IPTS-IT STAR Conference on ICT Research and Innovation Challenges in EEMS

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EITO overview of ICT activities and R&D challenges in EEMS

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THE WORLD ECONOMY SCENARIO

(GNP ANNUAL % GROWTH)

	2010	2011	2012	2013	2014
WORLD	5.1	3.6	3.4	3.7	4.1
USA	3.-	1.5	1.8	1.7	2.2
EMU	1.7	1.5	0.2	1.-	1.2
RUSSIA-CSI	3.7	4.-	4.-	4.8	4.9
EEC	1.6	2.1	1.3	2.5	2.2
CHINA	10.4	9.3	8.3	8.1	8.1
INDIA	10.4	7.7	7.2	7.4	7.8
LATIN AM.	6.6	4.5	3.8	3.9	4.2

(Source: Prometeia, oct. 2011)

DIGITAL ECONOMY VS ECONOMIC GROWTH

- **Role of ICT on GDP EU 1.9% US 2.5% Jap 2.5% China 1.7%,**
- **Digital economy in EU 7% of GDP**
- **142 million BB users in EU (61% of EU people with BB)**

THE DIGITAL SCENARIO

MAIN DRIVERS:

- **SOCIAL WEB**
- **MOBILE ECONOMY**
- **NEW MOBILE ACCES DEVICES**
- **CLOUD COMPUTING**

THE SOCIAL WEB

- **TWO BILLION OF WEB PEOPLE WORLDWIDE**

- **FACEBOOK: 750 MILLION OF “FRIENDS” CONNECTED**

- **TWITTER: 150 MILLION TWITTING QUITE EVERY DAY**

- **YOUTUBE: 600 MILLION VIDEO EXCHANGED EVERY DAY**

THE MOBILE ECONOMY

NO. OF MOBILE CONNECTIONS

	2010	2016
WORLD	5 BILLION	8 BILLION
of which broadb.	1 BILLION	4 BILLION
USA + CANADA	470 MILLION	525 MILLION
WEST EUROPE	530 MILLION	574 MILLION
RUSSIA &EEC	430 MILLION	550 MILLION
ASIA	2.6 BILLION	4.2 BILLION
of which China	1.5 BILLION	3 BILLION
AFRICA	500 MILLION	1 BILLION
LAT.AMERICA	400 MILLION	750 MILLION

(Source: OVUM, 2011)

NEW MOBILE ACCESS DEVICES

- **SMART PHONES: 1 BILLION WORLDWIDE – in 2011 SP > PC – in 2016 close to 4 billion**
- **TABLETS ARE DISPLACING PC AND TV AND BECOMING THE MOST POPULAR ACCESS DEVICE**
- **APPS FOR MOBILE DEVICES HAVE BECOME THE CORE ELEMENTS OF NEW ICT BOTH FOR CONSUMER AND BUSINESS USE – APPS ARE PREVAILING ON OPERATING SYSTEMS AND ARE MAINLY GENERATED BY USERS**
- **NEW MOBILE ACCESS DEVICES ARE CLOSELY CONNECTED TO CLOUD COMPUTING**

CLOUD COMPUTING

- **INCREASING STOCK OF COMPUTER POWER BASED ON LARGE SERVER FARMS OF IT COMPANIES, TELCOS, INTERNET OPERATORS**
- **FROM OUTSURCING TO CLOUD**
- **FROM SaaS TO INFRASTRUCTURE as a SERVICE**
- **DRIVING ROLE OF NEW MOBILE ACESS DEVICES**

MAIN PLAYERS OF THE DIGITAL SCENARIO

DEFENSIVE PLAYERS	ACTIVE PLAYERS	NEW PLAYERS/INNOVATORS
TELCOS INCUMBENTS	NEW ENTRY TELCOS (VODAFONE)	
		APPLE
	MOBILE TELEPHONY (NOKIA,SAMSUNG, MOTOROLA)	
TV BROADCASTERS	SATELLITE TV (SKY)	
		GOOGLE
IT INDUSTRY (hw & sw)	MICROSOFT, IBM, ORACLE	
PUBLISHING	E-BOOK PLAYERS	
		FACEBOOK & SOC. NET
DISCOGRAPHY	SONY	
CINEMA (MAYORS)	DISNEY	
GAMING	NINTENDO	AMAZON
PHOTOGRAPHY (KODAK)	FLICKR	

R&D AND INNOVATION CHALLENGES IN THE DIGITAL SCENARIO

- **OPEN INNOVATION - R&D/innovation in digital economy services is sometimes not visible , but embedded into the web services - INTERDISCIPLINARY/ INTERSECTORAL APPROACHES**

- **ROLE OF USERS – USER GENERATED INNOVATION - ROLE OF SOCIAL FORUM/NETWORKS - CONVERGENCE BETWEEN CONSUMER AND BUSINESS APPLICATIONS**

- **BASIC RESEARCH VS APPLIED RESEARCH VS INNOVATION – BOTTOM UP VS TOP DOWN - Low ICT expenditures in R&D (specially public R&D) , increase in ICT manufacturing in low value added products**

NEW PROFESSIONALITIES FOR THE DIGITAL SCENARIO

- **ICT EXPERTISE CLOSELY INTEGRATED INTO THE ORGANISATION (CIO AS CHIEF INTEGRATOR OFFICER); MORE INTEGRATION REQUIREMENTS THAN SPECIALISATION**
- **MOBILE ECONOMY PROFESSIONALS**
- **FROM BUSINESS INTELLIGENCE TO SMART KNOWLEDGE MANAGEMENT**
- **FROM EDP/OUTSOURCING TO CLOUD COMPUTING MANAGEMENT (ICT ADMINISTRATOR)**
- **SECURITY, PRIVACY PROTECTION AND IPR (LAW/REGULATIONS REQUIREMENTS OF THE NEW PROFESSIONAL)**

THE DIGITAL SCENARIO CHALLENGES FOR THE EEMS

- **STRONGER EXPECTED ECONOMIC GROWTH THAN OTHER EU MEMBERS**

- **WIDE OPPORTUNITIES FROM ICT MARKETS STILL FAR FROM SATURATION**

- **NATURAL SCIENTIFIC/TECHNICAL APPROACH**

- **NEW OPPORTUNITIES FOR INNOVATING IN MOBILE APPLICATIONS**

THE DIGITAL SCENARIO CHALLENGES FOR THE EEMS

- **INVESTING IN NEW PROFESSIONALITIES FOR THE DIGITAL SCENARIO**

- **OPEN INNOVATION OPPORTUNITIES FOR COLLABORATION WITHIN THE EEMS AREA AND AT WORLD LEVEL**

- **IT STAR AS AN INTEGRATOR AND INNOVATION PROMOTER**