Visoko obrazovanje i tržište rada:
što ne znamo da ne znamo?
(ili...radimo li prave stvari na pravi način?)

3. listopad 2014.
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Portfelj znanja	ZNAMO	NE ZNAMO
SVJESNO	**Znamo da znamo** Pristup, dijeljenje i skladištenje znanja.	**Znamo da ne znamo** Traženje i kreiranje znanja - **osnovna analitika** (postavljanje pitanja).
NESVJESNO	**Ne znamo da znamo** Otkrivanje **skrivenog** ili **implicitnog** znanja.	**Ne znamo da ne znamo** Otkrivanje **ključnih rizika** i **mogućnosti**.

Podaci...

- **Srednjoškolsko obrazovanje**
- **Visoko obrazovanje**
- **Tržište rada**
- **Regionalni razvoj**
- **Nove tehnologije**
- **EU trendovi**
- **....**


Croatia
x
Overview
Student engagement
Problem solving
Financial literacy
Prevalence
Effect on performance
Skipping classes
Student anxiety
Belief in abilities
= higher than OECD avg.
= around OECD avg.
= lower than OECD avg.
= increasing
= neutral trend
= declining
start again
next >

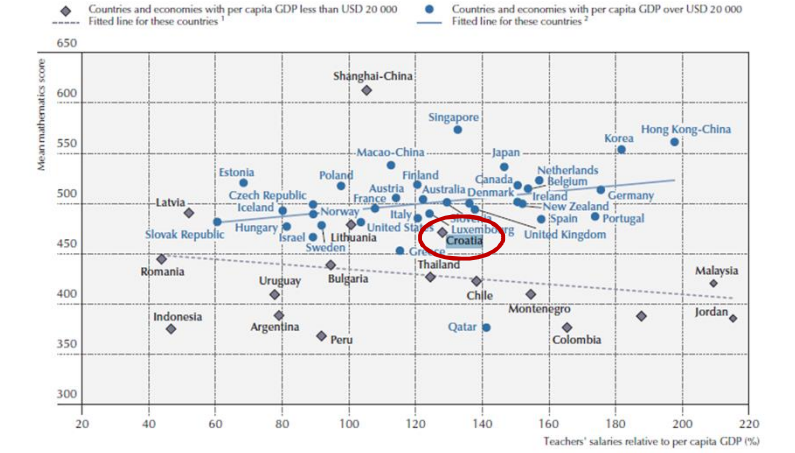

Croatia
x
Overview
Student engagement
Problem solving
Financial literacy
Main results
Problem solving
Mathematics
Overall performance
% of top performers
% of low performers
Impact of social background
Boys vs. girls
Problem solving vs. main Pisa subjects
= better than OECD avg.
= around OECD avg.
= not as good as OECD avg.
start again
next >

Comparing countries' and economies' performance in mathematics

Statistically significantly **above** the OECD average
Not statistically significantly different from the OECD average
Statistically significantly **below** the OECD average

Mean	Comparison country/economy	Countries/economies whose mean score is NOT statistically significantly different from that comparison country's/economy's score
613	Shanghai-China	
573	Singapore	
561	Hong Kong-China	Chinese Taipei, Korea
560	Chinese Taipei	Hong Kong-China, Korea
554	Korea	Hong Kong-China, Chinese Taipei
538	Macao-China	Japan, Liechtenstein
536	Japan	Macao-China, Liechtenstein, Switzerland
535	Liechtenstein	Macao-China, Japan, Switzerland
531	Switzerland	Japan, Liechtenstein, Netherlands
523	Netherlands	Switzerland, Estonia, Finland, Canada, Poland, Viet Nam
521	Estonia	Netherlands, Finland, Canada, Poland, Viet Nam
519	Finland	Netherlands, Estonia, Canada, Poland, Belgium, Germany, Viet Nam
518	Canada	Netherlands, Estonia, Finland, Poland, Belgium, Germany, Viet Nam
518	Poland	Netherlands, Estonia, Finland, Canada, Belgium, Germany, Viet Nam
515	Belgium	Finland, Canada, Poland, Germany, Viet Nam
514	Germany	Finland, Canada, Poland, Belgium, Viet Nam
511	Viet Nam	Netherlands, Estonia, Finland, Canada, Poland, Belgium, Germany, Austria, Australia, Ireland
506	Austria	Viet Nam, Australia, Ireland, Slovenia, Denmark, New Zealand, Czech Republic
504	Australia	Viet Nam, Austria, Ireland, Slovenia, Denmark, New Zealand, Czech Republic
501	Ireland	Viet Nam, Austria, Australia, Slovenia, Denmark, New Zealand, Czech Republic, France, United Kingdom
501	Slovenia	Austria, Australia, Ireland, Denmark, New Zealand, Czech Republic
500	Denmark	Austria, Australia, Ireland, Slovenia, New Zealand, Czech Republic, France, United Kingdom
500	New Zealand	Austria, Australia, Ireland, Slovenia, Denmark, Czech Republic, France, United Kingdom
499	Czech Republic	Austria, Australia, Ireland, Slovenia, Denmark, New Zealand, France, United Kingdom, Iceland
495	France	Ireland, Denmark, New Zealand, Czech Republic, United Kingdom, Iceland, Latvia, Luxembourg, Norway, Portugal
494	United Kingdom	Ireland, Denmark, New Zealand, Czech Republic, France, Iceland, Latvia, Luxembourg, Norway, Portugal
493	Iceland	Czech Republic, France, United Kingdom, Latvia, Luxembourg, Norway, Portugal
491	Latvia	France, United Kingdom, Iceland, Luxembourg, Norway, Portugal, Italy, Spain
490	Luxembourg	France, United Kingdom, Iceland, Latvia, Norway, Portugal
489	Norway	France, United Kingdom, Iceland, Latvia, Luxembourg, Portugal, Italy, Spain, Russian Federation, Slovak Republic, United States
487	Portugal	France, United Kingdom, Iceland, Latvia, Luxembourg, Norway, Italy, Spain, Russian Federation, Slovak Republic, United States, Lithuania
485	Italy	Latvia, Norway, Portugal, Spain, Russian Federation, Slovak Republic, United States, Lithuania
484	Spain	Latvia, Norway, Portugal, Italy, Russian Federation, Slovak Republic, United States, Lithuania, Hungary
482	Russian Federation	Norway, Portugal, Italy, Spain, Slovak Republic, United States, Lithuania, Sweden, Hungary
482	Slovak Republic	Norway, Portugal, Italy, Spain, Russian Federation, United States, Lithuania, Sweden, Hungary
481	United States	Norway, Portugal, Italy, Spain, Russian Federation, Slovak Republic, Lithuania, Sweden, Hungary
479	Lithuania	Portugal, Italy, Spain, Russian Federation, Slovak Republic, United States, Sweden, Hungary, Croatia
478	Sweden	Russian Federation, Slovak Republic, United States, Lithuania, Hungary, Croatia
477	Hungary	Spain, Russian Federation, Slovak Republic, United States, Lithuania, Sweden, Croatia, Israel
471	Croatia	Lithuania, Sweden, Hungary, Israel
466	Israel	Hungary, Croatia

Teachers' salaries and mathematics performance



Note: Teachers' salaries relative to per capita GDP refers to the weighted average of upper and lower secondary school teachers' salaries. The average is computed by weighting lower and upper secondary teachers' salaries according to the enrolments of 15-year-old students (for countries and economies with valid information for both upper and lower secondary education).

1. A non-significant relationship ($p > 0.10$) is shown by the dotted line.
2. A significant relationship ($p < 0.10$) is shown by the solid line.

Source: OECD, PISA 2012 Database; Figure IV.1.10.

Snapshot of performance in problem solving

Countries/economies with mean score/share of top performers/relative performance/solution rate above the OECD average
Countries/economies with share of low achievers below the OECD average

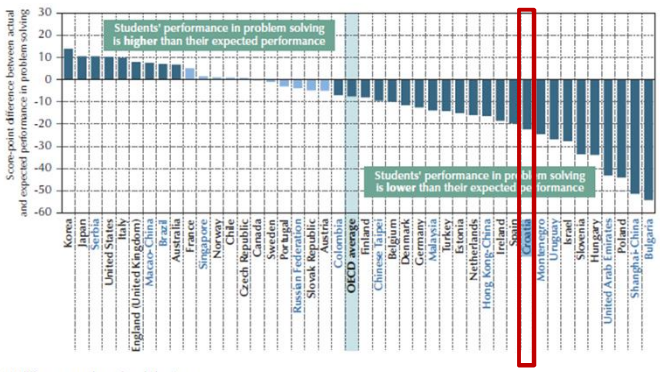
Countries/economies with mean score/share of top performers/share of low achievers/relative performance/solution rate not statistically different from the OECD average

Countries/economies with mean score/share of top performers/relative performance/solution rate below the OECD average
Countries/economies with a share of low achievers above the OECD average

Countries/economies in which the performance difference between boys and girls is statistically significant are marked in **bold**

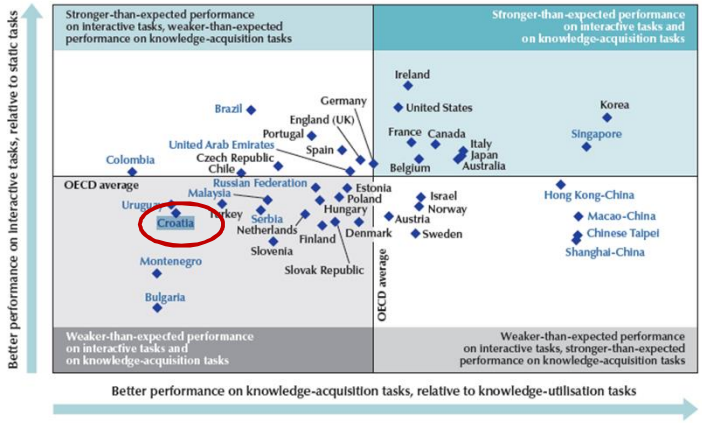
	Performance in problem solving				Relative performance in problem solving, compared with students around the world with similar performance in mathematics, reading and science	Performance in problem solving, by process		Performance in problem solving, by nature of the problem situation	
	Mean score in PISA 2012	Share of low achievers (below Level 2)	Share of top performers (Level 5 or 6)	Gender difference (boys - girls)		Solution rate on tasks measuring **acquisition of knowledge**	Solution rate on tasks measuring **utilisation of knowledge**	Solution rate on items referring to a **static** problem situation	Solution rate on items referring to an **interactive** problem situation
	Mean score	%	%	Score dif.	Score dif.	Percent correct	Percent correct	Percent correct	Percent correct
OECD average	500	21.4	11.4	**7**	-7	45.5	46.4	47.1	43.8
Singapore	562	8.0	29.3	**9**	2	62.0	55.4	59.8	57.5
Korea	561	6.9	27.6	**13**	14	62.8	54.5	58.9	57.7
Japan	552	7.1	22.3	**19**	11	59.1	56.3	58.7	55.9
Macao-China	540	7.5	16.6	**10**	8	58.3	51.3	57.0	51.7
Hong Kong-China	540	10.4	19.3	**13**	-16	57.7	51.1	56.1	52.2
Shanghai-China	536	10.6	18.3	**25**	-51	56.9	49.8	56.7	50.3
Chinese Taipei	534	11.6	18.3	12	-9	56.9	50.1	56.3	50.1
Canada	526	14.7	17.5	**5**	0	52.6	52.1	52.7	50.5
Australia	523	15.5	16.7	2	7	52.3	51.5	52.8	49.9
Finland	523	14.3	15.0	**-6**	-8	50.2	51.0	52.1	47.7
England (United Kingdom)	517	16.4	14.3	6	8	49.6	49.1	49.5	47.9
Estonia	515	15.1	11.8	5	-15	46.8	49.5	49.7	45.6
France	511	16.5	12.0	5	5	49.6	49.4	50.3	47.6
Netherlands	511	18.5	13.6	5	-16	48.2	49.7	50.4	46.5
Italy	510	16.4	10.8	**18**	10	49.5	48.0	49.5	46.8
Czech Republic	509	18.4	11.9	8	1	45.0	46.9	46.2	44.4
Germany	509	19.2	12.8	**7**	-12	47.5	49.5	49.4	46.3
United States	508	18.2	11.6	3	10	46.5	47.1	46.6	45.9
Belgium	508	20.8	14.4	**8**	-10	47.0	47.5	48.3	45.4
Austria	506	18.4	10.9	**12**	-5	45.7	47.4	48.3	43.0
Norway	503	21.3	13.1	-3	1	47.7	48.1	49.4	44.5
Ireland	498	20.3	9.4	5	-18	44.6	45.5	44.4	44.6
Denmark	497	20.4	8.7	**10**	-11	44.2	48.1	47.9	42.3
Portugal	494	20.6	7.4	**16**	-3	41.6	45.7	44.0	42.0
Sweden	491	23.5	8.8	-4	-1	45.2	44.6	47.7	41.6
Russian Federation	489	22.1	7.3	8	-4	40.4	43.8	43.8	39.7
Slovak Republic	483	26.1	7.8	**22**	-5	40.5	43.2	44.2	38.8
Poland	481	25.7	6.9	0	-44	41.3	43.7	44.1	39.7
Spain	477	28.5	7.8	2	-20	40.0	42.3	42.3	39.8
Slovenia	476	28.5	6.6	-4	-34	37.8	42.3	42.9	36.7
Serbia	473	28.5	4.7	**15**	11	37.7	40.7	40.3	36.8
Croatia	466	32.3	4.7	**15**	-22	35.2	40.5	39.3	35.6
Hungary	459	33.0	5.6	3	-34	33.2	37.6	38.2	33.9
Turkey	454	35.8	2.2	**15**	-14	32.8	36.0	35.8	32.7
Israel	454	38.9	8.8	6	-28	38.7	37.0	39.7	35.6

Relative performance in problem solving



Notes: Significant differences are shown in a darker tone.
Each student's expected performance is estimated, using a regression model, as the predicted performance in problem solving given his or her score in mathematics, reading and science.
Countries and economies are ranked in descending order of the score-point difference between actual and expected performance.
Source: OECD, PISA 2012 Database; Table V.2.6.

Students' strengths and weaknesses in problem solving



Note: In interactive tasks, students must uncover some of the information required to solve the problem; static tasks have all the necessary information disclosed at the outset.
For each country/economy and for each set of tasks, expected performance is based on the country's/economy's overall performance in problem solving and on the relative difficulty of tasks, as measured across OECD countries.
Source: OECD, PISA 2012 Database; Tables V.3.1 and V.3.6.

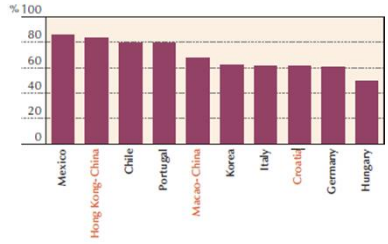
Snapshot of performance in mathematics, reading and science

Countries/economies with a mean performance/share of top performers above the OECD average
Countries/economies with a share of low achievers below the OECD average
Countries/economies with a mean performance/share of low achievers/share of top performers not statistically significantly different from the OECD average
Countries/economies with a mean performance/share of top performers below the OECD average
Countries/economies with a share of low achievers above the OECD average

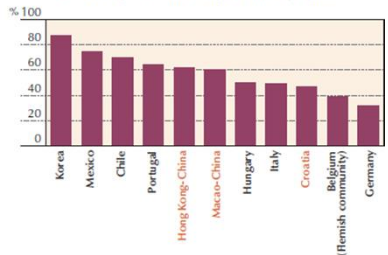
	Mathematics				Reading		Science	
	Mean score in PISA 2012	Share of low achievers in mathematics (Below Level 2)	Share of top performers in mathematics (Level 5 or 6)	Annualised change in score points	Mean score in PISA 2012	Annualised change in score points	Mean score in PISA 2012	Annualised change in score points
OECD average	494	23.0	12.6	**-0.3**	496	**0.3**	501	**0.5**
Shanghai-China	613	3.8	55.4	**4.2**	570	**4.6**	580	1.8
Singapore	573	8.3	40.0	**3.8**	542	**5.4**	551	**3.3**
Hong Kong-China	561	8.5	33.7	**1.3**	545	**2.3**	555	**2.1**
Chinese Taipei	560	12.8	37.2	1.7	523	**4.5**	523	-1.5
Korea	554	9.1	30.9	1.1	536	**0.9**	538	**2.6**
Macao-China	538	10.8	24.3	**1.0**	509	**0.8**	521	**1.6**
Japan	536	11.1	23.7	0.4	538	**1.5**	547	**2.6**
Liechtenstein	535	14.1	24.8	0.3	516	**1.3**	525	0.4
Switzerland	531	12.4	21.4	0.6	509	**1.0**	515	0.6
Netherlands	523	14.8	19.3	**-1.6**	511	-0.1	522	-0.5
Estonia	521	10.5	14.6	0.9	516	**2.4**	541	1.5
Finland	519	12.3	15.3	**-2.8**	524	**-1.7**	545	**-3.0**
Canada	518	13.8	16.4	**-1.4**	523	**-0.9**	525	**-1.5**
Poland	518	14.4	16.7	**2.6**	518	**2.8**	526	**4.6**
Belgium	515	19.0	19.5	**-1.6**	509	0.1	505	-0.9
Germany	514	17.7	17.5	**1.4**	508	**1.8**	524	1.4
Viet Nam	511	14.2	13.3	m	508	m	528	m
Austria	506	18.7	14.3	0.0	490	-0.2	506	-0.8
Australia	504	19.7	14.8	**-2.2**	512	**-1.4**	521	-0.9
Ireland	501	16.9	10.7	-0.6	523	**-0.9**	522	**2.3**
Slovenia	501	20.1	13.7	-0.6	481	**-2.2**	514	-0.8
Denmark	500	16.8	10.0	**-1.8**	496	0.1	498	0.4
New Zealand	500	22.6	15.0	**-2.5**	512	**-1.1**	516	**-2.5**
Czech Republic	499	21.0	12.9	**-2.5**	493	-0.5	508	-1.0
France	495	22.4	12.9	**-1.5**	505	0.0	499	0.6
United Kingdom	494	21.8	11.8	-0.3	499	0.7	514	-0.1
Iceland	493	21.5	11.2	**-2.2**	483	**-1.3**	478	**-2.0**
Latvia	491	19.9	8.0	0.5	489	**1.9**	502	**2.0**
Luxembourg	490	24.3	11.2	-0.3	488	**0.7**	491	0.9
Norway	489	22.3	9.4	-0.3	504	0.1	495	1.3
Portugal	487	24.9	10.6	**2.8**	488	**1.6**	489	**2.5**
Italy	485	24.7	9.9	**2.7**	490	0.5	494	**3.0**
Spain	484	23.6	8.0	0.1	488	-0.3	496	1.3
Russian Federation	482	24.0	7.8	1.1	475	**1.1**	486	1.0
Slovak Republic	482	27.5	11.0	**-1.4**	463	-0.1	471	**-2.7**
United States	481	25.8	8.8	0.3	498	-0.3	497	1.4
Lithuania	479	26.0	8.1	-1.4	477	1.1	496	1.3
Sweden	478	27.1	8.0	**-3.3**	483	**-2.8**	485	**-3.1**
Hungary	477	28.1	9.3	**-1.3**	488	**1.0**	494	-1.6
Croatia	471	29.9	7.0	0.6	485	1.2	491	-0.3
Israel	466	33.2	9.4	**4.4**	486	**3.7**	470	**2.9**
Greece	453	35.7	3.9	**1.1**	477	0.5	467	-1.1
Serbia	449	38.9	4.6	**2.2**	446	**7.6**	445	1.5

Parents' expectations for their child's future

Parents expect the child to work as managers or professionals at age 30[1]



Parents expect the child to complete a university degree[2]



- **Podaci RH (proteklo razdoblje):**
  - u **dvije godine više od 40.000 stanovnika Hrvatske odlučilo da više ne želi tražiti posao**
  - **čak 190.000 nezaposlenih ne traži posao** i ne planira više nigdje raditi
  - **koja su zanimanja budućnosti**...ili...kojih 45 zanimanja jesu izvrsno plaćena npr. u Njemačkoj?
  - **samo 42% poslodavaca misli da mladi s diplomom mogu odmah početi raditi**... a **72% predstavnika obrazovnih institucija misli to isto**...raskorak?
  - **isplati li se u Hrvatskoj investirati u vlastiti obrazovanje**?
  - **35.000 visokoobrazovanih prijavljeno je na burzi**...traže posao, a ne mogu ga dobiti
  - **po broju visokoobrazovanih na začelju smo EU**...16,4% stanovnika starijih od 15 godina
  - stručnjaci s diplomom rade u državnim službama, a ne na razvoju ekonomije
  - **kakva je obrazovna struktura RH?...**skoro 50% zaposlenih ima srednju stručnu spremu...a oko 29% više/visoko obrazovanje...RH je 21 od 28 država EU kada se radi o visokoobrazovanim zaposlenicima

Quo vadis tehnologije ???

Mobile Internet	Increasingly inexpensive and capable mobile computing devices and Internet connectivity
Automation of knowledge work	Intelligent software systems that can perform knowledge work tasks involving unstructured commands and subtle judgments
The Internet of Things	Networks of low-cost sensors and actuators for data collection, monitoring, decision making, and process optimization
Cloud technology	Use of computer hardware and software resources delivered over a network or the Internet, often as a service
Advanced robotics	Increasingly capable robots with enhanced senses, dexterity, and intelligence used to automate tasks or augment humans
Autonomous and near-autonomous vehicles	Vehicles that can navigate and operate with reduced or no human intervention

Next-generation genomics	Fast, low-cost gene sequencing, advanced big data analytics, and synthetic biology ("writing" DNA)
Energy storage	Devices or systems that store energy for later use, including batteries
3D printing	Additive manufacturing techniques to create objects by printing layers of material based on digital models
Advanced materials	Materials designed to have superior characteristics (e.g., strength, weight, conductivity) or functionality
Advanced oil and gas exploration and recovery	Exploration and recovery techniques that make extraction of unconventional oil and gas economical
Renewable energy	Generation of electricity from renewable sources with reduced harmful climate impact

Radimo li prave stvari na pravi način ???

Pitanja...3 ključna...

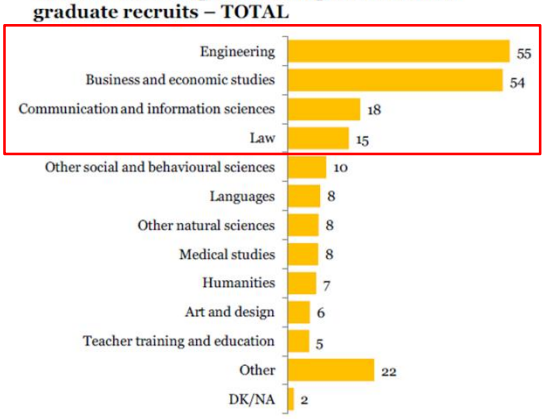
1. Koje vještine i znanja **poslodavci traže danas**?
2. Koje vještine i znanja **ne trebaju danas**?
3. Koje će vještine i znanja **poslodavci trebati u budućnosti**?

Å ....

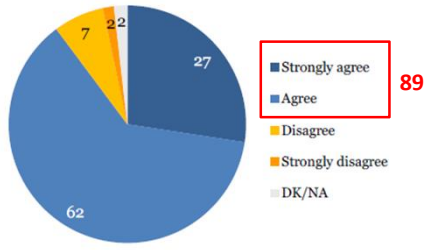
EU poslodavci:
tržište rada i visoko obrazovanje???

- **2010.**
- **The survey covered all 27 EU Member States Norway, Iceland, Croatia and Turkey.**

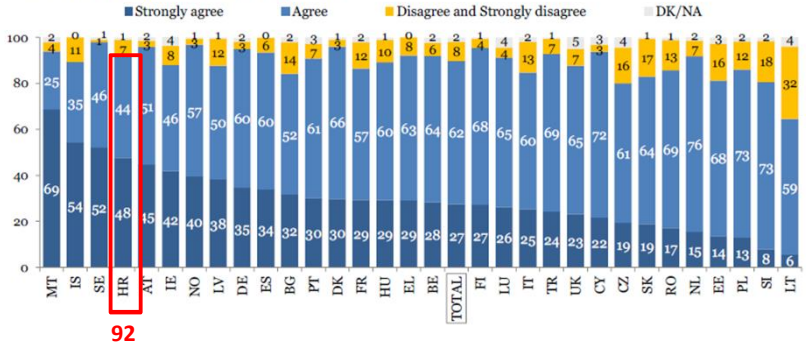
Educational background of higher education graduate recruits – TOTAL



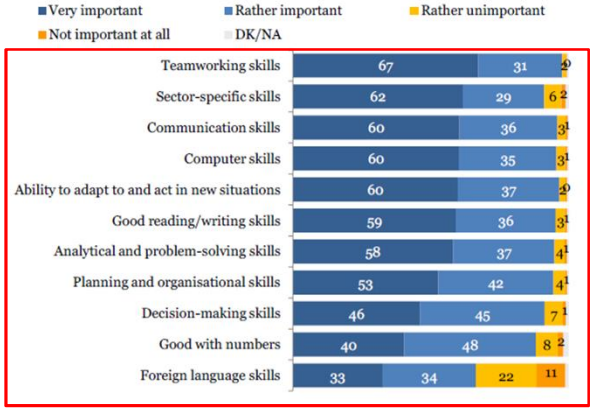
Higher education graduates recruited in the last 3-5 years have the skills required to work in respondents' companies – TOTAL



Higher education graduates recruited in the last 3-5 years have the skills required to work in respondents' companies

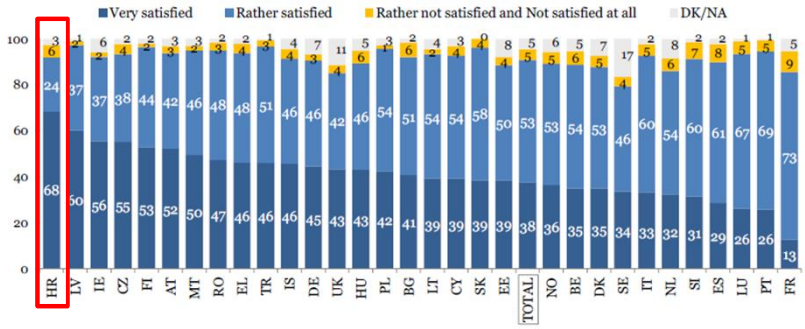


Importance of various skills and capabilities when recruiting higher education graduates – TOTAL

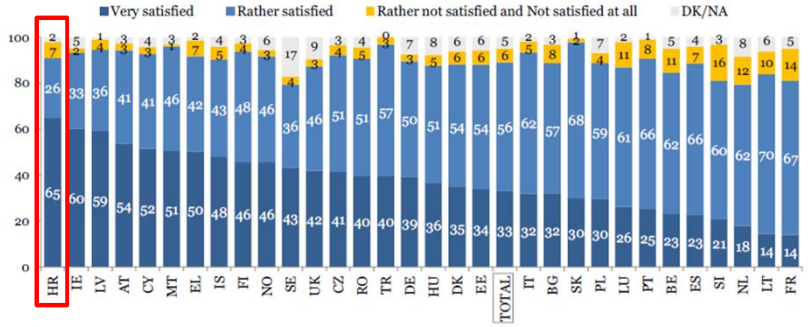


Satisfaction with higher education graduate recruits in terms of their various skills and capabilities - TOTAL

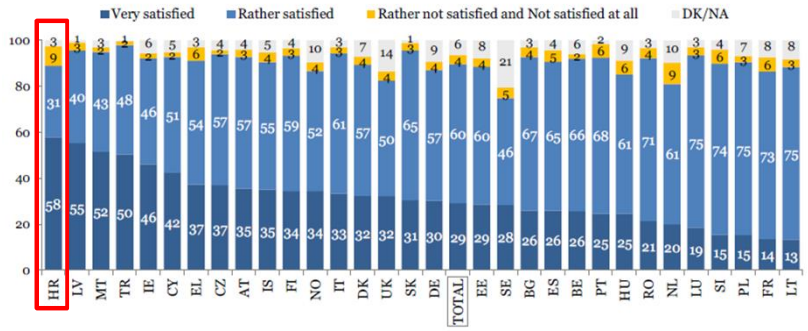
Satisfaction with the skills and capabilities of higher education graduate recruits
Computer skills



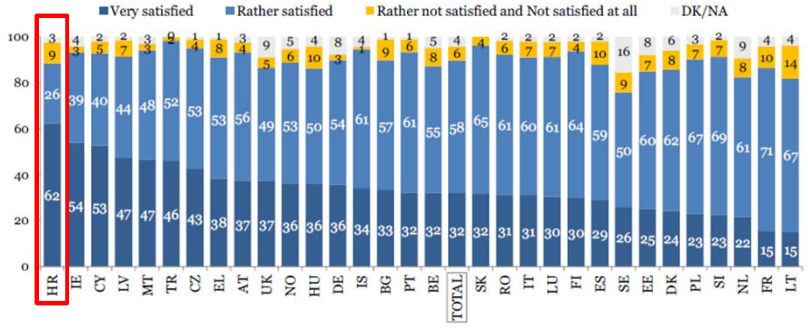
Satisfaction with the skills and capabilities of higher education graduate recruits
Good literacy (reading and writing) skills



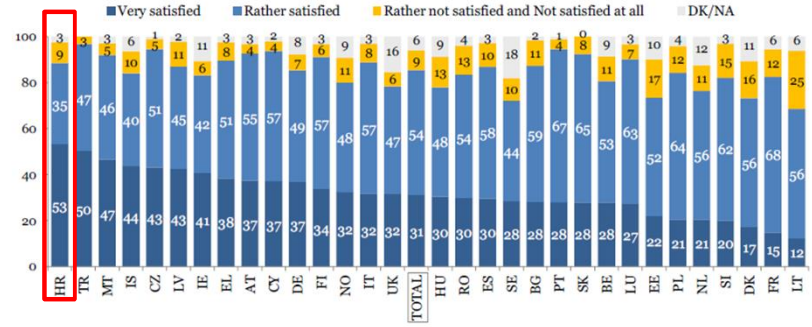
Satisfaction with the skills and capabilities of higher education graduate recruits
Good numeracy skills (good with numbers)



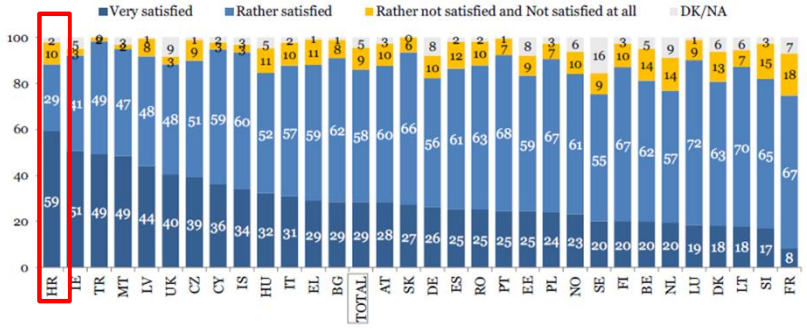
Satisfaction with the skills and capabilities of higher education graduate recruits
Teamworking skills



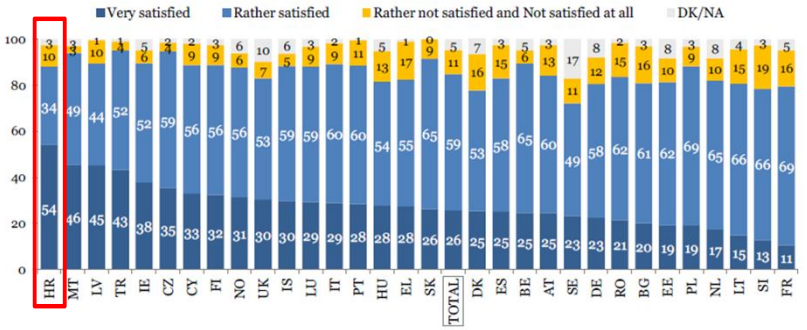
Satisfaction with the skills and capabilities of higher education graduate recruits
Sector-specific skills



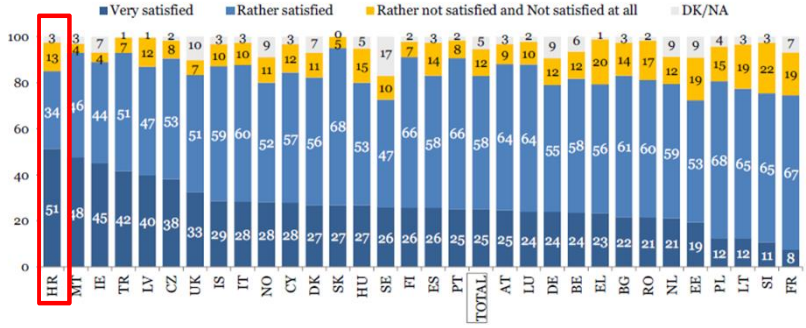
Satisfaction with the skills and capabilities of higher education graduate recruits
Communication skills



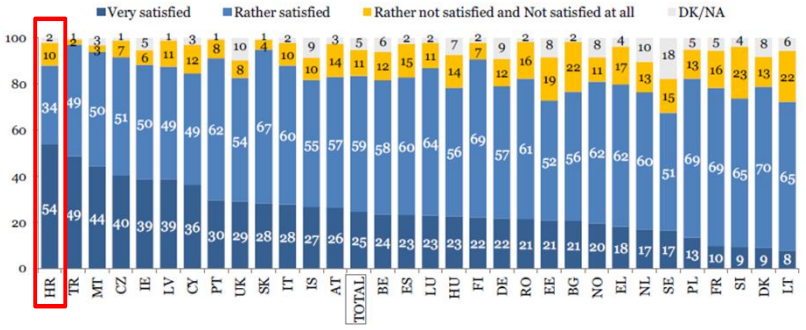
Satisfaction with the skills and capabilities of higher education graduate recruits
Ability to adapt to and act in new situations



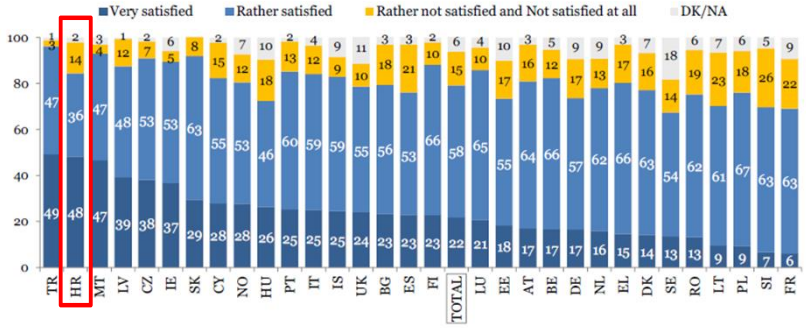
Satisfaction with the skills and capabilities of higher education graduate recruits
Analytical and problem-solving skills



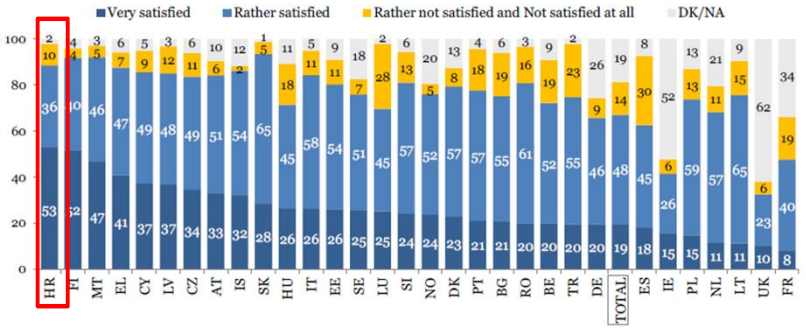
Satisfaction with the skills and capabilities of higher education graduate recruits
Planning and organisational skills



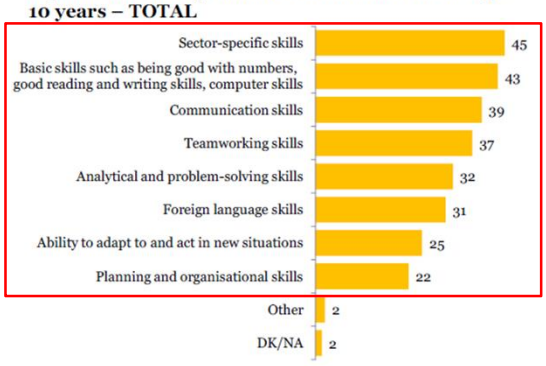
Satisfaction with the skills and capabilities of higher education graduate recruits
Decision-making skills



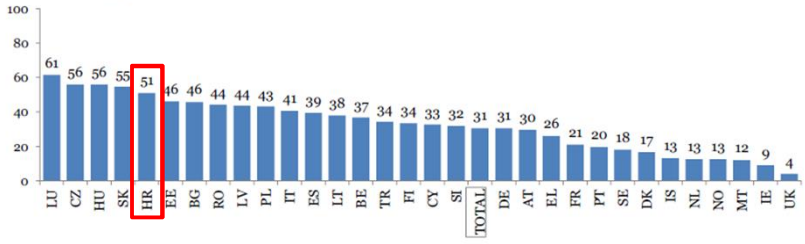
Satisfaction with the skills and capabilities of higher education graduate recruits
Foreign language skills



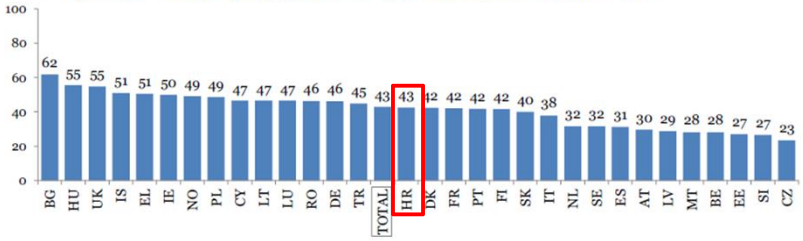
Opinions about the skills and capabilities that higher education graduates should have in next 5-10 years – TOTAL



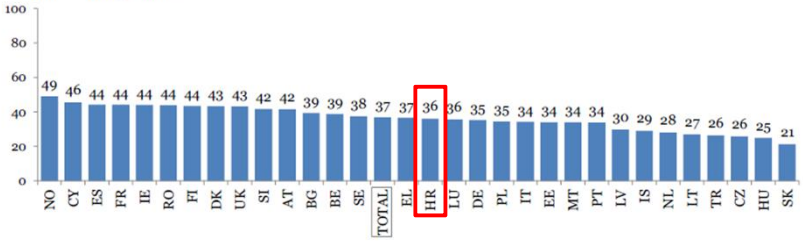
Opinions about the skills that higher education graduates should have in next 5-10 years
Foreign language skills



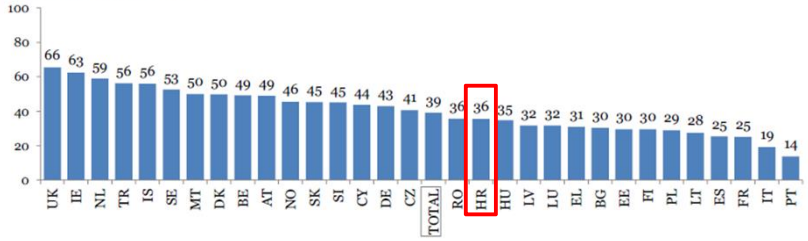
Opinions about the skills that higher education graduates should have in next 5-10 years
Basic capabilities such as having good numeracy, literacy and computer skills



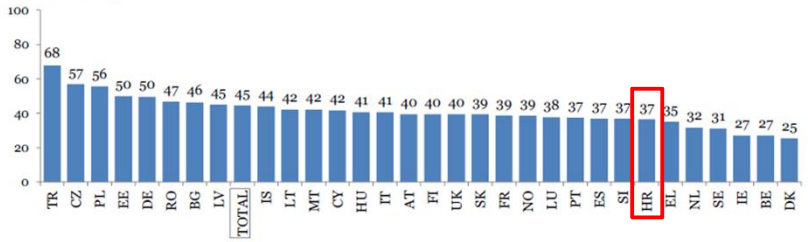
Opinions about the skills that higher education graduates should have in next 5-10 years
Teamworking skills



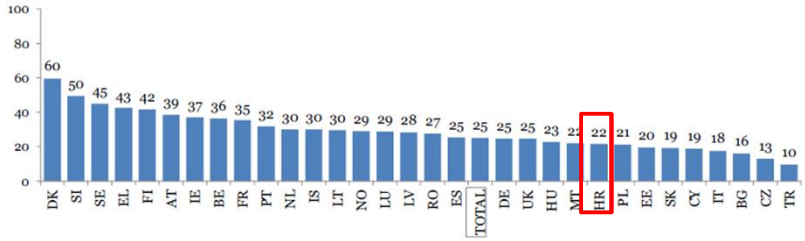
Opinions about the skills that higher education graduates should have in next 5-10 years
Communication skills



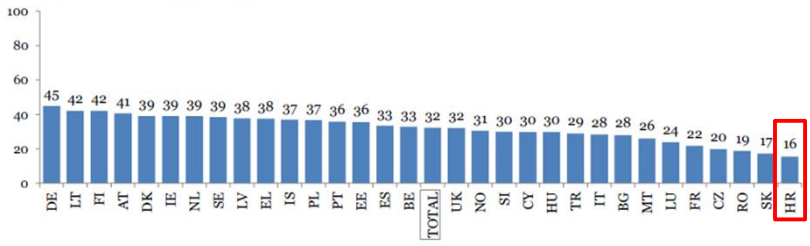
Opinions about the skills that higher education graduates should have in next 5-10 years
Sector-specific skills



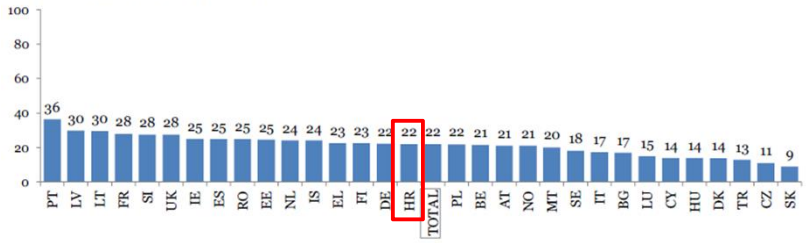
Opinions about the skills that higher education graduates should have in next 5-10 years
Ability to adapt to and act in new situations



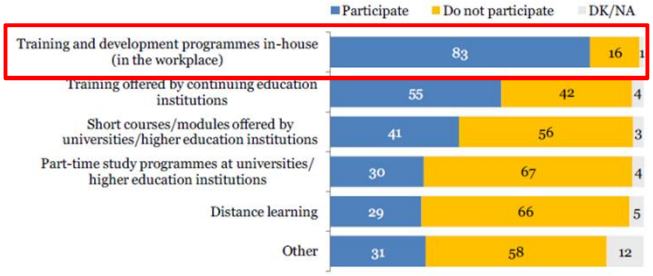
Opinions about the skills that higher education graduates should have in next 5-10 years
Analytical and problem-solving skills



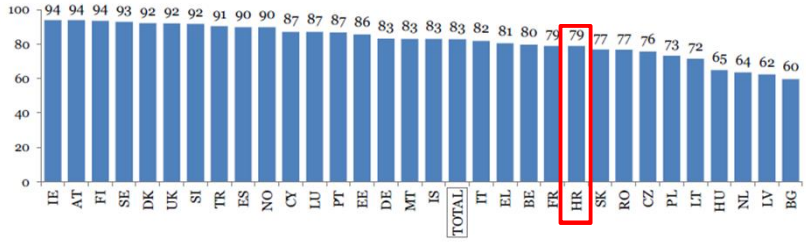
Opinions about the skills that higher education graduates should have in next 5-10 years
Planning and organisational skills



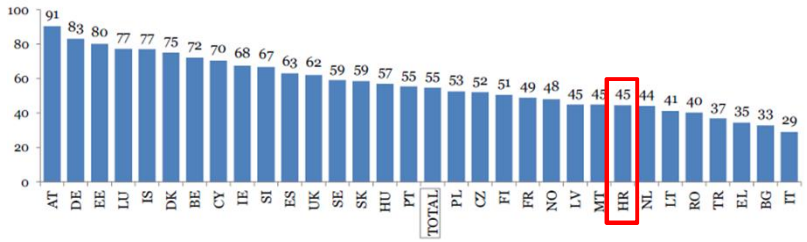
Training activites that employees with higher education degrees have participated/participate in - TOTAL



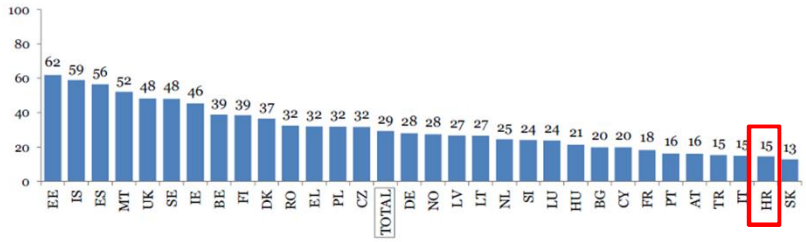
Employees with higher education degrees have participated/participate in training and development programmes in-house



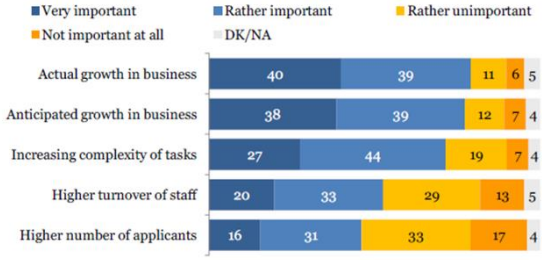
Employees with higher education degrees have participated/participate in training offered by continuing education institutions



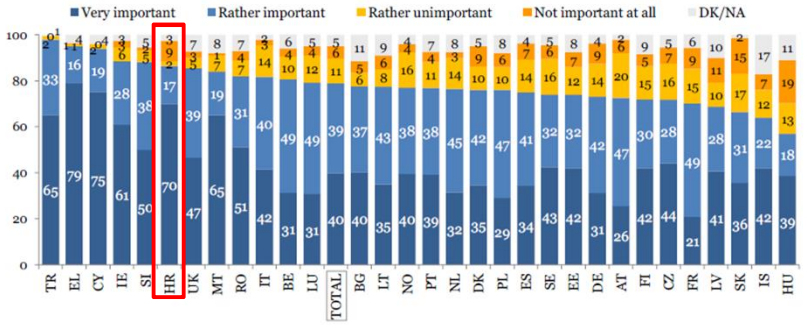
Employees with higher education degrees have participated/participate in distance learning



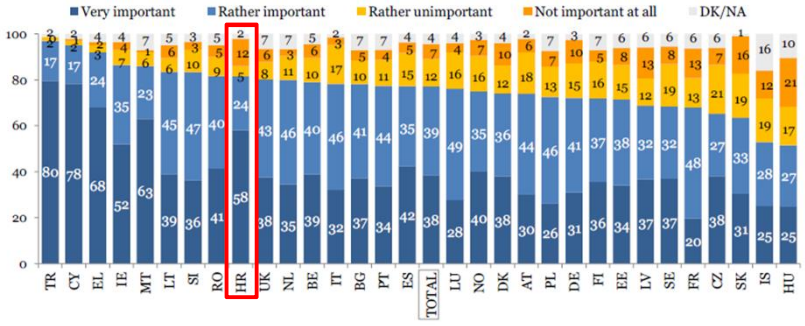
Importance of various factors in graduate recruitment - TOTAL



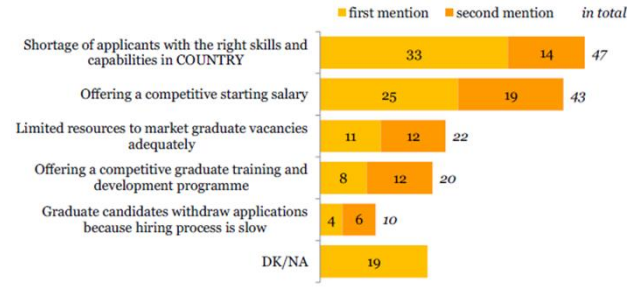
Importance of actual growth in business in recruiting graduates



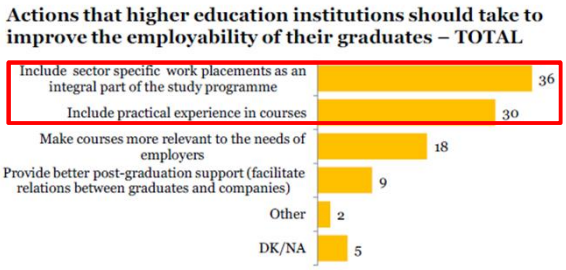
Importance of anticipated growth in business in graduate recruitment



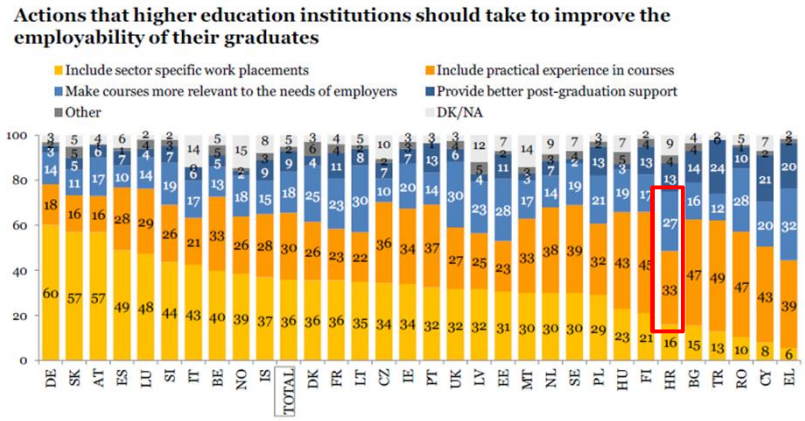
Greatest challenges in filling vacancies - TOTAL



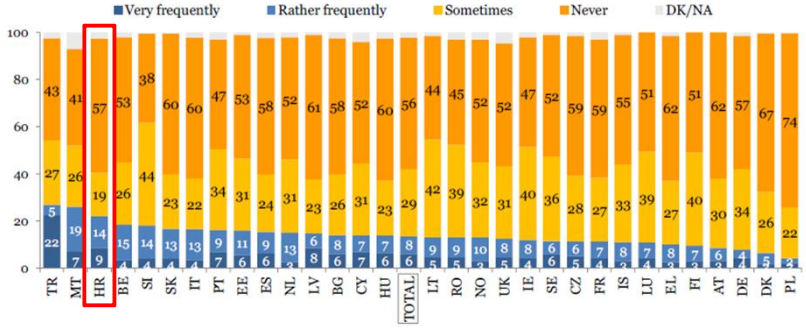
Reasons for recruiting higher education graduates from other countries - TOTAL



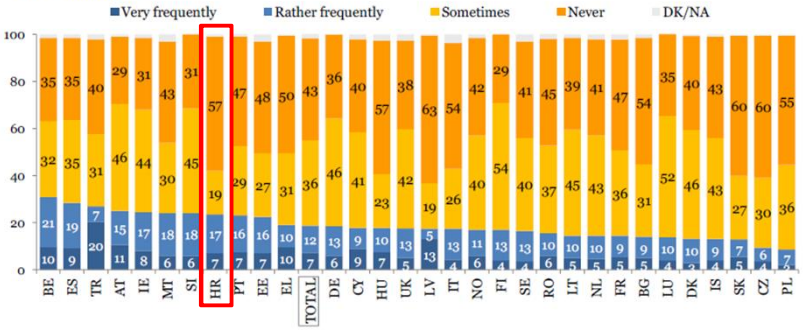
- **primjenjivost vs. praktična nastava**
- **stručna praksa**
- **relevantnost predmeta za poslodavce**



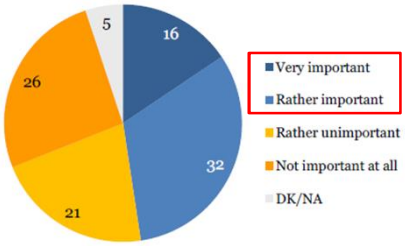
Frequency of cooperation with higher education institutions to discuss curriculum design and study programmes



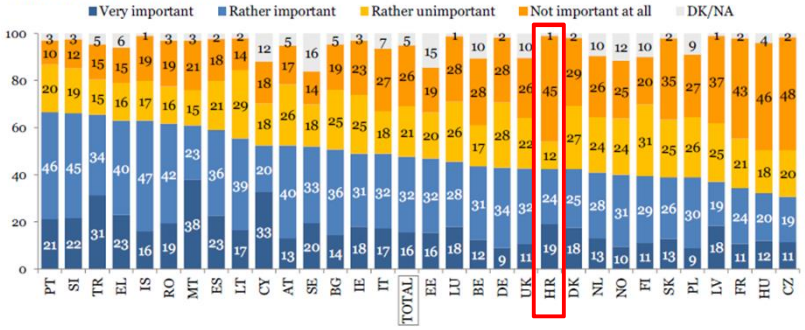
Frequency of cooperation with higher education institutions in the recruitment of their graduates



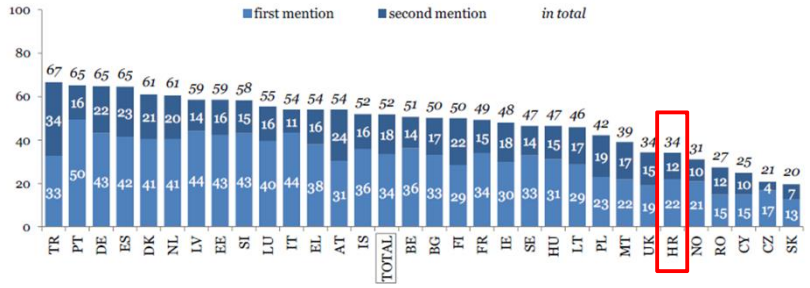
Respondents' opinions about the importance of cooperation with higher education institutions - TOTAL



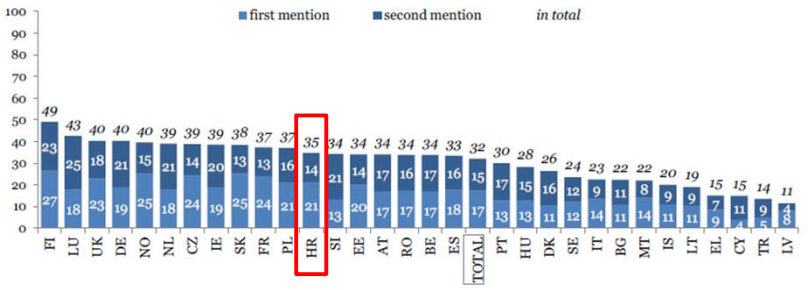
Respondents' opinions about the importance of cooperation with higher education institutions



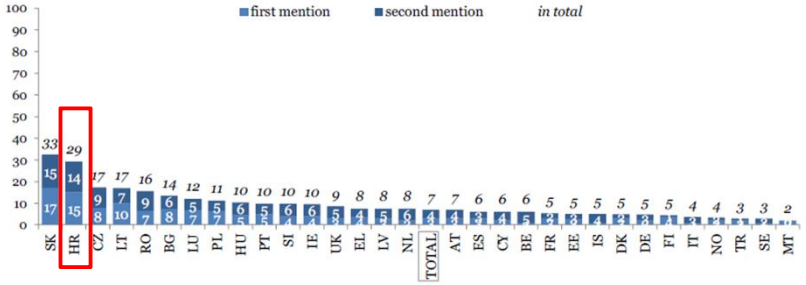
Opinions about the best ways of cooperating with higher education institutions on recruitment
Participation in an internship programme with higher education institutions



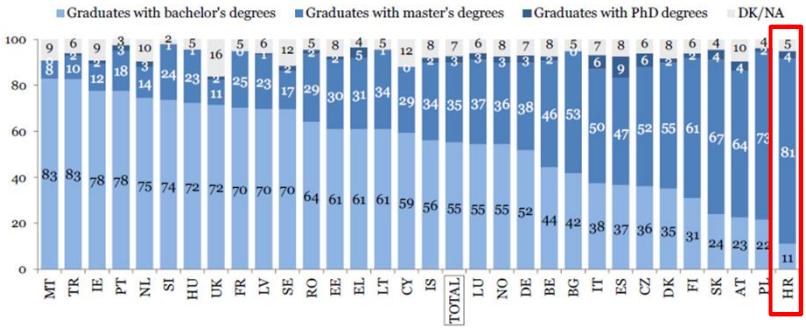
Opinions about the best ways of cooperating with higher education institutions on recruitment
Direct recruitment from schools



Opinions about the best ways of cooperating with higher education institutions on recruitment
Answering surveys



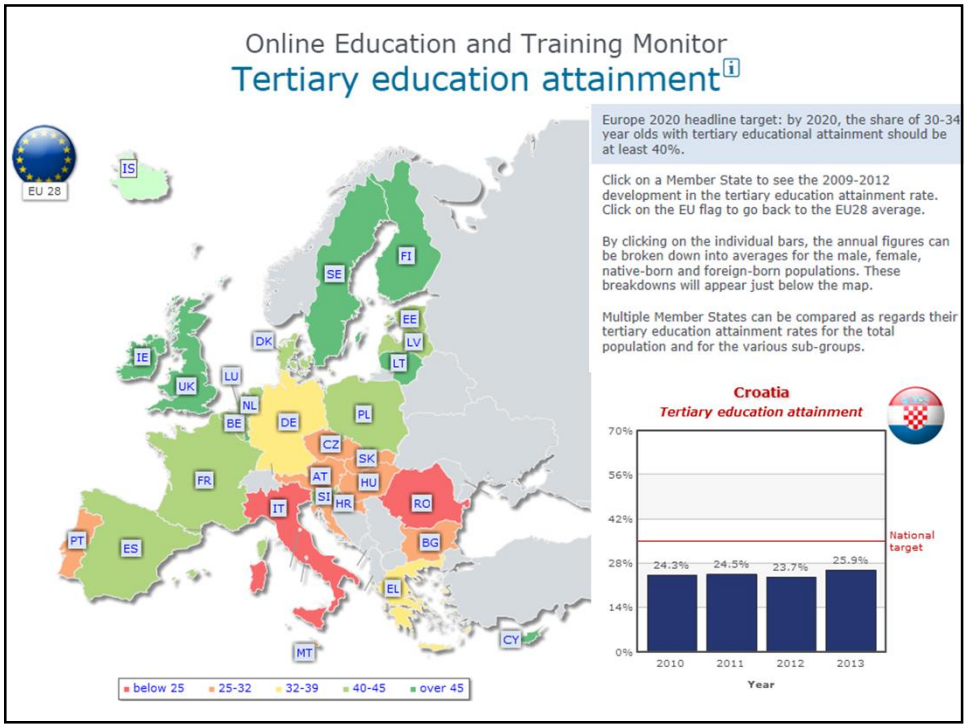
Level of graduate that best fit the skill requirements in the company

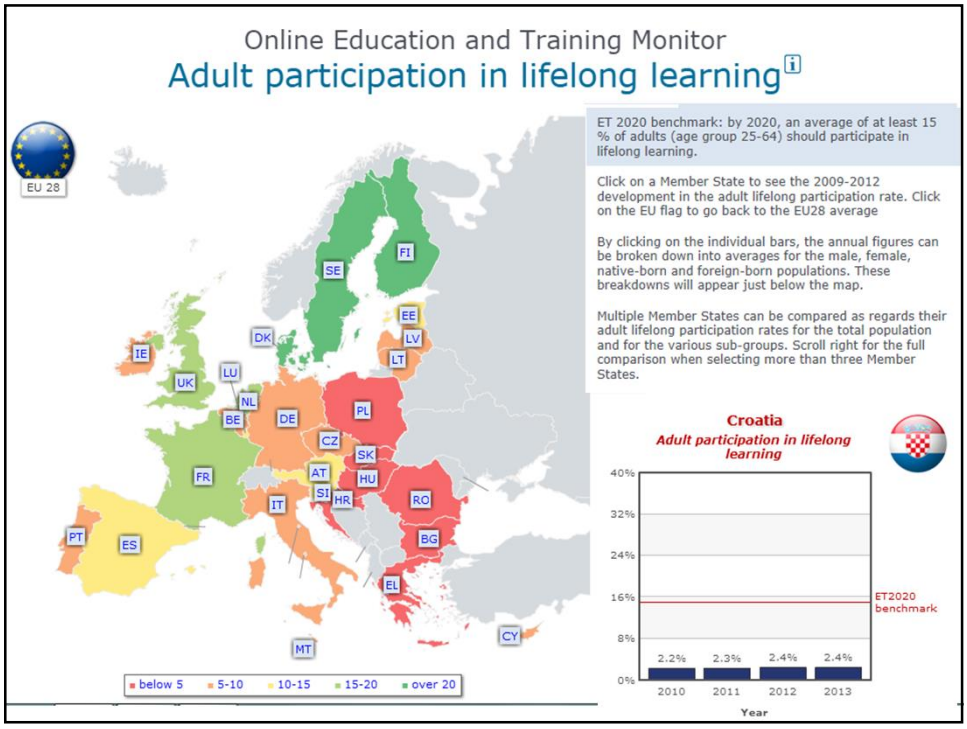


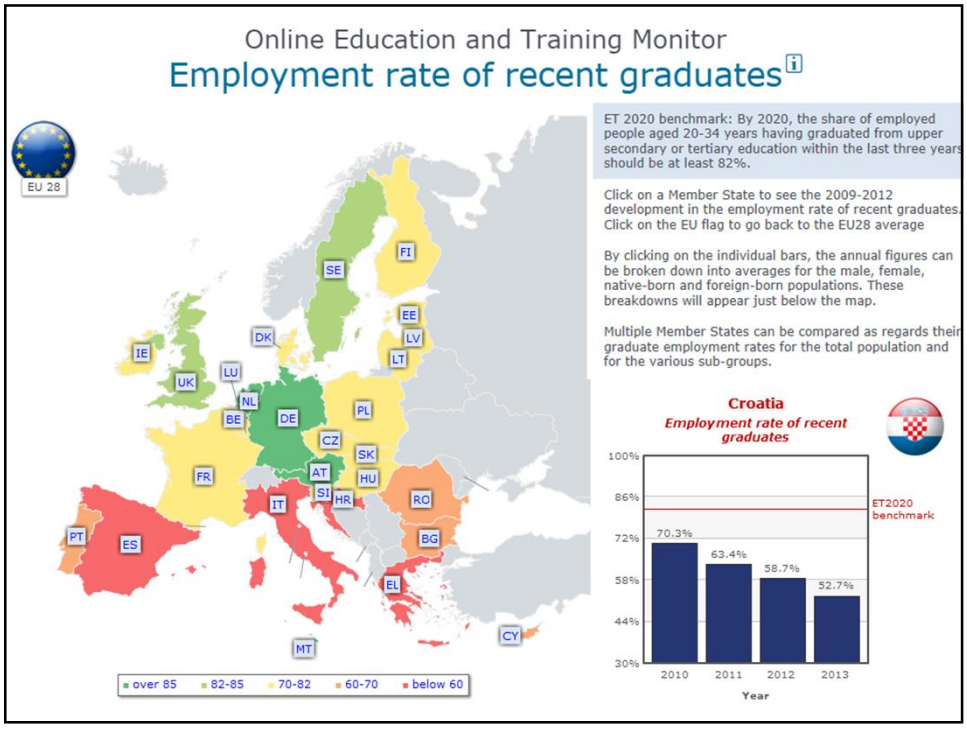
Å **11% (prvostupnik) vs. 81% (*master*)**

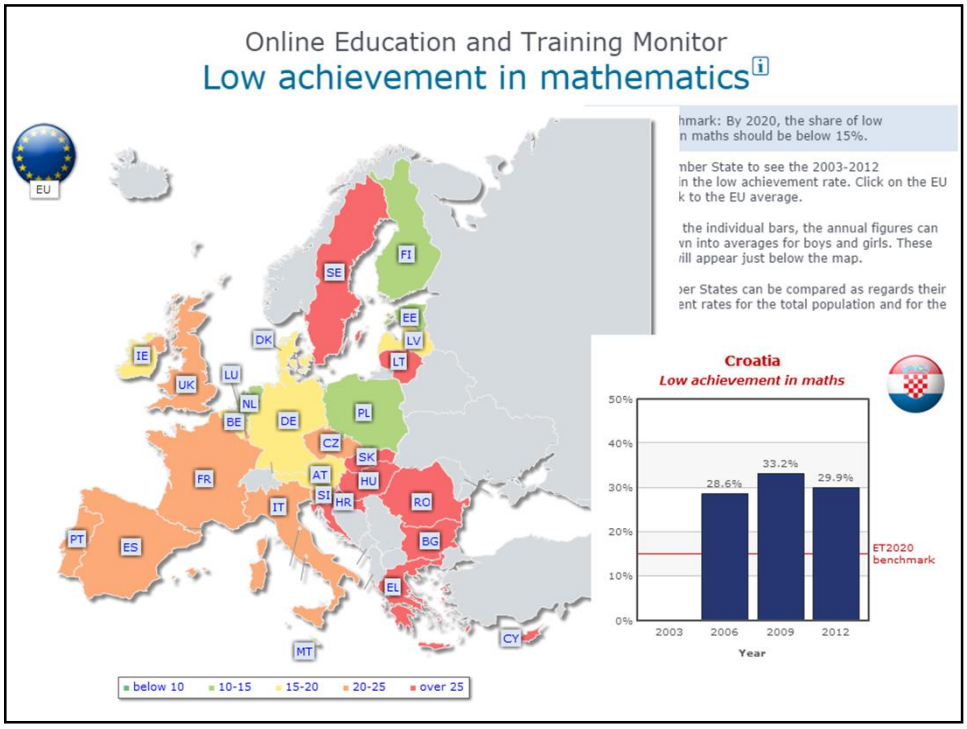
Istraživanje je provedeno 2010...

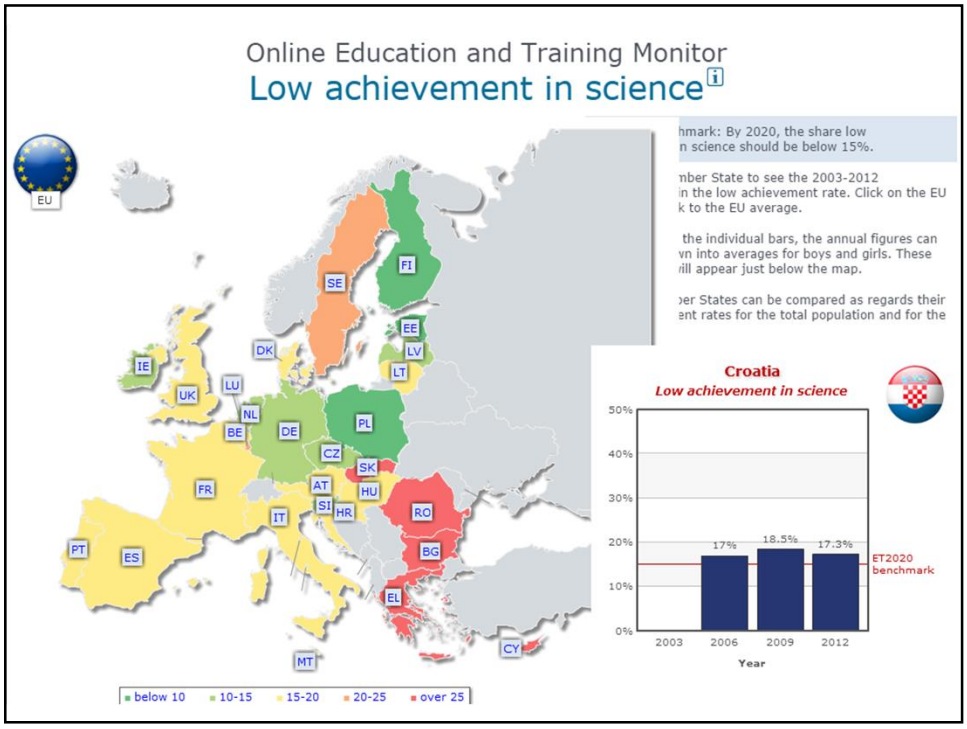
- **2013. ???**

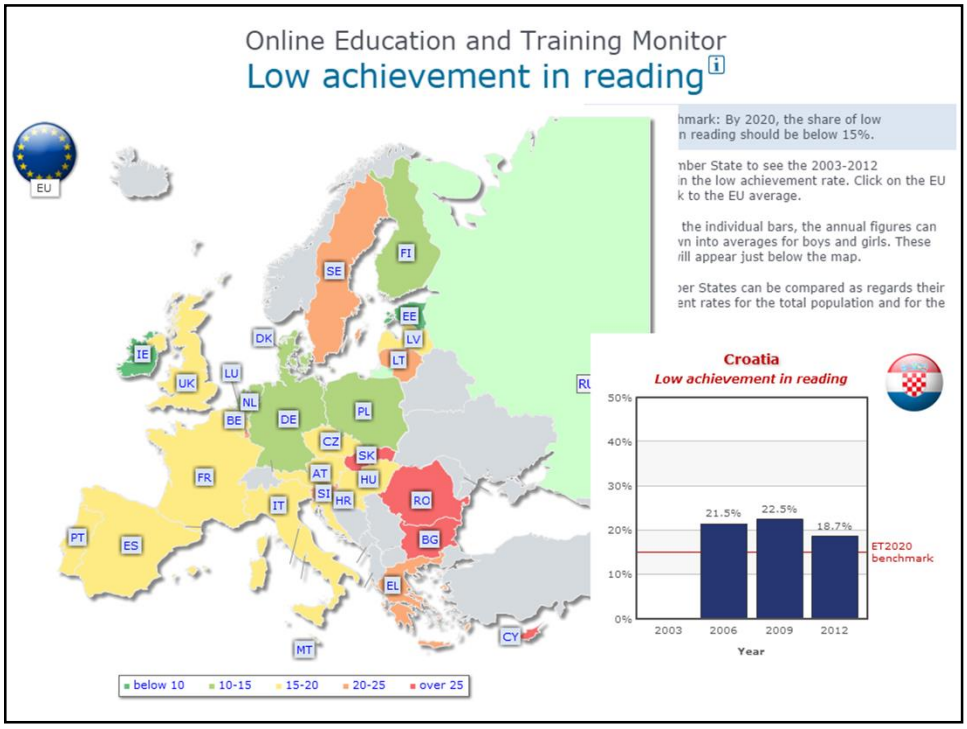



Online Education and Training Monitor
Adult participation in lifelong learning
EU 28
ET 2020 benchmark: by 2020, an average of at least 15 % of adults (age group 25-64) should participate in lifelong learning.
Click on a Member State to see the 2009-2012 development in the adult lifelong participation rate. Click on the EU flag to go back to the EU28 average
By clicking on the individual bars, the annual figures can be broken down into averages for the male, female, native-born and foreign-born populations. These breakdowns will appear just below the map.
Multiple Member States can be compared as regards their adult lifelong participation rates for the total population and for the various sub-groups. Scroll right for the full comparison when selecting more than three Member States.
below 5
5-10
10-15
15-20
over 20
Croatia
Adult participation in lifelong learning
40%
32%
24%
16%
8%
0%
2.2%
2.3%
2.4%
2.4%
ET2020 benchmark
2010
2011
2012
2013
Year


Online Education and Training Monitor
Employment rate of recent graduates
EU 28
ET 2020 benchmark: By 2020, the share of employed people aged 20-34 years having graduated from upper secondary or tertiary education within the last three years should be at least 82%.
Click on a Member State to see the 2009-2012 development in the employment rate of recent graduates. Click on the EU flag to go back to the EU28 average
By clicking on the individual bars, the annual figures can be broken down into averages for the male, female, native-born and foreign-born populations. These breakdowns will appear just below the map.
Multiple Member States can be compared as regards their graduate employment rates for the total population and for the various sub-groups.
over 85
82-85
70-82
60-70
below 60
Croatia
Employment rate of recent graduates
100%
86%
72%
58%
44%
30%
70.3%
63.4%
58.7%
52.7%
ET2020 benchmark
2010
2011
2012
2013
Year


Online Education and Training Monitor
Low achievement in mathematics
hmark: By 2020, the share of low
n maths should be below 15%.
nber State to see the 2003-2012
in the low achievement rate. Click on the EU
k to the EU average.
the individual bars, the annual figures can
vn into averages for boys and girls. These
ill appear just below the map.
er States can be compared as regards their
ent rates for the total population and for the
EU
Croatia
Low achievement in maths
50%
40%
30%
20%
10%
0%
28.6%
33.2%
29.9%
ET2020 benchmark
2003
2006
2009
2012
Year
below 10
10-15
15-20
20-25
over 25


Online Education and Training Monitor
Low achievement in science
hmark: By 2020, the share low
n science should be below 15%.
nber State to see the 2003-2012
in the low achievement rate. Click on the EU
k to the EU average.
the individual bars, the annual figures can
vn into averages for boys and girls. These
ill appear just below the map.
er States can be compared as regards their
ent rates for the total population and for the
EU
Croatia
Low achievement in science
50%
40%
30%
20%
10%
0%
17%
18.5%
17.3%
ET2020 benchmark
2003
2006
2009
2012
Year
below 10
10-15
15-20
20-25
over 25



Još malo statistike...svijet...

- **Podaci razvijenijih država** ukazuju na veličinu problema:
  - **10 najtraženijih zanimanja u 2010.** nije postojalo **2004. godine**
  - **današnji srednjoškolac** će **promijeniti 10 do 14 radnih mjesta** do **svoje 38 godine**
  - količina **novih tehničkih informacija udvostručuje se svake 2 godine**
  - **polovica usvojenog znanja na 1. godini studija** (za studente koji započinju 4.-godišnji studij) **će biti zastarjela do njihove 3.-će godine studija**, dakle prije završetka studija....

		Visoko obrazovanje	
		adekvatna znanja i vještine	**neadekvatna znanja i vještine**
Tvrtke	**znaju što trebaju**	tvrtke znaju koja znanja i vještine trebaju te to i dobivaju	tvrtke znaju koja znanja i vještine trebaju, ali ih ne dobivaju
	ne znaju što trebaju	tvrtke ne znaju koja znanja i vještine trebaju te ne koriste potencijal znanja i vještina koje postoje na tržištu rada	tvrtke ne znaju koja znanja i vještine trebaju, no ne postoji ni potencijal znanja i vještina na tržištu rada

Kako obrazovati studente za zanimanja koja još ne postoje, koristeći tehnologije koje još nisu osmišljene, tako da budu u mogućnosti rješavati probleme za koje trenutno uopće nisu svjesni da postoje?

Samo promjena je stalna....
I to promjena koje će permanentno omogućavati usklađivanje stečenih znanja i kompetencija sa sadašnjim, ali i budućim potrebama tržišta rada.

McKinsey & Company: od obrazovanja do zapošljavanja

- **McKinsey & Company: od obrazovanja do zapošljavanja** (**Education to employment**: Getting Europe's youth into work, 2014.)
  - Konzultantska kuća McKinsey & Company objavila je u siječnju istraživanje o problemima s kojima se suočavaju mladi na prijelazu iz obrazovanja na tržište rada.
  - Nezaposlenost mladih jedan je od gorućih problema na razini Europske unije, ali i na razini pojedinačnih država članica.
- Istraživanje je obuhvatilo 5300 mladih, 2600 poslodavaca i 700 postsekundarnih obrazovnih institucija u 8 država: Francuskoj, Njemačkoj, Grčkoj, Italiji, Portugalu, Španjolskoj, Švedskoj i Ujedinjenom Kraljevstvu, što čini 73% nezaposlenih mladih u Europi.

McKinsey & Company: od obrazovanja do zapošljavanja

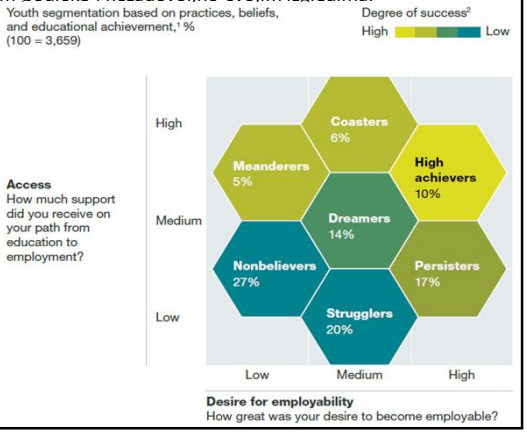
- Dakle, u Europi je nezaposleno 5,6 milijuna mladih, no **više od polovice** njih radno mjesto ne može pronaći jer **nemaju odgovarajuća znanja i vještine**. To pak znači da se poduzeća diljem Europe suočavaju s problemom regrutiranja radne snage koja ima odgovarajuća znanja i vještine.
- U ovom **recentnom McKinsey-jevom istraživanju** pokušali su pronaći odgovore na sljedeća pitanja (temeljem metodologije iz istraživanja provedenog 2012. godine, Education to Employment: Designing a System that Works):
  - **Je li broj nezaposlenih mladih osoba u Europi rezultat manjka slobodnih radnih mjesta, nedostatka adekvatnih vještina ili je riječ o manjku međusobne koordinacije**?
  - **Koje su prepreke s kojima se mladi suočavaju na prijelazu iz sustava obrazovanja na tržište rada?**
  - **Koje su grupe mladih i poslodavaca najugroženije?**
  - **Kako riješiti problem?**

McKinsey & Company: od obrazovanja do zapošljavanja

1. **Dok se broj osoba koje traže posao povećava, poslodavci sve teže pronalaze zaposlenike s traženim vještinama**.
   - poseban problem je nezadovoljstvo poslodavaca vještinama aplikanata: **27% poslodavaca nije pronašlo zaposlenika sa odgovarajućim vještinama za otvoreno radno mjesto**, a **33% poslodavaca kaže da nedostatak odgovarajućih vještina uzrokuje ozbiljne poslovne probleme u pogledu kvalitete, cijene i vremena**. Zanimljivo je da su poslodavci iz država najveće nezaposlenosti najviše ukazivali na navedene probleme.
   - **74% obrazovnih institucija** je uvjereno da su polaznici po završetku školovanja pripremljeni za tržište rada, dok se s time složilo **samo 38% mladih** i **35% poslodavaca**
2. **Mladi se suočavaju sa barem tri ozbiljne zapreke.**
   - Put od obrazovanja do tržišta rada (E2E, Education to Employment) presijecaju barem tri raskrižja: **upis na odgovarajuće obrazovanje**, **stjecanje odgovarajućih znanja i vještina** te **pronalaženje odgovarajućeg zaposlenja**, svako raskrižje sa svojim zaprekama.
3. **E2E proces ne funkcionira za mlade ljude i male poslodavce**

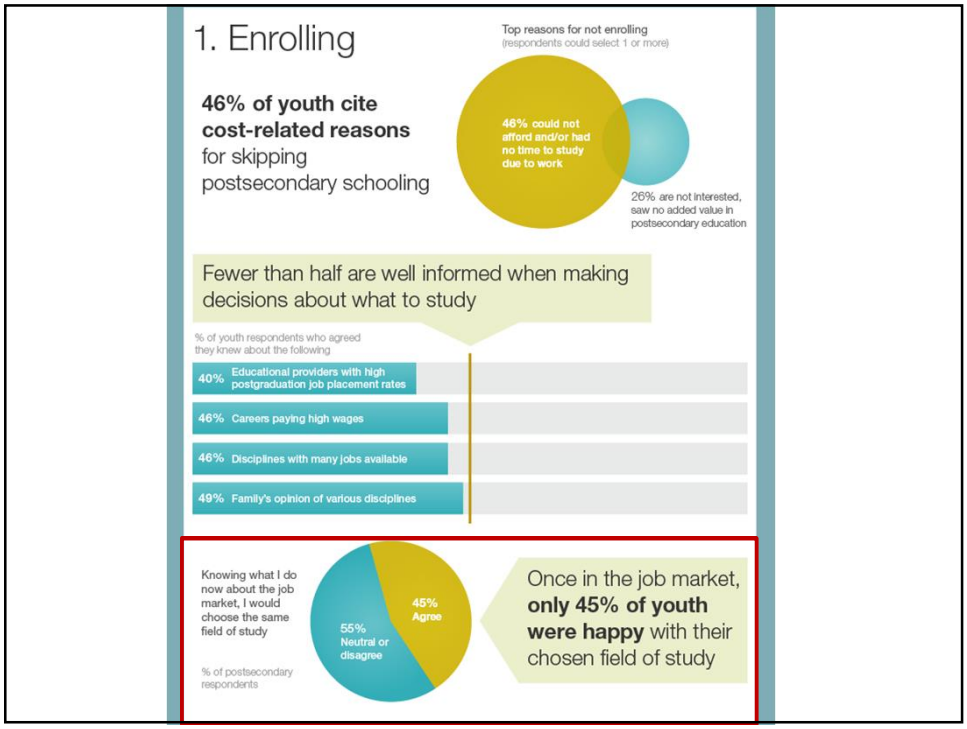
McKinsey & Company: od obrazovanja do zapošljavanja

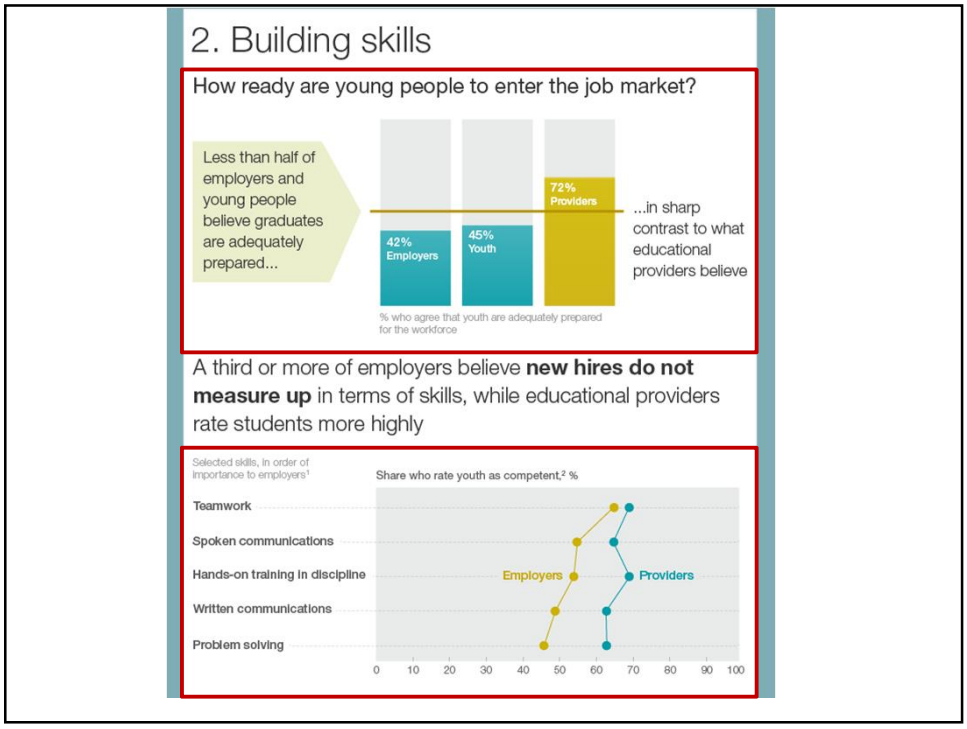
- Istraživalo se koju su razinu potpore mladi dobili na putu od obrazovanja do zapošljavanja te u kojoj su mjeri sami nastojali razviti vještine koje će ih učiniti konkurentnijima na tržištu rada. Rezultati pokazuju da je **za samo 10% mladih ("*High achievers*") tranzicija iz obrazovanja na posao** bila uspješna (dobro obrazovani, informirani te usmjereni na prilike za izgradnju radnih vještina).
- Čak 79% mladih frustrirano je nedostatkom podrške i nezadovolino svojim izgledima.

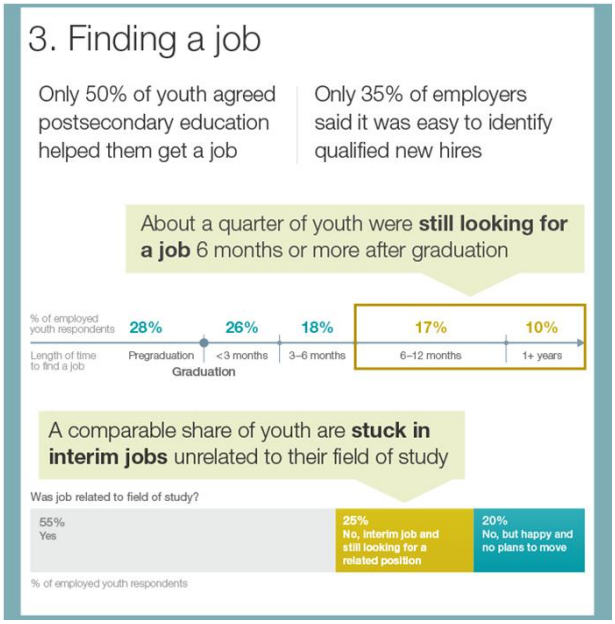


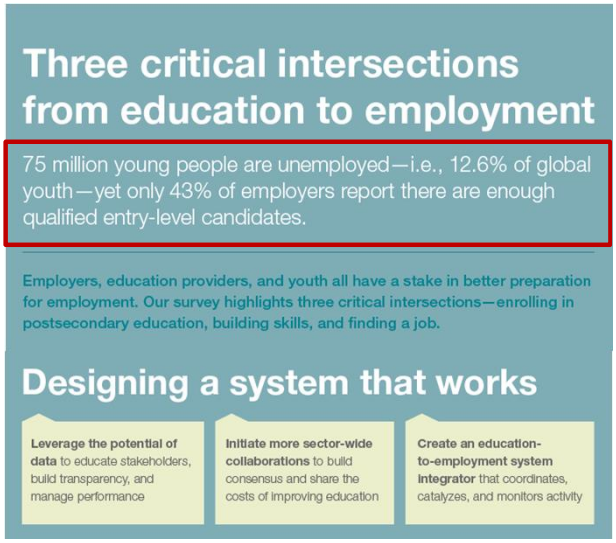
McKinsey & Company: od obrazovanja do zapošljavanja

- Segmentacija poslodavaca bazirala se na "lakoći" kojom poslodavci mogu pronaći odgovarajuće zaposlenike te stupnju želje za investiranjem u obuku.
- Kada je o poslodavcima riječ, manje od polovice ih je zadovoljno vještinama i znanjima svojih zaposlenika. **Dok 26% poslodavaca ne nalazi zaposlenike odgovarajućih znanja i vještina, ali je spremno investirati u njihovu obuku i trening, njih 21% niti nalazi zaposlenike odgovarajućih znanja i vještina niti investira u obuku i trening.**


1. Enrolling
46% of youth cite cost-related reasons for skipping postsecondary schooling
Top reasons for not enrolling
(respondents could select 1 or more)
46% could not afford and/or had no time to study due to work
26% are not interested, saw no added value in postsecondary education
Fewer than half are well informed when making decisions about what to study
% of youth respondents who agreed they knew about the following
40% Educational providers with high postgraduation job placement rates
46% Careers paying high wages
46% Disciplines with many jobs available
49% Family's opinion of various disciplines
Knowing what I do now about the job market, I would choose the same field of study
% of postsecondary respondents
45% Agree
55% Neutral or disagree
Once in the job market, only 45% of youth were happy with their chosen field of study


2. Building skills
How ready are young people to enter the job market?
Less than half of employers and young people believe graduates are adequately prepared...
42% Employers
45% Youth
72% Providers
...in sharp contrast to what educational providers believe
% who agree that youth are adequately prepared for the workforce
A third or more of employers believe new hires do not measure up in terms of skills, while educational providers rate students more highly
Selected skills, in order of importance to employers[1]
Share who rate youth as competent,[2] %
Teamwork
Spoken communications
Hands-on training in discipline
Written communications
Problem solving
Employers
Providers
0 10 20 30 40 50 60 70 80 90 100


3. Finding a job
Only 50% of youth agreed postsecondary education helped them get a job
Only 35% of employers said it was easy to identify qualified new hires
About a quarter of youth were **still looking for a job** 6 months or more after graduation
% of employed youth respondents
28%
26%
18%
17%
10%
Length of time to find a job
Pregraduation
<3 months
3–6 months
6–12 months
1+ years
Graduation
A comparable share of youth are **stuck in interim jobs** unrelated to their field of study
Was job related to field of study?
55%
Yes
25%
No, interim job and still looking for a related position
20%
No, but happy and no plans to move
% of employed youth respondents


Three critical intersections from education to employment
75 million young people are unemployed—i.e., 12.6% of global youth—yet only 43% of employers report there are enough qualified entry-level candidates.
Employers, education providers, and youth all have a stake in better preparation for employment. Our survey highlights three critical intersections—enrolling in postsecondary education, building skills, and finding a job.
Designing a system that works
Leverage the potential of data to educate stakeholders, build transparency, and manage performance
Initiate more sector-wide collaborations to build consensus and share the costs of improving education
Create an education-to-employment system integrator that coordinates, catalyzes, and monitors activity

McKinsey & Company: od obrazovanja do zapošljavanja

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3. **E2E proces ne funkcionira za mlade ljude i male poslodavce**
4. **Postoje provjereni načini poboljšanja E2E procesa**

Poboljšanje Education to Employment procesa (MsKinsey & Company) (1/3)

- **Inoviranje dizajna i same "isporuke" sadržaja obrazovanja te financiranja s ciljem veće dostupnosti i pristupačnosti obrazovanja**.
  - individualni moduli koji izgrađuju specifične vještine, a ujedno doprinose stjecanju formalnog obrazovanja (kratki moduli, do mjesec dana, samodostatni)
  - krediti s niskim kta za tražena zanimanja, mogućnost povrata kredita radom (npr. mentorstvo mlađih studenata ili npr. demonstratura)
  - poslodavci bi mogli garantirati zaposlenje (u uvjetima rigorozne regrutacije) te zatim preuzeti djelomično ili potpuno financiranje obrazovanja uz priliku da odaberu najuspješnije polaznike koji su obrazovani za najrelevantnije vještine i znanja (ovo bi moglo biti interesantno za poslodavce u sektorima koji se suočavaju sa velikim nedostatkom znanja i vještina ili velikim odljevom stručnjaka)

Poboljšanje Education to Employment procesa (MsKinsey & Company) (2/3)

- **Fokusiranje mladih, poslodavaca i obrazovnih institucija na poboljšanje spremnosti za zapošljavanje (spremna zapošljivost ili zapošljiva spremnost).**
  - promjena mišljenja mladih, poslodavaca i obrazovnih institucija o E2E procesu
  - mladi moraju početi strateški promišljati (racionalno odlučivanje), ponekad se već sa 15 godina mladi moraju odlučiti za strukovno ili akademsko obrazovanje
  - mladi moraju biti informirani (kvantitativno i kvalitativno) o različitim putanjama karijera te moraju biti motivirani da krenu nekom od tih putanja
  - obrazovne institucije se trebaju fokusirati na praćenje daljnje karijere diplomanata te na zadovoljstvo poslodavaca

Poboljšanje Education to Employment procesa (MsKinsey & Company) (2/3)

- **Fokusiranje mladih, poslodavaca i obrazovnih institucija na poboljšanje spremnosti za zapošljavanje (spremna zapošljivost ili zapošljiva spremnost).**
  - poslodavci ne mogu čekati da se prava osoba pravih vještina pojavi u pravo vrijeme, u suradnji sa obrazovnim institucijama potrebno je redizajnirati program s ciljem spremne zapošljivosti ili zapošljive spremnosti (ukoliko je potrebno ponuditi i predavače/instruktore)
  - poslodavci trebaju u većoj mjeri omogućiti obavljanje stručne prakse i praktične nastave
  - veliki poslodavci trebaju, u što većoj mjeri, staviti u funkciju trening akademije

Poboljšanje Education to Employment procesa (MsKinsey & Company) (3/3)

- **Izgradnja podržavajućih struktura (koje će omogućiti uspješnost intervencija)**
  - **na nacionalnoj razini (širom EU) odgovornost za E2E proces često dijele** više ministarstava, državnih ureda, agencija i dr. , što rezultira fragmentiranim i konfuznim rješenjima
  - potrebno je kreirati **sistem integratora** s ciljem prikupljanja i raspodjele informacija u svezi najvažnijih metrika (*job forecasts by profession, youth job-placement rates, employer satisfaction with the graduates of different programs* i dr.)

Poboljšanje Education to Employment procesa (MsKinsey & Company) (3/3)

- **Izgradnja podržavajućih struktura (koje će omogućiti uspješnost intervencija)**
  - **sistem integrator** bi bio zadužen i za identificiranje *best practice* primjera uspješnih programa te za kreiranje sektorskih i regionalnih rješenja (u suradnji s poslodavcima i obrazovnim institucijama)
  - u nedostatku prakse ili naukovanja, mogu pomoći i razna tehnološka rješenja (npr. "poslovne igre", "*war games*", "simulacije tržišta" i dr.) koja će omogućiti da više polaznika usvoji odgovarajuća znanja i vještine bez potrebe pronalaženja poslodavaca

Indeks konkurentnosti

- C2C indeks
- omogućuje relativnu kvantifikaciju osobne (vlastite) konkurentnosti građana
- kompozitni indeks (s pod-indeksima)
  - integracija formalnog, informalnog i neformalnog obrazovanja (pod-indeksi)
- omogućuje proaktivnost
- korisnost / točnost / relevantnost raste s unosom podataka
- anonimiziran indeks
- realizacija u formi web servisa

Indeks zapošljivosti

- C2B indeks
- stavljanje indeksa konkurentnosti u kontekst
- integracija indeksa konkurentnosti sa metrikama zapošljivosti, ponude/potražnje, zadovoljstva poslodavaca i dr.
- omogućuje proaktivnost
- *push*: vještine i znanja
- anonimiziran indeks
- realizacija u formi web servisa

Cjeloživotno obrazovanje

- podsustav povezan s indeksom zapošljivosti
- C2B sustav
- integrira trendove i strategije RH
- …

Job Changer

- zapošljivost vs. zapošljivost
- …

Radimo li prave stvari na pravi način ???