

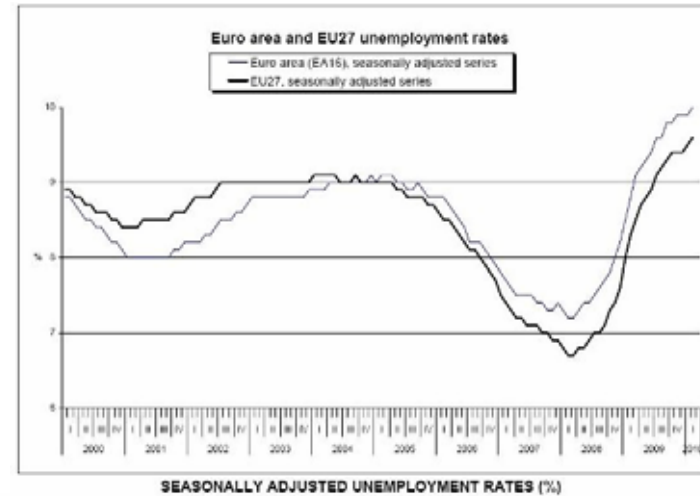


Transforming Production for the 21st Century

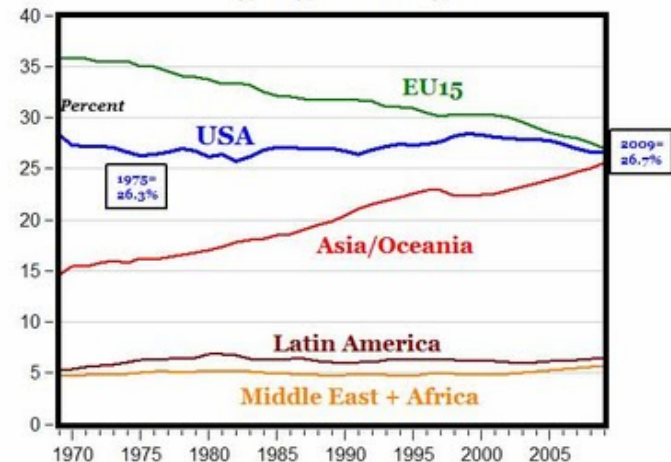


The Challenges

- Jobless recovery
- The marginalisation of Europe
- Societal challenges: Climate, Ageing, Energy,
- Massive demand but how to meet it?
- Focus on using information technologies to transform production of goods and services
- New markets with opportunities for high-quality jobs



Share of World GDP 1969-2009





Ambition to target ICT R&D to:

- generate low-cost market intelligence even for small niche markets
- enable low-cost direct communication with those markets
- transform the design, production and delivery of highly personalised, dynamic, goods and services that target such markets
- enable the creation of new techniques that create markets that meet the huge demand implicit in the Societal Challenges e.g. Ageing and Climate



Impact

- Realising the right to interesting, high-value jobs for all citizens of Europe.
- Sectors: wellness, climate, creative, ...
- Tackling Societal Challenges to create new markets using novel ICT-based approaches to the production of goods and services.
- Enabling entrepreneurs and SMEs by:
 - reducing entry costs to markets
 - facilitating the low-cost exploitation of niches in new and existing markets
- Make a measurable difference to European employment and GDP



Integration of:

- Data challenges: data intensive computing, modelling, instrumenting artifacts and environments, social signal processing, ...
- Organisational Challenges: structure of new responsive enterprises, usable business analytics and communication, risk analysis, trust,
- Production challenges: production of highly flexible real and virtual products that are highly personalised and integrated into the delivery organisation
- Governance Challenges: privacy, security, systems of systems issues, comprehensibility, trustability, transparency



Plausibility

- The Societal Challenges provide ideal pilot areas, for example dementia in ageing populations
- Treat the dementia challenge as a market:
 - Data Challenge: can we find niche markets in the population by analysing existing data streams (e.g. low tech sensors in housing – e.g. energy monitors).
 - Production Challenge: what new products and services fit in the niche markets (e.g. prompting)
 - Organisational Challenge: what organisational structures do we need to design, produce and deliver these products and services (e.g. mixed professional/volunteer orgs)
 - Governance Challenge: how to make this transparent and acceptable to people



Support

- We have a core group of five leading European research centres with deep interdisciplinary, commercial and business School engagements
- We believe that a highly coherent core group is essential to drive an open pilot development.
- The pilot will help us identify and recruit further centres of excellence and leading companies