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Towards more Inclusive, Innovative and Secure Digital Societies

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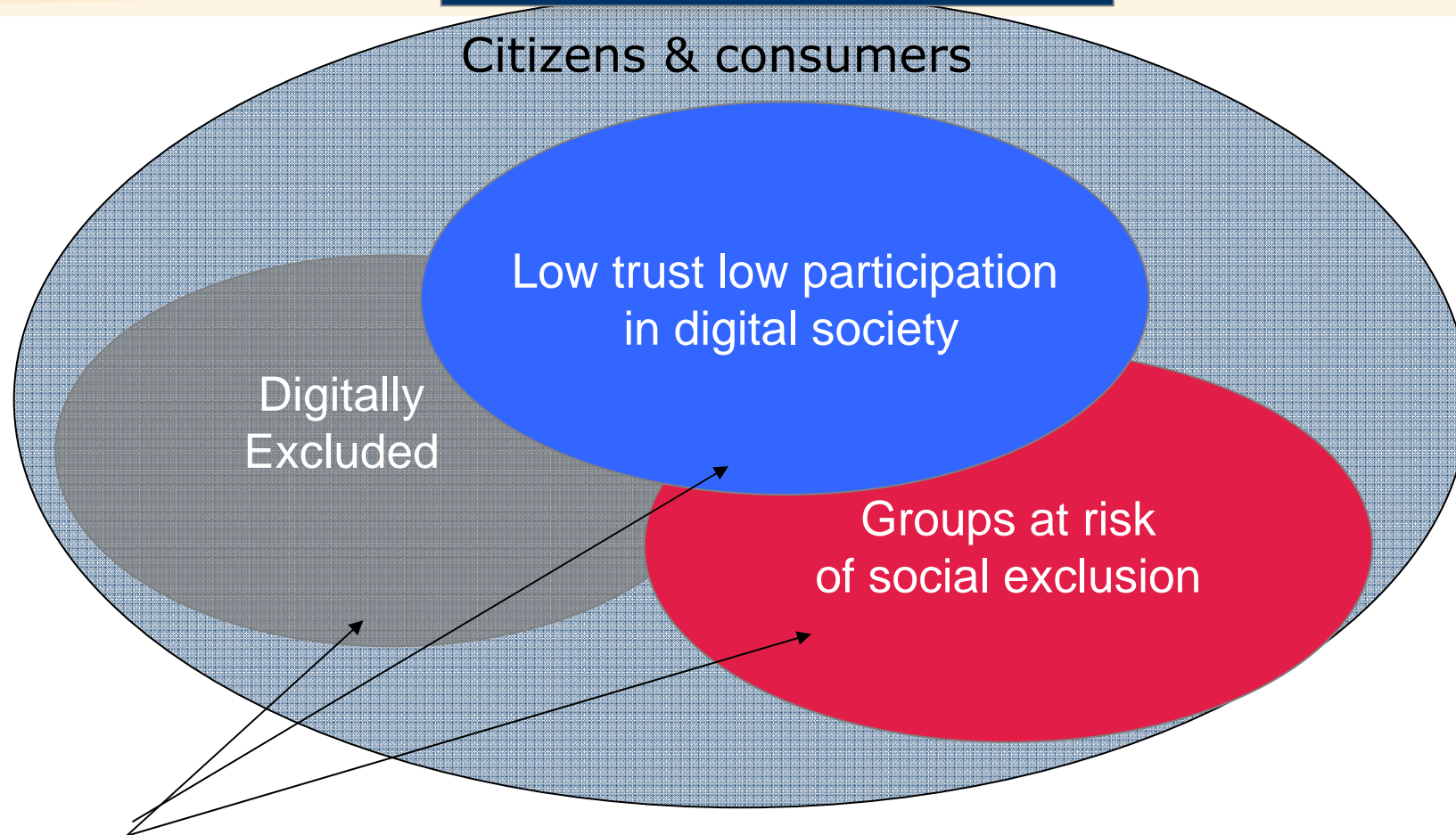
Consultation

- Green paper
 - MS Committees , Stakeholders groups
 - ISTAG
 - Studies – JRC/IPTS
-
- ***Global Leadership in Societal Challenges***
 - ***Focus on the EU strength to manage complex systems and environments***
 - ***End-to-end support to Research and Innovation***
 - ***EU-wide services and platforms***



Digital Agenda for Europe eInclusion, eGov and trust & Security targets

DAE: Every European Digital



eInclusion, egovernment, cyber security

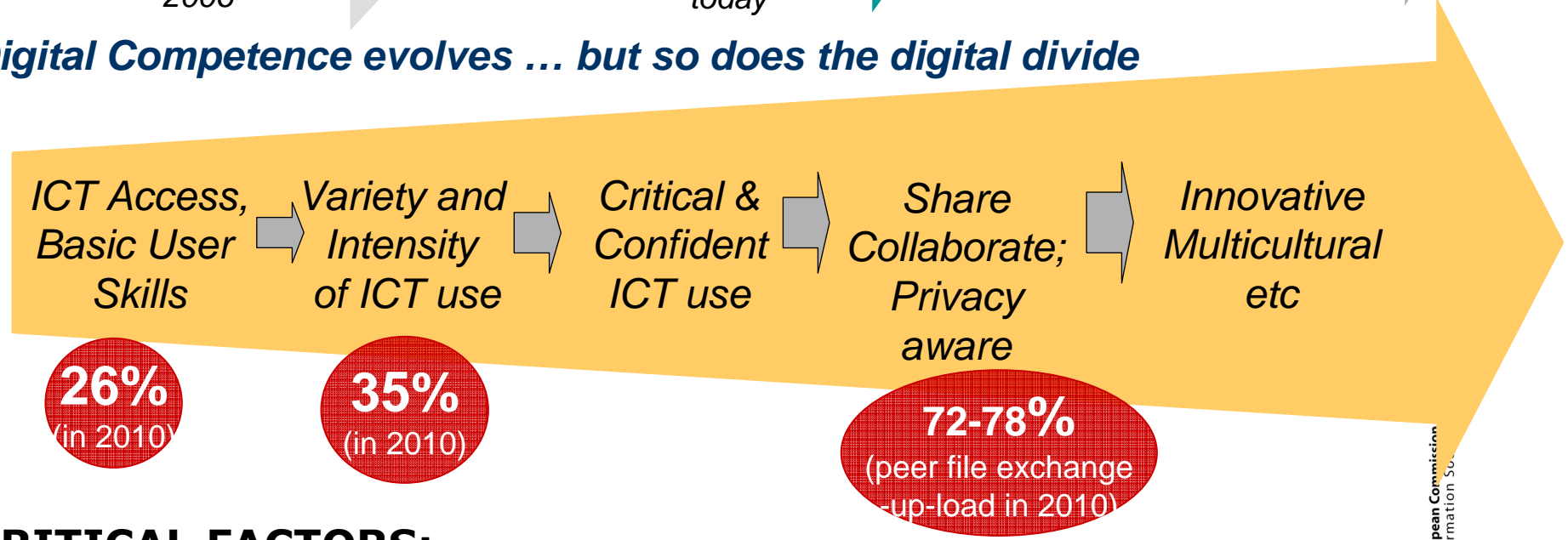
People with the risk of exclusion in EU: 150



Evolving Digital Divides



Digital Competence evolves ... but so does the digital divide



CRITICAL FACTORS:

skills, user friendliness/accessibility, smart public services, mass participation, security and privacy leading to trust.



R&D in eInclusion

User friendliness and accessibility through inclusive design, intuitive human computer interaction, semantic web, affective computing

Assistive and functionality enhancement technologies for people with disabilities, elderly and others in need (e.g. robotics, brain computer interfaces, modelling, simulation, personal (virtual) coach, mobile based tech. & services)



Innovation in eInclusion

Innovation activities and partnerships – with participation of all relevant stakeholders for those that are digitally excluded as well as those in risk of social exclusion

Testing and scaling smart environments – e.g. smart homes, smart navigation, services for cognitive support, personalised public and commercial services

eSkills and engagement – Digital literacy and eSkills = life and employment skills, e.g. through serious gaming, new e-learning paradigms, web 2.0

eAccessibility – mainstreaming design for all and web accessibility

Innovative and smart digital government services

- Research and large scale innovation for:
 - Personalised and ubiquitous services
 - Interoperability, ease of use, efficient & effective
 - Electronic identification for secure & electronic service provision
 - Manage complexity of using large volumes of public data
 - Multi-disciplinary approaches to involve all stakeholders
 - Decision making tools
 - Innovative services of the future



Social networking & participation

- On-line collaborations to trigger and shape significant changes in the way future (e)societies will function.
- Crowd sourcing for participation
- Voice opinions and views on societal challenges, - transition to a dynamically participative "eSociety".
- Governance models, process flows, or analytical tools with which to properly understand, interpret, visualise and harness those outputs



Governance and Policy Modelling for digital society

- Research to focus:
 - on the modelling and simulation of policy initiatives
 - development of new governance models
 - collaborative solving of complex societal problems
 - societal simulations to forecast potential impacts of proposed policy measures
 - identify emerging societal trends as a result of the evolving social and economic environment
 - Modelling of socio-economic and financial crises and their impact on society
 - Technologies of innovative approaches in simulation and visualisation techniques, process modelling, gaming and mixed reality technologies while building on Web2.0/Web3.0, social networking, crowd-sourcing and dynamics methodology techniques

Freedom and privacy in the digital society

- Enable adoption of trustworthy ICT services
 - embracing new services without trade-off with respect to privacy
 - develop privacy centred business models
- ICT becoming pervasive
 - => multiplication of privacy threats
- Respect the citizen's privacy
- Enable adequate user empowerment
- Missing incentives & possibilities for the testing, piloting & deployment of innovative privacy solutions

Freedom and privacy in the digital society

- Technologies for the protection of private and personal data in cyberspace;
- Allow users to control their personal data and its use by third parties;
- Privacy-by-design frameworks and technologies;
- Ensure that privacy is not an add-on to products and services, but an integral element from its conception.
- Technology and processes that will ensure that people's behaviour in groups is not limited to or conditioned by real or suspected, unlawful searching and profiling on-line.



Cyber security and trustworthy digital societies

- State-of-the-art trust and security technology is not put-to-work due to
 - deficiencies in the innovation processes
 - lack of demand
 - sub-optimal investment
 - difficult integration of technologies
- Increase the level of cyber-security with interoperable solutions
 - with respect to an agreed, overall level of security
- Involve the end-users
 - develop tools to prevent user's devices from being compromised
- Combine R&D with "demand-side" measures
 - shorten time-to-market
 - ensure an organised pull and roll-out of innovation



Cyber security and trustworthy digital societies

- Secure & dependable networks, services & access devices achieving interoperability of multiple technologies;
- Prevention, detection & real-time management of cyber-incidents across multiple domains and jurisdictions;
- Protection systems for critical ICT & other networked infrastructures in case of accidental or deliberate disruptions;
- Secure and trustworthy cloud computing;
- Tools to detect and block illegal content & illegal data breaches & support investigations;
- Activities aiming to improve the uptake of security solutions by potential users.



Enhancing the societal relevance of the digital transition

- Mobilise digital social sciences and humanities to understand better the societal impacts of ICT deployment.
- Need for new concepts, referential frameworks, understandings and transcription of values and norms
- With a view to enhance societal benefits of ICT-related innovation

