INNOVATION IN THE GROWTH STRATEGY OF THE EUROPE 2020

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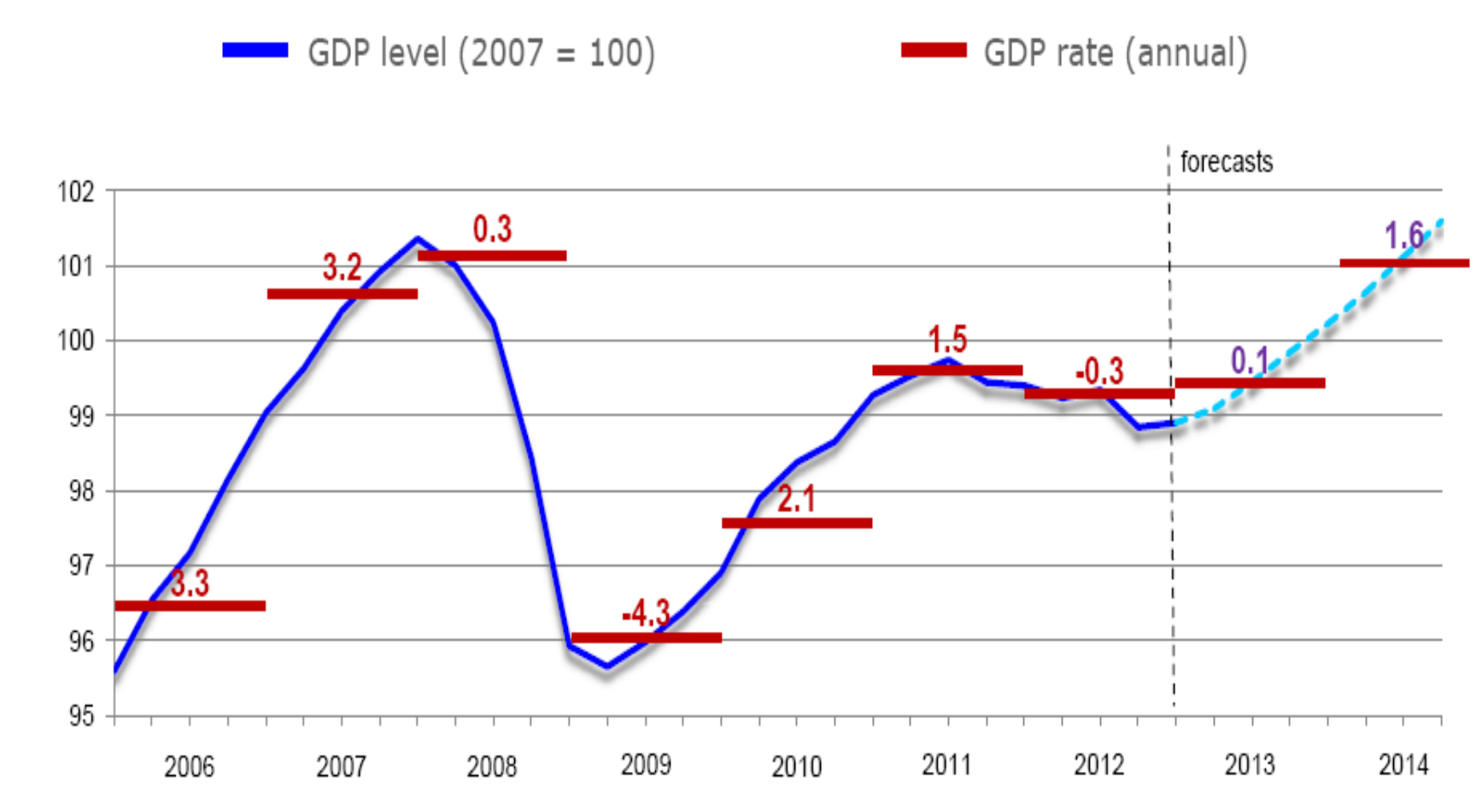
Introduction

- Europe 2020 and the Innovation Union initiative have clearly signalled the EU's intention to rise to the challenge.
- Europe 2020 focuses on achieving smart growth,
- while the Innovation Union sets out measures to contribute to this aim,
- including increasing investment,
- refocusing R&D and innovation policy on major societal challenges,
- and strengthening the links from frontier research right through to commercialisation.
- In addition, the European Council has market for knowledge, research and innovation.
- A key challenge for the EU will be to build a next-generation expenditure programme
- in both its budget and its aspirations.

GDP trends in the EU level



Share of GDP on R&D

Share of GDP on R&D

EU: 2%

USA: 2,8%

Japan: 3,4%

UE target = 3% in 2020

Current national targets only 2,7-2,8%

In net spending. China will spend more than the EU in 2014

Share of persons aged 25-34with a university degree:

EU: 34%

US: 42%

Japan: 55%

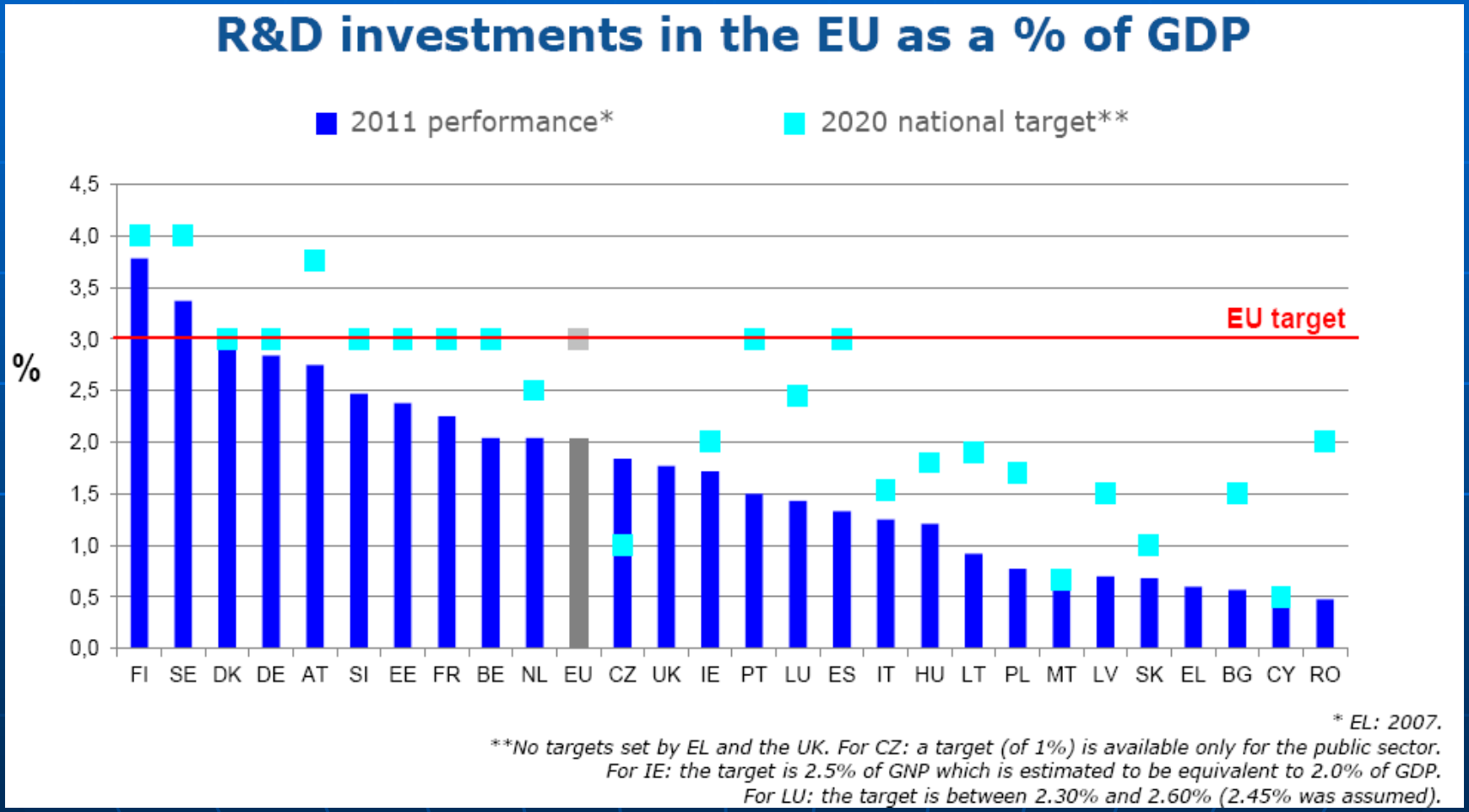
Competitiveness index 2012-2013

Global competitiveness index 2012-2013

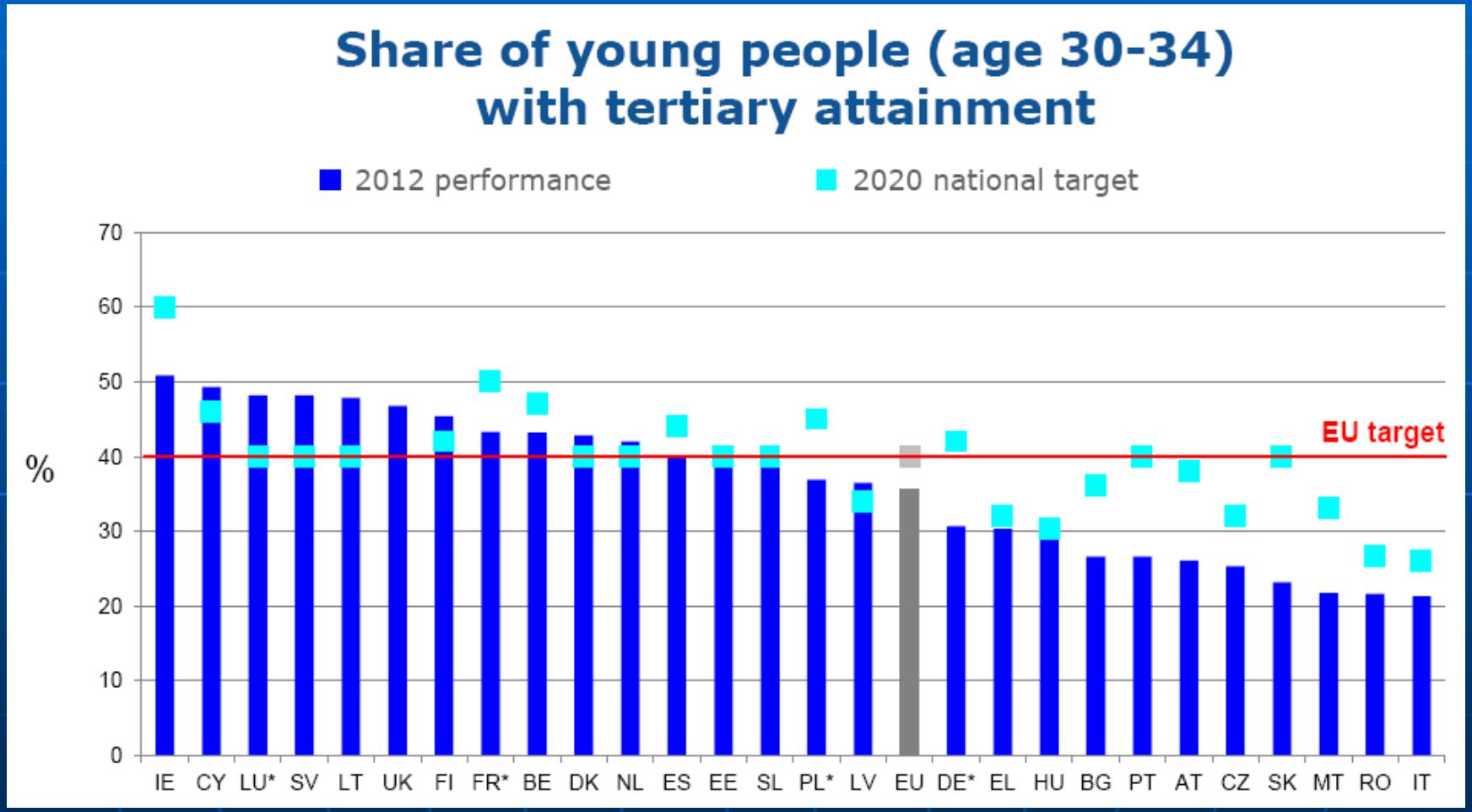
Rank	Country
1	Switzerland
2	Singapore
3	Finland
4	Sweden
5	Netherlands
6	Germany
7	United States
8	United Kingdom
9	Hong Kong SAR
10	Japan
12	Denmark
16	Austria
17	Belgium
21	France
22	Luxembourg
27	Ireland
34	Estonia

Rank	Country
36	Spain
39	Czech Republic
41	Poland
42	Italy
45	Lithuania
47	Malta
49	Portugal
55	Latvia
56	Slovenia
58	Cyprus
60	Hungary
62	Bulgaria
71	Slovak Republic
78	Romania
81	Croatia
96	Greece

R&D investments in the EU as a % of GDP



Education of young people (age 30-34)



Innovation system in creation of national competitiveness and at the level of the region

- Innovation systems are tested at various levels.
- The majority of analyses are conducted on national innovation systems,
- Affect the distinctness of the innovation process in companies.
- Huge role in increasing productivity is ascribed to human capital and knowledge.
- European Union have demonstrated that the innovation system occurs at the level of the region than the country.
- The European regions is a high degree of innovation.
- In recent years to research the regional innovation system
- Own policy and proinnovation strategy of the region.
- Importance of the regional level for innovation process.

Innovation system and innovation process

- The new nature of the innovation process makes it necessary also the law.
- It is important that companies must obtain a permit for a consortium.
- The basic traditional method are the transactional links based on the market.
- The increasingly frequent are non-market links,
- The cooperation shows increasingly popular concepts of networks and clusters
- and innovation systems, among both researchers and politicians.

Innovation system and innovation process

- An efficient innovation system - the proper linkages between science and industry.
- Greater adjustment of research and methods of education to the needs of the economy.
- The scientific and technical policies of the countries moving towards the knowledge based economy
- favour the linkage between universities and industry,
- The science sector should fall within the network of links with local, regional, national and foreign partners.
- The boundaries between institutions shall disappear,
- and the entire system becomes more dynamic.
- The national policy can affect the science sector more than companies,
- Stronger links between science and industry can be inspired by the reform of the educational system

Constructed advantage

- **Comparative Advantage** –
- Regions have been a focus for economists who viewed them through the lens of development economics usually set in a framework of comparative advantage.
- **Competitive Advantage –**
- Thus countries with a large labour supply would naturally export goods that were labour-intensive (e.g., China), while countries that were technologically advantaged (e.g., the United States) produced and exported technologically advanced products.
- **Constructed Advantage –**
- The analytic observations of the two preceding perspectives do not embrace the new dynamics of innovation and the capacity to exploit them which are essential to growth.

Constructed advantage

- This knowledge-based construction requires interfacing developments in various directions:
- **Economy**
- **Governance**
- **Knowledge Infrastructure**
- **Community and culture**

The Triple Helix model

- An innovation system can be defined at the national level, at the regional level, or in terms of a dynamic model like the Triple Helix of university-industry-government relations.

- In the Triple Helix model constructed advantages have been conceptualized as the surplus value of an overlay of relations among the three components of a knowledge-based economy:
- (1) the knowledge-producing sector (science),
- (2) the market,
- (3) governments.

- Those places with research universities witness a growing demand for knowledge transfer to industry and, through government, to society.

Innovation Union

- Europe's structural innovation gap: compared to its competitors.
- Europe's patenting performance is weak and it lags behind in developing new products, new processes and new services.
- To boost productivity and growth, is critically important to
- translate technologies into new products, processes and services.
- Europe has taken an early technological lead in many key technology areas,
- but it has not translated into an innovative and competitive lead.
- European policy is needed for bridging the "valley of death" if Europe is to remain competitive.

Innovation Union

- This key driver is underpinned by the following structural problem drivers:
- **Insufficient contribution of research and innovation to tackling societal challenges**
- **Insufficient technological leadership and innovation capability of firms**
- **The need to strengthen the science base**
- **Insufficient cross-border coordination**
- The EU recognizes the urgency of the situation, and is responding with new policy strategies.

Europe 2020 strategy

- In the second decade of the 21st century,
- on the backdrop of a changing world order,
- Europe faces a series of crucial challenges:
- low growth,
- insufficient innovation,
- diverse set of environmental
- social challenges.
- Europe 2020,
- the EU's comprehensive long-term strategy,
- recognizes these challenges
- and argues that Europe faces a moment of transformation.

Europe 2020 strategy

- To restore confidence and return to growth, it is essential that Member States maintain the reform momentum, and for this reason the Commission recommends focusing on the same five priorities that were identified in last year's Survey:

- **Pursuing differentiated, growth-friendly fiscal consolidation**
- **Restoring normal lending to the economy**
- **Promoting growth and competitiveness for today and tomorrow**
- **Tackling unemployment and the social consequences of the crisis**
- **Modernising public administration**

Horizon 2020

- Horizon 2020 is the financial instrument implementing the Innovation Union a Europe 2020
- flagship initiative aimed at securing Europe's global competitiveness.
- Running from 2014 to 2020 with a budget of just over €70 billion,
- the EU's new programme for research and innovation
- is part of the drive to create new growth and jobs in Europe.
- Horizon 2020 will combine all research and innovation funding currently provided through:
- the Framework Programmes for Research and Technical Development,
- the innovation related activities of the Competitiveness and Innovation Framework Programme (CIP)
- and the European Institute of Innovation and Technology (EIT).

Horizon 2020

- The proposed support for research and innovation under Horizon 2020 will:
- Strengthen the EU's position in science with a dedicated budget of € 24 341 million.
- This will provide a boost to top-level research in Europe, including the very successful European Research Council (ERC).
- Strengthen industrial leadership in innovation € 17 015 million.
- This includes major investment in key technologies, greater access to capital and support for SMEs.
- Provide € 30 956 million to help address major concerns shared by all Europeans
- such as climate change, developing sustainable transport and mobility,
- making renewable energy more affordable, ensuring food safety and security, or coping with the challenge of an ageing population.

Horizon 2020

- Horizon 2020 will tackle societal challenges by helping
- to bridge the gap between research and the market.
- Through a new strategy, a strategic and coherent approach
- to international cooperation will be ensured.
- Horizon 2020 will be complemented by further measures to complete
- and develop the European Research Area by 2014.
- This measures will aim at breaking down barriers
- to create a genuine single market
- for knowledge, research and innovation

Horizon 2020

- It take into account some key parameters set out in the EU budget review:
- the need to focus on instruments with proven European added value,
- to develop a more results-driven approach,
- to leverage other public and private funding,
- to design EU instruments that work together in a single strategic framework.

Horizon 2020

- **This Impact Assessment considers four policy options:**
- ***Business-as-usual (BAU): maintaining the current plurality of programmes for R&D and innovation;***
- ***Improved business-as-usual: loose integration and stand-alone simplification (BAU+);***
- ***Horizon 2020 - Establishing a single strategic framework for Research and Innovation;***
- ***Bring to an end EU level R&D financing and re-nationalise R&D and innovation policies.***

Horizon 2020

- The four policy options were compared along a range of key parameters relevant to assessing public intervention in research and innovation:

- clarity of focus of the intervention
- quality of the intervention logic
- extent to which the intervention achieves critical mass at both programme and project level
- extent of flexibility associated with the intervention
- extent to which it promotes excellence
- accessibility and reach
- degree of stakeholder support
- impact on SMEs
- extent to which the intervention promotes knowledge triangle and broader horizontal policy coordination
- impacts of the intervention – structuring, leverage, innovation, economic and competitiveness, social, environmental, and EU policy impacts
- cost-effectiveness

Horizon 2020

Quantifying economic, competitiveness and social impacts

The enhanced scientific, technological and innovation impacts produced by Horizon 2020 should translate into larger downstream economic and competitiveness impacts. It is estimated that by 2030 it could generate the following impacts over and above the BAU option:

- Horizon 2020 will stimulate Europe's economic growth, generating 0.53 percent of extra GDP.
- It will also enhance Europe's competitiveness, increasing its exports by 0.79 percent, and reducing its imports by 0.1 percent.
- It will create jobs for Europe's citizens, increasing employment by 0.21 percent.

Under the renationalisation and discontinuation options, the effects would be weaker compared with the BAU option by 2030:

- Renationalisation would reduce GDP by 0.04 percent, cut 0.06 percent off exports, have no effect for imports, but would lead to a job loss of 0.01 percent.
- Discontinuation would shave 0.39 percent off GDP, decrease exports by 0.58 percent, and raise imports by 0.05 percent, while producing job losses of 0.19 percent.

Comparing the positive effects of the Horizon 2020 option with the negative effects of the discontinuation option demonstrates its true added value:

- By 2030, it is expected to generate an extra 0.92 percent (0.53+0.39) of GDP, 1.37 percent (0.79+0.58) of exports, -0.15 percent (0.10+0.05) of imports, and 0.40 (0.21+0.19) percent of employment.

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Thank you very much for your attention