Proposal Competence Center Business Networking

Rainer Alt
Florian Leser
Thomas Puschmann
Christian Reichmayr
Competence Center
Business Networking

Proposal

http://ccbn.iwi.unisg.ch

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Contents

1 EXECUTIVE SUMMARY – CC BN CONTINUES TO ENHANCE THE EXPERIENCE IN BUSINESS NETWORKING ........3

2 BUSINESS NETWORKING IN THE INTERNET AGE – THE NEW BUSINESS MODEL HAS PROFOUND IMPLICATIONS ..........5

3 SITUATION IN BUSINESS NETWORKING – SEVERAL FACTORS CREATE COORDINATION CHALLENGES AND BUSINESS OPPORTUNITIES .................................................................8

4 FUTURE CHALLENGES – TRANSFORMATION, COORDINATION, AND INTEGRATION WILL CREATE SIGNIFICANT BENEFITS ........................................................................................................11

5 BENEFITS OF PARTICIPATING IN CC BN – EXISTING EXPERIENCE AND CLOSE COLLABORATION LEAD TO SUCCESS ........................................................................................................13

5.1 RESULTS – CC BN WILL DELIVER SIX MAIN RESULTS TO PARTNERS .14
5.2 BENEFITS FOR PARTNERS .................................................................15
5.3 PROJECT PLAN ..................................................................................16
5.4 PARTNER COMPANIES AND RESULTS OF CC IBN .......................16

6 ORGANIZATION AND FINANCIALS – COMPETENCE CENTERS ARE PROVEN STRUCTURES FOR COOPERATION ....18

6.1 IWI-HSG AS PARTNER ....................................................................18
6.2 COMPETENCE CENTERS AS SUCCESSFUL COOPERATION MODEL ....18
6.3 FINANCING .......................................................................................19
1 Executive Summary – CC BN continues to enhance the experience in Business Networking

Challenge

Business Networking has become one of the key business concepts for companies in the Internet age. It is driven by profound customer orientation and aims at providing customers with tailored solutions at competitive cost levels. These developments are transforming many industries. The (mega)mergers, the decline of traditional companies, and the success of new start-up companies are among the visible consequences. Within this competitive global marketplace concentrating on core competencies, efficient partnering with customers and suppliers as well as outsourcing of non-core competencies are essential elements of successful business models. The challenges for companies are to assess the implications regarding their individual value proposition and to shape a coordinated view on strategies, processes and information systems in Business Networking.

Vision

Networkability is the key in the Internet Age. It is largely enabled by information technology (IT) and refers to the speed and the efficiency of establishing relationships with business partners. Existing solutions in Business Networking, e.g. eCommerce, Supply Chain Management, Customer Relationship Management, are the basis. Today, these systems rarely represent the new business models of successful Internet companies, such as Dell, Amazon, or Marshall. These ‘Start-ups’ act as efficient and flexible integrators of electronic services with varying business partners. In the forthcoming years Business Networking systems will see three developments: 1. Isolated solutions for eCommerce or Supply Chain Management will be coordinated among each other and with Enterprise Resource Planning systems (cooordination). 2. External electronic services, such as procurement or payment, will complement existing systems (integration). 3. The systems will become services in their own, i.e. systems that generate revenue (transformation).

Goals

The Competence Center Business Networking (CC BN) builds on the experience and the results of the Competence Centers electronic Business Networking (CC eBN) and inter-Business Networking (CC iBN). The focus will be on developing solutions for the coordination of existing Business Networking systems as well as enhancing existing systems with an eService focus. The main questions are:

- **Transformation.** What are my customers’ processes and which virtual services can support them? How can I transform my business with Business Networking solutions? What eServices can my IT-department /service provider offer to our customers? What are the implications of eServices, eCommerce or supply chain management for my business?

- **Coordination.** What are the processes linking my operations with the operations of my customers and suppliers? What are the relevant business scenarios and what networkability is required to implement them? Does cooperation involve close or weak ties with partners and what is the design of the exchange processes?
**Integration.** How does the technical integration of my Business Networking systems achieve? How are SAP and non-SAP components integrated in my existing IT architecture? What are the future integration scenarios, relevant tools and standards?

**Benefits**

Participation in the Competence Center Business Networking (CC BN) yields significant benefits for partner companies. The main benefits are:

- In **bilateral projects** with each partner company, CC BN provides guidance in conceiving and implementing Business Networking solutions. Viable business models are developed and broken down for implementation within internal projects.

- Training to assess networkability based on PROMET®iBN method will be provided in order to identify and organize networking projects.

- Detailed **leading edge studies** and evaluations of Business Networking tools will be conducted and are available to all partners for example an evaluation for Enterprise Application Integration (EAI) tools.

- Development of instruments to manage the Business Networking landscape. This includes an **architecture** for Business Networking and an enhanced **method** for integration and eServices.

- Knowledge from bilateral projects is anonymized, generalized, and made available to all participating partner companies. **Experience transfer** among partner projects is organized in regular workshops.

**Approach**

CC BN continues the successful Competence Centers CC eBN and CC iBN. Partners immediately benefit from the established expertise in process optimization and application planning (CC eBN) as well as in Electronic Commerce and Supply Chain Management (CC iBN). Current partners of CC iBN are Bayer, Bosch, Deutsche Telekom, HiServ, Hoffmann La-Roche, Riverwood International, and SAP.

CC BN will start on **March 1st, 2000** for 2 years. Experienced customer managers at the Institute for Information Management will support each partner company in establishing viable solutions within bi- or multi-lateral projects.

**Key words**

Business Networking, Customer Relationship Management (CRM), Distributed Application Planning, Electronic Commerce (EC), Electronic Procurement (eProcurement), Electronic Services (eServices), Enterprise Application Integration (EAI), Enterprise Resource Planning (ERP), IT-Strategy, Networkability, Supply Chain Management (SCM)
2  Business Networking in the Internet Age – The new business model has profound implications

“Copernican revolution of sorts is under way. Executives used to imagine their companies as the center of a solar system orbited by suppliers and customers. The Internet is changing that – dramatically. Now the customer is becoming the center of the entire business universe.” (Business Week)

Customer orientation

Customer orientation is the key to competitiveness in the information age. It not only sustains existing businesses but also creates potentials for new revenues. Significant improvements in customer orientation have been made possible with the advances in information technology (IT). Companies have new forms of interacting with the customer, more powerful tools in managing customer data and improved possibilities in managing their entire value chain.

Example

An example which clearly illustrates the potentials of customer orientation is Marshall Industries Inc. in El Monte, California. The company ranks among the largest distributors of industrial electronic components and production supplies. Customers can browse a catalog that includes products of some 150 suppliers, order electronically, track their orders along the entire chain to their own production units, obtain information regarding stock levels, and calibrate their material consumption with forecasts. Additional value is provided by applying methods of quality control, by testing components, by mass customizing and programming. Marshall’s system handles some 700,000 transactions a day, which are used internally to derive and complete customer profiles.

Figure 1: Website of Marshall

1 In mid 1999 Marshall Industries was acquired by Avnet, the industry’s largest electronics distributor. See Http://www.avnetmarshall.com
Marshall shows that customer orientation relies on effective and efficient Business Networking. The system was built step-by-step from an electronic order entry and routing system which was implemented for improving the communication with suppliers. Over the last years these backbone systems were enhanced with an Intranet, an Internet-catalog, a 24hour call center, a supply chain integration system (PartnerNet), a distribution resource planner, and several educational features. The attractiveness and the performance of the system were major factors that Marshall could nearly triple its revenues between 1991 and 1999. Between 1991 and 1996 the productivity per employee jumped from $360,000 to $740,000. The learnings from Marshall are:

**Characteristics of Business Networking**

- Business Networking is designing and developing relationships of **entire value chains** between internal and external business units. It provides an integrated perspective on physical and virtual processes.

- Business Networking provides a frame around individual concepts, such as eCommerce (EC), Supply Chain Management (SCM) and Customer Relationship Management (CRM), which permits a **coordinated** holistic approach.

- Business Networking means **integrating** various applications, e.g. eCommerce and backoffice systems.

- Business Networking systems can be **transformed** to individual services. For instance, many catalog services have the potential to become a Marshall for their industry.

> No two customers have the same need but they all want the same thing – free, perfect, now" (Rob Rodin, CEO, Marshall Industries)

**Evolution of Business Networking**

In the last years companies have implemented several Business Networking systems. Today’s approaches build on these systems and have to include the need for coordination, integration and transformation. The following evolution can be seen in many companies (Fig. 2).

- **Functional systems.** In the 1970s applications were implemented to support specific business functions, such as sales, finance or human resources. At that time, Business Networking was not taking place on an electronic basis.

- **ERP-systems.** In the 1980s the functional systems were replaced by company-wide integrated systems, so called Enterprise Resource Planning (ERP) systems, i.e. SAP R/3. Business Networking concentrated on the linkage of distributed ERP-systems (i.e on different locations). and partners, with the technology of electronic data interchange, i.e. EDI, ALE.

- **Extended Supply Chain systems.** In the 1990s, various systems evolved which aimed at supporting the extended supply chain, i.e. sourcing, delivery or customer processes. Examples are electronic catalogs (e.g. Intershop, Broadvision), supply chain planning systems (e.g. i2, Manugistics), and customer relationship
management (e.g. Siebel, Vantive). For SAP R/3 the so-called New Dimension products were created.

- **Networked Enterprises.** With the extent of today’s Internet-presence companies arise that offer more than optimized processes. The service of Internet-based companies, such as Marshall, covers an entire value network. Marshall has the role of an integrator with electronic links to suppliers, customers, partners, and complementary service providers (logistics, payment etc.). This network determines the competitive value and adding partners quickly and efficiently to this network and the business processes is becoming the key success factor (‘networkability’). The mySAP.com initiative is reflecting the move to the networked economy and serves as a platform for networked companies.

**New business models**

Networked companies will follow new business models. Activities which are not within their core competencies are purchased from external partners. The main elements of this business model are (Figure 3):

- A **service integrator** who provides tailored solutions to the customer. As described in the Marshall example, service integrators bundle services and manage the customer relationship. Offering individual solutions on the spot by quickly bundling eServices is one of the main challenges.

- Modular **eServices** provide specific business functions that are required by many companies. eServices are largely standardized, electronic and charged by use. Examples are infrastructure services, like Internet access provider, hosting services trust-, community-, master data-, procurement- and human resource services (Table 1).

- At the heart of service integration are standards and connectivity tools. They are summarized in the **Business Bus** which will become the central integration device in the Internet Age. The Business bus establishes m:n-connectivity in Business Networking and characterizes the totality of technical, application and business standards on which software solutions, electronic services, etc. are based. An example of the business bus in the banking sector is the order transport management system from PricewaterhouseCoopers.
3 Situation in Business Networking – several factors create coordination challenges and business opportunities

Today, various factors can be identified which, in sum, determine the evolution of eServices as well as the opportunities and threats in Business Networking. Important drivers are (see Figure 4):

- **eServices**
  - Companies that offer their activities via the Internet. These are on the one hand well-known services from Amazon, Dell, Cisco or Marshall, which focus on new customer-oriented sales-concepts and on the other hand high specialized services that can be integrated in existing solutions, i.e. Ariba, PayNet etc. (Tab 1). eServices are often not offered from well-established but from new companies with high networkability.

- **Existing Solutions**
  - Companies have many different Business Networking systems in use, like websites, planning systems, ERP-systems etc. But these systems are often not integrated, not customer-oriented etc. They are the basis for future developments.

- **Standards**
  - Currently, various approaches to standardization are taking place which decrease the coordination requirements between partners. When, for instance, data standards from CommerceNet (cXML) or RosettaNet are used for the procurement of indirect goods, involved companies need not negotiate on catalog formats and the like. Examples for standards are EDIFACT, cXML, CPFR, OBI, and SAP’s BAPIs.

- **IT-departments become service providers**
  - For many large companies internal departments are important service providers in the future. This is especially true for functions which are sensible to competition and involve a large amount of trust, e.g. customer master data. Other services will only be bundled and sourced from external partners, e.g. indirect procurement or payroll services. Internal overhead functions may also decide to act as external service providers. This strategy will be relevant for many internal IT-departments which are already being transformed to

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2 Abbreviations: EDIFACT: Electronic data interchange for administration, commerce and trade, CPFR: collaborative planning, forecasting and replenishment; OBI: open buying on the Internet; BAPI: business application process interfaces; cXML: commerce extended markup language.
shared service centers. According to Price WaterhouseCoopers, the organizational shift from overhead functions to service providers creates cost savings between 40 and 60%. These services will be made available on enterprise portals which will be running in 60% of all large companies by 2001 (GartnerGroup).

Table 1: Examples for eServices

| MySAP.com, the Internet extension for SAP’s ERP and New Dimension functionalities. It offers additional value in four areas: a unique work environment which integrates over multiple distributed R/3 modules, an Internet marketplace, various business scenarios, and new services in hosting SAP-applications (www.mysap.com). |
| Deutsche Post launched eCommerce Services, a variety of modular services for businesses. These eServices include call center, shop, order entry and management, warehousing, shipment and payment functionalities. The modules are individually bundled and integrated with internal systems (www.e-cs.de). |
| Automatic Data Processing, Inc. (ADP) offers a broad spectrum of business services, including human resource management systems, payroll and business tax management, brokerage industry market data, securities transaction processing and investor communications and fee and utilization audits of bodily injury claims (www.adp.com). |
| PayNet is an eService for Bill Presentment and Payment. Via PayNet sellers send electronic invoices to buyers who in return make their payments via PayNet. The eService which has been established by the Swiss banks and the Swiss post office bases on the national Swiss trust service Swisskey and aims at positioning the services beyond Switzerland (www.paynet.ch). |

Processware

- Besides standards, tools for enterprise application integration (EAI) are forming an important element to realize the Business Bus (see Figure 2). These tools are also referred to as processware and represent enhanced middleware applications which link business processes. Among the profound implications of EAI-tools is their ability to link ERP-systems of various vendors and other Business Networking systems (such as catalogs, supply chain management systems). Examples of EAI-vendors are CrossWorlds, Extricity, Tibco, Neon, and Oberon.

Critical mass

- Networking effects, the rules for Business Networking, emerge when a large number of suppliers and customers get linked electronically (n:m capability). Services need a critical mass of users or transactions to guarantee not only economies of scale but also attractiveness to the customers. As an example Amazon opened up new markets, i.e. audio, video or toys, with its 10 million users out of the book market.
In a nutshell, the situation in Business Networking, shows the merge of elements which have evolved separately. The picture of the new economy is being formed now and enhancing existing Business Networking solutions requires speed and well-prepared decisions on strategic, process and systems level. This will determine a company’s networkability and the efficiency and flexibility of operating in competitive global marketplaces.

“You’ll want to wrap your existing applications into e-services applications so that you can build a micro-e-services economy within your own company and be ready both to publish your e-services to the rest of the world and to subscribe to the e-services you need. You can’t afford to be left out of this new e-service economy. It’s time to start planning your e-services strategy!” (Patricia B. Seybold)
4 Future Challenges – transformation, coordination, and integration will create significant benefits

“Certainly the early impact of the Internet is profound, particularly for business ... In fact, efficiency may be the watchword of the Net. It provides the means to break down bureaucracies; challenge corporate, governmental, and intellectual orthodoxies; and foster a stronger sense of community. Such developments have sparked more than one revolution. There’s no reason to expect anything less this time” (Business Week)

Business Networking deals with the challenges companies are facing in the Internet age. Some of the relevant entrepreneurial challenges are:

Coordination

- Coordination of existing Business Networking solutions – especially large multinational companies have multiple Business Networking systems in place which are not linked. The challenge is to provide data integrity and workflows across these solutions.

Integration

- Integration of SAP and non-SAP components – enhanced supply chain systems, such as eCommerce, Supply Chain Management and Customer Relationship Management, have reached considerable acceptance which are from vendors other than SAP (e.g. Intershop, i2, Siebel). The challenge is to develop scenarios which integrate them in SAP architectures.

- Integration of Web-based systems – the diffusion of the Internet has added a third layer to the integration of existing systems. The challenge is to quickly integrate eServices, with ERP and enhanced supply chain systems (e.g. SAP’s New Dimension products), and to monitor the performance of external providers.

Transformation

- New processes and business potentials – adding value to customers by offering solutions which focus on customer processes are key in the Internet age. Transformation of existing Business Networking solutions means to identify and emphasize the information processes which provide value to the customer. For example, several service providers have transformed electronic catalogs to become procurement services which add significant value to their customers.

  - Using General Electric’s Trading Process Network (GE TPN), GE Lightning has halved procurement times and buys raw materials at prices 10% to 15% lower than what it normally pays. Today, GE TPN includes over 2,500 business partners and handles a volume of approx. $1 bio - $5 bio are forecasted for 2000

  - Ariba’s product offers integration across various product catalogs of MRO suppliers and enables end-users to purchase goods.

3 MRO denotes goods for Maintenance, Repair and Operations.
Cost reductions from $75 to $25 per transaction are reported. Recently, Ariba launched Ariba.com, an eService for MRO procurement. The implementation of an eProcurement system for MRO-procurement at the airport in Frankfurt, Germany, reduced the costs per transaction by 87%, i.e. from DEM 279 to DEM 35.

The challenges in coordination, integration and transformation require specific actions from management. Critical questions on all levels of Business Engineering are:

**Questions on strategy level**

- How can the quickest **transformation** of Business Networking solutions in the information age be achieved?
- What services should be offered and what services should be purchased from partners? What types of services are evolving?
- How to increase the networkability of a company? What are the costs of establishing relationships with suppliers, and customers?
- What are the critical success factors in achieving efficient and effective collaboration with partners? How can win-win situations be achieved?

**Questions on process level**

- What are the **coordination scenarios** that link suppliers and customer in Internet-based value chains? What standards are evolving?
- What is the impact of Internet-based processes to existing business processes? What processes have to be changed and/or added?
- What are criteria and measures for selecting and monitoring eServices? What are the service levels?
- How are costs and benefits analyzed for services? What is the business case?
Questions on systems level

- How get heterogeneous applications integrated in a flexible and efficient way? How can enterprise application integration be achieved?

- How do ERP, EC, supply chain systems and eService platforms interact? How is common data (e.g. master data) and common workflow information organized?

- What tools are supporting Business Networking? What are the strengths and weaknesses of tools, e.g. for enterprise integration? What standards are emerging?

- How do the systems architectures change with the increasing use of services? How are SAP, non-SAP and eService components handled efficiently?

5 Benefits of Participating in CC BN – existing experience and close collaboration lead to success

The Competence Center Business Networking will provide answers to the questions mentioned above. Based on the experience obtained in previous Competence Centers (CC eBN and CC iBN), CC BN will deliver results which aim at improving the process efficiency and competitive strength of our partner companies (Figure 6).

<table>
<thead>
<tr>
<th>Topics</th>
<th>Results</th>
<th>Benefits</th>
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<tbody>
<tr>
<td>Transformation and strategic positioning</td>
<td>Networkability assessment</td>
<td>Project support</td>
</tr>
<tr>
<td>Coordination scenarios</td>
<td>Bilateral partner projects</td>
<td>Knowledge transfer</td>
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<tr>
<td>Integration of external services</td>
<td>Leading edge studies</td>
<td>Cost savings</td>
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<tr>
<td></td>
<td>Tool and service assessment</td>
<td>Faster knowledge acquisition</td>
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<tr>
<td></td>
<td>Architecture</td>
<td>Market intelligence</td>
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<tr>
<td></td>
<td>Project method</td>
<td>Focused investments</td>
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<td></td>
<td></td>
<td>Knowledge transfer between university and practice</td>
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</tbody>
</table>

Figure 6: Topics, results and benefits of CC BN
5.1 Results – CC BN will deliver six main results to partners

Based on our experience in Business Networking, on our former Competence Centers, and the final goals defined by the participating partner, we plan to deliver six main results:

- **Networkability Assessment** – As the key success factor for companies in the Internet age, the networkability assessment concept has been elaborated in CC iBN. An analysis will be conducted with each partner company to determine areas for improvement and potential bilateral projects.

- **Bilateral Partner Projects** – Tangible benefits and substantial progress will be guaranteed by setting up a bilateral project with each partner company. For optimal use of resources this bilateral project corresponds with an internal project in the partner company.

- **Leading Edge Studies** - Successful solutions for integrated value chain management and eServices will be analyzed and documented. They provide CC BN partners with basic principles and concrete ideas for designing their own strategies and processes. It is planned to start with an overview study of 10 cases and add 3 in-depth case studies each 6 months. The specific topics will be defined by the partner companies.

- **eService and Tool Assessment** – Tools and eServices that support networking with customers and suppliers (e.g. electronic commerce, supply chain management etc.) will be collected, documented, and evaluated. Evaluation will be guided by the technical and organizational requirements of the partner companies.

- **Architecture** – Advantages in the Internet age will base on the seamless integration of internal and external applications and eServices. The architecture will provide answers to structuring and assessing eServices, integration issues for application and process architectures (standards, tools), successful policies and architecture principles.

- **Project Method** – The project methods PROMET®eBN and PROMET®iBN have been major results of CC eBN and CC iBN. The partner companies will receive both methods and training in method iBN. The method iBN will be developed further to the method BN and include consequences of eServices, shaping integration scenarios and integration of internal and external applications/services (EAI).

In addition to these results, we will produce working papers and analyses on specific topics that are requested by partner companies.
5.2 Benefits for Partners

Participation in CC BN will lead to direct benefits for partner companies. An active participation and a close link to internal projects will yield quick wins within 12 months. Other benefits are:

- **Project support** – In the bilateral project each partner company will obtain direct project support from an experienced customer manager from the Institute for Information Management (IWI-HSG). Support will be available for **20 days** per year.

- **Knowledge Transfer** - All CC BN members will receive the methods PROMET®eBN and PROMET®iBN and training in the results of CC eBN and CC iBN.

- **Methodical Approach** – The CC BN members assures a methodical approach within the partner projects and help to structure internal projects and methods.

- **Cost Savings** - You can save the expense of consultancy fees. The application of reference solutions and a structured approach based on the developed method in projects will keep you on track and thus save costs.

- **Faster Knowledge Acquisition** - The intensive cooperation between the various members of the Competence Center will allow the relevant know-how to be acquired by the individual corporations within a short period of time.

- **Market Intelligence** - The participants will receive regular updates on eServices on the market, evaluated in accordance with their needs. This collection on eServices will be updated throughout the entire duration of CC BN.

- **Focused Investments** - Due to an organized exchange with other corporations it is possible to focus investments (projects, technologies, standards) in areas with the highest potential benefits.

- **Knowledge Transfer Between University and Practice** - The Competence Center promotes a general exchange of ideas and experience between the University of St. Gallen, the IWI-HSG and practitioners.
5.3 Project Plan

CC BN will start on March 1st, 2000 and will run for two years. The project plan for elaborating the six results described above is shown in Table 3.

<table>
<thead>
<tr>
<th>Events</th>
<th>Workgroup Meeting</th>
<th>Steering Committee Meeting</th>
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<tbody>
<tr>
<td>1. Networkability</td>
<td>1st WGM</td>
<td>1st SCM</td>
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<tr>
<td>2. Bilateral project</td>
<td>2nd WGM</td>
<td>2nd SCM</td>
</tr>
<tr>
<td>3. Leading edge studies</td>
<td>3rd WGM</td>
<td>3rd SCM</td>
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<tr>
<td>4. Tool Assessment</td>
<td>4th WGM</td>
<td>4th SCM</td>
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<tr>
<td>5. Architecture</td>
<td>5th WGM</td>
<td>5th SCM</td>
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<tr>
<td>6. Method</td>
<td>6th WGM</td>
<td>6th SCM</td>
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</tbody>
</table>

Table 3: Project plan CC BN

5.4 Partner Companies and Results of CC iBN

The partner companies of CC iBN are: Bayer AG, Robert Bosch GmbH, Deutsche Telekom AG, HiServ GmbH, F. Hoffmann-LaRoche Ltd., Riverwood International Inc., SAP AG, and ETA S.A. Fabriques d’Ebauches (The Swatch Group). Examples of bilateral projects with these partner companies are:

- Development of a concept for collaborative forecasting to optimise planning processes at Bayer – Together with the logistics department of Bayer and the central procurement of Bosch, a concept for the exchange of planning and transaction data was developed.

- Templates for Distributed ERP-Systems at Bosch – Together with central IT group of Bosch a Template Handbook was elaborated for the harmonization of distributed ERP-implementations at Bosch.

- Setting-up an eProcurement Solution at Deutsche Telekom – In cooperation with an internal project at Deutsche Telekom, a solution for the procurement of MRO materials was evaluated and is now being implemented. The CC iBN supported the evaluation process.

- Supply Chain Reengineering and Development of a eCommerce-Distribution Channel at ETA – In the first step of a Business Network Redesign project, two main business processes were redesigned and an eCommerce solution was introduced for the distribution of spare parts.
• Development of an e-business strategy for HiServ – The project with HiServ focused on the design of a strategy for the repositioning of business with eServices.

• Implementation of an Advanced Planning System for distributed Supply Chain Management at Riverwood – Based on SAP APO a Vendor Managed Inventory strategy was conceptualized and implemented.

• Definition of the future application architecture at Roche – On the basis of future demands in the pharmaceutical industry and the current application portfolio a system architecture was developed.

• Definition of ASAP APO Scenarios and further Development of the ASAP for APO at SAP – The bilateral project set up with SAP focused at completing the Accelerated SAP implementation method. CC iBN participated in the design of Vendor Managed Inventory (VMI) scenarios and in elaborating the ASAP APO roadmaps.

A major result which evolved from all bilateral projects is the method PROMET®iBN. This method aims at efficiently designing and implementing inter-business processes, i.e. solutions that link a company with its customers and/or suppliers. The main components of the method are a procedure model, techniques, result documents, role models, and cases.

### Figure 7: Procedure model PROMET®iBN

<table>
<thead>
<tr>
<th>Phase 1</th>
<th>Analysis Cooperation potentials</th>
</tr>
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<tbody>
<tr>
<td>1.1 Selection cooperation area and project scope</td>
<td></td>
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<tr>
<td>1.2 Existing process and application architecture</td>
<td></td>
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<tr>
<td>1.3 Cooperation scenarios and metrics</td>
<td></td>
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<td>1.4 Cooperation concept</td>
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<table>
<thead>
<tr>
<th>Phase 2</th>
<th>Design und Selection of implementation alternatives</th>
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<tbody>
<tr>
<td>2.1 Selection pilot partner</td>
<td></td>
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<tr>
<td>2.2 To-be process specification</td>
<td></td>
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<tr>
<td>2.3 Specification to-be application architecture</td>
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<tr>
<td>2.4 Cooperation initiative</td>
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<thead>
<tr>
<th>Phase 3</th>
<th>Planning and Implementation of pilot projects</th>
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<tr>
<td>3.1 Management project portfolio</td>
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<tr>
<td>(Implementation internal project)</td>
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<table>
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<tr>
<th>Phase 4</th>
<th>Continuation</th>
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<tbody>
<tr>
<td>4.1 Cooperation management</td>
<td></td>
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<tr>
<td>4.2 Continuation</td>
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### Characteristics
- Method for eCommerce and Supply Chain Projects
- Specifics: cooperation planning, cooperation metrics, architecture planning
- Networkability as guiding concept
- Formal and systematic method following „Method Engineering“
6 Organization and Financials – Competence Centers are proven structures for cooperation

6.1 IWI-HSG as Partner

With three professors and around 50 staff, the Institute for Information Management of the University of St. Gallen (IWI-HSG) is one of the largest research centers of its kind in Europe. It concentrates on applied research, which is largely self-financed.

The main focus of the research program Business Engineering (BE HSG) is to provide business with the strategies, concepts and methods to facilitate its transition to the information society. The IWI-HSG aims at participating in the structural adjustments of markets, companies, processes and practices in the information age. 40 high-profile partner organizations work with IWI-HSG in various projects and Competence Centers to develop innovative solutions and methods in strategic areas of information management. The IWI-HSG can look back on a series of results obtained from previous projects which are now successfully applied in a large number of companies.

6.2 Competence Centers as Successful Cooperation Model

IWI-HSG has a long and successful track record in the running of Competence Centers. Each Competence Center brings together specialists from the partner organizations and experts from the Institute as a working group under the scientific direction of a professor. The work of the Institute is financed by the contributions of the partner organizations. The day-to-day running of the competence center is the responsibility of an experienced project manager of the Institute (CC manager).

Each competence center has a steering committee composed of one representative from each partner organization. It is the steering committee’s task to control and monitor the work of the competence center. The steering committee approves or reviews the project timetable proposed by the CC manager and monitors the progress of the project based on the project status reports, the use of financial resources based on financial reports, and the content of the work achieved on the basis of work reports.

The steering committee meets twice a year. The inclusion of new partner organizations requires the unanimous approval of the steering committee. The steering committee is usually comprised of executives from the partner organizations. A member of the steering committee can also be a member of the competence center working group.

Projects, which run within the scope of a competence center by the partner organizations, receive methodological support from the Institute’s staff. The staff documents the requirements resulting from projects, proposes further steps and provides insights and knowledge transfer from other companies and research.
Collaboration in Workshops

Workshops constitute a major aspect of the work in a competence center. As a rule, each partner organization is represented in the working group by 1 to 3 of its employees. The partners should aim for continuity in respect of working group members.

Between workshops there are working phases. This is when workshop results are consolidated, research is conducted, and bilateral projects are processed according to the project timetable. Since the work is closely coordinated with internal projects at partner companies, it is customary for the working group members of partner organizations to take on work packages as well. The results of the work are usually documented in work reports/working papers.

Experiences from the Competence Centers in the past show that a successful cooperation mainly depends on the existence of a bilateral project. This project has to be supported in an active way by the partner and needs a stable project team. Every partner gets a direct project support from an experienced customer manager from the Institute for Information Management (IWI-HSG) available for 20 days per year.

6.3 Financing

The participation for each partner company is CHF 120'000 per year. This covers all activities within CC BN, i.e. the results mentioned in Chap. 5.1 as well as the workshops. An estimated yearly budget for the competence center is shown below. The calculation of the budget is based on clearing rates of 1998 of the research program Business Engineering HSG.

<table>
<thead>
<tr>
<th></th>
<th>PD</th>
<th>à CHF</th>
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<tbody>
<tr>
<td>Prof. Österle</td>
<td>30</td>
<td>2,300</td>
<td>69,000</td>
</tr>
<tr>
<td>Project Management</td>
<td>120</td>
<td>1,550</td>
<td>167,000</td>
</tr>
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<td>4 Research Assistants</td>
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<td>1,040</td>
<td>500,000</td>
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<td>Workshop Organization</td>
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<td>Literature, Journals, and Subscriptions</td>
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<td>CHF 13,000</td>
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<tr>
<td>Hard- and Software</td>
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<td></td>
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</tr>
<tr>
<td>Expenses (Customer visits, Conferences, Training etc.)</td>
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<td>CHF 50,000</td>
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<td>Printed matters</td>
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<tr>
<td>Administrative costs</td>
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</tr>
<tr>
<td>Total</td>
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<td></td>
<td>960,000</td>
</tr>
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</table>
Participation in the CC BN means to invest in a project that has to yield a specific return. Already at the beginning of the CC BN the partners get direct realizable Quick Wins, like training and methods. The break-even may be reached with an active participation within a year.

**Figure 7:**
Cost-Benefit-Evolution

For questions on CC BN and on the research program BE HSG please contact Dr. Rainer Alt.

Institute of Information Management
University of St. Gallen
Müller-Friedberg-Str. 8
CH-9000 St. Gallen
Tel.: ++41 71 224 2420
Fax: ++41 71 224 2777
e-mail: rainer.alt@unisg.ch