

Information on Spain regarding innovation

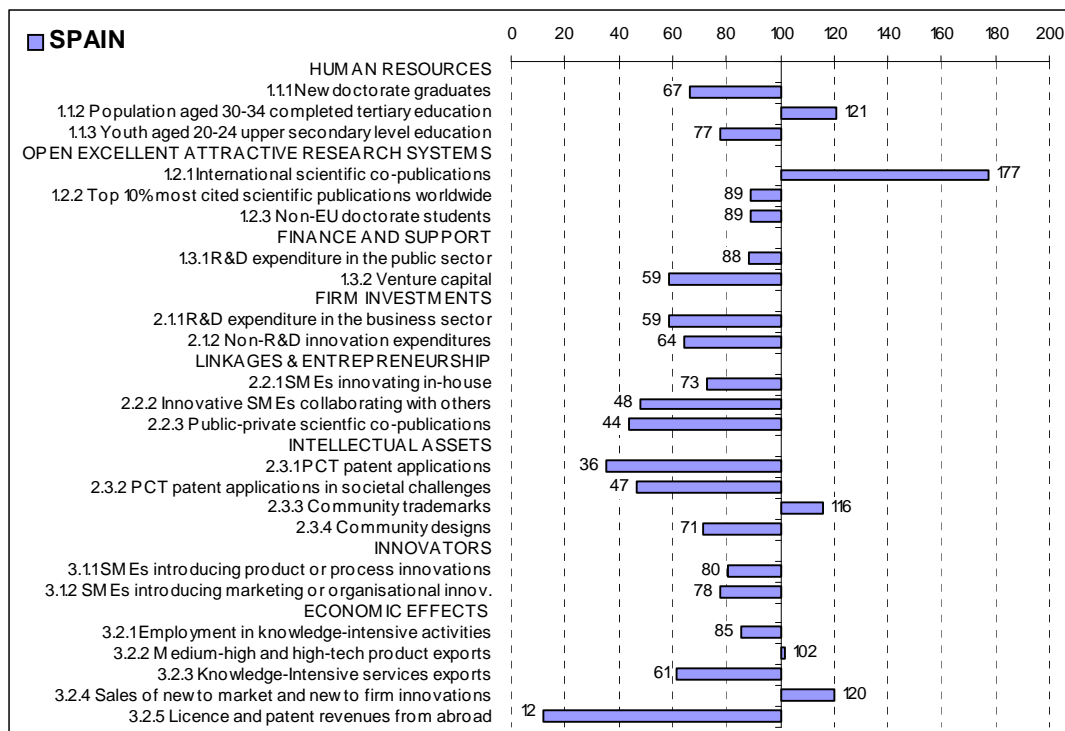
A personal short-hand summary: In comparison with the other EU countries, Spain ranks as follows:

- Human resources: place 24 = 4th worst. however there is at least a growth for new doctorate graduates, and people with aged 30-34 who completed tertiary education
- Open, excellent and attractive research systems: 12 (just above the EU average). Quite strong growth in international scientific co-publication.
- Finance and support: 14 (below EU average). Some improvements in the R&D investment in the public sector
- Firm investments: 24 (fourth from the bottom). At least there is a robust increase for Non-R&D innovation expenditure (partially offset by a slight decrease for R&D expenditure)
- Linkages & entrepreneurship: 19 (below EU average), and worsening in-house innovation by SMEs and collaboration with others
- Intellectual assets: 15 = patenting is still not enough strong and growing very slowly
- Innovators: 18. the number SMEs seem to introduce number of product innovations is also decreasing
- Economic effects: 19, insufficient (and worsening) performance in licence and patent revenues from abroad.

1. Innovation Union Scoreboard 2011

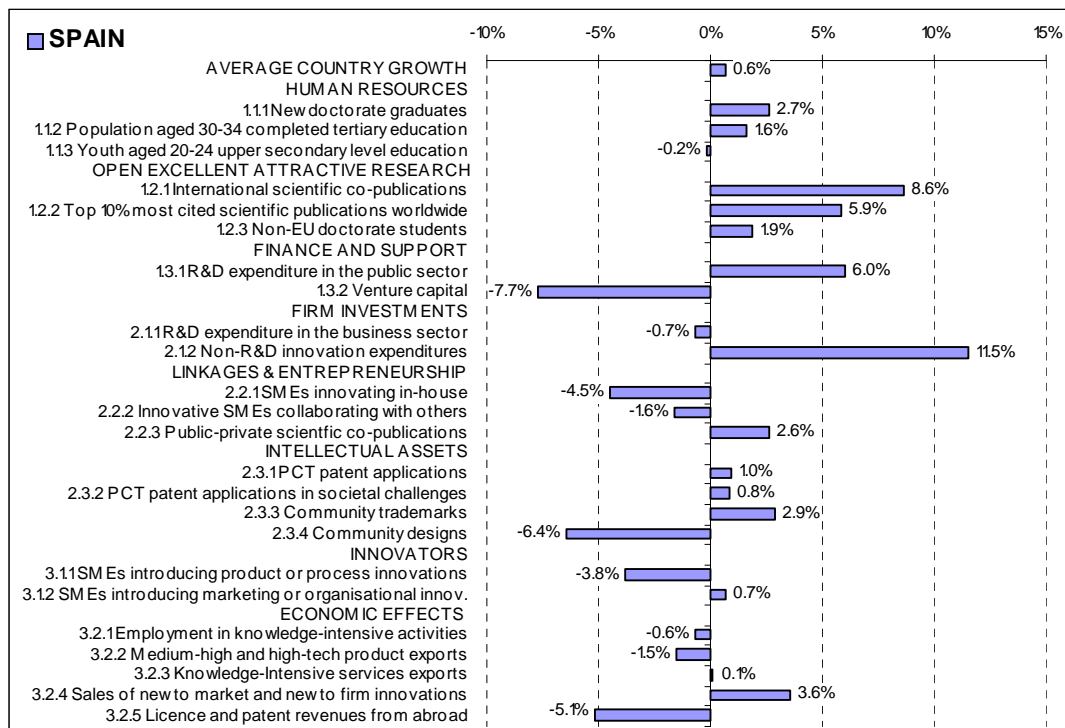
Spain is one of the moderate innovators with a below average performance.

Relative strengths are in Open, excellent and attractive research systems (in particular international scientific co-publications) Finance and support and Economic effects (except on License and patent revenues from abroad). Relative weaknesses are in Firm investments, Linkages & entrepreneurship and Innovators.



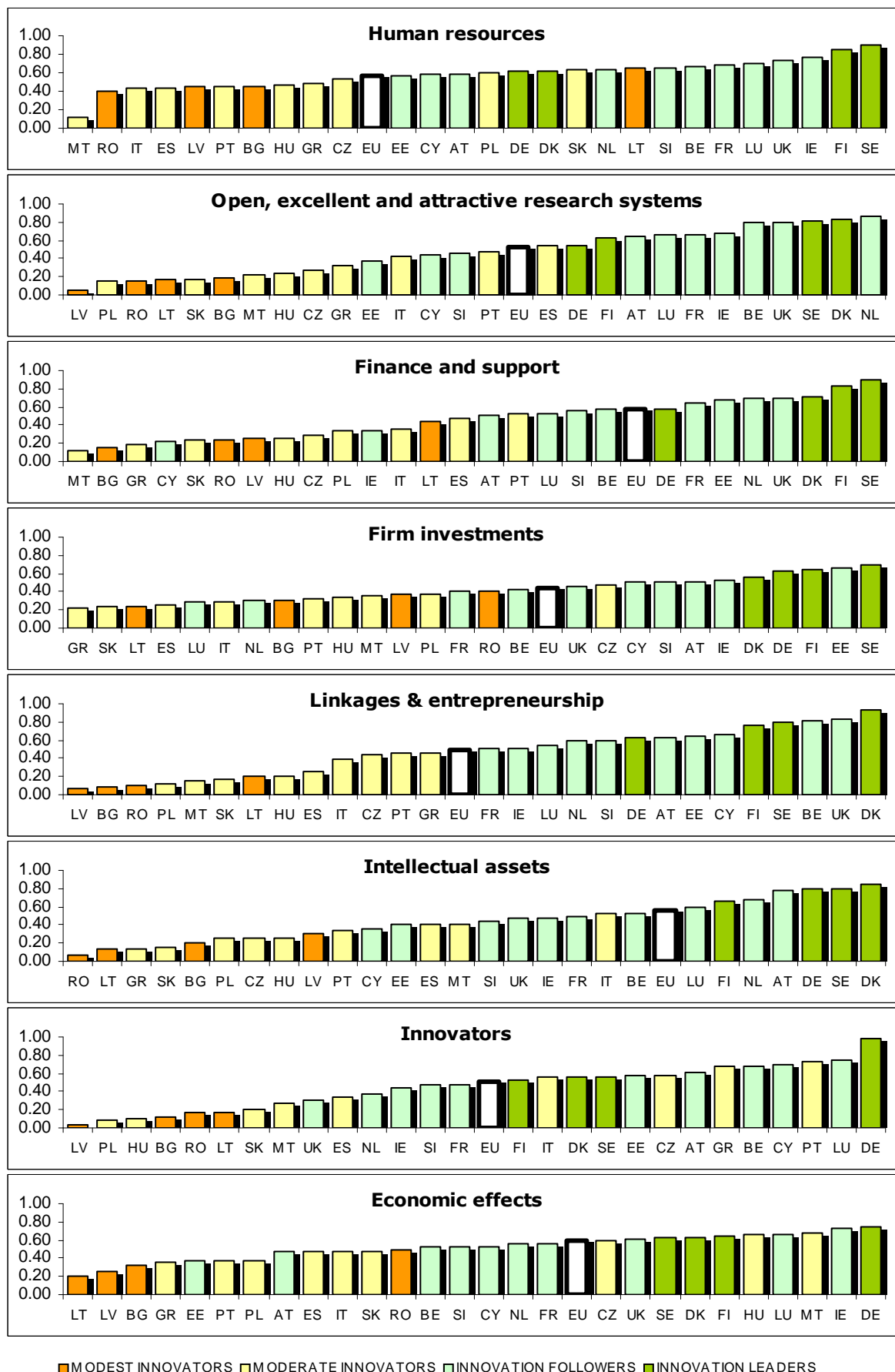
Indicator values relative to the EU27 (EU27=100).

High growth is observed for International scientific co-publications and Non-R&D innovation expenditure. The strongest decline is observed for Venture capital and Community designs. Growth performance in Open, excellent and attractive research systems and Firm investments is well above average.



Annual average growth per indicator and average country growth

MEMBER STATES' INNOVATION PERFORMANCE PER DIMENSION



2. Innovation **Policy** TrendChart Mini reports:

(see: <http://www.proinno-europe.eu/inno-policy-trendchart/page/innovation-policy-trends>)

In relation to the policy mix a first important change –in 2010-2011 - was the approval of the Spanish Innovation Strategy 2010-2015 (E2i-Strategy approved in June 2009) as part of the European ERA 2020 Vision. It reinforced some existing measures, especially the funds for risk capital and the support for public private cooperation, and introduced for the first time an innovation-based public procurement policy.

On the other hand, the strategy of the second phase of the Plan AVANZA 2 (2011-2015) focused on the diffusion of Information and Communication Technologies (ICT) by firms (market players) and users (consumers) in order to contribute to the economic recovery of Spain. Spanish R&D and innovation policies are increasingly attentive to the need for solutions to major societal challenges and the contribution to sustainable development.

One of the key challenges of the Spanish innovation system is the lack of coordination and integration of policies for research and education with innovation policies. Such integration is lacking because of the academic orientation of public research and the lack of influence of the private sector on education plans. Therefore a large part of the activities of the higher educational institutes (HEI) and public research organisations (PRO) are not based on societal needs or demand in the production sector, but, rather correspond to the interest of the researchers of this subsystem.

Although (in the period before the crisis) Spain clearly improved its policy mix with a huge set of differentiated instruments that try to tackle the barriers and weaknesses of the Spanish innovation system, there are still missing tools – such as more emphasis would be needed on instruments to attract foreign R&D or to create new innovative firms in traditional sectors.

The Spanish government and political parties consider R&D and innovation as a main driver for the future competitiveness of Spain and as a solution to overcome the current crisis. Therefore the reduction of the GBAORD in the last 3 years was almost non existent or below the average cut in government expenditures. Only in 2011 was a real cut (-7.2%) applied while in 2009 it had increased and in 2010 a very small decrease could be observed. Despite this reduction of the GBAORD in 2011, the funds related to the R&D and innovation policy instruments increased in 2010 and 2011 by 21% and 29% respectively. This means that the cut in the GBAORD especially affects direct public R&D expenditures such as the block funding for Public Research Organisations and Universities or other direct R&D expenditures of the Ministries.

However, to have a more correct interpretation of changes in the budget, the weight of the loans versus subventions should be analysed. In the period 2008-2009 the subventions represented 53-54% of the total budget while this percentage fell to 36 and 24 percent respectively in 2010-2011. Therefore the real long term costs (or budget) of the policies is probably much lower than in the period 2001-2009. Moreover the incentive power of loans is not the same as the support in form of subsidies.

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Spanish R&D and innovation policies are paying more attention to major societal challenges and the contribution to sustainable development. . The National Plan for R&D and innovation and the new E2i-Strategy partially focus on sustainable development and societal challenges. Moreover the Spanish

Parliament approved in March 2011 the new Law on Sustainable Economy which includes the promotion of the new technologies related to the societal challenges such as clean energy and biotechnology. Both objectives –sustainable growth and structural change- are considered to be complementary because technological progress to solve societal problems could generate new high tech enterprises. Therefore this new Law promotes a mentioned structural change, one of the mayor challenges of the Spanish economic recovery and long term growth.

The governance structure of the R&D and innovation policies will change in the near future. Spain approved a new Law on Science, Technology and Innovation (June 2011). This Law will be fully implemented in the 2012. This Law replaces the Law of Science of 1986. An important novelty of the new Law is its inclusion of the terms “technology and innovation” aimed at the integration of those types of activities with scientific research.

Demand-side policies as an option for the promotion of R&D and innovation are an important topic of discussion of Spanish policy arena. However, its use is still very limited. Until now only one instrument has existed on a state level. Public procurement as an innovation policy instrument was included for the first time in the State Strategy for Innovation (e2i), although its implementation started (partially) in 2010. Four innovative markets, albeit not exclusively, have been identified as priorities by the e2i strategy: Health and Welfare Economy, Green Economy, Science Industry and modernisation of the Administration. Moreover, information and communication technologies are also considered for support of IBPP as a horizontal industry that is of strategic importance and with a great impact on the rest of sectors. This new policy instrument will improve the quality and efficiency of the goods and services used by the public administration and therefore also the efficiency of the public sector and their public services. It also implies an indirect way to support the firms in their internationalization strategy by using the IBPP local or national market as a springboard. Moreover it accomplishes also some of the objectives of the Law of Economic Sustainability that foresee preferential acquisition of innovative goods and services in specific “green” areas.