

Where
knowledge and challenge
meet

Technológiai innováció és lifelong learning

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Mi az innováció?

„Innovation is the ability to take new ideas and translate them into commercial outcomes by using new processes, products or services in a way that is better and faster than the competition.”

**Reviewing Community innovation policy in a changing world
European Commission (2009)**



Innováció és gazdasági fejlődés

	STAGES OF DEVELOPMENT				
	Stage 1: Factor-driven	Transition from stage 1 to stage 2	Stage 2: Efficiency-driven	Transition from stage 2 to stage 3	Stage 3: Innovation-driven
GDP per capita (US\$) thresholds*	<2,000	2,000–2,999	3,000–8,999	9,000–17,000	>17,000
Weight for basic requirements subindex	60%	40–60%	40%	20–40%	20%
Weight for efficiency enhancers subindex	35%	35–50%	50%	50%	50%
Weight for innovation and sophistication factors	5%	5–10%	10%	10–30%	30%

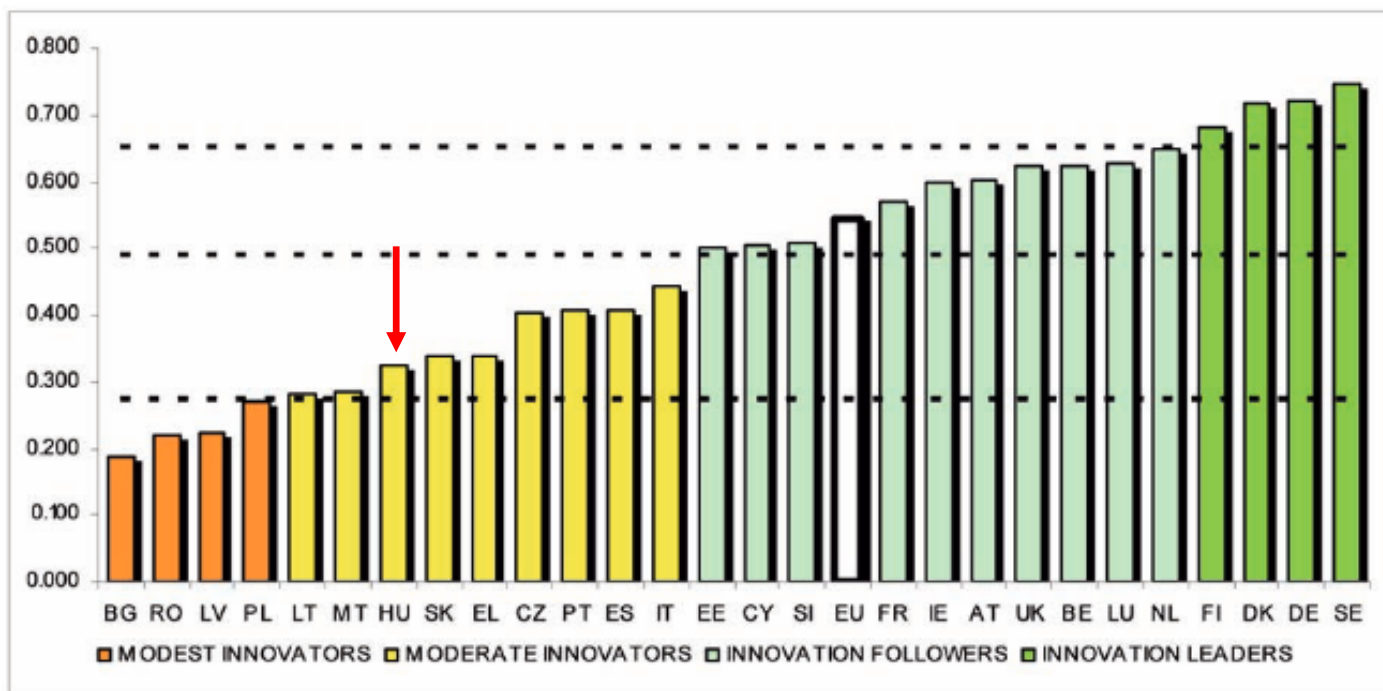
Note: See individual country/economy profiles for the exact applied weights.

* For economies with a high dependency on mineral resources, GDP per capita is not the sole criterion for the determination of the stage of development. See text for details.



Magyarország innovációs helyzete (2013)

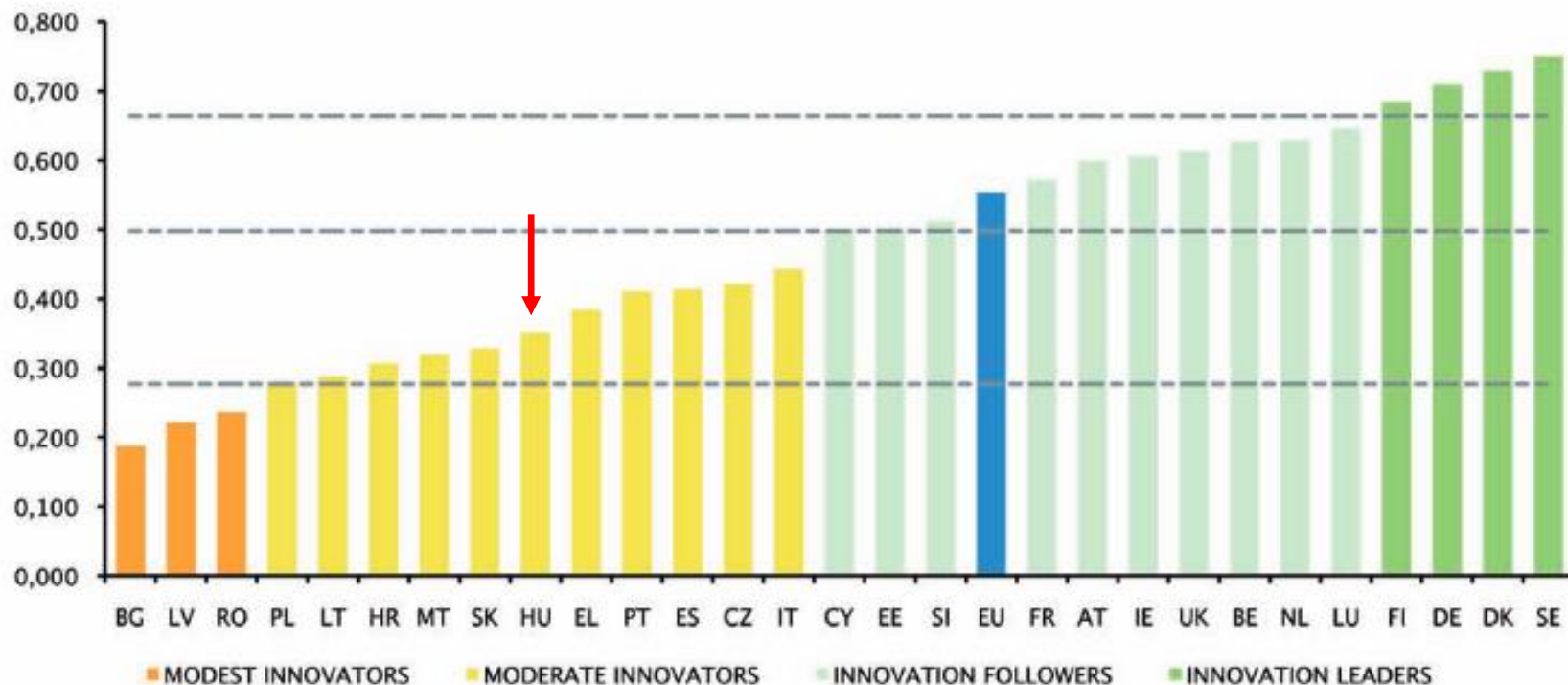
Figure 3: EU Member States' innovation performance



Note: Average performance is measured using a composite indicator building on data for 24 indicators going from a lowest possible performance of 0 to a maximum possible performance of 1. Average performance reflects performance in 2010/2011 due to a lag in data availability.

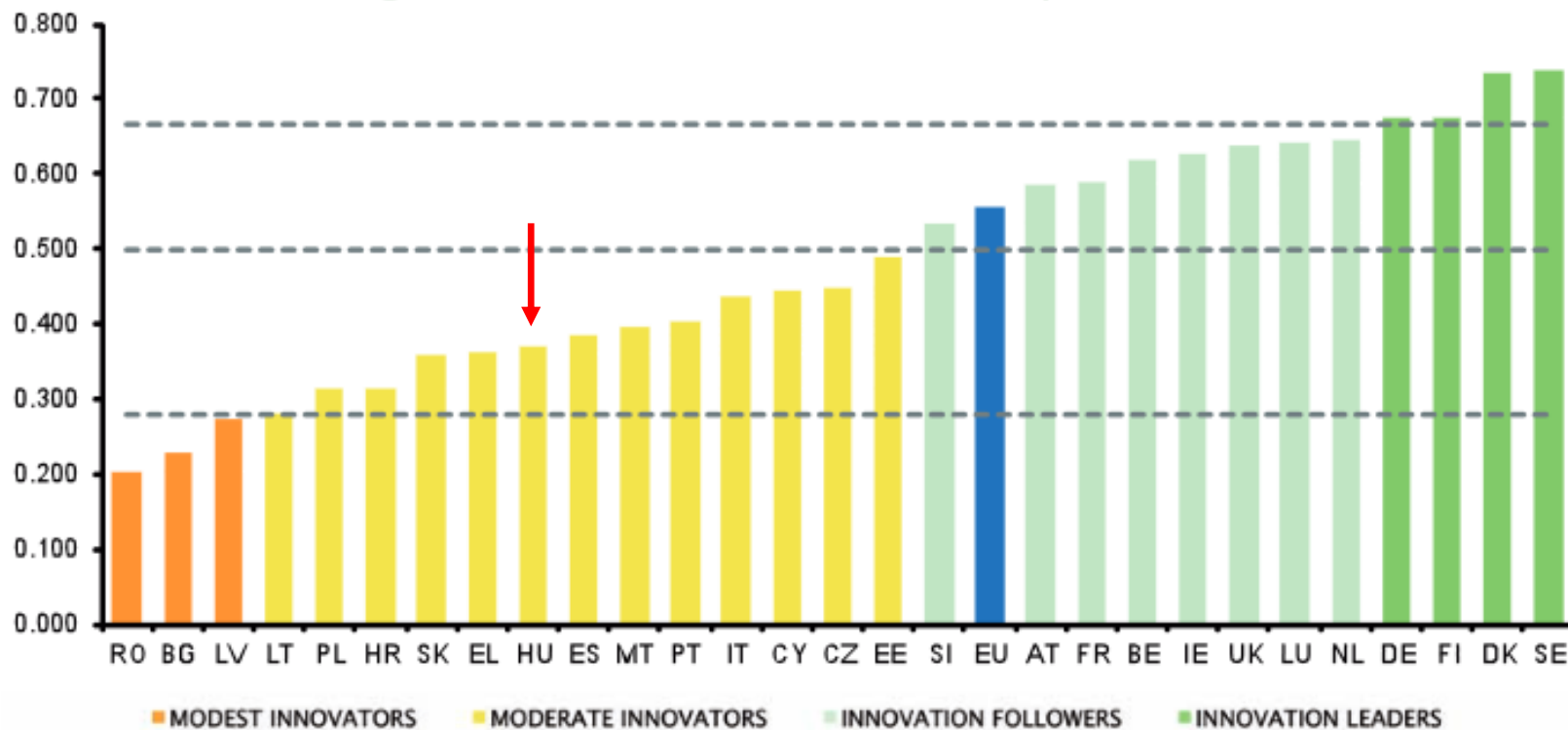
The performance of Innovation leaders is 20% or more above that of the EU27; of Innovation followers it is less than 20% above but more than 10% below that of the EU27; of Moderate Innovators it is less than 10% below but more than 50% below that of the EU27; and for Modest innovators it is below 50% that of the EU27.

Magyarország innovációs helyzete (2014)



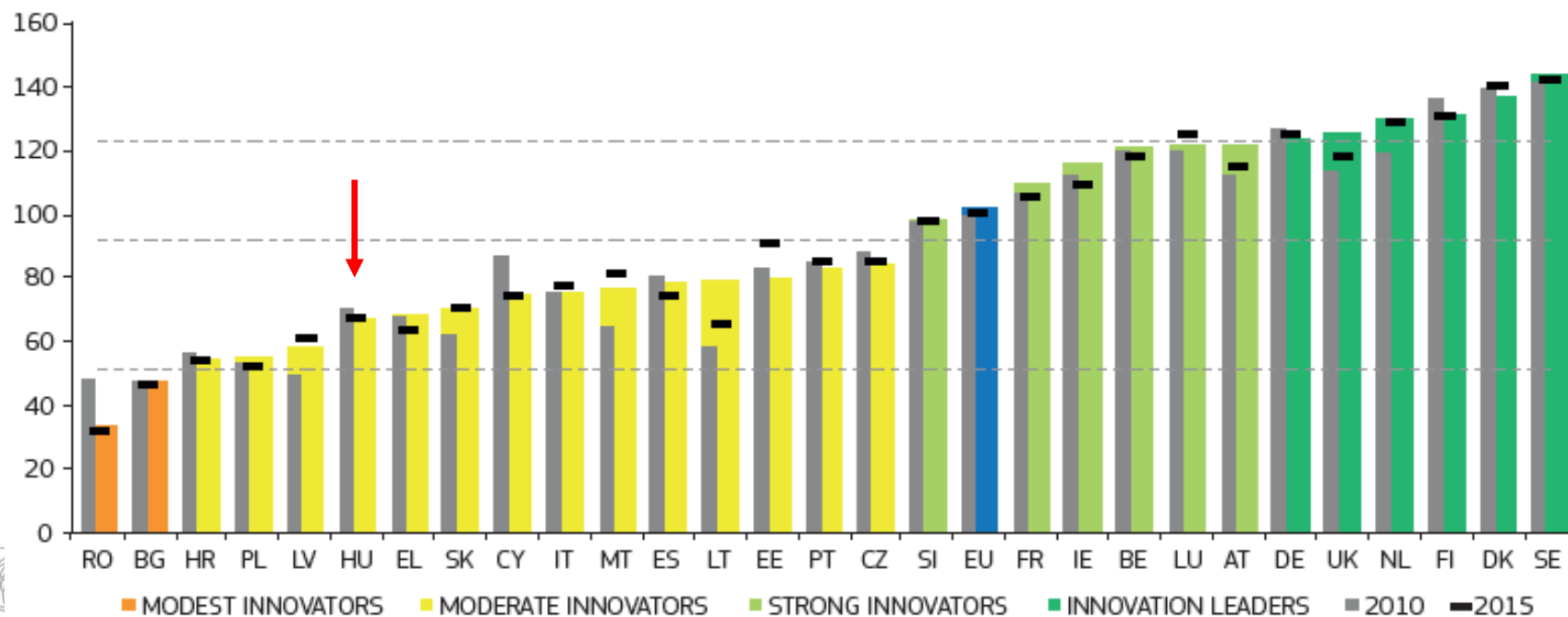
Magyarország innovációs helyzete (2015)

Figure 1: EU Member States' innovation performance

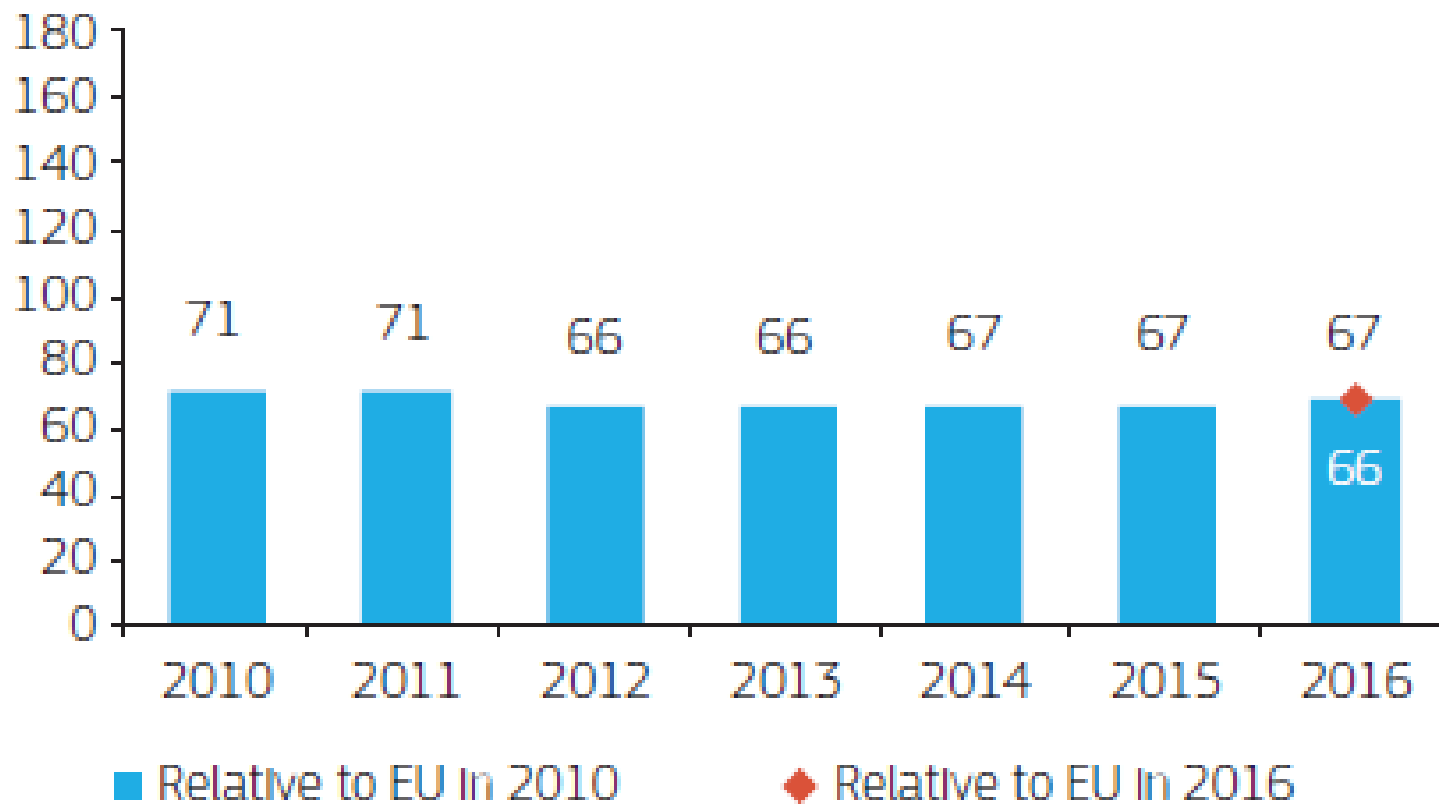


Magyarország innovációs helyzete (2017)

Figure 1: Performance of EU Member States' innovation systems

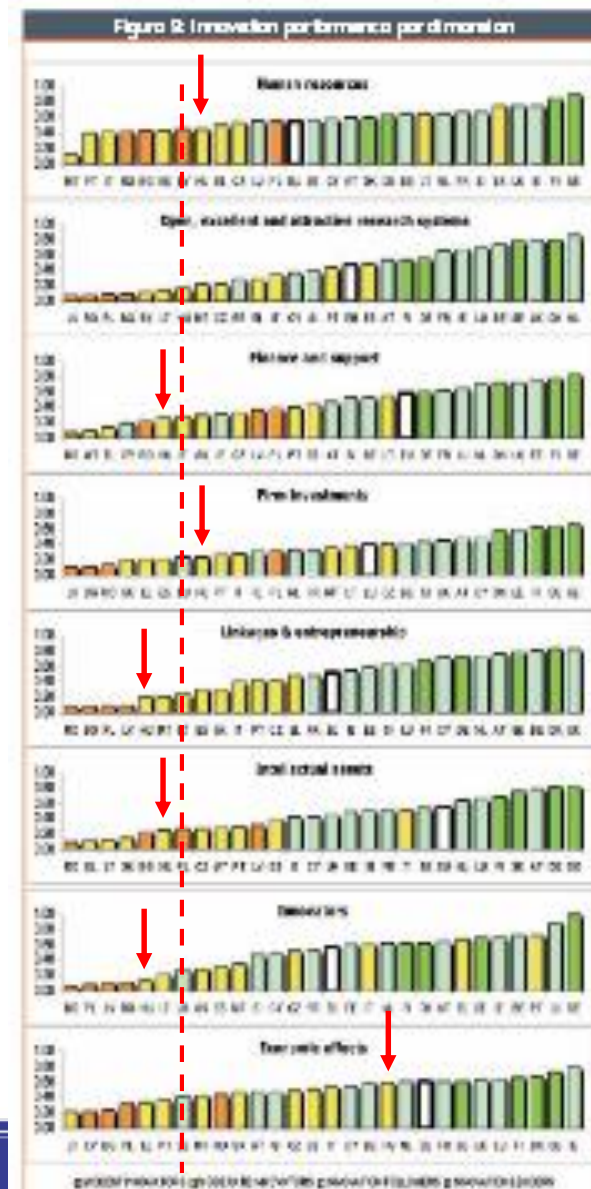


Magyarország innovációs helyzetének változása





Indikátorok szerinti bontás



KKV-k innovációja

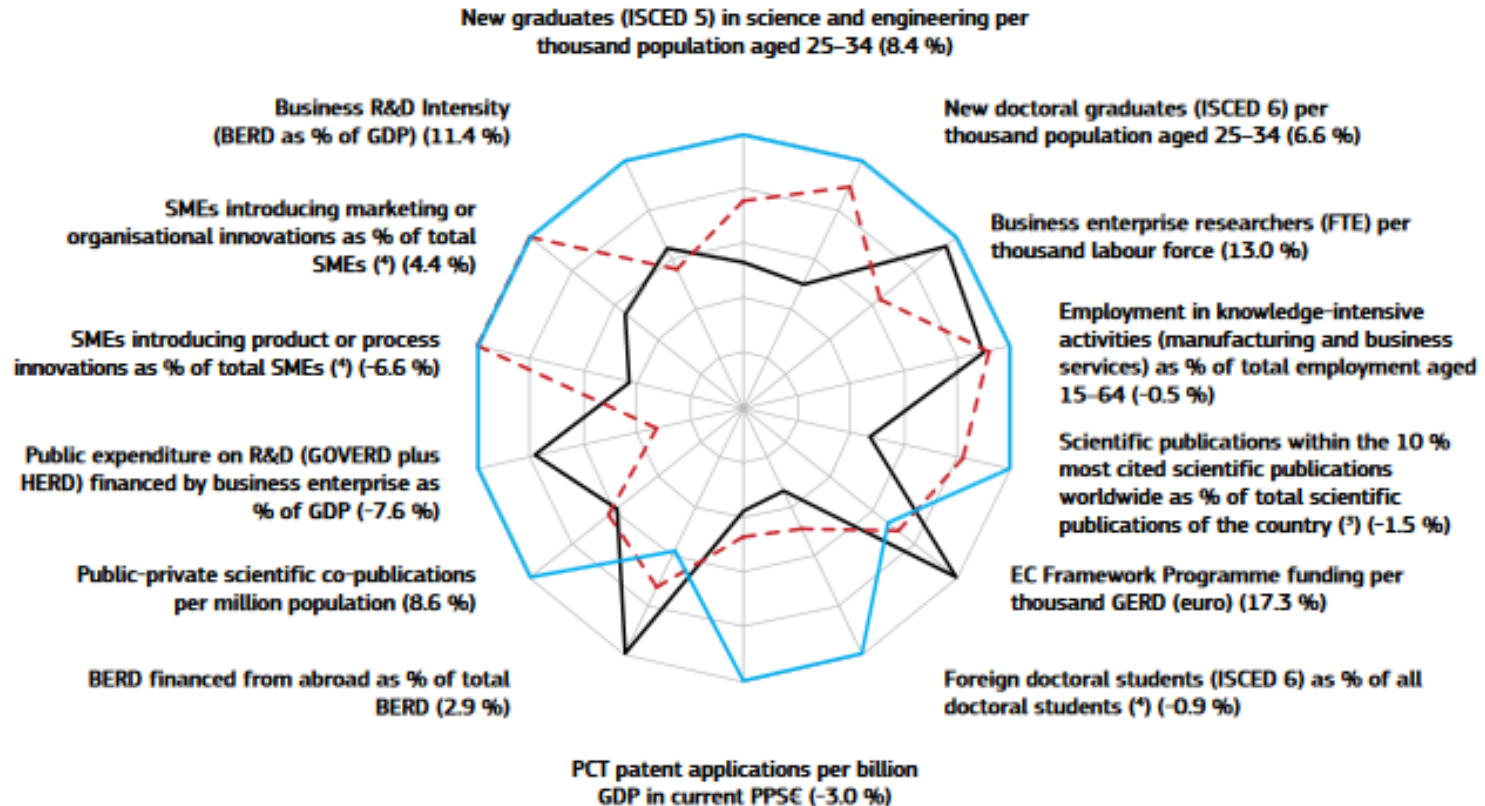
KKV-k innovációja

High-tech aktivitás

Innovációs összkép

► Hungary, 2012 ⁽¹⁾

In brackets: average annual growth for Hungary, 2007–2012 ⁽²⁾



Forrás: Research & Innovation Performance in Hungary (2014)

<http://ec.europa.eu/research/innovation-union/pdf/state-of-the-union/2014/countries/hungary.pdf>



Innovációs összkép

Hungary	Performance relative to EU 2010 in		Change 2010-2016
	2010	2016	
SUMMARY INNOVATION INDEX	70.9	67.4	-3.5
Human resources	55.9	64.8	8.9
New doctorate graduates	53.8	58.5	4.6
Population with tertiary education	52.6	80.9	28.3
Lifelong learning	62.1	53.7	-8.4
Innovators	24.4	14.4	-10.0
SMEs product/process innovations	21.2	13.7	-7.5
SMEs marketing/organizational innovations	32.4	14.0	-18.4
SMEs innovating in-house	19.5	15.5	-3.9
Linkages	89.7	60.4	-29.3
Innovative SMEs collaborating with others	59.7	50.0	-9.6
Public-private co-publications	76.9	76.5	-0.4
Private co-funding of public R&D exp.	125.3	54.9	-70.4



Forrás: Innovation Union

Scoreboard (2017)

Ipar 4.0

Von Industrie 1.0 bis Industrie 4.0

Erste Industrielle Revolution

durch Einführung mechanischer Produktionsanlagen mithilfe von Wasser- und Dampfkraft



Erster mechanischer Webstuhl, 1784

Zweite Industrielle Revolution

durch Einführung arbeitsteiliger Massenproduktion mithilfe von elektrischer Energie



Erstes Fließband, Schlachthöfe von Cincinnati, 1870

Dritte Industrielle Revolution

durch den Einsatz von Elektronik und IT zur weiteren Automatisierung der Produktion



Erste Speicherprogrammierbare Steuerung (SPS) Modicon 084, 1969

Vierte Industrielle Revolution

auf Basis von cyber-physischen Systemen



Grad der Komplexität



1800

1900

2000

Heute

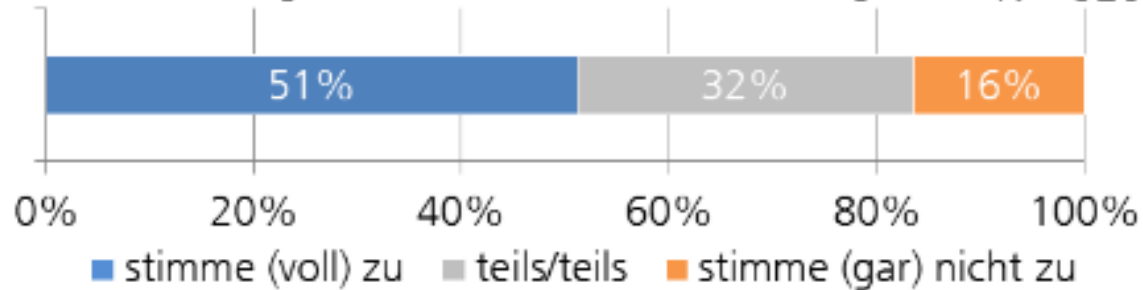
Zeit

Forrás:

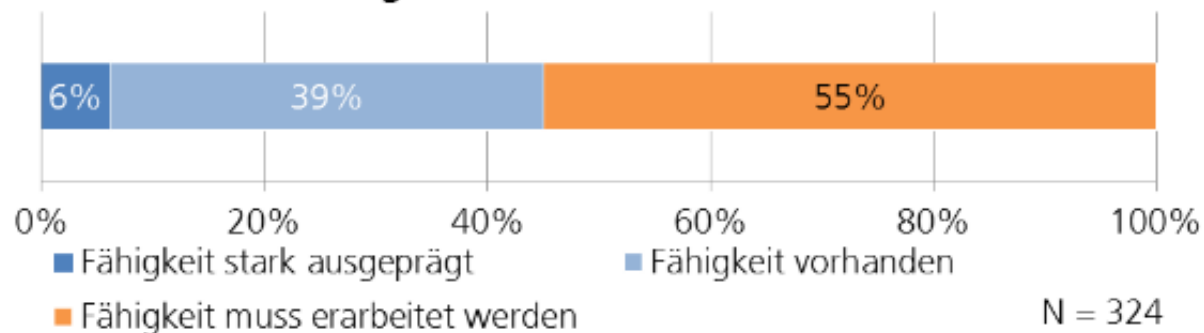
https://www.stmas.bayern.de/imperia/md/content/stmas/stmas_internet/esf/sozinnov_industrie40_arbeits

Ipar 4.0: a szükséges kompetenciák

Die Einführung von Industrie 4.0 führt zu einer Reduzierung einfacher, manueller Tätigkeit. N = 328



Wo würden Sie Ihr Unternehmen hinsichtlich der »Industrie 4.0-Fähigkeit« einordnen?

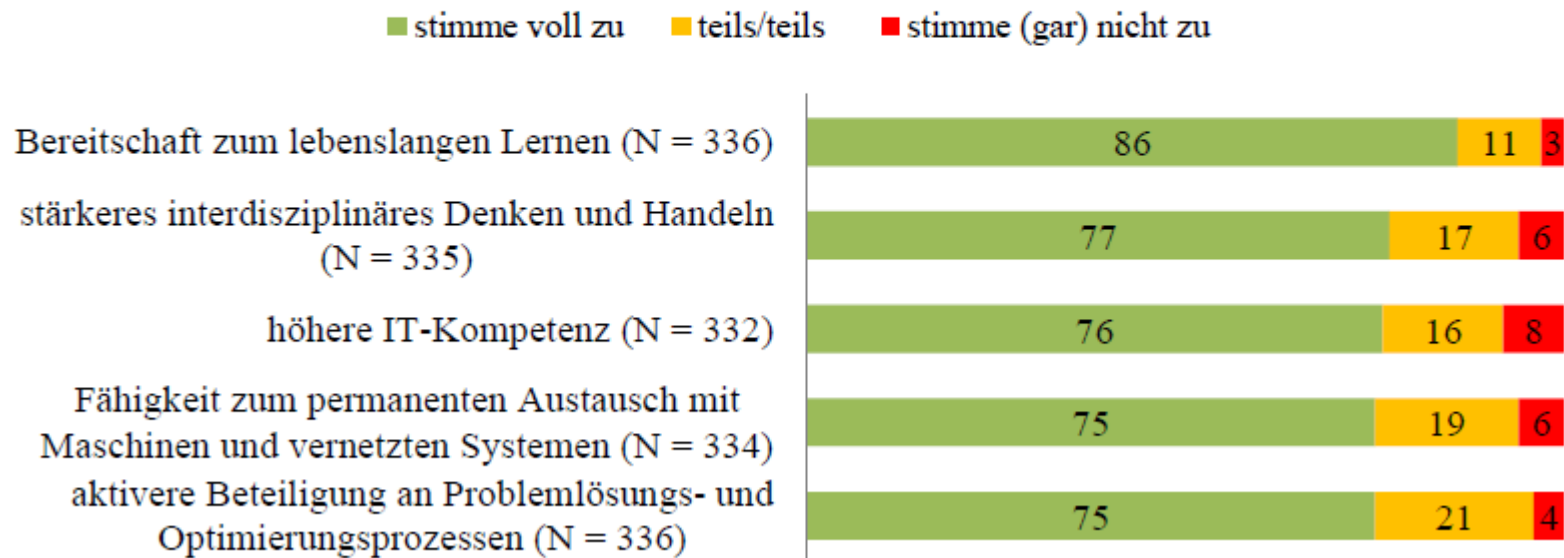


N = 324



Ipar 4.0: a szükséges kompetenciák

Abbildung 2: Die Einführung von Industrie 4.0 erfordert vom Produktionsmitarbeiter folgende Kompetenzen Angaben in %)
Ingenics (2014)





Köszönöm a figyelmet!

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