

Introduction: Challenges of Global Collaborative Working

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“Globalisation” includes different meanings and perspectives

- **The World Bank:** growing integration of economies and societies; impacts on economies, trade, society (poverty, divides, inclusion)
- **European Commission:** spreading of the flows of goods, services, technologies, capital, people; can create more wealth but can also be disruptive
- **Wikipedia:** increasing global connectivity, integration and interdependence in economic, social, technological etc. spheres; increasingly driving towards one global system
- **OECD:** internationalisation of financial markets for goods and services
- **Michael Porter:** industry globalisation; driven by shifts in technologies, buyer needs, government policies, infrastructures, creating differences in competitive position. Globalisation is the process of competing internationally.





New Global study: globalisation of markets and industries

- **Globalisation in general:**

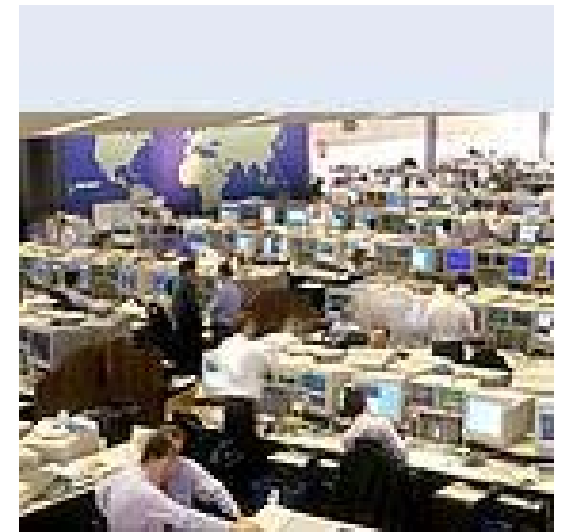
- Process of growing integration of economies and societies around the world, leading to increasing connectivity, integration and interdependence in the economic, social, technological, cultural and political spheres.
- Characterized by the increased mobility of goods, services, technology, capital and labour around the world.

- **Economic globalisation:**

- Process of internationalisation of competition and global value nets.
 - Driving factors of economic globalization are: shifts in technology, buyer needs, government policy, MNC business strategies and country infrastructure.
 - These shifts create major differences in competitive position among firms from different nations or make the advantages of a global strategy more significant.
 - Create also new opportunities for global collaborative value creation
 - Firms, governments must respond strategically to such changes.
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Globalisation is strongly linked to global collaborative work environments (CWE)

- **Global collaborative working environments** focus on how, within and across companies, across regions and countries, and often across time zones, people work together using ICT-based **collaboration tools and infrastructures** to achieve common goals.
- **Examples** of global collaborative working: global project teams (e.g. design and engineering teams), knowledge communities (e.g. Shell, Unilever, IBM) and (formal/informal) collaboration networks (e.g. Nokia and software community).
- The **wider context** of global collaborative working environments is the **value network for collaborative value creation** and, through that, global **collaborative business**.
- Global collaborative working is becoming part of **business strategy** e.g. “24-7” and “follow the sun” models of work.





Global collaborative working and related, but different, concepts

- **Outsourcing:** delegation of non-core operations to external entities, domestic or offshore.
- **Offshoring:** transfer of organisational functions and activities to other countries.
- **Nearshoring:** activity is relocated to locations which are in foreign countries but geographically close (e.g. Nokia → Estonia, Hungary).
- **Glocalisation:** adding local and regional elements to global trends. Friedman: opening local culture for new ideas and influences.

Starting points determining our focus

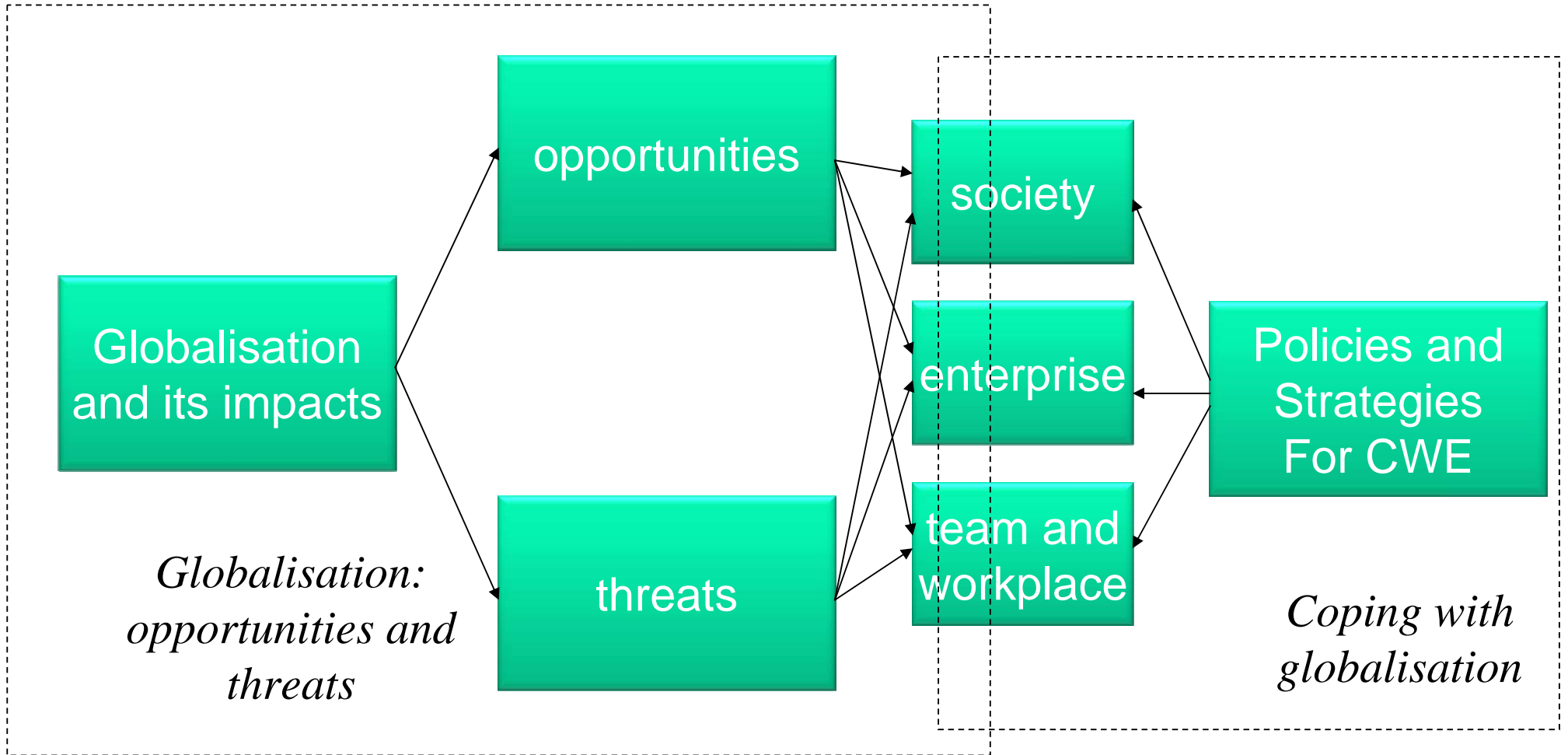
- Focus is on globalisation and how it affects and shapes the global work and business environment.
 - Focus on **cross-country collaboration** and the forming of collaborative networks, opening boundaries, rather than on relocation.
 - Evidence suggests that by fostering on cross-country collaboration in flexible and human-centric configurations, Europe can **benefit from the forces of globalisation** by combining locational advantages of Europe and skills of European workforce with those of other labour markets around the world (Saxenian).
 - Globalisation of the collaborative work environment is an ongoing **dynamic** process:
 - Driven by forces: technologies, policies, strategies, practices
 - Drivers and impacts of globalised working become visible at multiple levels: societal, business, work
 - They create double-sided issues; threats as well as opportunities
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New Global study key research questions

1. How does globalisation affect the way companies are operating, what is the role collaborative work environments are playing currently?
 2. Which are the opportunities for market players provided by globalisation, in particular those that imply a key role for globalised work environments?
 3. What are the conditions for European firms to exploit the opportunities of globalised work environments in coping with the related globalisation challenges, and how could European policies respond to create the conditions?
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New Global analytical framework



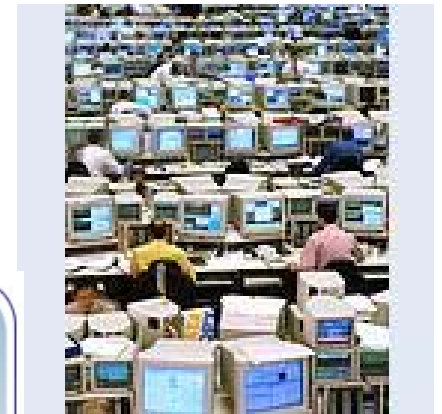
Levels of analysis

Approach to research questions

	Impact on operations	Opportunities of global working	Enabling conditions
<p>Descriptive analysis</p> <p>(current situation)</p>	<p>How does globalisation affect existing work practices?</p> <p>What are the drivers, obstacles, success factors and impacts of global working?</p> <p>How do businesses respond to globalisation, and how does this affect demand and conditions for collaborative work?</p>	<p>Which threats and opportunities are provided by globalised collaborative working?</p> <p>To what extent are the opportunities currently exploited?</p> <p>What are the costs, benefits and risks of global collaborative working?</p>	<p>What are the current conditions, strategies and policy frameworks to support global collaborative working?</p> <p>What are the gaps in these conditions, policies, strategies?</p>
<p>Normative analysis</p> <p>(future directions)</p>	<p>What are good practices, and what are failures, of current forms of global collaborative working?</p> <p>What are the requirements imposed on global collaborative working?</p>	<p>Which of these opportunities are of most relevance from the viewpoint of EU policy-making and EU business interests?</p> <p>Which of these challenges most urgently need to be addressed from the viewpoint of EU policy-making?</p>	<p>What are effective coping strategies for challenges of globalised collaborative working?</p> <p>What can be done to help EU firms (especially SMEs) exploit the potential of collaborative working environments responding to globalisation?</p>

Global collaborative working raises many challenges: technology, organisational, social

- Collaboration environments that adapt to characteristics of work organisation and networking
- Interoperability of collaboration tool environments
- Advanced global networking infrastructures
- Secure infrastructures for distributed collaboration
- New ways to manage work-life balance
- Introducing flexible working practices and maintaining social security



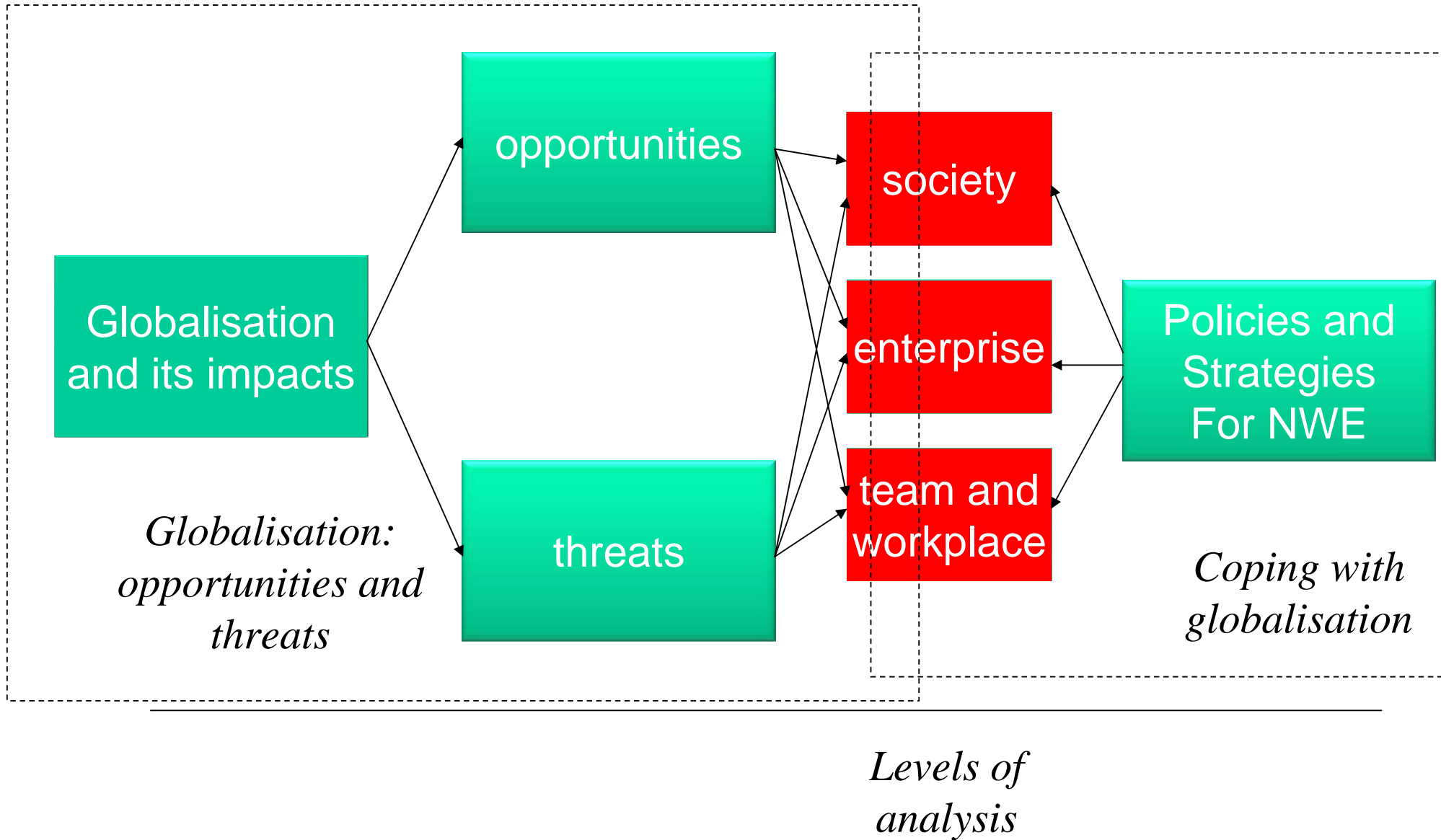
Conclusions about link globalisation and global collaborative working

- Traditional notions of outsourcing and offshoring are one-sided, only focusing on relocation
- Global collaborative working may allow Europe to benefit from globalisation forces
- Requires insight in strategies and policies to cope with globalisation and global working

Globalisation Impacts and Coping Strategies

Matti Vartiainen with partners
Helsinki University of Technology

Contents of the presentation: impacts, threats and opportunities on societal, enterprise and team levels



society

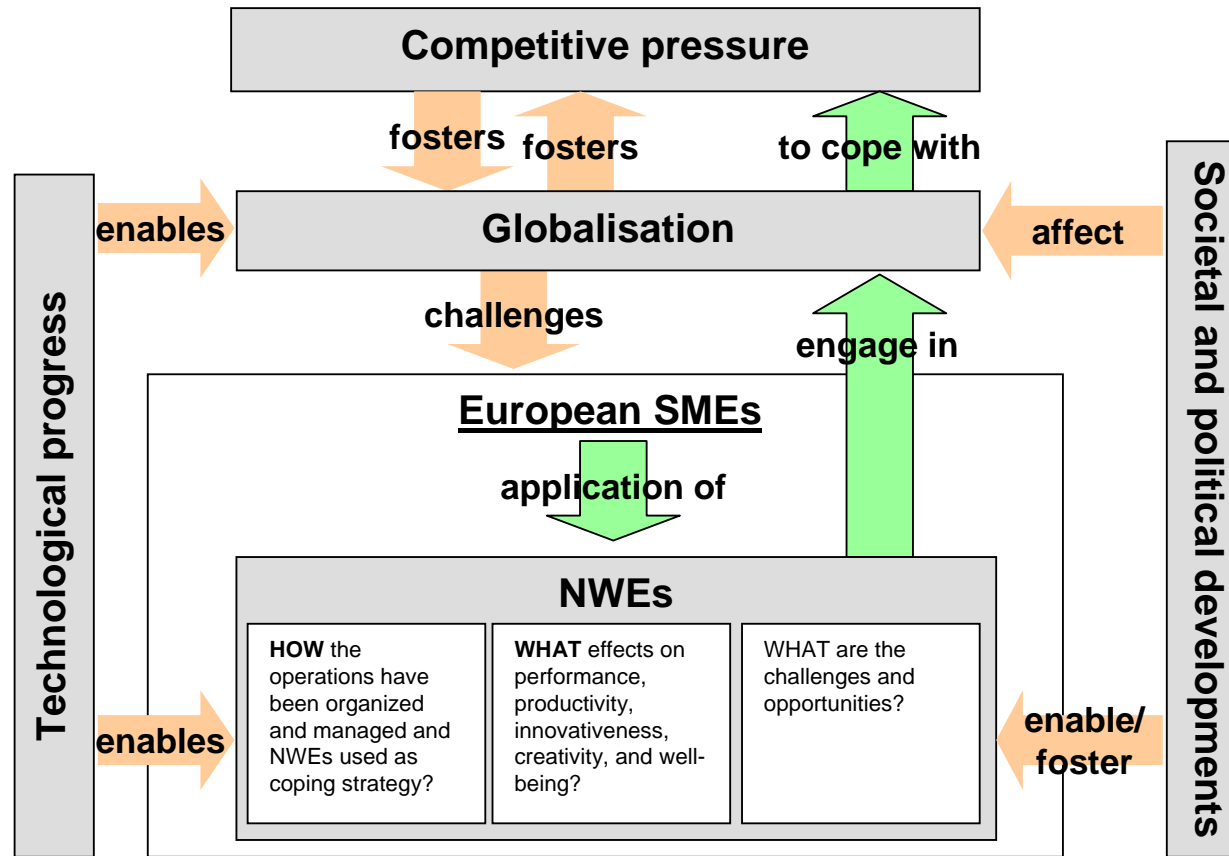
enterprise

team and
workplace

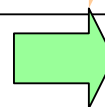
Societal Impacts and Coping Mechanisms: European Evidence

Karsten Gareis

Basic approach



 *drivers*

 *coping strategies*



Impacts depend on type of globalisation

- **Basic options for going global**
 - international trade (final products or intermediate goods/services)
 - FDI (greenfield investments or M&A)
 - alliances, collaboration, co-operation, outsourcing, etc.
 - **Main motives**
 - horizontal integration
 - vertical dis-integration of value chain (primary activities)
 - unbudling of corporate functions (support activities).
 - **Globalisation strategies**
 - market-seeking
 - resource-asset-seeking (e.g. raw material, cheap labour, skills)
 - efficiency-seeking.
-



Impacts depend on type of globalisation

Globalisation
taking off

-1950

Manufacturing

~1980

IT services

~1990

Business services

~2000

R&D

intensity of
collaboration

Type of
co-operation

Information
exchanged

Skill levels
required

arms-length

codified

close

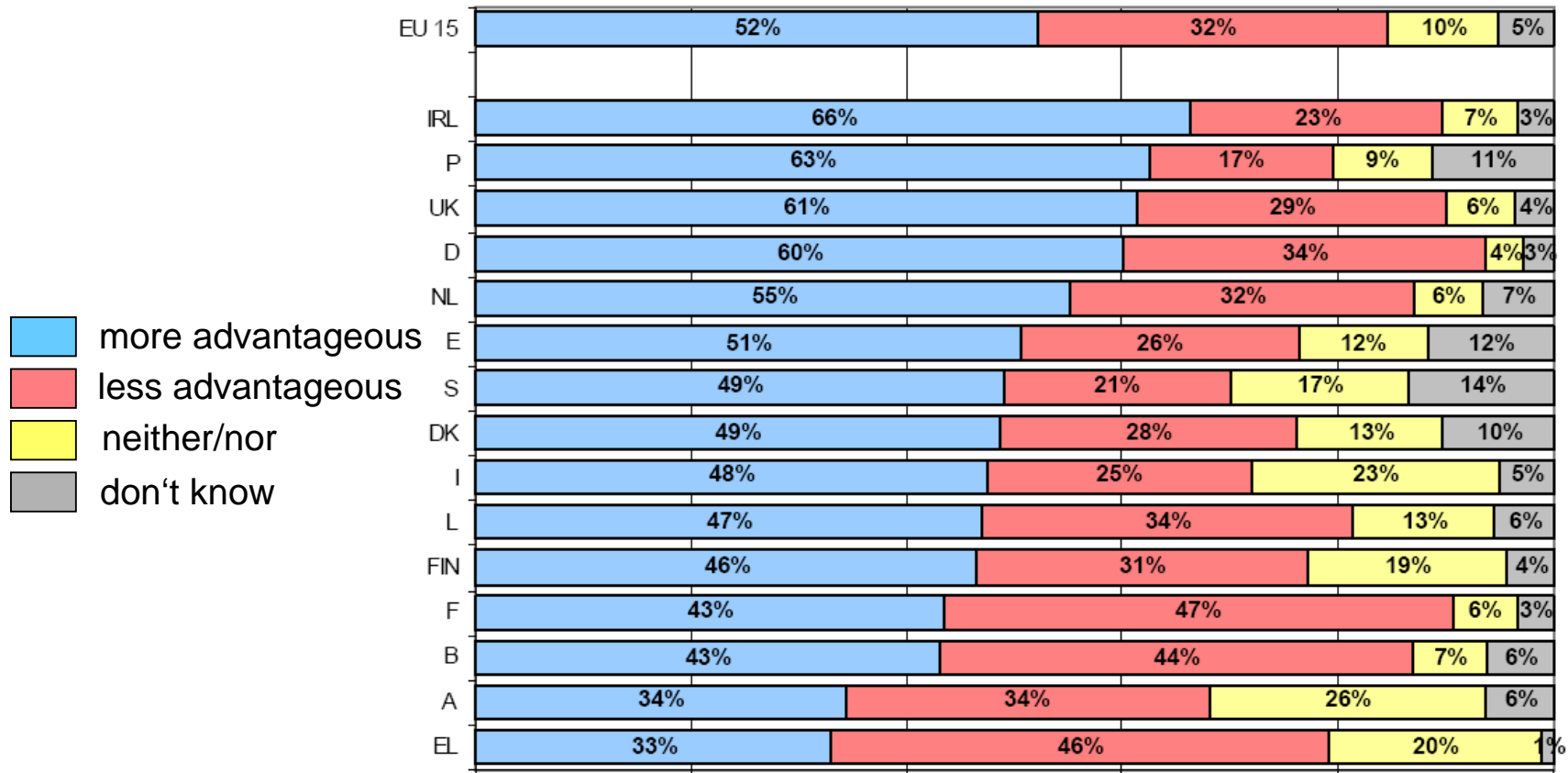
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Source: Gareis, NewGlobal 2007

- **Research and Statistics on**
 - Use of ICTs required for collaboration
 - eWork and ICT-enabled collaboration
 - Off-shoring, change in trade patterns and activities of multinational corporations (MNCs)
 - Employment impacts of outsourcing and offshoring
 - Global collaboration in R&D, and location of R&D activities
 - Globalisation-related changes in skill requirements and skill availability
 - Social effects on workers
 - Territorial trends and the extent of regional disparities
 - Effects on environmental sustainability
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Introduction to evidence: Globalisation Is A Concern!

If globalisation intensifies in the future, would you say that overall this would be more/less advantageous for you and your family?

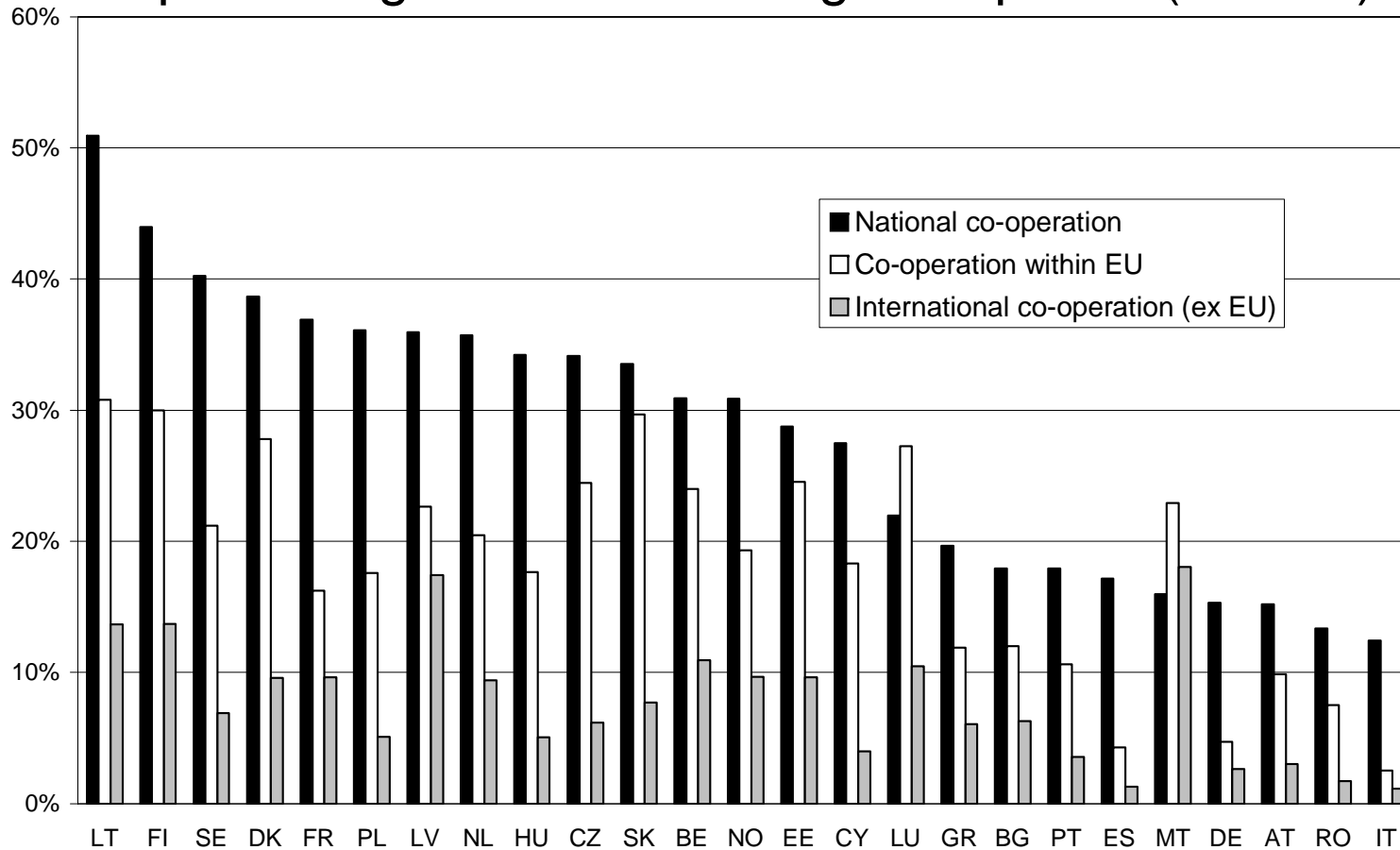


The ICT infrastructure is becoming ubiquitous

	Companies with internet access		Companies with broadband internet access		Share of employees with internet access *		Remote access to company network	
	% of empl.	% of firms	% of empl.	% of firms	% of empl.	% of firms	% of empl.	% of firms
Weighting scheme:								
Total (EU-10)	95	93	76	69	n.a.	43	35	16
By firm size								
Micro (1-9 empl.)		89		69	n.a.	31		12
Small (10-49 empl.)		98		75	n.a.	29		22
Medium (50-249 empl.)		99		83	n.a.	33		43
Large (250+ empl.)		99		84	n.a.	44		60
By sector								
Food & beverages	95	88	72	64	n.a.	25	35	14
Footwear	96	89	75	62	n.a.	28	17	10
Pulp & paper	99	94	80	68	n.a.	40	56	21
ICT manufacturing	100	99	84	79	n.a.	74	69	35
Consumer electronics	98	97	87	74	n.a.	80	51	32
Shipbuilding & repair	100	100	87	86	n.a.	30	41	27
Construction	95	90	72	64	n.a.	47	25	13
Tourism	93	90	72	68	n.a.	53	38	13
Telecommunication	100	99	88	85	n.a.	90	74	46
Hospital activities	100	98	85	78	n.a.	41	39	34
Base (100%)	firms using computers		firms using computers		firms with internet access		firms using computers	
N (for total, EU-10)	7237		7237		6900		7237	
Questionnaire reference	A1		A3		A2		A5	
* Read: "In the companies surveyed, on average, 43% of employees have access to the internet at their workplace."								

Only a small share of EU firms collaborate across borders

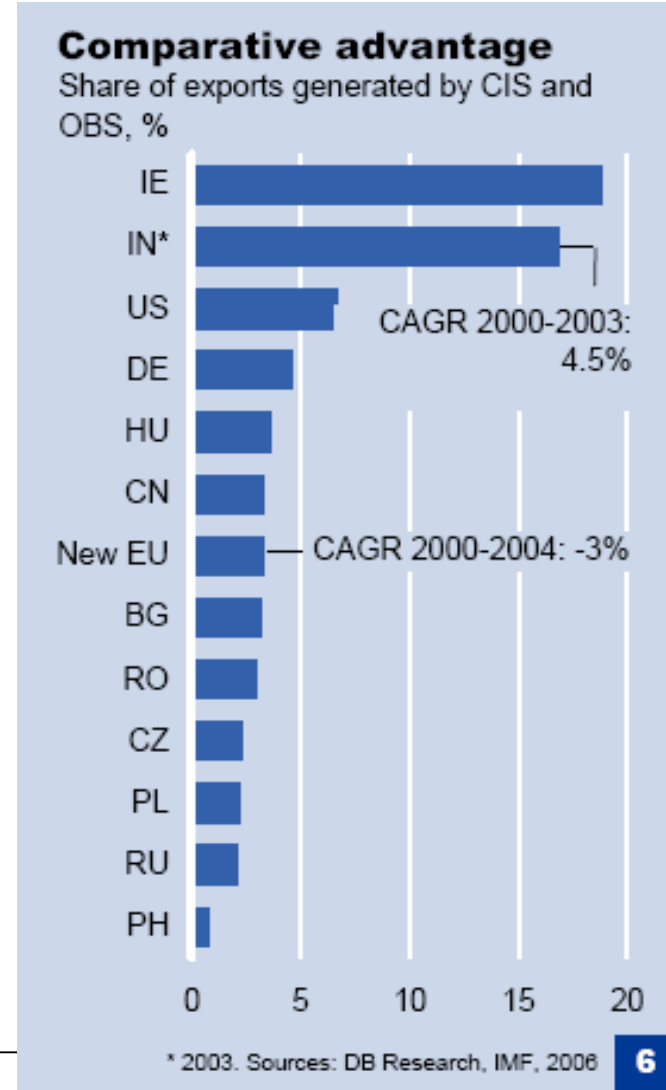
Enterprises engaged in co-operation as percentage of all innovating enterprises (2002-4)





Globalisation is often associated with Offshoring

- Offshoring growing strongly, but very selectively

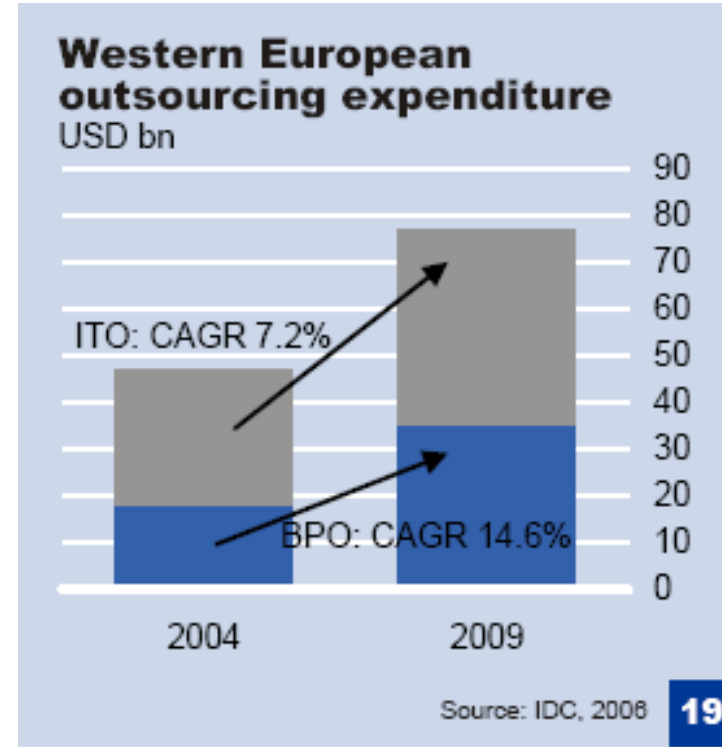
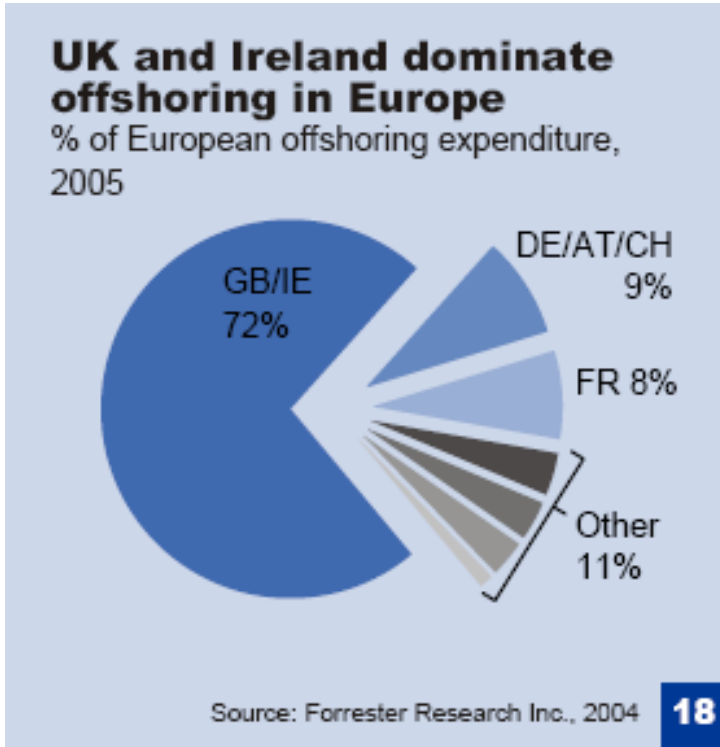


Source: quoted in Meyer (2006)



Globalisation is often associated with Offshoring

- Offshoring is growing strongly, but very selectively



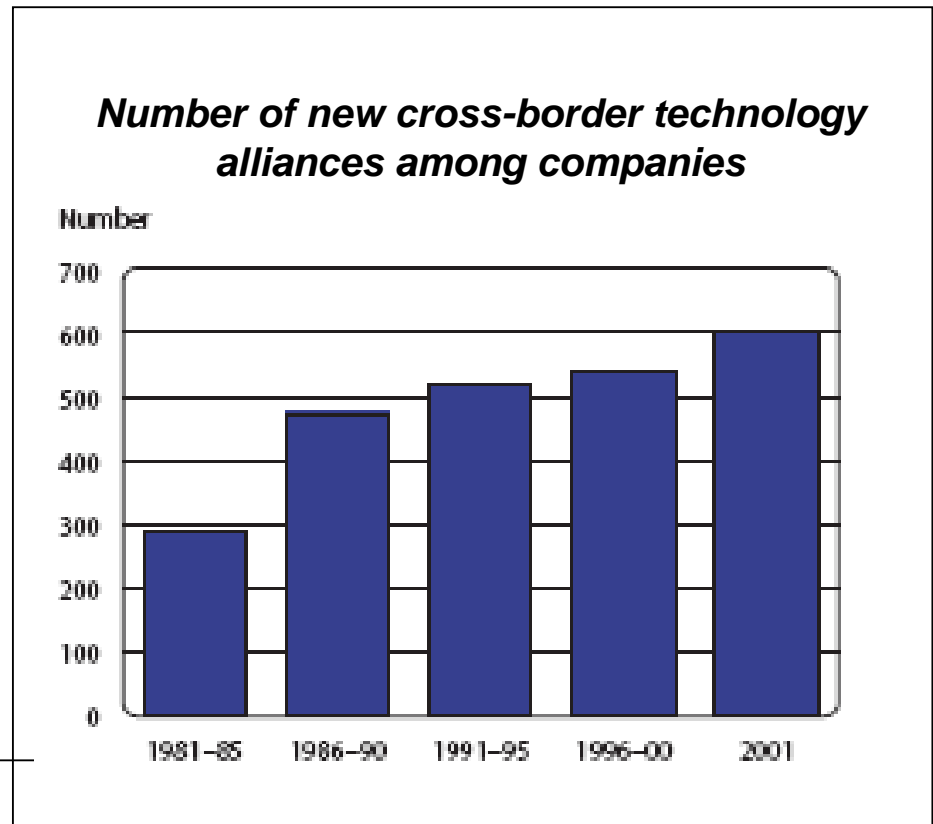
Source: quoted in Meyer (2006)

- **Research on employment effects**
 - Jobs which have been “offshored” (data on relocation incidences)
 - Jobs potentially at risk of outsourcing (occupational data)
 - Types of jobs (high-qualified vs low-qualified)
 - **Research on qualitative societal impacts**
 - Precarious employment
 - Work intensification
 - **Research on indirect effects on EU businesses**
 - Cost structures, SMEs’ access to specialised services
 - Performance and competitiveness
-



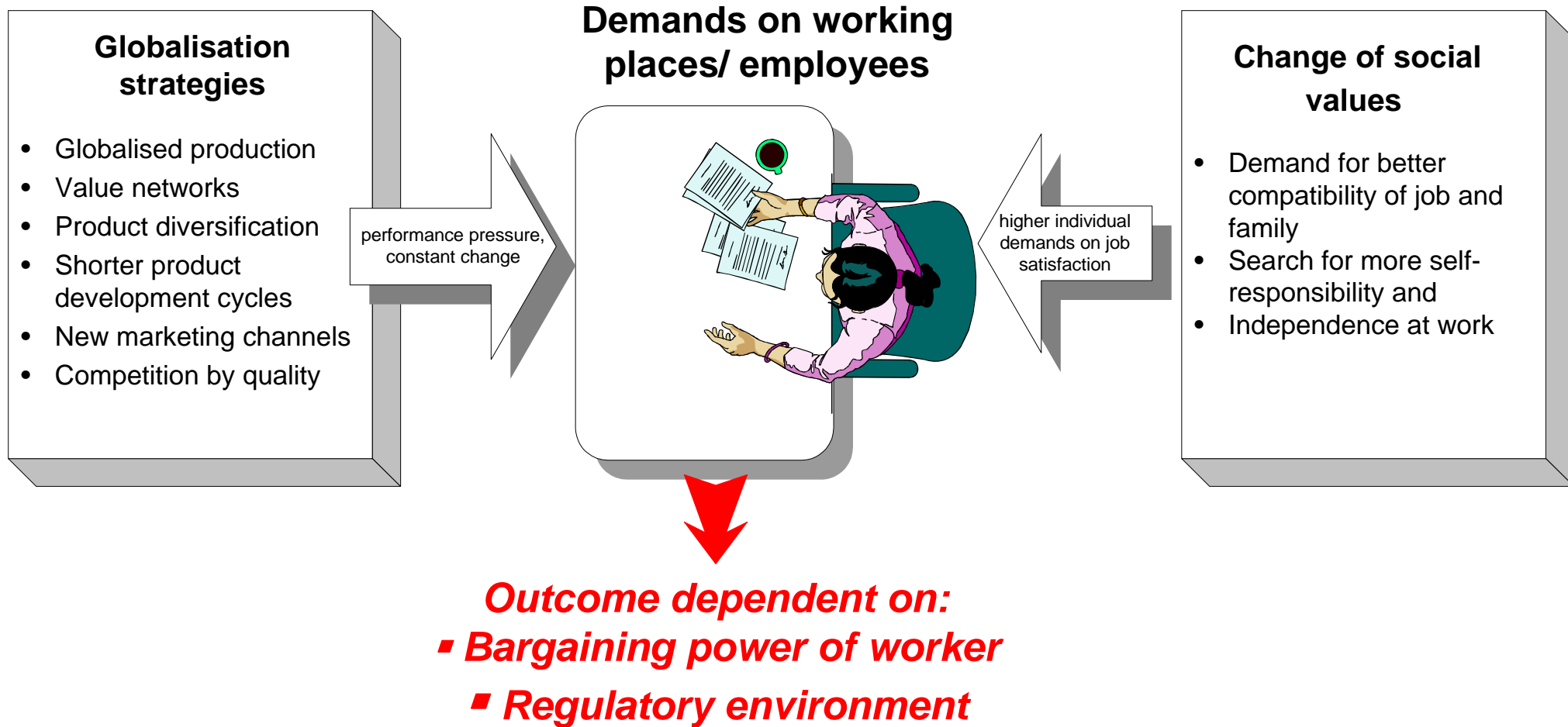
Stronger focus on global collaboration in R&D

- **Locational dynamics**
 - Concentration
 - Decentralisation
 - both enabled by ICTs
- **Data on cross-border R&D alliances**



Source: NSF, quoted in Hirschfeld & Schmid (2005)

Impacts: social effects on workers





Impacts: social effects on workers

- **Need to distinguish between impacts of**
 - New Forms of Work Organisation & Flexible Work
 - ICT-based work
 - Collaborative work (little evidence)
 - **Key impact variables**
 - Worker well-being and health
 - Job satisfaction
 - Work/family balance
 - **General trend**
 - Increasing polarisation between workers depending on skills
 - Different levels of policy activity in Member States to counter inequality
-



Impacts: skills demand & supply

- **Skill-related challenges**
 - Skill shortages (quantitative lack of skilled people)
 - Skill gaps (competence shortfall within organisations)
 - Skill mismatches (in a region/country)
 - **Types of ICT-related skills and “digital literacy”**
 - Operational e-skills
 - Informational e-skills
 - Strategic e-skills
 - **Skills for (cross-cultural) virtual collaboration**
 - Part of complex communication skills
 - Focus on soft skills
 - Lifelong learning essential
-

- **Policy aim**
 - Balanced spatial development
 - **Major trends**
 - Overall diminishing economic disparities between regions
 - Geographical distribution of innovation (R&D, patents) is strongly unbalanced
 - **Impact of CWE**
 - Spread of ICT-based innovations (eWork, ICT-based cooperation) tends to benefit core regions
-

- **Quite some literature...**
 - ... but very hard to disentangle developments
 - ... and very hard to identify causal links
 - **General trend**
 - Hyper-mobility supported by ICTs (rather than substitution of telecommunications for transport)
 - **Recent developments**
 - Renewed interest on the potential of ICTs (e.g. online collaboration) to substitute for transport (business trips)
-

- **Opportunities**

- Self-sustaining growth
- Countering competitive threats
- Higher job quality

- **Threats**

- Unmet demand for highly skilled workers
 - Downward pressure on wages in low-skilled jobs, and demand for greater workforce adaptability
 - Work intensification (and related health risks)
 - Much higher uptake of lifelong learning required
 - Challenges to the European Social Model (flexicurity)
 - Decreasing public support for policies favouring globalisation
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Companies and Inter-Company Networks in Globalised Working Environment

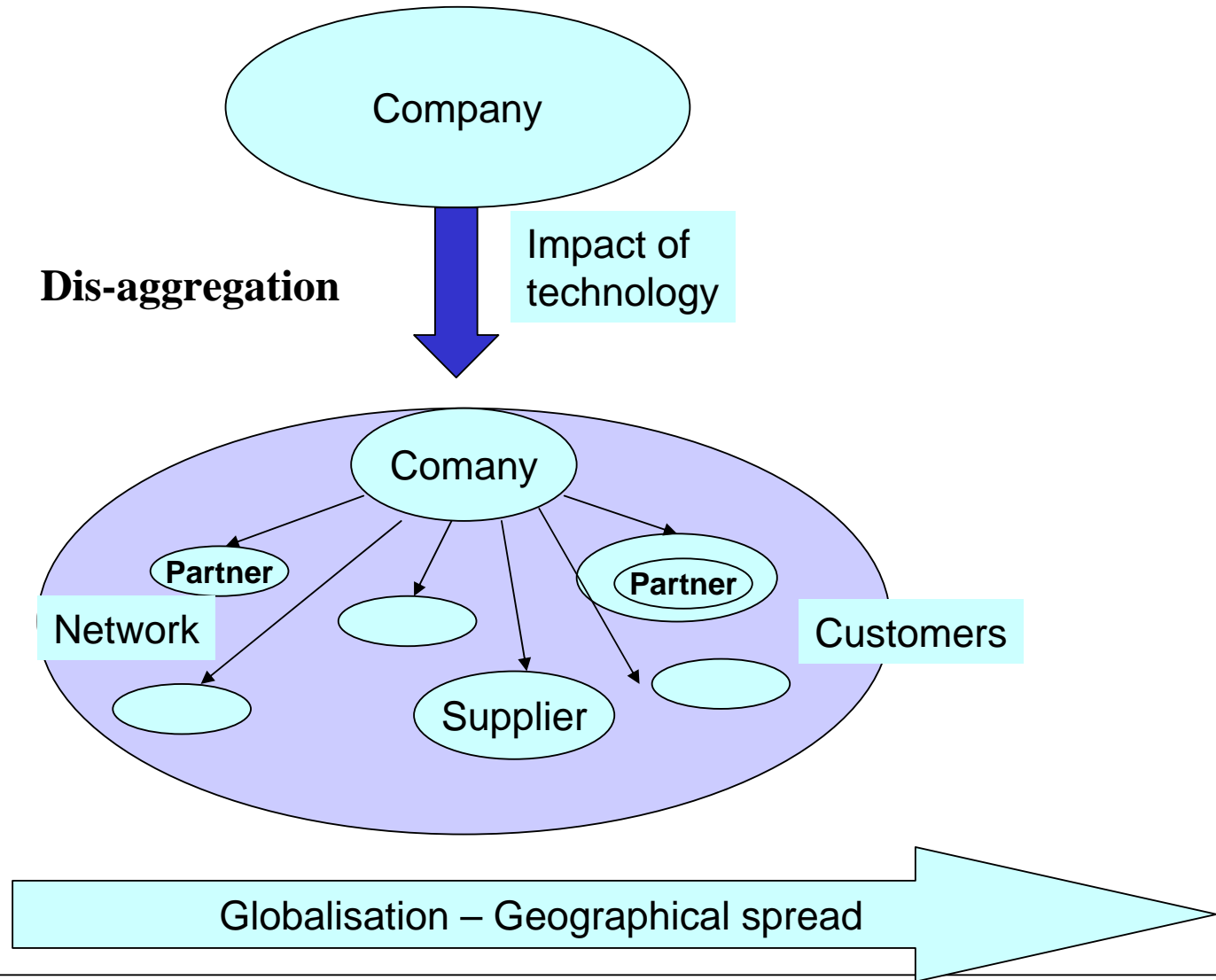
Katarina Stanoevska-Slabeva



Agenda

- The New Globally Integrated Company
 - Open Innovation
 - Global Supply Chains
-

Impact of globalisation and technology



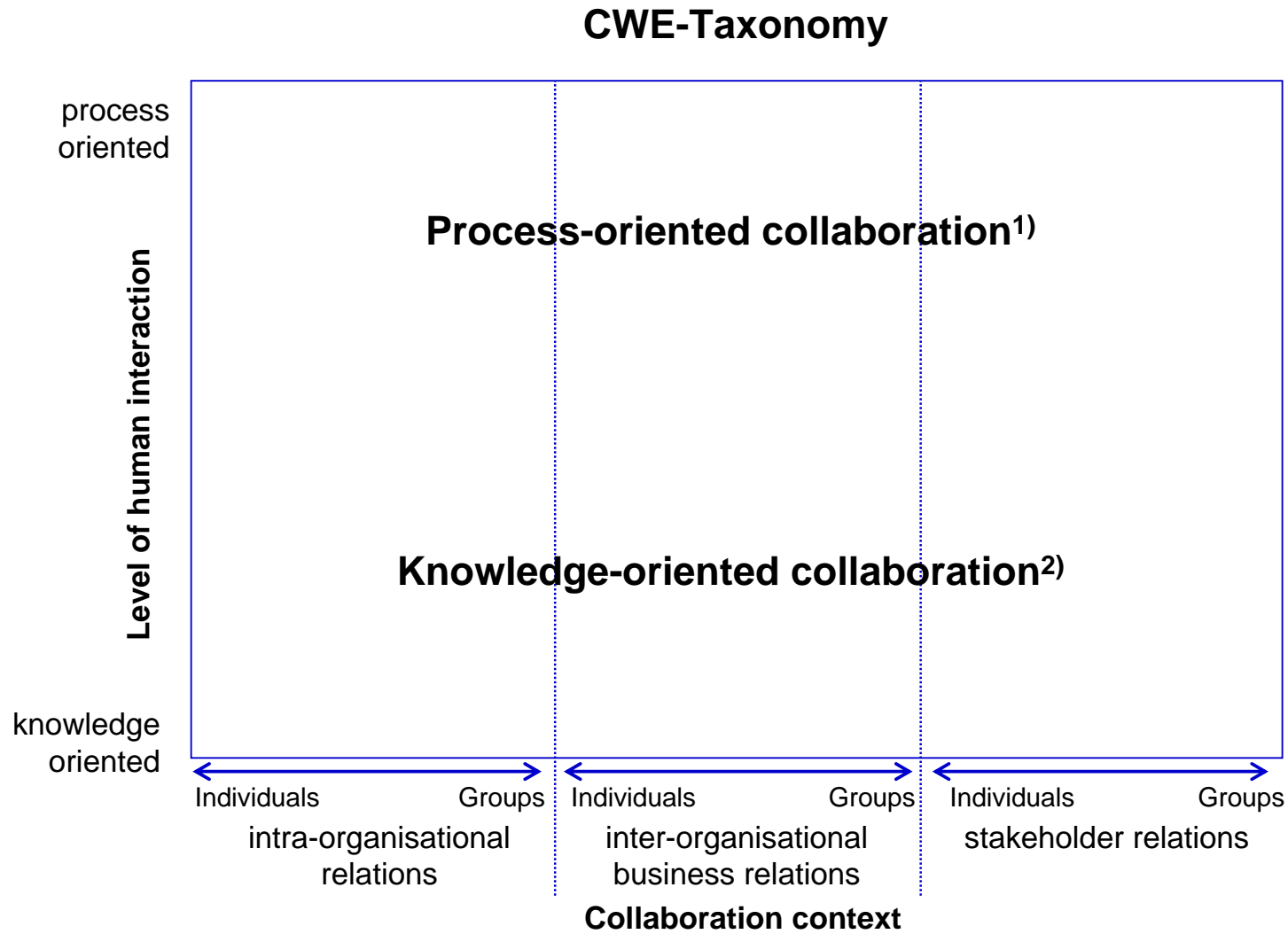


The Globally Integrated Company

- The globally integrated company consists of a network of relationships world wide
 - Different type of relationships require different collaborative working environment
-

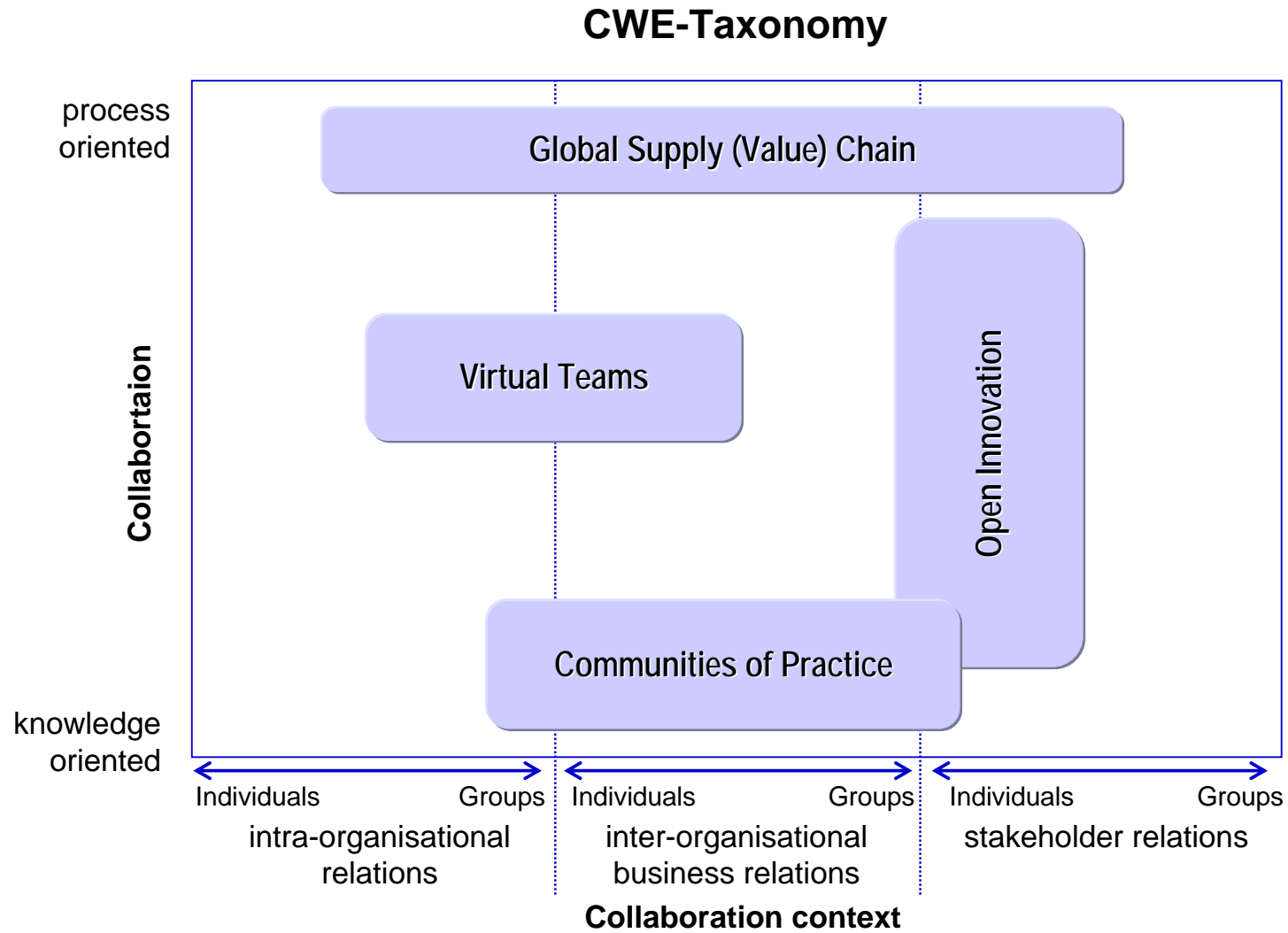


Classification of global working environments



- 1) Knowledge that can be externalised from its source and stored as information, made available to thirds.
- 2) Highly complex knowledge tightly connected to its source.

In a CWE matrix, the two dimensions describe areas of different types of knowledge ...



- 1) Knowledge that can be externalised from its source and stored as information, made available to thirds.
- 2) Highly complex knowledge tightly connected to its source.



Open Innovation

- The Open Innovation paradigm, is based on the believe that *"not all the smart people work for you"* and that knowledge is widely distributed, and of generally high quality.
 - Customer-side open innovation
 - Supplier-side open innovation
-

People upload their
design idea for new shoes



Other members rate
the new designs



the highest rated designs
are produced and sold
on www.fluevog.com

THE SUBMISSIONS / MANY ARE CALLED

These are actual designs, by actual Fluevogers. Click any shoe for a fully detailed view and **vote** for the ones you'd like us to make.



VOTE

Susan Klein

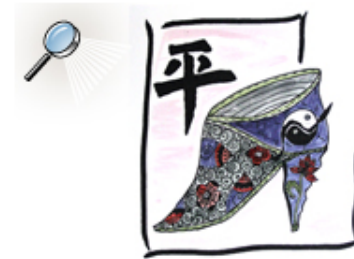
Eugene, OR



VOTE

Susan Klein

Eugene, OR



VOTE

Susan Klein

Eugene, OR



VOTE

Andrew Barr

Toronto, ON



Main features of Open Innovation CWEs

- Global community
 - Secure, global collaboration infrastructure
 - Trustful collaboration environment
 - Intellectual property rights
 - New innovation and collaboration culture
-

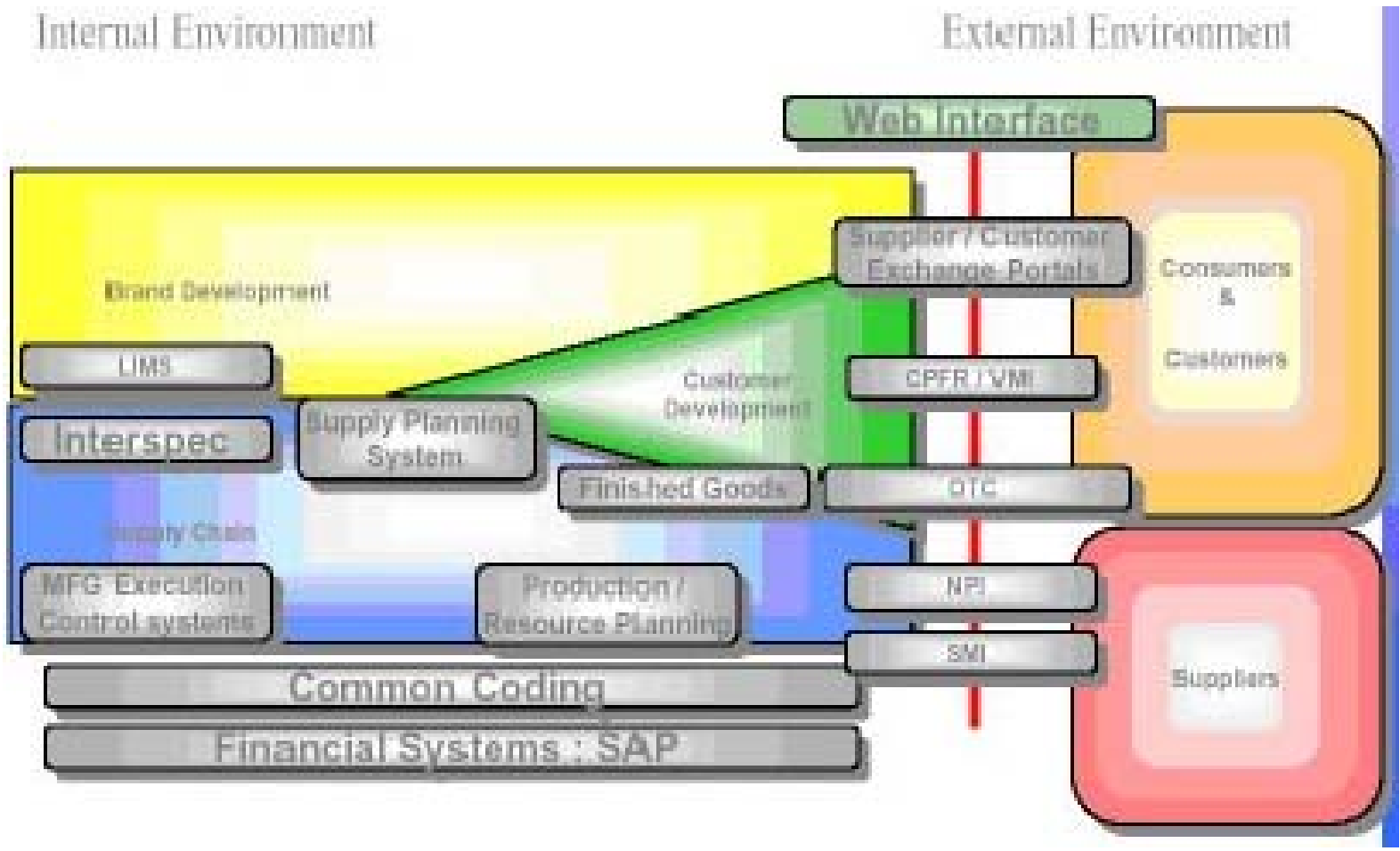


Global Value Chain

- *"Supply chain management is the integration of the key business processes from suppliers through to the end user that provides products, services and information that add value. Inter- and intra-organizational communication and cooperation focused on a specific set of customer-centered activities, designed to enhance success for all chain members are at its centre."* (Tracey and Smith-Doerflein 2001).
 - Supply chain management is collaboration at the process level
 - Supply chain management includes:
 - fast and efficient handling of differentiated material, information and financial flows,
 - efficient customization, i.e. ability to effectively produce and deliver products that meet customers' individual needs,
 - control of production and logistics accurately and flexibly across multi-company networks.
 - exchange of knowledge
 - At present new challenges due to new technologies (Ubiquitous Computing and RFID)
-



Global Supply Chain – Example Architecture of the Supply Chain Management System at Unilever





Global Supply Chain main characteristics

- Collaboration culture in involved companies and willingness to share knowledge
 - Exchange of information
 - International standards for data and information
 - Secure global infrastructure
-

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Communities of Practice Within and Between Organizations as Coping Mechanisms to Globalization

Robert Verburg & Laurens Rook



Topics studied

- Changing nature of strategy and work in companies
 - Emerging Communities of Practice (CoPs)
 - Characteristics, functions and types of CoPs
 - Experiences of CoPs within and between organisations
 - Threats and opportunities
-



Impacts: changes in business strategy

- Organizations are becoming increasingly flexible
 - Technology enables companies to organize their activities through complex projects with dispersed specialists often spanning boundaries of geography, time and culture
 - Many companies aim for innovation as their primary source of competitive advantage
 - Organizational processes are increasingly becoming knowledge processes
 - Innovation takes more often place in networks of companies
-



Impacts: changing nature of work

- *intellectual* rather than physical
- *innovative* rather than routine
- culturally *diverse* rather than standard

This all creates tremendous challenges for the management of employment relationships (or the creation of competitive advantage through people) in today's organizations.

One solution: Communities of Practice



Impacts: Community of Practice (CoP)

Characteristics of CoPs

- people
 - with similar goals and interests
 - who employ common practices
 - who work with the same tools
 - who use a common language
 - hold similar beliefs and value systems.
-

Impacts: functions of CoPs

Benefits for individual members:

- To solve 'ad hoc' problems
- To accumulate knowledge through presentations, discussions, etc.
- To network
- To establish social bonds within the organization

Benefits for the organization:

- To develop 'best practices'
 - To reduce costs (by creating more efficiency)
 - To innovate: developing new ideas
 - To involve rare expertise in the organisation
-

Impacts: typology of CoPs

- **Local knowledge sharing communities** (Atos/Origin)
10 -20 members, physical proximity; intra-organizational
 - **Formal expert communities** (Unilever)
10 - 25 members, established by management, often inter-organizational,
Mode of interaction: face to face and through ICT
 - **Informal network communities** (IBM)
20-200 members, informal, free access, very distributed,
Mode of interaction: through ICT
 - **Problem solving communities** (Shell)
Large amount of members (e.g. 1600 oil drillers, distributed)
Mode of interaction: distribution list /e-mail Q&A sessions
 - **Latent networks** (Delft Cluster)
-

Impacts: experiences of CoPs

There are CoPs within large organizations (e.g. Shell) or between a number of organizations (e.g. Delft Cluster). In both cases the benefits concern the opportunity to share knowledge and experiences between specialists who are geographically distributed.

- CoPs are a substitute for random encounters that could occur in one office building
 - CoPs enable people to get a better overview of the expertise and experts outside the realm of their own office or building.
 - CoPs facilitate interaction between specialists on a regular basis
-



Threats

- Structural national diversity within the community
 - Structural cultural diversity within the community
 - Lack of cohesion due to cultural inequality or misunderstanding
 - Lack of cohesion stemming from low levels of trust within the community.
 - Dilemma of collaborating with competitors in case of CoPs that operate between organizations
 - Time differences impact 'windows of synchronicity' for meetings and may endanger work-life balance. Especially the voluntary nature of being part of a CoP makes it often difficult for members to make choices.
-



Opportunities

1. To create a shared understanding between firm and members on a given topic
 2. To create a shared and mutual commitment
 3. To create a shared identity
 4. Thus, to display a strong engagement and willingness to share and produce knowledge
-

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Teams in Globalised Collaborative Working Environments and Their Coping Mechanisms

Matti Vartiainen

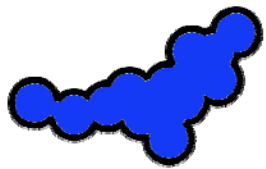


HELSINKI UNIVERSITY OF TECHNOLOGY



Topics studied

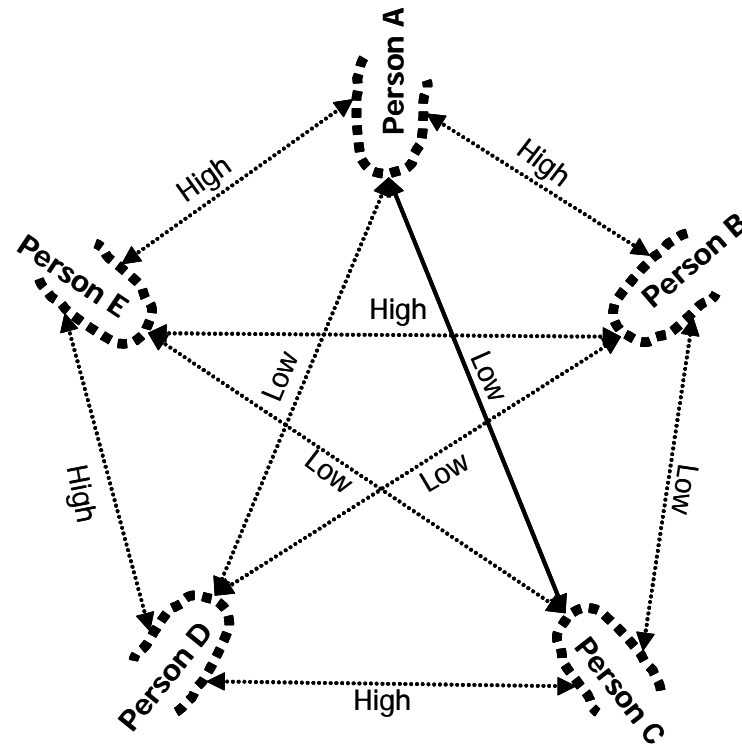
- Challenge of full virtuality
 - Types of global teams
 - Impacts of globalisation
-



Challenge of full virtuality

new global

- In the **technology-oriented approach**, the degree of 'virtuality' is defined and measured as the amount, the frequency and the quality of electronically mediated communication. This measure is often completed with the amount and frequency of face-to-face contacts as the other basis of the categorization.
- The **system-oriented approach** to virtuality relates some work environmental factors to the use of virtual working spaces. Some writers include factors like crossing geographical or physical borders, time zone differences, organizational affiliations, cultures and work practices in addition to technology to their virtuality index





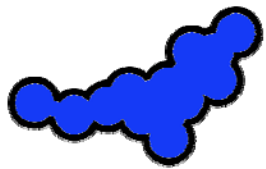
Types of teams

Team types

▶ Conventional	▶ Distributed	▶ Virtual	▶ Mobile virtual
Face-to-face, here and now	Different locations	+ Electronic communication and collaboration	+ Physical mobility

Differentiating characteristics

- **Global group's or team's** members' cross geographical and cultural boundaries.
 - Using collaboration technologies does it a **global virtual group or team**.
 - Physical mobility of at least some members makes it a **global mobile virtual group or team**.
 - Global virtual teams are always to some degree dispersed crossing geographical borders, some team members may be physically mobile and work over time zones in simultaneous temporary limited projects using collaboration technologies to communicate with their team members and leaders.
-



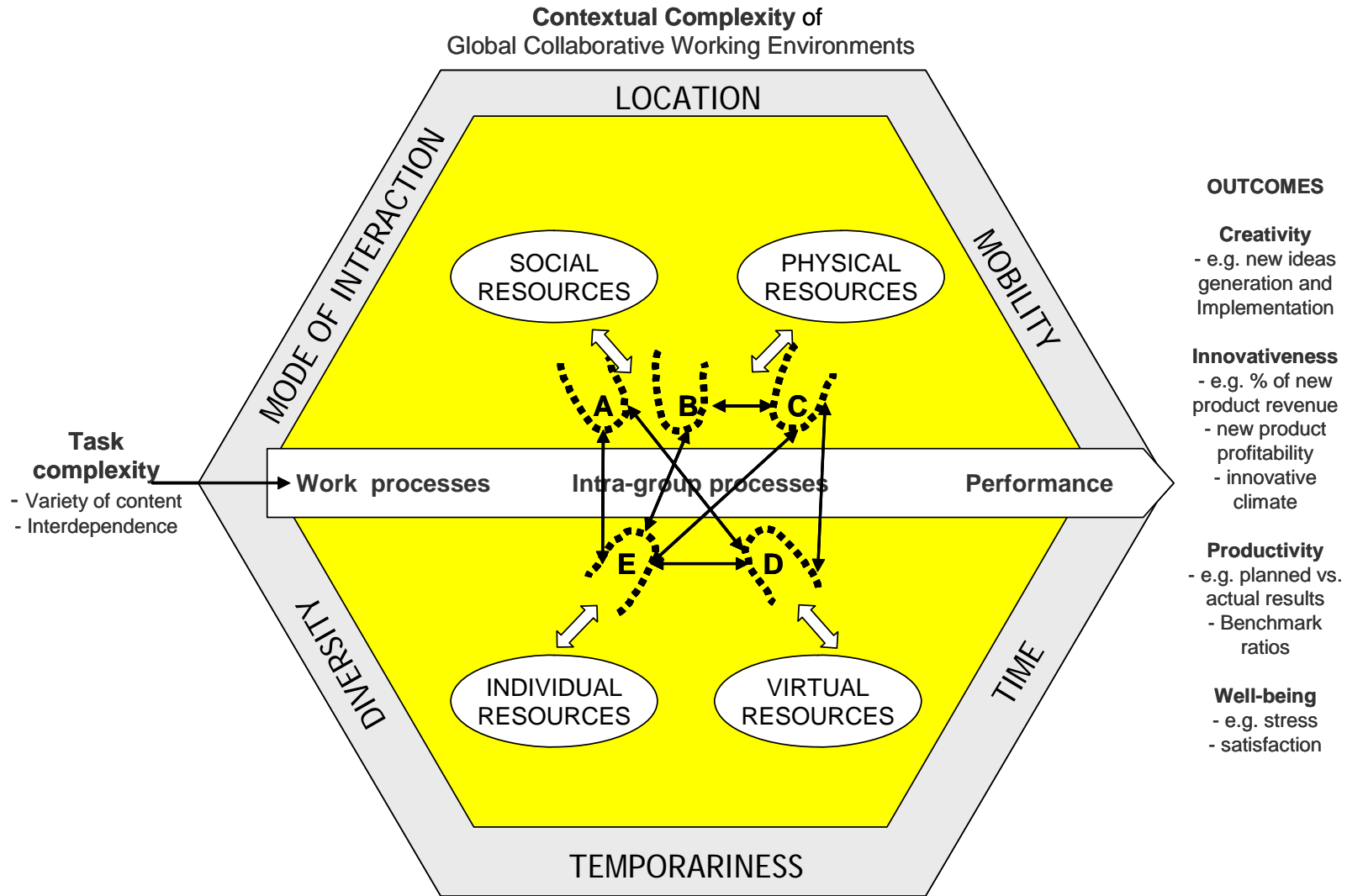
Multiple types of global teams

new global

CONVENTIONAL TEAM	GLOBAL TEAM	GLOBAL VIRTUAL TEAM	GLOBAL VIRTUAL MOBILE TEAM
Characteristics	Characteristics	Characteristics	Characteristics
Same place	Multiple places: at least one member in different continent	Multiple places: at least one member in different continent	Multiple places: at least one member in different continent
Fixed workplace	Fixed but distributed places	Fixed but distributed places	Using different places: at least one member travels while doing joint tasks
Same time	Same or different time	Same or different time	Same or different time
Permanent work and tasks	Permanent work or many projects, often multi-tasking	Permanent work or many projects, often multi-tasking	Permanent work or many projects, often multi-tasking
Members with similar backgrounds	Members with similar backgrounds or at least one person with different cultural background	Members with similar backgrounds or at least one person with different cultural background	Members with similar backgrounds, but probability of members' diversity increases
Face-to-face communication	ICT mediated communication with a manager	ICT mediated communication	ICT mediated communication



Framework to study impacts, threats and opportunities





Impacts of globalisation on teamwork

MODE OR INTERACTION

- Shaped by task and its context
- The more complex the task, the more rich the medium
- Delays in sending feedback
- The quality of technology has positive impact on performance
- Technology can be learnt to use

TASK COMPLEXITY

- The more complex tasks, the more complex messages
- Increased time in decision making
- The higher the interdependence, the more communication is needed

LOCATION

- The greater the spanning of geographical boundaries, the more complex messages
- The increasing team member dispersion increases
- The positive impact of teamwork quality on team performance

MOBILITY

- No observations

INTRA-GROUP PROCESSES

- Swift trust; low cohesion; building shared vision is more difficult; reduced status effects; safe communication climate reduces negative effects; more task-focus and less social-focus; more equal participation

PERFORMANCE

- No differences in decision quality but it is slower
- Cultural integration, open communication and team empowerment are positively related
- Longer time required to accomplish tasks

OUTCOMES

- Unique ideas
- Negatively related to innovation
- Combining f-t-f and communication by media increases productivity
- Technical expertise and frequent communication in informal ways increases productivity
- Mixed results on well-being
- Lower levels of satisfaction

DIVERSITY

- The greater the diversity, the more complex messages
- Cultural differences lead to co-ordination difficulties and create obstacles to effective communication

TEMPORARINESS

- The greater the spanning of organisational boundaries, the more complex messages are needed

TIME

- No observations



Threats

- Management and working practices are ‘under construction’
 - Needs of managers and employees are not known
 - Ineffectiveness due to communication and lack of shared understanding
 - Required level of trust and security is hindering actual collaboration across companies
 - Threats to work-life balance
-



Opportunities

- Closeness to needed resources (competences), and lower cost sites
 - Adaptability and ability to respond quickly to market changes
 - Flexibility is achieved when work is divided across time zones
 - Employees' list: increased independence, less micro management, larger pool of jobs to choose from, greater flexibility, and opportunities for travel
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Technology for Global Collaborative Working Environments

Marko Nieminen
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Background

- All new global collaborative working environments are technology-supported
 - Communication and collaboration technology is the baseline enabler for global collaborative work
 - Shared workspaces and community support tools are increasingly being used, in particular by large companies
 - The characteristics of technology affect the utility, effectiveness, and efficiency of the work
 - Technology needs to fit the activities that it is supporting: analysis on work surroundings and users/usability provide a basis for the application appropriate technology
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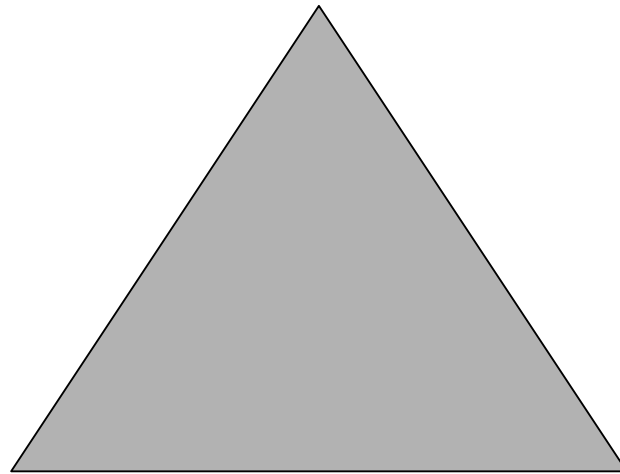
Traditional CSCW classifications with enhancements

- Classification based on Time – Place division (Johansen 1988, Grudin 1994)
 - Classification based on Coordination – Communication - Co-operation (Bannon 1993)
 - Shared/Common Information Spaces (Bannon & Bødker 1997)
 - "Map": Contextual Guidance and Support (Davis et al. 1999)
 - Extended attributes (in this project)
-

Time - Place

TIME PLACE	Same	Different, predictable	Different, unpredictable
Same	Electronic meeting and brainstorming support	Newsgroups, notice boards Electronic project room	Room infrastructure
Distributed, predictable	Video/audio-conferencing; Co-authoring, Co-designing Distributed design and engineering tools / workspaces	Group scheduling E-mail Instant messaging Co-authoring asynchronous (e.g. wiki) Shared workspace	Shared workspace Virtual community support
Different, Unpredictable	Presence-based audio-conferencing Distributed work flow / task flow management	Distributed asynchronous collaboration (e.g. mobile e-mail)	Process coordination

Communication



Coordination

Co-operation

Common Information Spaces (CIS)

- Information surroundings that are used and developed further by a group of people who share the interest towards a mutually interesting theme
- The users of CIS use and combine the CIS applications and their functionality according to the demands of the currently active situation making CIS a map-like surrounding that provides a set of possibilities for the user to select from.
- “Map”: shared information spaces provide contextual guidance and support



Extended attributes

for New Global Working Environments

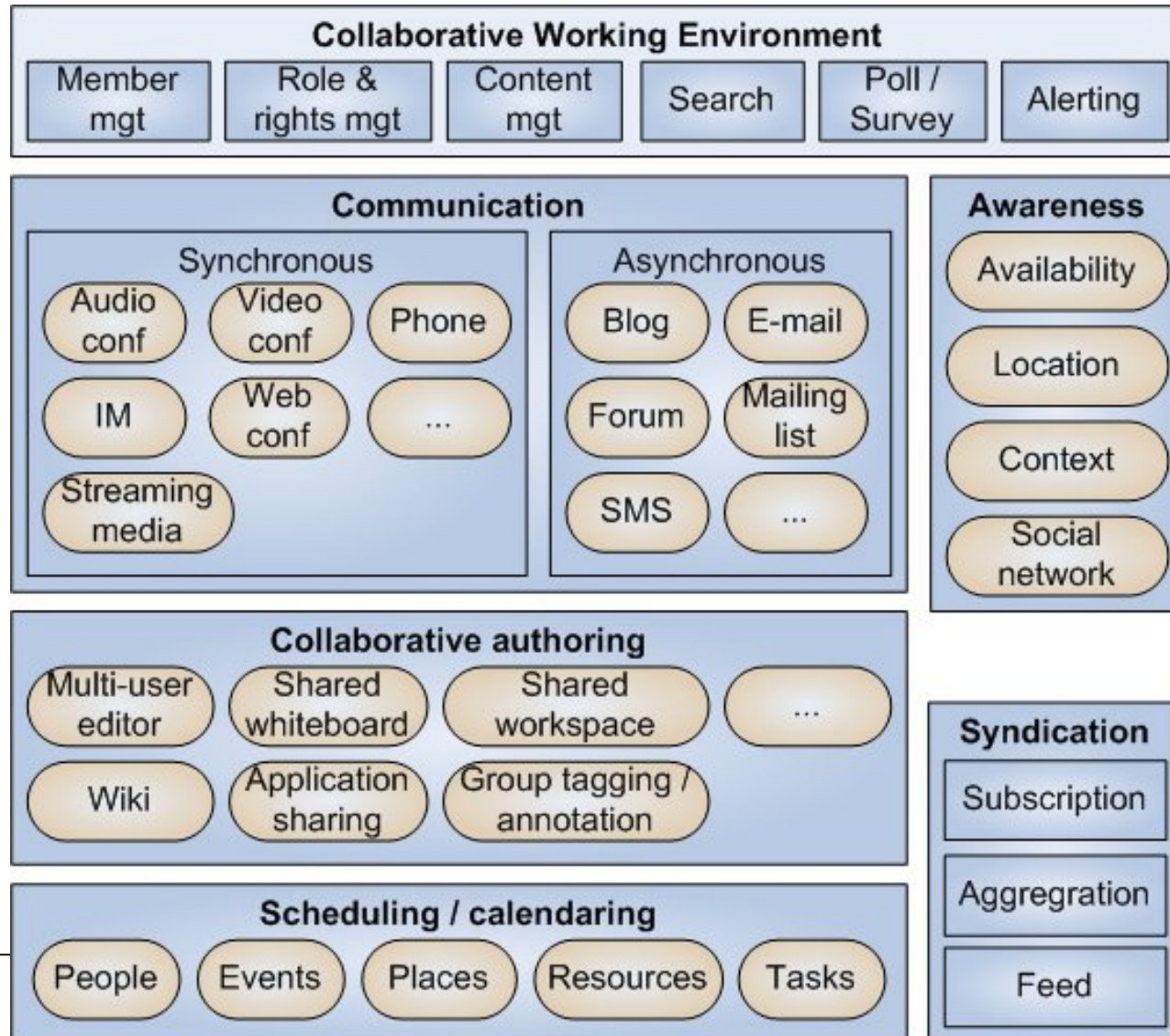
Geography
Time zones
Mobility
Multitasking
Multi-project
Multi-skilled, usability
Multi-cultural
Language, character sets
Context sharing/delivery/transfer
Organisation-crossing, internal/external, boundaries
Interoperability
Trust and security: open, closed; identity



Collaboration technology functions 1/2

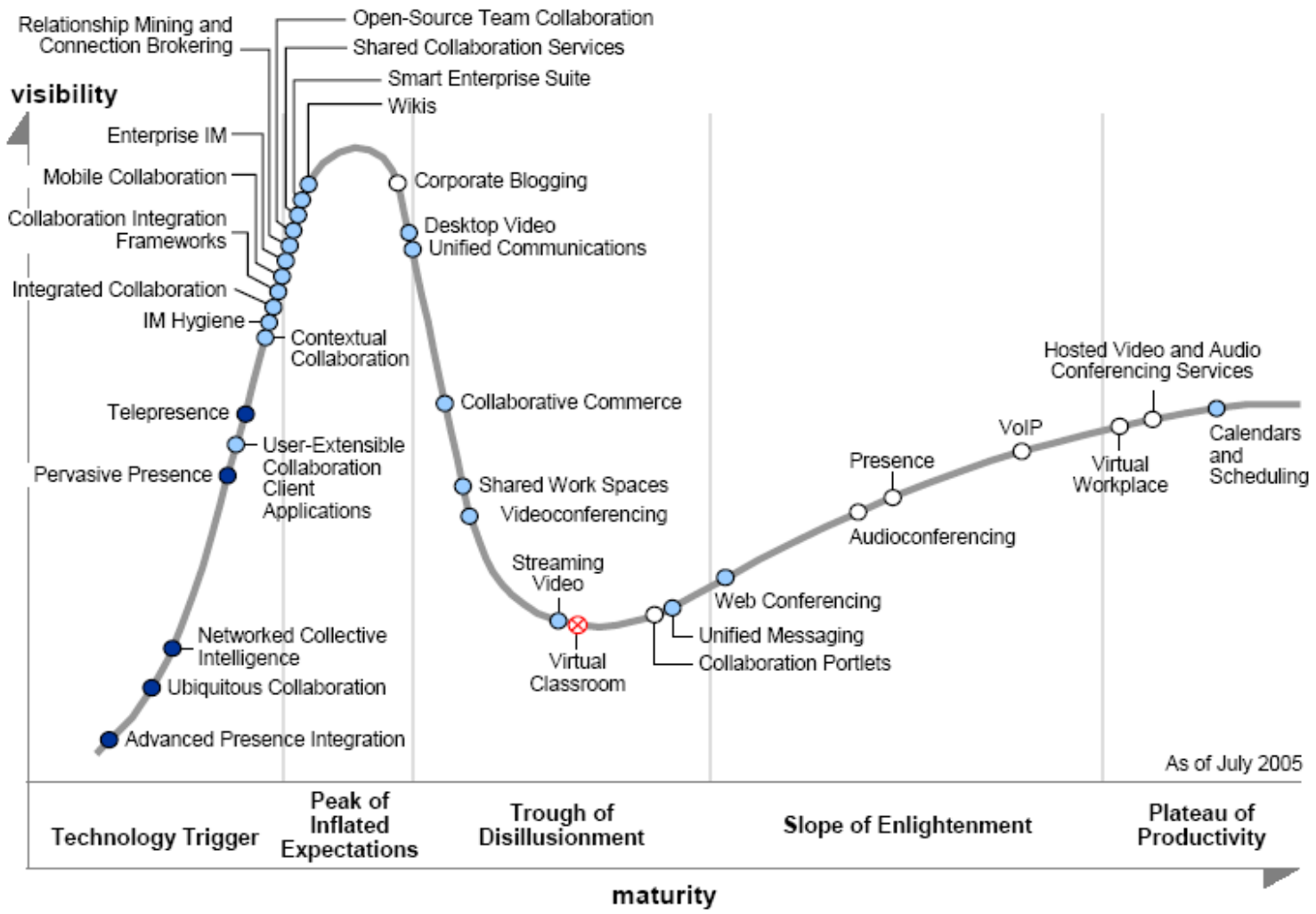
- *A myriad of software tools to support collaboration*
 - Real-time conferencing
 - Collaborative authoring tools
 - Workspace functionality
 - Messaging support
 - Functions to coordinate the collaboration
 - Awareness information
 - Facilities for persistent conversations
 - Functionality to syndicate contributions
-

Collaboration technology functions 2/2





Technology: Collaboration Support Hype Cycle (Gartner)



Plateau will be reached in:

- less than 2 years
- 2 to 5 years
- 5 to 10 years
- ▲ more than 10 years
- ⊗ obsolete before plateau





Mainstream providers & apps

- IBM: Lotus Workplace, Lotus Notes/Domino, Websphere portal and Websphere Everyplace, IBM Workplace
 - Microsoft: Outlook and Exchange for enterprise messaging, Live Meeting, SharePoint Services, Live Messenger
 - "Open": BSCW, Drupal, Joomla, phpBB, XMPP/Jabber, ...
 - Web Service providers host applications
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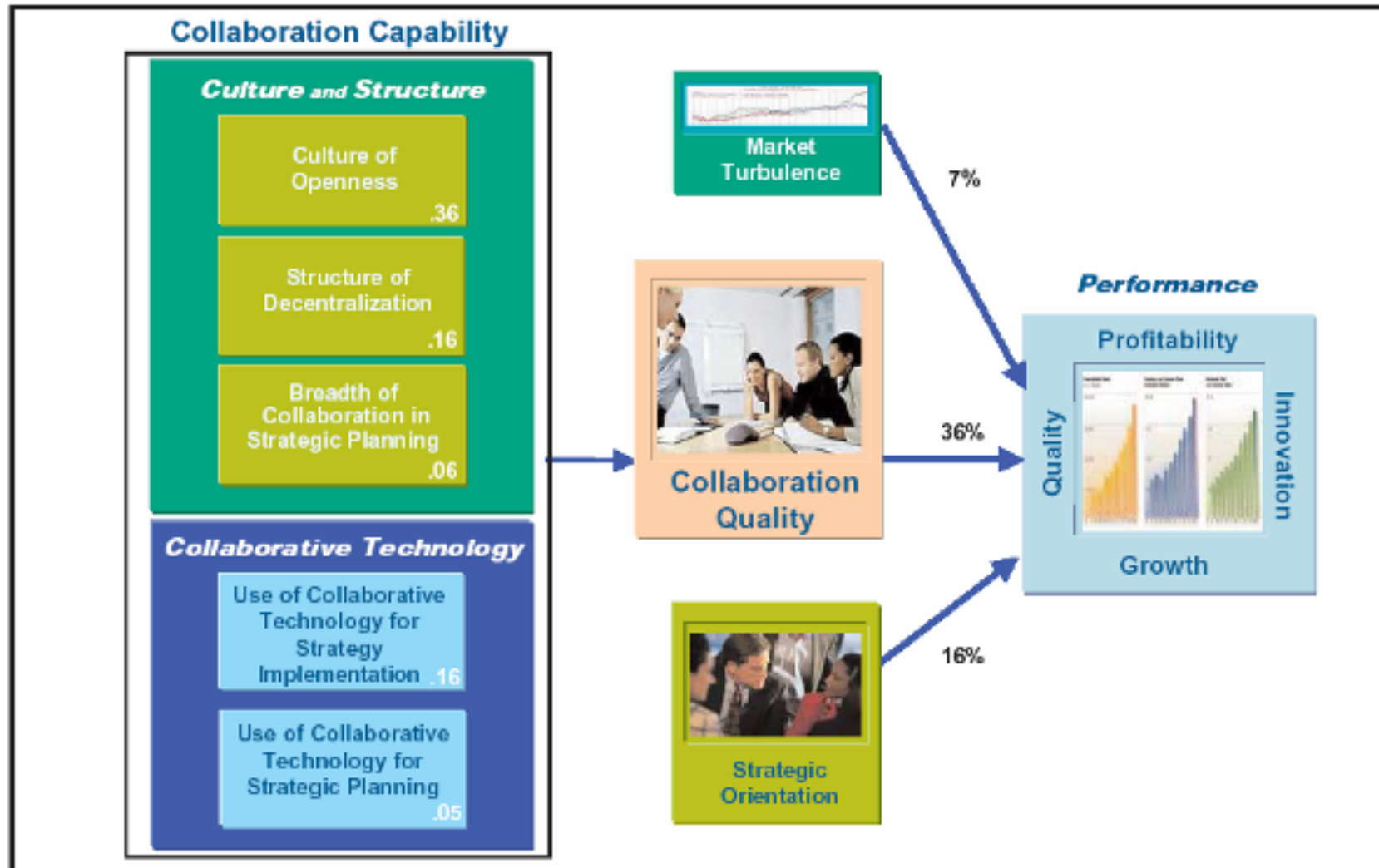


Collaboration in Web 2.0

- Wikis
 - Blogs
 - Discussion forums
 - Social networking

 - *"Open innovation"*
-

Collaboration Index





Technology: enabler for CWEs

- *“Face-to-face communication is commonly assumed to be superior to all other forms of communication*
- *Yet face-to-face communication does not cope well with organizational constraints such as time pressure or the geographic distribution of team members” (Berry 2006)*

→ Applying collaboration technology is crucial and makes working in the global CWEs more effective

Policies and Strategies Related to Global Working

Hans Schaffers
Telematica Instituut

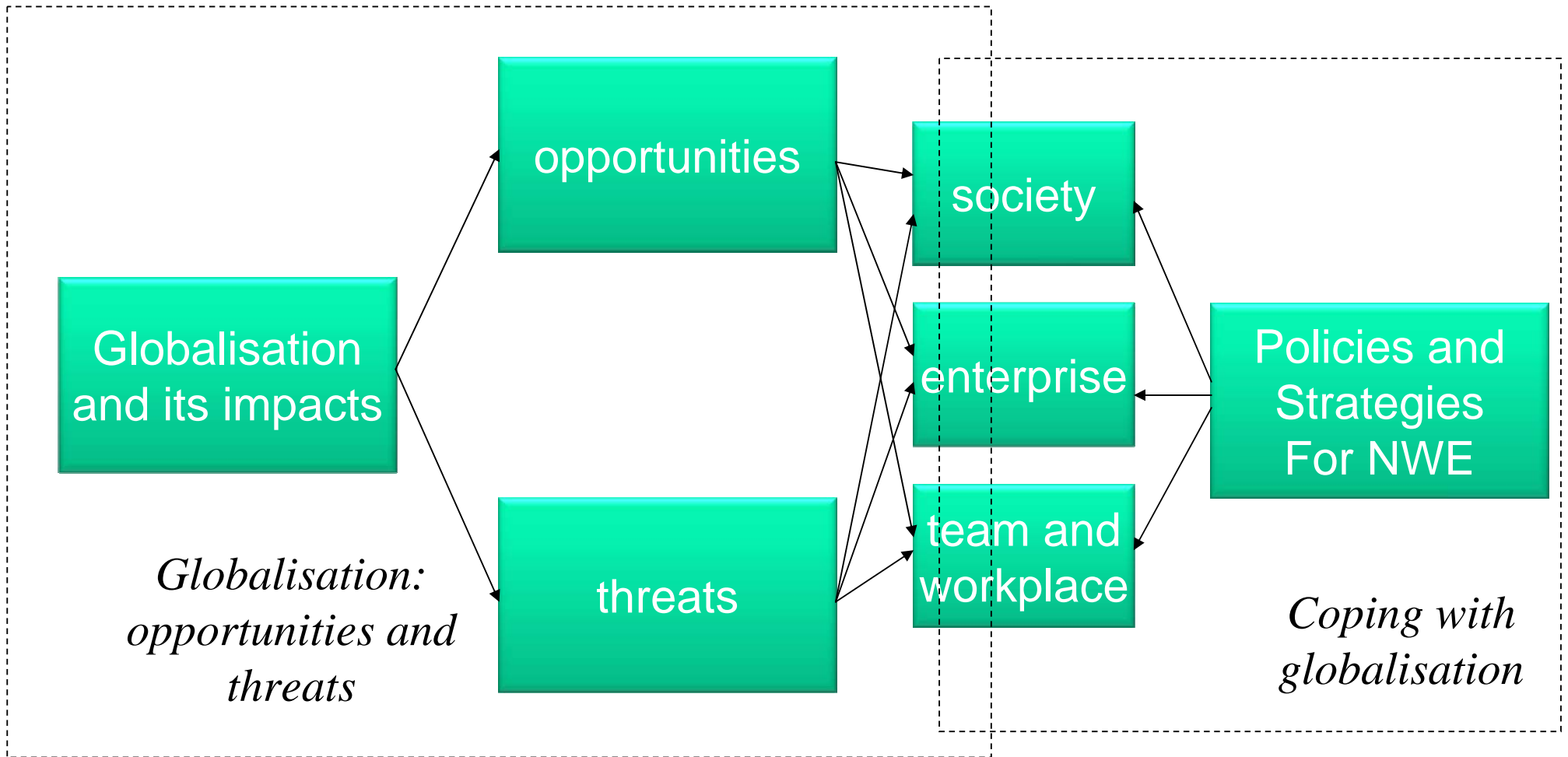
Policy relevance at EU level

- Globalisation is in the centre of national and EU policy agendas (Growth & Jobs).
 - Flexicurity concept aims to combine flexible labour markets and flexible work organisation with income security and employment.
 - Resulted from awareness about globalisation and technology innovation changing the needs of workers and enterprises.
 - Need for adaptation of production methods and work organisation, requiring new skills.
-

Summary overview of analysis of global collaborative work environments

	Impacts of CWE	Threats and opportunities (challenges)	Coping mechanisms identified
Society	Employment relocations Regional development Attractiveness of regions Social and cultural changes	Competitive threats at sector and regional level Demand for enhanced know-how and skills Threats to work-life balance	Fostering regional innovation Clustering and networking Infrastructure enhancement
Networks and chains	Globalisation of supply chains and business networks Need to organize innovation processes	Threats to small SME suppliers Opportunities to enter global value networks	Collaborative innovation policies Business models for enhanced collaboration in value networks SMEs working in global networks
Communities of Practice	Communities extend to global level Access to global knowledge sources	Global search for talent Access to global resources Language and cultural barriers in understanding Trust and security barriers	CoP as coping mechanism to support global business collaboration Skills and know-how upgrading
Team and workplace	Increase in the number of global groups and teams Teams extend to global level Need to apply collaboration technologies	Management and working practices 'under construction' Needs of managers and employees are not known Lack of shared understanding Threats to work-life balance Potential to form high-quality teams across the globe	Changing mindset from conventional to global Knowing success factors of global collaboration Developing management and working practices Technologies to address creation of effective collaboration workspaces and security and access management issues

Coping policies and strategies must address different levels



*Levels of
analysis*

Globalisation challenges and coping policies at different levels

Level	Enablers and driving forces	Processes and impacts	Strategies and policies
Society	Information technologies Social paradigmatic change Political developments at EU and global level	Enabling pervasive networking and interconnection Emerging of “always on” 24-7 economies Increasing policy competition at country level	Work regulations, employment policies Competitiveness policies to allow open markets and entrance to foreign markets Innovation policies to strengthen national industries Cluster policies enhancing the attractiveness of regions
Industry sectors and markets	Intensified competition and new competitive strategies of emerging players Changing market demands Technologies in specific sectors and markets	Considering relocation (including off-shoring) and outsourcing Emergence of business networks, value networks, collaboration networks	Exploit technology to increase productivity and flexibility of the business network Business models to guide collaboration in multi-partner networks Creation of business networks
Organizations (companies)	Cost economies Competitive pressure Strategic considerations (market strategy)	Location of functions and activities Work organization changes; “virtualization”	Exploit technology to create different organizational models
Teams and workplaces	Technology (collaborative workspaces) Task efficiency, cost and productivity objectives Sustainable development	Work organization at people and team level	Exploit technology and work organization to create global working models

A first set-up of a portfolio of policies and strategies coping with globalisation

	Workplace	Business organisation	Societal
Public policy	Promoting learning Promoting work-life balance Promote flexible working	Clustering as business collaboration	Promoting the change of public mindsets Flexible working regulations
Technology	Collaboration tools Security technologies	Improve adoption and take up of technologies	Raise awareness and understanding ICT's role
Organisations	Work organisation Management and work practices	Clustering as creating business networks	Raise awareness of networked organisations
Regions	Available infrastructures to support distributed and mobile work	Clustering as increasing regions attractiveness	Innovation policies

Next phase of work

- Case based evidence of successful policies and strategies
 - Address synergies between strategies
 - Focus: Societal, business, team workplace
 - Domain: Technology, geography, organisational, public
 - Typology of successful coping policies and strategies, and situations where they are successful or not
 - Development paths of policies and strategies
 - Empirical evidence to support policy changes
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