



# Stvaramo li digitalnu budućnost?

Hrvoje Balen, predsjednik upravnog vijeća  
Visoko učilište Algebra

# Pogled u budućnost

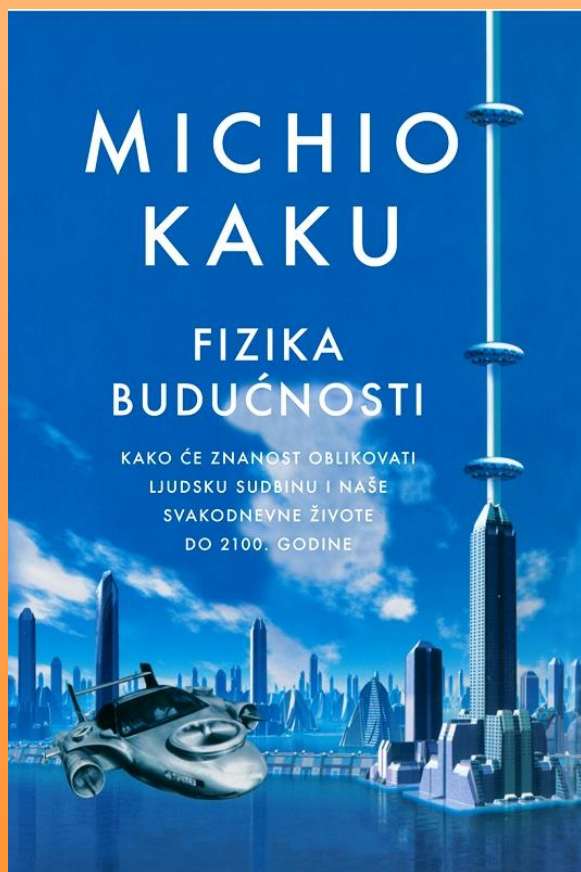


# Star Trek tehnologija danas?

- Trikoder
- Čitanje misli
- Teleport
- Holodeck
- Humanoidni roboti
- Kontaktne leće povezane na Internet
- Nevidljivost
- Autonomna vozila na magnetski pogon

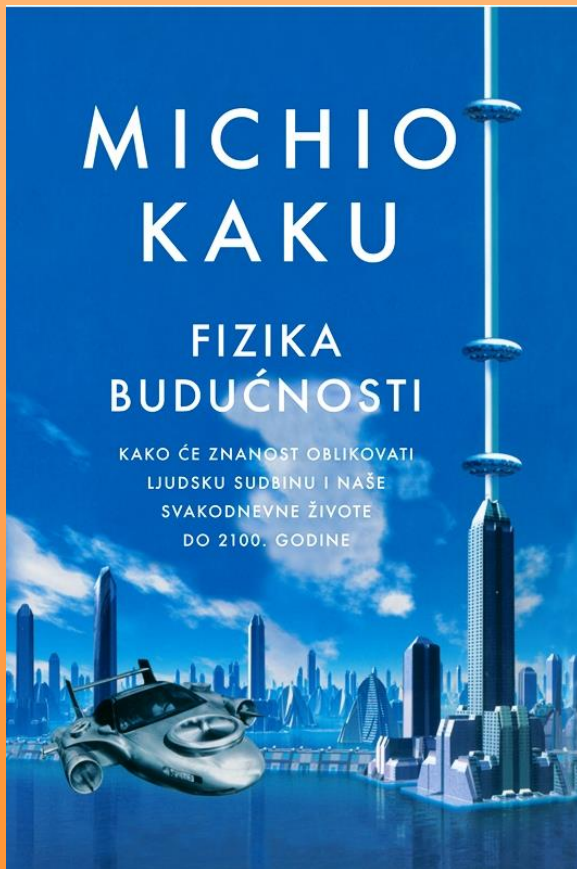


# ...gdje bismo mogli biti 2100.



- Science will continue to be the engine of prosperity
- The economy will shift from commodity capitalism to intellectual capitalism
- The job market will favor non-repetitive workers
- Education is absolutely essential

# ...job market 2100.



- Trend – technology replacing people (unskilled, factory workers, brokers, agents, tellers...)
- Increasing demand
  - intellectual workers specialized in **construction, design, and computing**
  - Artistic and creative skills
- “Computers can’t create...yet.”

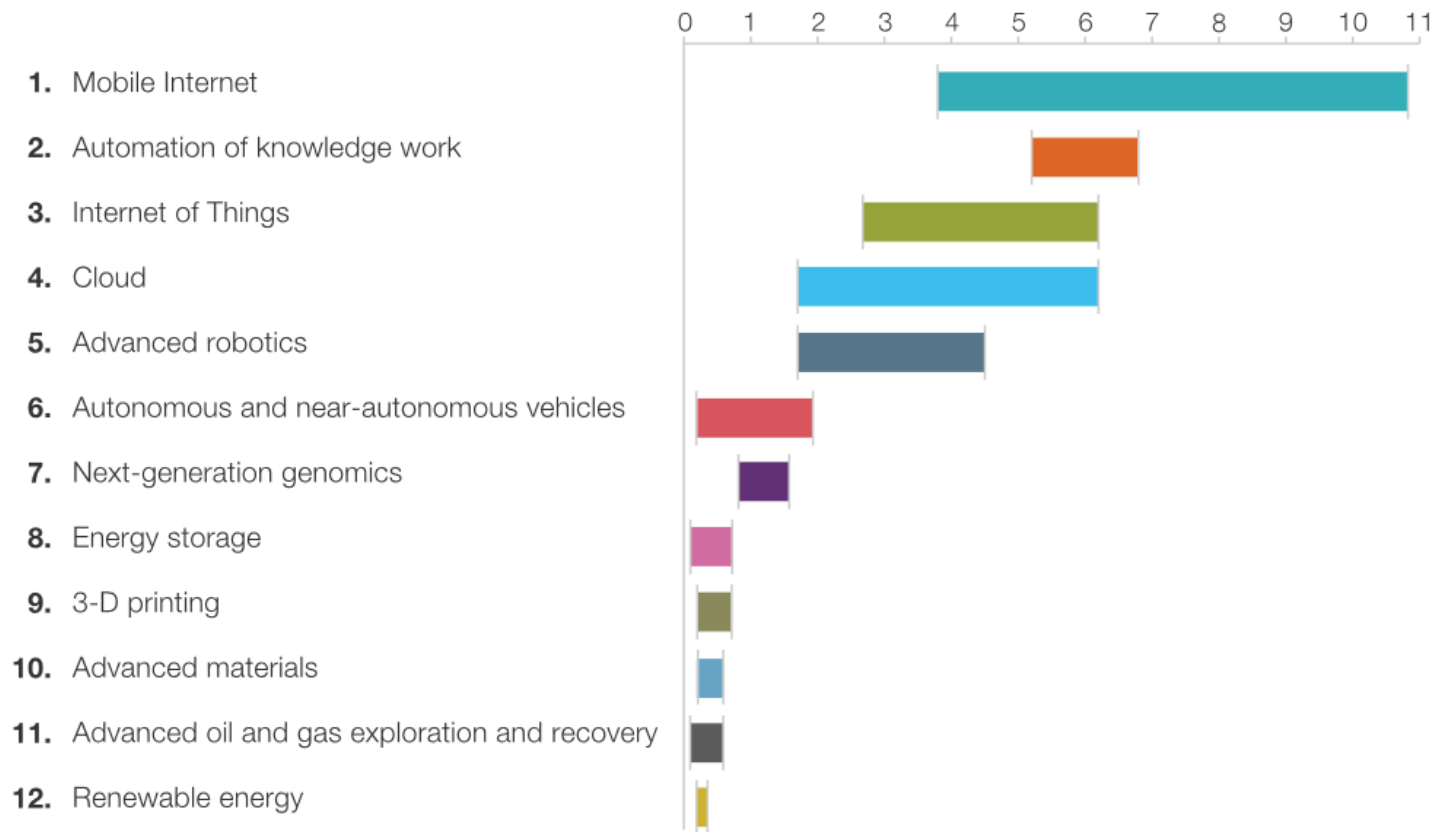


# Digitalno gospodarstvo

- Postoji li granica između gospodarstva i digitalnog gospodarstva?
- Postoji li granica između domaće i međunarodne ekonomije?
- Ima li smisla smjer „vanjska trgovina”?
- *Primjer: Jeste li rezervirali smještaj na Jadranu putem **booking.com** ili kupili avionsku kartu za Croatia Airlines preko **expedia.com**?*

# Ovih dana mijenjaju svijet...

Estimated potential economic impact of technologies across sized applications in 2025, \$ trillion, annual



# Razvoj novih poslovnih modela

- Elektronička trgovina (B2B, B2C, C2C)
- Trgovine aplikacijama (*App Store, Google Play*)
- Internetski marketing
- Računarstvo u oblaku (IaaS, PaaS, SaaS...)
- *Payment Services*
- *High Frequency Trading*
- *Participative Networked Platforms*

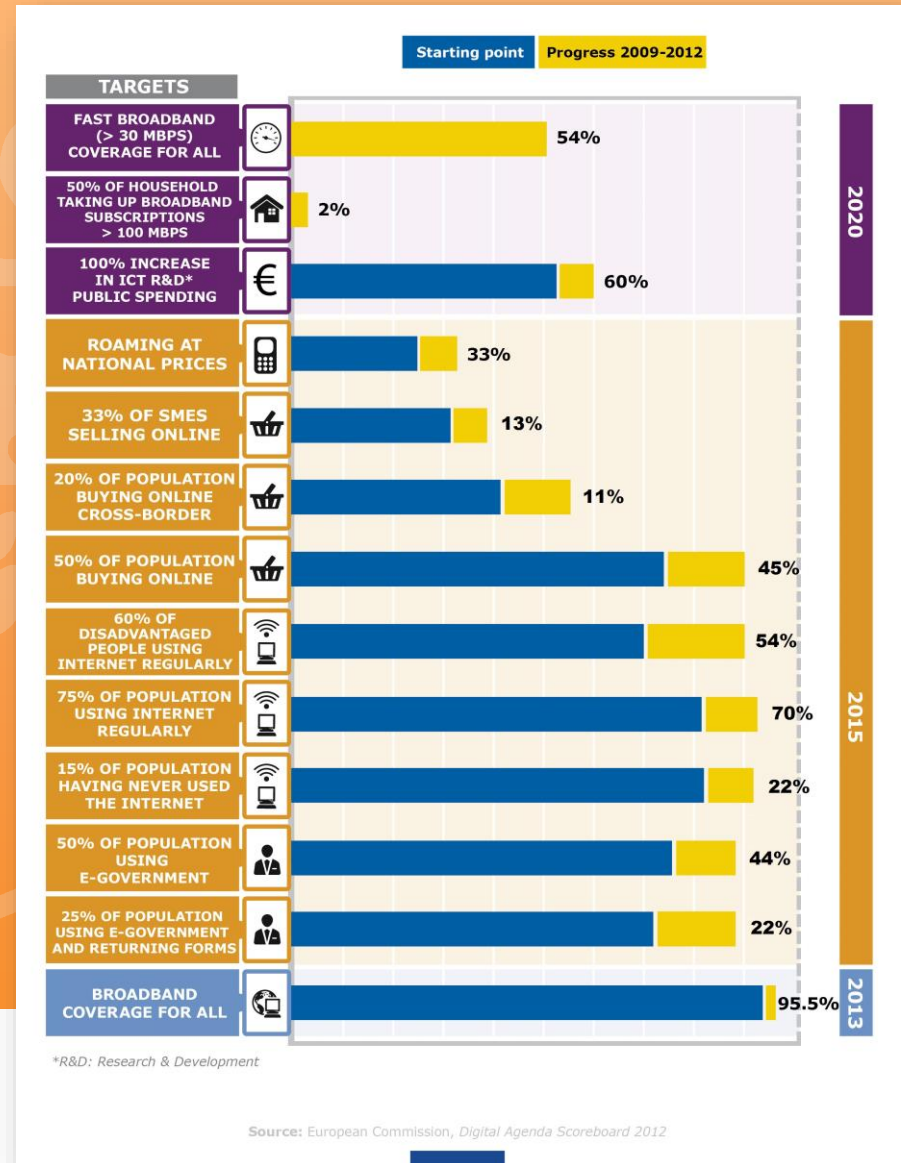


# ICT mijenja gospodarske grane

- Trgovina i marketing
- Transport i logistika
- Financije
- Proizvodnja i agronomija
- Obrazovanje i razvoj ljudskih potencijala
- Zdravstvo
- Mediji i prijenos signala (*Broadcasting*)

# Digital Agenda

- Htjeli to priznati ili ne, trebala bi jako utjecati na sve nas
- ...ako želimo održati „obećanje” dano EU prilikom pristupanja



# Grand Coalition for Digital Jobs

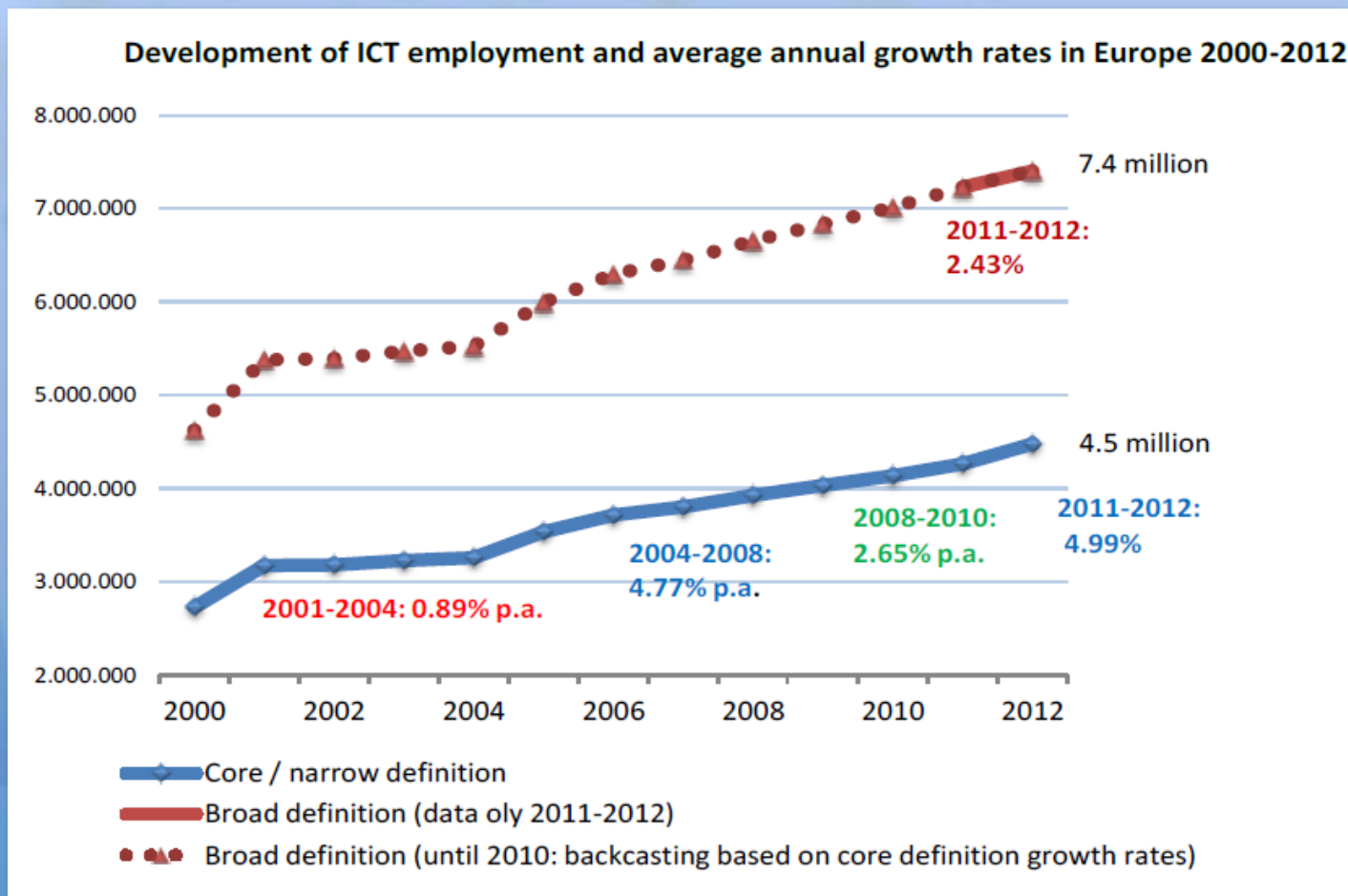


# Primjer investicija u DA

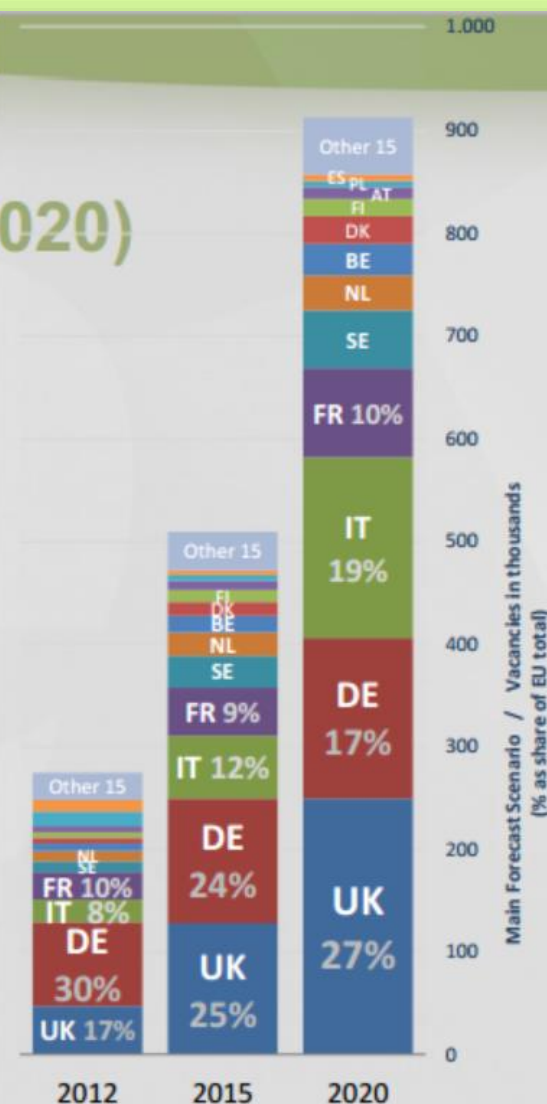
Country / Region	Forecast Smart Grid investments (€/€)	Funding for Smart Grid development (€/€)	Number of smart meters deployed and/or planned
European Union	€56 billion by 2020 [47]* (estimated Smart Grid investments)	€184 million (FP6 and FP7 European funding for projects in the JRC catalogue) About €200 million from European Recovery Fund, ERDF, EERA. National funding: n/a	45 million already installed (JRC catalogue, 2011) 240 million by 2020 [47]
USA	\$338 (€238) to 476 (€334) billion by 2030 [16] (estimated investments for implementation of fully functional Smart Grid)	\$7 (€4.9) billion in 2009 [49]	8 million in 2011 [50] 60 million by 2020 [50]



# Razvoj ICT radnih mjesta



# The Three Scenarios: Structural Shortages (2012-2020)



Source: Empirica



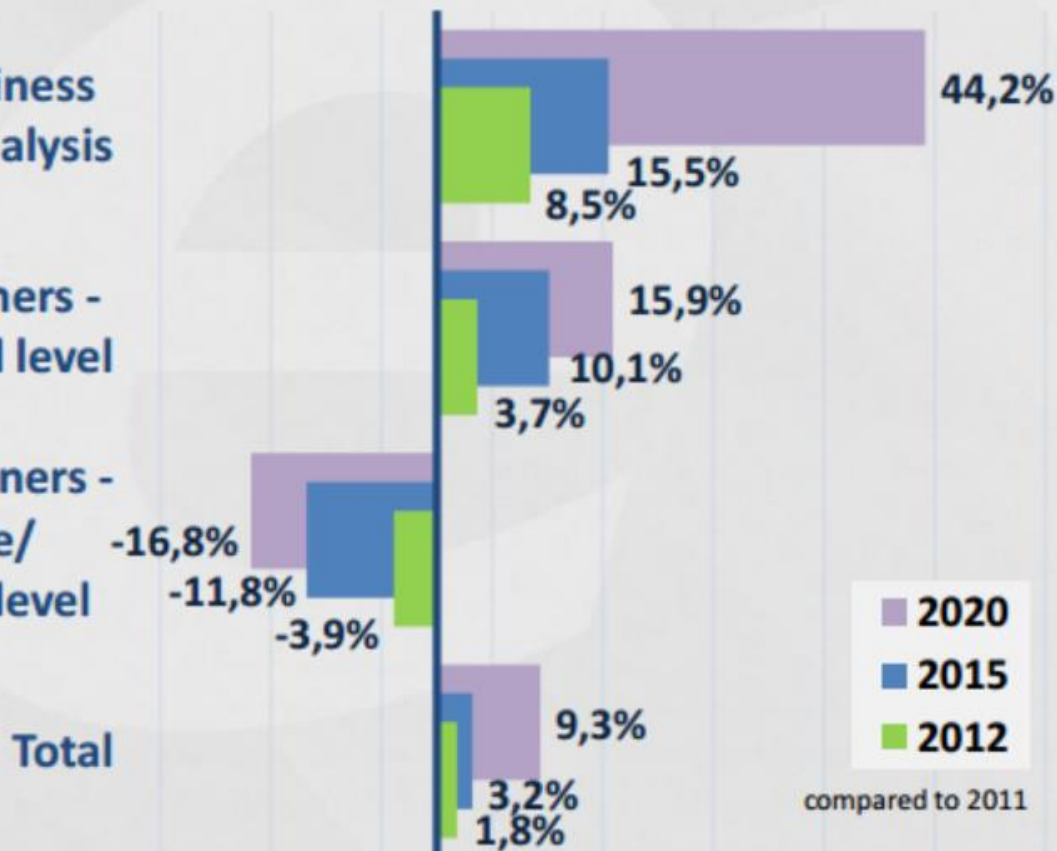
# Razine ICT zanimanja

Management, business  
architecture and analysis

ICT practioners -  
professional level

ICT practitioners -  
associate/  
technician level

Total

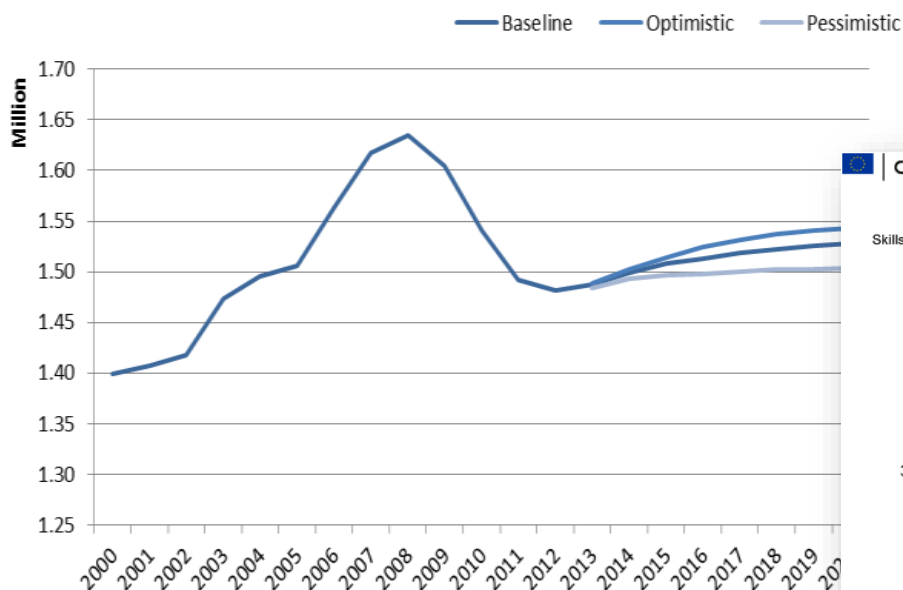


# Hrvatske strategije

## Industrijska strategija Hrvatske 2014 – 2020

- rast zaposlenosti od **32%** u djelatnostima:
  - Proizvodnja farmaceutskih proizvoda
  - Proizvodnja gotovih metalnih proizvoda, osim strojeva i opreme
  - Proizvodnja računala te elektroničkih i optičkih proizvoda
  - Proizvodnja električne opreme
  - Proizvodnja strojeva i uređaja
  - **Informacije i komunikacije (!)**

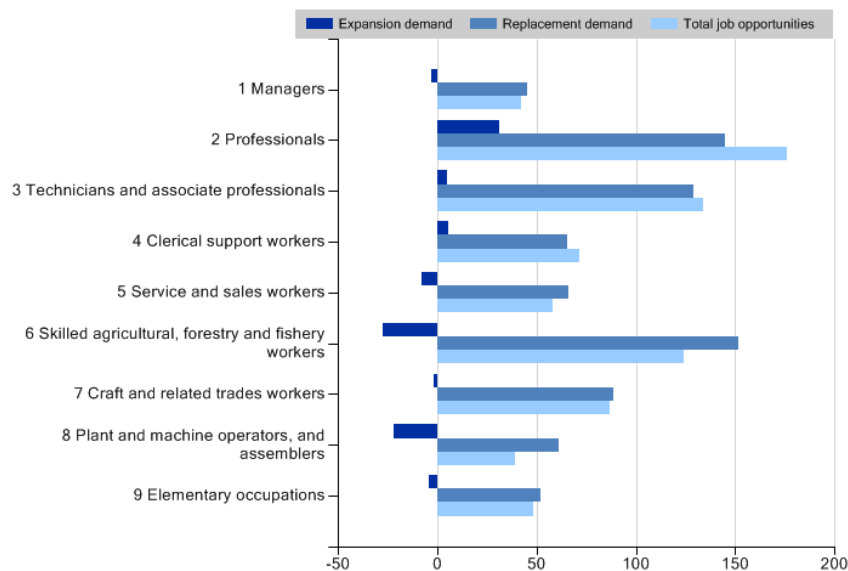
# Gdje su tu ljudi?



izvor: CEDEFOP, Europski centar za razvoj strukovne izobrazbe – publikacija „Hrvatska, ponuda i potražnja vještina do 2020.”

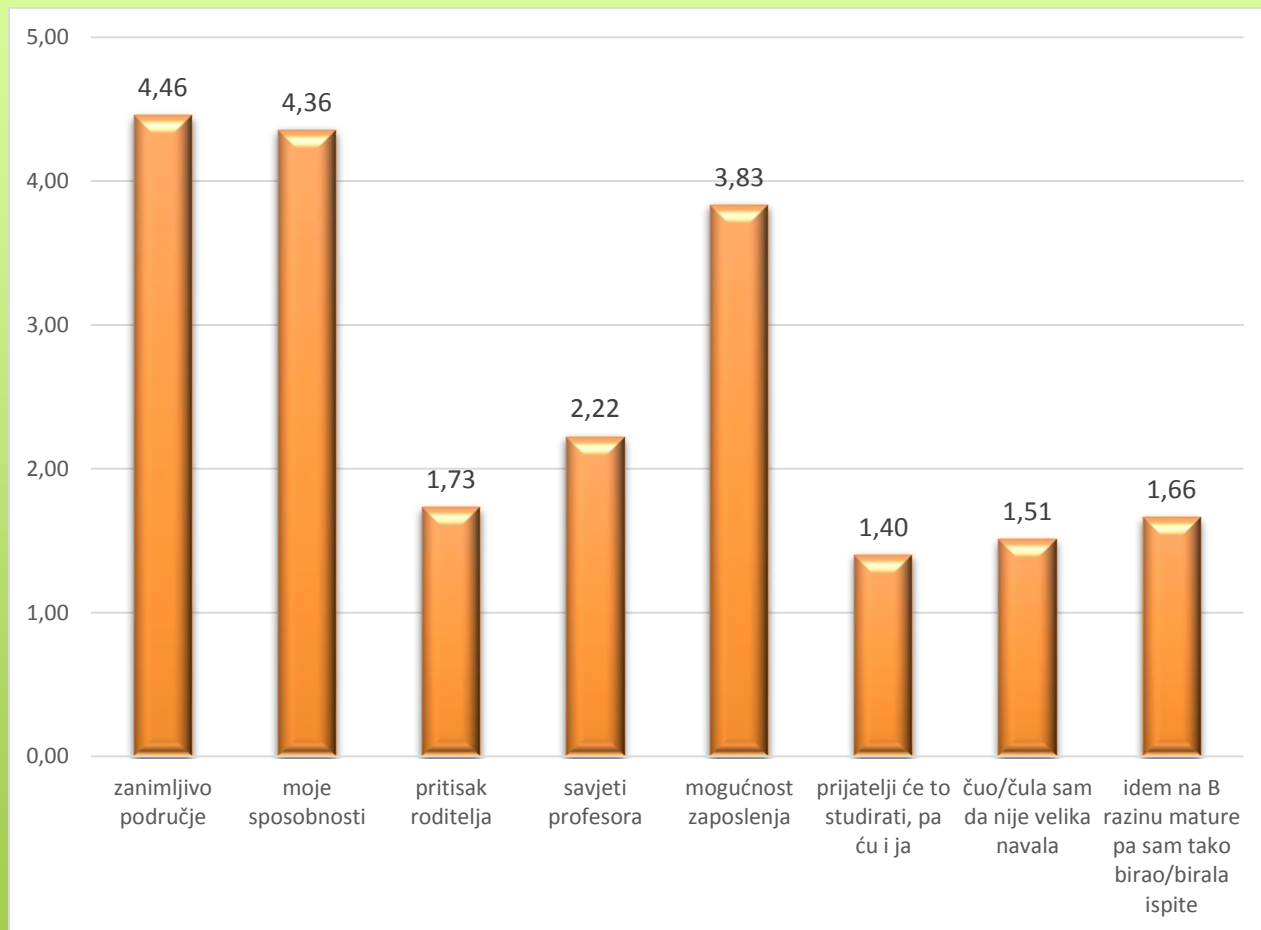
CEDEFOP European Centre for the Development of Vocational Training

Skills forecast: Job opportunities by occupation (in 000s), Croatia (2013 - 2025)

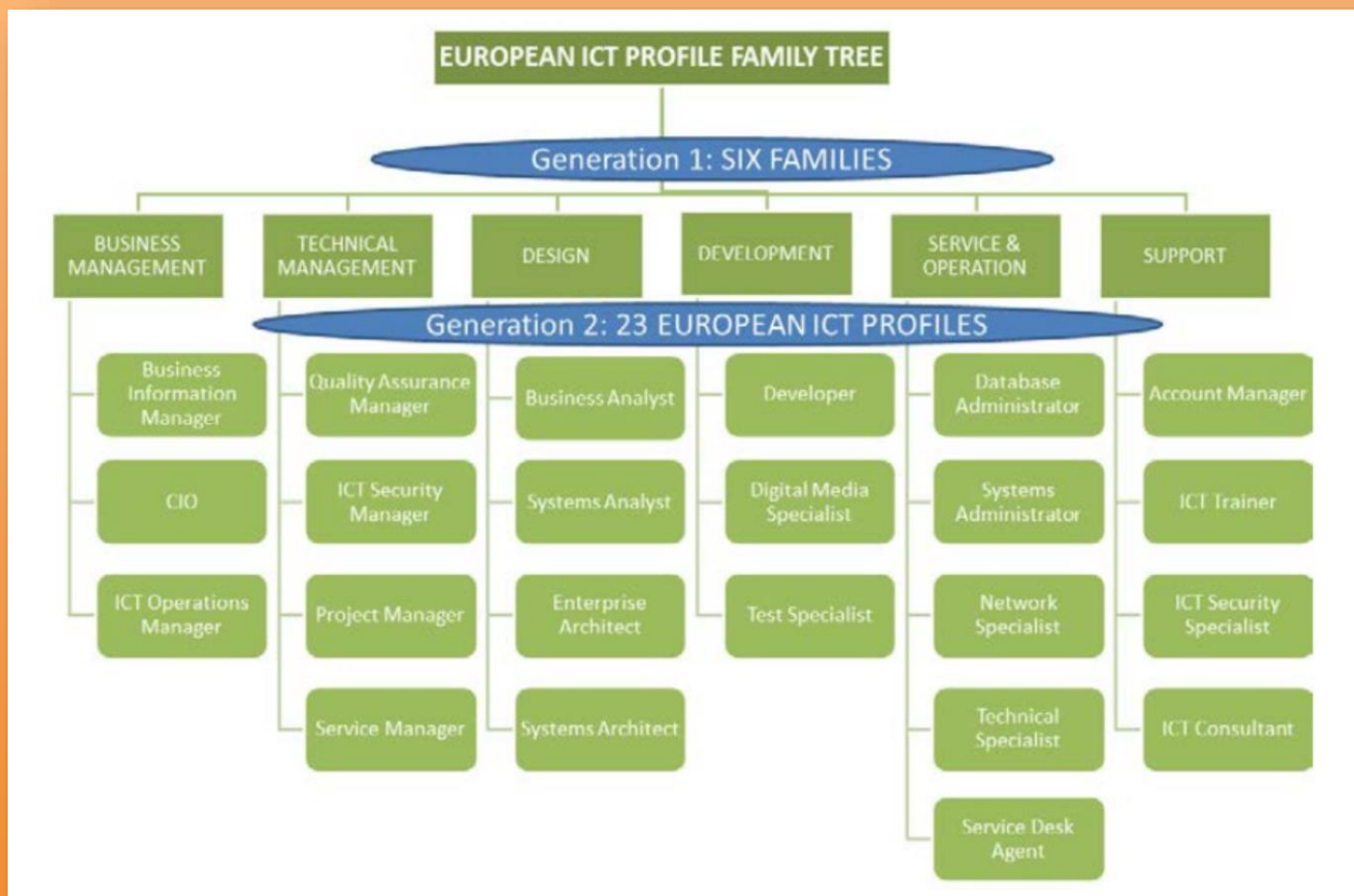


Source: Cedefop | Skills Forecasts | Data published in 2014

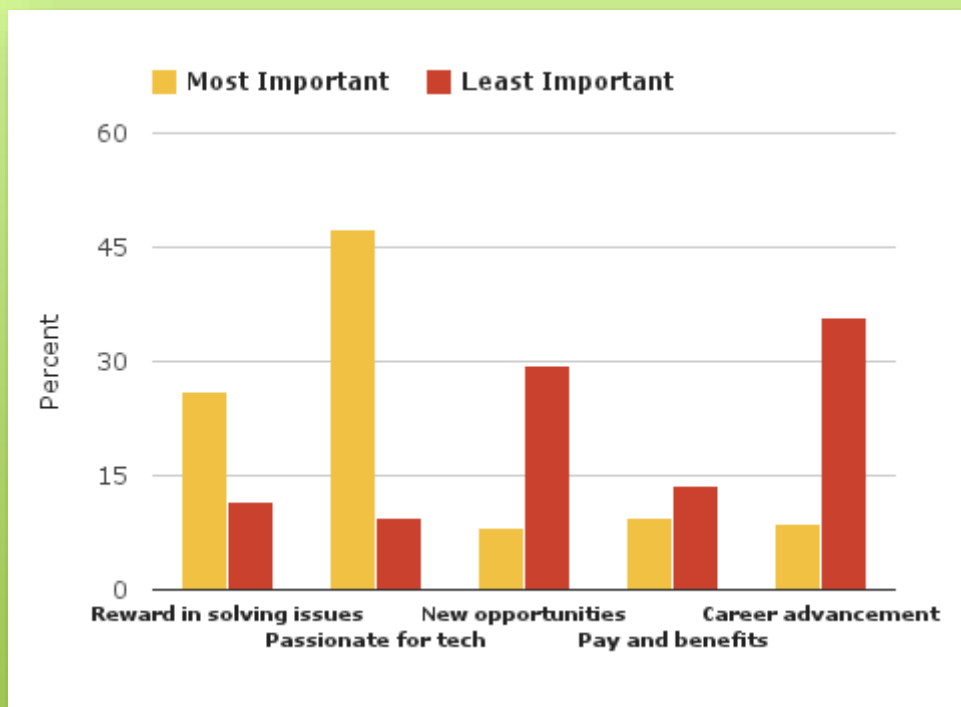
# Kriterij odabira karijere/fakulteta



# „informatičar” vs. „umjetnik”



# Zašto si htio postati ICT inženjer?



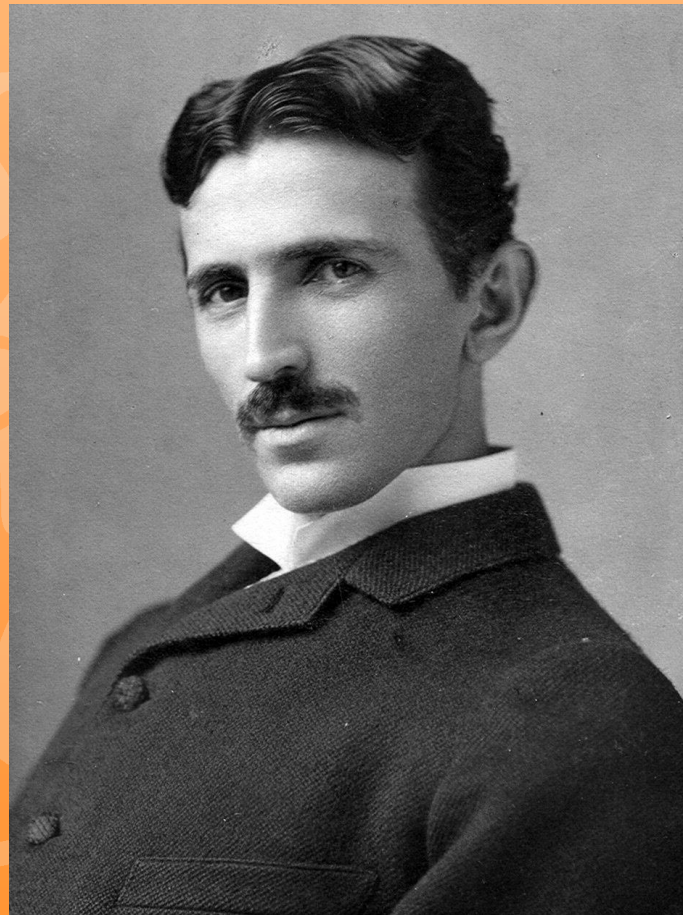
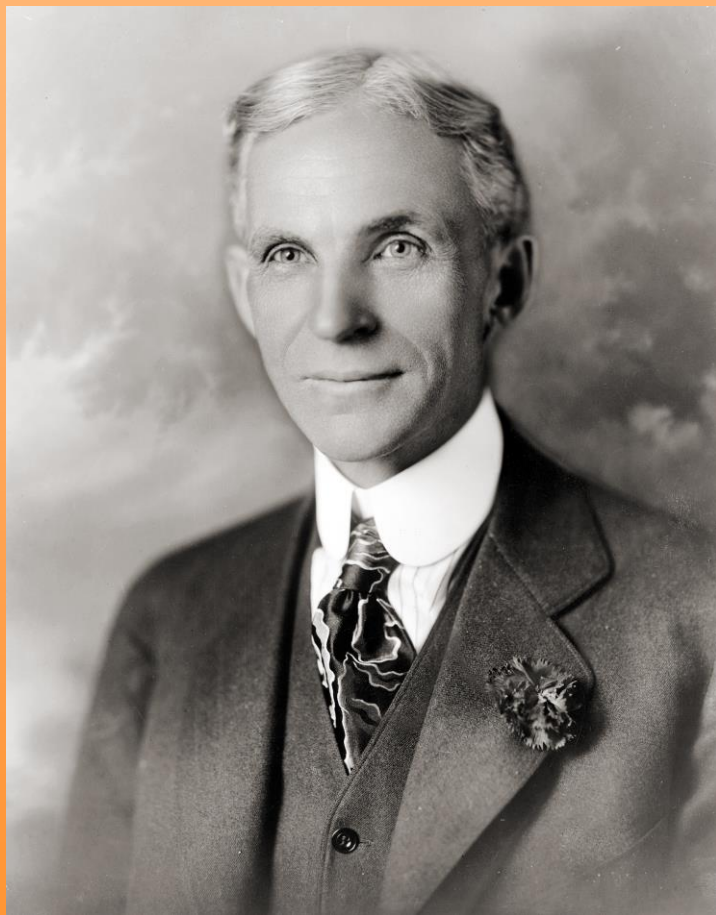


Pazite što poželite, jer bi vam se to  
moglo i ostvariti!

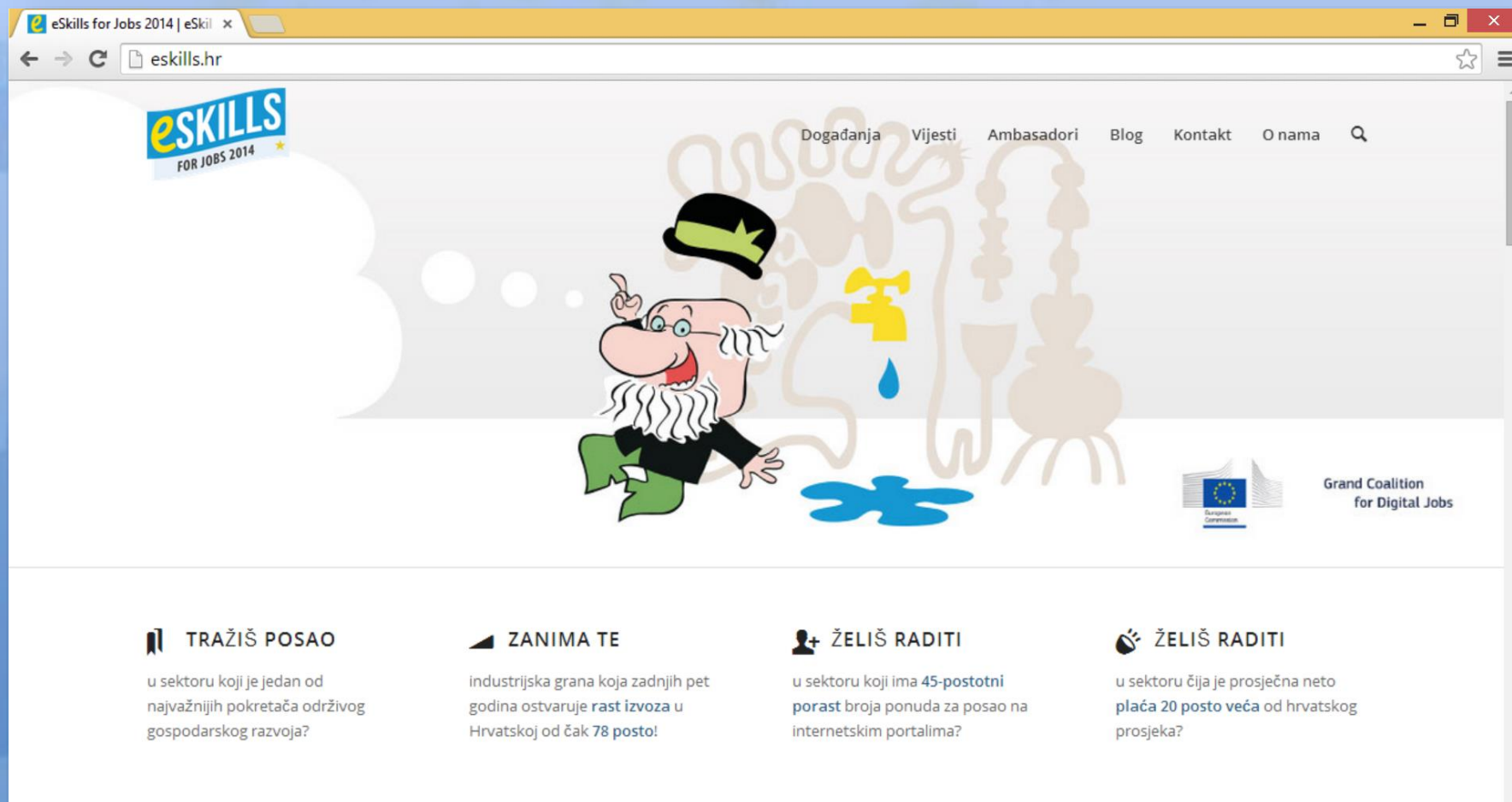
# MAKE!

Lego Mindstorms, Arduino, Raspberry  
Pi, programiranje droneova, razvoj  
igara i mobilnih aplikacija, 3D  
modeliranje i printanje...

# Trebamo li genijalce ili sustav?



# www.eSkills.hr



A sad...

Ta-Daaaa!!!!

PITANJA?

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[www.racunarstvo.hr](http://www.racunarstvo.hr)





Hvala vam na pažnji.  
Thank you for your attention.



# ...i samo jedna zamolba na kraju

