DANUBE REGION strategy
Knowledge Society

Update of PA7 Targets

discussion

Ministry of Education, Science, Research and Sport of the Slovak Republic

University of Belgrade

Current PA7 targets

1. **To invest 3% of GDP in R&D by 2020**
2. **Broadband access for all EU citizens in the Region by 2013**
3. **Increase the number of patents obtained in the Region by 50%**
4. **Greater share of EU population aged 30-34 with tertiary education**
   - aiming towards 40% by 2020
5. **To reach 20% of academic mobility by 2020**

New updated PA7 targets

1. **To increase the effectiveness of investment in R&D&I**
   - through establishing a funding network (resulting from the DRRIF feasibility study) aiming at better coordination of available financial resources and increased co-operation in research topics relevant to the societal challenges and countries' and regional smart specialisation strategies
2. **To enhance regional scientific co-operation**
   - through the optimal use of existing networking possibilities and mobility of researchers (e.g. via the Danube Rectors Conference, the CEEPUS Network, Danube Academies, WISE)
3. **To contribute to the reforms of secondary and tertiary educational systems (in cooperation with PA8 and PA9)**
   - introducing elements of work –based and creating a platform for networking and exchange of good practices
4. **To increase the impact of science and the problem-solving capacities (in cooperation with PA8)**
   - through knowledge and technology transfer from universities and research institutions to industry
5. **To contribute to social inclusion of marginalised groups of society through education (in cooperation with PA 9)**

Suggested amendments

Serbian side suggested to have targets focused on:

- Patenting and co-patenting
  - (the number of patents will be the key target and later on indicator for the impact assessment of H2020 not only on the Industrial leadership pillar, but also in Excellent science and Societal Challenges ones)
- Academic mobility
  - (to foster networking, exchange of the young talents, initiation of the joint projects)
- S3 (as separate one)
- Research infrastructure
  - open access to the top infrastructure in the region, ERIC concept development (= e.g. CERIC ERIC), HR development
- Co-publications

Commission recommendations

EUROPEAN COMMISSION

- Targets should "**make sense**" and **"be usable"** (in order to assess project proposals in the future)
  - 1/"**Broadband access for all EU citizens in the region by 2013**"

    → Does this still make sense and what date should we indicate?
  - 2)"**Increase the number of patents obtained in the Region by 50%**

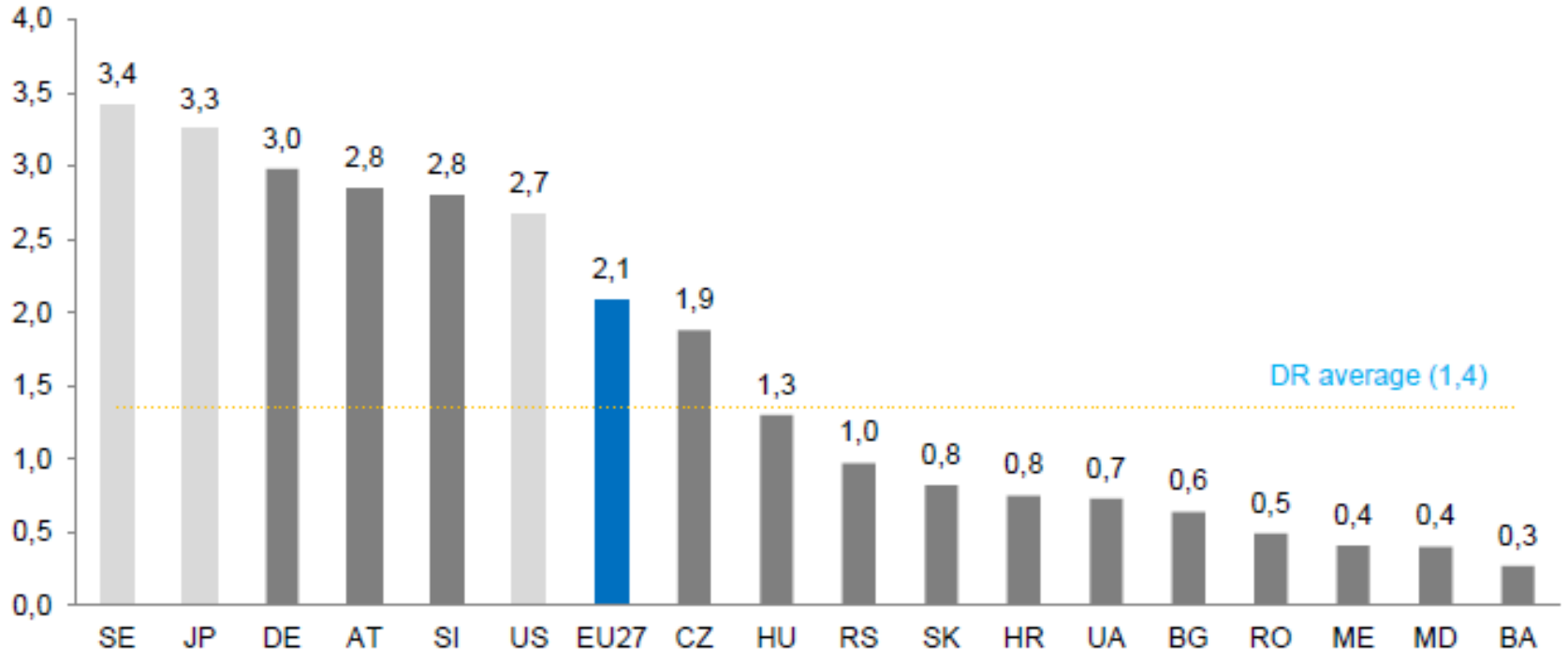
    → Is 50% still a "good" number in light of your experience?
  - 3) "**3% investment in R&D by 2020**"

    → Have we reached that figure? Are we far from it? Is 2020 sill reasonable?
  - **Targets proposed by SK** team raise some concern, but they **are too general** and cannot really be used for the selection process of projects.
  - The **targets (quantified)** and **general objectives/actions (descriptive)** should be clearly distinguished.
  - Targets have to be **quantifiable and allow for measuring the progress.**
  - It is not only for the benefit of the selection process within the DTP, but also for showing the added value of the EUSDR.

How to formulate the targets to be:

realistic – attainable – suitable for measuring the progress ?

Graph 1: Gross domestic R&D expenditure (% GDP) in 2012

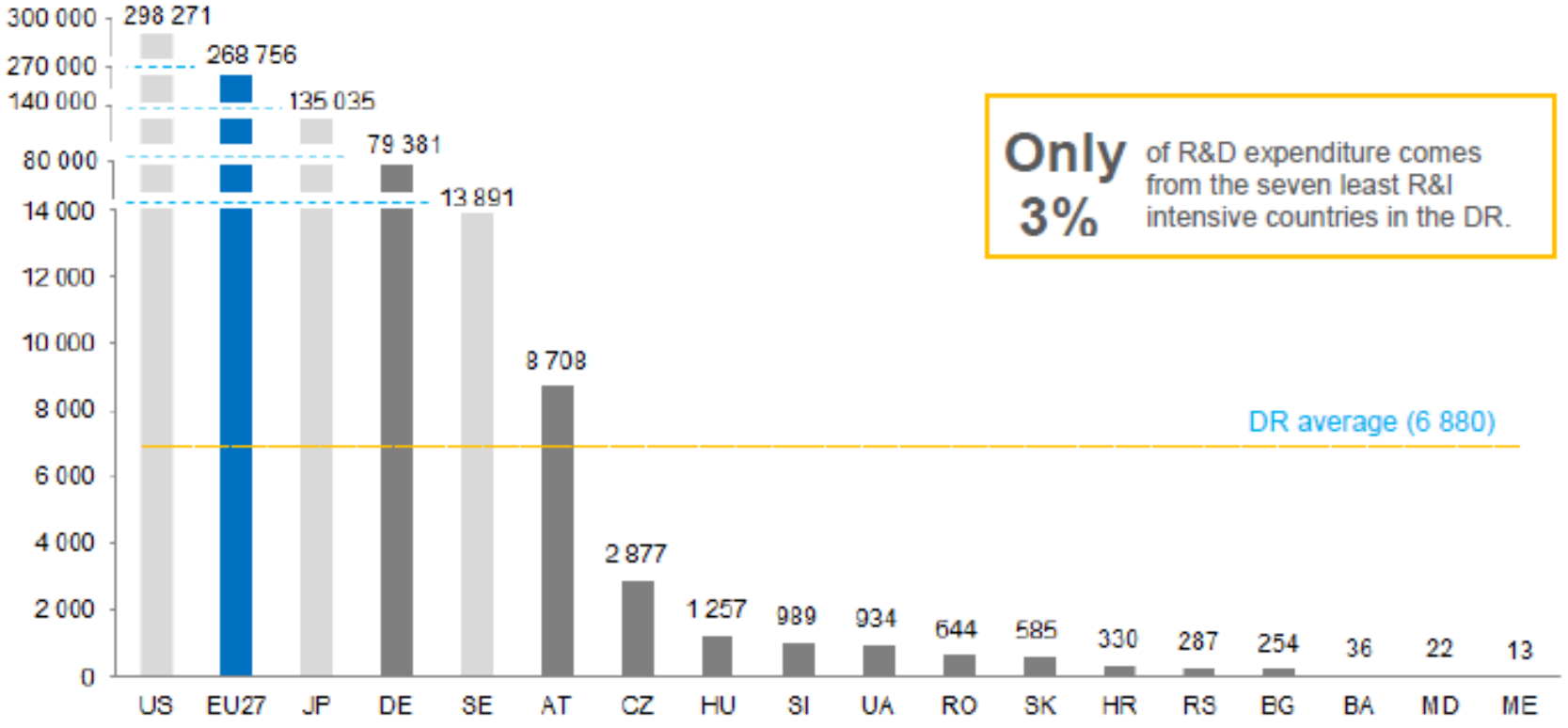


Source: Eurostat, Erawatch[12]

* Gross domestic R&D expenditure (GERD) comprise: business enterprise expenditure on R&D (BERD), higher education expenditure on R&D (HERD), government intermural expenditure on R&D (GOVERD) and non-profit expenditure on R&D (PNPRD). GERD by sectors can be found in Appendix 1

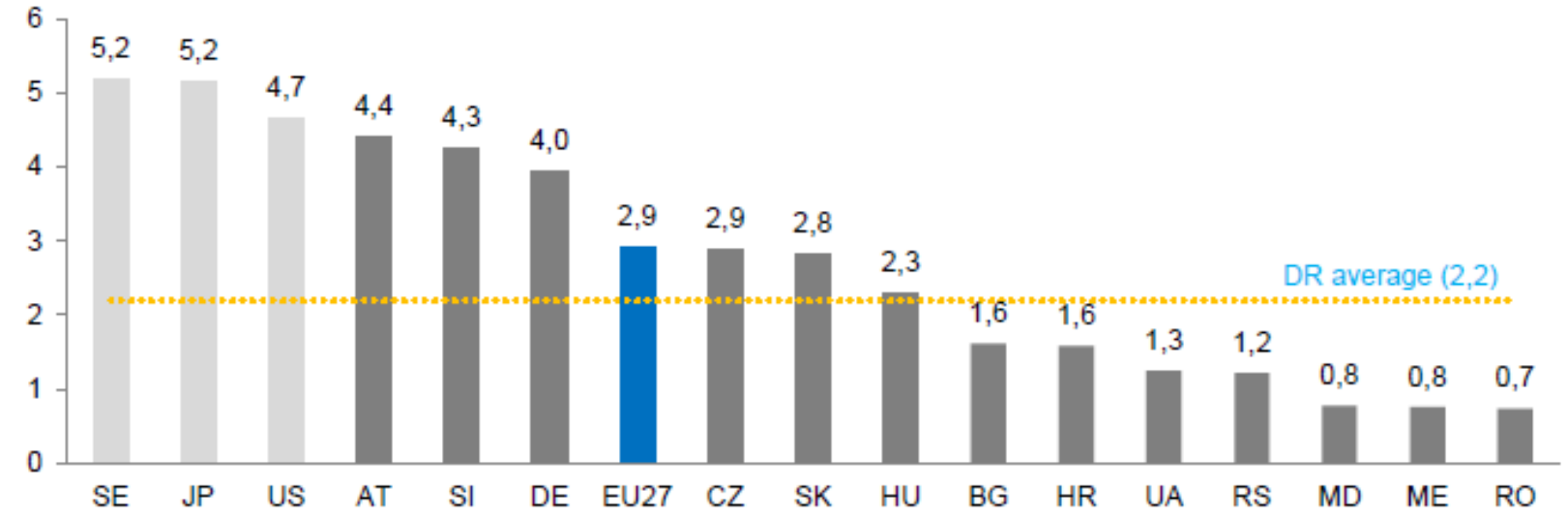
** GERD (2011) Bavaria = 3,1 %; GERD (2011) Baden-Württemberg = 5,1 %

Graph 2: Gross domestic R&D expenditure in absolute terms in 2012 (million EUR)



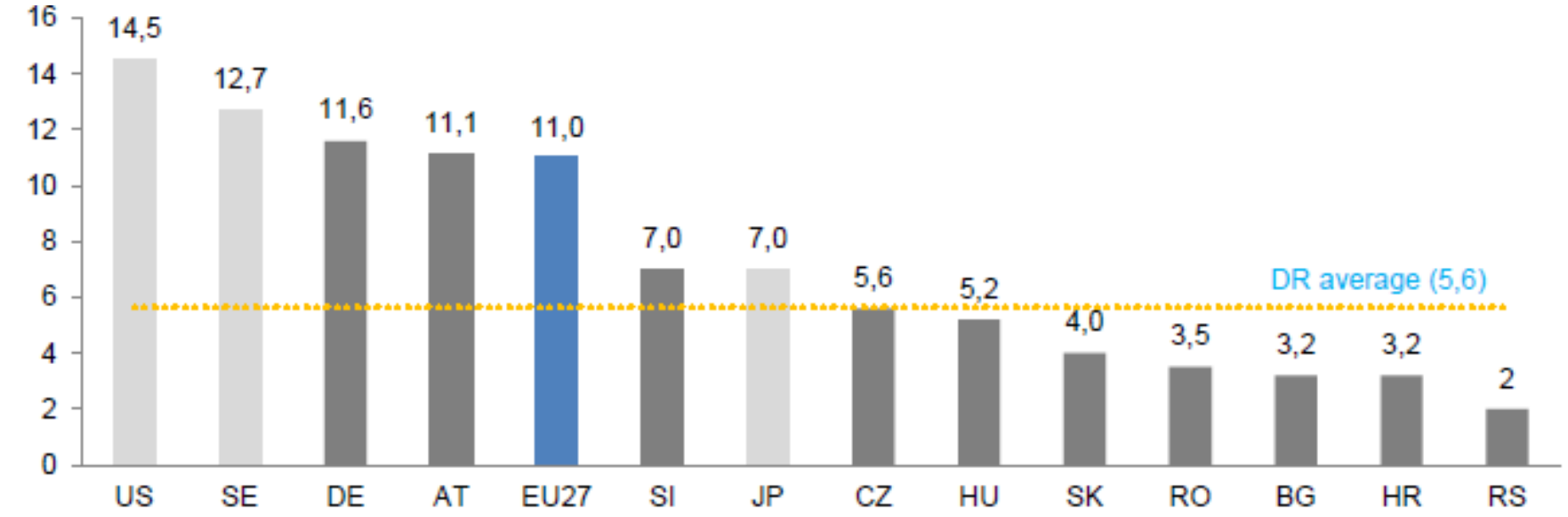
Source: Eurostat, Erawatch[15]
* Gross domestic R&D expenditure (GERD) comprise: business enterprise expenditure on R&D (BERD), higher education expenditure on R&D (HERD), government intermural expenditure on R&D (GOVERD) and non-profit expenditure on R&D (PNPRD).
** GERD (2011) Bavaria = 14 382 mil. EUR %; GERD (2011) Baden-Württemberg = 19 448 mil.

Graph 3: Number of researchers* in R&D (per 1000 population) in 2011



Source: World Bank[17], EY questionnaire sent to officially-nominated contact persons
Due to unavailable relevant data, the graph and the DR average does not include the following countries: Bosnia and Herzegovina (BA), Baden-Württemberg (BW) and Bavaria (BY)
* Researchers in R&D are professionals engaged in the conception or creation of new knowledge, products, processes, methods, or systems and in the management of the projects concerned. Postgraduate PhD students (ISCED97 level 6) engaged in R&D are included.

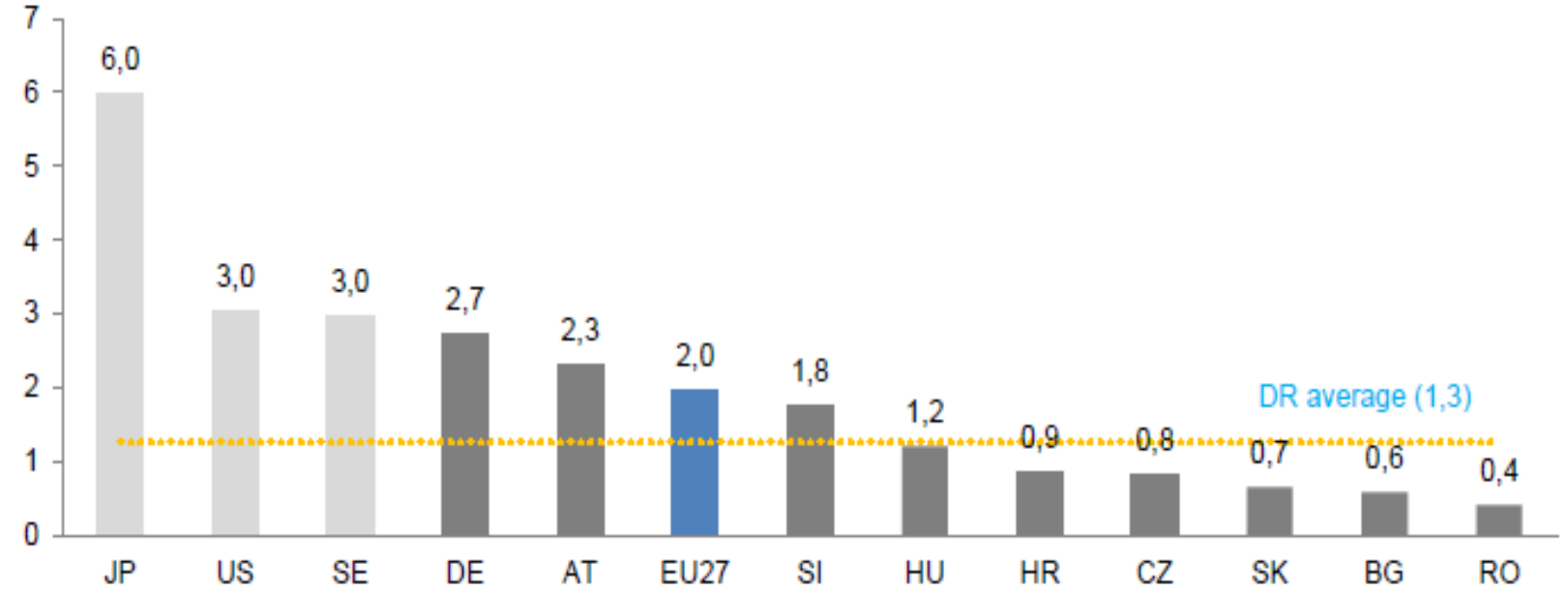
Graph 4: Scientific publications among the top 10% most-cited publications worldwide as % of total scientific publications of the country



Source: Innovation Union Scoreboard 2014

Due to unavailable relevant data, the graph and the DR average does not include the following countries: Bosnia and Herzegovina (BA), Baden-Württemberg (BW), Bavaria (BY), Montenegro (ME), Moldova (MD) and Ukraine (UA).

Graph 5: PCT patent applications per billion GDP

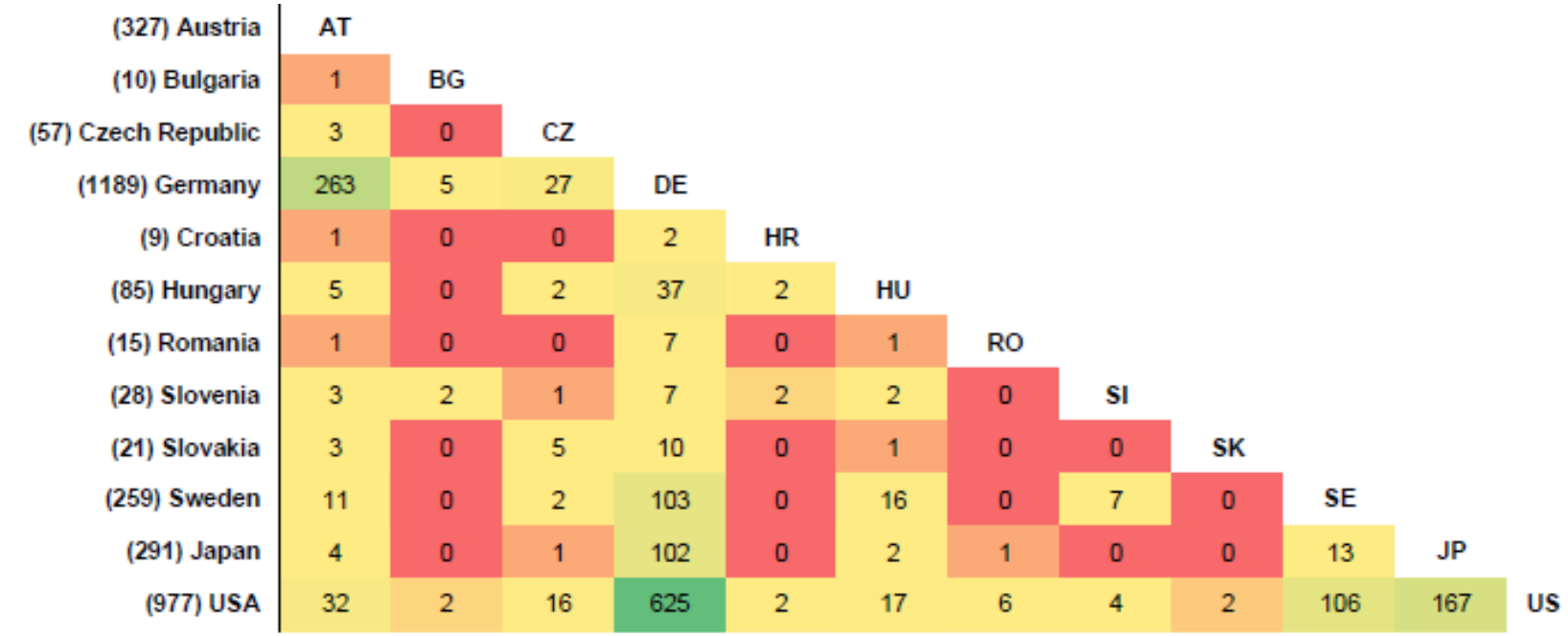


Source: Innovation Union Scoreboard 2014

Due to unavailable relevant data, the graph and the DR average does not include the following countries: Bosnia and Herzegovina (BA), Montenegro (ME), Moldova (MD), Serbia (RS), Ukraine (UA), Baden-Württemberg (BW) and Bavaria (BY).

*** PCT – Patent Cooperation Treaty**

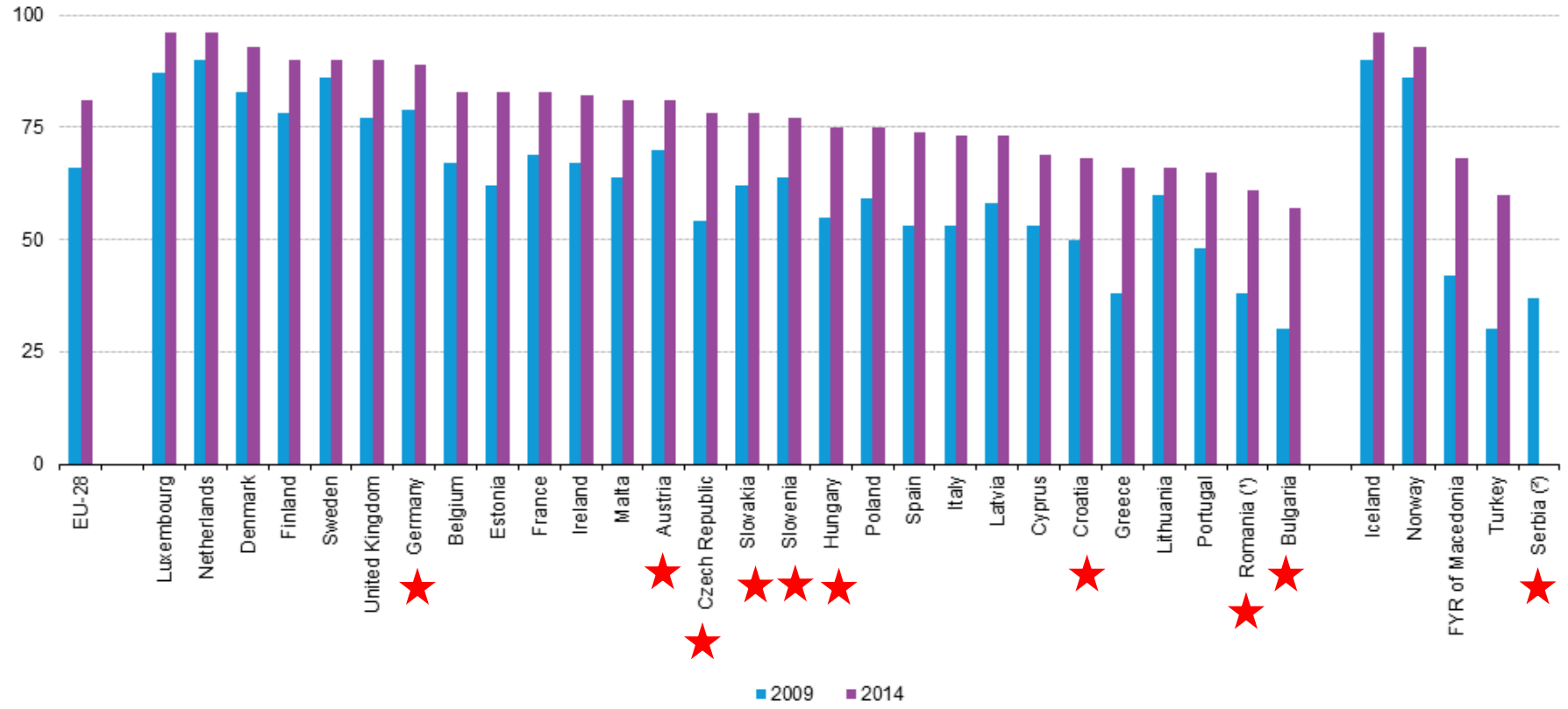
Matrix 3: Pairwise patent co-applicants registered by EPO 24 from 2009 to 2011



	AT	BG	CZ	DE	HR	HU	RO	SI	SK	SE	JP	US
(327) Austria												
(10) Bulgaria	1											
(57) Czech Republic	3	0										
(1189) Germany	263	5	27									
(9) Croatia	1	0	0	2								
(85) Hungary	5	0	2	37	2							
(15) Romania	1	0	0	7	0	1						
(28) Slovenia	3	2	1	7	2	2	0					
(21) Slovakia	3	0	5	10	0	1	0	0				
(259) Sweden	11	0	2	103	0	16	0	7	0			
(291) Japan	4	0	1	102	0	2	1	0	0	13		
(977) USA	32	2	16	625	2	17	6	4	2	106	167	

Source: Eurostat, Average of years 2009 – 2011, calculated and processed by EY
Due to unavailable relevant data, the graph and the DR average does not include the following countries: Bosnia and Herzegovina (BA), Montenegro (ME), Moldova (MD), Serbia (RS) and Ukraine (UA).

Graph 6: Internet access of households, 2009-2014 (% of all households)



(1) Break in series.
(2) 2014: not available.
Source: Eurostat (online data code: isoc_ci_in_h)