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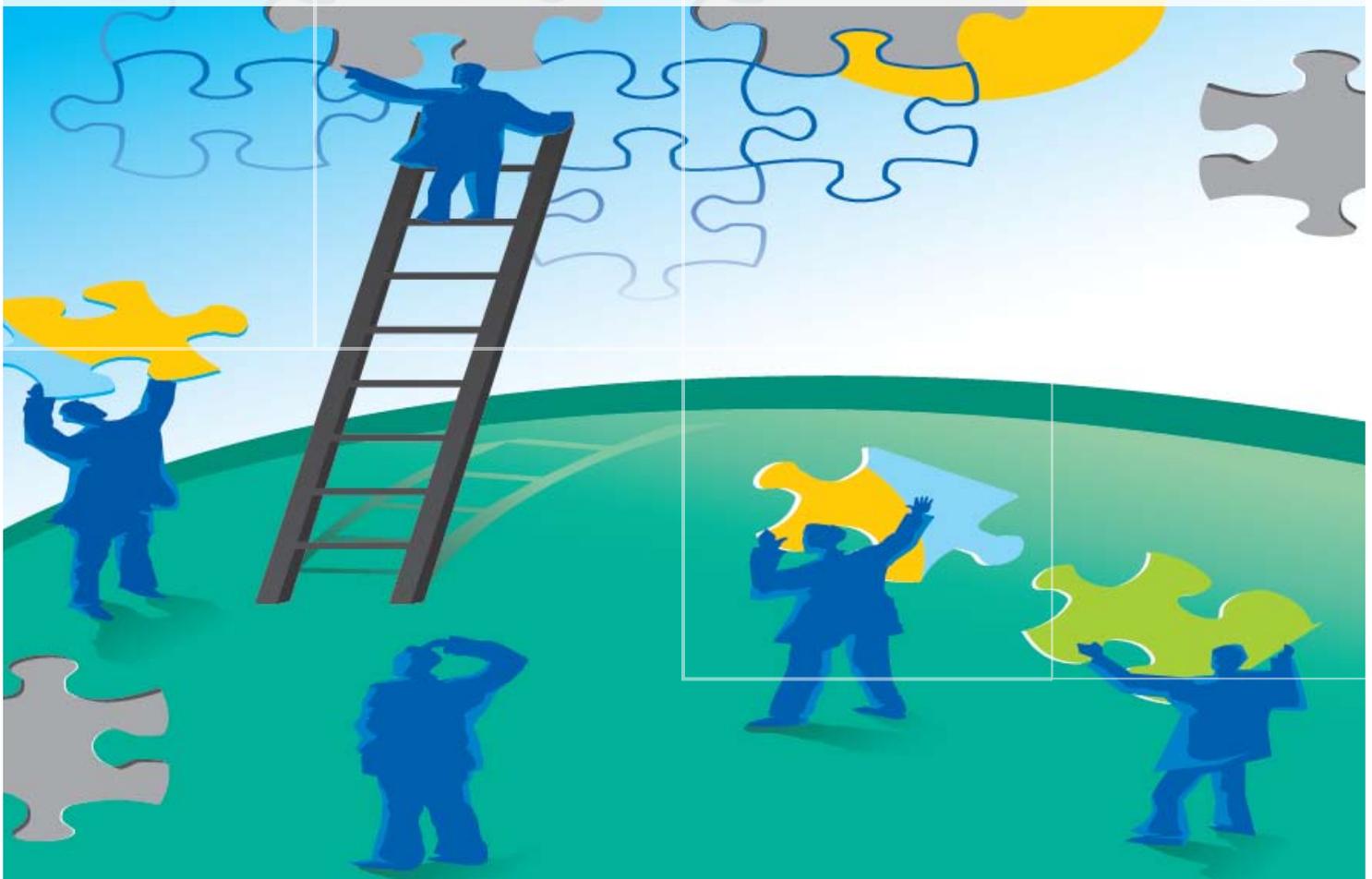
The eBusiness Community Model (eBCM):

May 2008

Paving for eFuture

Meeting the challenge of new business practices

- Which are the key elements of eBusiness?
- How can a SME maneuver in a new eBusiness environment?
- Why is a common focal point so important?



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<p>Abstract:</p> <p>Automated business processes offer great return on investment, more efficient business operations and enhanced competitiveness. In spite of the benefits, the cost of automation as well as the cost of employees adjusting to a new mindset is currently perceived as a threshold too big to overcome, especially for the SMEs. What the SMEs need is a modular approach, enabling them to gradually build their technical infrastructure and capabilities as well as recognizing alternative key elements required for becoming eBusiness integrated.</p> <p>Such an approach has been developed in eBCM-RAP, a cross cultural, multinational Nordic project. The centrepiece of the project is the “eBusiness Community Model, eBCM”, which is designed to cover all the major elements needed for advancing towards e-Business. In the project this model was used and further developed in three studies on the status of eBusiness in the partner countries. Based on the outcome of the three studies, the project partners demonstrated the value of the model as a development tool and present a set of recommendations to stakeholders in the partner countries for their eBusiness advancement.</p> <p>The project partners are all members of the European Network of National Test-beds for eBusiness, ETeB. ETeB is a multi national initiative; its members sharing the vision of streamlined cross-border ICT enabled business practices. The partner network is represented by public-private organisations from five of Europe’s most highly motivated nations with respect to ICT development, i.e.: Estonia, Finland, Iceland, Romania and Slovenia.</p>		
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<p>Distributed by: Nordic Innovation Centre Stensberggata 25 NO-0170 Oslo Norway info@nordicinnovation.net www.nordicinnovation.net Phone: +47 - 47 61 44 00</p>	<p>Contact person: Rúnar Már Sverrisson, Project Manager Icelandic Standards / Logar ehf Skúlatúni 2 IS – 105 Reykjavik - ICELAND www.stadlar.is Tel. +354 5207150 / +354 8970713 Fax +354 5207171</p>	

SUMMARY

This report presents the origin of the eBCM, the development path it has gone through, the work done in the eBCM-RAP project, its outcome and a vision for future exploitation of the model.

The project's three research rounds delivered a lot of information describing the eBusiness arena of Small and Medium Size Enterprises (SME), the increasing pressure for business practices renewal, the nature of the changes and CEOs' perception of the new tasks and challenges emerging. This pool of knowledge gave deeper understanding of the key elements of eBusiness and the mindset of people, the doers, standing in the frontline of development. Based on this understanding the structure and content of the eBCM was revised and the method of applying the model as an assessment tool improved.

Following are recommendations derived from the third and final research round of the eBCM-RAP project resulting from assessing the status of eBusiness of SMEs within the wholesale sector of Fast Moving Consumer Goods in Finland, Estonia, Iceland and Romania. The objective of the research was to demonstrate how the model could be applied in a real life situation and the embedded value it carries.

Recommendation 1: The eBCM-RAP project team recommends raised awareness of the challenges of eBusiness development and the need for strategic thinking towards the necessary in-house knowledge and skills.

Recommendation 2: The eBCM-RAP project team recommends raised management awareness of the need for eBusiness-strategic thinking and direct top-level management involvement.

Recommendation 3: The eBCM-RAP project team recommends raised management awareness of eBusiness opportunities and respective available ICT solutions, suitable to their business operations and budget.

Recommendation 4: The eBCM-RAP project team recommends restructuring of the supportive eBusiness development environment, making it an attractive source of information and platform for mutual exchange of ideas and best practices.

Recommendation 5: The eBCM-RAP project team recommends a raised management awareness of the need for specifying the new type of interaction between eBusiness partners and their respective new responsibilities.

Recommendation 6: The eBCM-RAP project team recommends information security issues to be raised to top-management level, eBusiness information being a core asset to the company calling for close attention and protection.

Recommendation 7: The eBCM-RAP project team recommends raised management awareness for quality management to be a competitive necessity. There is need for a new approach in eBusiness operations quality management, tailored to the needs and capacity of SMEs.

The model has the potential to address eBusiness issues of shared interest and it can act as the focal reference point serving several roles like a Case Study Reservoir, Landscape Illustrator & Reference Point, Benchmarking Tool, Cooperation Platform and Open Multipurpose eBusiness Development Process Engine

These many roles and the holistic nature and generic structure of the eBCM opens a wide arena for contributions serving a large variety of audience, who may benefit from the eBCM, e.g. Development Programme Constructors, ICT Technology Products and Services Suppliers, Governmental Bodies and Policy Makers, eBusiness

Communities, Standards and Best Practice Development and Research and Education Practitioners.

The drivers of change partly depend on new technology inventions and their adoption, and partly due to business practices renewal worldwide. Seen from this angle, the eBCM will never achieve a final solid state to be carved in stone. As a reflection of the real life, it has to change and develop accordingly in order to provide timely information and a trustworthy picture of the business landscape in its automated form.

The exploitation of the eBusiness Community Model may follow different, still well justified roadmaps. The best suitable tracks depend on the stakeholders and other interest groups having an interest in eBusiness adoption. Thus, as an example, policy makers, solution suppliers, educators, and SMEs have differing motives and objectives in assessing the value and benefit of the eBCM.

However, the strength of the eBCM is its generic nature, which allows different roadmaps and still offers a common platform and image for the eBusiness phenomenon. It is also foreseen, that this characteristics is the great opportunity: If the key stakeholders agree on a common practice, model, and its usage patterns, there is a common language that will build a bridge between the counterparts and significantly support common understanding of eBusiness success factors.

This understanding would be the prerequisite for, as an example, improved policy decisions, education and training programmes and facilities, and for a higher quality service delivery for SMEs practising or aiming to adopt eBusiness.

There is a certain analogue between a model and a piece of art. Both gain inspiration from reality, both are attempts to construct an interpretation of the reality, and both aim to serve an audience by delivering a message or an opinion concerning the reality and how to cope with it. In addition, both are often loaded with the desire from the model constructor, or from the artist, to have an impact.

Karl Henry Haglund

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PREFACE

In the eBCM-RAP project, organisations from four of Europe's highly motivated countries with respect to utilisation of information and communication technology (ICT) for business, government and citizens use, cooperated in the development of the eBusiness Community Model (eBCM).

This report presents the origin of the eBCM, the development path it has gone through, the work done and the outcome of the eBCM-RAP project. The current status of the model is evaluated as well as recommendations for further recognition of the eBCM and its utilisation.

On behalf of the project partners, the external expert and other participants, I would like to extend our gratitude to the Nordic Innovation Centre, NICE, for its support and believe in the project. The cooperation with NICE has always been friendly, supportive and constructive.

We believe that the message of the eBCM is valuable and important to all stakeholders, working towards eBusiness. Raised awareness of the key elements and a strategic approach in applying the knowledge is an unbeatable formula for success in the fast competitive race of economies and regions.

The project partners have already drafted plans for taking the outcome of the eBCM-RAP project onwards with the desire to make the eBCM an internationally recognised and valued tool for eBusiness advancement.

May 2008

Rúnar Már Sverrisson,
eBCM-RAP Project Manager

EVOLVING BUSINESS LANDSCAPE

Today's business landscape is continually being reshaped by the forces of innovation, market and society. Business processes are rapidly accelerating in phase, their level of complexity rising and their span crossing new boundaries. New products and services are constantly being developed to current and emerging markets. Businesses and consumers are becoming more informed and demanding on service, accountability and corporate social responsibility.

If one can talk about a single main driver for this paradigm shift, it is the aggressive automation of business processes, the availability of information and the benefit it gives to business, consumers and society.

The business landscape is shaped by a rich variety of business players, large and small. For business processes to become automated requires a sufficient number of actors to share a common mindset, be technically aligned and digitally integrated. Due to the fact that Small and Medium Size Enterprises (SME) produce on average well over half of economy's output and value and serve a crucial role as suppliers to larger companies, it is evident that business processes will not become automated without active participation and integration of the SMEs.

THE INNOVATION OF TECHNOLOGY – FROM DEVELOPMENT TO ADOPTION

Business processes are the engineered way of delivering a product or service to customers. These processes have in most companies evolved over time, based on accumulated knowledge and experience of best practice and thereby become a key intangible asset. The challenge companies are now facing, with ICT, is that these "best practice" methods are to a large extent becoming obsolete and inadequate.

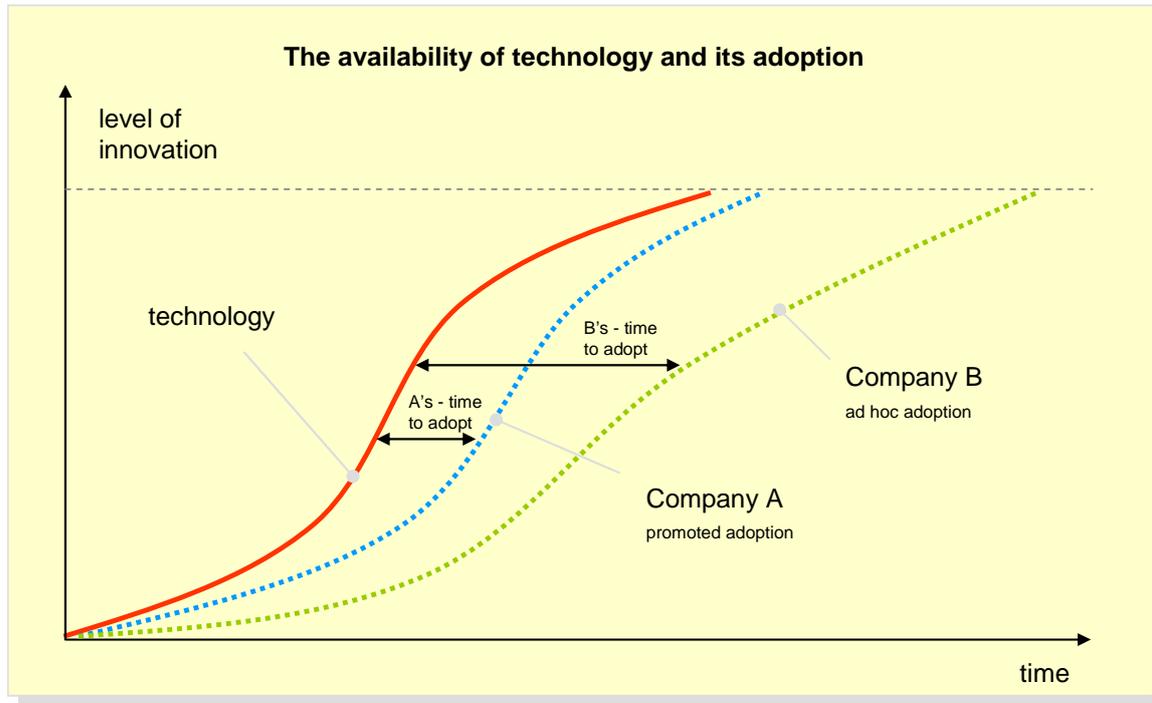
Automated business processes are costly to install with respect to investment in technology and reorganisation of operations as well as the cost of establishing the appropriate mindset with employees and business partners.

Most ICT solutions are currently tailored to larger corporations which can afford this cost and service package required for maintaining complex systems, integrating internal and external business processes and transactions. The SMEs on the other hand have less resources and need small, low-price, low-service-level application packages which can be modularly installed and taken into use as the SME management and staff becomes better ICT skilled, have gained the necessary trust and confidence in the new working methods, seen the benefits they provide and thereby are able to justify further allocation of resources to the change process.

A well known theory states that for any new discipline, practice or innovation to be adopted, trust and confidence has to be earned in the foreseen advantages. The required change process has to be understood in terms of consistency with the existing values and experience and there has to be time reserved for digestion and acceptance.

The time delay from the availability of technology to its adoption can be shortened by tactically raising the awareness and knowledge of management and staff in the new technology and working methods and the success factors for their efficient implementation.

The following figure shows a typical development curve for technical innovation (red curve) and two adjacent curves for its adoption. The blue curve represents a situation in company A with high level of motivation to adopt the technology. The green curve shows company B being less motivated and therefore slower in its adoption of the technology.

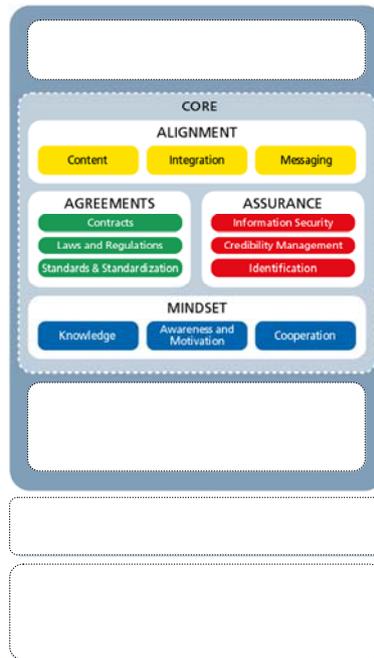


In the eBCM-RAP project the eBCM has been developed serving the mission of shortening the adoption time towards eBusiness. The model serves in this context as a knowledge reservoir, reference point, assessment tool and guidance in eBusiness implementation.

1 eBUSINESS IMPLEMENTATION, SME FOCUS

When deciding on an eBusiness strategy a company can take a comprehensive approach or simple approach or a combination of both. A comprehensive approach means realigning the company business model, business processes and ICT architecture to meet the objectives of the company by utilising ICT in an optimal way. A simple approach here stands for focusing on the current information flow and exploring available options to increase the use of ICT in the business operation.

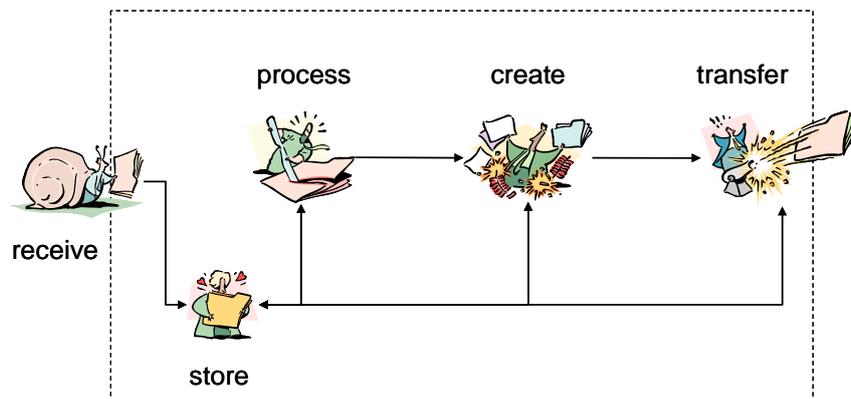
The comprehensive approach often requires the involvement of external experts, it is costly to implement and usually stretches over a longer period of time. In the case of SMEs the simple approach is often considered more pragmatic where management works at the changes from within the company, dealing with current bottlenecks in smaller projects which alone are not so costly and take less time. Regardless the approach, each decision to change needs to take into due consideration the key elements of eBusiness, represented in the eBCM's Core.



In the following chapters it will be described how the model can serve as a support for a SME which has selected the simple approach for its eBusiness implementation.

1.1 The simple approach and the eBCM

A CEO of a small and medium size company usually has a good overview and understanding of the information received, stored, processed, created and transferred in his company.



Flow of information in a company

When applying the simple approach, the first step is to recognise the company's information flow, i.e.:

1. Which are my business process units (departments / production areas)?
2. Which are the inputs of information to these units (from suppliers, service providers, government, employees or other)?

3. What kind of information processing occurs in the units?
4. Which are the outputs of information?
5. Is the flow of information to, within and from the units efficient and sufficient?
6. Which are the bottlenecks in the business process information flow?
7. How can the bottlenecks be resolved, taking into account the available resources?
8. Where is the biggest value-add when looking at the available solutions (improve current systems, build, buy or lease), cost-efficiency and overall information flow improvements?
9. Are there any non-technical issues to be considered before taking a decision, such as customers' expectations, employees' view to change or other?

After answering these questions, the manager is ready to look at the situation from a broader perspective, i.e. by looking at the Building Blocks of eBCM's core.

Knowledge – What is the necessary level of knowledge my employees in the different departments need to have about the information to ensure a more efficient flow?

Awareness & motivation – Are my employees aware of the importance of an efficient flow and motivated to improve it?

Cooperation – Is there enough interaction and cooperation between the departments and with business partners to achieve a more efficient flow of information?

Contracts – Do we have a common understanding with our business partners about the flow of information, i.e. mutual responsibility and accountability?

Laws & regulations – Are there any legal issues we need to consider in the exchange and management of information?

Standards & standardisation – Are we using the right standards to prepare, store and transfer information?

Information security – Does the information need to be protected from disclosure?

Credibility management – Do we need to consider some coordinated measures to ensure the credibility of company operations and information management?

Identification – Is there need for special measures to identify electronically individuals, items or other which are involved in the information flow?

Content – Does the content of messages transferred need to be normalised, classified or treated in any special way for the value of information to be retained?

Integration – Where in the flow do we need to take special measures to integrate with systems, work stations or operational functions? Are there special personal requirements that need to be brought into focus for the information flow to be efficient?

Messaging – What kind of messages do we need to receive or deliver in the flow and how do we manage them in our systems?

By answering these questions and others that can be derived from knowing and understanding the eBCM Building Blocks the manager becomes in a good situation to take an informed decision about the most rational ICT solutions to procure and their order of importance to the operational efficiency and thereby taking firm and effective steps towards eBusiness.

2 eBCM AS A DEVELOPMENT FRAMEWORK

Here it has been described how the eBCM can support SME managers in their decisions and actions to become more ICT enabled, i.e. towards eBusiness. But this is just one of many applications of the model. The eBCM's design and content encapsulates a message which is relevant to almost anyone that is doing business or serving business communities, including educators, research community, governments and business and funding organisations.

For educators and the research community the eBCM could serve as a reference point in assessing necessary knowledge, skills and research focus for supporting eBusiness development. Such a common reference point would result in better harmonization with business and communal needs for well educated workforce and targeted research projects, giving a higher return on time and funding resources.

Governments and communal development funding organisations share the common interest of developing programmes and actions that enhance the respective community's competitiveness, being a local community or a region. The challenge is to recognise and understand the communities' need for support and act on that need in a balanced and constructive way. The eBCM is a tool that could serve this purpose.

2.1 eBCM role and usage

The eBCM provides a general assessment platform for eBusiness and respective activities, and in addition, a working arena for benchmarking and indicator based studies covering eBusiness development and maturity follow-up. The approach allows several means for assessment, from a direct reference point to benchmarking in terms of identifying, understanding and adopting outstanding eBusiness practices and state-of-the-art solutions and applications in order to improve stakeholder performance. In addition, the eBCM has a number of other promotional roles such as:

- An *action trigger* for means and measures to tackle barriers and obstacles for eBusiness practices adoption and breakthrough;
- A *tool of reference* for setting community development and research funding strategies and respective decision making, and *idea generator* within national and international fora;
- A *tool of reference* for the development of eBusiness curricula, education and training materials and methods;

In addition, the eBCM may provide capacity for a number of other promotional roles such as:

- A *cooperation platform* of bridge-building nature, bringing together stakeholders of different background and discipline, still necessary for the sound progress of ICT enabled business practices adoption;

- A *case study reservoir* organised according to the model structure, including as example descriptions of successful business renewal schemes and initiatives, and other type of best practices;
- An *eBusiness landscape illustrator*, providing an overall multi-view picture of the evolving ICT enabled business practices and its development pressures and routes;
- An *optimisation tool* when taking decisions on the allocation of scarce eBusiness practices development resources, aiming for optimal “value for money”.

The eBCM has been fundamentally constructed as a generic entity with a time-durable structure. Likewise the opportunities of its usage are generic and numerous, providing a common base for fruitful bridge-building between and among eBusiness disciplines, practitioners and technologies.

2.2 Modeling – benchmarks and indicators

There is a certain analogue between a model and a piece of art. Both gain inspiration from reality, both are attempts to construct an interpretation of the reality, and both aim to serve an audience by delivering a message or an opinion concerning the reality and how to cope with it. In addition, both are often loaded with the desire from the model constructor, or from the artist, to have an impact.

Karl Henry Haglund

Conceptual modeling is a well known method of describing a complex reality of elements which are in one way or another interconnected and interrelated, elements being impacted by or dependent on others. The design of a model is expected to create an understanding of the elements, the embedded dynamics between them and the overall context the model represents.

The eBCM is an attempt to describe eBusiness and its key elements. The elements can be studied individually quantitatively and qualitatively or in clusters by a set of associated benchmarks and indicators which are selected for the occasion or context.

At present there is a tendency to provide international country rankings about information society development and performance. These rankings are normally based on “hard” facts as well as “soft” elements like judgments. The ranking results are normally based on so called composite indexes, which are produced by means of lower level sub indexes.

The following actors and their information society related ranking indexes are only examples, but often referred to. Some of those initiatives are permanently based and some planned and executed as one-time efforts:

- Global Competitiveness Report (WEF)
- Global Information Technology Report (WEF)
- World Competitiveness Yearbook (IMD)
- Human Development Index (UNDP)
- eEurope Action Plan Benchmarking Reports (EU)
- European Information Technology Observatory (EITO)
- OECD, EUROSTAT and ITU statistics

- World Development Report (World Bank), and especially the “at a glance” summary tables (national economies and ICT overall profiles)
- e-readiness ranking reports (The Economist Intelligence Unit and IBM)
- Infostates analysis and ranking system (Orbicom) with components like infodensity (networks, skills) and info-use (uptake, intensity).

These sources address the information society with a wide approach. eBusiness related issues are covered as part of the overall information society scene among many other areas, and their relative weight varies respectively.

From various sources many useful eBusiness related benchmarks and indicators are available.

The family of these benchmarks and indicators is scattered covering several disciplines and points of view. Some of them refer to national or international trade from the national economy point of view, some attempt to measure the penetration of ICT usage within or between businesses and some concentrate especially on Internet penetration and usage of websites and portals, just as examples of the variety of approaches. In addition, eBusiness measuring tools are often highly related to innovation scoring, measuring competitiveness and the renewal process of business, value chains and networking patterns within different branches of economy. Still, in a wider framework, the eEconomy concept is used with benchmarking trials of its own. Once again, a difference between “hard core business indicators” and “preconditions” may be drawn. The following specific sources can be mentioned in this context, many of them European Commission activity related:

- e-BusinessWatch
- B2B Metrics
- eFactors
- eEurope Go Digital Initiative
- European Innovation Scoreboard
- Enterprise Policy Scoreboard
- European Competitiveness Report
- European Information Technology Observatory (EITO), with specific eBusiness entry points
- OECD and EUROSTAT statistics
- e-readiness ranking reports (The Economist Intelligence Unit and IBM) having focus on national e-business environments.

2.3 The eBCM’s origin

The origin of the eBusiness Community Model (eBCM) dates back to the year 2000 where eBusiness entrepreneurs gathered in Reykjavik to discuss the “preconditions” for a successful eBusiness. The first list of key elements was presented in a report late 2001. From this list a model framework was developed and appeared for the first time in December 2002 under the header “eBusiness Implementation Layers”.

In the following years the framework was widely referenced to, such as in the work of CEN/ISSS eBusiness Focus Group (eBiz) 2002 – 2003, when forming the European Network of National Test-beds for eBusiness, ETeB, and the Icelandic ETeB Test-bed consortium. The framework was introduced at various occasions in Europe and US. In

July 2003 the framework was presented to the European Commission DG INFSO as “The Layers and Building Blocks of eBusiness”

Later the same year the framework was given its current name, i.e. the “eBusiness Community Model, eBCM” when stakeholders developed detailed set of specifications for the model.

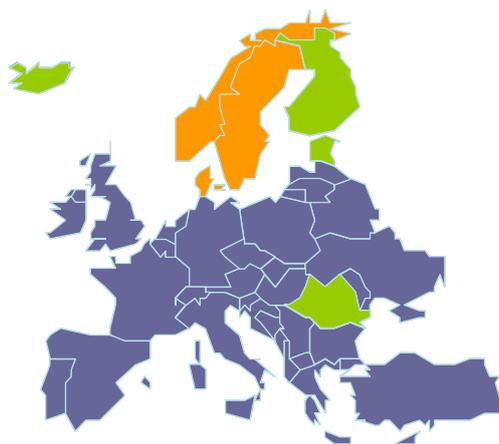
In the summer 2004 the Nordic Innovation Centre, NICE, agreed to support further development of the eBCM in a project called eBusiness Community Model – Research and Assessment Project, eBCM-RAP.

3 THE eBCM-RAP PROJECT

The NICE support gave necessary resources for stakeholders’ mobilisation to further define the model’s different elements and structures, conduct testing on how the model could be used as a development tool, a reference and knowledge reservoir as well as perform experiments with benchmarks and indicators serving specific study objectives.

3.1 Partner network

The partners, all members of the ETeB¹ Core Group, are Estonian Informatics Centre (EIC), Finnish Information Society Development Centre (TIEKE), Icelandic Standards (IST) and the Chamber of Commerce and Industry in Romania (CCIR). They are all quite involved in their countries’ eBusiness development and benefit from their wide stakeholder and organisations network. To ensure an overall Nordic presence and dissemination of results, it was decided to invite the Swedish Standards Institute (SIS), Danish Standards (DS) and The Standardization Organizations in Norway (SN) to become a part of the project’s “Nordic Reference Group (NRG)”. These three together with three of the project partners, IST, TIEKE and EIC represented the ICT standardisation organisations in all Nordic countries and Estonia.



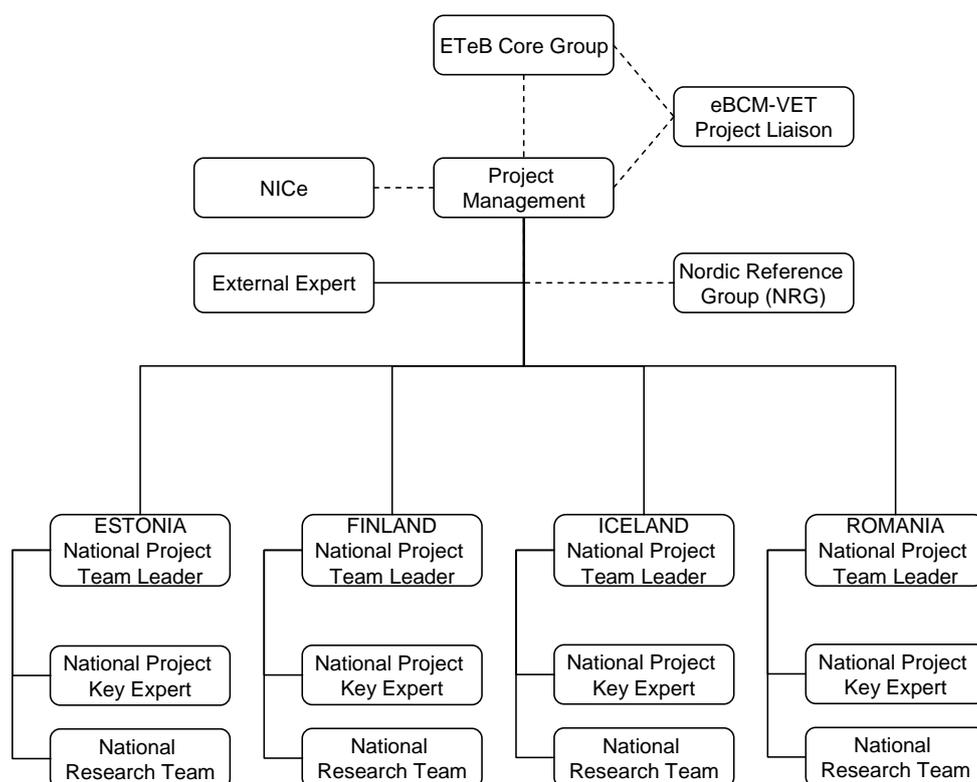
eBCM-RAP Partnership and Nordic Reference Group

¹ ETeB is a multi national initiative; its members sharing the vision of streamlined cross-border ICT enabled business practices. The partner network is represented by public-private organisations from five of Europe’s most highly motivated nations with respect to ICT development, i.e.: Estonia, Finland, Iceland, Romania and Slovenia.

3.2 Project organisation and management

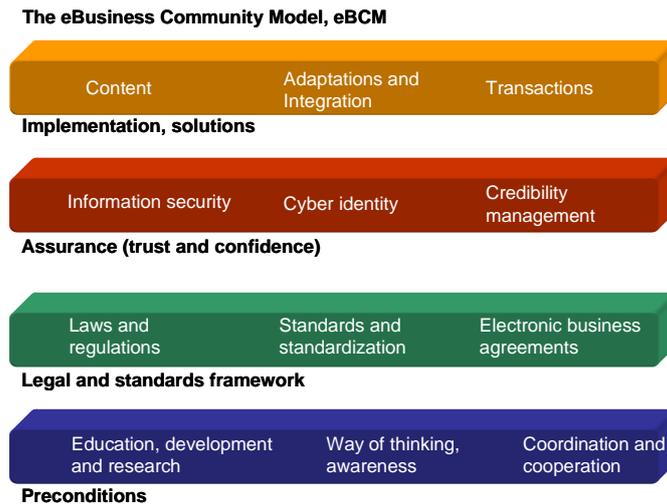
The project’s organisational structure is shown on the following chart with the ETeB Core Group as the initiating and overseeing platform for eBCM-RAP and the eBCM-VET; a liaison project funded by the EU Leonardo da Vinci programme.

Project management was in the hands of the Icelandic partner Icelandic Standards (IST) represented by Mr. Rúnar Már Sverrisson (Icelandic company Logar ehf). The External Expert was Mr. Karl Henry Haglund (Finnish company Haglund Networks Ltd). National Project Team Leader in Estonia was Mr. Taavi Valdlo, in Finland Mr. Juhani Koivunen, in Iceland Rúnar Már and in Romania Ms. Cornelia Rotaru. The National key expert in Finland was Juhani Koivunen, in Estonia Mr. Enn Õunapuu, in Iceland Mr. Arnaldur F. Axfjörð and in Romania Ms. Anemari Marcusanu.



3.3 Project objectives and phases

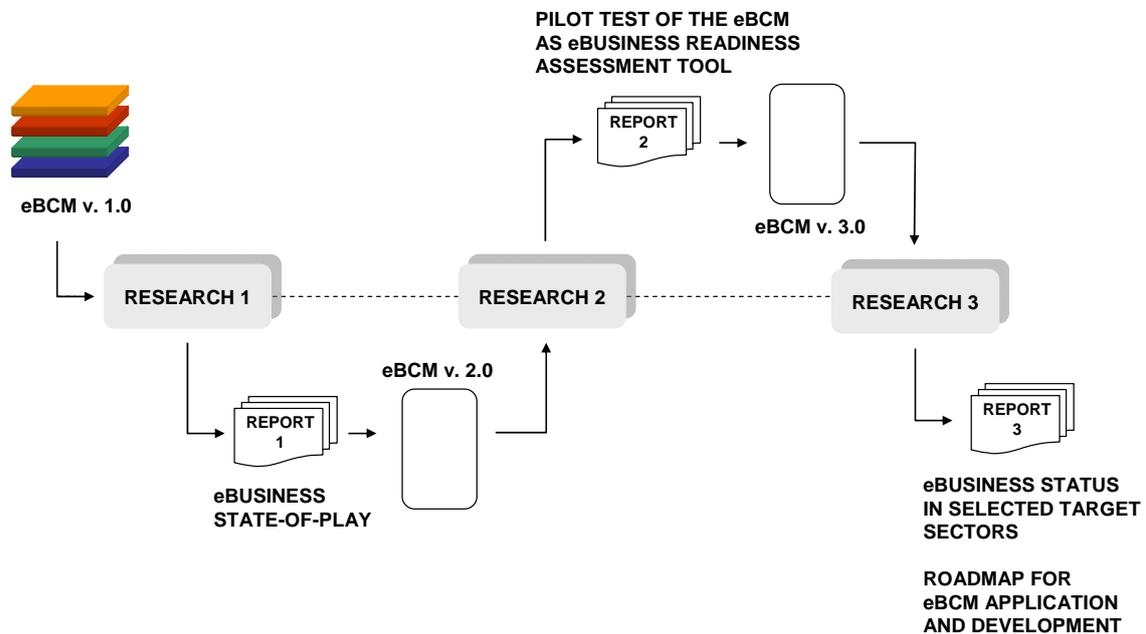
The eBCM-RAP project was an opportunity to bring together experts, all sharing a common interest in the utilisation of ICT for business, to explore how well the eBCM version 1.0 covered the key elements of eBusiness, develop further its structure and to recognise complimentary elements which were needed for a holistic view.



eBCM Version 1.0

In addition to developing the eBCM structurally, the objective was to investigate how the model could be used as a reference in real-life situations, assessing a community’s level of eBusiness maturity and to provide guidance in its further development.

The project plan was designed into three phases, all including a field research serving specific objectives leading to the development of new versions of the eBCM and enhanced understanding of its practical applications.



3.4 Research 1

A key objective of the first phase and research 1 was to produce national eBusiness state-of-play profiles of the participating countries. These profiles should be elaborated following the eBCM structure, indicating that the profile material collection templates generally respect the layer and block architecture of the current

eBCM. Thus the aim was to study the eBusiness community through the “filter” provided by the eBCM and, as feedback of the study, draw conclusions and ideas how to further adjust and develop the eBCM.

The purpose of this approach was to see how well the eBCM could be used to understand the forces of change from traditional business to an ICT enabled one, test the set of key elements included in the model and in general bring forward their dynamics, interplay and interdependencies.

Research 1 main findings reported varied national profiles. The national teams and experts represented different background and expertise, this resulting in different selection of reported initiatives, solutions and applications as well as professional disciplines. Also the state of economics and the position of the country, in terms of information society development and development priorities clearly played a significant role. As an example the role and visibility of legal framework, standardisation issues, awareness actions and practical solutions and applications have differing weights depending on the country in question. This variation gave an understanding of how big of a challenge it is to set benchmarks and indicators when analysing different eBusiness related segments on national basis. The findings of the research are documented in the research 1 report, appendix C.

The eBCM’s structure, as a holistic community model, is challenged by this variety, having to serve as a reference for different approaches and frames of reference, technical, economic, social etc. To equally support and serve the many stakeholders, having various differing interests and driving forces, the model and its descriptions have to be adjusted to manage this variety of interests. This could be done by drafting separate individual “eBCMs” for the different stakeholders, but that approach might violate the objective to run a multi-disciplinary approach bringing together stakeholders with differing backgrounds and expertise. The eBCM should pay respect to a bridge-building cross-discipline mission.

The eBusiness arena is problematic since the tradition to monitor the specific eBusiness phenomenon is just recently born and the eBusiness scope and substance definitions are not stable yet. During research 1 it was observed, that concerning the eBCM initiative to cover the many blocks and layers, only tentative means to measure managed to be established at that point, hopefully still allowing first steps in tentative benchmark establishment even if with lack of precise data and procedures.

RESEARCH 1

Period

2005, Q2 and 3

Objective:

- Study the state-of-play of eBusiness in the participating countries in reference to the eBusiness Community Model, eBCM
- Achieve guidelines for further development of the eBCM Model and means to follow-up and measure progress of eBusiness implementation

Method:

- Project partners’ selection of initiatives recognised as being in the forefront in eBusiness development
- Interviews with company/organisation representatives following a structured set of questions (i.e. research design)

Deliverable:

- Research 1 report
- Brochure: “Modelling a piece of Art - Paving for eFuture - Summary and results”
- eBCM version 2.0 and guidelines for its use as an assessment tool

The research 1 acted as a starting point for further work. At this stage only the top of the iceberg was touched. It seems that the offering of new technologies develops with revolutionary pace, but the implementation of the opportunities follow more an evolutionary discipline. This contradiction can be frustrating, but has to be taken as a challenge.

Valuable information was gained in terms of methodology to benchmark eBusiness development and the diversity of respective indicator offerings as well as the difficulties to run benchmarks and to establish the necessary data collection. During the work the following sources were in particular found important from the benchmarking point of view:

- The SIBIS indicator structure developed for the eEurope initiative monitoring purposes includes in the SIBIS eCommerce (and also eWork) segment candidates for eBCM monitoring purposes.
- The European eBusiness Scoreboard developed by the e-BusinessW@tch initiative in order to compose the intensity of e-business use across different sectors and in different business branches and functional areas of business activity.
- eBusiness related indicators used by the study made by The EC/DG Joint Research Centre.

Concerning information society readiness and especially as part of it, the eBusiness readiness in eBCM-RAP partnership countries, the following sources were used as background reference information in the analysis of country data collected in the eBCM-RAP project and when interpreting the results

- The World Economic Forum (WEF) Networked Readiness Index (NRI), which is often referred to as a composite indicator of national Information Society implementation.
- The Economist Intelligence Unit eReadiness rankings and indicators, covering connectivity, business environment, consumer and business adoption, legal and policy environment, social and cultural environment and supporting e-services.
- The IMD World Competitiveness Center rankings and indicators, especially the eReadiness Rank establishment.
- The Orbicom Digital Divide study and the methodology to make country rankings based on the Infodensity/Info-use/Infostate concept.

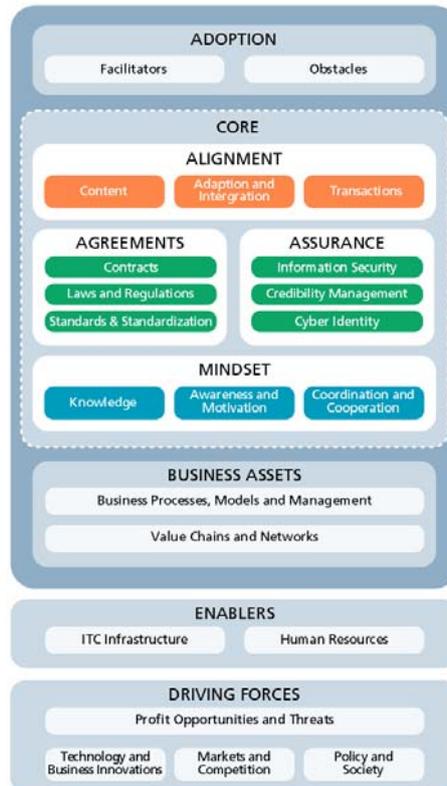
As the result of the research 1, elaboration of the eBCM version 1.0 core took place, changing the names of Building Blocks for the purpose of clarity and organising them into clusters instead of layers.

- The building block “Adaptation and Integration” was named “Adoption and Integration”
- Building block “Electronic Business Agreements” was changed to “Contracts”
- Building block “Education, Development and Research” was changed to “Knowledge”
- Building block “Way of Thinking, Awareness” was changed to “Awareness and Motivation”

- The layer “Preconditions” was changed to a cluster named “Mindset”
- The layer “Legal and Standards Framework” was changed to a cluster named “Agreements”
- The layer “Assurance” became a cluster with the same name
- The layer “Implementation, Solutions” was changed to a cluster named “Alignment”.

The following adjacent elements were introduced, defined, described and inserted in the overall eBCM structure:

- “Business Assets”, set of elements and factors identifying key business processes, models and management as well as value chains and networks for businesses to create and maintain dynamic and ac-hoc based cooperation structures, where different resources meet and work together to achieve a common goal. The elements: “Business Processes”, “Models and Management”, and “Value Chains and Networks”.
- “Adoption”, set of elements and factors providing information from various sources about issues related to eBusiness adoption, i.e. how the ICT enabled business renewal is progressing, and identifying obstacles, barriers, gaps of knowledge etc. problems in the progress and take-up of new business practices, and serves. The elements: “Facilitators” and “Obstacles”.
- “Driving Forces”, set of elements and factors identifying internal or external forces such as technology and business innovations, the evolving markets and the turbulent competition scene, policy and society level issues, and the emerging new possibilities for profit opportunities as well as threats for success. The elements: “Profit Opportunities and Threats”, “Technology and Business Innovations”, “Markets and Competition”, and “Policy and Society”.
- “Enablers”, set of elements and factors referring to key prerequisites for ICT enabled business practices and for establishing a well-functioning eBusiness environment. The elements: “ICT Infrastructure” and “Human Resources”.



eBCM Version 2.0

Based on the findings of research 1 and the elaborated model version 2.0, the project partners were ready to enter phase two in the project, to design and conduct a field study in their countries on eBusiness readiness with reference to the eBCM's core Building Blocks and a set of benchmarks and indicators chosen for the study. Even though eBCM version 2.0 included various adjacent elements which by themselves are interesting research topics, it was for resource reasons decided to retain the research scope to the core elements of the model.

The research 1 design and respective field questionnaires are presented in the appendix B and research 1 report in appendix C.

3.5 Research 2

Research 2 design main objective was to put the eBCM to a pilot test by studying the "eBusiness readiness" of randomly selected small and medium sized companies (SMEs) in partner countries, focusing on two business sectors, i.e. Trade and Manufacturing (ref. NACE codes). The reason for selecting these sectors was the notion that they were somewhat similar in all the countries, at least with respect to utilisation of ICT in business operations.

The research design was based on in-depth telephone interviews with CEOs about the present state-of-play in eBusiness. This direct approach served the objective of the research and gave insight into the CEOs' understanding of the issues covered by the eBCM core Building Blocks and the blocks' perceived relevance for business operations.

During research 2 preparations, difficulties emerged to define a set of benchmarks and indicators that would be operational and realistic within the resource and time restrictions of the project and at the same time give valued feedback serving the objective of the research. It was finally decided to design a set of open ended questions, giving the interviewer some freedom to divert the questions as found needed in the interaction with the CEO. The questions were organised according to the eBCM core structure and included 36 (12 x 3) questions in total.

The overall sample of SME's interviewed was 105. Due to the fact, that the number of SMEs responding to the questionnaire differed between countries, and taking into account the openness of the questions, the findings of eBusiness readiness were considered as indicative rather than having a statistical value.

The main contribution of research 2 was enhanced understanding of CEOs' mindset towards eBusiness and eBCM key elements, experience in interacting directly with company representatives and good insight into line of questioning, including selection of benchmarks and indicators.

The following specific (CEO) mindset items are worth considering:

- The study revealed a broad diversity in SME readiness to enter the eBusiness environment. In most cases the eBusiness arena is not perceived as an integrated entity but instead as a list of specific services and applications which are adopted and installed or not.
- Based on the research sample, a small number of forerunners are keen to implement eBusiness facilities and test new value chain and value network models and facilities, but there also is a large base of laggards, companies having only a very vague view and interest to learn more and to make a move.
- Many SME's seem to be satisfied in their present position, having no ambition to make any drastic changes, perhaps only doing basic e-banking

RESEARCH 2

Period

2006, Q2

Objective:

- Elaboration of material for a new version, V 3.0, of the eBCM model
- Running a questionnaire-based field research activity with samples of SME's in the participating countries in order to gain material about the present eBusiness state-of-play
- Production of a refined set of benchmarks and respective indicators for monitoring the development of ICT based electronic business practices on national and cross-border level

Method:

- Selection of business sectors, using NACE codes. The sectors selected were Trade and Manufacturing of Fast Moving Consumer Goods (FMCG)
- Randomly select small and medium sized companies from the chosen sectors (up to 250 employees or revenue up to €50 million)
- Phone interviews of company CEOs, following a structured set of questions (i.e. research design)

Deliverable:

- Research 2 report including eBCM version 3.0 and guidelines for its use as an assessment tool
- Brochure: "Modelling a piece of Art - Paving for eFuture - Summary #2"

transactions. They tend to have trust in the “comfort zone”, with their stable position in a comfortable solid structure of co-workers and customers.

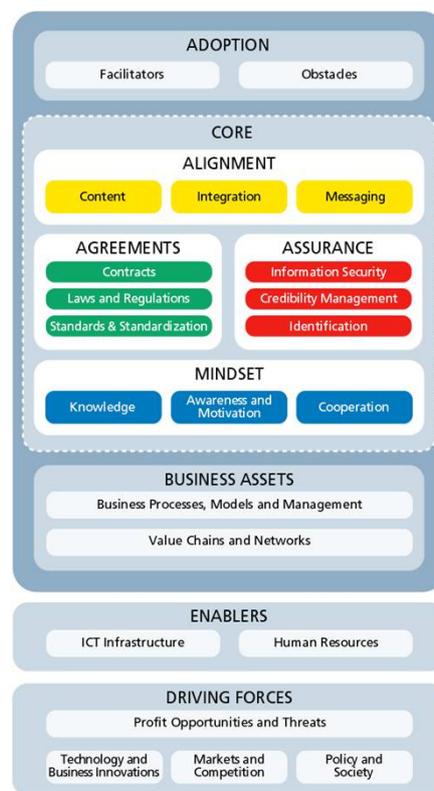
- In several cases the change agent and activator is not the SME directly, but a clear message, request or demand from the outside. The first implemented eBusiness related services or applications have been banking and accounting related, obligatory logistical arrangements within value chains or clear needs to cope with taxes or customs declarations according to the will of the public sector counterpart.
- Concerning the customer base, the Internet and web presence is often regarded as a must. The image may not allow a SME to exist without a website, but active true renewal of marketing and customer relation practices is scarce.
- Most of the new specific issues of the eBusiness arena, like security, credibility, identity etc. are far from the SME ordinary daily vocabulary and interest, and outsourced as far as possible if noted at all. Likewise, issues like standardisation, cooperation arrangements and coordination, and the possible new contractual practices in a networked business environment are regarded as issues to be handled by other specialised counterparts like public authorities or professional organisations.
- However, the interviews have revealed a desire, sometimes clearly stated but often embedded, to learn and to know more. It just seems that for this purpose the available means and pathways are too far from the SME daily life and comfort.

The feedback concerning field study methodology issues and construction of relevant study designs can be summarised as:

- The study design and respective toolkit should be practical and solutions-oriented, in order to grasp the attention of CEOs who are acting under pressure to renew their business processes and knowledge in new-business practice in general.
- eBusiness readiness requires a serious commitment from the top, making the CEO the key enabler in the company. In this respect approaching CEO's is the right thing to do and it is also important that the research is semi-structured with some open ended questions. The top management (after obtaining their attention) always has a view, which follows its own structure, vocabulary and priority. Therefore it is very important that the interviewer has the knowledge and experience to interact with the CEO, lead the discussion and extract from the interview the requested feedback.
- The SME top management representatives normally are too busy to participate in research work, but they cooperate if they believe in the skill of the organisation conducting the research to turn the outcome and observations into practical results.
- During field study related discussions the eBCM was appreciated by the stakeholders as being very well structured and as such covering well the issues related to eBusiness. Thus the model has potential to serve well the emerging eBusiness community and the key actors when further elaborated and disseminated.

As a result from the interaction with the CEOs some minor adjustments of the eBCM were made, resulting in a new version of the model, version 3.0, i.e.:

- The term “Transactions” in version 2 for many stakeholders indicates business transactions, often monetary. But as the building block stands for eBusiness messages and their flow between business partners, it was decided to change the name into “Messaging”.
- The term “Adoption and Integration” was also considered confusing, many seeing adoption to technology as a part of integration. This resulted in the name being changed to “Integration”.
- Very few interviewees understood the term “Cyber Identity” so it was decided to change the name of the building block into “Identification”, more easily understood by most people.



eBCM Version 3.0

As for development of benchmarks and indicators, research 2 resulted in formulation of the following basic principles:

Benchmarks:

- 1) Each benchmark should refer to an issue included in the respective Cluster, Building Block or Adjacent Element description, with agreed need and interest to be monitored;
- 2) Each benchmark should be clearly described leaving no possibility for misunderstanding or misinterpretation;
- 3) Each benchmark should be suitable to be addressed by means of at least one indicator, qualitative or quantitative for monitoring purposes.

Indicators:

- 1) Each indicator should refer to at least one benchmark defined within a Cluster, Building Block or Adjacent Element domain;
- 2) Each indicator should be clearly described leaving no possibility for misunderstanding or misinterpretation;
- 3) Each indicator should represent one of the following indicator categories:
 - Category 1 / Absolute state-of-play of a specific unique issue (Yes / No)
Example: European Regulation xxxx... adopted or not
 - Category 2 / Assessment classification: Excellent / Good / Satisfactory / Poor
Example: Level of eBusiness training programmes for SMEs
 - Category 3 / Absolute variable figure
Example: Number of eInvoice usage contracts (end 2006)
 - Category 4 / Time series of an absolute variable figure (change rate measure)
Example: Number of eInvoice usage contracts 2006, 2007
 - Category 5 / Relation of two absolute variable figures (penetration etc.)
Example: Percentage of SMEs with eInvoice contracts (end 2006)
 - Category 6 / Time series of Category 5 comparisons (change rate measure)
Example: Percentage of SMEs with eInvoice contracts 2006, 2007

In research 2, the two first categories were used, i.e. category 1 and 2. The research design, i.e. unannounced telephone calls with CEOs, address to the current knowledge and perception of the CEO. Other categories would call for gathering and processing data.

There is in this context good reason to tighten the cooperation with the national statistical offices to learn about their forthcoming position and plans within the eBusiness domain. The discussion should cover their role in relation to international statistics, especially European (EUROSTAT and other business/eBusiness thematic statistical surveys), and their possible plans to run special studies on national basis.

Overall research 2 was a valuable preparatory exercise for the third and final phase of the project where the aim was to demonstrate the use of the eBCM as an assessment tool for eBusiness in selected communities and to cope with the challenge of selecting benchmarks, indicators and respective questions for a specific research design and objective.

The research 2 design and field questionnaire is presented in the appendix D and research 2 report in appendix E.

3.6 Research 3

In the third and final phase, research 3, the objective was to achieve a justified, defensible validation for the model through field exercise. The chosen scene is the same as in research 2, the overall status of eBusiness of SMEs within the Trading and Manufacturing sector of Fast Moving Consumer Goods.

The partners were in agreement that the research 2 design was good, yet the following concerns were raised:

- The chosen benchmarks and questions need to be more easily understood by the interviewees considered relevant to their operational concerns.
- Calling CEOs on the phone has proven to be rather difficult (different in countries), yet the method was considered as giving valuable information justifying continuing on this path.
- The sample of stakeholders researched is small and can not be considered as giving statistical results about the chosen sectors, only an overview of a situation.
- The interviewers profile matters when establishing direct contact with CEOs. The interviewee in many cases wishes to discuss and ask questions about the study so the interviewer needs to have a broad knowledge background and experience to respond. If the dialogue is constructive the CEO's interest remains.
- When contacting companies the interviewer needs to prepare for the interview by conducting a basic study of the company (e.g. web), knowing about its operations and objectives. This guarantees a more fruitful interaction with the CEO.
- Timing of interviews is important, the interviewer needs to establish a feeling for the timing to call the CEO, differs between countries.
- Interviews should be short, less than 15 minutes. CEOs of small and medium size companies are always busy.

Taking these concerns and experiences into account and with reference to the basic principles developed in research 2 for selecting benchmarks, indicators and respective questions, a questionnaire was developed. The questionnaire covered all 12 eBCM core Building Blocks, total 19 questions. In addition, 2 questions for general perception inquiry were introduced. Thus the total number of questions per interview was 21. The final tuning of the questionnaire was done after a set of trials within partnership countries.

RESEARCH 3

Period:

2007, Q3

Objective:

- Running a questionnaire-based field research activity with samples of SME's in the participating countries in order to gain material about the present state-of-play of ICT enabled business practices adoption and usage.

Method:

- Selection of business sectors, using NACE codes, which are considered similar in all partner countries. The sectors selected were Trade and Manufacturing of Fast Moving Consumer Goods (FMCG).
- Randomly select small and medium sized companies from the chosen sectors (up to 250 employees or revenue up to € 50 million).
- Phone interviews of company CEOs, following a structured set of questions (Research design).

Deliverable:

- Research 3 report
- Brochure: "Modelling a piece of Art - Paving for eFuture - Summary #3"

Questions about general perception:

- Q1 - Do you believe that computers and networking in the near future will be vital for your company's competitiveness? (Yes/No)
- Q2 - Do you expect to hire or train people especially for this reason? (Yes/No)

Benchmarks, indicators and questions related to the eBCM core Building Blocks:

Building block: **KNOWLEDGE**

Benchmarks:

- Level of knowledge to use and develop eBusiness.
- Presence of eBusiness in business practices renewal programmes and action.
- Presence of the eBusiness theme in work force life-long learning arrangements.

Indicators:

- The % of CEO's perceiving their level of knowledge of eBusiness being "Good".
- The % of companies actively promoting the use of ICT solutions to their staff.

Survey Questions:

- Q3 - How do you consider your personal level of knowledge about eBusiness?: (Elementary / Good)
- Q4 - Are you actively promoting adoption of eBusiness practices to your staff?: (Yes / No)

Building block: **AWARENESS AND MOTIVATION**

Benchmarks:

- Level of management motivation and awareness to establish eBusiness processes.
- Level of work force motivation to adopt eBusiness processes.

Indicators:

- The % of companies which find eBusiness solutions of interest and potential.
- The % of companies having a workforce motivated for eBusiness development

Survey Questions:

- Q5 - Do you personally have active interest and expectations in the eBusiness area?: (Yes / No)
- Q6 - Is your staff active and motivated in relation to eBusiness usage?: (Yes / No)

Building block: COORDINATION AND COOPERATION**Benchmarks:**

- Status of the infrastructure for cross-stakeholder eBusiness coordination and cooperation.
- Participation level in cross-stakeholder eBusiness coordination and cooperation activities.
- Affectivity of eBusiness coordination and cooperation activities.
- Success in avoiding fragmentation within critical eBusiness domains

Indicators:

- The % of CEO's who are positive for cooperating with other companies on eBusiness.

Survey Questions:

- Q7 - Do you personally find a good reason for cooperation with other companies on eBusiness issues?: (Yes / No)
- Q8 - Have you been invited to participate in any such cooperation activity?: (Yes / No)

Building block: CONTRACTS**Benchmarks:**

- Status of the business contractual base adjusted to the eBusiness opportunity and requirements.
- Level of adoption of internationally accepted eBusiness related business contracts.
- Level of participation in the cooperation platforms developing and promoting eBusiness contractual base (only for a limited sample of companies).

Indicators:

- The % of CEO's aware of the need for different contractual frameworks for eBusiness.

Survey Questions:

- Q9 - In your opinion, does eBusiness require different kind of contracts?: (Yes / No)

Building block: LAWS AND REGULATIONS**Benchmarks:**

- Level of implementation of the eBusiness regulatory framework.
- Public-private participation in the development and promotion of the eBusiness regulatory framework.

Indicators:

- The % of CEO's that know the basic legal requirements concerning eBusiness.
- The % of CEO's that have sought access to information and support in the area.

Survey Questions:

- Q10 - Are you aware of any eBusiness laws and regulations?: (Yes / No)
- Q11 - Have you sought for information about such laws and regulations?: (Yes / No)

Building block: STANDARDS AND STANDARDISATION**Benchmarks:**

- Level of attitude and conviction in the adoption of eBusiness relevant standards.

Indicators:

- The % of CEO's that have given the ICT area standards used in the company specific attention.
- The % of companies that have sought information about ICT standards.

Survey Questions:

- Q12 - Have you given serious consideration to eBusiness standards in your company?: (Yes / No)
- Q13 - Has your company sought for information about such standards?: (Yes / No / Don't know)

Building block: INFORMATION SECURITY**Benchmarks:**

- Level of understanding the security threats and responsibilities related to eBusiness.
- Level of the overall available security framework related to eBusiness.
- Level of implementation of secure eBusiness solutions.

Indicators:

- The % of CEO's that have confidence in their understanding of the information security issues.
- The % of CEO's that have confidence in the protection of their company's eBusiness ICT facilities.

Survey Questions:

- Q14 - How do you find your knowledge about electronic information security within your company?: (Elementary / Good)

- Q15 - What is your level of trust and confidence concerning your company's eBusiness security?: (Low / High)

Building block: CREDIBILITY MANAGEMENT**Benchmarks:**

- Level of the adoption of quality plans for credibility management within eBusiness environment.

Indicators:

- The % of companies that have a quality plan to manage their eBusiness operations and services.

Survey Questions:

- Q16 - Does your company have a quality plan covering eBusiness operations and services?: (Yes / No)

Building block: CYBER IDENTITY**Benchmarks:**

- Level of easiness and comfort in managing secure identity on the Internet.

Indicators:

- The % of CEO's that consider it easy to identify oneself securely on the Internet.

Survey Questions:

- Q17 - Do you consider it easy to identify yourself securely on the Internet?: (Yes / No)

Building block: CONTENT**Benchmarks:**

- Level of quality of product and service descriptions on the web.

Indicators:

- The % of CEO's that consider companies in general have "good" product and service descriptions on the Internet.

Survey Questions:

- Q18 - Are you satisfied with the product and services descriptions quality on the Internet?: (Yes / No)

Building block: ADAPTATION AND INTEGRATION**Benchmarks:**

- Availability of ICT facilities and services for eBusiness needs.

- Easiness of eBusiness integration between partners.

Indicators:

- The % of CEO's that consider the supply of ICT facilities and services to be good.
- The % of CEO's that consider it easy to integrate their eBusiness operations with their business partners.

Survey Questions:

- Q19 - How do you find the supply of ICT facilities and services for your eBusiness needs?: (Poor / Good)
- Q20 - How do you find the easiness to integrate eBusiness operations with your partners?: (Poor / Good)

Building block: **TRANSACTIONS**

Benchmarks:

- Existence of problems in running and managing the eBusiness transaction flow.

Indicators:

- The % of CEO's that have identified problems in running and managing eBusiness transactions flow.

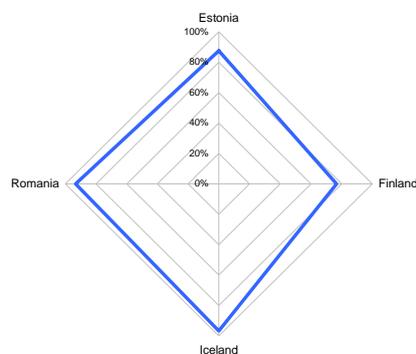
Survey Questions:

- Q21 - Have you experienced severe problems in running and managing your eBusiness transaction flow?: (Yes / No)

The research 3 field study was conducted in Q3 2007 and resulted in the following findings (The colour of the graph represents the building block's respective cluster):

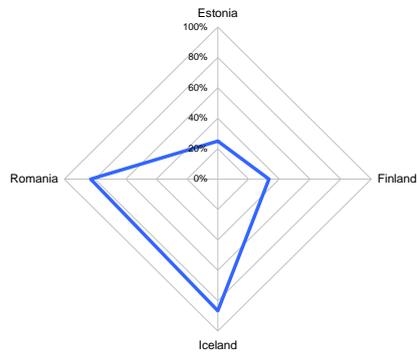
Do you believe, that computers and networking in the near future will be vital for your company's competitiveness?
(Q1 - MINDSET)

Answer: % of companies replying "Yes"



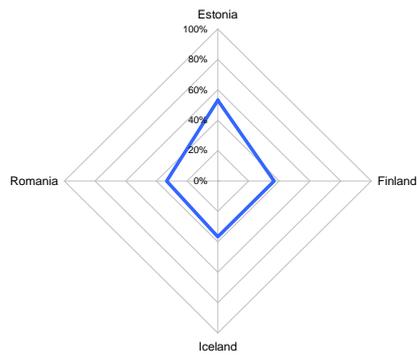
Do you expect to hire or train people especially for this reason?
(Q2 - MINDSET)

Answer: % of companies replying "Yes"



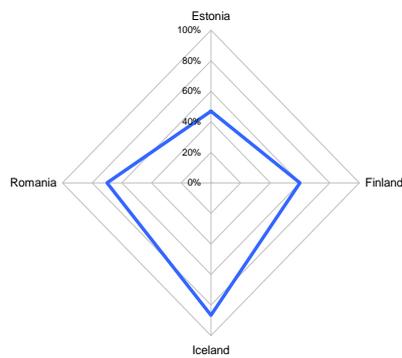
How do you consider your personal level of knowledge about eBusiness?
(Q3 - MINDSET)

Answer: % of companies replying "Good"



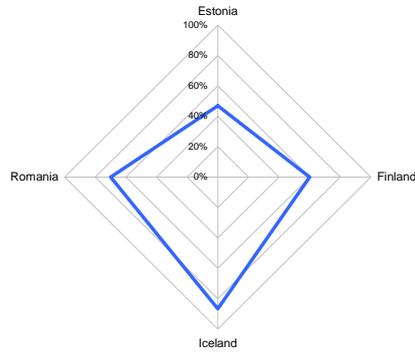
Are you actively promoting adoption of eBusiness practices to your staff?
(Q4 - MINDSET)

Answer: % of companies replying "Yes"



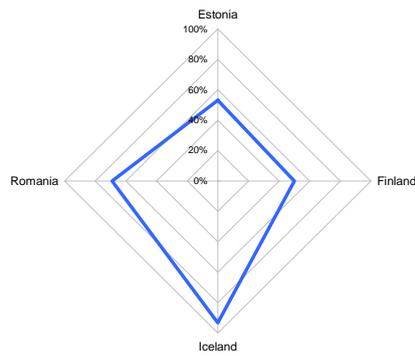
Are you actively promoting adoption of eBusiness practices to your staff?
(Q4 - MINDSET)

Answer: % of companies replying "Yes"



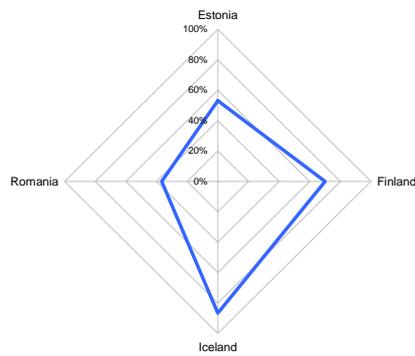
Do you personally have active interest and expectations in the eBusiness area?
(Q5 - MINDSET)

Answer: % of companies replying "Yes"



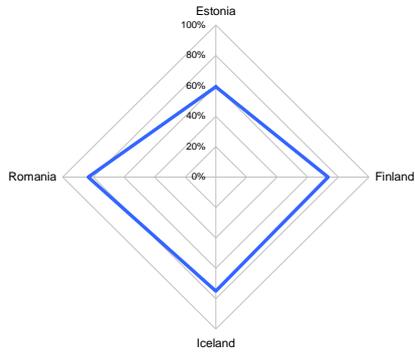
Is your staff active and motivated in relation to eBusiness usage?
(Q6 - MINDSET)

Answer: % of companies replying "Yes"



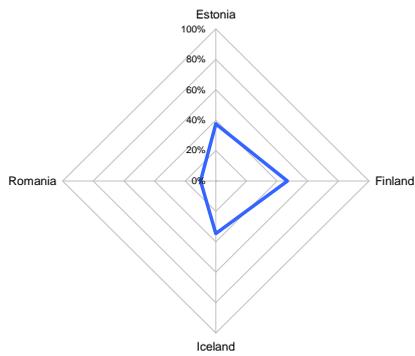
Do you personally find good reason for cooperation with other companies on eBusiness issues?
(Q7 - MINDSET)

Answer: % of companies replying "Yes"



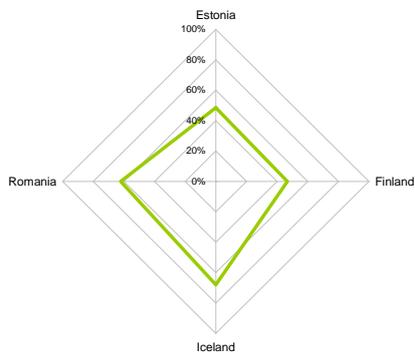
Have you been invited to participate in any such cooperation activity?
(Q8 - MINDSET)

Answer: % of companies replying "Yes"



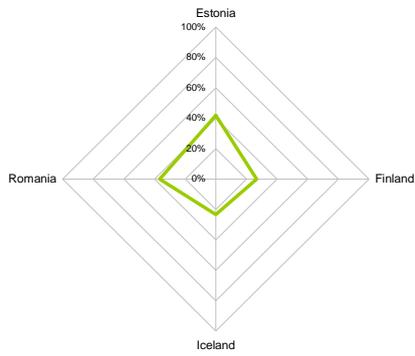
In your opinion, does eBusiness require different kind of contracts?
(Q9 - AGREEMENT)

Answer: % of companies replying "Yes"



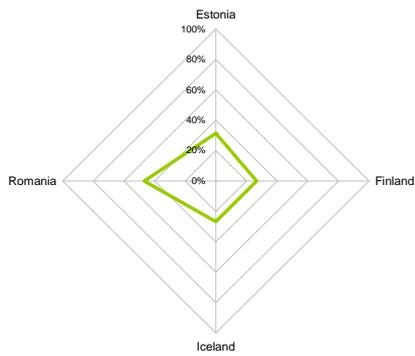
Are you aware of any eBusiness laws and regulations?
(Q10 - AGREEMENT)

Answer: % of companies replying "Yes"



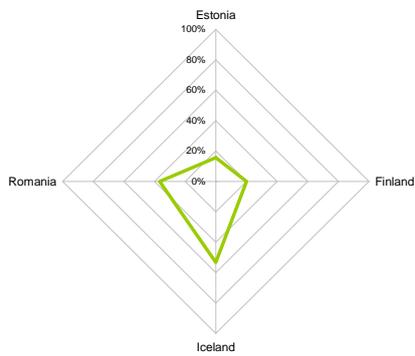
Have you sought for information about such laws and regulations?
(Q11 - AGREEMENT)

Answer: % of companies replying "Yes"



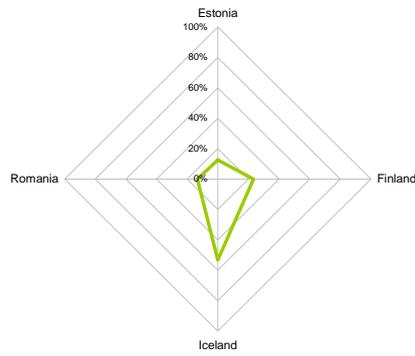
Have you given serious consideration to eBusiness standards in your company?
(Q12 - AGREEMENT)

Answer: % of companies replying "Yes"



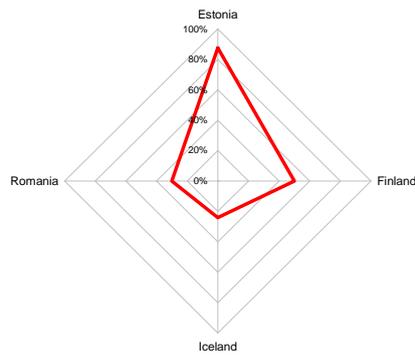
Has your company sought for information about such standards?
(Q13 - AGREEMENT)

Answer: % of companies replying "Yes"



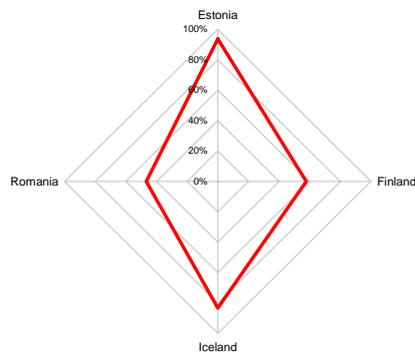
How do you find your knowledge about electronic information security within your company?
(Q14 - ASSURANCE)

Answer: % of companies replying "Good"



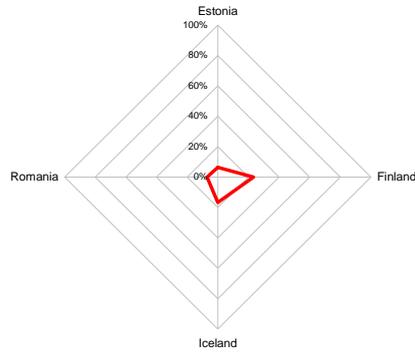
What is your level of trust and confidence concerning your company's eBusiness security?
(Q15 - ASSURANCE)

Answer: % of companies replying "High"



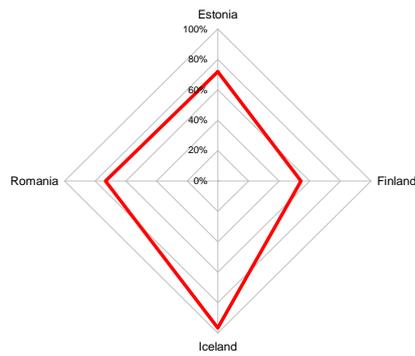
Does your company have a quality plan covering eBusiness operations and services?
(Q16 - ASSURANCE)

Answer: % of companies replying "Yes"



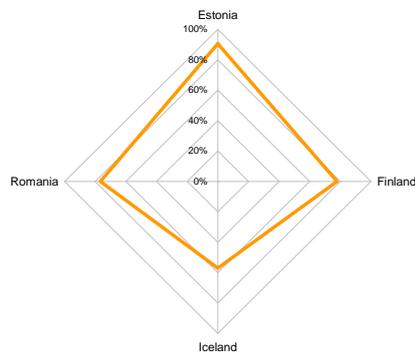
Do you consider it easy to identify yourself securely on the Internet?
(Q17 - ASSURANCE)

Answer: % of companies replying "Yes"



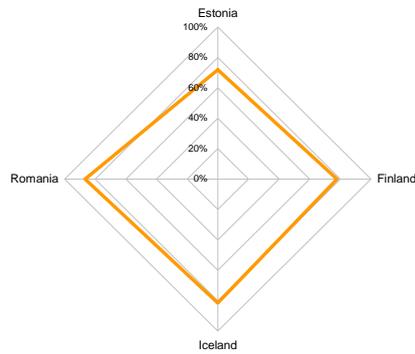
Are you satisfied with the product and services descriptions quality on the Internet?
(Q18 - ALIGNMENT)

Answer: % of companies replying "Yes"



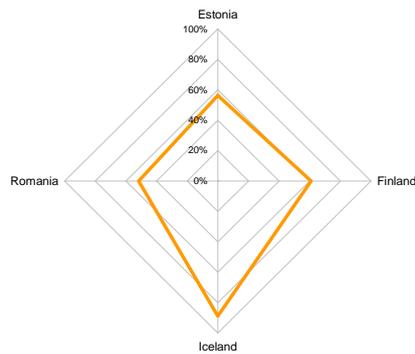
How do you find the supply of ICT facilities and services for your eBusiness needs?
(Q19 - ALIGNMENT)

Answer: % of companies replying "Good"



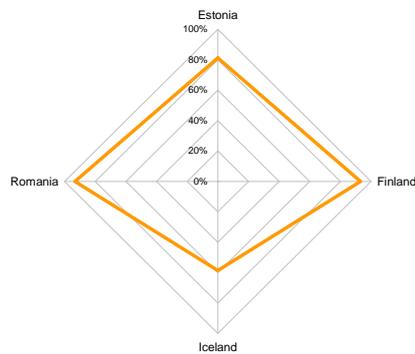
How do you find the easiness to integrate eBusiness operations with your partners?
(Q20 - ALIGNMENT)

Answer: % of companies replying "Good"

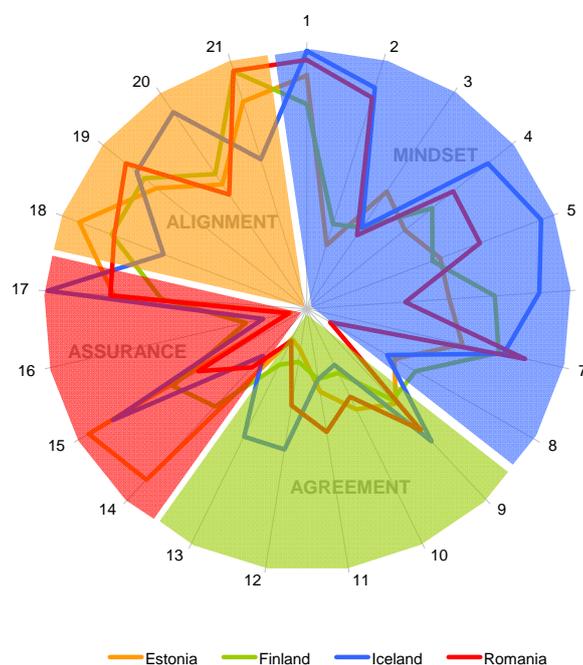


Have you experienced severe problems in running and managing your eBusiness transaction flow?
(Q21 - ALIGNMENT)

Answer: % of companies replying "No"



Processing all replies into a single graph, one can obtain an overall view of the eBusiness collective status in the four countries, with respect to the eBCM core clusters MINDSET, AGREEMENT, ASSURANCE and ALIGNMENT.



The graph exposes similarities and dissimilarities between the participating countries. What may be considered as research core findings is the perceived lack of collective agreements about how to conduct eBusiness, i.e. contracts, laws and standards (questions 9 – 13).

This was to some extent expected as the subject is still new and patterns based on longer experience are still missing. This situation may improve in due course of time, but this does not happen without organised actions. In addition, there are areas like security, which require immediate attention in terms of attitude, methodology and regulations.

The following table includes seven fundamental observations, reflections and project partners' recommendations derived from research 3 results:

No	OBSERVATIONS, REFLECTIONS AND RECOMMENDATIONS
1	<p>Observations: Among the management there is a common strong belief that computers and networking will be vital for competitiveness, yet there are differing views on the need to hire or train people for this reason.</p> <p>Reflections: Companies see eBusiness development as an evolution process, rather than a new strategy in itself, planning to train in-house people on an ad hoc basis. An issue of further investigation to learn more about the different strategies and orientations.</p> <p>Recommendation: The eBCM-RAP project team recommends raised awareness of the challenges of eBusiness development and the need for strategic thinking towards the necessary in-house knowledge and skills.</p>

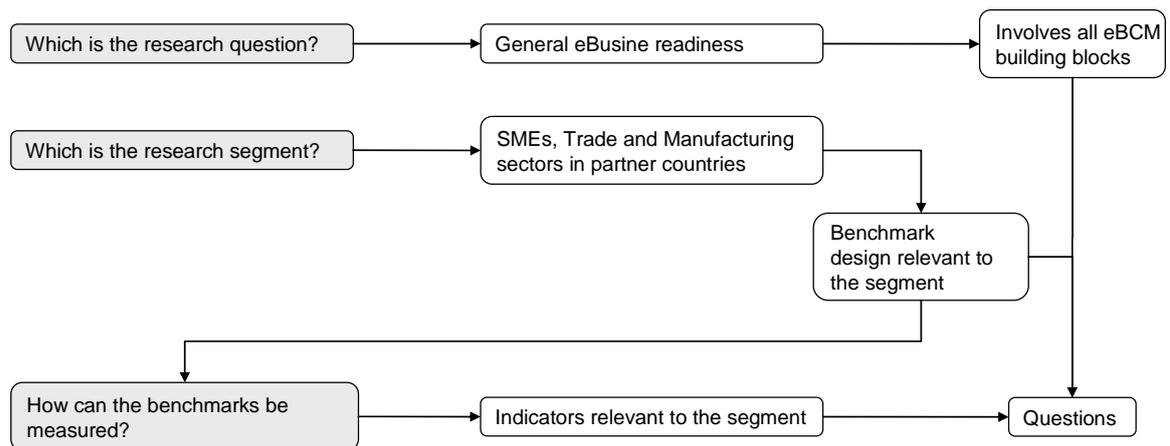
2	<p>Observations: Among the management there is a strong belief that computers and networking will be vital for competitiveness, yet the management perceives own knowledge to be relatively low.</p> <p>Reflections: The management considers eBusiness a technical issue, not a business strategy.</p> <p>Recommendation: The eBCM-RAP project team recommends raised management awareness of the need for eBusiness-strategic thinking and direct top-level management involvement.</p>
3	<p>Observations: Among the management there is a strong belief that computers and networking will be vital for competitiveness, yet management personal interest to move actively seems only moderate (differ between countries).</p> <p>Reflections: Strategic eBusiness development is not high on managers' priority list (differ between countries).</p> <p>Recommendation issues: The eBCM-RAP project team recommends raised management awareness of eBusiness opportunities and respective available ICT solutions, suitable to their business operations and budget.</p>
4	<p>Observations: The management finds good reason for cooperating with other companies in eBusiness development, but are unaware of available platforms for such cooperation.</p> <p>Reflections: The current cooperative platforms and foras are not reaching out to SMEs.</p> <p>Recommendation: The eBCM-RAP project team recommends restructuring of the supportive eBusiness development environment, making it an attractive source of information and platform for mutual exchange of ideas and best practices.</p>
5	<p>Observations: Among the management there is a reasonable belief that eBusiness requires different kind of contracts but it has not been given a serious thought.</p> <p>Reflections: The use of ICT to channel business documents is considered a new mailing service for conventional document delivery. The need for specifying the new interaction channel and respective responsibilities has not been recognised.</p> <p>Recommendation: The eBCM-RAP project team recommends a raised management awareness of the need for specifying the new type of interaction between eBusiness partners and their respective new responsibilities.</p>
6	<p>Observations: There is a high level of trust and confidence with SME management in their ICT systems and information security, yet their perceived level of knowledge in the area is rather modest.</p> <p>Reflections: Managers rely on their service providers and in-house technical staff to manage the company's ICT systems and information security.</p> <p>Recommendation: The eBCM-RAP project team recommends information security to be raised to top-management level, eBusiness information being a core asset to the company calling for close attention and protection.</p>
7	<p>Observations: There is a high level of trust and confidence with SME management in their ICT systems and information security, yet there are no quality plans covering their eBusiness operations.</p> <p>Reflections: Quality planning is to SME management considered as bureaucratic and costly, only for the "big companies".</p> <p>Recommendation: The eBCM-RAP project team recommends raised management awareness for quality and its management to be a competitive necessity. There is need for a new approach in eBusiness operations quality management, tailored to the needs and capacity of SMEs.</p>

The research 3 design and respective field questionnaires are presented in the appendix F of this report and research 3 report in appendix G.

3.7 eBCM applied – a roadmap in creation

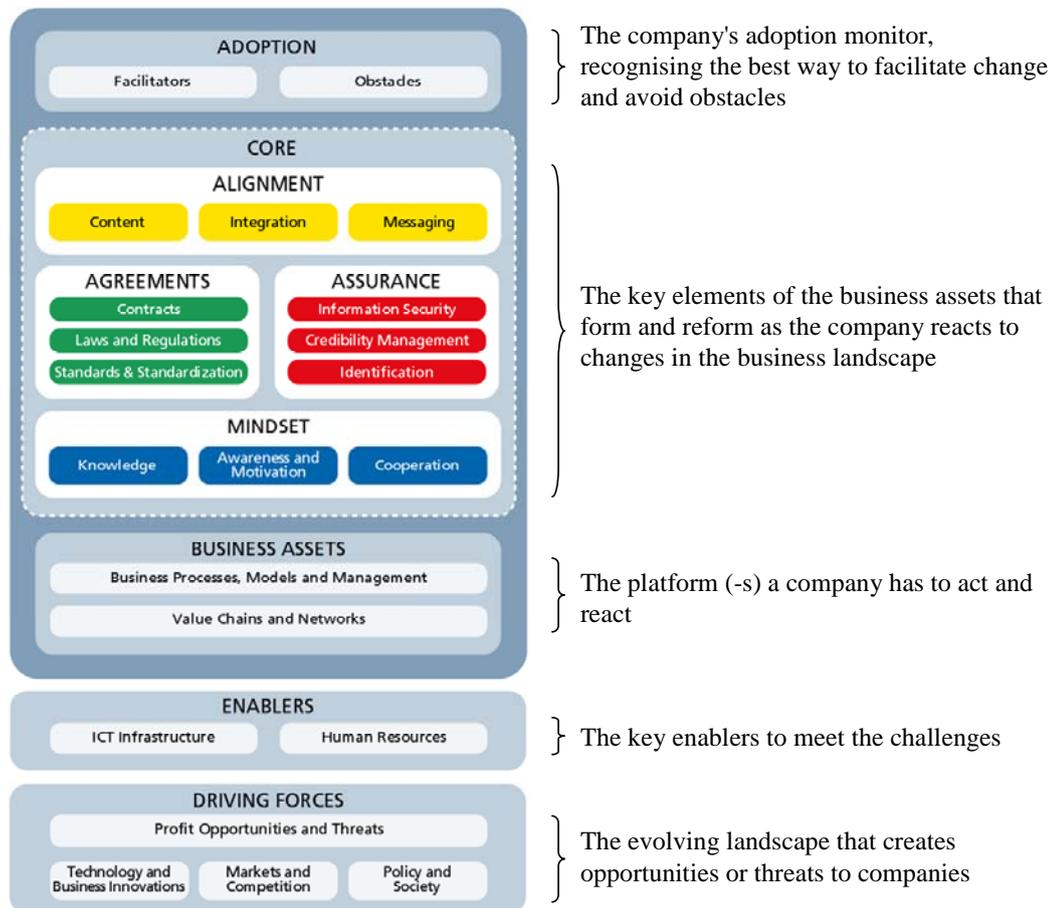
The eBCM’s design and content encapsulates a message which is relevant to almost anyone that is doing business or serving business communities, including educators, research community, governments and business and funding organisations. Due to this holistic nature the model can be applied in almost endless different ways, all depending on the need at each time.

Following is schematically shown how the research 3 questionnaire design could have taken form:



4 THE eBUSINESS COMMUNITY MODEL, eBCM

By means of three eBCM-RAP project research rounds the present structure of the eBCM version 3.0 has been accomplished and has the following schema, made of five main essentials, eBusiness driving forces, eBusiness enablers, company assets, eBusiness core elements and adoption monitor.



The Core is considered the centrepiece of the model, containing the major Building Blocks of eBusiness. The dark grey frame enclosing the Core, business assets and adoption monitor contains the elements which are to the greater or lesser degree under the influence of the company where of the two satellite frames, enablers and driving forces, contain elements which are external factors under no (or marginal control) of an individual company.

4.1 The Core

The eBCM Core consists of building block clusters, representing essential eBusiness sub domains, and consisting of a number of strongly related Building Blocks, each of them covering a specific key issue in understanding and managing eBusiness. There are four clusters in the eBCM core: Mindset, Agreement, Assurance and Alignment.

MINDSET. In order to promote ICT enabled business practices it is important to create an environment with enthusiasm, a virtual accelerating cycle and an

atmosphere leading to adoption. For any development, there needs to be the right “mindset” in place, including the necessary knowledge, the awareness about the opportunities, the motivation to take action, and effective fora for cooperation of measures taken.

The cluster’s Building Blocks:

Knowledge

eBusiness knowledge is understood as the confident understanding and ability of doing business electronically in support of stakeholders’ organisational goals; stakeholders in the eBCM context being corporations and public authorities. Knowledge needs to be organised, documented, made accessible and easily taken advantage of. Likewise the unofficial non-recorded knowledge in form of experience and field level good practices needs to be recognised, respected and taken advantage of. The key players in that process are educational and research institutions, industry and standards institutions, business associations, consulting companies, and naturally the business community and the companies themselves.

Awareness and motivation

People are motivated to move and work for a vision, a future worth aiming for. The strength and nature of motivation depends on awareness and analysis of noteworthy actions of competitors and perceived risk and threat opportunities and probabilities. For any new discipline, practice or innovation to be adopted, trust and confidence in the foreseen advantages is needed. The required change process has to be understood in terms of consistency with the existing values and past experience.

Cooperation

Cooperation is the act of individuals or organisations, working together at creating a common good, a shared asset beneficiary to all stakeholders, each contributing to the cooperation the resources necessary for obtaining the objective. Over time, trial and errors have given an understanding of the problems of eBusiness implementation. Many of those problems require a collective effort of stakeholders, all in need for a common good for their own operations and benefit. If the effort involves many stakeholders, the chosen venue is often a standards or industry organisation that has specialised in managing the consensus building process. The initiative is with the stakeholders or the respective organisations; however the public authorities may take an active role in promoting such cooperation.

AGREEMENTS. The business environment includes numerous agreements of different categories. Some agreements are informal, some formal by nature. Some are voluntary recommendations, some compulsory. The landscape is wide for agreements with differing strength; binding, guideline-type and recommendations to follow generally accepted codes of conduct. A prerequisite for a solid set of agreements is a stable set of supplier independent definitions and terminology.

The cluster's Building Blocks:

Standards and standardisation

A standard is a defined and described agreement for compatibility promotion, an enabling tool and a reservoir of knowledge and guidance for stakeholders in their quest for advancing towards a desired goal or state of development by means of agreed milestones. eBusiness standards and standardisation affects all stakeholders of eBusiness, businesses and governmental organisations. Interoperability rests on a common understanding and recognition of community best practice. The use of standards helps to avoid unnecessary fragmentation, overlapping efforts and inefficient use of resources. Standards are developed in standards organisations or consortia, formal as well as informal, the chosen venue depending on the nature of the deliverable and stakeholders' choice of work method.

Laws and regulations

The accountability of eBusiness to a large extent rests on the transparency of the legal and regulatory framework, as well as the state's ability to monitor the business conduct and intervene when necessary. The framework also has the role of a change driver. Under- and over-regulation cause undesirable impacts. The framework contributes to the assurance needed for transforming business processes from a traditional paper based to an ICT enabled process. A well justified framework has characteristics like coherence, clarity, predictability, and complemented with application procedures like enforcement and complaint management. The law-maker is expected to represent the collective interest of all stakeholders.

Contracts

Business contracts are a documentation of all the relationships typical for running business, like seller-buyer roles, outsourcing and other kind of cooperation arrangements, stipulating products and services, and covering values as well as goods to be traded, the conditions of trade and methods of fulfilment. All mutual exchange formats need to be taken into account. In an efficient eBusiness relationship the electronic transfer of information needs to be monitored and respective responsibilities recognised.

ASSURANCE. Establishing the necessary trust and confidence between business partners is to a very large extent a subjective issue affected by the reputation and image of the organisations or enterprises in question. This refers to the overall perceived identity and credibility, which are essential both in the traditional business as well as in the business practices with strong ICT penetration and network visibility.

The cluster's Building Blocks:

Identification

In eBusiness the identity of business partners needs to be recognised in a secure and accountable manner for contractual reasons, written or verbal. Electronic identification of any person, object or concept referred to in a business relationship serves the purpose of transparency and fulfilment assurance. This approach also requires standards and coding practices for all business related elements and their coordinates referring to land, sea and air.

Credibility management

Credibility covers primary business characteristics like trustworthiness and expertise and a prerequisite for a business relationship, especially in eBusiness where personal interaction is limited. Within the business domain, transactions and messaging, trustworthiness is a judgement based on subjective factors while expertise, in addition to subjective factors, includes objective judgements of the source credentials and information quality. Credibility is a key asset in running eBusiness with success, involves all employees and needs to be managed at all levels of a business operation.

Information security

Information security is the result of the process of protecting data and pieces of information from any unauthorized access. This especially applies to confidential information in possession of an organisation. For any business its data and information reservoir is a valuable and most easily transferred asset which needs to be managed accordingly. Apart from protecting data for own reasons, companies store data conveyed to and from business partners which concern their interest as well as data accountable to the authorities and stakeholders.

ALIGNMENT is an integrating building block cluster, bringing together the fabrics of different ICT supported business processes and the necessary eBusiness community content descriptions, adaptation to different environments and partnerships, business transaction construction and respective message exchange means, preconditions and practices.

The cluster's Building Blocks:

Content

Content is all information that is conveyed or referred to in a business relationship and any form of business transaction. Good management of content is a prerequisite for a streamlined and credible eBusiness process. Characteristics of high quality content are trustworthiness, timeliness, clarity and accessibility. Companies and organisations manage their own content or use the service of others that specialise in managing content.

Integration

eBusiness integration enables partners to conduct business electronically in an efficient way. Integration is multi-layered, involving all sections of a business operation, including organisation, technology, and semantics as well as cultural aspects. In addition, integration covers collaborative arrangements with customers and business partners, takes into account individual needs of people involved and puts special emphasis on the variety of accessibility issues among all stakeholders integrated through different roles in the business partnership.

Messaging

Messaging involves the transfer of information between business partners and customers as well as the message format and procedure of creating, delivering, acknowledging, documenting and replying to a message. In addition, messaging covers items like accessibility of the message and the message history. Well managed messaging functionality enhances business transparency and business transaction efficiency. The core bases of message formats and protocols are commonly originated from international organisations representing stakeholders' interest.

4.2 Adjacent elements

The eBCM includes two categories of adjacent elements:

1) Elements which are within the direct power of individual organisations to operate and decide upon:

- *Business Assets* are a set of elements and factors identifying key business processes, models and management as well as value chains and networks evitable for businesses to create and maintain dynamic and ac-hoc based cooperation structures, where different resources meet and work together to achieve a common goal, thus integrating their value production abilities.

The elements: *Business Processes, Models and Management, and Value Chains and Networks*

- *Adoption* is a set of elements and factors providing information from various sources about issues related to eBusiness adoption, i.e. how the ICT enabled business renewal is progressing, and identifying obstacles, barriers, gaps of knowledge etc.; problems in the progress and take-up of new business practices, and serves as an integration point of the findings and messages provided by the individual building block based benchmarks and indicators.

The elements: *Facilitators and Obstacles*

2) Elements which are regarded as background given factors. These elements illustrate the general environment, prerequisites, need and motivation related issues important for eBusiness development and implementation. Individual organisations have to adapt themselves with respect to these factors and take action accordingly.

- *Driving Forces* are a set of elements and factors identifying internal or external forces such as technology and business innovations, the evolving markets and the turbulent competition scene, policy and society level issues, and the emerging new possibilities for profit opportunities as well as threats to success.

The elements: *Profit Opportunities and Threats, Technology and Business Innovations, Markets and Competition, and Policy and Society*

- *Enablers* are a set of elements and factors referring to key prerequisites for ICT enabled business practices and for establishing a well-functioning eBusiness environment.

The elements: *ICT Infrastructure and Human Resources*

The eBCM Core and Adjacent elements are presented in detail in appendix A of this report.

5 eBCM AWARENESS RAISING AND DISSEMINATION OF eBCM-RAP RESULTS

The origin of the eBCM has already been introduced and the early dissemination activity before summer of 2004, when the eBCM-RAP project started. As a part of the project plan, much effort has been put on further promotion of the eBCM with its wide-spread recognition and use as an objective. The close liaison with eBCM-VET project benefited both projects by increasing the number of introduction opportunities and doubling the dissemination effect.

5.1 Promotional events

The main events have been the following:

TIME	PLACE	EVENT
June 2005	Bled, Slovenia	“eIntegration”, the 18th annual international eBusiness Bled conference.
October 2005	Stockholm, Sweden	eBCM-RAP Project meeting with Nordic Reference Group (NRG), ETeB Core Group and invited guests.
November 2005	Reykjavik, Iceland	A meeting of the Icelandic Test-bed Consortium for ETeB, The European Network of National Test-beds for eBusiness.
December 2005	Bucharest, Romania	National Forum with international expert from Portugal, Norway, France, Switzerland, Finland.
February 2006	Helsinki, Finland	SME Foundation.
February 2006	Tallinn, Estonia	Meeting of the Vocational Education ICT Curricula Council at the State Qualification Centre office.
March 2006	Reykjavik, Iceland	A meeting with the Secretary General and personnel at the Federation of Icelandic Trade.
June 2006	Bled, Slovenia	“eValues”, the 19th annual international eBusiness Bled conference.
June 2006	Barcelona, Spain	Meeting of the EUCIP Product development and Quality Board.
June 2006	Brussels, Belgium	Industry workshop organised by European Commission, DG Information Society and Media.
June 2006	Harju County, Estonia	Workshop Baltic ICT community on the way to FP7, at the People’s Conference Centre Harju County.
September 2006	Bucharest, Romania	E-COMM-LINE 2006 (the 7-th Edition of the important traditional European Conference, of eLearning, eBusiness, eGovernment, eDemocracy, eWork / Telework , eHealth, eBanking, Broadband and Wireless Internet, Internet Services and ERA and the social and economic influences).

September 2006	Bucharest, Romania	ECDL - Romania (European Standards in using IT facilities in Public Administration).
November 2006	Reykjavik, Iceland	A meeting with the CEO of the vocational education and training centre, Mímir.
December 2006	Bucharest, Romania	Annual Conference of the National Technology Platform-Manufacture of the Future.
February 2007	Reykjavik, Iceland	EU Education and Culture information and exhibition Day.
February 2007	Rovaniemi, Finland	eBusiness workshop (the workshop was part of Lapland Online project where the local entrepreneurs are trained to eBusiness).
April 2007	Riga, Latvia	Baltic IT&T Forum.
April 2007	Hämeenlinna, Finland	IT in Education –conference (the biggest and oldest annual (since 1989) IT & Education conference in Finland).
May 2007	Tallinn, Estonia	Seminar on “The methods of development and management of IT”
June 2007	Bled, Slovenia	“eMergence”, the 20th annual international eBusiness Bled conference.
June 2007	Prague, Czech	CEN/ISSS eBusiness Interoperability Forum - eBIF Plenary meeting
September 2007	Reykjavik, Iceland	“Paving for eFuture - Cross border eBusiness readiness” - An international eBusiness Conference.
October 2007	Bucharest, Romania	eBCM-VET final conference: “The eBusiness Workplace - Paradigm shift in work environment”
November 2007	Bucharest, Romania	Members meeting of the Association for Women Entrepreneurship Development.
November 2007	Võrumaa, Estonia	Information Day in Võrumaa Vocational Education Centre.
November 2007	Reykjavik, Iceland	Intro meeting for the VET community “eBusiness vocational education”.
April 2008	Reykjavik, Iceland	IT experts and business community review meeting
May 2008	Tallinn, Estonia	TIEKE’s biannual seminar eBusiness Forum in Tallinn.

5.2 Promotional impact

When assessing the impact created with the dissemination activity a simple approach is to browse the Internet. Google returns the following:

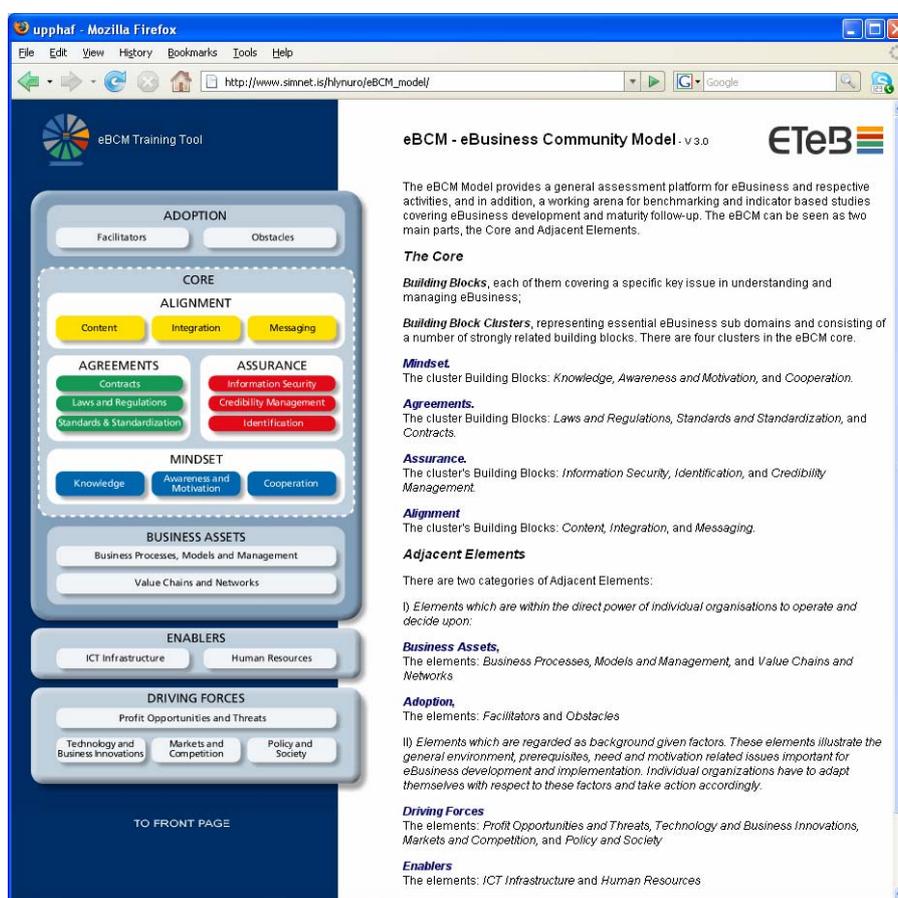
- “eBusiness Community Model” - 361 hits
- “eBCM-RAP” – 150 hits

Most of the sites are partners' own initiative but there are also quite a few where the model and project are referenced to.

5.3 Web presence

During the project period a website was designed and managed. On the website the project and the eBCM are introduced with project partners contact information. The URL is www.ebcm-rap.net.

One of the key deliverables of the project is an eBCM website currently hosted at: http://www.simnet.is/hlynuro/eBCM_model/. On that website the final model design and key element descriptions are presented. The website is referred to in all ETeB sites, i.e. www.eteb.org, www.ebcm-rap.net and www.ebcm-vet.net. All websites will continue to be maintained, at least for the next two years.



6 THE WAY FORWARD

The eBCM-RAP research rounds revealed and processed a number of issues which have an impact on the eBusiness Community Model and its wider introduction and implementation. In this context especially the following messages were delivered.

- A model framework can be defined as a set of policies, standards and guidelines that describe the way in which businesses have agreed, or should agree, to do business with each other. The emergence of new information technologies over the last decade has triggered new opportunities and services.

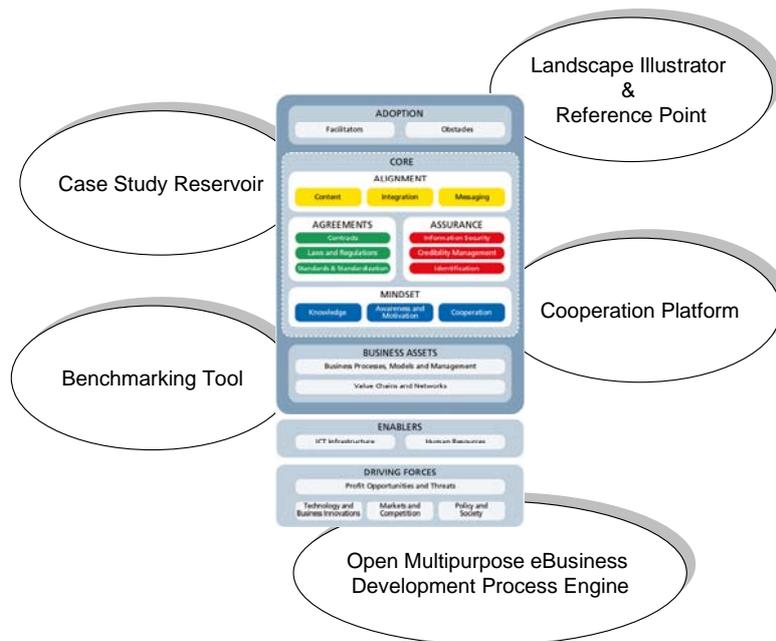
Also in the business relations of SMEs the counterparts expect and demand integrated and interoperating electronic services free of time constraints. On the other hand enterprises are interested not only in the services and opportunities provided at a national level but also at a cross-border level. In order to meet such demands, it is essential to ensure trustworthy interoperability of services.

- There are essential aspects and requirements that any framework or model promoting interoperability needs to take into serious consideration. Technical interoperability covers the technical issues of linking up computer systems and services by agreeing on standards for presenting, collecting, exchanging, processing and transporting information. Semantic interoperability aims at ensuring that the meaning (semantics) of exchanged information is shared by the systems that participate in the exchange of data and allows a meaningful manner of processing information. In addition, the cultural, legislative and linguistic challenges have to be met. Last, organisational interoperability is concerned with defining business goals and processes and bringing about the collaboration of counterparts that wish to exchange information but may have different internal organisations and structures for their operations.
- The issues mentioned above include a common mindset and knowledge base, awareness and motivation and willingness to cooperate. Likewise a set of agreements are necessary and a set of assurance and confidence building elements. In addition, all the machinery has to be successfully orchestrated to allow useful content and message flow. These preconditions for seamless management and operation of eBusiness are relevant and necessary, and covered within the eBusiness Community Model framework structure.

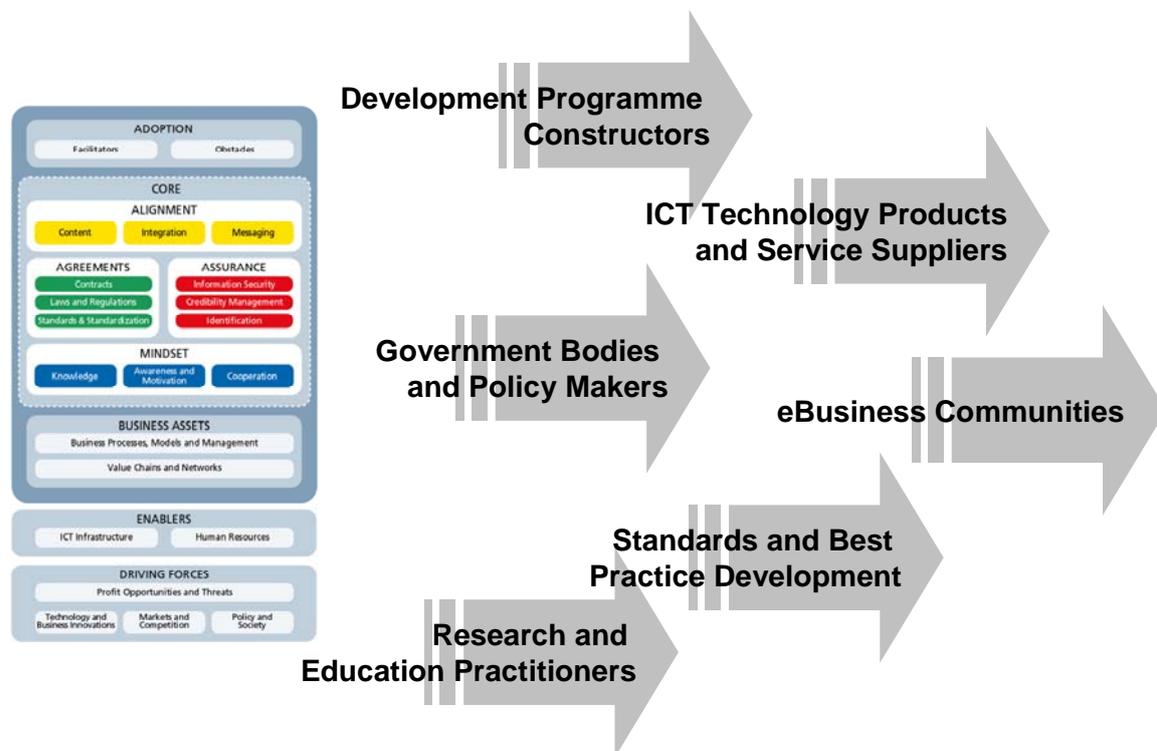
The initial drafting of the eBusiness Community Model was based on Icelandic experience and vision, and later assessed, complemented and further developed within the eBCM-RAP project partnership. The comparison of different national achievements, roadmaps and practical experience gave an overview of the structure, best practices and recommendations that could be promoted by means of the eBCM and respective activities.

The eBCM approach means, above all, collaboration of systems, disciplines, services and people in order to deliver results, the necessity for the different stakeholders to cooperate is the key. The cooperation should ensure an open, ongoing dialogue between all key stakeholders. The future eBCM related activities should be based on the continuation of this dialogue.

The eBCM research rounds confirmed the need for this kind of dialogue and the role the eBCM could play in this context. The model has the potential to address eBusiness issues of shared interest and it is capable to act as the focal reference point serving several roles like a Case Study Reservoir, Landscape Illustrator & Reference Point, Benchmarking Tool, Cooperation Platform and Open Multipurpose eBusiness Development Process Engine.



These many roles and the holistic nature and generic structure of the eBCM opens a wide arena for contributions serving a large variety of audience, who may benefit from the eBCM, e.g. Development Programme Constructors, ICT Technology Products and Services Suppliers, Governmental Bodies and Policy Makers, eBusiness Communities, Standards and Best Practice Development and Research and Education Practitioners.



The eBCM research rounds have delivered a lot of material describing the SME eBusiness arena and how the pressure for business practices renewal is progressing

and how its importance has been recognised. These findings are a key when preparing actions for eBCM exploitation.

The field surveys and research results have already provided material for eBCM development. However, the rapid and dynamic nature of eBusiness development and adoption makes it necessary for successive versions of the eBCM and related material to appear on a regular basis. This process of constant revision is expected to lead ultimately to a set of solutions for multidimensional interoperability and seamless eBusiness practices adoption.

The drivers of change partly depend on new technology inventions and their adoption, and partly due to business practices renewal worldwide. Seen from this angle, the eBCM will never achieve a final solid state to be carved in stone. As a reflection of the real life, it has to change and develop accordingly in order to provide timely information and a trustworthy picture of the business landscape in its automated form.

It was discussed within the eBCM-RAP project that there is a certain analogue between a model and a piece of art. Both gain the inspiration from reality, both are attempts to construct an interpretation of the reality, and both aim to serve an audience by delivering a message or an opinion concerning the reality and how to cope with it. In addition, both are often loaded with the desire from the model constructor, or from the artist, to have an impact.

In this sense the eBCM as an interpretation of the reality has to appeal to a wide variety of audience and varying expectations at any time. The generic nature of the eBCM is aimed to manage the diversity of the SME domain – allowing entrance to go deeper in the subject and make respective orientations, and when so wanted, allowing remaining on a more general overall level.

According to the eBCM-RAP project plan this is to be done by tuning the eBCM to act as a generic entity to be used in the ETeB context as a suitable benchmark for national, regional and sectoral eBusiness development and to assess the eBusiness status in partnership countries by using the model for information gathering and validation purposes.

The eBCM initiative and the eBCM-RAP project was presented to an international audience in the Paving for eFuture – Cross Border eBusiness Readiness Conference held in Reykjavik, Iceland 13th of September 2007. The eBCM approach was well received. Likewise, encouragement for continuation of the work was recorded during the conference sessions.

From this starting point and referring to the effort and experience so far in eBCM development, the following roadmap objectives are well justified:

1. *Further investigation and description of Building Blocks and Adjacent elements.* The eBCM and all related material have to be regularly updated and complemented when necessary. This requires a mechanism to assess the model and all respective justifications, descriptions and guidelines from time to time. This may be conducted by means of scheduled revision projects or by a continuous practice, possibly installed on the Web.
2. *Elaboration of assessment tools, benchmarks and indicators.* The eBCM research rounds have revealed the importance and difficulties related to meaningful eBusiness readiness and development assessment machinery. There is no single absolute set of benchmarks and indicators that would be

perfect and durable in the constantly changing eBusiness scenery. The contradiction between stable measurements to gain trustworthy time series and profiles of change, and to-the-point surveys solving problem or opportunity oriented issues, is to remain and various survey methods have to be applied.

3. *Review of research design guidelines.* The foreseen field of well justified eBusiness research is exhaustive. The eBCM holistic domain addresses a large variety of potential research areas. Within the eBCM-RAP project a number of research designs were generated and applied. They managed to assist in gaining valuable data and raw material for conclusions and recommendations, but none of them managed to achieve and confirm a status of a sustainable design. There also is a need to apply different kind of designs depending on the nature of research objectives involved. As an example, designs for SME readiness, national eBusiness infrastructure level, and SME CEOs attitude distribution differ a lot. Research and survey designs have to be prepared case by case, but a reservoir of good design practices would be a valuable source and when systematically exploited, also a measure to promote comparability of field work results. This naturally is a valid point also from the benchmarking and indicators harmonisation point of view.

Within mathematics, key values and virtues are *simplicity, elegance and durability*. In this context simplicity and elegance refer to style, clarity and precision of expression. Durability refers to solid well defended statements. If a mathematical theory or model succeeds in fulfilling these, it is supposed to have a major influence. The eBusiness description arena very probably is not a playground for pure mathematical reasoning and expression, but there might still be a lesson to learn concerning the strategy to further develop the eBCM entity and its contribution value.

However, referring to the fragmented fabrics of the SME awareness and readiness patterns revealed by the eBCM-RAP field research as well as the many stakeholders to take into consideration as responsible actors in promoting awareness and knowledge, the true challenge is how to do it.

The exploitation of the eBusiness Community Model may follow different, still well justified roadmaps. The best suitable tracks depend on the stakeholders and other interest groups having an interest in eBusiness adoption. Thus, as an example, policy makers, solution suppliers, educators, and SMEs have differing motives and objectives in assessing the value and benefit of the eBCM.

However, the strength of the eBCM is its generic nature, which allows different roadmaps and still offers a common platform and image for the eBusiness phenomenon. It is also foreseen, that this characteristics is the great opportunity: if the key stakeholders agree on a common practice, model, and its usage patterns, there is a common language that will build a bridge between the counterparts and significantly support common understanding of eBusiness success factors.

This understanding would be the prerequisite for, as an example, improved policy decisions, education and training programmes and facilities, and for a higher quality service delivery for SMEs practising or aiming to adopt eBusiness.

The first step to launch the eBCM exploitation roadmap is awareness raising of its existence and as part of it, easy-to-find and easy-to-use information sources. This requires practical facilities in terms of material, channels, and most-of-all, committed personnel.

In addition to traditional measures, especially the potential and usability of new collaborative thematic network platforms should be considered and investigated. This kind of platform could follow the “wikipedia” approach, inviting the interested organisations and active individuals to participate in the eBCM dialogue and to put forward their opinions, experience and suggestions for new activities. This kind of an approach has also proved to promote commitment and raise the level of participation.

To manage the eBCM exploitation is a challenge to be met with information society artillery. This requires well-functioning web-presence and channels for the active counterparts to commit themselves into the dialogue and model usage.

The overall eBCM promotional roadmap might actually have two streamlines supporting each other:

1. *Roadmap to contact key stakeholders.* This requires well planned contacts to selected policy makers with influence power, and having either personal interest in the subject or having eBusiness and its promotion as part of their responsibility, or both. Also the counterparts designing education and training programmes are in the forefront, as well as trade and commerce associations, especially the ones working with SMEs.
2. *Roadmap to establish a high quality web presence.* This roadmap stream would establish the platform for idea and experience exchange, and act as a collaborative launching pad for delivery of the eBCM message, as drafted in the above section.

To proceed without delay, the eBCM-RAP project should be followed by an activity especially concentrating its effort in more detailed planning of these roadmap streamlines, making them into a reality.

LIST OF APPENDIXES:

APPENDIX A - DESCRIPTION OF THE eBCM MODEL VERSION 3.0

APPENDIX B - eBCM RR1 DESIGN 27.04.2005 FINAL

APPENDIX C - eBCM RR1 FINAL REPORT 16.12.2005

APPENDIX D - eBCM RR2 DESIGN 26.06.2006 FINAL

APPENDIX E - eBCM RR2 FINAL REPORT 04.12.2006

APPENDIX F - eBCM RR3 DESIGN 08.05.2007 FINAL

APPENDIX G - eBCM RR3 FINAL REPORT 25.09.2007

**NB! All appendixes listed above are available in a separate document, which may be downloaded for free at the Nordic Innovation Centre website:
www.nordicinnovation.net.**



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The Nordic Innovation Centre initiates and finances activities that enhance innovation collaboration and develop and maintain a smoothly functioning market in the Nordic region.

The Centre works primarily with small and medium-sized companies (SMEs) in the Nordic countries. Other important partners are those most closely involved with innovation and market surveillance, such as industrial organisations and interest groups, research institutions and public authorities.

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