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## Holiday thinking

It is the holiday season in the Northern Hemisphere.

A time to recover from another year of hard work, a time to forget about project proposals and bids, deliverables and results, schedules, deadlines and resources.

But it is also an opportunity to freely explore new thoughts, dream about new directions, and imagine new scenarios, without the pressure of the normal daily routine.

We hope this second issue of our Newsletter can give you some glimpse of the many activities going on inside the growing Collaborative Networks community. A particular reference to the coming annual PRO-VE conference: When reaching its 10<sup>th</sup> anniversary, the conference has got the highest number of submissions and we hope the selected papers will give a basis for a very enriching conference. SOCOLNET is also involved in the preparation of new events such as the next edition of BASYS and the launching of the doctoral conference DoCEIS. On the other hand, various groups continue launching new research projects and initiatives in different application domains, which give a good prospect for good scientific and technological progress in the coming years.

For those in the mood of doing some summer brainstorming we'd like to suggest some topics:

- Collaboration and its risks – which suitable self-healing systems?
- Collaborative Networks and Social Networks – which contact points?
- Can affective / emotions-based computing provide tools to improve collaboration?
- Can cloud computing be more than a buzzword in providing new infrastructural support for collaborative networks?
- Which specific new insights can Collaborative Networks bring into the factories of the future?
- Where are the main conceptual challenges regarding the *Internet of Things*?
- Which new approaches can support collaborative problem solving?
- What about new dynamic organizational structures for collaboration and opportunity seeking in a time of crisis and turbulence?

Hoping to see you all in Thessaloniki during PRO-VE'09 for fruitful discussions, I wish you a great holiday season.

*Luis M. Camarinha-Matos*  
President of SOCOLNET



## A VBE Management System based on Service Entities

### Introduction

While Future Internet is being shaped and many research challenges need still to be faced, recent advances in the Collaborative Networked Organizations field have identified the synergistic relationship between Virtual Breeding Environments and Virtual Organizations Management as a key enabler for future agile and responsive collaborative networks.

In order to fully realize this vision, a new kind of systems, the so-called **VBE Management Systems**, are expected to be able to support the management of both VBE and VO Life Cycles, in a consistent and integrated way. In this kind of systems, the role played by reference modeling and methodologies will be determinant but ensuring models robustness and consistency will be a critical requirement.

Manbree is a VBE Management System based on the concept of Service Entities which are used as constructs of such integrated reference models (i.e. structural, functional, informational or behavioral models created by VBE/VO Managers when they engineer collaboration opportunities) and also as operational links for service provisioning in collaborative processes.

### Service Entities

A Service Entity (SE) is the result of tying together a finite set of business services – which jointly defines the expected behaviour of conceptual entities involved in the domain being modelled – and a finite set of attributes which will allow characterizing and distinguishing between their specific instances.

In terms of practical understanding, and depending on the modeling scope, SEs can be classified into: Abstract Service Entities (ASE) and Concrete Service Entity and (CSE).

- An Abstract Service Entity is generic building block used to represent different ‘types’ of entities that are present in the problem domain, mostly at VBE level. ASEs are not associated with any specific instance of entities they are defining. They only represent the **abstract definition of the attributes and also the specifications of the electronic business interfaces which are being defined for them**. For example, in some specific domain, a bank may be modelled as an ASE with two electronic services (interfaces) it provides to third parties: *bank\_account\_validation()* and *account\_balance\_sheet()*.
- Concrete Service Entity: since they are expected to be real entities of the problem domain, CSE are instances of their corresponding ASE. Instantiating an ASE means to provide meaningful values to its attributes and specific implementation for the service interfaces (i.e. bank account validation and account balance sheet). When a CSE is instantiated, the next step is to register it into an open repository where it can be searched, discovered and used to create and launch VO scenarios.

### Service Entities in Manbree

**ManBree** is a Virtual Breeding Environment Management System where VBE, VO and SE life cycles are supported (as shown in Figure 1). During the VBE Operational phase, VO and SE life cycles take place simultaneously. Both cycles are feeding each other: a SE may be involved in a VO as a member or even become a full VO Manager. In turn, VOs requires SEs involvement either in a static or dynamic way in order to model their structure and operations.

### ABOUT SOCOLNET

*SOCOLNET is an international technical and scientific association, not for profit, that aims at promoting and stimulating scientific research, education, technological development, scientific and technical interactions among researchers in the area of Collaborative Networks, including virtual organizations, virtual enterprises, virtual communities, virtual laboratories, and related areas.*

*In order to pursue its objective, the society may carry out all the activities that it deems necessary or appropriate and, in particular, may:*

- a) *Promote the exchange of ideas and experiences among its members, and between them and the rest of the scientific community in order to increase the knowledge of the area.*
- b) *Promote activities such as seminars, courses, colloquia, conferences, workshops, etc.*
- c) *Promote and sponsor the edition of publications relevant for the objectives of the association.*
- d) *Propose education curricula on collaborative networks.*
- e) *Promote studies and research actions on collaborative networks.*
- f) *Collaborate with other organizations.*

*The Board of the Society may launch Special Interest Groups (SIGs) for the development of specific missions with a temporary duration.*

*Examples of SIGs:*

- *ARCON Reference Modeling for Collaborative Networks*
- *eVAR VBE for Academic Results exploitation*

*SOCOLNET members interested in launching a new SIG can send a proposal to the Society’s President specifying: SIGs purpose and scope, Modus operandi, Expected results, Duration, Initial membership and conditions for joining.*

### **Governing bodies of SOCOLNET:**

#### **Board**

*President - Luis M. Camarinha-Matos*

*Secretary - Tiago Cardoso*

*Treasurer - Jose Barata*

#### **General Assembly Board**

*Chairwoman - Hamideh Afsarmanesh*

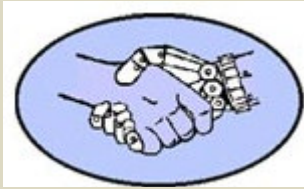
*Secretary - Alexandra Pereira-Klen*

#### **Treasury Audit Board**

*Chairman - Jorge Pinho Sousa*

*Secretary - A. Luis Osorio*

*Voter - Antonio Abreu*



## BASYS 2010

9th IFIP International Conference on Information Technology for BALANCED AUTOMATION SYSTEMS

21-23 June 2010  
Valencia, Spain

### Co-innovating in products, services and processes towards a knowledge-based and sustainable manufacturing

The BASYS 2010 Conference will be a forum where to share visions and research findings towards innovative sustainable and knowledge-based products-services and manufacturing models.

The focus of BASYS is to discuss how human actors, emergent technologies and even organizations are integrated in order to redefine the way in which the value-creation process must be conceived and realized.

As customers are being attracted to be involved in Co-Innovation Networks, improved responsiveness and agility is expected from industry ecosystems. Renewed production systems needs to be modeled, engineered and deployed in order to achieve cost-effective solutions.

BASYS 2010 expects to discuss new approaches in automation where synergies between people, systems and organizations' needs to be fully exploited in order to create high added-value products and services. Since pervasiveness will be at the heart of the next generation of Balanced Automation Systems, contributions on its research trends as well as emerging and potential applications to open innovation networks, advanced manufacturing and factory automation will be welcome.

#### Tracks:

- A - Co-Innovation Networks in Industry
- B - Industry ecosystems and emergent business models
- C - Advanced Production Engineering
- D - Pervasive Digital Factory

#### Sponsors:

IFIP WG5.5, SOCOLNET

#### Deadlines:

Abstracts: 15 Nov 2009  
Full papers: 15 Dec 2009

[www.basys2010.upv.es](http://www.basys2010.upv.es)

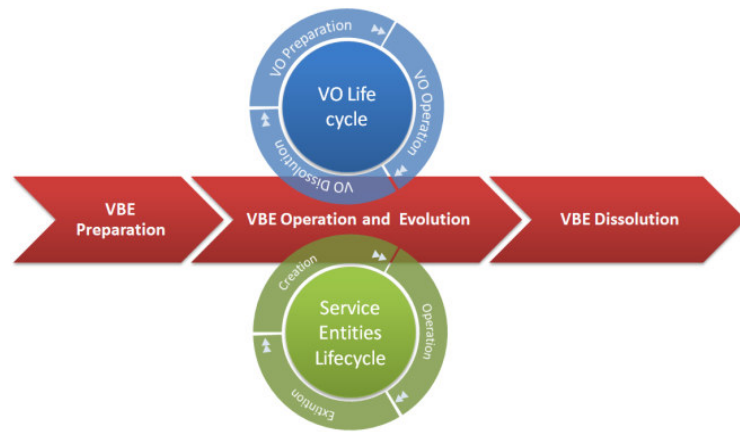


Fig. 1: Life cycles supported in ManBree

#### ManBree main functionalities

ManBree supports three main macro-processes: VBE Management, VO Management and Service Entities Management. In terms of VBE and VO Management functionalities, ManBree partly implements functionalities identified in ECOLEAD for a full VBS. However, **a distinguishing feature of ManBree is its support to the Service Entities Life Cycle, which is fully integrated both into the VBE and VO Engineering Environments** by means of an Abstract Service Entities Modeling component and the Scenarios Modeling component, mainly intended for instantiation purposes.

Complementarily, since VO operational phase may require specific network-centric applications support (for instance, Business Process Management Systems, Project Management Systems, Supply Chain Management tools, Knowledge Management Systems or Simulation tools, to name few ones), ManBree also provide models and schemas that can be easily integrated with them (see Fig. 2).

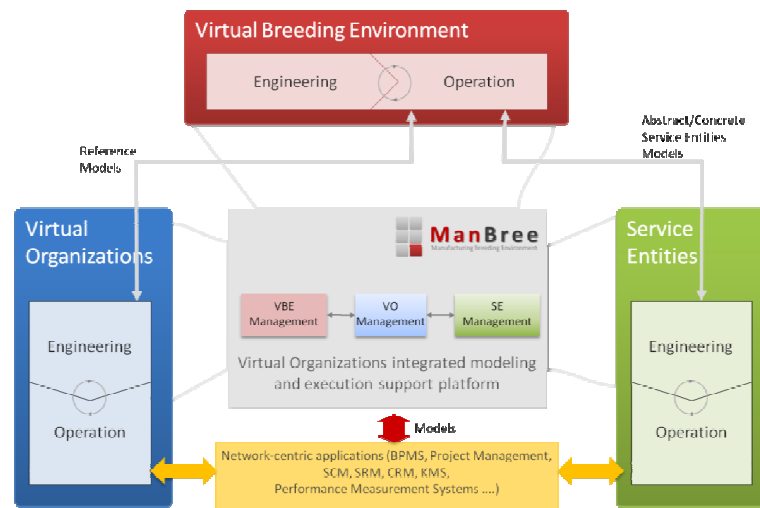


Fig. 2: ManBree main functionalities

#### ManBree Project

ManBree is an undergoing initiative of a research team from CIGIP - Research Centre on Production Management and Engineering, at the Polytechnic University of Valencia, and led by Darío Franco. For further information, collaboration opportunities or details, you can reach him at: [dfranco@cigip.upv.es](mailto:dfranco@cigip.upv.es)



## Innovative networks of SMEs for complex products manufacturing

(European Project Ref.: CP-FP 229287-2 funded under Theme 4 (NMP) of the FP7)

### Abstract

European SMEs will have to adopt new business models and to establish dynamic and non-hierarchical networks to respond to market opportunities, assuring quick response, fast time to market, differentiated offerings and competitive prices.

Sustainability for SMEs will be found in high-variety low-volume businesses, related with complex products manufacturing.

The central objective of Net-Challenge is to develop new concepts and tools to support SMEs create and efficiently operate non-hierarchical collaborative business networks, able to improve significantly their competitive position. Accordingly, the project will address the following specific objectives:

- To specify and develop a **methodology** to help SMEs in the qualification of potential partners, and in the formation and operation of dynamic networks, able to quickly respond to emerging market opportunities characterized by low volume, high variety and customer centred products.
- To specify and develop **reference collaboration processes** for non-hierarchical dynamic networks. These reference business processes will promote and facilitate the definition of real collaborative business processes that will support each dynamic network and will cover the following areas: partners qualification, network formation, global network business planning; operational order and planning processes; management information concerning the performance of collaborative business processes.
- To develop innovative **distributed decision support tools** to help companies manage manufacturing and logistic processes, including: aggregate collaborative planning with dynamic capacity management and real-time order promising; real-time monitoring with event management, allowing operations end-to-end visibility and informing the management of expected as well as unexpected events and performance management.
- To design, set-up and assess **industrial demonstrators**. These pilots will implement the developed methods and ICT tools at the following industrial sectors: textile and apparel (including wearable technologies), footwear, and machine tools.
- To **disseminate the research results and prepare their exploitation**.
- To establish **links with standardization activities** and relevant **international research communities**.

### Project Consortium

The project is coordinated by INESC Porto - Instituto de Engenharia de Sistemas e Computadores do Porto located in Portugal.

The project business cases include the industrial companies RPB – Têxteis e vestuário S.A. and Riopete Têxteis S.A. in Portugal, ONA Electro-erosion and Roboconcept in Spain and Synesis and Intalian Converter in Italy. Wapice from Filand and TIE from the Netherlands and the main technology partners.

ITIA - Consiglio Nazionale delle Ricerche in Italy, Fundación Fatronik in Spain, University of Vaasa in Finland, CENI - Centro de Integração e Inovação de processos in Portugal and Tsinghua University in China, complete the project Research team.

### Contact

Luis Maia Carneiro: [luis.carneiro@inescporto.pt](mailto:luis.carneiro@inescporto.pt)

Project website: [www.netchallenge.org](http://www.netchallenge.org)

**Start date:** 1th June 2009; **Duration:** 30 months; **Budget:** 3.1 MEuro

### Thesis available

Mrs. Maiara Cancian, from UFSC (Federal University of Santa Catarina), Brazil, has defended her thesis entitled *A Reference Guide for SaaS CNO Software Providers*. This comprises a services development quality guide that software houses, which are interested to provide CNO-related (web) services, can follow in order to better develop their software for CNO applications. This allows software's clients to be more confident to access the services, especially when a scenario of large services ubiquity is considered. The guide relies on CMMI and ISO/IEC 15504 standards.

The guide is available at [www.gsigma.ufsc.br/~cancian/guide/](http://www.gsigma.ufsc.br/~cancian/guide/).

### Towards a methodology for the creation of Virtual Organization Breeding Environments

A generic methodology for creating VBEs is being created by Dr. Fabiano Baldo in the scope of the research in his post-doc, from UFSC (Federal University of Santa Catarina), Brazil. This methodology is mostly based on ARCON (*A Reference Model for Collaborative Networks*) Reference Model, developed by Profs. Luis Camarinha-Matos and Hamideh Afsarmanesh, from New University of Lisbon and University of Amsterdam, respectively. The methodology is being created and preliminary instantiated considering an initial group of eight companies from the moulds sector in Brazil.

The systematization provided by the methodology is very useful, not only because it transforms the ARCON conceptual framework into a sequence of very concrete steps, but also because it provides some guarantee that VBEs will be created following more solid scientific theoretical foundations instead of purely ad-hoc recommendations.

Among other conclusions, this study has shown that ARCON is very comprehensive as all the required elements identified for that group of companies had been foreseen in ARCON.

## DoCEIS'10 - Doctoral Conference on Computing, Electrical and Industrial Systems

22-24 February 2010 | Caparica, Portugal

### Emerging Trends in Technological Innovation

DoCEIS'10 is aimed as an international forum for presentation of research results coming out of PhD works, and a space for discussion of post-graduation studies, PhD thesis plans, and practical aspects of a PhD work. Among other activities, it includes:

- Presentation of research results by PhD students (co-authored by their supervisors)
- Tutorials by invited experts on scientific, methodological, or soft skills topics.
- Presentation and discussion of the base ideas of the thesis plans.
- Discussion of the scientific and technical challenges in the several Electrical and Computer Engineering specialization areas.
- Sharing of experiences among PhD students from different regions.
- Forum on practical aspects (e.g. Publications, job market, careers, etc.).
- Creation of collaborative (social) networks.

Prospective authors of research papers are invited to submit their manuscripts reporting original work, in any of the scientific areas of the conference. Papers describing advanced prototypes, systems, tools and techniques and general survey papers indicating future directions are also encouraged. Proceedings are expected to be published by **Springer**, IFIP series (indexed in Web of Science).

There will be also poster discussion sessions regarding thesis plans. These sessions are designed in order to provide early feedback to PhD candidates in the initial phase of their studies.

Topics of interest include, but are not limited to:

- Computational and Perceptual Systems
- Control and Decision
- Electronics
- Energy
- **Enterprise Collaborative Networks**
- Industry Information System
- Robotics and Integrated Manufacturing
- Signal Processing
- Telecommunications

Abstract submission: now

Full paper submission: Sep 6, 2009

[www.uninova.pt/doceis](http://www.uninova.pt/doceis)

**Sponsored by SOCOLNET, IFIP WG5.5,  
IEEE Industrial Electronics Society**

## CoProFind

Samuil Angelov

Eindhoven University of Technology, The Netherlands

As part of our ongoing research on Virtual Enterprises, Collaborative Networks, and E-contracting, at the Eindhoven University of Technology (TU/e), School of Industrial Engineering, Information systems group, we have started a project called "CoProFind" on collaborative networks and virtual enterprises in the domain of assets leasing.

Financial lease constructs are used to facilitate the use of costly equipment by parties who prefer not to buy the equipment. Nowadays, the market for financial lease constructs is becoming more dynamic and more complex. Leasing companies want to strengthen their market positions by reacting quickly to emerging market opportunities and becoming pro-active in offering their leasing services. Lease contracts become more customer-specific. Lease periods become shorter and equipment is leased in smaller 'quantities'. Consequently, leasing becomes more 'anonymous' as it is less governed by long-standing relationships. Monitoring the use of leased products becomes more important as well. The changes in the trading environment of leasing companies require dynamic establishment of different market topologies in which the leasing company may play different roles.

Given the increasing complexity and dynamism of the leasing market, explicit process-orientation is required for establishment, enactment and monitoring of lease products and associated services. This will lead to increased effectiveness of lease product handling (e.g. error reduction), increased efficiency of lease product handling (speed, cost), and increased flexibility/agility. Outsourcing of sub-processes to users/dealers/manufacturers is a way to keep process management feasible. Lease constructs are strictly contract-based. Given the dynamic process outsourcing aspect, process specification needs to be included in contracts, contracts need to be electronic, and their handling automated.

In the CoProFind project (Contract-Based Process Outsourcing in the Financial Industry), we aim at automating the support for contract-based, dynamic, bi-directional process outsourcing to facilitate establishment and enactment of financial lease services.

The project is fully funded by De Lage Landen. De Lage Landen (DLL) is a daughter company of the Dutch bank Rabobank and is one of the major players worldwide in the domain of assets leasing. The project is performed between TU/e and DLL.

For additional information please contact Paul Grefen (p.w.p.j.grefen@tue.nl) or Samuil Angelov (s.angelov@tue.nl) who are leading the project at the TU/e side.



## Collaborative Networks activities at Perugia University

Perugia Faculty of Engineering, especially the Management Group of the Engineering Faculty has a large experience in the field of Collaborative Networked Organization. In particular the management group of the faculty participated in 2005 in an important national project on Enterprise Network, called MIGEN (Advanced

Models and Tools for Network of Enterprises Management), in which a new model (VDO model) to manage networks has been presented. Moreover new tools for sustaining the VDO model have been developed; the VDO model has been recognized as reference framework from the Italian Ministry of Economic Development. The field test of the project is a real enterprise networks called GPT ([www.gptgroup.it](http://www.gptgroup.it)) of 20 companies born during MIGEN period, which is now very quickly growing up, with an increasing turn over due to the strong collaboration among the partners. As academic output the management group has written a book and various articles in international journals, national journals and international conferences. The Department daily collaborates with other 2 networks of enterprises belonging to the mechanic and electronic sector. Finally the participation at important conferences and the membership to the SOCOLNET association improve the competences of the group in the field. Actually, the management group of the Engineering Faculty has developed competences and experiences both theoretical (reference models, negotiation model, performance measurement frameworks, innovation and knowledge management models, and so on) both tangible (realization of a concrete industrial network and collaboration with other networks).

As research group, we're now approaching and developing several research topics, all related to collaborative environments. Such topics include innovation management, knowledge management, collaborative procurement, business performance measurement and management, quality improvements, and operation management in general.

We're proud of GPT and of the other networks we're managing, and we can represent a fertile soil as a case study in potential projects. Actually, we're strictly in touch with the president of the Italian Industrial Association (Confindustria) and the president of the Ministry of Economic Development for developing together the milestones and guidelines for assessing and evaluate the enterprise networks in the national context. This contacts we're establishing from months after stressful and time consuming actions are leading us to represent the most important actors in the business Collaborative Network topic in Italy.

On the other hand, under the consultant point of view, we're nowadays managing more than 15 projects in our networks, from auditing projects, to quality certifications, business internationalization (Europe, North-Africa, South-America, Asia), Collaborative procurement, Collaborative R&D, etc.

However, we're now facing up with some tasks to be deepened, such as financial aspects of the networks (how the network is seen from institutions, banks, financial subjects), policies issues, governance and authority evolutions. Moreover, we're now thinking and discussing which is the most appropriate juridical form for the CN depending on the scope of it (business oriented, long strategy terms, temporary collaboration, formation and didactical scopes, etc.). This is because nowadays, in Italy, there isn't a recognized juridical form for the long term strategy Enterprise Networks.

As its mission, management group is active to knowledge transfers and research promotion, and through its office, it works in the way to:

- Increase collaborations and agreements between university and industries;
- Foster university spin-off generation;
- Increase the valorisation of university research, raising awareness on IPR protection tools;
- Increase publications through training program for researchers and academic;
- Obtain "strong" patent with an high "transfer potentiality";
- Assist companies in their start-up phases;
- Train industry, service and governmental organizations;
- Cooperate with local administration authorities.

We're very interested in developing an European Project on Enterprise Networks and Collaborative Environments, for developing new theories on this topic. Collaboration is nowadays one of the most fruitful solutions for Small and Medium Enterprise to remain competitive in the actual market. Since its importance, it needs to be deepened in important research projects. New models, new theories, new operation guidelines must be developed, and new solutions for emerging problems need to be identified. The management group can share the know-how developed in the last decade as well as the case studies to test new theories. Moreover we can represent a stable partner with the following contribution: involvement of Italian companies, universities, enterprise networks, institutions and spin-offs in the project as case studies for research outputs, new models for managing enterprise networks (as VDO model), new best-practices to manage knowledge, innovation, supply chain and operations in general within companies and enterprise networks, ICT supports (since strong relationships with Computer Science Department). The resulting benefits could be: the potential project will provide us with new / consolidated experience / methods for leveraging its intervention at national / regional level regarding incubation / support / training for start-ups, spin-offs, SMEs, and regional government institutions, new skills, know-how and expertise on CN environments, publications, new potential case studies to work within, growth of the group, networking with academics, managers and expert of the topic, etc.

Finally, we could represent a good location for a further PRO-VE edition and we can plan everything for the conference successful realization.

Luca Cagnazzo

PhD student at Perugia University, Faculty of Engineering.





## EXPERIENCES:

### An interview with Stefan Bollhalter

**Q1: Some years ago, most experts on Collaborative Networks were expecting that in a few years most enterprises would be part of some sustainable collaborative networks that would act as breeding environments for the formation of dynamic virtual organizations in response to fast changing market opportunities and conditions. Bearing in mind the economical crisis, do you think this expectation remains valid? Why?**

In a long term view, the thesis might still be valid. In a short term perspective I see that the SME's are forced by the economical crisis and the behaviour of the large customers into a sharp competition against each other which unfortunately obstructs collaborative activities.

**Q2: Do you think that VBEs/regional clusters, based on long-term relationships, will be a major trend against threats of globalization or they will they play only a complementary role in the global economy?**

I think today, that it might be only a complementary role, but still the best way for SMEs to cope with globalization.

**Q3: Europe and others regions (such as: EUA, Japan, and Brazil), have already invested in a considerable number of research projects applying new organizational forms, which have produced an abundant variety of specific solutions and broad awareness for the necessary organizational changes. However, the impact of these research projects in business context has been made with very shyness. In order to change this trend, what is it failing?**

The final commitment to intensive long term collaboration is often missing. In addition in a lot of collaborations the sustainable management of the collaboration itself as well as the management of collaborative sales and project management are insufficient.

**Q4: In your opinion, what type of activities/initiatives should be accomplished to support broader dissemination of this paradigm in the business context?**

Sustainable successful collaboration examples would be the best motivation.

**Q5: Some experts believe that a collaborative behavior and strong human networks (professional and social) will grow as a reaction to a competitive fast changing society. On the other hand, others believe that competition and social turbulence will lead to growing individualism. What is your opinion?**

I rather tend to the 2<sup>nd</sup> thesis, but with a long term crisis the behavior might change back to collaborative behavior.

*(Interviewed by António Abreu)*

Stefan Bollhalter, member of SOCOLNET, is an expert on Virtual Organizations Breeding Environments management.

Recently he was involved in the ECOLEAD project as one of the key persons in one pilot implementation of the project results in the Virtuelle Fabrik network.

PRO-VE is celebrating its 10<sup>th</sup> anniversary!



**PROVE'09**  
**10th IFIP Working Conference on VIRTUAL ENTERPRISES**

Thessaloniki, GREECE, 7-9 October 2009

**“Leveraging knowledge for innovation in Collaborative Networks”**

PRO-VE is co-sponsored by IFIP WG5.5 and SOCOLNET.

[www.pro-ve.org](http://www.pro-ve.org)

#### Accepted papers:

##### Part 1 Co-Innovation in Collaborative Networks

1- Networked Innovation in Innovation Networks: A Home Appliances Case Study

*Luis Berasategi, Joseba Arana, Eduardo Castellano*

2- Managing Distributed Innovation Processes in Virtual Organizations by Applying the Collaborative Network Relationship Analysis

*Jens Eschenbacher, Marcus Seifert*

3- A Balanced Scorecard for Open Innovation: Measuring the Impact of Industry-University Collaboration

*Myrna Flores, Ahmed Al-Ashaab, Andrea Magyar*

4- Co-Creation and Co-Innovation in a Collaborative Networked Environment

*Edmilson Rampazzo Klen*

##### Part 2 Collaboration Patterns

5- A Cooperative Model to Improve Hospital Equipments and Drugs Management

*Ilaria Baffo, Giuseppe Confessore, Giacomo Liotta, Giuseppe Stecca*

6- Modeling Adaptable Business Service for Enterprise Collaboration

*Khouloud Boukadi, Lucien Vincent, Patrick Burlat*

7- A Collaboration Pattern Model for Virtual Organisations

*Nikos Papageorgiou, Yannis Verginadis, Dimitris Apostolou, Gregoris Mentzas*

8- Issues and Experiences in Logistics Collaboration

*Nadia Lehoux, Jean-François Audy, Sophie D'Amours, Mikael Rönnqvist*

##### Part 3 Needs and Practices

9- Analyzing Enterprise Networks Needs: Action Research from the Mechatronics Sector

*Luca Cagnazzo, Paolo Taticchi, Gianni Bidini, Enzo Baglieri*

10- Comparing Notes: Collaborative Networks, Breeding Environments, and Organized Crime

*Alejandro Hernández*

11- Mapping R&D within Multinational Networks: Evidence from the Electronics Industry

*Paula Urze, Maria João Manatos*

##### Part 4 Collaboration in Supply Chains

12- Developing a Taxonomy and Model to Transfer and Assess Best Practices for Supply Chain Management

*Myrna Flores, Ana Mendoza, Victor Lavin, Benito Flores*

13- Supply Chain Coordination in Hospitals

*Nazaré Rego, Jorge Pinho de Sousa*

14- A Supply Chain Architecture based on Multi-Agent Systems to Support Decentralized Collaborative Processes

*Jorge E. Hernández, Raúl Poler, Josefa Mula*

15- Collaborative Manufacturing Management in Networked Supply Chains

*Michel Pouly, Souleiman Naciri, Sébastien Berthold*

##### Part 5 Teams and Collaboration

16- Collaborative Capability of Teams in Network Organizations

*Sebastian Ulbrich, Heide Troitzsch, Fred van den Anker, Adrian Plüss, Charles Huber*

17- Knowledge Value Creation Characteristics of Virtual Teams: A Case Study in the Construction Sector

*Chalee Vorakulpipat, Yacine Rezgui*

18- Social Protocols for Agile Virtual Teams

*Willy Picard*

19- Analysis of Interpersonal Communication Processes in Digital Factory Environments

*Egon Müller, Jens Schütze, Martin Laue, Heiko Baum*



#### Other associated events

Workshop: Web Intelligence and Virtual Enterprises

Workshop: Collaborative Public Networks

Panel/Session: Towards the Next Generation CNOs

Workshop: Specification and Computation of Affect in Collaborative and Social Networks

Workshop: Research for SMEs

*Proceedings to be published by Springer (indexed in ISI Web of Science).*

*Special issues of journals will be published with selected papers.*

PRO-VE is ranked "A" in the [Australian Ranking of ICT Conferences!](#)

The PRO-VE 2009 conference will take place in **Piraeus Bank Congress Centre**, 12-14 Katouni St., 54625 Thessaloniki, Greece

## **Part 6 VO Breeding Environments Modeling**

- 20- Modeling Virtual Organization Architecture with the Virtual Organization Breeding Methodology  
*Zbigniew Paszkiewicz, Willy Picard*
- 21- For a Methodology to Implement Virtual Breeding Environments – A Case Study in the Mold and Die Sector in Brazil  
*Fabiano Baldo, Ricardo J. Rabelo*
- 22- Virtual Operations in Common Information Spaces: Boundary Objects and Practices  
*Demosthenes Akoumianakis, Giannis Milolidakis, Dimitrios Stefanakis, Anargyros Akrivos, George Vellis, Dimitrios Kotsalis, Anargyros Plemenos, Nikolaos Vidakis*
- 23- An Alignment Model for Collaborative Value Networks  
*Carlos Bremer, Rodrigo Cambiaghi Azevedo, Alexandra Pereira Klen*

## **Part 7 Modeling and Managing Competencies -I**

- 24- Competence-Based Approach in Value Chain Processes  
*Rodrigo Cambiaghi Azevedo, Sophie D'Amours, Mikael Rönnqvist*
- 25- Towards a Methodology for Managing Competencies in Virtual Teams – A Systemic Approach  
*Marinita Schumacher, Julie Stal-Le Cardinal, Jean-Claude Bocquet*
- 26- An Organization's Extended (Soft) Competencies Model  
*João Rosas, Patrícia Macedo, Luis M. Camarinha-Matos*

## **Part 8 Modeling and Managing Competencies -II**

- 27- A Generic Framework of Performance Measurement in Networked Enterprises  
*Duk-Hyun Kim, Cheolhan Kim*
- 28- Transferability of Industrial Management Concepts to Healthcare Networks  
*Dario Antonelli, Agostino Villa, Bart MacCarthy, D. Bellomo*
- 29- People at Work: Modeling Human Performance in Shop Floor for Process Improvement in Manufacturing enterprises  
*Siti Nurhaida Khalil, R.H Weston and J.O. Ajaefobi*
- 30- Competence Ontology for Network Building  
*Kafil Hajlaoui, Xavier Boucher, Michel Beigbeder, Jean Jacques Girardot*

## **Part 9 Knowledge Management in Collaboration**

- 31- Knowledge Management with Snapshots  
*Hilda Tellioglu*
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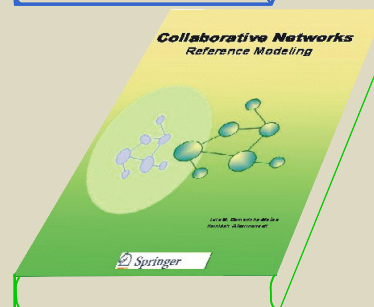
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## Books on Collaborative Networks

Two books with the main results of the ECOLEAD project:



Available through Springer or Amazon.

[Book1 link](#)

[Book 2 link](#)

## Current membership of SOCOLNET

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Australia - 10	Luxemburg – 1
Austria - 2	Macao (China) – 1
Belgium – 2	Mexico - 4
Brazil - 20	Morocco – 2
Canada – 4	Netherlands – 9
Chile – 1	Norway - 2
China – 2	Panama – 1
Colombia – 1	Poland - 4
Denmark – 1	Portugal - 37
Finland - 12	Romania – 2
France - 12	Singapore – 1
Germany – 21	Slovenia – 2
Greece – 4	South Africa – 1
Hong Kong	Spain – 10
(China) – 1	Switzerland - 6
Hungary – 1	Taiwan – 2
India – 2	UK – 12
Iran - 1	USA – 12
Ireland - 3	
Israel – 3	Total: 225
Italy - 9	
Japan - 2	



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