

- Introduction to JRC and the IPTS
- IPTS Policy and Business Areas
- IPTS Delivery
- JRC Strategy 2010-2020 and IPTS' Positioning
- Summary

7 Institutes on 5 sites \cong 2750 staff \cong 340 M€/y direct from FP7 + 60 M€ earned income



IE – Petten, The Netherlands
Institute for Energy
Director: Giovanni de Santi



IRMM – Geel, Belgium
Institute for Reference Materials and Measurements
Director: Krzysztof Maruszewski



ITU – Karlsruhe, Germany
Institute for Transuranium Elements
Director: Thomas Fanghänel



IES/ IHCP/ IPSC – Ispra, Italy
Institute for Environment and Sustainability
Director: Leen Hordijk
Institute for Health and Consumer Protection
Director: Elke Anklam
Institute for the Protection and Security of the Citizen
Director: Stephan Lechner



IPTS – Sevilla, Spain
Institute for Prospective Technological Studies
Director: John Bensted-Smith



IPTS came to Sevilla in 1994

- to engage in future-oriented studies concerning new and emerging technologies, hence the title “prospective technological studies”

IPTS has evolved into a **Policy Studies Institute**

- providing economic and policy research and analysis needed to support evidence-based EU policy making
 - especially in the frame of the Lisbon/Europe 2020 Agenda
- our research tools are increasingly focused on quantitative economics
 - i.e. economic and market modelling, econometrics, input/output accounting, scenario analysis, uncertainty/sensitivity analysis, cost benefit analysis,...

Knowledge for growth (~25% of our research effort)

focusing on policies to build a Knowledge Economy, especially research policy, and its interfaces with related policies, notably innovation, education and regional development

Information society (~20%)

focusing on policies to create a Digital Economy and to stimulate more widely the take-up of ICTs in society

Agriculture and rural development (~20%)

focusing on the economic and social pillars of agriculture and rural development policies

Sustainable production and consumption (~20%)

focusing on the techno-economics of sustainable industry policies and on the Green Economy

Climate change, energy and transport (~15%)

focusing on the economics of climate change, energy and transport policies and on policies to build a Low-Carbon

Conducting policy studies

- currently ~45% of our business

Providing policy intelligence platforms

- currently ~15% of our business

Managing techno-economic bureaux

- currently ~15% of our business

Building a Reference Centre for Economic Modelling

- currently ~25% of our business (and growing)

Policy studies support all parts of the policy cycle

- e.g. anticipation, analysis of policy options, ex-ante impact assessment, monitoring implementation and compliance, ex-post evaluation, ...

Studies usually involve multidisciplinary teams

- around half the research staff are economists, econometricians and social scientists; the other half are essentially natural scientists and engineers

Recent examples

- What should be the focus of policies, if we want “greener” buildings, “greener” cars, ...?
- Can e-Health substantially contribute to reducing our growing health budgets?
- Does Europe have the energy research capacity it needs to achieve its Strategic Energy Technology (SET) -plan objectives?
- How can we fully harness ICTs to facilitate "active ageing" in Europe?
- What lessons can we draw from the diversity and specialisation of the research systems in the different Member States?

Provision of relevant, reliable and up-to-date information

- Evidence-based policy-making is often hampered by a lack of relevant, reliable and up-to-date information, that is structured and readily accessible
- “intelligence” platforms are designed to meet that need

Examples of IPTS intelligence platforms

- *Scoreboard* of Industrial Research Investment. Annually analyses the performance of the world’s top corporate investors in R&D
- *PREDICT*. Annually maps and analyses investment in R&D by Europe’s ICT industry, benchmarking it against the US
- *ERAWATCH*. A web-based service to provide regularly updated policy-relevant information on the research systems of Member States, Associated States, and competitor countries

Support to the implementation of primary legislation at the EU-level

- Particularly in the environmental field, there is a trend towards legislation that enforces environmental limits by MS to evolve as the technologies and the economics progress, e.g. Integrated Pollution Prevention & Control (IPPC) Directive
- For this type of legislation to work, independent techno-economic facilitators (the “bureaux”) are essential to manage the consensus-building process between key stakeholders from all MS (*the “Sevilla process”*) that is the centrepiece of this type of legislation

IPTS techno-economic bureaux

- The European IPPC Bureau (*since 1997*)
- The European Co-Existence Bureau (*since 2007*)
- The Environmental Management & Audit Scheme Bureau (currently being set up)
- The Ecolabel Bureau and the Eco-Design Bureau (planned for 2011)

Economic models

- Economic models are increasingly necessary for the Commission to help prepare and justify policy initiatives, and later to evaluate them.
- However, many Commission Services found themselves becoming uncomfortably dependent on external consultants and approached the JRC to provide them with a *secure, independent, impartial, confidential, scientifically transparent* and *robust* in-house modelling service

IPTS is establishing itself as a Reference Centre for Economic Modelling

- agriculture economics, climate change economics, energy economics, transport economics (→ well advanced)
- environmental economics, regional development economics (→ under development)
- knowledge economy, digital economy (→ at an early stage)

Sustainable Growth
and Development

Safety and
Security

IPTS Focus

Towards an open and
competitive economy



Nuclear safety
and security



Safety of food and
consumer products



Joint Research Centre
2010-2020 strategy

Development of a
low carbon society



Sustainable management
of natural resources



Reference materials
and measurements



Security and
crisis management



Sustainable Growth and Development

TA1

Towards an open and competitive economy

by contributing to the goals of Europe 2020 Strategy and by providing integrated socio-economic and policy support on macro-economic policies, structural reform agenda, employment, education and skills agenda

TA2

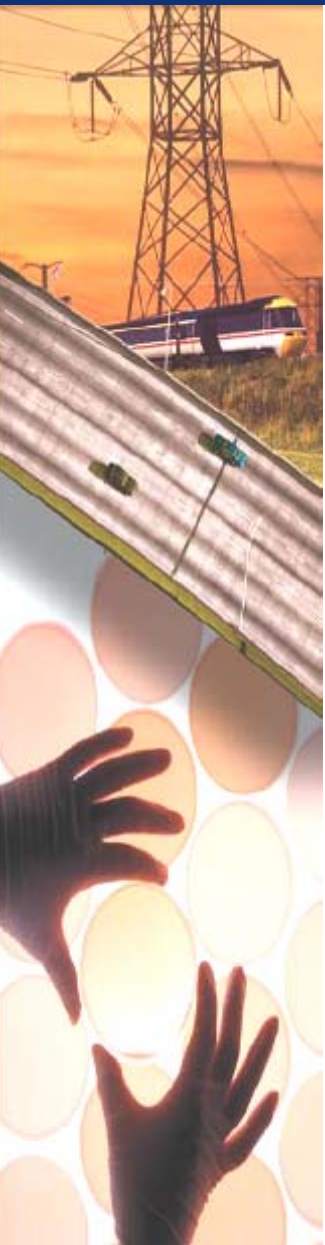
Development of a low carbon society

by addressing energy, transport, clean production technologies and consumption patterns, issues that will be pivotal to the progressive transition of the EU towards a 'low carbon society'

TA3

Sustainable management of natural resources

by addressing issues related to the sustainable management and use of strategic resources such as food, water, air, minerals and land and thereby improve the knowledge of the functioning of the complex atmosphere-hydrosphere-biosphere-pedosphere system



Safety and Security

TA4

Safety of food and consumer products

by contributing to the development of European legislation on safety of food and feed, and on other new consumer products (e.g. containing chemicals and nanomaterials).

TA5

Nuclear safety and security

by providing independent and reliable S&T assessment in the nuclear field on nuclear safety, safety of new generation of reactor technologies, and nuclear safeguards and non-proliferation

TA6

Security and crisis management

by contributing to the development of new technological approaches to enhance the security of citizens, including support to crisis management.

Thematic horizontal activities

TA7

Reference materials and measurements

by maintaining a strong reference role in the area of standards and reference measurements



Headline Targets

- Raise the employment rate of the population aged 20-64 from the current 69% to at least 75%.
- Achieve the target of investing 3% of GDP in R&D in particular by improving the conditions for R&D investment by the private sector, and develop a new indicator to track innovation.
- Reduce greenhouse gas emissions by at least 20% compared to 1990 levels or by 30% if the conditions are right, increase the share of renewable energy in our final energy consumption to 20%, and achieve a 20% increase in energy efficiency.
- Reduce the share of early school leavers to 10% from the current 15% and increase the share of the population aged 30-34 having completed tertiary education from 31% to at least 40%.
- Reduce the number of Europeans living below national poverty lines by 25%, lifting 20 million people out of poverty.

SMART GROWTH	SUSTAINABLE GROWTH	INCLUSIVE GROWTH
<p><i>INNOVATION</i></p> <p>Strengthen the innovation chain and boost levels of investment throughout the Union by</p> <ul style="list-style-type: none"> -improving framework conditions -improving access to finance for research and innovation. 	<p><i>RESOURCE EFFICIENT EUROPE</i></p> <p><i>CLIMATE, ENERGY AND MOBILITY</i></p> <ul style="list-style-type: none"> - Fighting climate change and environmental degradation - Decouple economic growth from the use of resources, by decarbonising our economy - Increase the use of renewable sources - Modernise our transport sector, sustainable mobility - Promote energy efficiency. - Ensure sustainable, productive and competitive agriculture and fisheries. 	<p><i>EMPLOYMENT AND SKILLS</i></p> <p>Modernise labour markets by facilitating labour mobility and the development of skills throughout the lifecycle with a view to increase labour participation and better match labour supply and demand.</p>
<p><i>EDUCATION</i></p> <ul style="list-style-type: none"> - Enhance the performance of education systems - Reinforce the international attractiveness of Europe's higher education 	<p><i>COMPETITIVENESS</i></p> <ul style="list-style-type: none"> - Improve the business environment, especially for SMEs - Support the development of a strong and sustainable industrial base able to compete globally. 	<p><i>FIGHTING POVERTY</i></p> <p>Ensure social and territorial cohesion such that the benefits of growth and jobs are widely shared and people experiencing poverty and social exclusion are enabled to live in dignity and take an active part in society.</p>
<p><i>DIGITAL SOCIETY</i></p> <ul style="list-style-type: none"> - Speed up the roll-out of high-speed internet - Reap the benefits of a digital single market for households and firms. 		

Thematic Area 1 « Towards an open and competitive economy »

Provides economic and policy analysis, including indicator development, to EU2020 flagship initiatives

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Achieve the target of investing 3% of GDP in R&D:

- Developing a new indicator to track innovation

• ...

Digital Society

- options to establish a electronic ID infrastructure

• ...

Employment targets

- analysing the best conditions for R&D investment by the private sector,

• ...

20% / 20% / 20% target

- Modelling best Transport mix

• ...

Reduce the share of early school leavers

- best practices for eSkills
- indicators for life-long learning

• ...

- Provide support to customer-driven requests for research and analysis in key policy areas, including in sector-related EU legislation.
- Strengthen and organise economic and policy analysis competences inside JRC to ensure integrated solutions.
- Integration around modelling competences and platforms.
- Anticipate societal challenges and policy needs through proactive forward-looking activities.
- Strive for scientific excellence.