

ECOLEAD

EXPLORING COLLABORATIVE NETWORKED ORGANISATIONS IN ECOLEAD

Mitja Jermol
based on Luis M. Camarinha-Matos



OUTLINE OF THE TALK

- **Aim – Philosophy**
- **Context**
- **Why ECOLEAD?**
 - Aim
 - Goal
 - Key results
 - Structure, partnership,
- **Progress and results**
- **Critical assessment**



VISION AND STRATEGIC GOAL

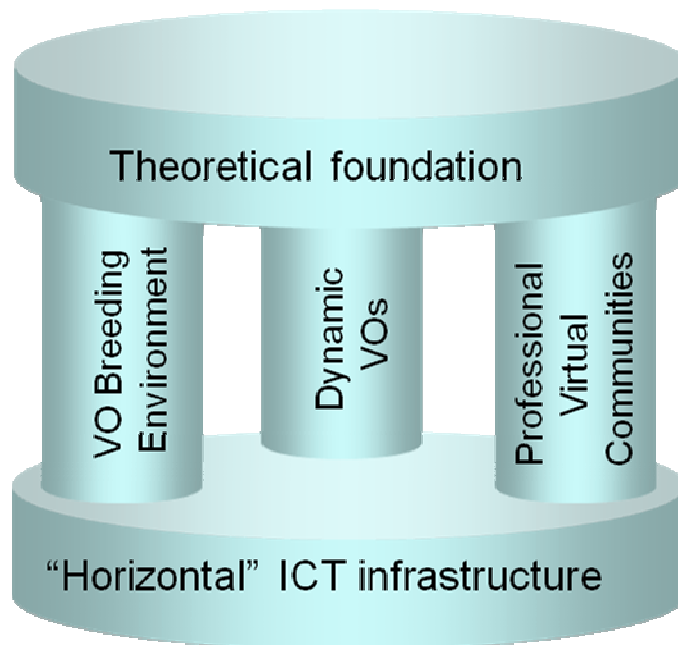
In ten years, in response to fast changing market conditions, most enterprises and specially SMEs will be part of some sustainable collaborative networks that will act as breeding environments for the formation of dynamic virtual organizations.

ECOLEAD aims at creating the necessary strong **foundations** and **mechanisms** for establishing the most advanced collaborative and network-based industry society in Europe.

European Collaborative networked
Organisations Leadership Initiative

HOLISTIC APPROACH

Preventing the limitations of fragmented research ...



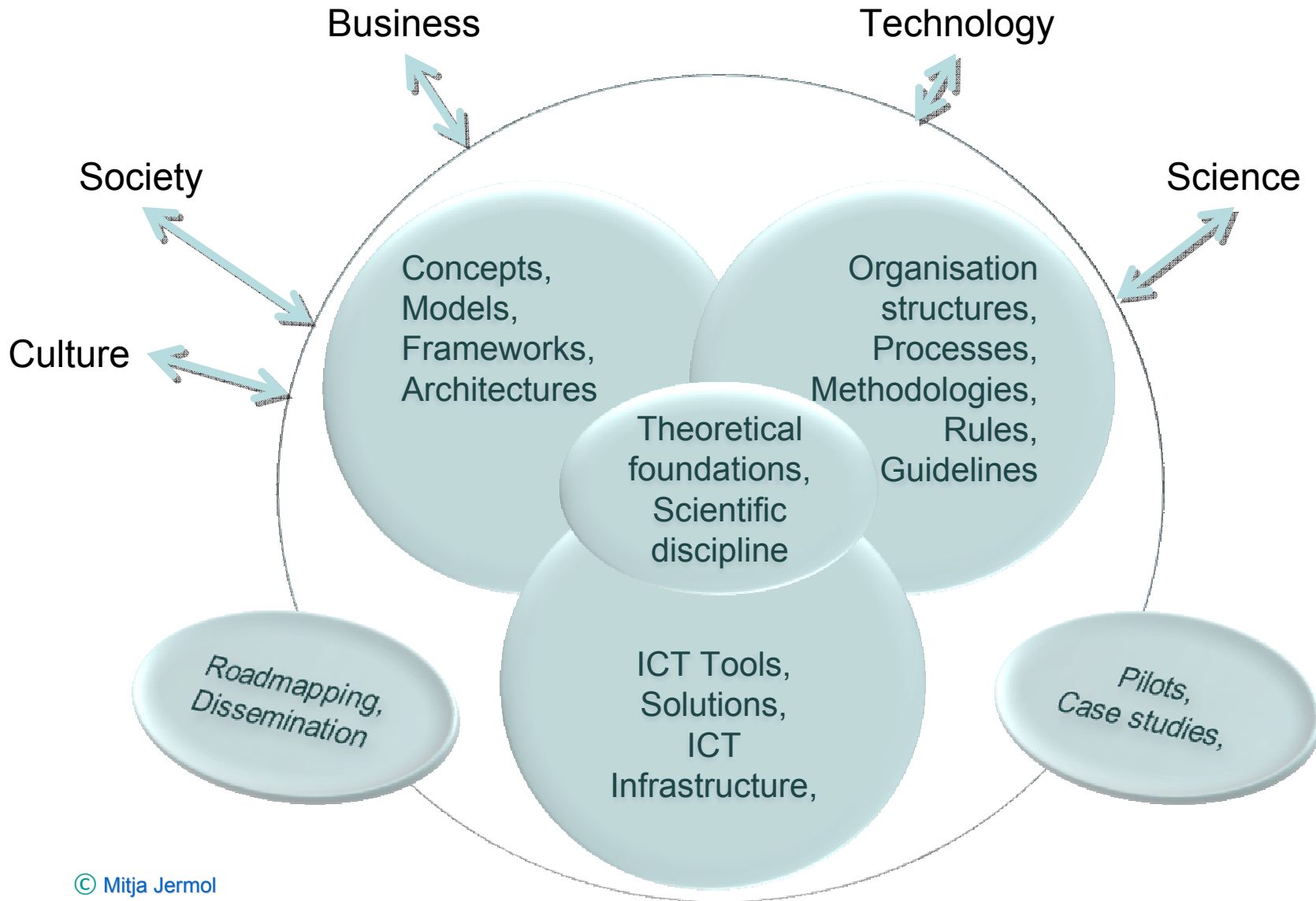
A holistic approach combining:

- *Breeding environments*
- *Management of (dynamic) VOs*
- *Professional Virtual Communities*
- *Horizontal Infrastructures for collaboration*
- *Theoretical foundation*

towards the establishment of collaborative networks as a
new scientific discipline

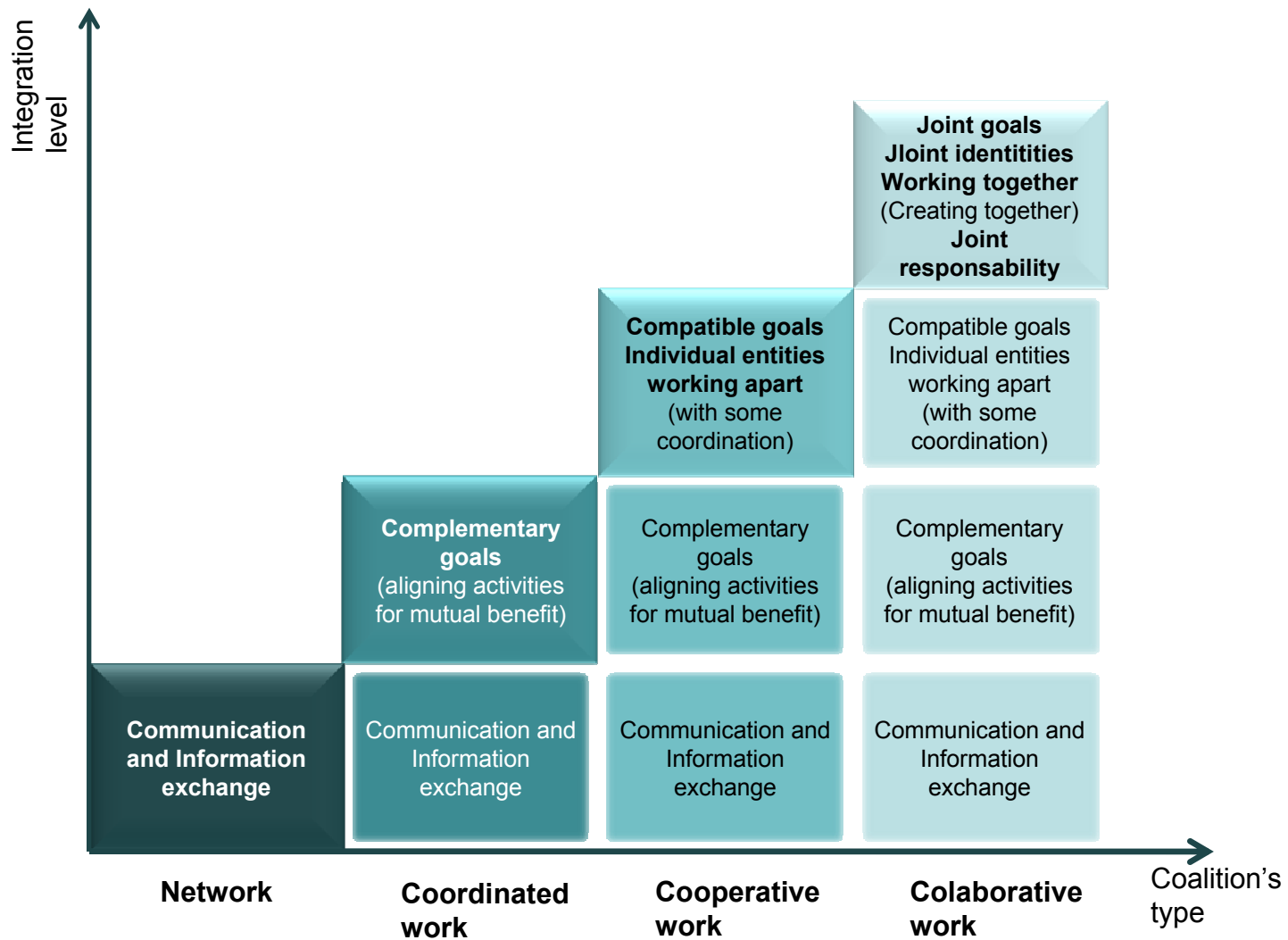


HOLISTIC APPROACH



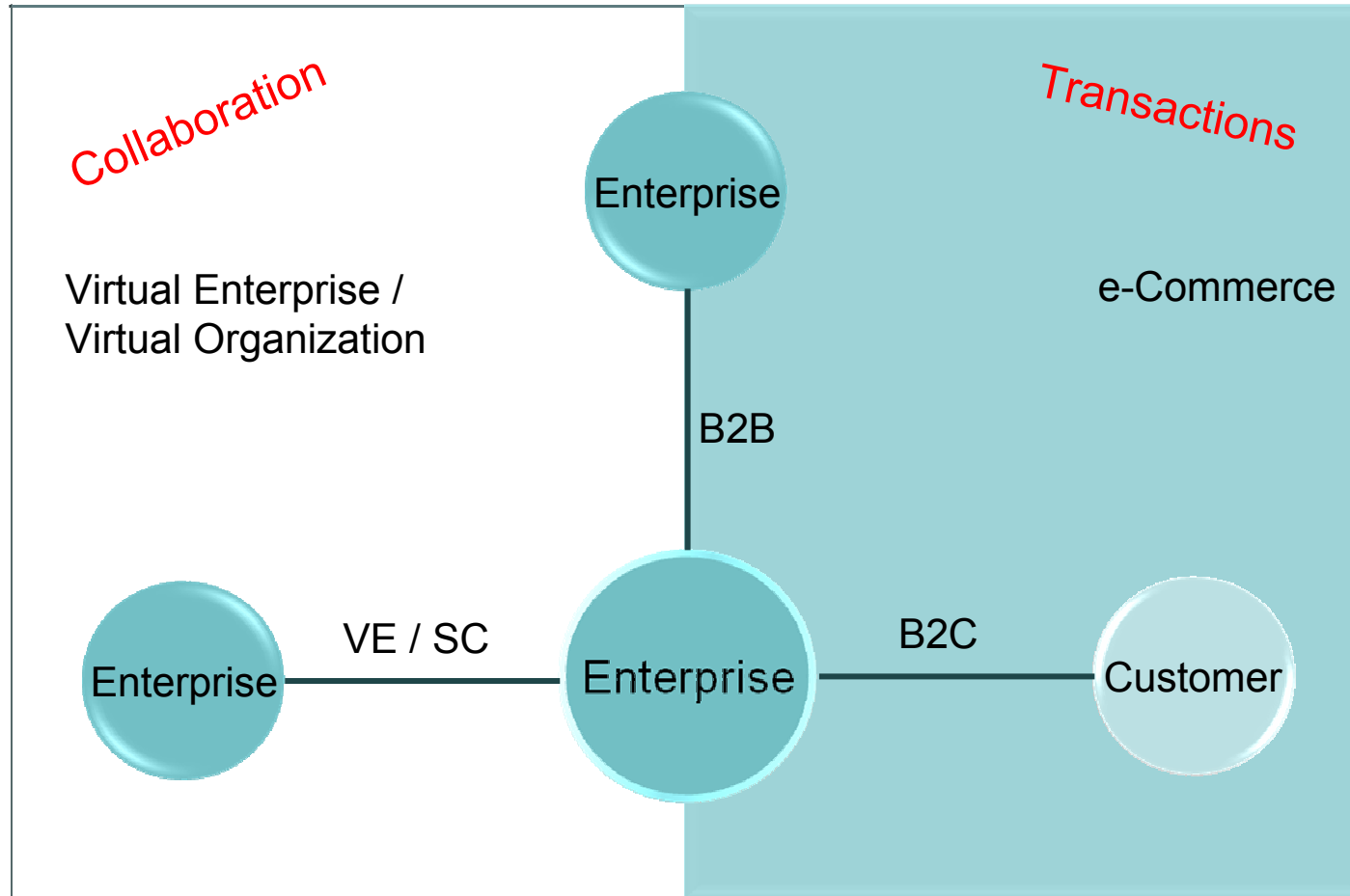


NOTION OF COLLABORATION





COLLABORATION VS TRANSACTIONS





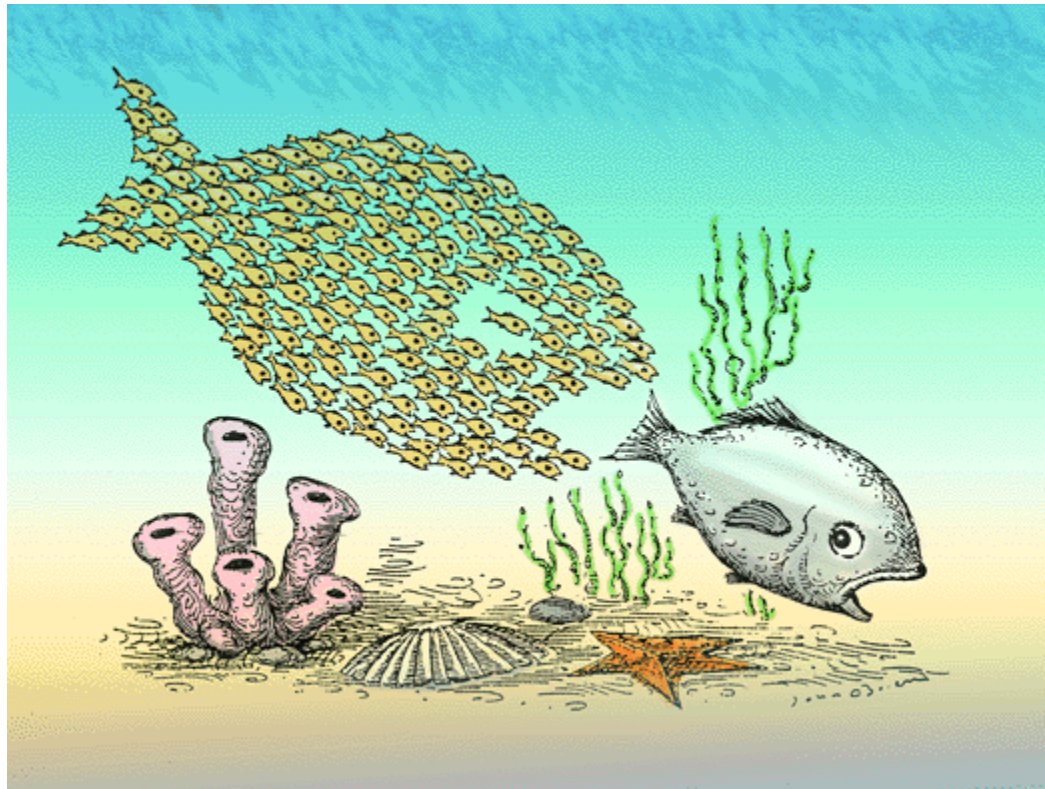
COLLABORATION

- **Network intelligence**
 - from Egoism to Altruism
 - from Self to Group
 - from Taking to Sharing

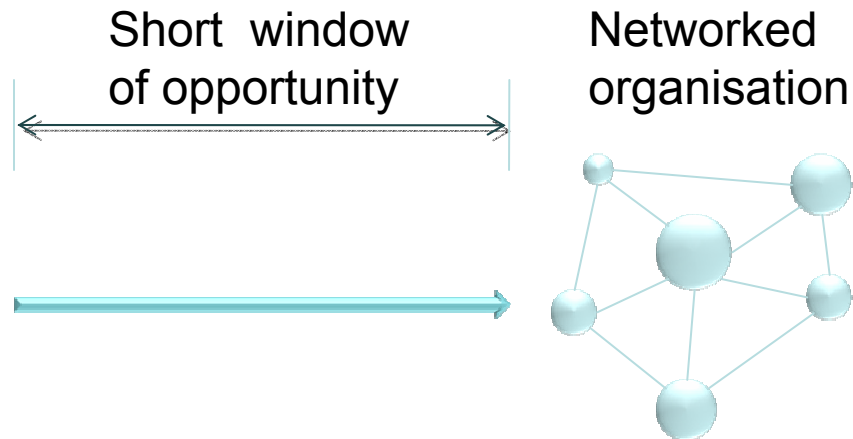


Is the society ready for collaboration?

COLLABORATION



FOCUSING

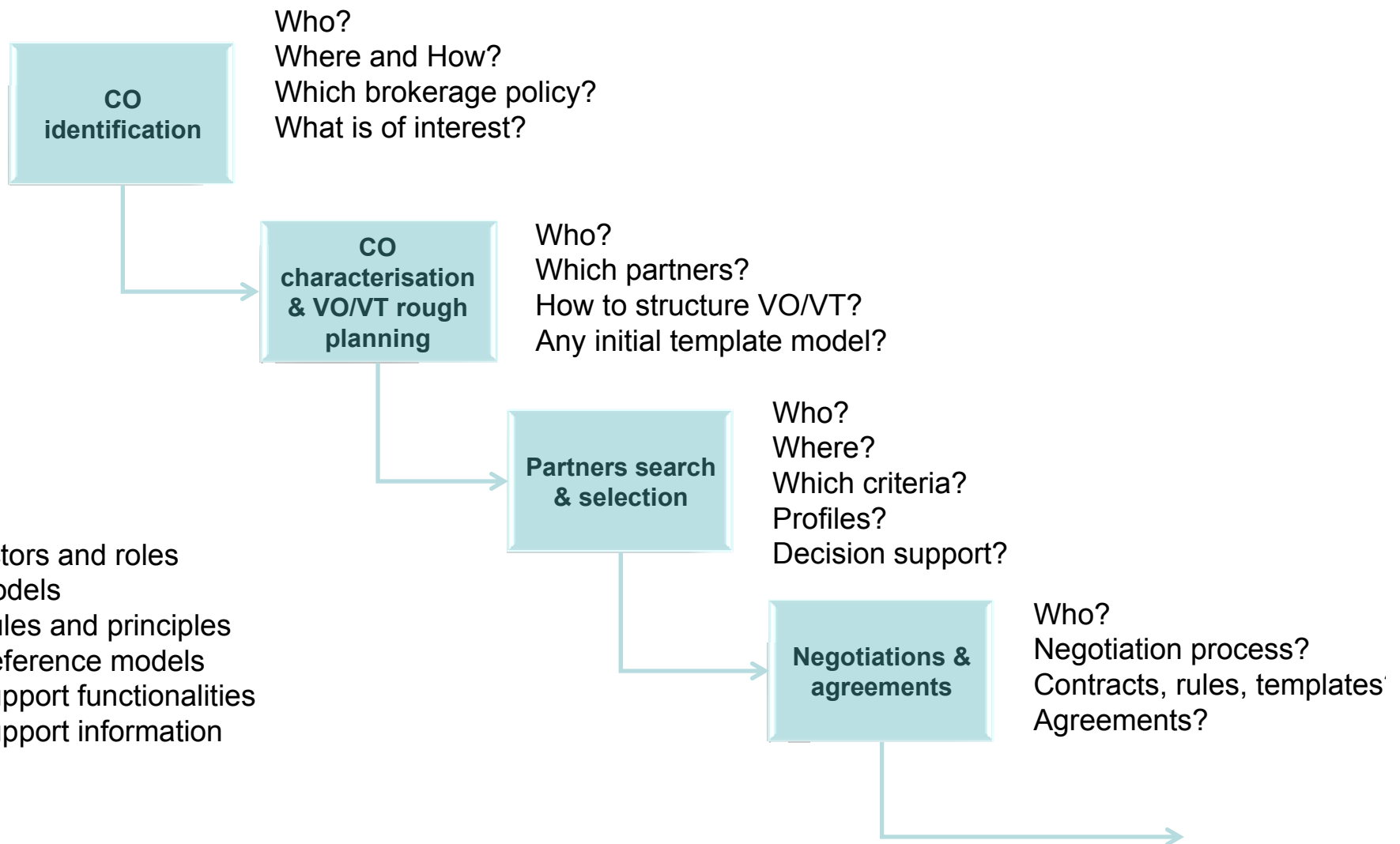


Fast configuration of a temporary consortium well suited to the market needs

Successful & Effective collaboration

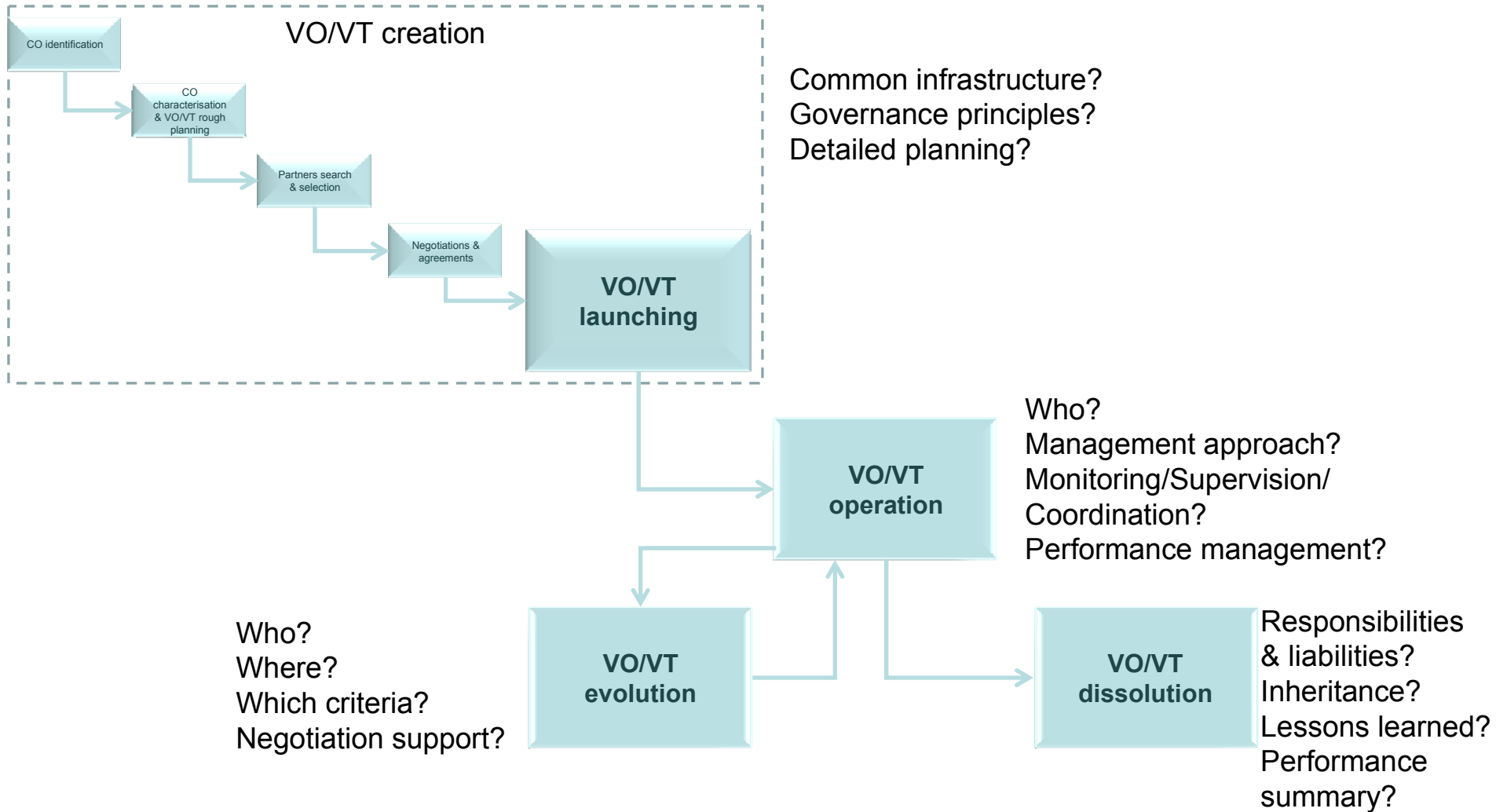


FROM CO TO SUCCESSFUL COLLABORATION



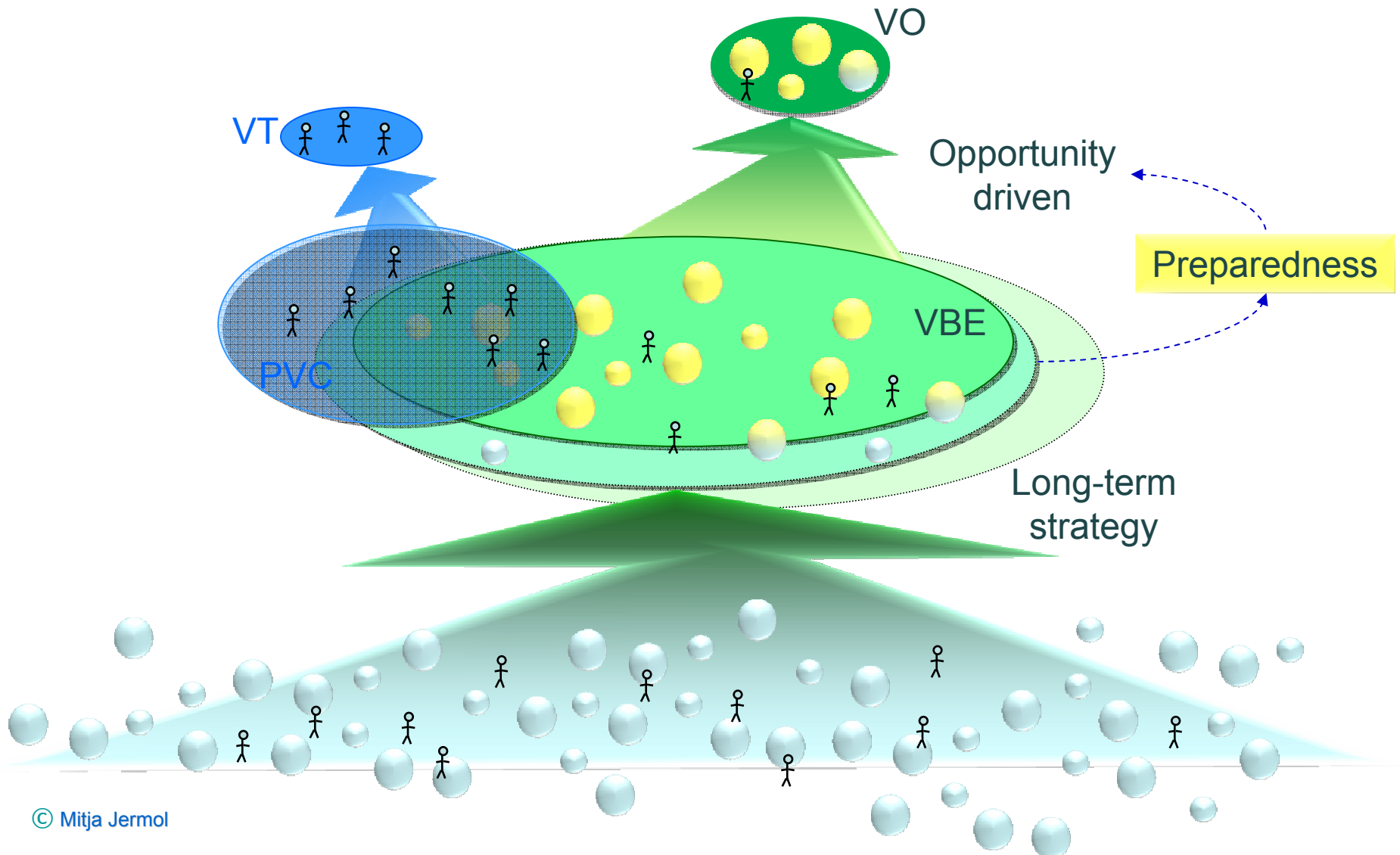


FROM CO TO SUCCESSFUL COLLABORATION II





ECOLEAD FOCUS AREAS

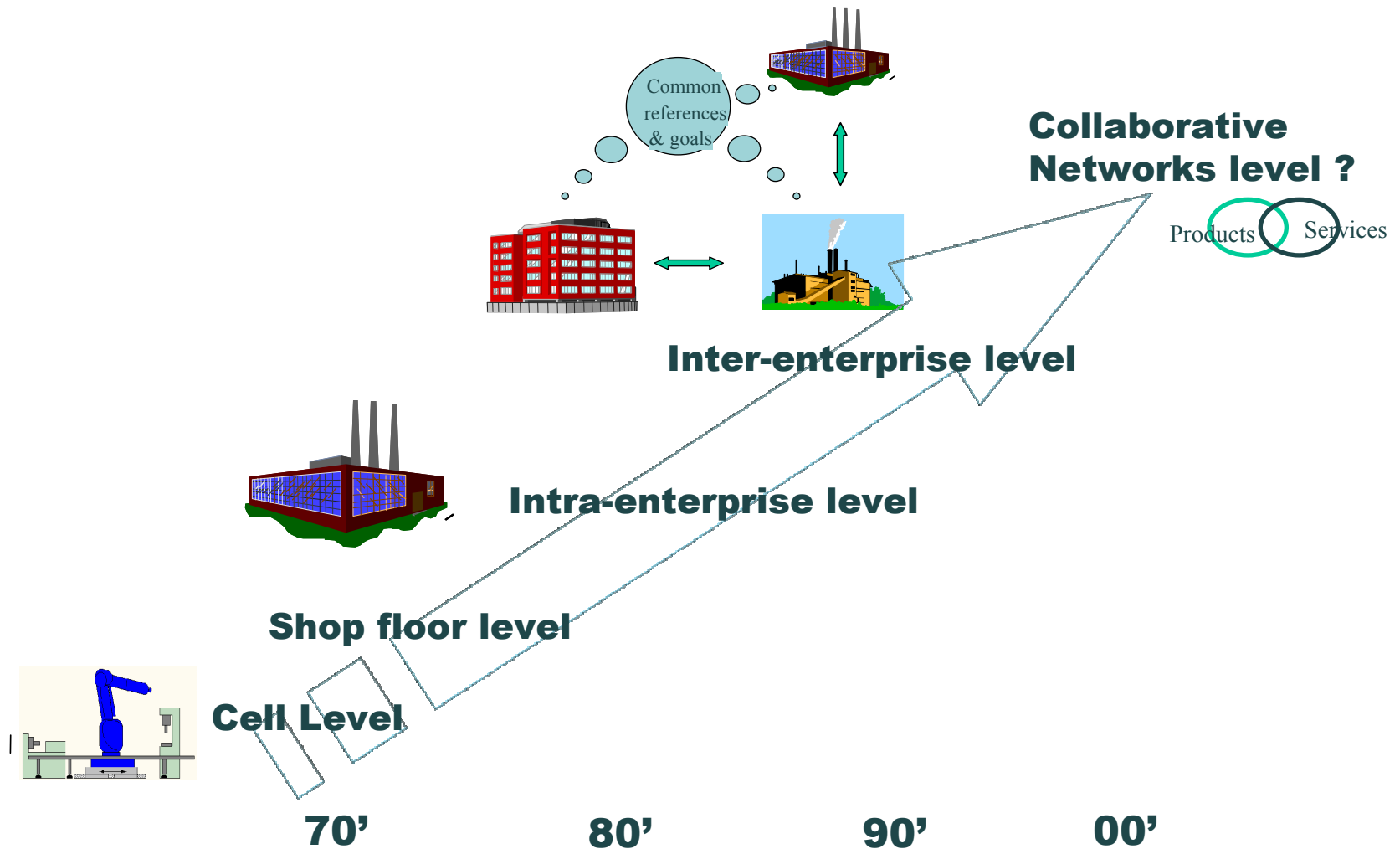




ECOLEAD FOCUS AREAS II

- **VBE**
 - Intended to increase the level of **preparedness** of organizations to participate in (dynamic) Vos
- **VOM**
 - Support (dynamic) VOs through their **life cycle**
- **PVC**
 - Putting the focus on **human collaboration** and corresponding value creation
- **TF**
 - The theoretical foundation shall provide the **basis for** technology-independent **understanding** of the area and its phenomena.
- **ICT-I**
 - The existence of an invisible, low-cost ICT infrastructure is **a** pre-condition for the establishment of truly dynamic collaborative networks.

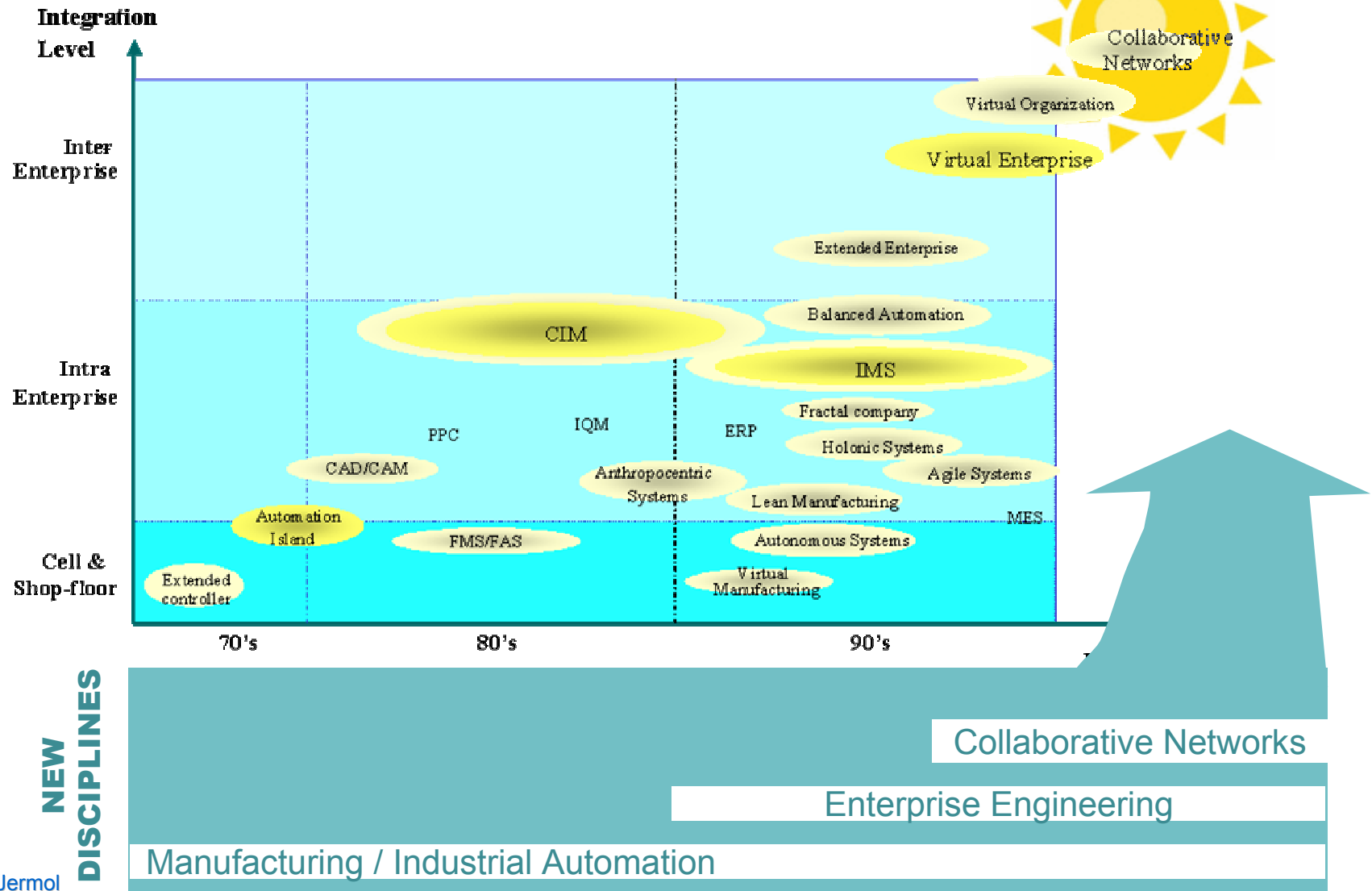
INDUSTRY CONCEPTS CONTEXT





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HISTORIC CONTEXT



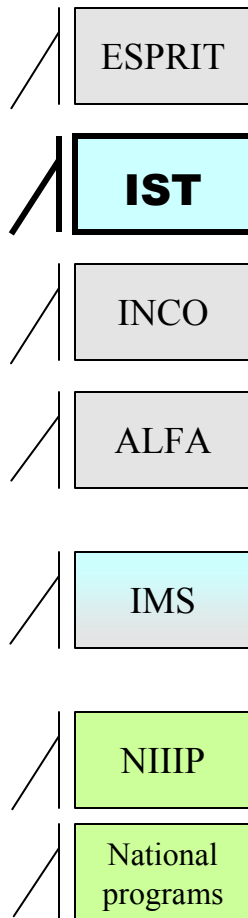


RESEARCH CONTEXT





A LARGE "HISTORY" OF VE/VO PROJECTS



VE (Past)

CE-NET
 CHAMAN
 COBIP
 COVE
 COWORK
 DELPHI
 ELSEwise
 EVENT
 FREE
 GLOBEMAN 21
 ICAS
 LogSME
 MARVEL OUS
 MASSYVE
 PLENT
 PRODNET II
 SCM+
 SPARS
 VEGA
 VENTO
 VIRTEC
 X-CITTIC
 ...

Virtual Organizations

BIDSAVER
 Business Architect
 ECAMP
 JASMINE
 STARFISH
 eLEGAL
 VIVA
 SOSS
 E-ARBITRATION-T
 ENTER
 AESOP
 B-MAN
 MARKET MAKER
 OBELIX
 PLEXUS
 GLOBEMEN

Accompanying Measures

THINKcreative
 VOSTER
 CE-NET II
 ALIVE
 VOSTER
 UEML
 VOmap

Collaboration

EXTERNAL
 ECOLNET
 E-COLLEG
 DYCONET
 WHALES
 SCOOP
 LENSIS
 LINK3D

Supply Chain Management

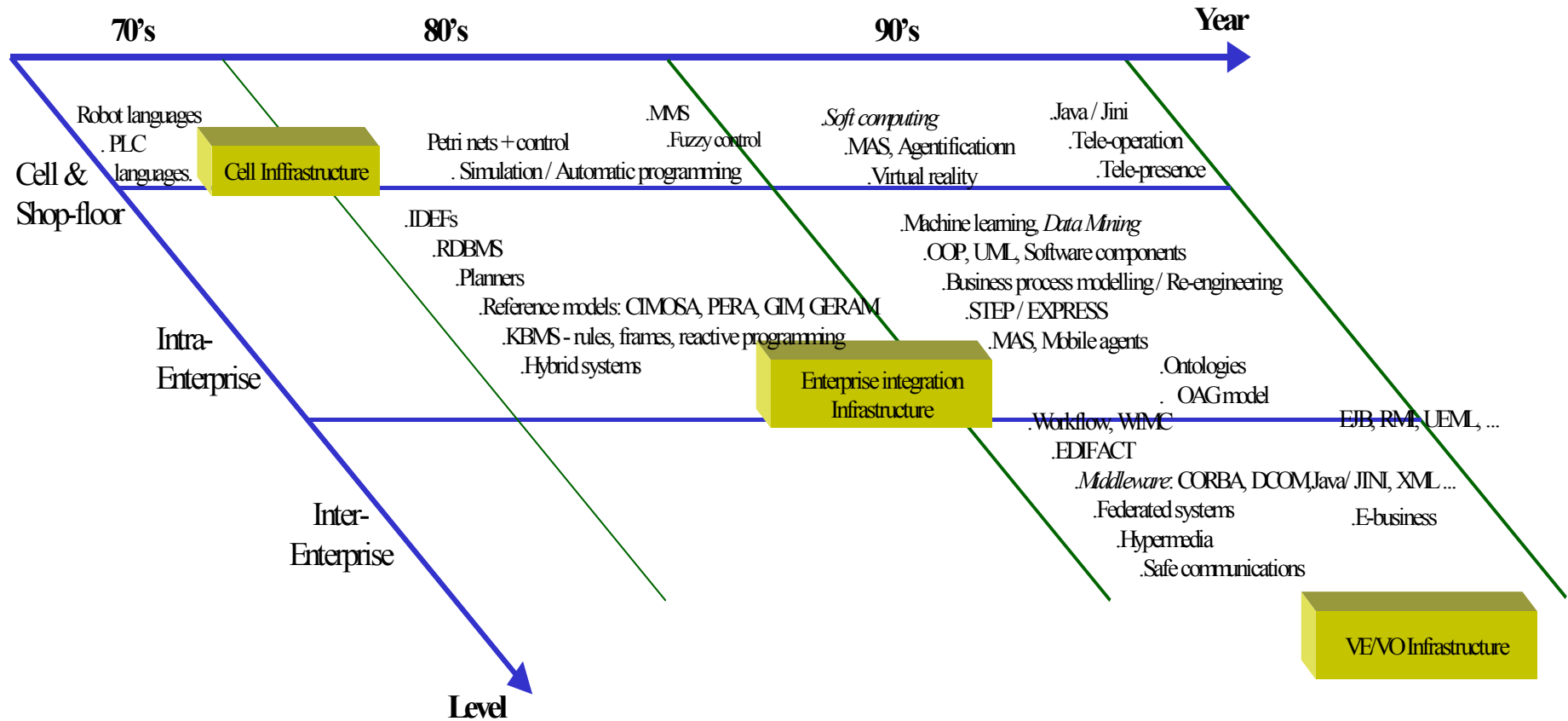
ADRENALIN
 APM
 CHAINFEED
 DAMASCOS
 CO-OPERATE
 SMARTISAN

Others

SMART
 SMARTCAST
 PATTERNS
 SOL-EU-NET
 DISRUPT IT
 ... & more
 TeleCARE
 FETISH-ETF
 ...

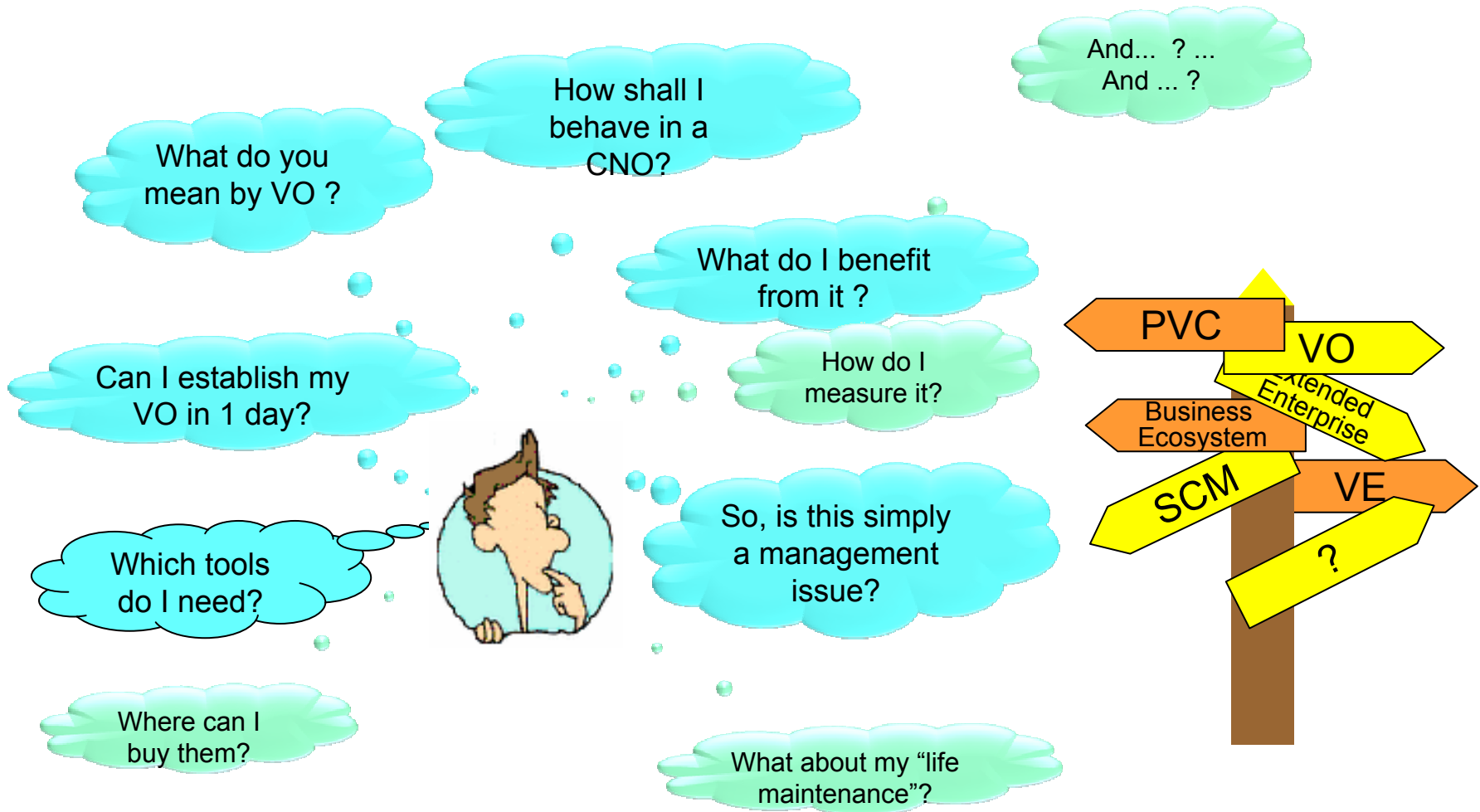


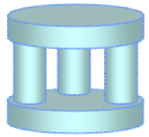
TECHNOLOGICAL CONTEXT



Widening scope ... Multiplication of tools

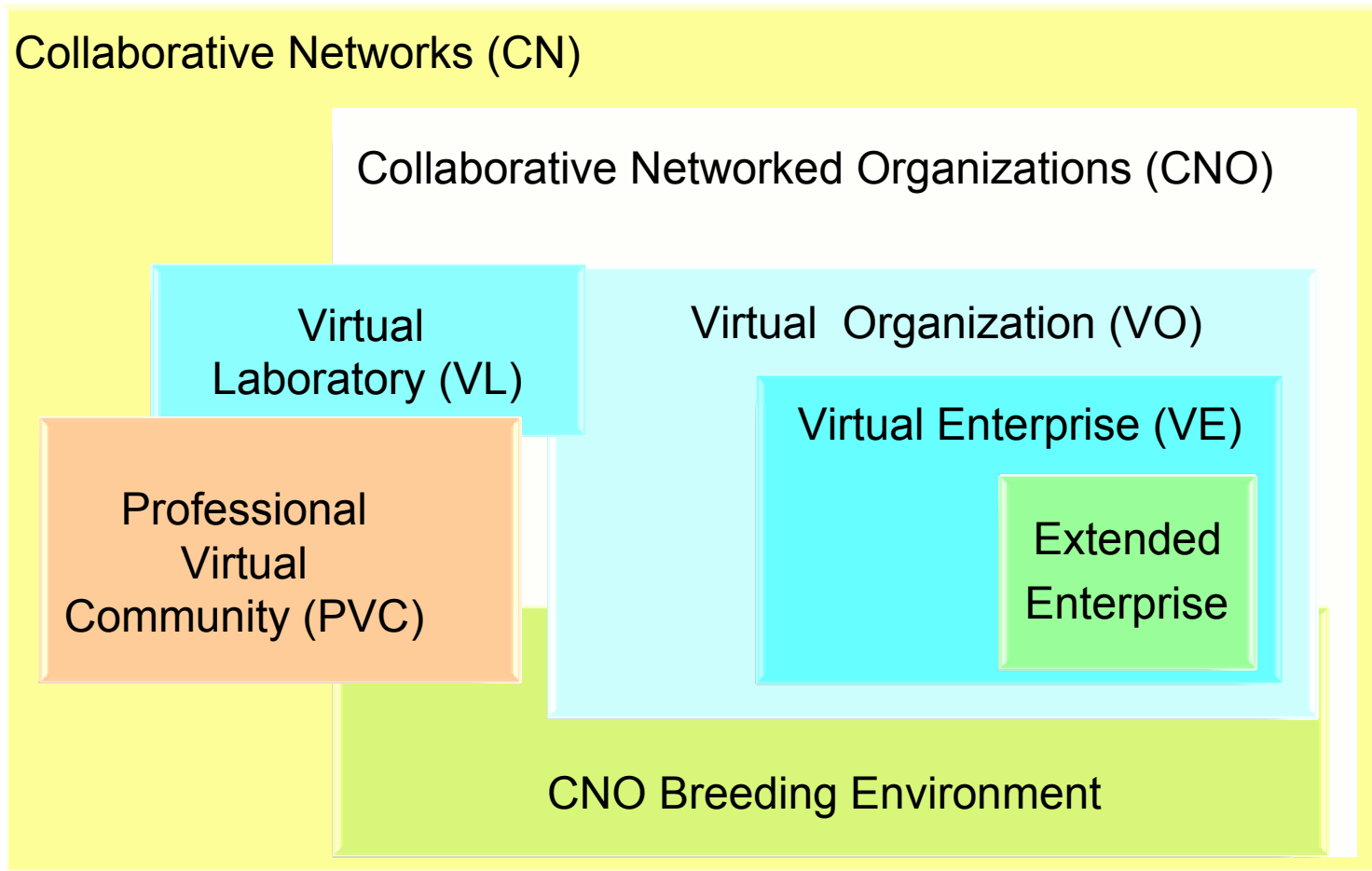
SOCIAL CONTEXT





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WHAT WE UNDERSTAND BY CNO?





WHAT WE UNDERSTAND BY CNO?

Network ...

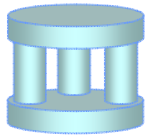
Constituted by a **variety of entities** (e.g. organizations and people) that are:

- largely **autonomous**
- geographically **distributed**
- **heterogeneous** in terms of their:
operating environment, culture, social capital and goals

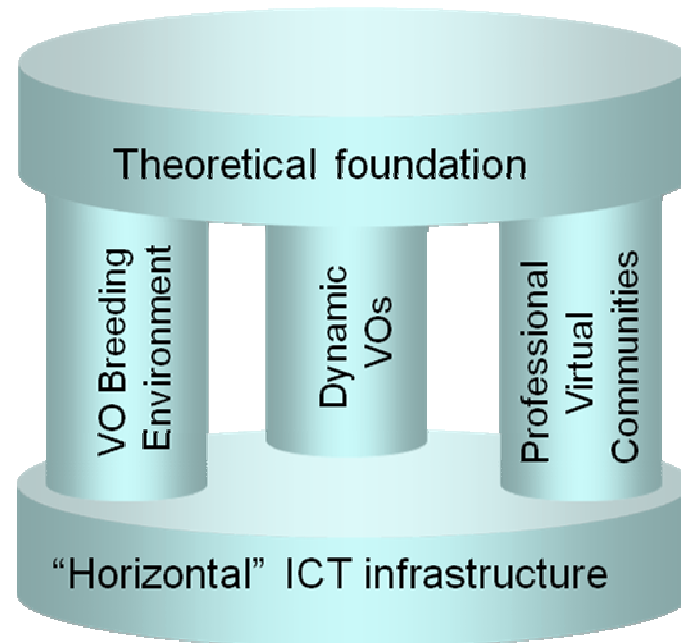
Nevertheless these entities collaborate to better achieve common or compatible goals

The collaborative interactions are supported by a **computer network**.

Unlike other networks, in CNO collaboration is an **intentional property** that derives from the **shared belief** that together the network members can achieve goals that would not be possible or would have a higher cost if attempted by them individually



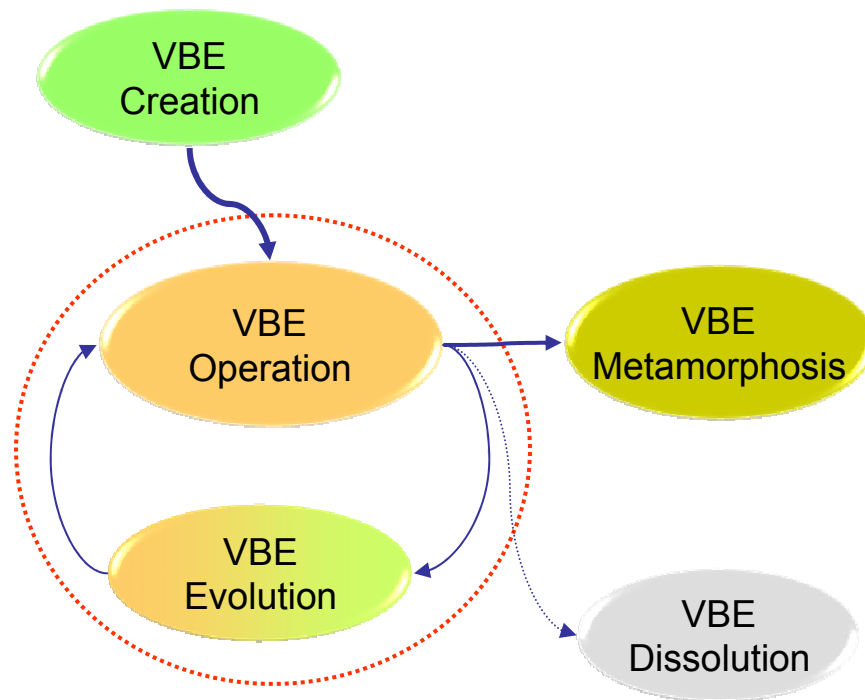
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VO BREADING ENVIRONMENTS

The **operating principles** of VO breeding environments are understood and formalized, the **framework** and **services** to support the **full life cycle** of the collaborative networks are developed in a generic way but coping with different specificities and SME needs



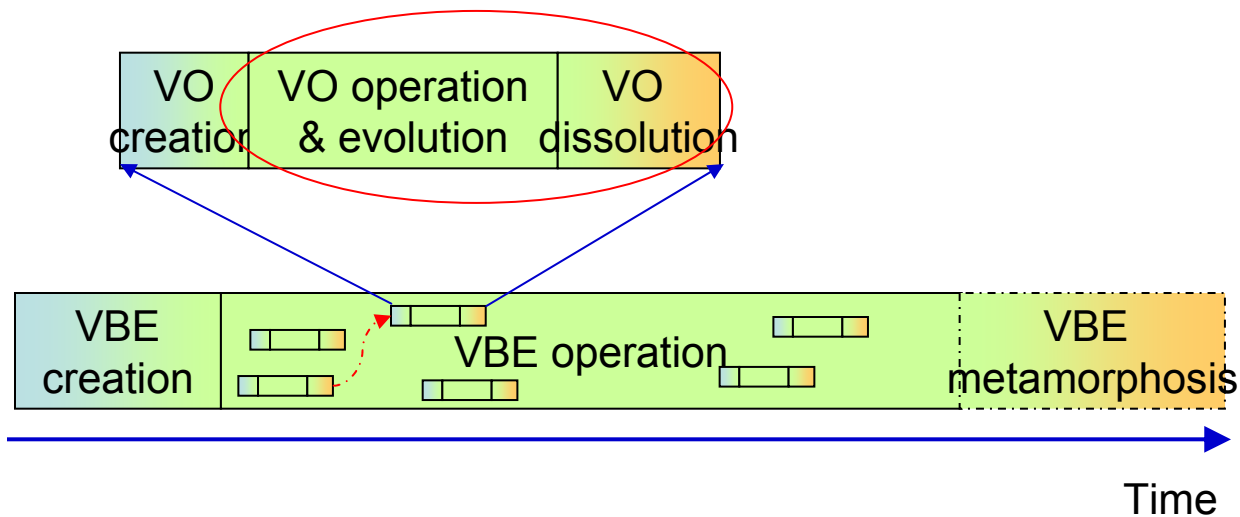
Results:

- VBE reference framework
 - Entities, structure, roles, behavior
- Competencies management
- Ontology evolution
- Trust management support
- VO creation framework
- VBE management tools



VO MANAGEMENT

Well-defined **business models** and **tools** for systematic **VO management** (planning, control, organization and leadership), taking into account the **social mechanisms** in multi-interest collaboration networks, as well as the **transitional nature** of VO.



Results:

Dimensions:

- 1) Behavior / processes
- 2) Resources / assets
- 3) Dynamics

Structure, actors, roles
Network-centric models

Performance indicators
& supervision

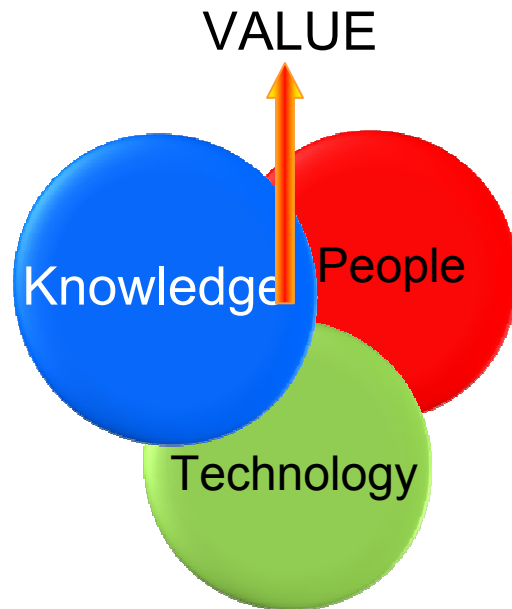
Value systems
Business models

Support tools



PROFESSIONAL VIRTUAL COMMUNITIES

The **human centered** management and exploitation of **knowledge** and **value creation** are leveraged by well-supported Professional Virtual Communities (PVC), which are synergistically integrated in the business ecosystem.



Results:

Organizational forms
Behavior, roles, rules
Skills & competencies
Support institutions

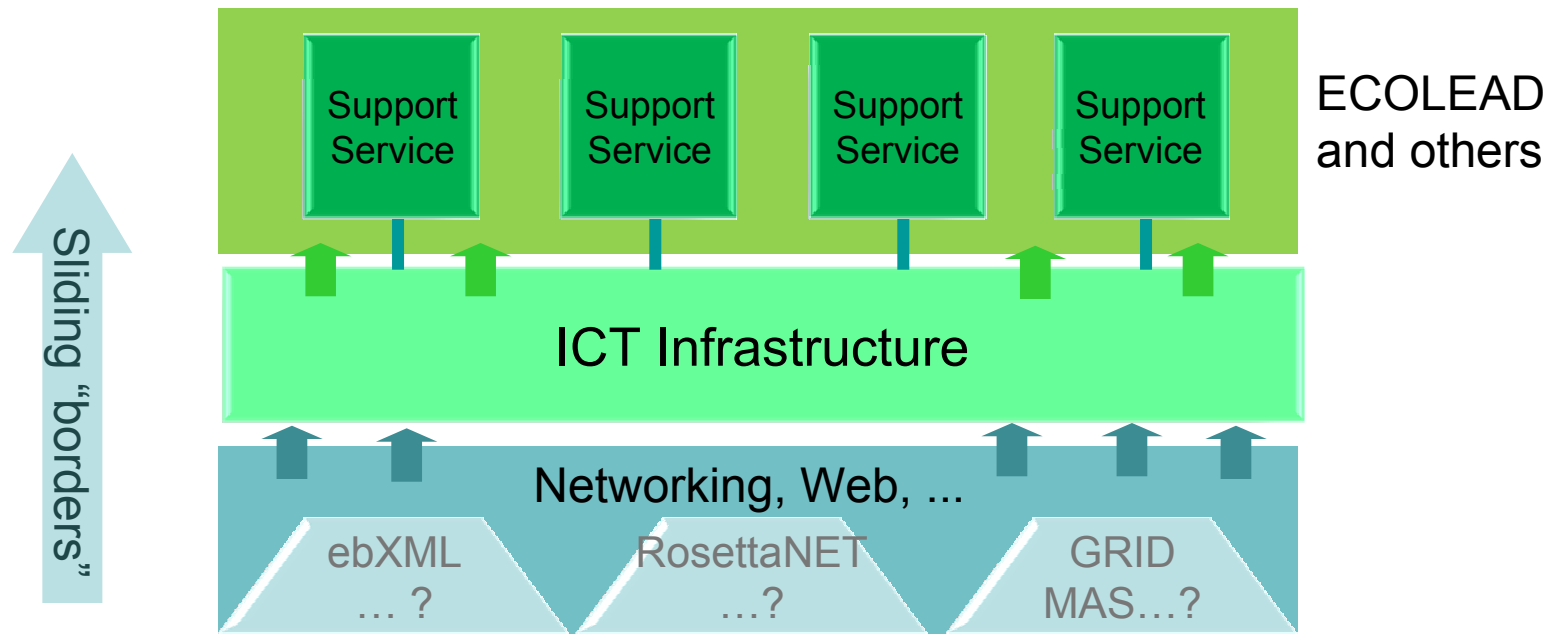
Value systems
Benefits, performance, ...
Business models

Collaboration platform
& tools



ICT INFRASTRUCTURE FOR COLLABORATION

The ICT infrastructure will be developed as an **open, transparent, easy to use, and affordable enabler** of **collaborative behaviors** in networked organizations.



Intermediate support for collaboration
Technology “independence” and prototyping
Require specific business models



THEORETICAL FOUNDATION

Understand and model the principles of collaboration, emerging behavior and self-organization in **collaborative networks**

Modeling foundation

Reference models of CNOs

New scientific discipline: **Collaborative Networks**

A discipline of **collaborative networks** shall focus on the structure, behavior, and evolving dynamics of networks of autonomous entities that collaborate to better achieve common or compatible goals



DEMONSTRATION & IMPACT CREATION

Pilot validation of models and tools in front-runner collaborative networks of SMEs

Achieve a **robust framework** for the successful take up and exploitation of project results

Multipliers base & collaboration synergies

Publications in **high quality channels**



TRAINING

- **Creation of a Virtual Learning Community for knowledge sharing**
- **Reference curricula for CNO**
- **High quality training content**
- **Training events – traditional, ICT based, combined**



VIRTUAL LEARNING COMMUNITY

Welcome - Ecoload Content Market - Mozilla Firefox
Welcome - Ecoload Content Market

Dear visitor to the ECOLoad VLC Training portal:

ECOLEAD Summer School on Collaborative Networks, Helsinki, 28-29.9.06

ECOLEAD - Training Program - Video Lectures - Mozilla Firefox

ECOLEAD Workshop Online Repository

search by site or lecturer:

1. ESS06 Helsinki 2006
1st ECOLoad Summer School on Collaborative Networks
Helsinki, Finland
2. ICE Milano 2006
2th International Conference on Concurrent Enterprising
Milano, Italy
3. Brussels training 2006
The introductory training program for new network partners
Brussels, Belgium
4. Brazil gm06 2005
General Meeting - Brasil, Florianopolis
Florianopolis, Brazil
5. Nova Gorica id. 2005
First industry workshop - NOVA GORICA
Nova Gorica, Slovenia
6. Porto WP5 2005
Porto WP5 workshop on Graph Theories, Formal Theories, Semiotics and Ontologies
Porto, Portugal

exchange ideas / share knowledge
videolectures.net "BETA"

13 events, 76 authors, 59 lectures, 136 videos

What is the most important thing today? knowledge ideas, information we share it!

PRIPOROČENA PREDAVANJA:

CNO Base Concepts
Luis M. Camarinha-Matos

Java library for support of text mining and retrieval
Peter Bednar

Chaordic Systems Thinking: An Introduction of Chaos and Complexity in Organizations and Management
Frans M. van Eijnatten

Virtual Breeding Environment to Support Collaboration in the Aeronautical Supply Chain
Carmen Aguilera

"VEN" The Story so Far
Andrew Faughy

ZADNJI DOGODKI: več

ESS06 Helsinki 2006
1st ECOLoad Summer School on Collaborative Networks

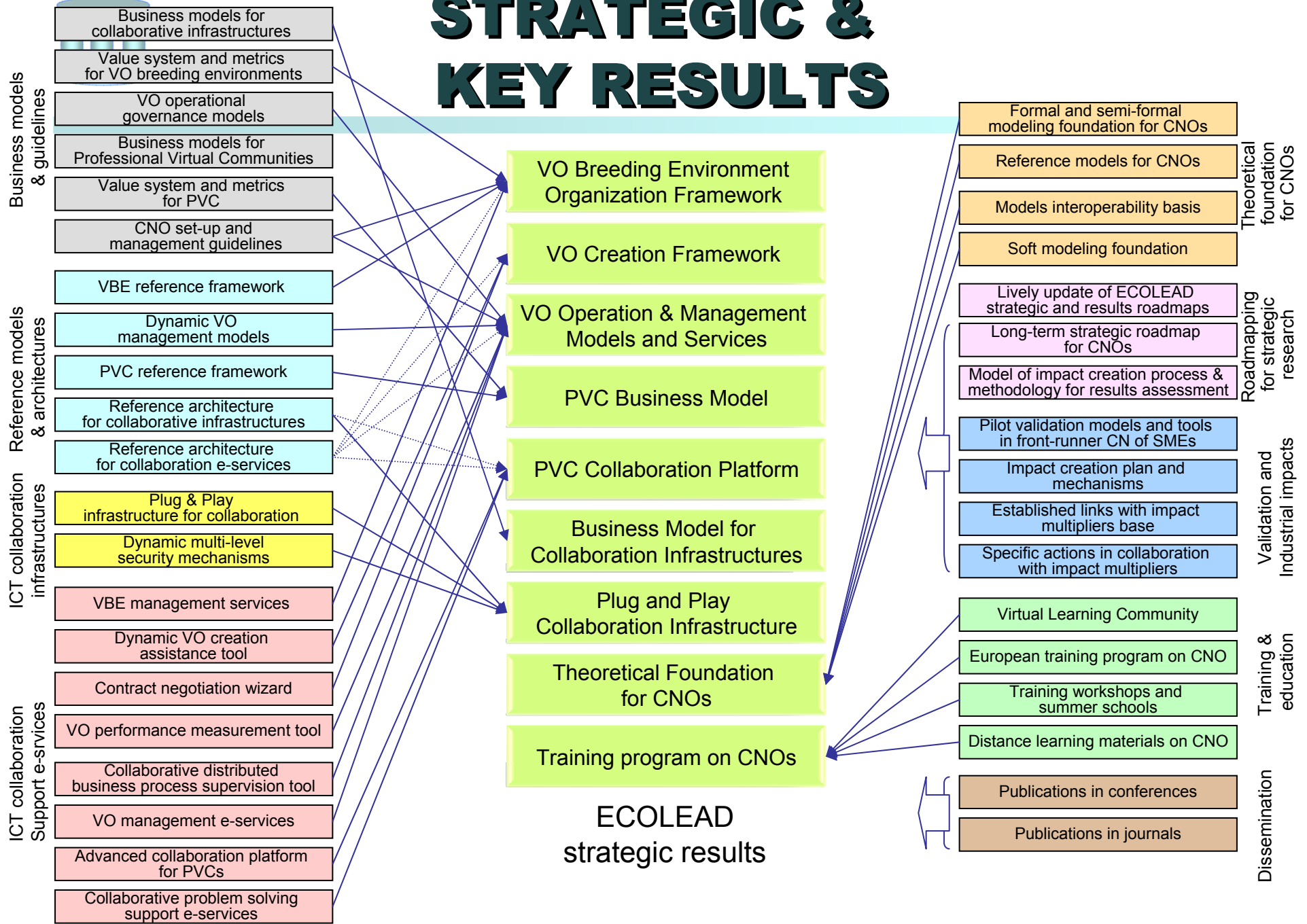
ICE Milano 2006
2th International Conference on Concurrent Enterprising
Innovative Products and Services through Collaborative Networks

Brussels training 2006
The introductory training program for new network partners

NOVICE:
New web site coming soon
The videolectures team is preparing a new web site.

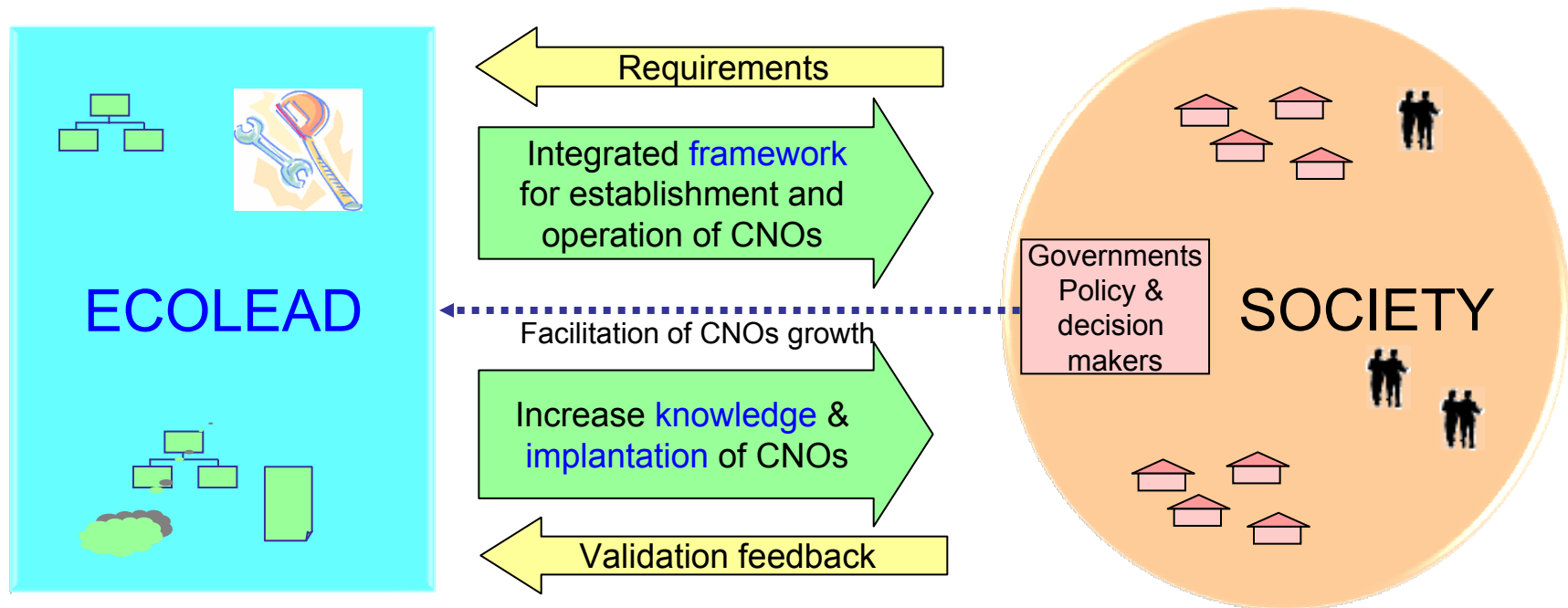
- <http://seminars.ijs.si/ecolead/>
- <http://seminars.ijs.si/etpublic/>
- <http://seminars.ijs.si/etmultipliers/>
- <http://seminars.ijs.si/ecolead/newcommers/>
- <http://videolectures.net/ecolead/>

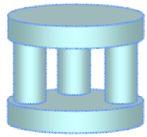
STRATEGIC & KEY RESULTS





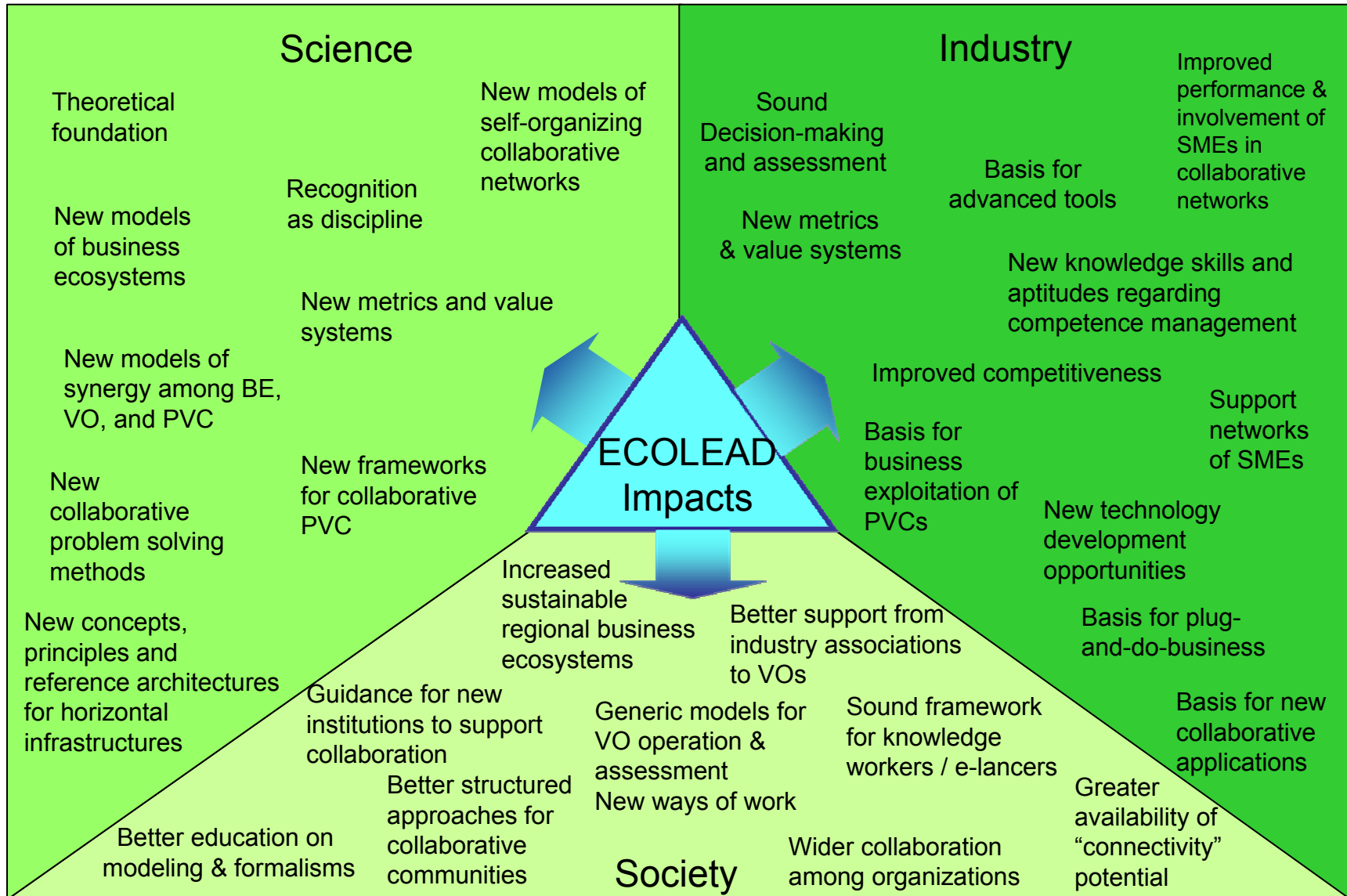
ECOLEAD & SOCIETY





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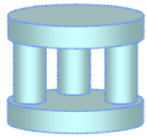
ECOLEAD IMPACTS





ABOUT ECOLEAD

- **ECOLEAD - European Collaborative Organisations LEADership Initiative**
- **Proposal Number: IP 506958**
- **Number of partners: 27**
- **Duration: 4 years**
- **Total costs: 14 Mio (10 Mio)**
- **Work load: 1262 person months**



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CONSORTIUM

- VTT Technical Research Center – (Coordinator) - FIN
- UNINOVA – Institute for the development of new technologies – P
- UvA – University of Amsterdam – NL
- BIBA – Bremen Institute of Industrial Technology and Applied Work Science – D
- UFSC - Universidade Federal de Santa Catarina – BR
- JSI - Jozef Stefan Institute - SI
- CTU - Czech Technical University in Prague - CZ
- ITESM – Instituto Tecnológico y de Estudios Superiores de Monterrey – MEX
- Software AG – E
- France Telecom – F
- Gruppo Formula – (Enterprise Application Solution Providers) - I
- TXT – eSolutions – (SW and system integration vendor) SCM, CRM - I
- Siemens – Siemens Program and System Engineering (PSE) – DE
- Logica CMG – IT Consultant - NL
- TeS – I
- ENCIMA – SCM developer – DE
- CERTICON - CertiCon a.s. –SW developer - CZ
- ComArch – Software developer – PL
- Virtuelle Fabrik – association of 100 companies in CH, DE, A, FL
- AIESEC – International Student Organisation
- ISOIN – case study – E
- CeBeNetwork – case study – DE
- Swiss Microtech – case study – CH
- SNS – case study – IE
- ORONA – case study – E
- Joensuu Science Park – case study – FI
- EDINFORM – case study - I





CONCLUSIONS

- **Collaborative networked organizations is a strong socio-economic “movement”**
- **ECOLEAD is based on a strategic vision towards leadership in collaborative networks**
- **ECOLEAD relies on a multi-disciplinary consortium and effective coordination team**

- **ECOLEAD Info resources:**
 - <http://www.ecolead.org>
 - <http://seminars.ijs.si/ecolead>