International Collaboration - Lessons learned from project FASSBINDER

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Setting-up the context

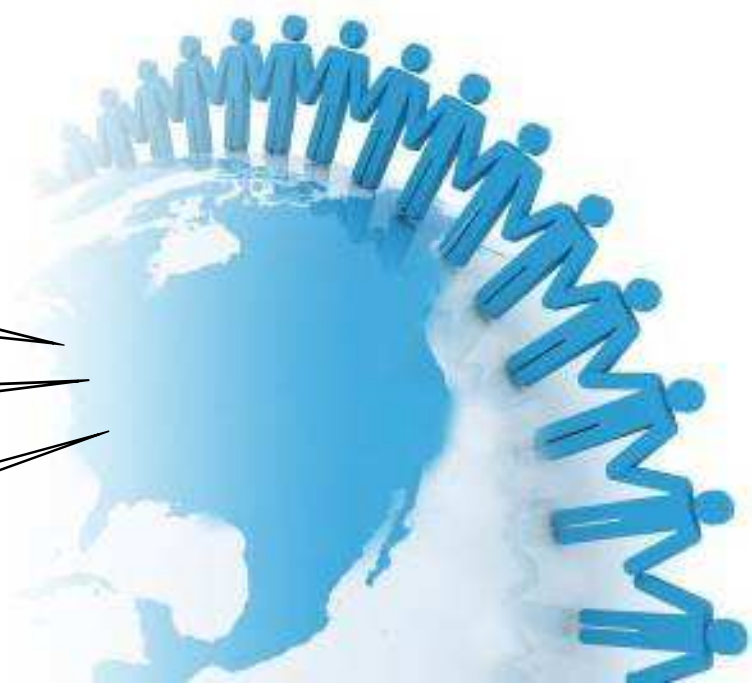
» The world's economies have developed ever-closer links since 1950, in trade, investment and production.

» Known as globalisation, this process is not new, but it has been accelerated in recent years, to embrace more industries, markets and countries.

Global ICT market

Access to people,
Knowledge and services

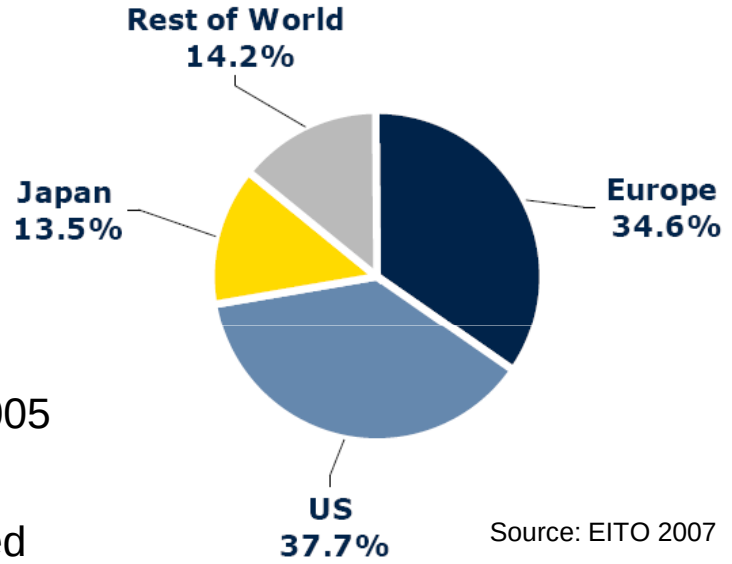
OPPORTUNITIES



Current status

- Global ICT market increased by 7.54 % in 2005 and 6% in 2006
- ICT is one of the largest business sectors in EU
  - EU represents 34.6% of the IT market worldwide
- China software industry is essential for global IT outsourcing market
  - China was the sixth largest ICT market in 2005
- India has become one of the most preferred destinations for sourcing software and IT enabled services (specially from US)
  - Indian ICT market to reach $24.3 Billion by 2011

Worldwide IT Market by Region 2007



Source: EITO 2007

FASSBINDER

Future **A**ction on **S**oftware & **S**ervices **B**ased on Market Analysis, Market Evolution, Effects of **IN**ternational Factors and Return on **E**uropean **R**esearch Investment

- Study the effects of third countries in the European S&S economy in terms of: jobs, growth and competitiveness
- Determinate how Europe has to face this situation and reflect this recommendations in the **FASSBINDER White Book**
- Set up the **FASSBINDER strategy agreement** that will be done between main stakeholders of European IT companies and associations of software in China and India.
- FASSBINDER is a unique partnership initiative involving Europe and two largest countries in the world, India and China

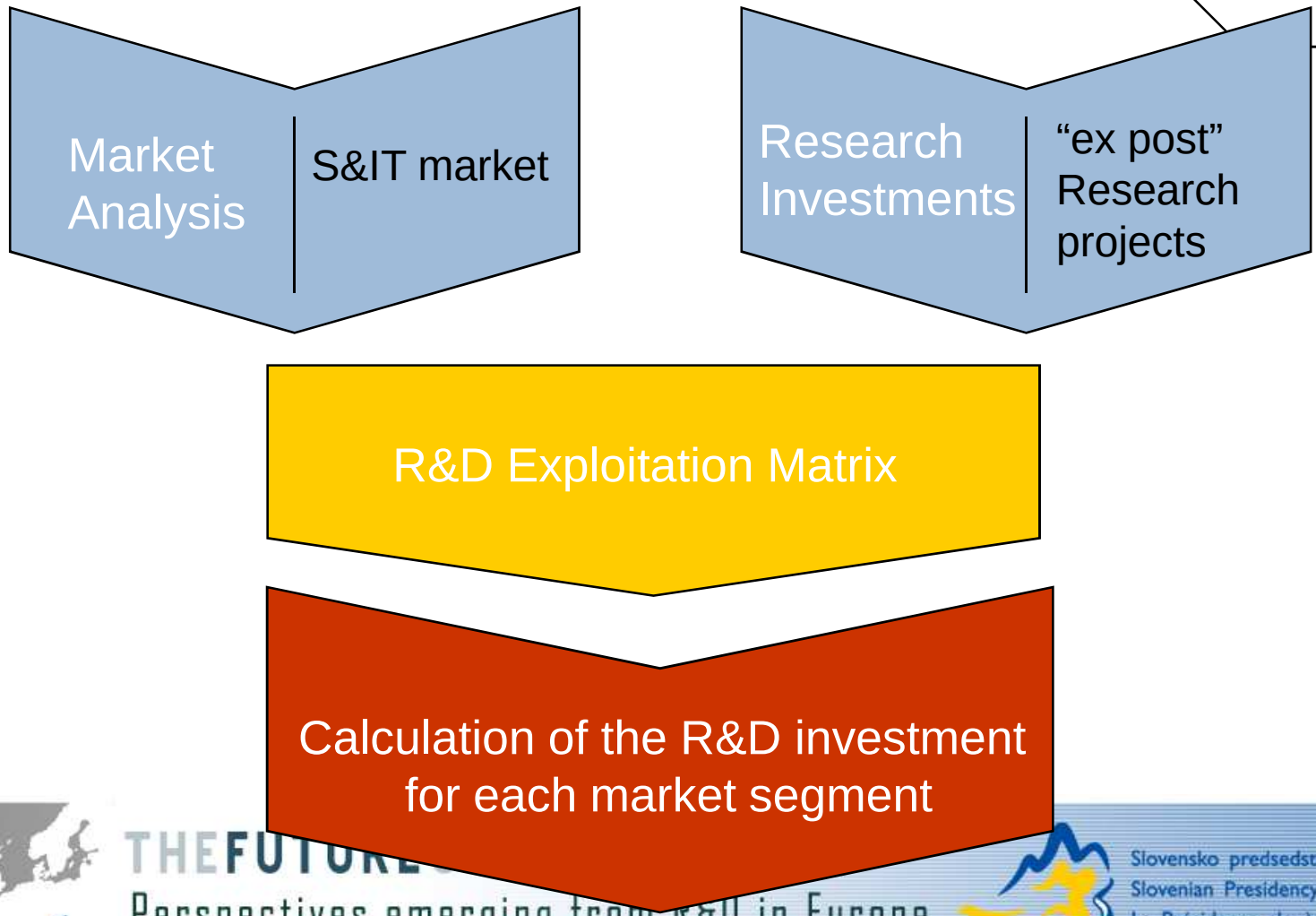
FASSBINDER

Who and What

- Partners:

- Goals
  - Technology Segmentation
  - Analysis on Software and IT Services Market per Segment
  - Determine the RoRI of each Segment
  - Produce recommendations for future investments
- Deliverables:
  - FASSBINDER White Book
  - Common Europe-Asia Strategy

Whole Process

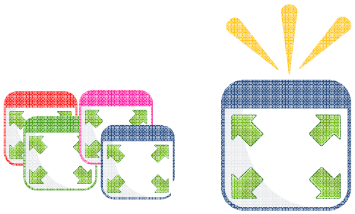


Effects of 3rd countries in the European S&S economy

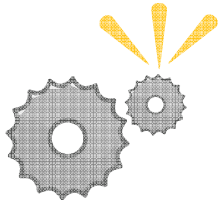
European companies highlight competitiveness

Reducing costs

Core business



Optimising resources



Outsourcing / Offshoring

Manufacturing to China

Services to India

SWOT

Europe – IT Services Market

- Strengths:
  - One of the largest domestic markets worldwide
  - Domestic market keeps growing
  - Public support to R&D uses larger resources than USA or Asia
  - Public sector fosters competitiveness
  - Highly skilled professionals
  - European customers' requirements need localised understanding
- Weaknesses:
  - High manpower cost
  - Shortage of highly skilled professionals
  - No single market – mosaic of markets
  - Research is not duly bridged to innovation

SWOT

Europe – IT Services Market

- Opportunities:
  - Underexploited potential of Eastern Europe
  - Knowledge-based economy is an opportunity to increase Innovation
  - OSS will open the path to new IT service production processes
  - Focus on highly added-value IT services allows entrance in new markets
  - Leadership is some new technologies: mobile comms, Open Source, …
  - Nearshore vs. Offshore
- Threats:
  - Emerging markets take away major parts of low added-value IT business
  - Highly added-value IT business market is threatened by specialisation of emerging market professionals
  - Brain drain to America (ebbing – geographically unbalanced) and internally within Europe
  - 2008's uncertain economic situation

SWOT - Strengths

Europe – Technologies

- **Ontologies and web semantics:** Companies and research centres located at EU have a strong presence in the communities working on the theory, tools and applications of ontologies and the Semantic Web.
- **Collaborative approach to data:** In the EU there are national and European programmes for the collection and treatment of research data and support for networking between researchers. This has led to a significant number of world-leading data collections and an open, collaborative approach to knowledge sharing, which is already forming a valuable underpinning for Grid based research.
- **Mobile devices and embedded systems:** The strength of the European telecommunications industry and the diversity of its market for electronic control systems has given Europe a leading position in the area of mobile and embedded technology. This is relevant to the vision of Grids as a pervasive, user-centred utility.
- **Grid Middleware:** Europe has established a strong position on higher-level Grid middleware research. Most European developments have their particular strength in offering high-level services and tools for building applications, targeting the special needs of user and service provider communities such as industrial engineering, business applications, and application services provision.
- **Semantic Grid Technologies:** In Europe there is a longstanding expertise in Semantic Grid, agent and cognition technologies, which could be better capitalised and integrated towards Grid developments.
- **Open Source**: Europe has a **strong Open Source community and momentum**, including SME players with international visibility and market, covering the whole value chain.

SWOT - Weaknesses

Europe – Technologies

- **Hardware:** In research and commercial leadership in desktop and server scale computer system design, Europe lags behind other worldwide actors, namely USA and Asia. This may hamper, among other effects, development of efficient, scalable Grid components in favour of more traditional server-based architectures.
- **Operating Systems:** Historically, the worldwide lead in operating systems has been away from Europe. Support for adopted middleware technology has eventually migrated to the operating system level. Middleware and Grid technology choices made by the major OS vendors may therefore have a disproportionate effect on the European uptake of particular Grid technologies.
- **Programming Languages:** A significant proportion of Grid and web service research and application development is dependent on language platforms which lie outside the control of European user communities. Despite excellent European academic R&D there is little pull-through to wealth creation. The inertia of existing widely-used languages and the possibility to overcome them somehow limits the development.

SWOT - Opportunities

Europe – Technologies

- **Paradigm shift toward IT services:** Today's trend in the IT market in shifting revenues from products towards the provision of on-demand services creates unprecedented opportunities to develop a European competitiveness in IT services. This could have a catalysing effect on adjacent sectors both upstream and downstream the user-supplier value chain.
- **Operating system virtualisation:** The adoption of Web Service technology by major OS vendors allows the development of distributed applications that are independent of the underlying operating system and language technologies. The convergence between Grids and Web Services therefore provides a significant opportunity to move to a model of software development and service provision where the market dominance of particular OS vendors is no longer an issue.
- **Existing support for collaboration:** There are instruments in place, based on public support, to allow for the effective exploitation of Europe's diverse web service research community, and can rapidly build collaborative projects to allow researchers and businesses to exploit Grid applications.
- **Service Model for Industry:** Grid today is mostly used in particle physics, environmental science, life science applications, genomic research, protein folding, and medical applications, in advanced engineering R&D, in chemistry and materials science. It is expected that business like finance or media, and many industries, such as aerospace, automotive, or entertainment will seize the opportunity to use existing IT resources more efficiently.
- **Next Generation Grids:** The distinctive European vision of Grids operating from the level of devices to supercomputers, to serve communities ranging from individuals to whole industries, could have a significant economic and social impact far beyond the scope of existing computer and data Grids.

SWOT - Threats

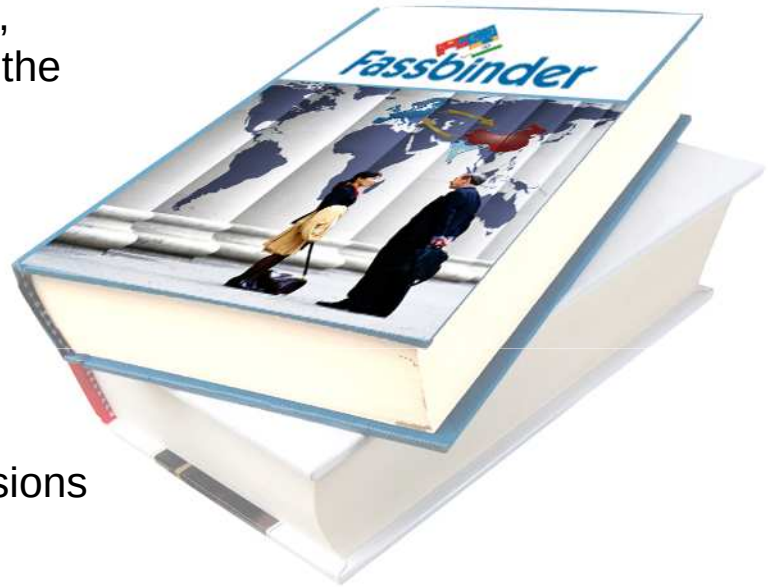
Europe – Technologies

- **Dependency on development tool support:** Support for interoperable messaging protocols (such as SOAP) depends on the tools provided by the various language and OS platform owners. While at the moment there is agreement on the overall direction of Web Service evolution and Grid middleware, disputes or changes in policy over supported technologies could have a rapid impact on the ability of service developers and providers to support particular language and operating system combinations.
- **Standards evolution:** As service technologies become more mature and complex, the adoption of standards (official or de facto) will be a requirement for sustained development of web services, and only applications compatible with those standards will gain widespread adoption. It is vital that any European vision for the evolution of web services and Grids is accompanied by a clear representation of that vision to the key standards bodies and technology providers worldwide.
- **Non-acceptance and Lack of Use:** **Industry actors might not adopt** the developed / developing European Grid Foundations / Middleware leading to a non-interoperable environment thus reducing the potential market size and the advancement of the knowledge society. This is an example of the weakness "research not duly bridged to innovation".

Preliminary Results

International Strategy Agreement

» Provision of guidelines for a common strategy between Europe and third countries for software and services, suggested future actions under FP7 and addressing the needs from the SRA on software and services.



White Book

» The white book presents the information and conclusions generated during the project and a set of recommendations for investment to the European Commission and to the Software and Services Industry.

Final FASSBINDER Workshop

- **FASSBINDER White Book** presentation
- preliminary **International Strategy Agreement** presentation
- good opportunity to keep informed about the influences of **Chinese and Indian activities in the European SW and IT Services market**

28th of May

98, Rue du Trône – Brussels

Further information at **www.fassbinder-project.eu**

Atos Origin

WORLDWIDE IT PARTNER

HVALA !!

Josema Cavanillas – R&D&I Director– Atos Origin

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