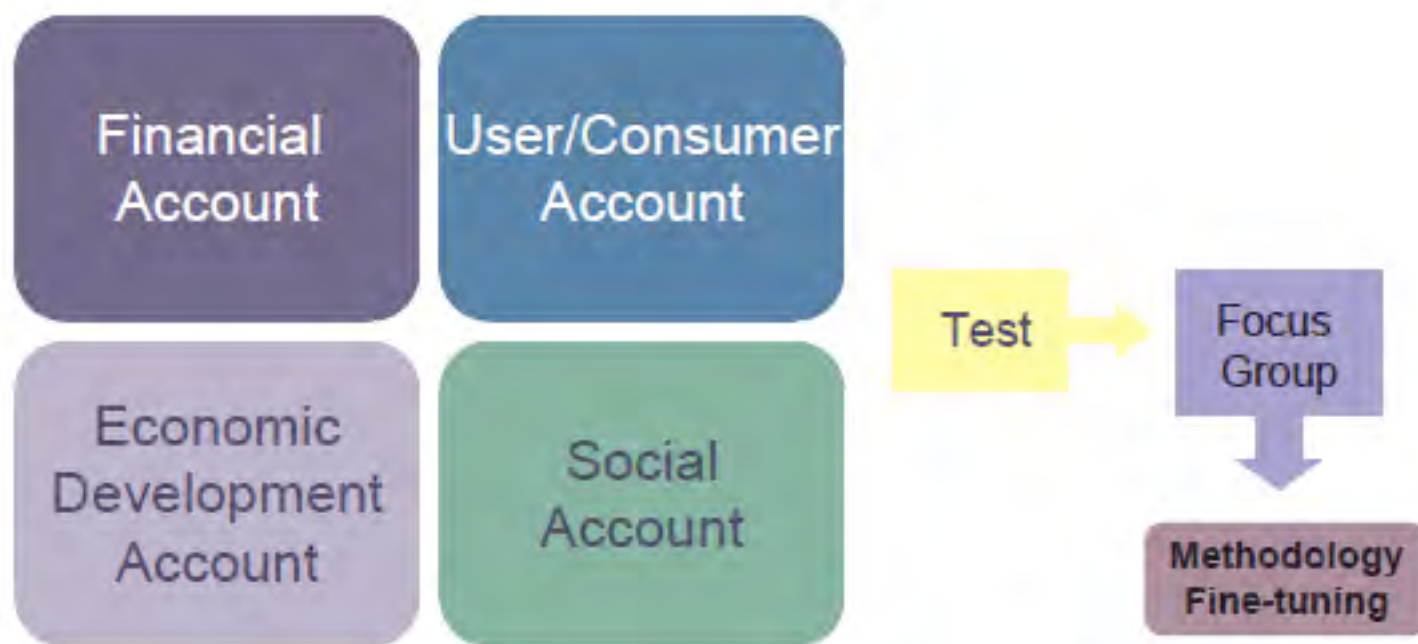


Regional Maturity Grade

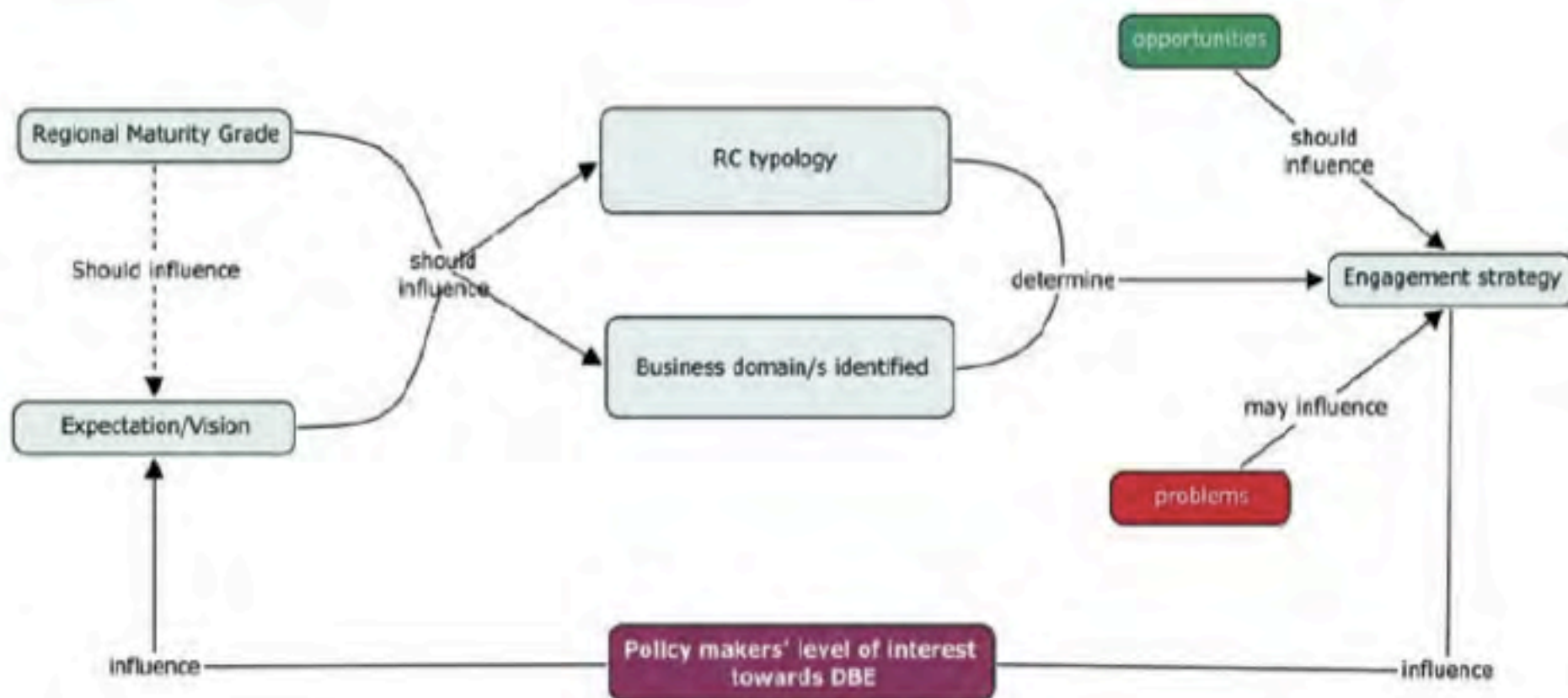


Awareness raising

Interest of policy makers of understanding the net benefits of public investments: opportunity costs of public funding
The Digital Ecosystems Impact Index (DEII)



Variables that affect DEs deployment



DEI and DEs 'use' by policy makers

- **Innovation processes + policy making: complex process, non-linear**
- **A paradox: policies talk about the future, while evidence talks about the past (high level of speculation, different dynamics according to context/regional realities)**
- **Which success elements?**
 - **Continuous dialogue between users (sector of application), policy makers, researchers, IT sector**
 - **Common objectives**
 - **Capacity to collaborate**
 - **Stakeholders: openness to new and innovative ideas**
 - **Flexibility of adaptation and evolution**
 - **Identify 'friends' of the project**
 - **Leadership of Regional Catalyst**
 - **Persistence**
 - **Understanding the dynamics and regional needs**



</thank you>

More information

www.opaals.org

www.digital-ecosystems.org

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www.t-6.it



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