



*MEDIR LA INNOVACIÓN:
NUEVA EVIDENCIA, NUEVOS DESAFÍOS
Y LA CONTRIBUCIÓN DE INICIATIVAS
REGIONALES A LA EVOLUCIÓN DEL
MANUAL DE OSLO*

RICYT Conference, 10 October 2013

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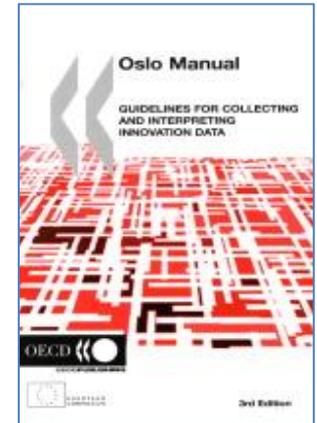
THE OSLO MANUAL





Measuring innovation in firms: The Oslo Manual

- First edition in 1992 (TPP innovation in manuf.). Academics and statisticians.
- Provides conceptual framework for collection of stat data and the analysis of innovation in firms
- Built on economic framework (elements from Schumpeter, systems of innovation), subject approach, creation and diffusion of knowledge
- Co-managed with Eurostat since the 2nd edition (1997), developed and reviewed through peer process (NESTI + ESTAT WP STI)
- Provides definitions and recommendations for developing surveys, but not a survey template or list of indicators
- Latest revision: expansion to “non-technological” innovation (org + mkt), innovation linkages, Annex on developing countries





NEW (AND ON-GOING) CHALLENGES



A tentative and personal balance after nearly 20 years of innovation indicators

- Remarkable degree of international adoption of the standard...
- ...in multiple forms...
- Plenty of valuable insights on nature of innovation
- Concerns about use for international benchmarking – degree of policy use?
- Beyond indicators - strong use for analytical purposes
- Unable to present robust input measures to encourage use by mainstream economists
- Data linking agenda still to be fulfilled



Some “Old” and “New” areas of interest

- Measuring investment in intellectual capital
- The role of design in innovation
- Knowledge flows for innovation, e.g. outbound knowledge flows, people.
- The adaptability of the Oslo framework to innovation within the public sector
- The role of user driven innovation
- The role of government in the demand for innovation
- The transformation of innovation systems



Expectations from policy makers

“...we invite the OECD to develop in a fully inclusive, open and accountable way in cooperation with relevant international organizations measurements of **innovation performance**, *focusing on concrete impacts on growth and jobs rather than inputs and investigating the systemic relationship between indicators.*”



NEW EVIDENCE



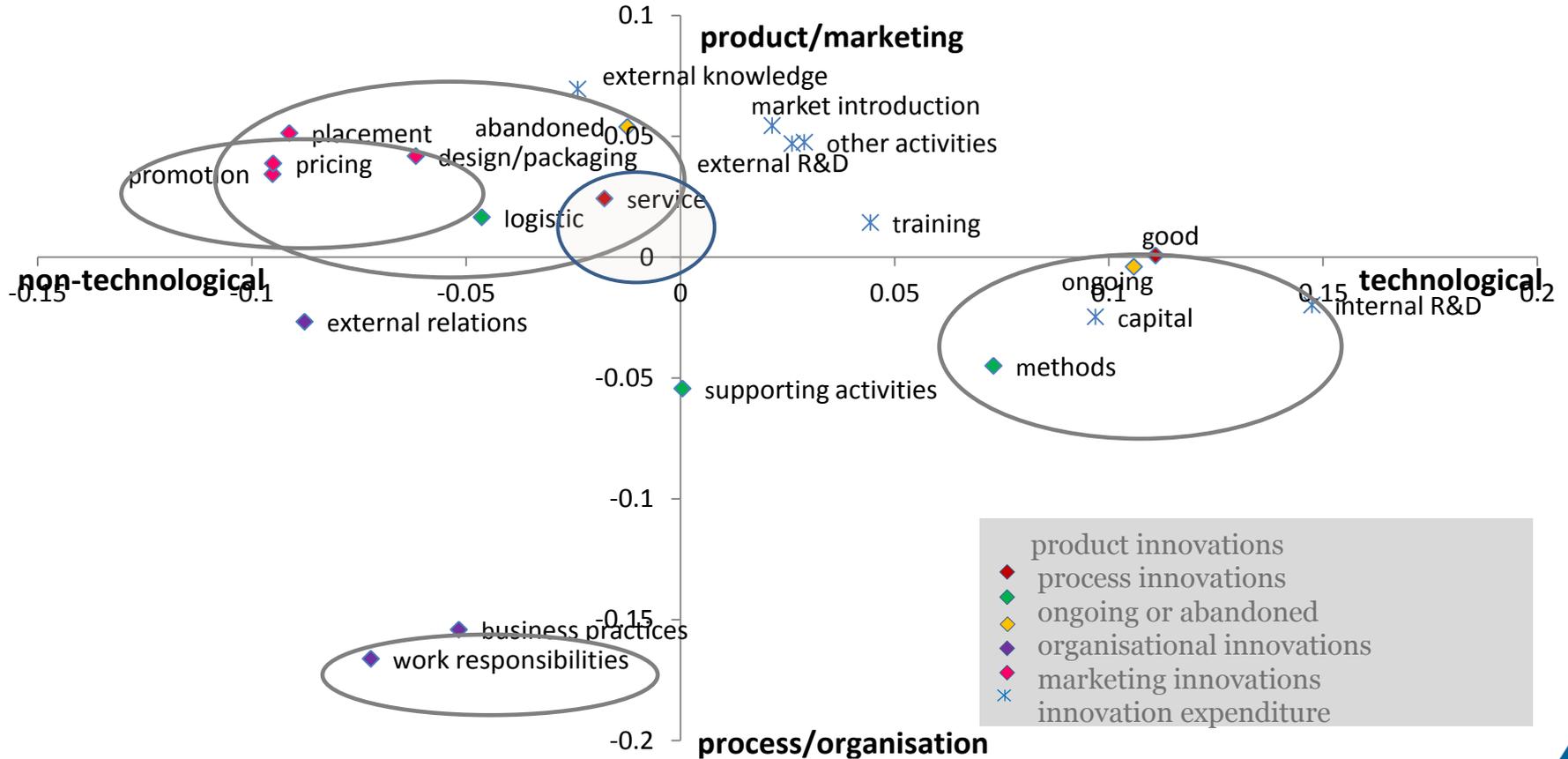
OECD project on cognitive testing of Oslo Manual concepts and definitions

- Approx. 60 business interviews in USA and Europe, services and manuf, small and large firms.
- Innovation is a concept used and accepted by firms.
- Novelty and success.
 - Widespread rejection of “new to firm” innovation.
 - Significantly improved problematic
 - Multiple faces of “implementation” and “success”
 - Signs of cultural differences.
- Innovation in business models.
- Technology – not necessary but pervasive.
- Confusion on boundaries between organisational and process.
- Marked rejection of marketing innovation.
- Expenditure data –can’t separate ongoing.



Microdata analysis – patterns of co-occurrence of micro types of innovation

Multi-dimensional scaling of innovation types and activities, 2006-2008



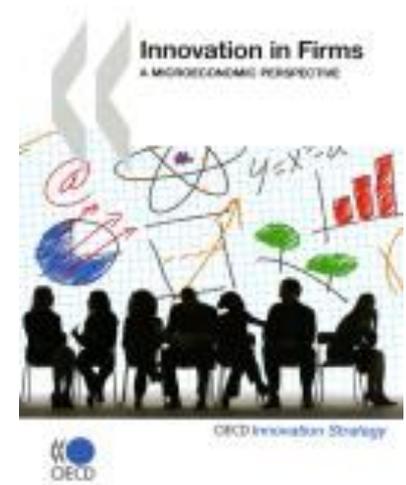
Source: OECD calculations based on CIS 2008 microdata (Eurostat), 2012

Notes : Unweighted. EU-16 (CZE , DEU, ESP, EST, FIN, FRA, HUN, IRL, ITA, LUX, NLD, NOR, PRT, SVK, SVN, SWE).



Data and metadata for OECD countries

- Caution about use of innovation data for benchmarking purposes
 - Several innovation survey models and implementation approaches.
- More emphasis on co-ordinated analytical usage. The OECD [innovation microdata](#) project.
- Efforts to document survey approaches and identify the likely impacts on comparisons.





Huge diversity...

- Despite efforts towards harmonisation of practices, major differences are found:
 - countries cover different industries, different size thresholds
 - differences in survey design (voluntary/mandatory, non-response surveys and use of imputation, online vs personal interviews/postal)
 - use of combined surveys (*e.g.* R&D / innovation) or modular approach
 - different questionnaire design (*e.g.* filtering of non-innovators)
- Underlying cultural and linguistic factors at play, still not well understood.



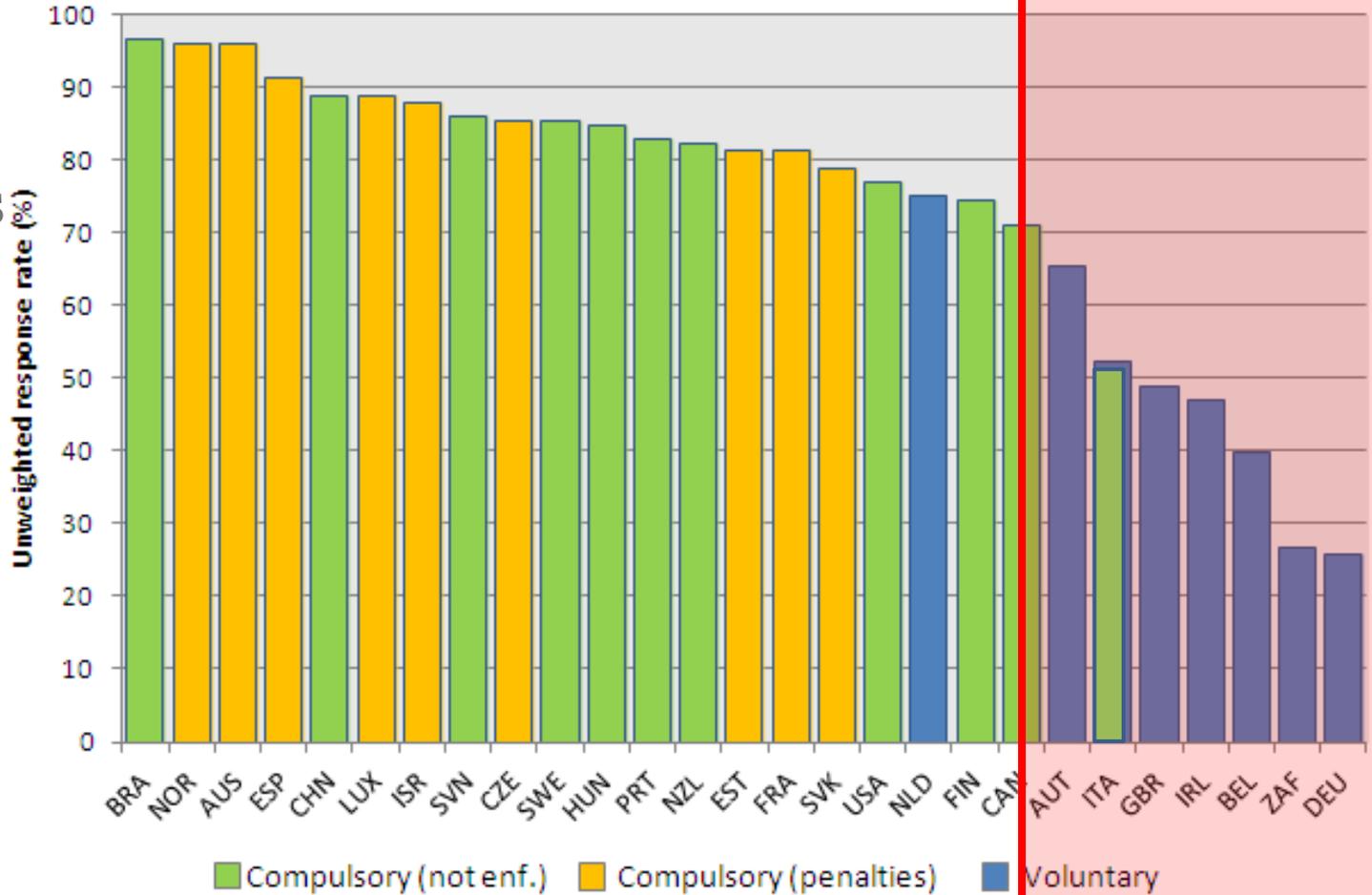
Development of innovation surveys

- Increasing use in OECD and developing countries: around 80 countries world-wide have carried some type of innovation survey, mainly following Oslo Manual framework
- 3 broad types:
 - Innovation surveys close to CIS design with some adaptations: China, Japan, Korea, Russia, South Africa
 - Joint R&D/innovation surveys: (model used for some CIS countries like NOR, DNK, NLD, ESP...): Brazil, Chile (temporarily), Israel, Mexico, United States (BRDIS)
 - Broader econ surveys (business strategies/operations): Australia, Canada, New Zealand, Switzerland



Data collection methods

Completion requirements and un-weighted response rates



Relationship between completion requirement and survey response rate



Patterns of correlation (initial evidence)

- Combined innovation and R&D surveys*
- Combined innovation and other surveys**
- Surveys carried out by statistical agency
- Compulsory innovation surveys
- Shorter reference period (1 or 2 years)***

Are positively associated with

Response rates

Are negatively associated with

Innovation rates

* Correlation with innovation rates is not significant

** Correlation is positive with innovation rates but not significant

*** Correlation with 1 year ref. period is negative but not significant



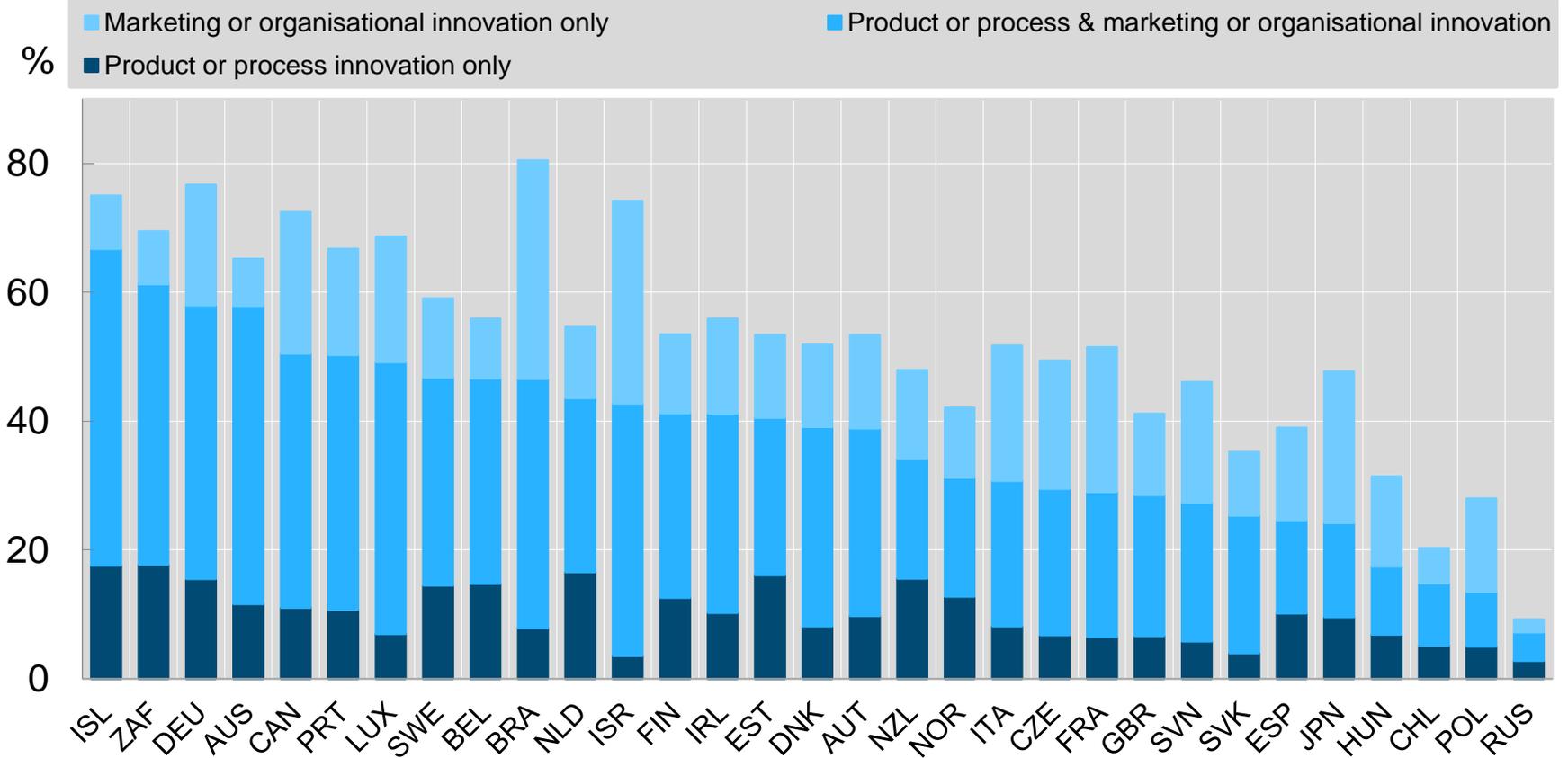
Innovation data collection at OECD

- Ad-hoc data collections carried out for biannual *STI Scoreboard* publications or analytical projects (e.g. OECD Innovation Strategy)
- Attempts to collect harmonised data through micro-based indicators
- Ongoing efforts to collect methodological information about national surveys and questionnaires to understand differences and assess impact



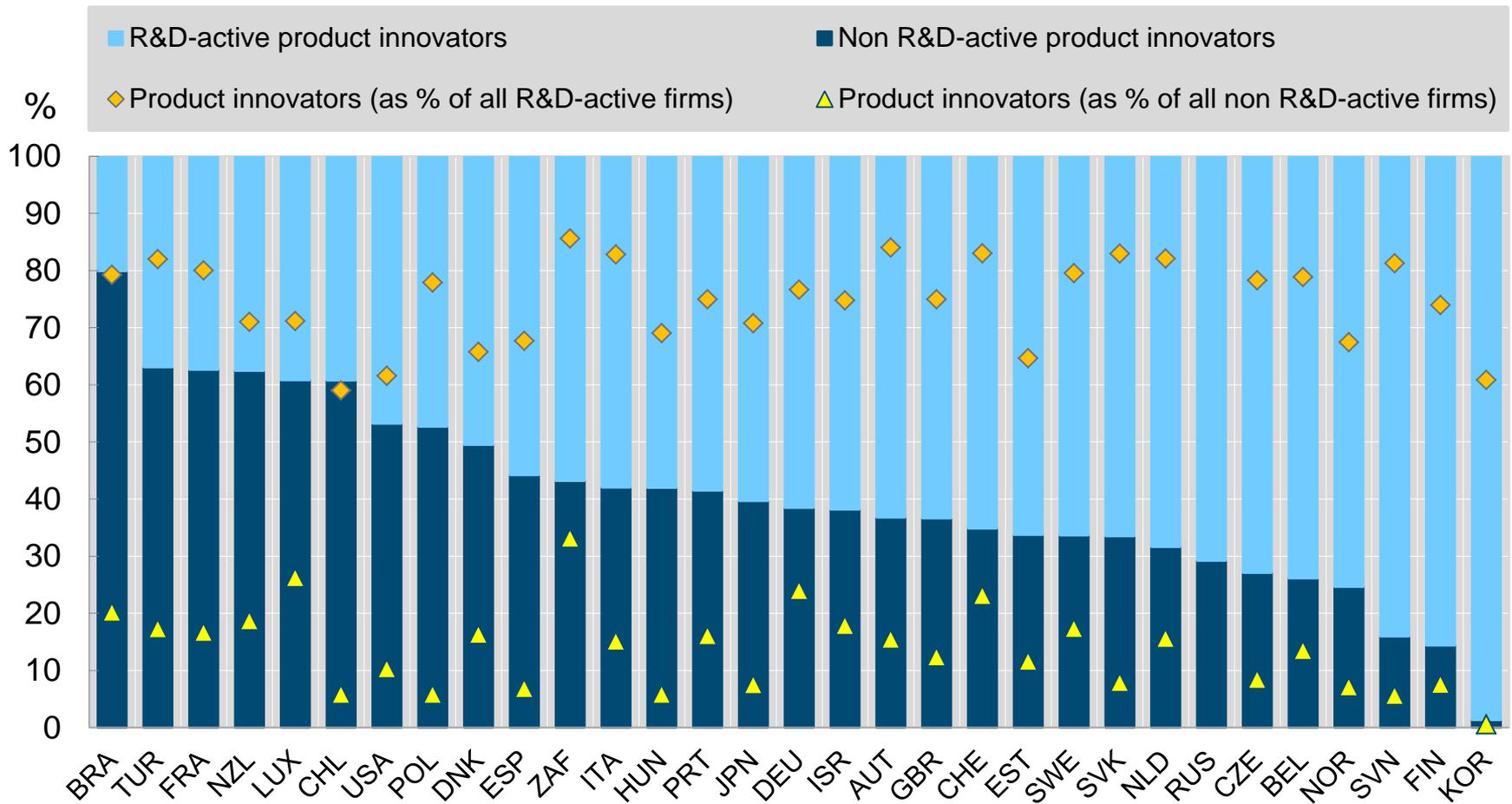
Innovation in the service sector, 2008-10

As a % of all firms in services





Product innovation by R&D status, 2008-10





New webpage dedicated to innovation statistics www.oecd.org/sti/inno-stats.htm

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Innovation statistics

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This page provides information about OECD work on Innovation surveys and indicators. The OECD has played a key role in the development of international guidelines for surveys of business innovation ([Oslo Manual](#)) and the design of indicators constructed with data from such surveys. In addition to developing methodological guidance, the OECD also carries out analytical studies using innovation-related indicators and microdata. This work is guided by the OECD Working Party of National Experts on Science & Technology indicators (NESTI).

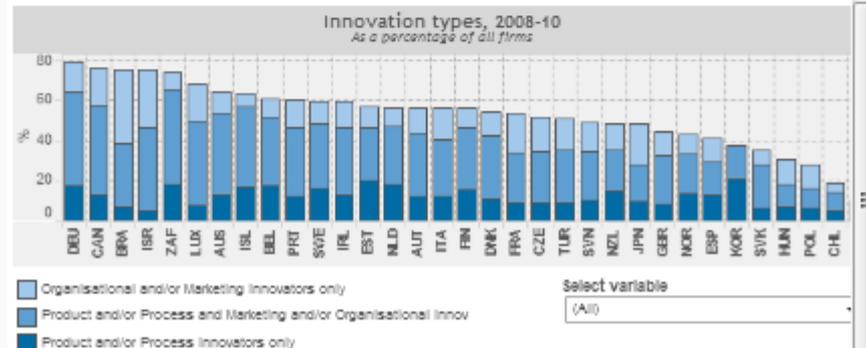


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Innovation indicators

[Innovation Types](#) [Notes](#)



Source: OECD, based on Eurostat (CIS-2010) and national data sources, June 2013.



THE CONTRIBUTION OF REGIONAL INITIATIVES



Europe: The role of Eurostat

- Role in genesis of manual and sponsorship of survey waves and revisions.
- EC-regulation on required and optional indicators
- Use of a common “reference” questionnaire - the Community Innovation Survey (CIS)
- Use of a quality reporting framework – statistical discipline
- Experimentation with new modules and question – use of cognitive testing



Implications

- CIS model and questions adopted in several countries outside EU.
 - A positive contribution towards widening comparability and diffusion of Oslo.
 - New adopters need to test in their own country: context, survey experience and cultural differences matter.
 - Also user needs may vary.
- Limited awareness of what other models are available and the solutions adopted by other countries,
 - e.g. Canada and Australia's models.



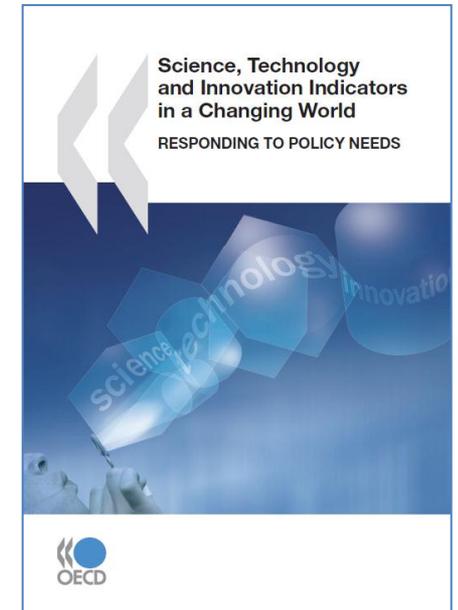
Examples in LAC

- The Bogotá initiative and the inclusion of non-technological innovation in Oslo 3rd ed + Annex on developing countries.
- Spain's R&D and innovation survey model and its influence in a number of LACs.
- The IDB-RICYT initiative for a wave of innovation surveys and a model questionnaire.
- RICYT discussions on experiences in measuring innovation in agriculture



Next steps

- Continue review of measurement framework and collect evidence on initiatives in new areas – 2013-2014
- Prepare for a possible revision of the Oslo Manual in 2015-16.
- Engaging the entire international community working on STI indicators.
- Forthcoming Blue Sky III – Due 2016.
 - How well have we met our 2006 objectives?





A final plug, if I may...

- We care about innovation, but R&D does continue to matter. Frascati is being revised.
<http://www.oecd.org/sti/inno/frascati-manual-revision.htm>
 - RICYT involved through NESTI.
 - **Users and experts can contribute to open consultation until 31 October.**
- Some features
 - Relevance to developing countries - mainstream annex
 - R&D support by govts, e.g: Methods for reporting tax incentives – visit www.oecd.org/sti/rd-tax-stats.htm
 - R&D internationalisation
 - R&D in national accounts



Thank you for your attention and questions

Launch of OECD Scoreboard – Oct 23rd

www.oecd.org/sti/scoreboard

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