



Developing e-Leadership

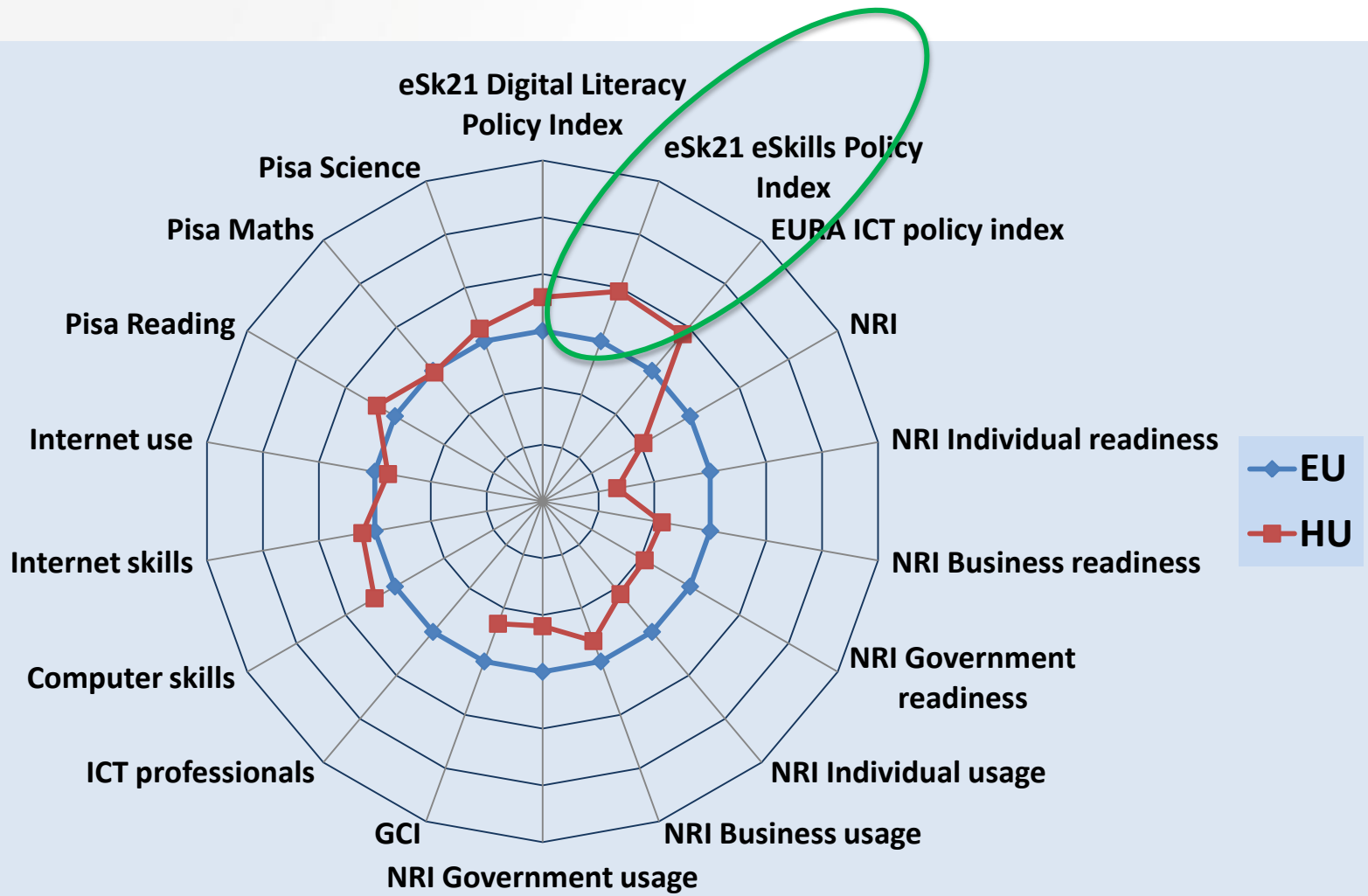
e-Skills policy activities and ICT workforce developments in Hungary

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Edit Herczog



Indicators on innovation, competitiveness and ICT skills in 2013: Hungary vs. EU27



E-Skills Policy Activity Index Progress 2009 - 2013

**e-Skills Activity Index
EU27 Average:**

2009: 2.4 / 5

2013: 2.9 / 5 (+ 0.5)

**Hungary
(below average):**

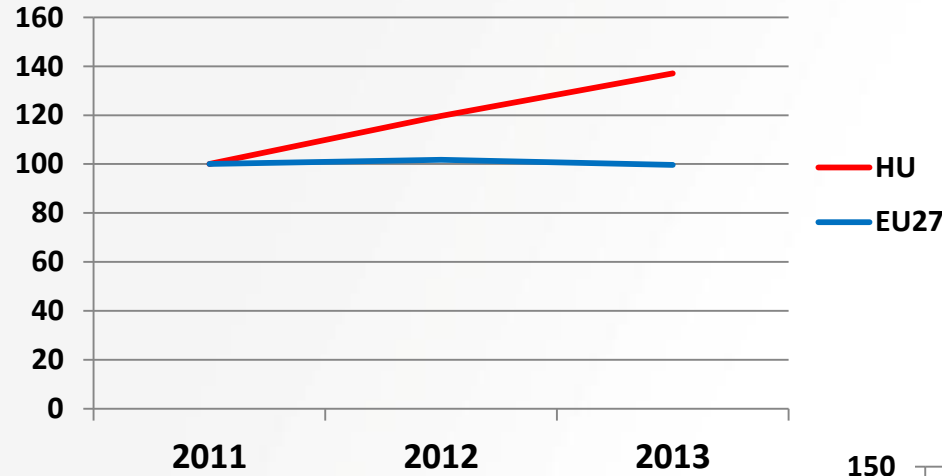
2009: 3.5 / 5

2013: 2.5 / 5 (- 1.0)

Country		2013	2009	Evolution
AT	Austria	●●●● 3.5	●● 2.0	+1.5
BE	Belgium	●●●● 4.0	●●●● 4.5	-0.5
BG	Bulgaria	●●● 2.5	●● 1.5	+1.0
CY	Cyprus	●● 2.0	●● 1.5	+0.5
CZ	Czech Republic	●● 1.5	●● 1.5	0.0
DE	Germany	●●●● 4.0	●●●● 3.5	+0.5
DK	Denmark	●●●● 4.0	●●● 2.5	+1.5
EE	Estonia	●●●● 3.5	● 1.0	+2.5
EL	Greece	●● 1.5	●● 1.5	0.0
ES	Spain	●● 2.0	● 1.0	+1.0
FI	Finland	●●● 2.5	●● 1.5	+1.0
FR	France	●●●● 4.0	●●● 3.0	+1.0
HU	Hungary	●●● 2.5	●●●● 3.5	-1.0
IE	Ireland	●●●● 4.5	●●●● 4.0	+0.5
IT	Italy	●●● 2.5	●● 1.5	+1.0
LT	Lithuania	●● 2.0	● 1.0	+1.0
LU	Luxembourg	●●● 2.5	●● 1.5	1.0
LV	Latvia	●●● 2.5	●●● 3.0	-0.5
MT	Malta	●●●● 4.0	●●●● 4.0	0.0
NL	Netherlands	●●●● 4.0	●●● 3.0	+1.0
PL	Poland	●●● 3.0	●●● 2.5	+0.5
PT	Portugal	●● 1.5	●● 1.5	0.0
RO	Romania	●● 1.5	●●● 2.5	-1.0
SE	Sweden	●●●● 4.0	●●● 2.5	+1.5
SI	Slovenia	●● 1.5	●● 1.5	0.0
SK	Slovak Republic	●● 1.5	●● 2.0	-0.5
UK	United Kingdom	●●●●● 5.0	●●●●● 5.0	0.0

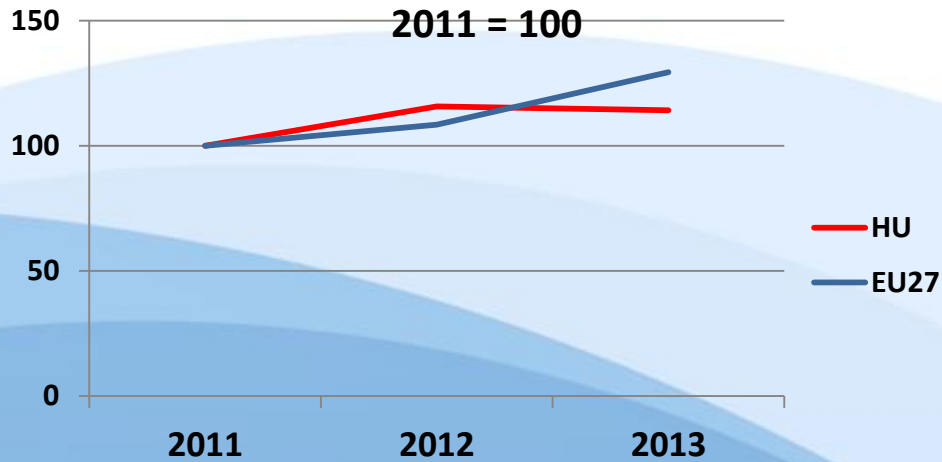
ICT Workforce development 2011-2013: Hungary vs. EU27

ICT practitioner workforce, 2011 = 100



NOTE: ICT practitioners make 2.7% of Hungarian workforce while for the EU27 its 3.4%

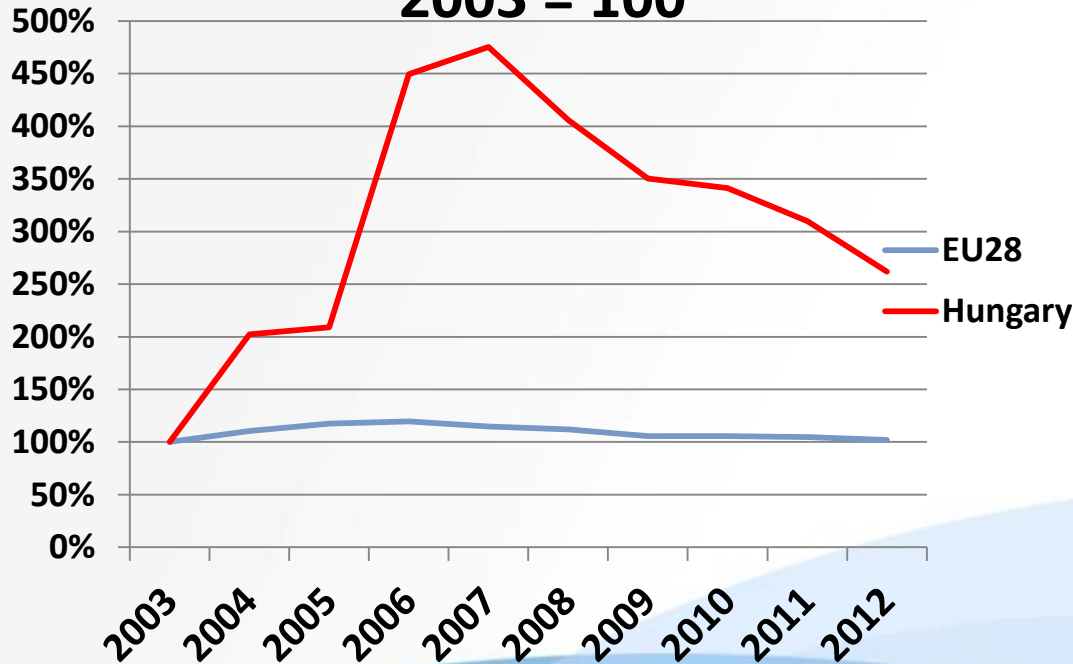
Management, architecture and analysis, 2011 = 100



**Stronger general ICT workforce increase in Hungary compared to EU27
... BUT ...
opposite development for higher level ICT professionals also including e-leaders: stagnant !**

ICT graduates 2003 – 2012: Hungary vs. EU27

ICT Graduates Development,
2003 = 100



Increase in number of ICT graduates in Hungary
above EU27

... BUT ...

shrinking since 2007! Just 1665 first degrees in ICT in
2012 down from 3000 in 2007!

1	France	20,698
2	United Kingdom	19,902
3	Germany	16,753
4	Spain	11,867
5	Poland	10,873
6	Netherlands	4,006
7	Czech Republic	2,933
8	Greece	2,655
9	Italy	2,223
10	Hungary	1,665
11	Sweden	1,659
12	Romania	1,597
13	Denmark	1,544
14	Austria	1,524
15	Croatia	1,500
16	Belgium	1,383
17	Slovakia	1,272
18	Ireland	1,247
19	Bulgaria	1,237
20	Finland	1,110
21	Lithuania	838
22	Portugal	702
23	Slovenia	686
24	Latvia	610
25	Estonia	413
26	Cyprus	214
27	Malta	207
28	Luxembourg	30

Trends in Hungary

- **Positive:**

- Policy activity level is still almost around EU27 average but decreasing since 2009

- **Negative:**

- ICT Workforce development in upper skills bracket (incl. e-leaders) is stagnant and below EU27 average
- ICT graduates development shrinking since 2007

Level of Policy & Stakeholder Activity – Summary Assessment for Hungary

e-Leadership skills (for SMEs): ● (out of 5)

- Almost all policy and stakeholder activities in the area are geared towards less advanced SMEs, which are supported with basic training in strategic use of ICT for modernising their business. The Digital Literacy Action Plan (2007), Digital Renewal Action Plan (2010) and the New Széchenyi Plan (2011) all include measures for helping raise the competitiveness of Hungarian SMEs by providing training in ICT-focused business skills. Implementation has often, however, suffered from lack of funding. Moreover, policies and initiatives focusing on more sophisticated skills required for e-leadership have not yet been devised.

Skills for digital entrepreneurship: ●● (out of 5)

- The strong role of the ICT industry in the export-generating parts of Hungary's economy has had the result that efforts to foster entrepreneurial activity focus on ICT-driven business innovation. Private initiative has been important, too, as exemplified by the European Entrepreneurship Foundation (the very first Accelerator program in 2005) and the Intel Business Plan Challenge in Hungary.

Source: Preliminary findings from EC DG ENTR service contract “e-leadership skills for SMEs” (empirica 2014) – **subject to change and not for citation** -

Organisations need to innovate and adapt / transform their business models to survive but

- OECD – study (Greg Clark):
 - Organisations aren't properly set up to adapt to change, therefore are incapable of adapting to change.
- IBM Global CEO study (2012):
 - 86% of executives say innovation is extremely or very important to their companies' growth strategy;
 - however only 19% feel they succeed with any of the necessary components.

e-Leadership skills are needed to improve businesses and innovate

“To be competitive, innovation is critical.

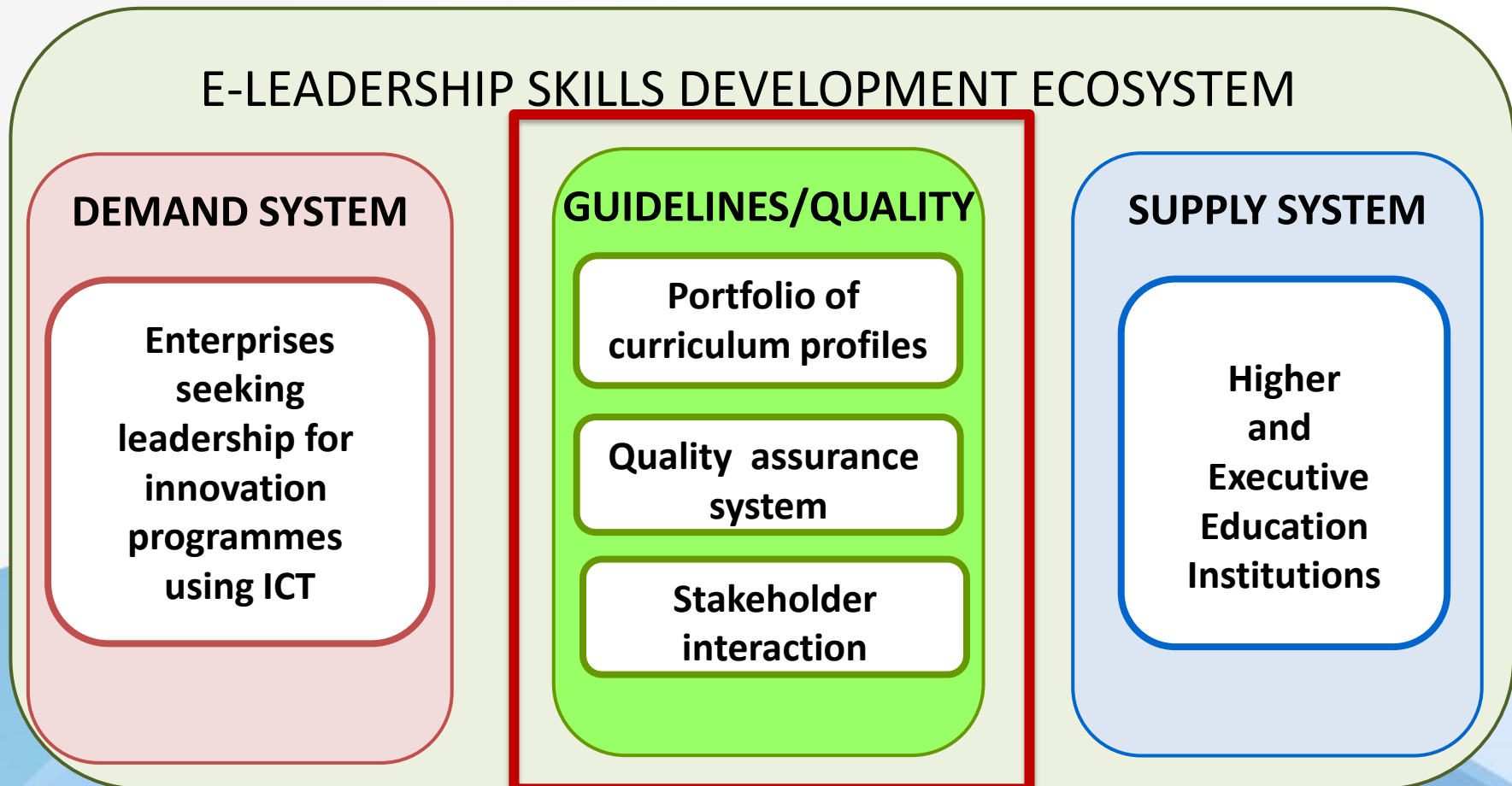
There are three key aspects to innovating effectively and efficiently: strategy, skills, and tools. These three are the responsibility of the most senior management team”

(Federico Flórez, Chief Information and Innovation Officer, Ferrovial, 2013)

HOW - Education Ecosystem

A strong education ecosystem is vital to develop e-leaders

EXTERNAL DRIVERS (Demographics, ICT Trends)



Delivering e-Leadership – The Skills Agenda

THANK YOU