Knowledge for Growth & Jobs:

Implementing a Systemic Policy Approach in the EU

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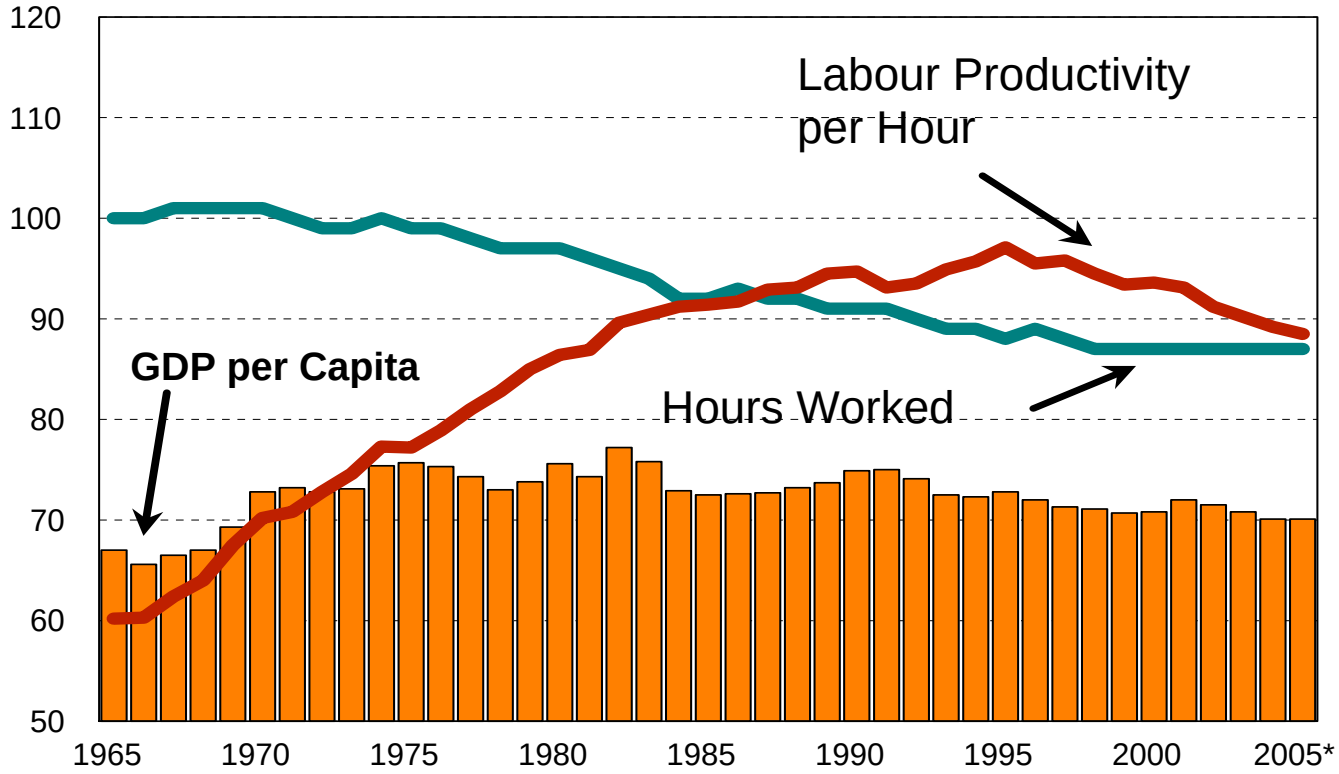
The link between Innovation and Economic Growth and Jobs is at the hart of the current Policy Debate in EU facing the challenges from techno-globalisation & aging

Diagnosing the problem: Relative productivity performance and innovative capacity

- The EU's relatively poor performance linked with its difficulty in re-orientating its economy towards the newer, high-tech, higher productivity, growth sectors
  - ICT as a high-tech, high growth sector
- Within sectors, the specific role played by the production and absorption of new technologies in explaining productivity growth differences?
  - ICT as a General Purpose Technology, stimulating innovation and growth in other sectors

The break in Hourly Labour Productivity Trend

EU-15 vs US (=100)



Source: EU Commission, AMECO database

The EU's structural productivity problem

"The post-1995 difference in EU-US productivity patterns are fundamentally driven by the USA's superiority in terms of its capacity to produce and absorb new technologies, most notably in the case of ICT." (ECFIN, Annual Review 2004)

From catching up to competing at the frontier:

in need of a new innovation-based framework for stimulating growth & jobs;

What explains cross country differences in R&D, innovation and its effects on Growth & Jobs?

Broader concept beyond R&D inputs :
National Innovation Capacity: ability to produce and commercialize a flow of innovative technology over the long term and to appropriate the benefits from this;

National Innovation Capacity

- Common Innovation Infrastructure: cross-cutting institutions, resources and policies
  - Existing Stock of Technological Know-how
  - Supporting Basic Research and Higher Education
  - Overall Science and Technology Policy
- Technology/Cluster Specific Conditions:
  - Technology specific know-how : specialized R&D personnel
  - Incentives for innovation : lead users, appropriation (IPR) and output market competition: (local) rivalry, openness
  - Presence of related/supporting industries (clusters)
- Quality of Links bt clusters & common factors
  - Industry-Science Relationships
  - Efficient labour & capital markets

Deficiencies in Innovative Capacity

- Capabilities failure (supply)
  - R&D investments (public/private)
  - Human Capital Stock (Education)
- Incentives/rewards – framework conditions failure
  - Fragmented product markets, capital markets, labour markets
    - IPR, standards&regulations, competition, lead markets, public procurement, ...
- Systems failure
  - Client/supplier networks
  - Public Private networks
    - Industry Science Links
  - Global networks

EU Policy Approach : a process of structural reforms

- Investments in knowledge-based economy
  - Invest in education and training
  - Invest in R&D and innovation
  - Encourage production and use of ICT
- Product Market Reforms:
  - Improve the functioning of the Internal Market for goods & services
  - Liberalisation of network industries
  - Opening up of markets (entry regulation..)
  - Improve the business environment (reduce regulatory burden, esp for start-ups
- Financial Market Reforms : Promote EU financial integration
  - FSAP, RCAP, enhancing comparability of companies fiancial statements, ...
- Labour market and social reforms
  - Improve incentives to participate and remain in the labou marke;Increase the labur market flexibility; modernatisation of social protection systems,Improve working conditions and skill levels

Mid-term diagnosis on the Lisbon Strategy and the European Knowledge Area: *not much progress*

Conclusions for EU policy?

- Improving productivity performances is crucial in the medium term to sustain EU standards of living
- Innovative capacity can boost employment and productivity at the same time
- There are structural weaknesses in the EU innovative capacity
- A systemic policy approach focusing on structural reforms can contribute to reduce this gap
- But this requires a better implementation of the Lisbon strategy: more focus, more systemic

Implications for STI policies : towards a truly systemic approach

- More attention to measures to enhance demand for innovation: competition, regulation, lead markets, standards, public procurement,
- More attention to improving (efficiency of) R&D resources: mainstraining innovation in EU budgets, leveraging private and MS spending...
- More attention to measures to enhace diffusion and absorption capacity
- More attention to different forms of innovation: complementary organisational innovations

Implications for STI policies : towards a truly systemic approach

- Enhancing horizontal policy coordination among policy areas *(education, R&D, eco-fin, competition policy,...)*
- Enhancing vertical policy coordination (EU-Member States-Regions)
  - EU direct: Single Market Program, Competition Policy (incl State aid), Funding from FP, stuctural...
  - EU indirect: coordination, monitoring, stimulating National Action Plans
- Improving the policy process: monitoring and evaluation

Evaluation of indicators & targets

- Wide set of structural indicators and targets to link knowledge area to productivity and employment as well as to product markets, financial markets, labour markets
- Wide set of indicators for the knowledge area (combination of creative, diffusion and absorptive capacity)
  - Areas of indicators which are important and relatively well covered
    - human & social capital
    - ICT diffusion/production
    - Financing of innovation
  - Areas of indicators which are important and not well covered
    - ISL
- High level of aggregation of indicators
  - Sectoral dimension
  - Regional dimension
- Evaluate indicators & targets as a system
  - Note: this is not what current composite indicators are doing