New employment opportunities in the context of digitalization: The case of Greece

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Erasmus+

jobdeveloper

STEP C

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Outline of the presentation

- *Digitalization*

- *Going digital: transformation of work*

- *Workforce of the future*

- *The Greek case*
  - *Examples from Greece*

Digitalization and Future Jobs
Trends & Facts

- **Work is always changed (telegraphists, town criers, lamplighters, … even travel agents will disappear in the near future)**
- **Lots of current works are awful**
- **Machines need people (they can do a lot of things, but they are tools)**
- **Curiosity and imagination of people**
- **Technology is upgrading all aspects of the society**
- **Technology solves, but also creates problems**

The changing nature of a career

Length of career

60 to 70 years

Average tenure in a job
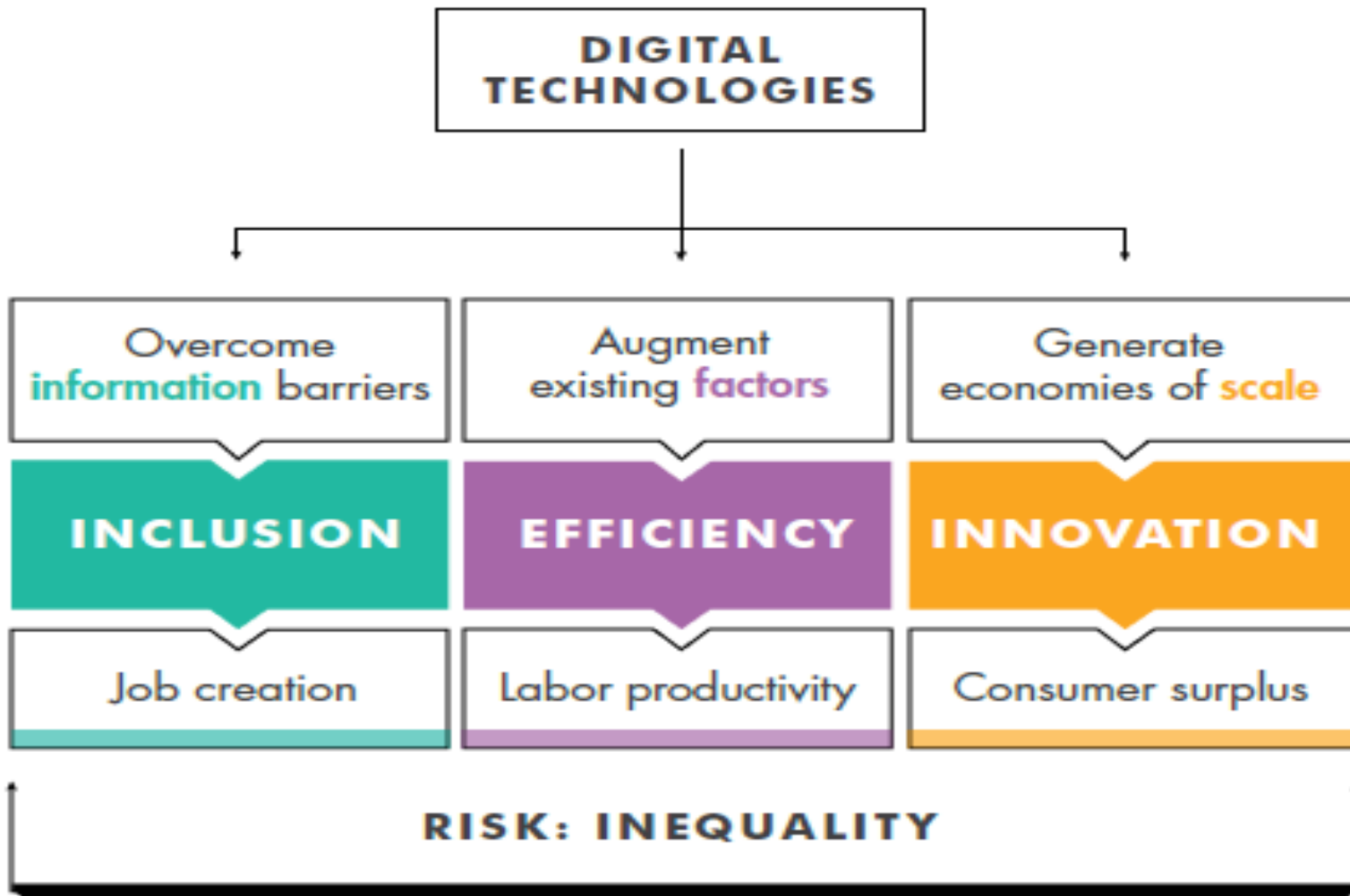
4.5 years

Half-life of a learned skill

5 years

Sources: Lynda Gratton and Andrew Scott, *The 100-Year Life: Living and Working in an Age of Longevity* (Bloomsbury, 2016); Douglas Thomas and John Seely Brown, *A New Culture of Learning: Cultivating the Imagination for a World of Constant Change* (CreateSpace, January 4, 2011).

Deloitte University Press | dupress.deloitte.com

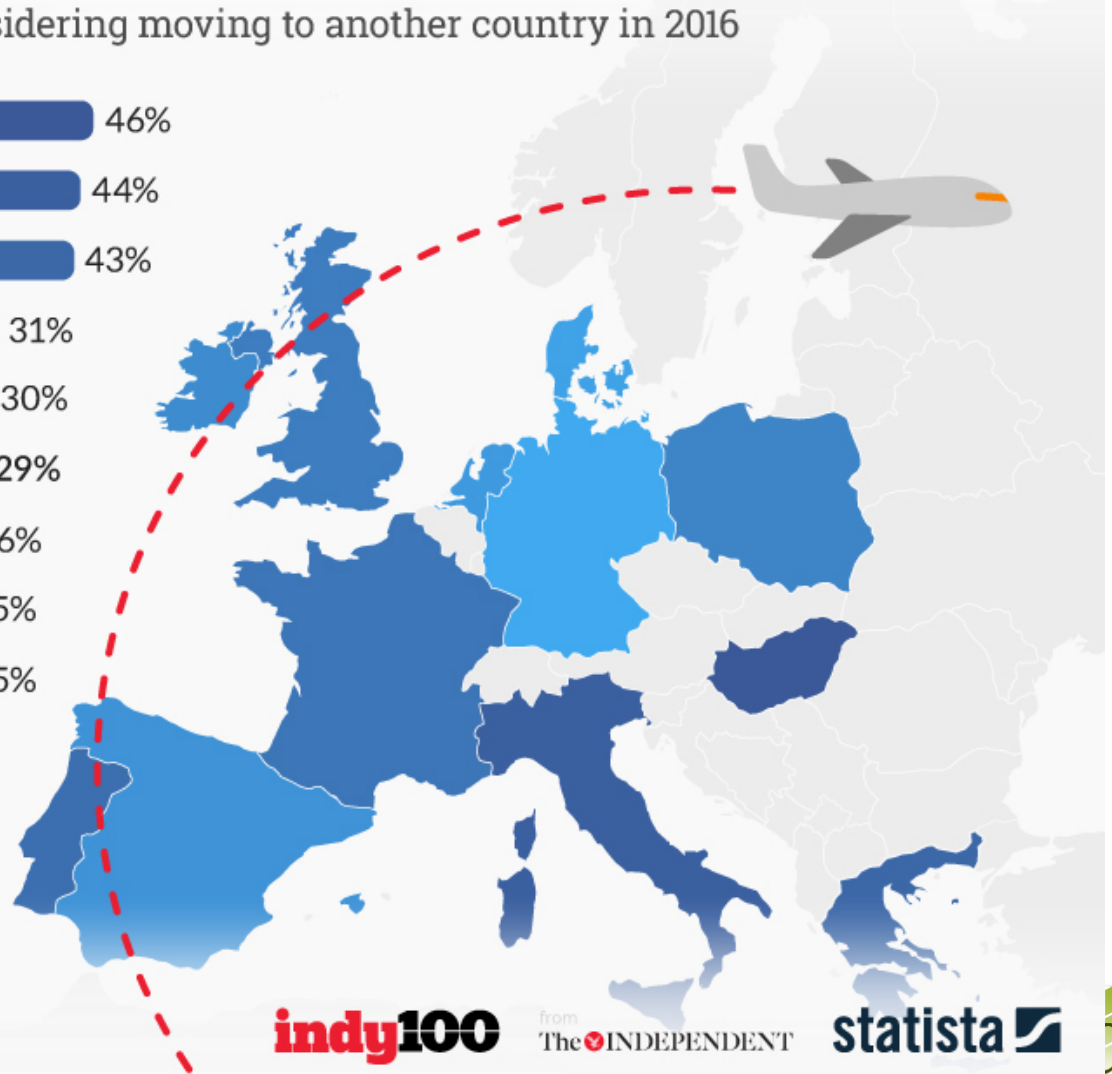# *New technology & Economic opportunities*
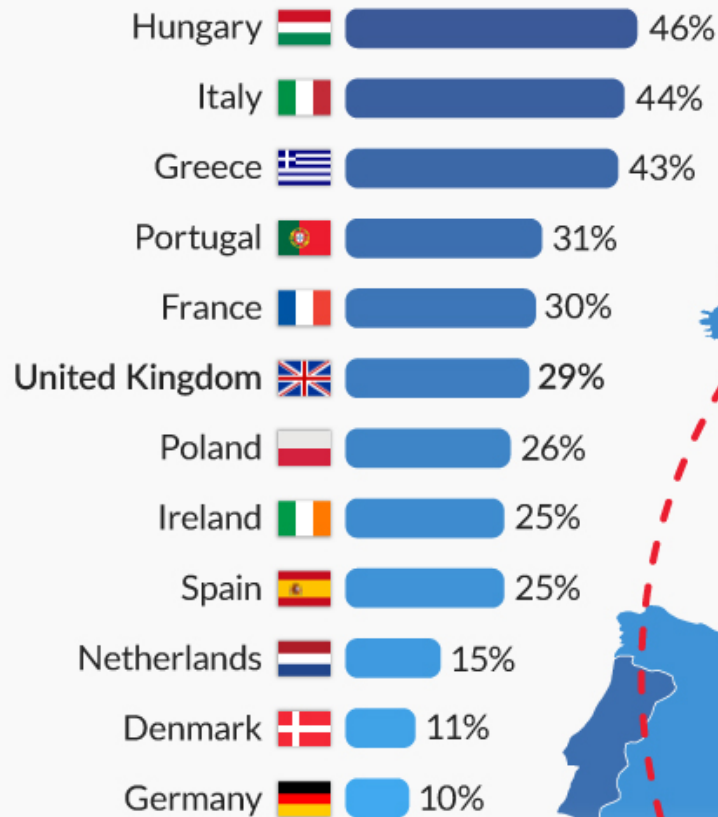

Source: World Bank 2016

Role of Talents

- *Open talent economy: technology allows talent to move freely than before*

- *Move from role to role, within and outside the enterprise/organization and across organizational and geographical boundaries*

Movement of talents across Europe

Where young Europeans want to move abroad

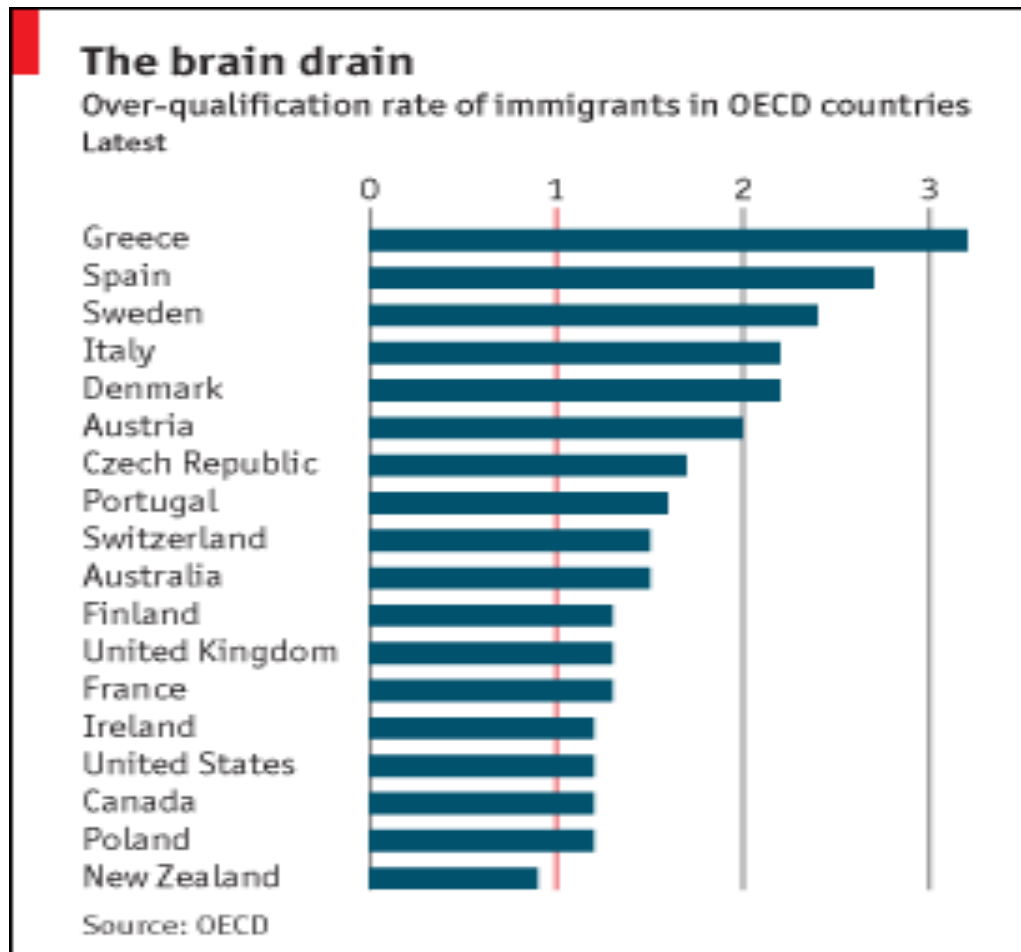% of young people (18-24) considering moving to another country in 2016

- Hungary — 46%
- Italy — 44%
- Greece — 43%
- Portugal — 31%
- France — 30%
- United Kingdom — 29%
- Poland — 26%
- Ireland — 25%
- Spain — 25%
- Netherlands — 15%
- Denmark — 11%
- Germany — 10%

@StatistaCharts Source: Intrum Justitia

indy**100** from The ♥ INDEPENDENT **statista**

Brain Drain

The brain drain
Over-qualification rate of immigrants in OECD countries
Latest

Source: OECD

Almost 450000 Greeks left the country in the 2008-2016 period, depriving Greece of brain power

Employment Outlook and skills stability

Expected change in employment, 2015-2020, %

Source: Future of Jobs Survey, World Economic Forum.

The gig Economy: A new model of employment

- A significant majority of IT leaders staff their technology teams with full time employees but there is a steady growth in the number of staff of contracted labour

- Between 20-30% of working population in USA and EU15 engage with it to some degree (162 million)

- The digital revolution may be creating a shift from structural payroll to self-employment

Source: McKinsey Institute, 2016

Cybersecurity

☐*As prominent hacks grab the headlines, the cost of cybercrime is going up.*

☐*Global cost for cybercrime*
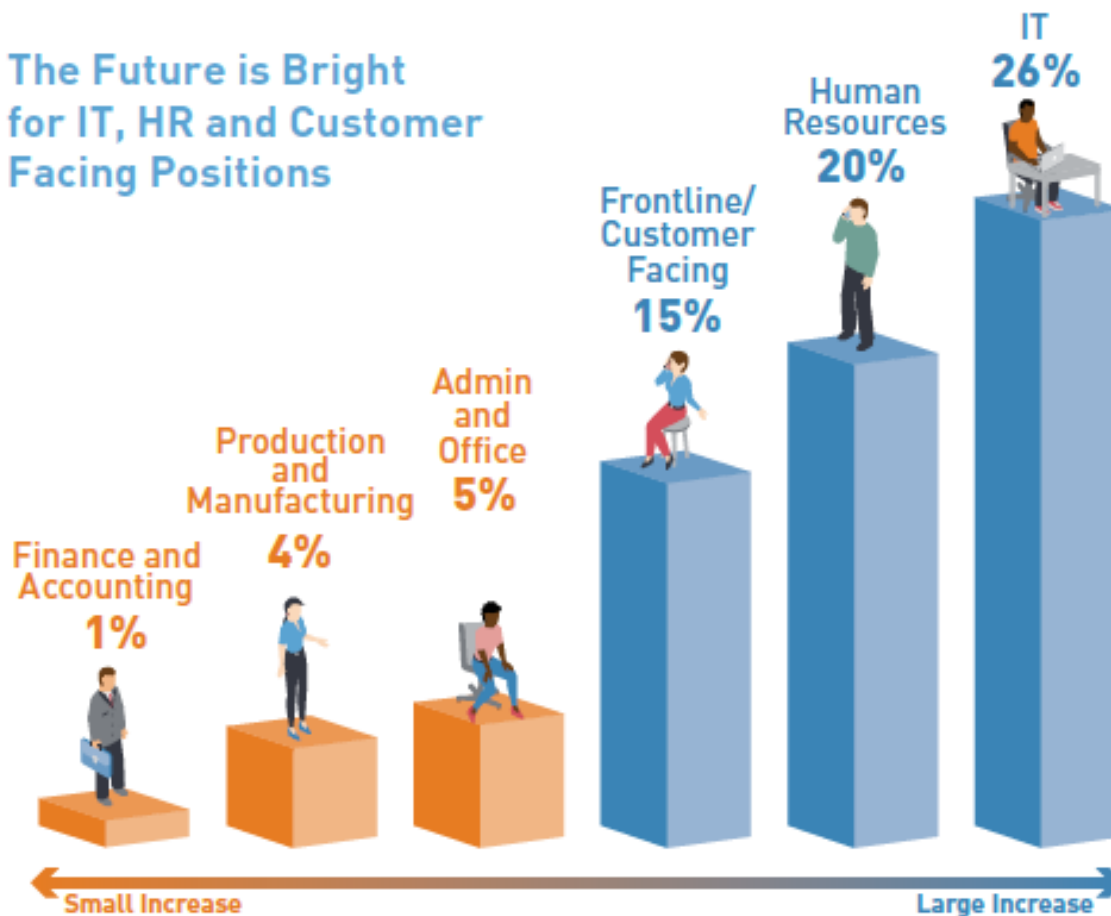- *2014: 345-445 bn$*
- *2017: 445-600 bn$*

☐ *New job opportunities*

Revolutionary Digital Technologies

- *Cloud*
- *Virtual Reality (VR)*
- *Artificial Intelligence (AI)*
- *Internet of Things (IoT)*
- *Machine Learning*
- *Autonomous Robots*
- *Big Data Analytics*
- *Augmented Reality*
- *Enterprise Collaboration Platforms*
- *Blockchain*
- *3D printing*
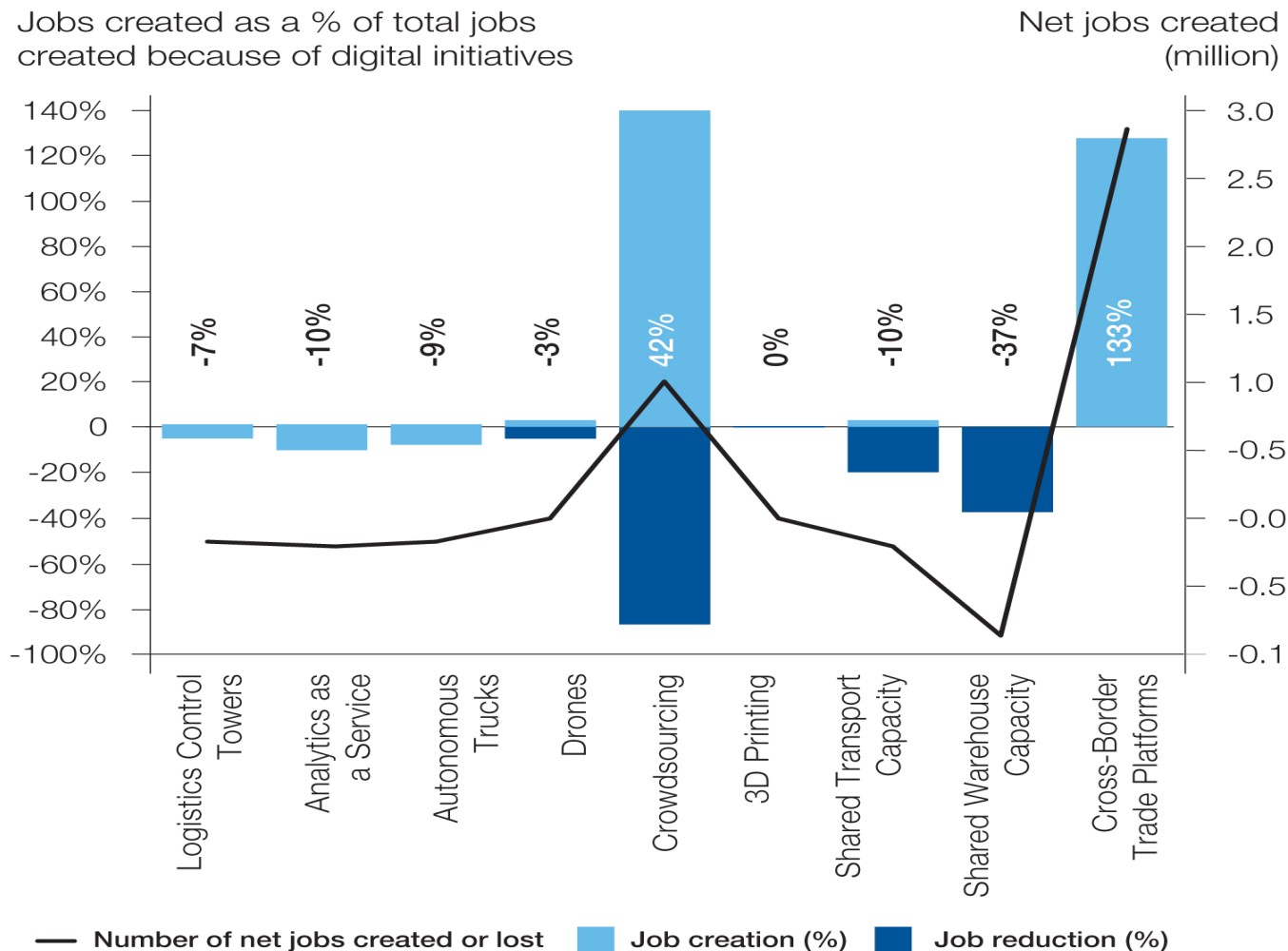- *Application Programming Interface (API)*

- *KETs*

Jobs & Skills in high demand

The Future is Bright for IT, HR and Customer Facing Positions

- Finance and Accounting **1%**
- Production and Manufacturing **4%**
- Admin and Office **5%**
- Frontline/Customer Facing **15%**
- Human Resources **20%**
- IT **26%**

Small Increase ← → Large Increase

Source: The Skills Revolution (ManpowerGroup)

Projected net job creation from digital initiatives in logistics (2016-2025)

Source: World Economic Forum / Accenture analysis

Specific skills required

- **Product and network security**
- **Data privacy**
- **Data analytics**
- **Big data engineering and management**
- **Platform design**
- **Apps development**
- **……**

Source: TUM – SAP, Dec. 2016

Companies seem to have shortage of skilled employees (90%, Digital Talent Gap study, Capgemini-Linkedin)

KETs: Shortage of skilled labor, Innovation gap – "Valley of death"

Digital Europe and EC Skills strategy

To tackle skills gap: Smart Classroom & Digital Academies

EUROPEAN REACH

Our goal is to directly reach **400,000** young people across **Europe by 2019**. We've pledged this to the **European Commission's Grand Coalition** for **Digital Jobs.**

Grand Coalition for Digital Jobs

600+
Smart Classrooms

100K
Students reached

48+
Digital Academies

6,000+
Students trained

Through both Smart Classrooms and Digital Academies,
9,000
teachers have been trained so far.
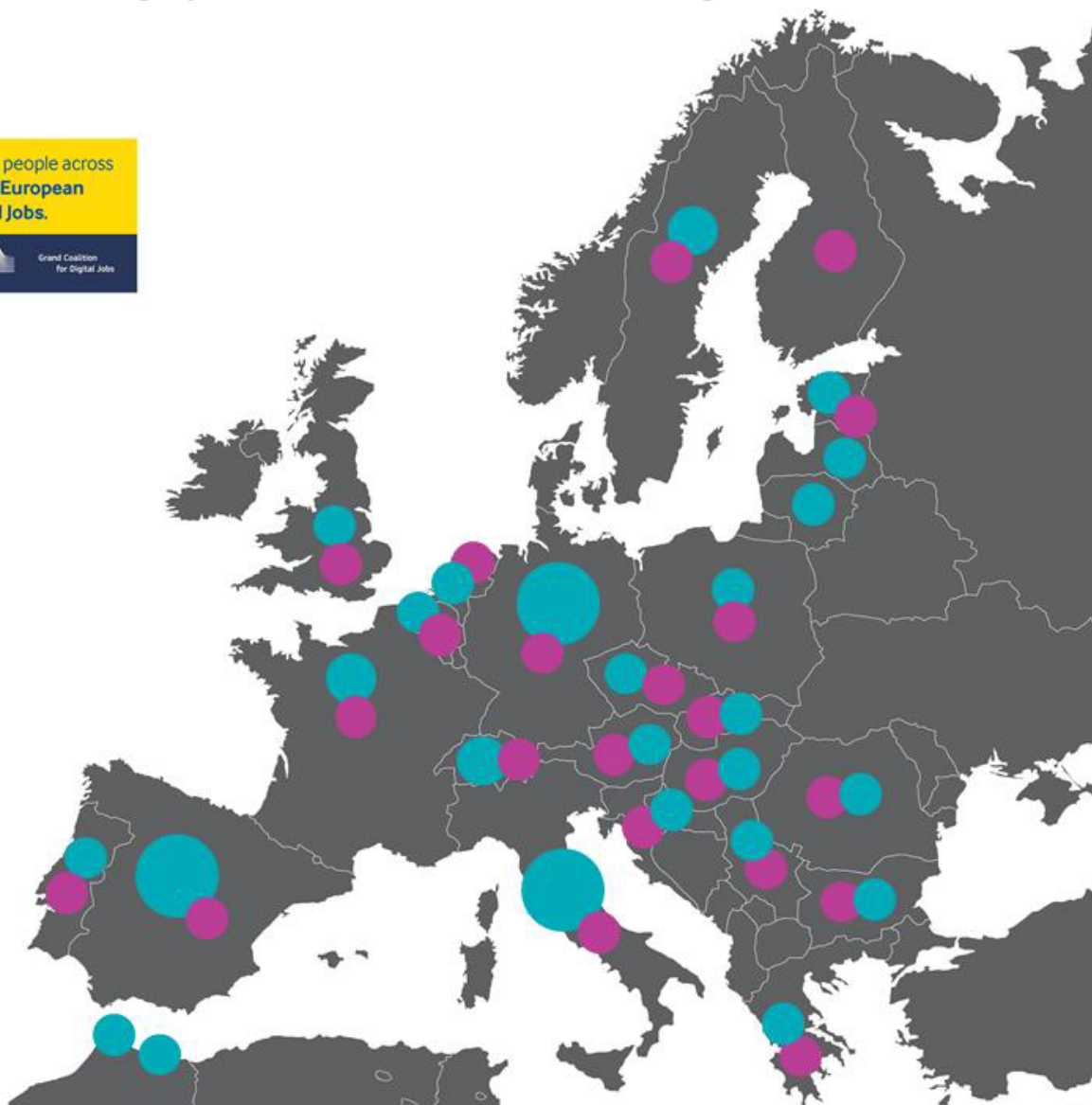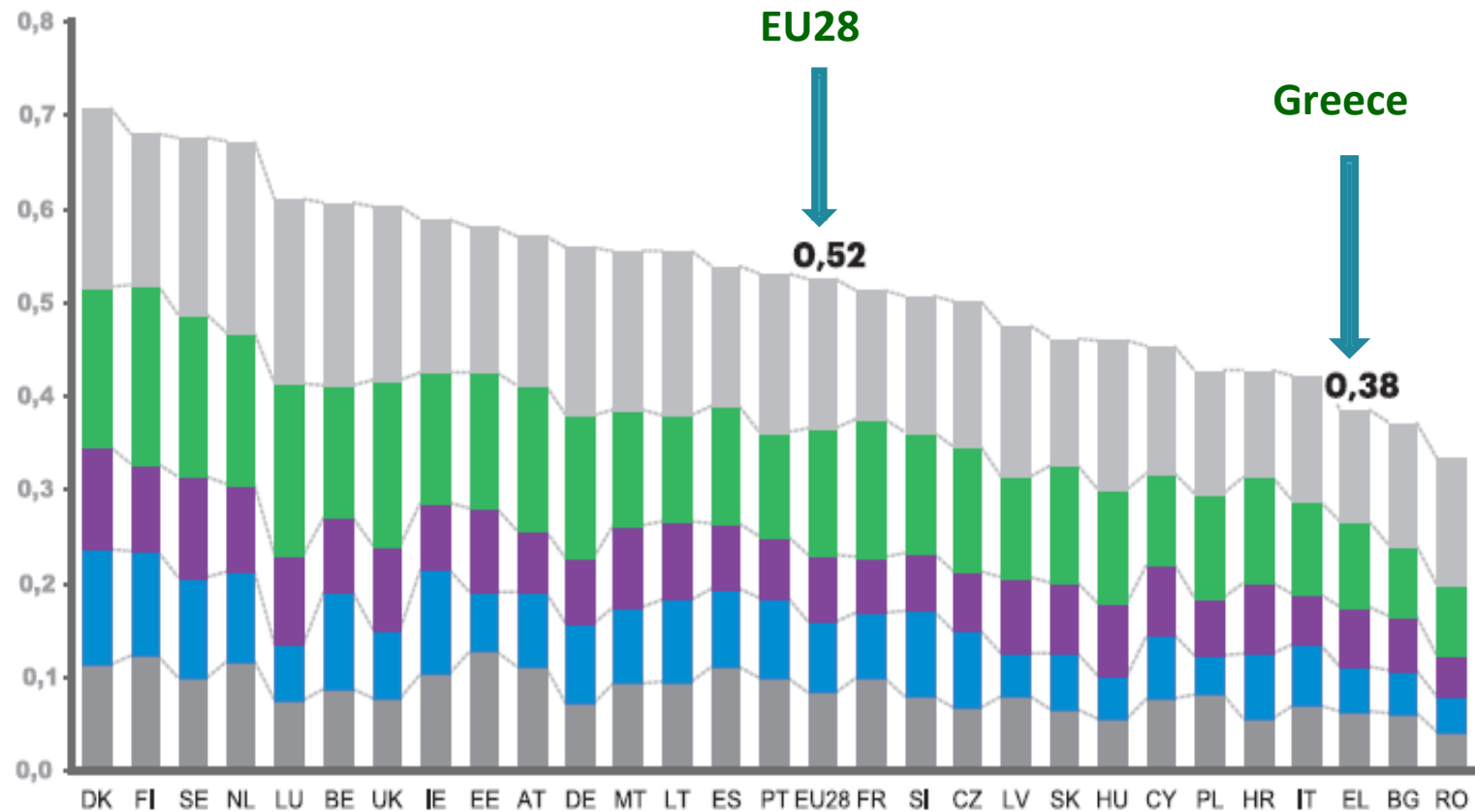
Key: Number of initiatives

50+   20–50   1–20

*Data sources:
Smart Classrooms and Digital Academies: October 2012–August 2015
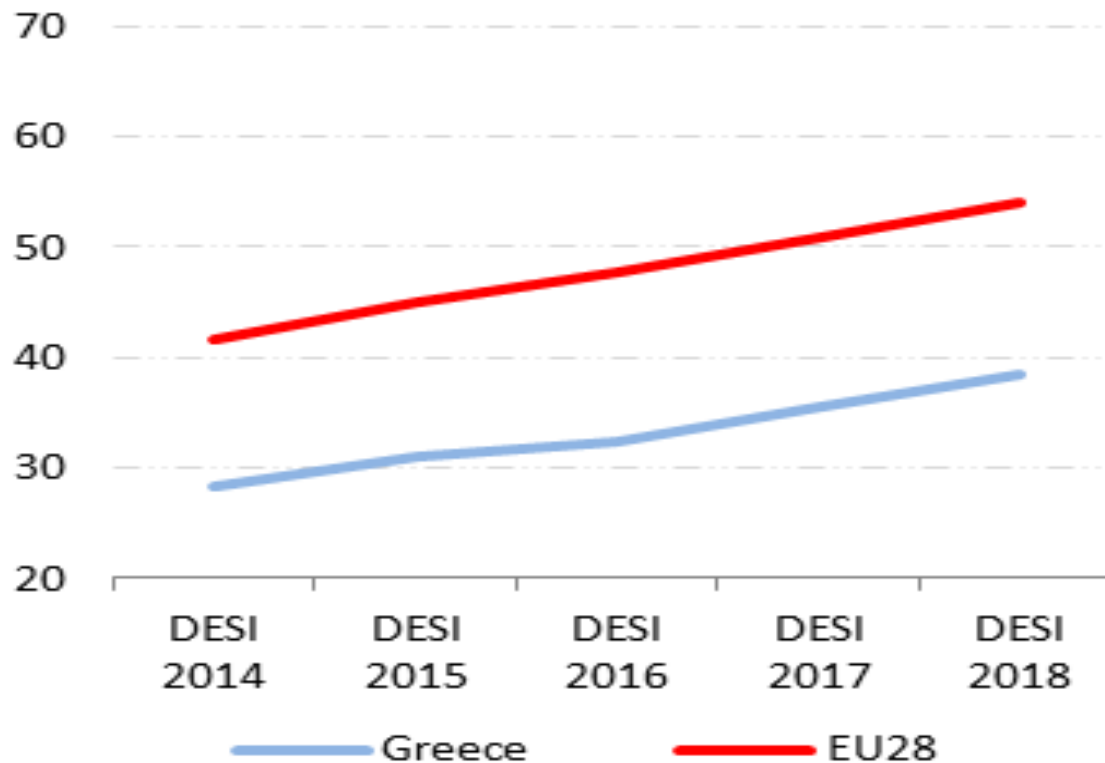Beneficiaries reached 2013–2014

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Digital Economy & Society Index (DESI) 2017

Evolution of DESI

DESI - evolution over time

Estimation, 2021

Digital Economy & Society Index (DESI) 2017

Why Greece is lagging behind

- *Absence of national digital vision*
- *No continuity and timeless digital strategy*
- *Lack of PPPs*
- *Insufficiency of digital governance model*
- *Lack of a monitoring system and interoperability*
- *Outdated framework*
- *No connection and synergies between enterprises and research*
- *Low exploitation of existing infrastructures, high dispersion of public systems fragmentation of systems of the private sector*

Greece: Digital Strategy 2020

4 Strategic Pillars

- *Digital governance model, broadband, framework and digital privacy and security*
- *Government 2.0 (24/7 - single access point)*
- *Actions in the areas where strategic competitive advantages exist (4 areas: Traditional sectors, sectors under transition, customers facing industries and Multipliers)*
- *Creation of the "Hellenic Digital Hub" (facilitator foe the digital transformation of the country)*

Successful implementation of the strategy is expected to contribute to the increase of GDP by 2.6-4.0 %

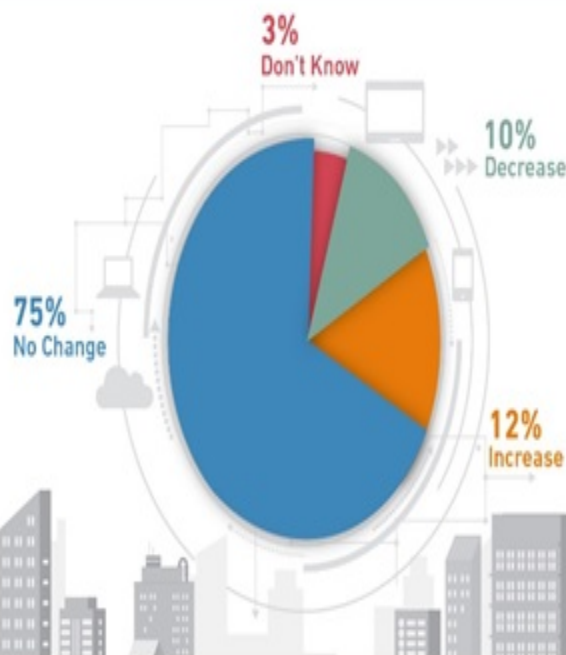European Commission | Erasmus+

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Jobs & Skills

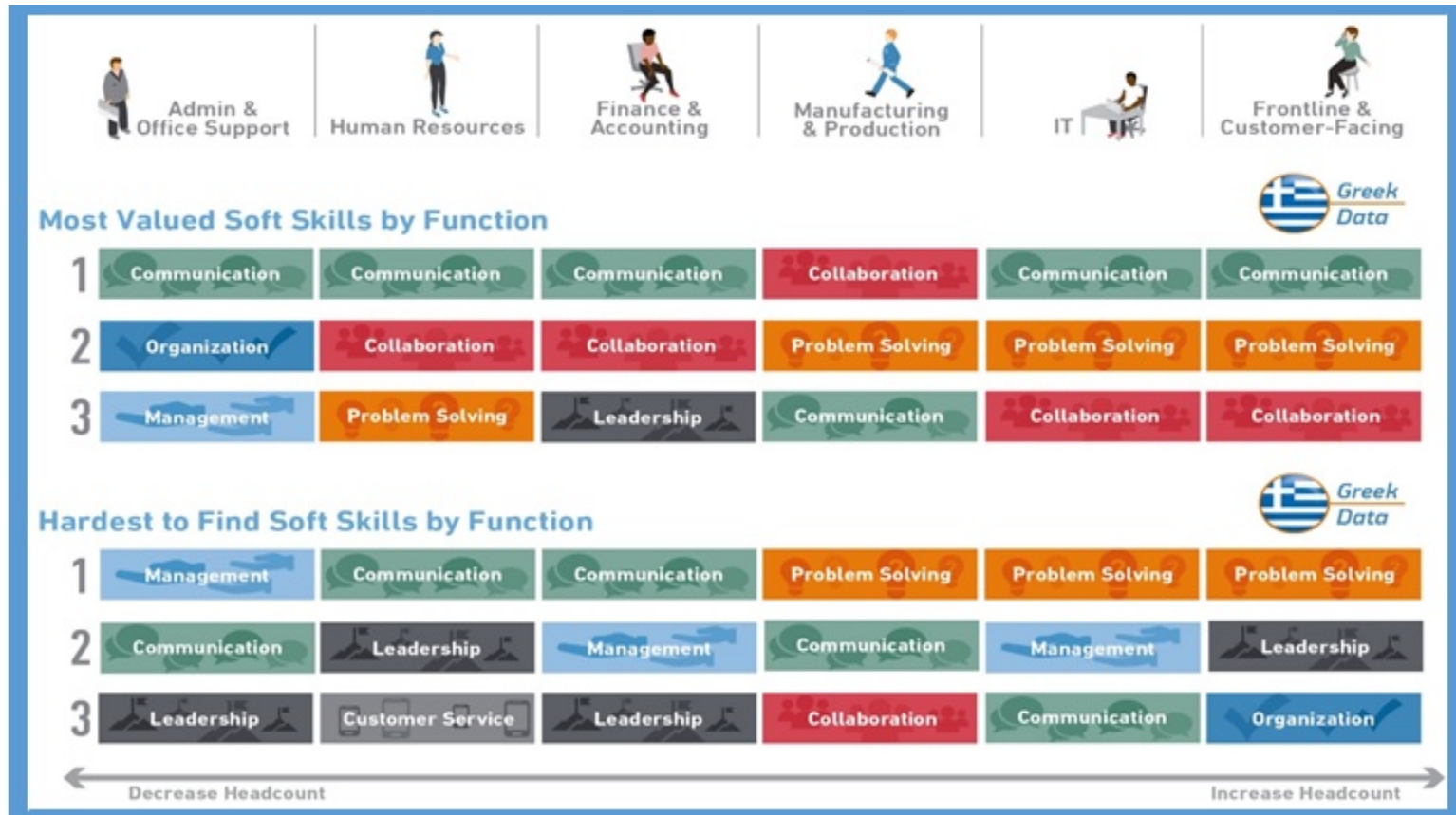*Source: The Skills Revolution (ManpowerGroup)*

Jobs & Skills

Contribution of Digital Technologies to Greek GDP, 2016

16%

€29δισ.

Το 2016, οι ψηφιακές τεχνολογίες συνέβαλαν 16,3% στο ελληνικό ΑΕΠ (€175,1 δισ.)

GDP & Job Creations

OECD study: 10%, increase of diffusion of broadband reflects increase of GDP of 1,5% - 2,5%
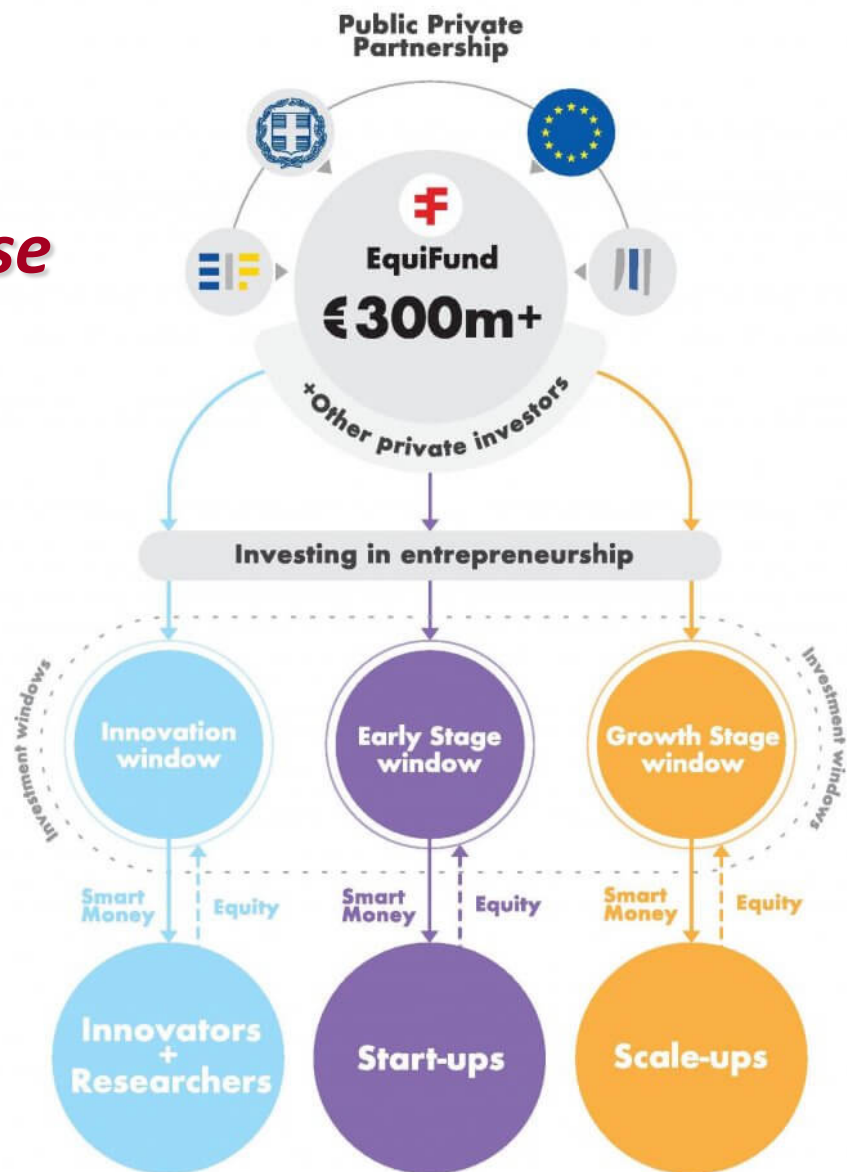
EU: Investment of €1 bn for the development of Internet, creates 9.300 new jobs

If Greece reduce digital gap and converge with the average of Med EU MS, the increase of GDP by 2021 will be €3 bn

EXAMPLES FROM GREECE

EquiFund: Reverse brain drain

EXAMPLES FROM GREECE

☐ *Support curiosity-driven research*

☐ *Research policy*

☐ *PhD and post docs grants*

☐ *Start-ups, exploitation of research results*

☐ *300 m€ for the period 2017-2020*

EXAMPLES FROM GREECE

- *TP HUB – Citizens of the World*
- *Skills for career development of talented people*
- *Initiative to fight brain drain in Greece*
- *Goethe–Institut Athen, Institut français de Grèce, Instituto Cervantes de Atenas*

EXAMPLES FROM GREECE

- *Founded 2008*

- *36 Universities & Research Institutes*

- *Promote Openness through the use and the development of Open Standards and Open Technologies in Education, Public Administration and Business in Greece*

- *Cooperates with the Enterprise Europe Network – Hellas in the ICT sector, with the aim to assist companies that provide Open Technology services*

https://gfoss.eu

EXAMPLES FROM CRETE, GREECE

Heraklion: Smart City, Smart Growth: New career opportunities

- *Sustainable Urban Development Plan 2016-2020 (Towards citizens in the Knowledge society)*
- *One of the 30 "Digital Cities Challenge" of the EU (more livable, more productive and more innovative city)*
- *Collaborative Management of the vision by stakeholders*
- *New job opportunities from big data*

Δήμος Ηρακλείου

www.heraklion.gr

EXAMPLES FROM CRETE, GREECE

Mentionlytics: Discover what everybody is saying about you

- *Online management of business reputation*
- *Achieving a better interaction with potential customers*
- *Analyse on line company's marketing performance and optimise it accordingly*
- *Analyse competitive environment and improve risk management*

EXAMPLES FROM CRETE, GREECE

Cytech: *develops mobile solutions that translate business needs into technology*

- *Mobile messaging*
- *Mobile marketing*
- *Mobile payments (SMS Payment platform)*

www.cytech.com

EXAMPLES FROM CRETE, GREECE

***Phaistosnetworks:** develops mobile solutions that translate business needs into technology*

- *Ads management*
- *Surveys design platform*
- *Advancement content management system*
- *"Bestprice" products discovery and price comparison platform*

www.phaistosnetworks.gr

PHAISTOS networks

Thank you for your attention

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