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Press release

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New study: How does Europe become a leading player for software and IT services?

The new study "The Economic and Social Impact of Software and Services on Competitiveness and Innovation" explores how Europe's software and IT industry should position itself in the future in order to remain globally competitive. An impact analysis was conducted for numerous fields like big data, cybersecurity or the Internet of Things (IoT) and examined what share of the international market Europe holds and how the market will evolve in the near future. Based on these findings, the study derives recommendations for how Europe can become a leading provider of software and IT services in the long term.

The future competitiveness of the European economy will be decisively influenced by the digital transformation. Globally, this process will result in many new products and markets with rapidly increasing productivity rates. This is why it is so important for the digital economy in Europe to be able to build on a powerful software and IT industry.

How is this industry performing at present and how should it position itself in future, above all with respect to US and Asian competitors? These are precisely the questions addressed in the new study "The Economic and Social Impact of Software and Services on Competitiveness and Innovation", conducted by the Fraunhofer Institute for Systems and Innovation Research ISI together with Pierre Audoin Consultants (PAC) and Le CXP on behalf of the European Commission. The study began by analyzing different market segments, their current and future market and growth potentials and then derived recommendations for how to make the European software and IT industry much stronger in terms of its future competitiveness.

Strong growth of the European software and IT market up to 2020

The first major finding of the study is that the European software and IT service industry is profiting directly from the digital transformation: The total EU market grew by 1.5 percent each year in the period from 2009 to 2015. The dynamics here will probably increase significantly up to 2020; the study forecasts an annual growth of up to 2.9 percent. Cloud computing is likely to show particularly strong growth, while other segments such as gaming software, application-based IT services or infrastructure software and platforms will evolve at a relatively constant rate. In contrast, the market in infrastructure-related IT services is likely to decline slightly up to 2020.

Fraunhofer ISI's project team derived five major recommendations for the EU Commission from the insights obtained: First, an online platform should be created for e-skills, where IT experts can offer their services regardless of where they are located and in this way can cushion the effects of the lack of skilled IT workers in Europe. Second, the introduction of information and communication technologies in every economic sector should be accelerated and the creation of a market specialized in the intelligent connection of heterogeneous data of objects, processes and persons.

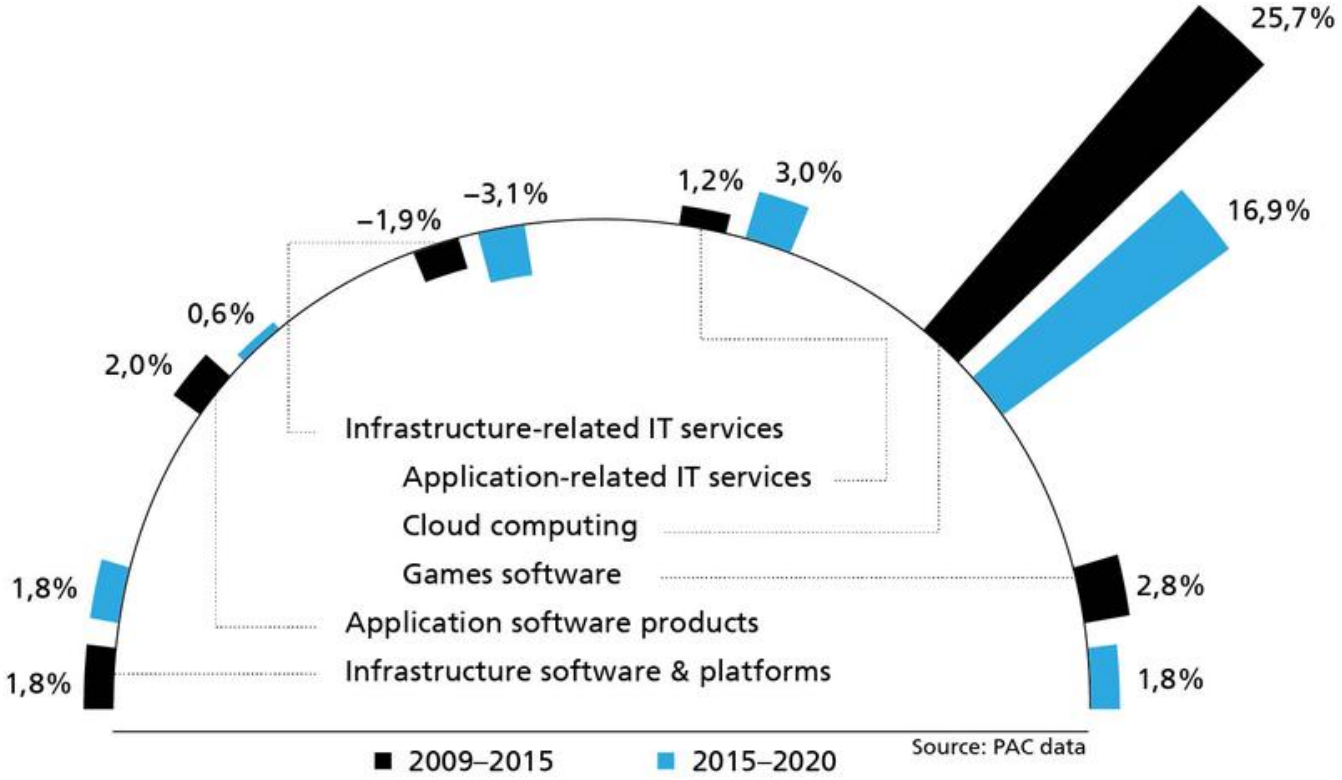
In addition, the enterprises and public administrations in Europe should use open source software in the future and expand their knowledge base here. Another focus should be on the development of trustworthy cloud computing solutions and IT infrastructures that respect user privacy and provide a high level of IT security. The fifth recommendation is that research and development activities should be increased in the field of information and communication technologies to create the conditions needed for the software and IT industry to be competitive in future.

Management of complex systems and "digital twins"

Dr. Bernd Beckert, who coordinated the research conducted at Fraunhofer ISI on the project, comments on the derived recommendations as follows: "In comparison to the US and Asia, whose respective strengths are in the development of software and hardware, the European software and IT industry is in a very good position concerning the management of complex systems. Obviously, this refers to the topic of Industry 4.0. But we in Europe need to go one step further and develop digital technologies for all types of objects and systems. We speak of 'digital representations' here. This incorporates physical objects as well as production processes or personal mobility patterns".

More and more processes in business and private contexts are linked to digital data and produce so called digital twins which are virtual images of physical processes, according to Beckert. If these data are combined and linked - in order to make online-shopping more personal or production processes in factories more efficient, for instance – a huge market could evolve. A specialization in these digital twins that also considers aspects like privacy protection and IT security could become increasingly important for the European digital economy in the future and should get more attention by European policy.

URL for press release: http://Download the study "The Economic and Social Impact of Software and Services on Competitiveness and Innovation" under https://ec.europa.eu/digital-single-market/en/news/economic-and-social-impact-software-and-services-competitiveness-and-innovation



Compound annual growth rate of market segments in the software industry (EU 28)
Fraunhofer ISI