

Globalisation and New Collaborative Working Environments

newsletter feb 2008



Editor corner

Let me first of all welcome you to this first newsletter of the NEW GLOBAL project. With this newsletter we would like to inform you on the latest news around the project and present you interesting highlights on the results and insights of our study. Moreover we provide you with comprehensive introductions to the topic. We also challenge you to think with us, because until now not much is known about the critical factors determining the success of Collaborative Working Environments on a global scale, how collaboration across continents will impact on the European economy, and what that implies for European policy making.

I would like to promote in this regard our NEW GLOBAL community site www.ami-communities.eu/wiki/New_Global. Here you can find lots of background information on the topic.

Via our interactive discussion site www.ami-communities.eu/bscw/bscw.cgi/323246 you are invited to discuss with us interesting and important topics in the field of globalisation and new work environments.

Feel free to contact us. This newsletter can be the trigger. We appreciate any opinion that can catalyse a better informed debate amongst practitioners, leading experts and European policy makers about more appropriate responses to the globalisation forces in Europe. This for the benefit of small and large companies in Europe and a successful transformation of Europe towards the knowledge-based global economy.

Yours Sincerely,

On behalf of the NEW GLOBAL project team,

Marcel Bijlsma, Telematica Instituut, editor

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Coordinator's message

Dear readers,

Globalisation is one phenomena that at present is broadly discussed and that imposes changes in the way how we work. The aim of the New Global study is to analyse how companies react to the challenges and opportunities of globalisation. Thereby, the main focus is on different kind of collaborative working environments that are established among companies or their parts that are located on distributed locations worldwide. The research questions that are considered are:

1. How do companies perceive the impact of globalisation, what was or is their motivation to go global and which strategies do companies apply to act global?
2. How do companies exploit Collaborative Working Environments to implement globalisation strategies? What are the main challenges companies face in using global Collaborative Working Environments? What is good practice?
3. What are the conditions for EU companies to better leverage the opportunities of global Collaborative Working Environments and how could policy respond to create such conditions?

The main hypothesis of the study is that collaborative environments enabled by collaborative technologies are an important aspect in the implementation of globalisation strategies. In this context the term "Collaborative Globalisation" has been coined by the study team, to denote the specific way of going global by way of intensive worldwide collaboration. The goal of the study is the extraction of good practices for implementing global collaborative working environments based on case studies and a broad European survey. Another goal is to identify needs for action with respect to policy and regulation.

The study started in January 2007. Up till now a broad state-of-the-art analysis has been conducted, the research methodologies for the case studies and the empirical survey were defined and first case studies have been analysed. This newsletter contains some of the results of the state-of-the-art. Further results are provided for download at the New Global homepage.

We would like to invite you for a broad discussion of the results. In addition, the study team would be interested in receiving information about interesting case studies of globalising companies as well as policy or regulation debates that might add to the findings of this study.

We are looking forward to your contribution

Yours' sincerely

Katarina Stanoevska-Slabeva (katarina.stanoevska@unisg.ch)

News

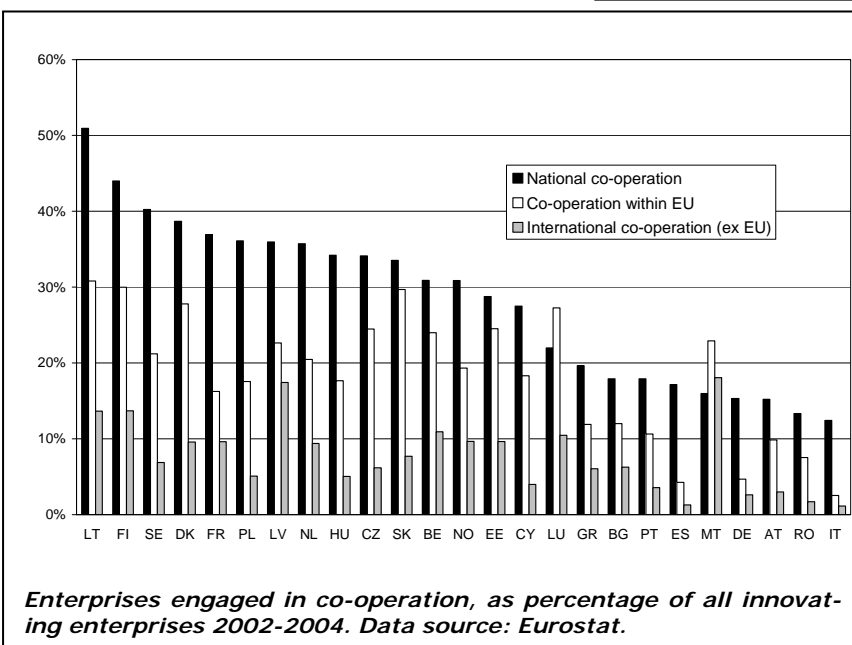
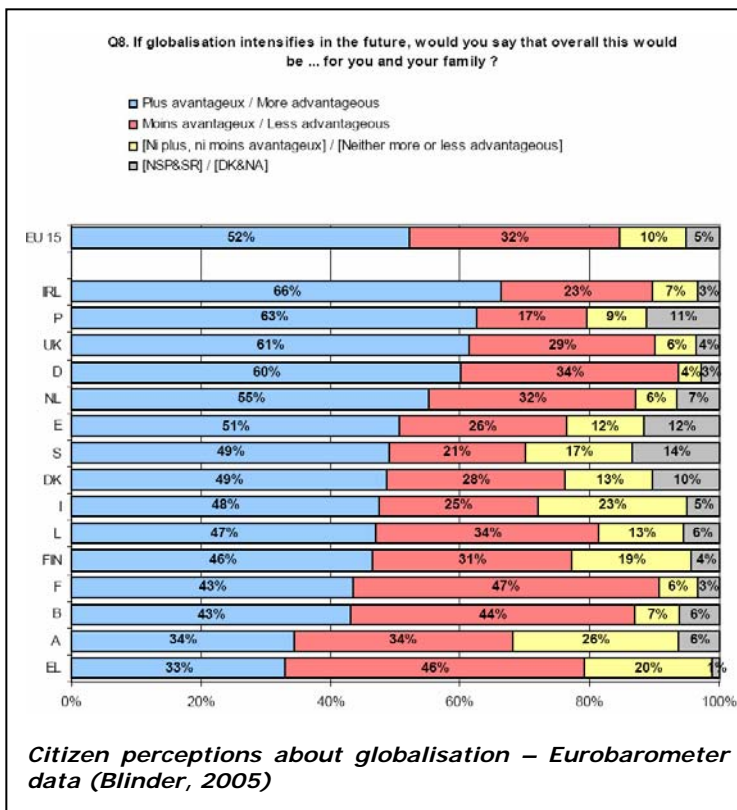
- 4-6 June, 2008: NEW GLOBAL presentation at the 13th International ITA Workshop "ICT-supported collaboration and flexible work as vehicles for stimulating local development, supporting entrepreneurship and building a fully inclusive Information Society", Kraków, Poland, www.itw2008.pl/
- 23-25 June, 2008: NEW GLOBAL workshop at international conference ICE'08 "A new wave of innovation in Collaborative Networks", Lisboa, Portugal, www.ice-conference.org
- New NEW GLOBAL blog. On our interactive discussion site www.ami-communities.eu/bscw/bscw.cgi/323246 we started a blog on interesting topics in the field of globalisation and new work environments. You are invited to discuss with us!

Global collaboration: What the data tell us (and what we still need to know)

Karsten Gareis - empirica

Very little systematic evidence is available as yet about the extent to which European companies as well as individual workers are engaged in ICT-supported collaboration that stretches across the borders of countries and even continents. Even less is known about the drivers and impacts of global, virtual collaboration in terms of, for example, benefits to companies, workers and other stakeholders. Academic research has focused mainly on case studies into the experience of companies which are leading innovators, and as such may not be representative of developments in the majority of, especially, small and medium-sized establishments (SMEs).

The latest data from the European Community Innovation Survey point towards country differences with regard to the share of companies engaged in collaboration *for innovation activities*. Especially in the smaller EU Member States, collaboration with foreign partners from



within the EU is relatively widespread. Collaboration with organisations from outside of the EU is much less common, and is often strongly focused on countries bordering on the EU and adjacent to the Member State the respondent firm is located in.

EU companies make considerable use of advanced ICT for the purpose of collaboration with external firms or institutions. Data from the European eBusiness W@tch indicate that uptake of collaborative workspaces, collaborative capacity management, design processes and forecasting of demand have been taken up by a sizeable minority of EU firms.

While such forms of collaboration, often taking place at global scale, are not much recognised in the public debate, most media attention concerning globalisation's impact on the EU economy has focused on the phenomenon of off-shoring of manufacturing jobs and routine knowledge work. Recent studies have also highlighted the possibility that knowledge-intensive, high quality jobs such as in R&D may also "move" to offshore locations such as India and China. In sum, published

reports give the impression that globalisation is a zero-sum game, where a country can only gain if other lose out at the same time, and companies are engaged in a struggle for life where only the most powerful multi-national players will survive. It hardly comes as a surprise, then, that a large share of the EU population consider globalisation as a threat to their personal welfare rather than as an advantage, as the results from Eurobarometer surveys have repeatedly shown.

This impression does not properly reflect the real experience of globalisation in recent decades. A wealth of empirical evidence, most of it of qualitative or anecdotal nature, is available on the extent with which ICTs have been deployed in recent decades to create and re-create often sophisticated divisions of labour at inter-regional, national and global scales¹. In sum these studies suggest that the EU countries' economies are likely to benefit from globalisation, but that employment effects differ considerably between high-skilled and low-skilled segments of the labour market, with the latter being affected by a downward pressure on wages and working conditions. Meanwhile, demand for high-qualified labour is likely to increase rather than diminish as a consequence of global collaboration.

The overall patchy evidence, which is available on the current and likely future impacts of developments related to cross-border virtual collaboration, indicates the need for more research into how to gain the benefits and avoid the drawbacks from globalised collaboration and from ICT-tools for virtual collaboration. The main gaps in knowledge appear to be the following:

- The relative elusiveness of inter-organisational collaboration – in particular if these are of a rather informal nature and not reflected in trade statistics or legal agreements – means that it has tended to escape the interest of **mainstream research** and especially of **official statistics**. If such collaboration is of vital importance for the competitiveness of the EU economy – and there is a wealth of insight which suggests just that – then representation of collaborative activities within research and statistics needs to be improved considerably.
- In recent years, a body of research has been produced on the issue of ICT-based collaboration, originally using the term “computer supported collaborative work” (CSCW). While much of this research is highly relevant for the topic of NEW GLOBAL, insufficient attention has been paid to aspects which are specific for **global collaboration**, such as the spanning of cultural, temporal and organisational boundaries at a global scale.
- To what extent are there **national differences** in the degree to which SMEs in EU countries exploit the potential for international collaboration? Are these differences purely due to different sizes of the home markets, or do significant variations persist once this factor is controlled for? If the latter is the case, can we identify good practice in policy action at national

	Share documents in collaborative work space		Manage capacity / inventory online		Collaborative design processes		Collaborative forecasting of demand	
	% of empl.	% of firms	% of empl.	% of firms	% of empl.	% of firms	% of empl.	% of firms
Weighting scheme:								
Total (EU-10)	27	14	22	10	15	7	20	11
By firm size								
Micro (1-9 empl.)		10		8		5		10
Small (10-49 empl.)		19		14		8		13
Medium (50-249 empl.)		31		21		13		19
Large (250+ empl.)		47		41		25		41
By sector								
Food & beverages	28	10	24	11	15	6	23	10
Footwear	18	12	17	9	11	10	11	11
Pulp & paper	27	17	32	13	16	11	19	12
ICT manufacturing	45	26	37	16	27	15	26	16
Consumer electronics	45	22	29	12	20	18	17	19
Shipbuilding & repair	27	19	19	15	20	7	16	11
Construction	22	9	14	8	9	5	14	8
Tourism	26	12	25	8	21	8	30	15
Telecommunication	51	36	29	19	27	19	29	23
Hospital activities	37	33	34	25	11	8	n.a.	n.a.
Base (100%)	firms with internet access	firms with internet access	firms with internet access	firms with internet access	firms with internet access	firms with internet access	firms with internet access (without hospitals)	
N (for total, EU-10)	7008	7008	7008	7008	7008	6475		
Questionnaire reference	D5a	D5e	D5d	D5c				

Online cooperation and collaboration. Source: eBusiness Watch, 2007 [EU10 = CZ, DE, ES, FI, FR, HU, IT, NL, PO, UK]

¹ See for example: Dicken, P. (2007). *Global Shift. Mapping the Changing Contours of the World Economy*. 5th edition, London: Sage; Commission of the European Communities (2004). *Globalisation and Labour Markets: a European Perspective*. In *Employment in Europe 2004* (pp. 187-226). Luxembourg: Office for Official Publications of the European Communities. Storrie, D. (2006). *Restructuring and employment in the EU: Concepts, measurement and evidence*. Dublin: European Foundation for the Improvement of Living and Working Conditions; OECD (2005). *Handbook on Economic Globalisation Indicators – Measuring Globalisation*. Paris: OECD, 2005.

or regional level which could be utilised by other member states to improve their SMEs capability to “go global”?

- While global collaboration is bound to bring with it a large number of challenges, what are the **critical success factors** which differentiate poor from good performers?
- To what extent are **technical, financial, knowledge-related and attitudinal factors** responsible for the (presumably) large number of firms that do not intend to collaborate globally?
- Are the **collaboration technologies** used by European firms perceived as effectively supporting (a) highly collaborative work and (b) collaboration across cultural, geographical, organisational and temporal borders? Which are the most significant deficits?
- Which are the **skills** that are of particular importance to global collaboration; to what extent are they present in today’s workforces in the EU, and what needs to be done to improve skills supply if shortages are existing?
- While multi-national enterprises make extensive use of CWEs and are currently engaged in a process of trial-and-error to identify the best way to set up and manage global collaboration activities, **SMEs** which by their very nature tend to be more bound to their immediate environment (region, country) are lagging behind. Very little is known about the conditions under which SMEs are capable to engage in intensive global collaboration and the critical success factors for doing so.
- In this respect, the exact need for **policy support to SMEs** and how this should look like is also largely unknown territory.
- There is still a high degree of uncertainty and disagreement about the **health effects** of work intensification – as it is typical for types of work organisation which make heavy use of ICTs for increasing work productivity and collaborative activities. As has been reported in this chapter, the concept of pro-active work goes some way towards addressing the assumed contradictions in previous research findings. Findings until now are still tentative and need to put on a stronger empirical basis, also allowing for cultural differences between types of workers, sectors, countries, etc. More research is necessary, as well, to identify the long-term consequences of pro-active work organisation.
- Whereas traditional models for internationalisation of firms assume a step-by-step process, the Internet together with other ICTs have opened up totally new possibilities for establishing a global enterprise from scratch. This relates to the phenomenon of “**born globals**” the number of which has been growing explosively in recent years in Europe, although still at a very low level. To what extent can the “born global” model be considered as a model for self-sustaining entrepreneurial activity in the knowledge economy, and what do EU policy-makers need to do to exploit this potential?

On a different level than the above, a key challenge is posed by the fact that ICT-enabled global collaboration, and the restructuring of business activities which go hand in hand with it, are in the public debate mainly discussed as a threat to jobs in Europe. Much of the evidence which is available suggests that this is not an adequate representation of reality. It is a challenge to policy-makers to “spread the message” that globalisation, if properly managed, offers a wealth of opportunities for economic and social progress.

Challenges of globalised collaborative working

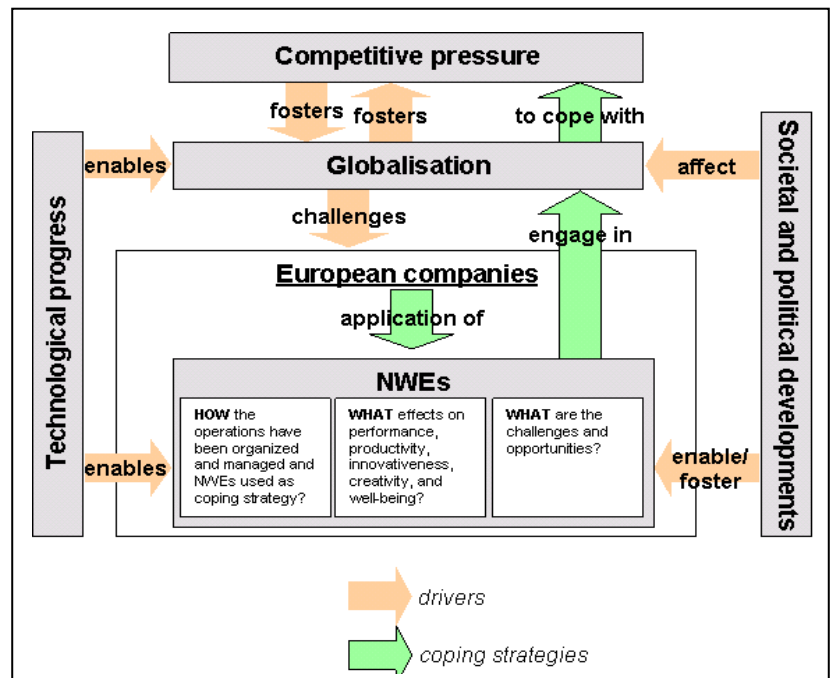
Hans Schaffers – Telematica Instituut / Adventure Research

Globalisation can be described as the process of growing integration of economies and societies around the world, leading to increasing connectivity, integration and interdependence in the economic, social, technological and political spheres. Globalisation is characterized by the increased mobility of goods, services, technology, capital and – to a lesser extent – labour around the world. Key forces giving further impetus to globalisation in recent years have been the growing liberalisation of markets, and the impact of information and communication technologies on products and services, business operations and markets.

Globalisation of markets and industries is often seen as threat to existing industries as new competition arises from emerging economies. Smaller suppliers in existing supply chains can be replaced by cheaper and more flexible suppliers from elsewhere. On the somewhat longer term even large companies are affected, as newcomers from emerging economies such as India and China have already shown to be able to use disruptive business models. However, globalisation also provides important new incentives and potentials for European business: to become more innovative, to collaborate with other companies, worldwide, in global value networks and to compete on a global market. To rethink business strategies in the domains of research and innovation, product portfolio, production strategy, market positioning and logistics. To develop new competencies, skills and strategies. Independent whether you are an SME or larger company.

In this regard it is important to get answers to the following questions:

1. How does globalisation of markets and industries affect the way companies are operating, and what does this imply for the role of Collaborative Working Environments (CWE). Under the term CWE we understand a combination of physical, IT-based and social or organisational infrastructures supporting people in their individual and collaborative work.



2. Which opportunities for market players are provided by globalisation, in particular those that imply a key role for globalised new collaborative working environments?
3. What are the conditions for European firms to better exploit the opportunities of globalised new working environments in coping with the related globalisation challenges and opportunities, and how could European policies and business strategies respond to create such conditions?

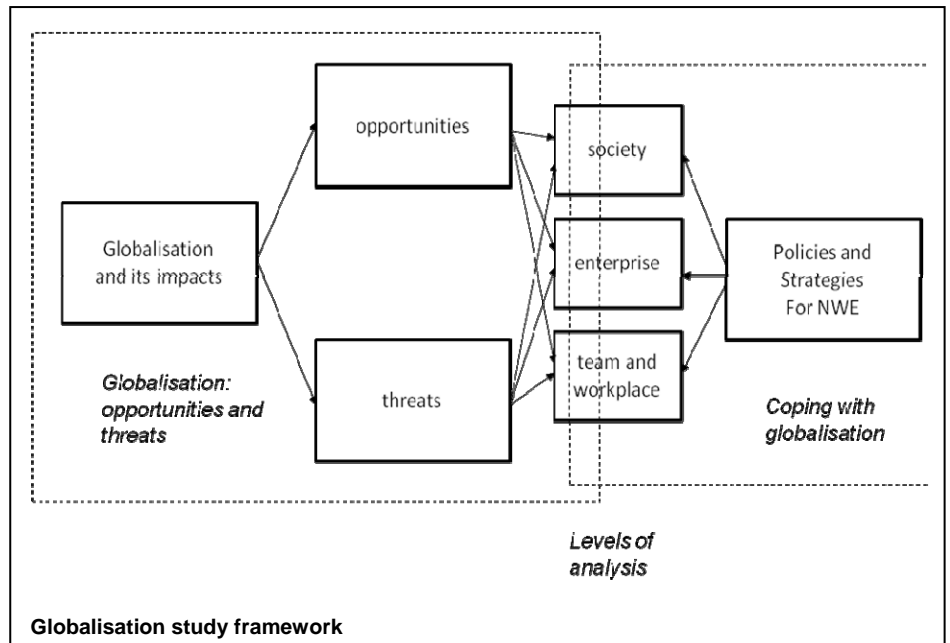
NEW GLOBAL is studying, on the basis of case studies and a business survey, answers to these questions. The main focus of the study is globalisation at enterprise as well as team and work practice level. With NEW GLOBAL we aim to set an important step in exploring how globalisation of markets and industries affects the way EU companies are operating, and to investigate the opportunities which global networking and global collaborative working opens up for market players to pro-actively exploit new "windows of opportunity".

Inside the research framework: explanation of our scope and approach

The NEW GLOBAL project team

The objective of the New Global study is to explore how globalisation of markets and industries affects the way companies are working, and to investigate the opportunities which global networking and global collaborative working opens up for market players to pro-actively exploit new "windows of opportunity". In the NEW GLOBAL study, three levels of analysis are considered:

- **Societal level** (government policies related to technology infrastructure, competition, labour flexibility and market liberalization as well as impact on employment issues, relocation patterns, cultural and behavioural issues, etc).
- **Enterprise level** (including intra-company business organisation, inter-company business networks, informal cross-organisational communities, and extra-company organisation e.g. forms of open innovation governed by business models),



- **Team and work place level** (collaborative workplace environments, including forms of inter-company virtual teams and current work practice).

The three levels are considered with different focus. The main focus of the study is globalisation at enterprise as well as team and work practice level. A core focus within the project is on the role of collaborative working environments (CWE's). Under the term CWE we understand a combination of physical, IT-based and social or organisational infrastructures supporting people in their individual and collaborative work. The societal level will be mainly considered as a source of regulations that impacts globalisation processes and influence global collaboration. On the other hand findings at enterprise and work place level aggregated on a general level might provide insights into the impact of globalisation of companies on major societal issues as infrastructure, employment, required skills, and similar.

The following research approach is taken in NEW GLOBAL:

1. Literature analysis to systematize and interpret the existing body of knowledge, identify the main trends and developments, and develop a framework of research;
2. Interview-based case studies to identify motives, strategies and current practices at companies that have already experiences with globalisation;
3. A survey among EU businesses focusing on how to unveil developments and impacts in key activities, areas, sectors, performance measures, and so on.

Subsequently, all the findings will be integrated and, based on them recommendations will be developed aimed at policy and decision making at all relevant levels.

Companies and inter-company networks in globalised working environments

Katarina Stanoevska - mcm Institute, St. Gallen University

In the era of global connectivity and a networked economy, organizations are transforming towards networked organizations and globally integrated enterprises. These new globally integrated enterprises are characterized by:

- Numerous cooperation relationships to suppliers, partners, production sites and other partners of the network that need to be orchestrated by the company
- Shift from closed to open innovation that involves business partners and customers not only in production but also in innovation processes
- Operation on a global scale.

In the most general sense "going global" means that part or the complete operations and market activities of a company are dislocated or are taking place in another region than the domestic country. The reasons to dislocate or include global operations in the company might be threefold:

- Market-seeking globalisation
- Resource-asset-seeking globalisation
- Efficiency-seeking globalisation, i.e. quest for higher efficiency through globally distributed production models

Given this we can distinguish going global from a market and an operations perspective.

Local market/Local Operation: Companies that have local operations and are active on a local market. This type of company is not of relevance for the NEW GLOBAL study.

Local operation/Global market: Such companies are mainly companies that operate from one location but serve a global market by using for example online commerce tools. Another type of companies that fall in this category are the so called "born global" companies. Born globals are taking advantage of globalisation processes and global trade and of innovative technology to reach global markets, even though they are mainly small new companies. One core competence of born globals is extensive use and know-how of innovative technology. Born globals use innovative ICT to support global distribution of their products or services. However, some born globals enter foreign markets also by establishing collaboration with local re-sellers. This type of born globals also apply collaboration technology to coordinate activities with distribution partners. Born global companies are a recent phenomena and the term was coined by McKinsey in the early 90s. Other terms that have emerged in literature to denote the same phenomena are International New Ventures (INV), High-technology start-ups, Global Start-ups, Instant Exporters, Instant Internationals, Born-Internationals, Micromultinationals and Early Internationalising Firms.

Well known examples of born globals are global Internet companies as for example Sulake from Finland or Linden Labs.

Global operation/Local market: This type of companies operates globally, i.e. sources products or parts for their products globally and markets them mainly on the domestic market. This type of companies pursues a cost reducing or efforts reducing strategy. Examples of such companies are small and medium companies that source products globally and sell them with additional consulting to local clients.

Global operation/Global market: This category comprises mainly large multi-national companies as SAP, IBM, Siemens, Nokia, and others.

In both the operation and market perspective, the globally integrated enterprise can be considered as a collection of different kind of relationships to partner companies and other stakeholders. Those relationships are supported by global collaborative working environments within and between companies and towards other stakeholders such as customers. Global collaboration enabled by ICT becomes a key component in such enterprises and enables their inter-company relationships within the network. Moreover, resulting from the ability of ICT to reduce transaction costs, there is a clear trend towards disaggregation of companies and their re-aggregation towards networks.

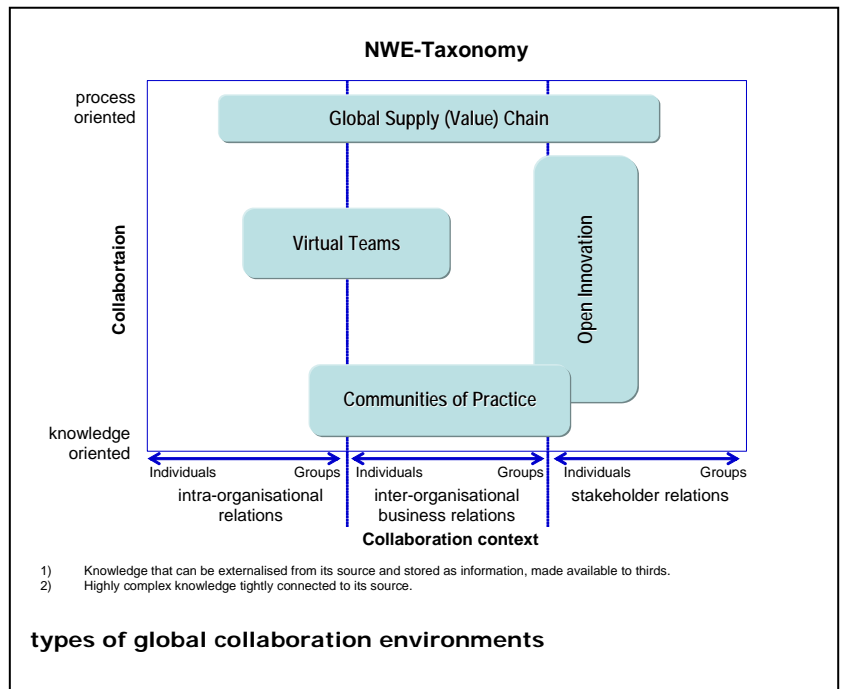
The specific form of relationships and collaboration among companies in a network might vary and can be classified in **process oriented collaboration** versus **knowledge oriented collaboration**. The emphasis of process oriented collaboration is on efficient exchange of information, documents and collaborative planning. It is typically applied by companies that pursue an efficiency-seeking globalisation strategy. The emphasis of knowledge oriented collaboration is on knowledge and idea-generation and interaction among experts. This type of collaboration is typically suitable for companies pursuing a market-seeking and/or resource-asset-seeking globalization.

Based on literature review the following types of global collaboration environments can be identified within inter-company collaboration:

- Inter-company **virtual teams**
- Inter-company **communities of practice**
- **Global supply chains**, which reflect the highly structured inter-company collaboration. Key aspects of collaboration among companies within global supply chains are: interoperability of the ICT-infrastructure, existing and emerging process and product description standards, exchange of knowledge among involved companies.

- **Global open innovation** is resulting in innovative collaboration settings in the B-C and B-B area. Collaboration supported by innovative collaboration technology suitable to support contributions of many participants is a key prerequisite for open innovation. Key aspects of open innovation are: support and coordination of many participants, creating communities and trust among participants, intellectual property rights.

The above four types of global collaboration working environments differ furthermore in the type of relationships they can support. Global supply chains extend established and structured processes as supply chains and require clear inter-company agreement and deeper and long-lasting intervention in the infrastructure and procedures of the company. Open innovation extends customer relationship processes and involves the customer and other stakeholder. Here also long-lasting relationships are the goal. In contrary, virtual teams are project oriented and need to be established whenever the need for collaboration arises. Communities of practice are the most fluid part of inter-company collaboration.



Technology and new globalised working environments

Marko Nieminen, Petri Mannonen, Helsinki University of Technology, Hans Schaffers, Telematica Instituut

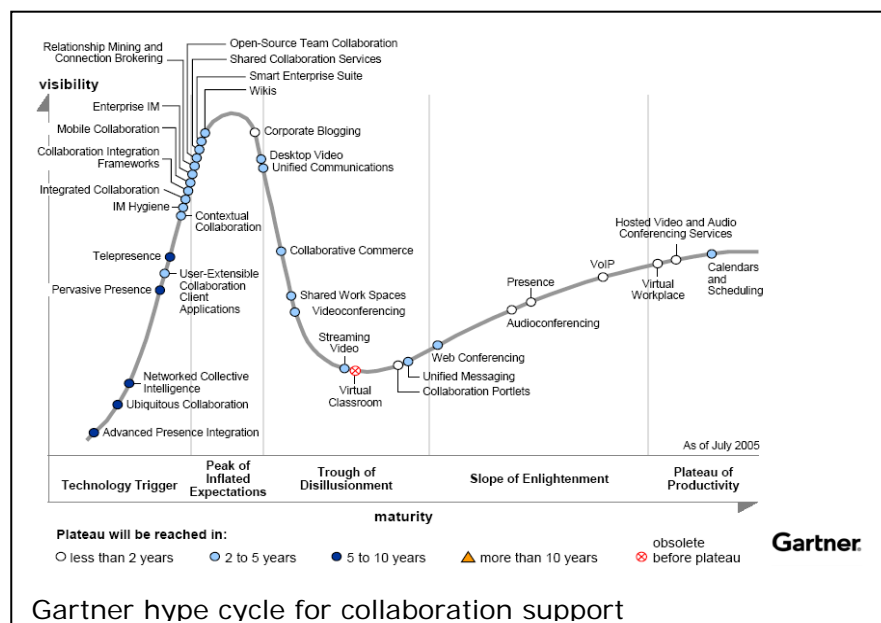
Research on globalised working environments has much of its origins in the research on computer-supported collaborative work (CSCW). Already in 1993, Bannon divided the CSCW research field into "Human and Social Factors" and "Technology Factors". The human and social factors raise questions about the organisational environment (ways of organizing and coordinating work activities, better integration, up-to-date information, easy access to information), people's expectations (individual level; appropriate user interfaces), and the social aspects of computer use (the situated nature of everyday activity). The technology factors are "the search for new software markets" (groupware) and "technological developments" (networking; greater connectivity between people, locally, regionally, and globally).

These concepts and topics reflect well the themes that are considered in the case of the new global working environments as well: the outcome is a combination of technological, human, and social issues. Technology needs to be adjusted to fit the human characteristics as well as the organisational demands. Users' abilities in utilising the technology are crucial when setting up communication and collaboration systems.

According to the Gartner hype cycle on collaboration support, technologies such as calendars and scheduling do now contribute in a mature way to productivity of people, while other technologies are still in the earlier phases, from just starting technology triggers, via inflated expectations, disillusionment to enlightenment.

One of the important current trends is known as Web 2.0. This term refers to a second generation of services available on the World Wide Web that lets people collaborate and share information online in an interactive way. Web 2.0 applications have become extremely successful. It seems worthwhile to investigate the success of combining user-generated content with insight in social connections, while leveraging network effects and creating software that supports (creative) processes as they happen.

With regard to mainstream collaboration tools, in particular large firms are deploying suite environments that enable coherent collaborative workspaces and community building. Tools provided by Microsoft (Sharepoint) and IBM (Lotus Workplace) provide rich facilities for sharing documents in workspaces, community building and conferencing. It can be expected that Web 2.0 technologies will be integrated in such environments or co-exist. At the same time there is a lack of understanding of the factors that are determining the success of such tools in global working situations and the requirements that global working imposes on technology support. Many companies seem not to be ready to engage in networked organizations operating at global scale as it requires different ways of communication, organising and managing. The challenge is to bridge the gap between opportunities that potentially can be provided by collaboration technologies, and the demands of specific situations of global collaboration.



Gartner hype cycle for collaboration support