

Chapter 39

Research Policies for Information and Communication Technologies in Europe

Ulf-Daniel Ehlers
University Duisburg-Essen, Germany

ABSTRACT

Research in information and communication technologies (ICTs) has proven to be a major driver for innovation and growth in many countries around the world and is therefore the focus of policies to strengthen research, collaboration and application of research results. This chapter represents a detailed policy analysis of ICT research policies from the European region. The analysis follows a four step pattern: (1) Introduction: the situation of ICT R&D (Information and communication Technology Research and Development) and in Europe, (2) The main actors and programmes funding ICT R&D, (3) The main actors and projects active in ICT R&D and (4) The main ICT R&D themes.

INTRODUCTION

Research in information and communication technologies (ICTs) has proven to be a major driver for innovation and growth in many countries around the world and is therefore the focus of policies to strengthen research, collaboration and application of research results. In this chapter, the policies of the European Commission will be analysed in order to highlight mechanisms and

field which are seen as important for economic growth and stimulation of prosperity within the European countries. The analysis is based on an extensive document analysis of available policies of the past years.

In its 2005 Spring European Council the European Countries called knowledge and innovation the engines of sustainable growth and stated that it is essential to build a fully inclusive Information Society, based on the widespread use of information and communication technologies (ICT) in

DOI: 10.4018/978-1-61520-847-0.ch039

public services, small and medium Sized enterprises (SMEs) and households. Following this, the European Commission proposed a strategic framework, i2010: European Information Society 2010, which laid out broad policy orientations. It promotes an open and competitive digital economy and emphasises ICT as a driver of inclusion and quality of life. Drawing on a comprehensive analysis of Information Society challenges and drawing on wide stakeholder consultation on previous initiatives and instruments (European Commission 2003), the European Commission proposed three priorities for Europe's Information Society and media policies:

1. To create a Single European Information Space, which promotes an open and competitive internal market for Information Society and media services. This includes addressing convergence, regulatory framework for electronic communications, roaming, radio spectrum, RFID(Radio frequency identification), mobile TV, audiovisual media services, film/content online, copyright, media pluralism, media literacy, consumer protection, public sector information, electronic payment, electronic signature, security strategy, spam, safer internet.
2. To strengthen investment in innovation and research in ICT. Issue areas here include: ICT research in 7th Framework Programme, European Technology Platforms, Joint Technology Initiatives; innovation; take up of ICT by EU citizens, businesses and administrations - ICT Policy Support Programme in the Competitiveness and Innovation Programme, ICT Task Force, eBusiness, standardisation, pre-commercial procurement, eSkills.
3. To foster inclusion, better public services and quality of life through the use of ICT. Issue areas addressed under this priority are eInclusion, e-Accessibility, broadband/digital divide, e-Government, eHealth, digital

literacy, flagship initiatives: Intelligent Car, Digital Libraries, ageing/Ambient Assisted Living (in preparation), ICT for sustainable growth (in preparation).

It can be noted that one special focus is therefore clearly the research agenda for European research and development in the field of ICT.

This chapter represents a detailed policy analysis of ICT research policies from the European region. The analysis follows a five step pattern:

- i. Introduction: the situation of ICT Research and Development (R&D) in Europe,
- ii. Background of the European situation
- iii. Latest developments
- iv. The main actors and programmes funding ICT R&D
- v. The main actors and projects active in ICT R&D and
- vi. Future Trends and themes.

BACKGROUND

Six years after the burst of the Internet bubble, the Information Society is on a steady growth path. A decade of investment in ICT is bearing fruit, fuelling innovation in ICT areas and transforming the European Union (EU) into a knowledge-based economy. Since 2005, the ICT sector has become increasingly driven by the expansion in the software market and relatively less by the electronic communication segment. This reflects innovation trends requiring more pervasive software products. Large sales in systems software and eBusiness applications indicate that businesses are adopting new and more mature eBusiness solutions, even if these new investments may still be limited to large companies or early adopters of advanced eBusiness solutions.

The Union can build on these achievements to pursue its growth and innovation policies and all Member States recognise the key role of ICT in

13 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/research-policies-information-communication-technologies/45413

Related Content

Co-Evolutionary Analysis of Cognitive Radio Systems

Vladislav V. Fomin and Arturas Medeisis (2015). *Modern Trends Surrounding Information Technology Standards and Standardization Within Organizations* (pp. 107-124).

www.irma-international.org/chapter/co-evolutionary-analysis-of-cognitive-radio-systems/115272

Findings and Recommendations from a Pan-European Research Project: Comparative Analysis of E-Catalog Standards

Volker Schmitz and Joerg Leukel (2005). *International Journal of IT Standards and Standardization Research* (pp. 51-65).

www.irma-international.org/article/findings-recommendations-pan-european-research/2568

The Role of Individuals and Social Capital in POSIX Standardization

Jim Isaak (2006). *International Journal of IT Standards and Standardization Research* (pp. 1-23).

www.irma-international.org/article/role-individuals-social-capital-posix/2571

Semantic Web Standards for Publishing and Integrating Open Data

Axel Polleres and Simon Steyskal (2015). *Standards and Standardization: Concepts, Methodologies, Tools, and Applications* (pp. 1-20).

www.irma-international.org/chapter/semantic-web-standards-for-publishing-and-integrating-open-data/125283

Paving the Road to Global Markets: How Increasing Participation in International Standards Development Can Boost Exports From Small and Medium Enterprises

Diane (Xiaolu) Liao and Michelle Parkouda (2023). *International Journal of Standardization Research* (pp. 1-19).

www.irma-international.org/article/paving-the-road-to-global-markets/319023