

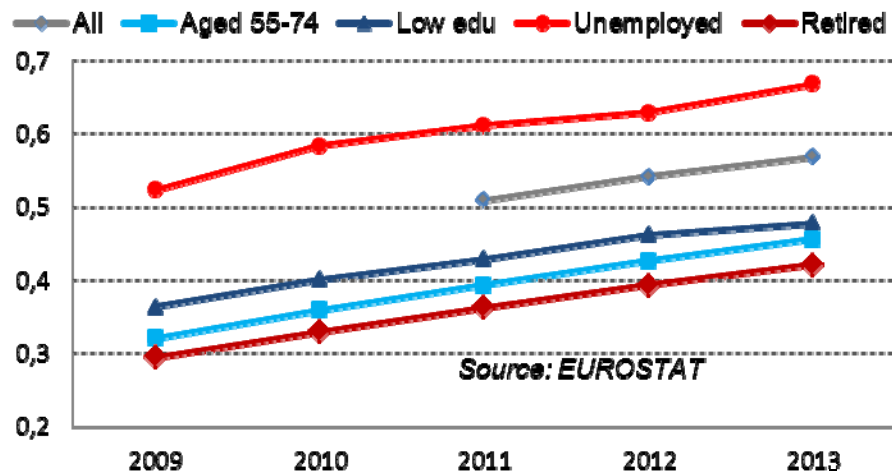


# Digital Inclusion and Skills

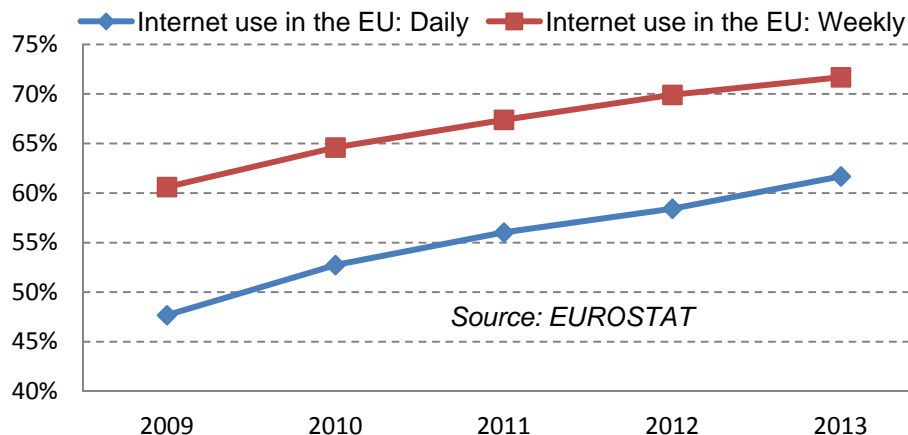
**72%** of EU population uses the internet weekly and **57%** of disadvantaged do so. Most of EU population (**62%**) uses the internet every day.

The number of internet users in the population continues to increase, with 72% of the EU population reporting that they used the internet at least weekly in 2013. For most people, use of the internet is a daily activity, with 62% of EU citizens reporting using it daily in 2013. Use by disadvantaged people also continues to rise; with 57% reporting using the internet at least weekly in 2013. This steady increase in internet use of the EU population suggests that the Digital Agenda targets on internet use will be met by their target date of 2015.

**Weekly use of Internet by disadvantaged people in the EU (% of individuals)**



**Daily and weekly use of internet in the EU (% of population)**



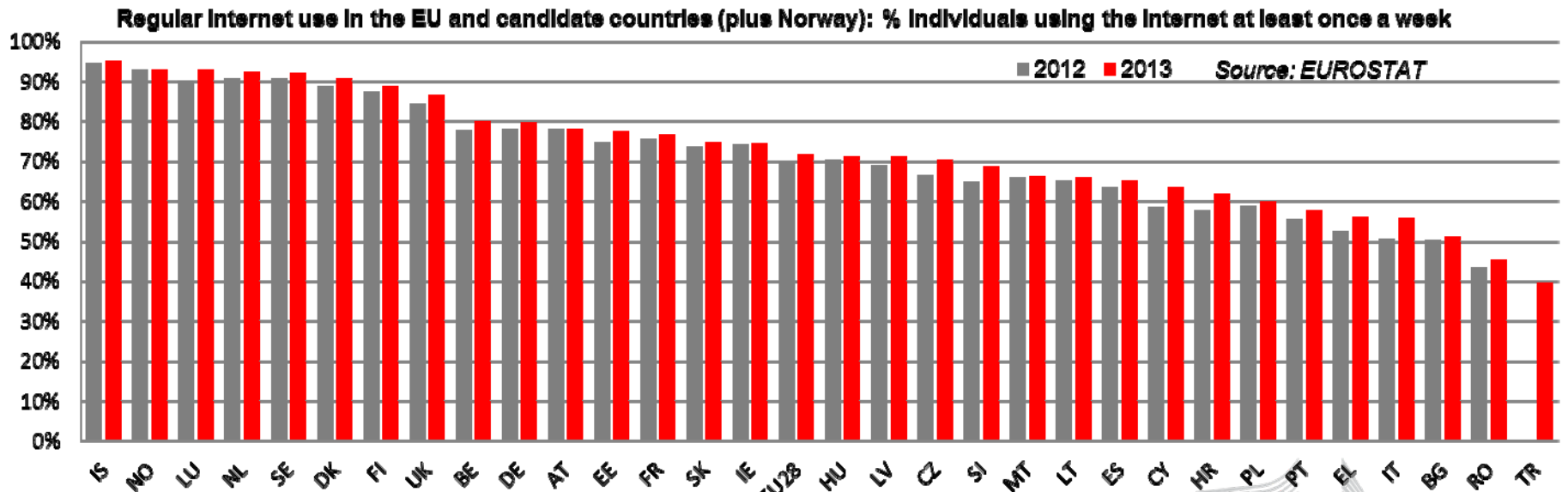
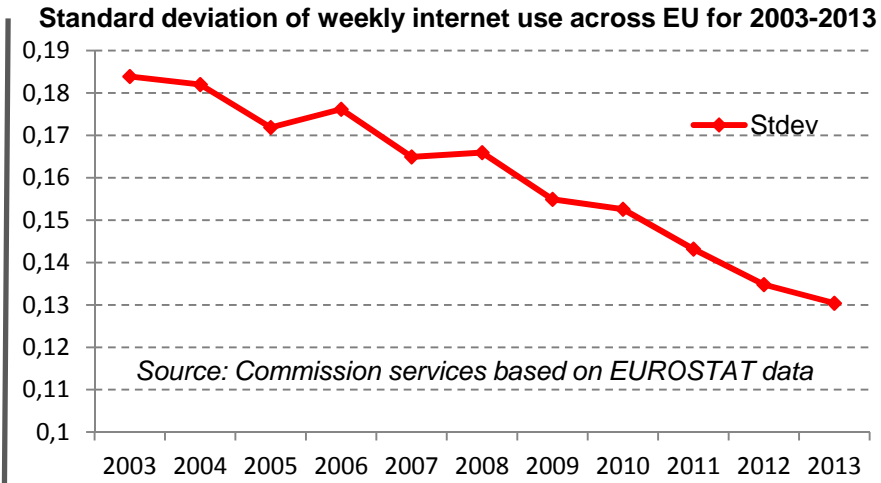
### Our Target

Weekly use of the internet at 75% by 2015 **72% in 2013**  
 Weekly use by disadvantaged people at 60% by 2015  
**57% in 2013**



Rates of **weekly internet use** across the EU Member States are still very dispersed, but some catch up is visible.

Across Europe rates of weekly internet use remain dispersed and the rankings of countries with the highest and lowest rates have changed very little over time. The highest rates of weekly internet use are found in the Nordic countries, Luxemburg and the Netherlands, where rates are around 90% or more. At the other end of the scale, countries with the lowest rates of weekly internet use (RO, BG, IT and EL) have around half of their populations, or more, not using the internet on a weekly basis. However, convergence is taking place; with, generally speaking, larger annual increases in rates of weekly use of the internet in counties with the most catching up to do.



The number of non-internet users continues its gradual downward trend and big improvements have been made in some countries with large rates of non-users. However **20%** of the EU population has still **never used the internet**.

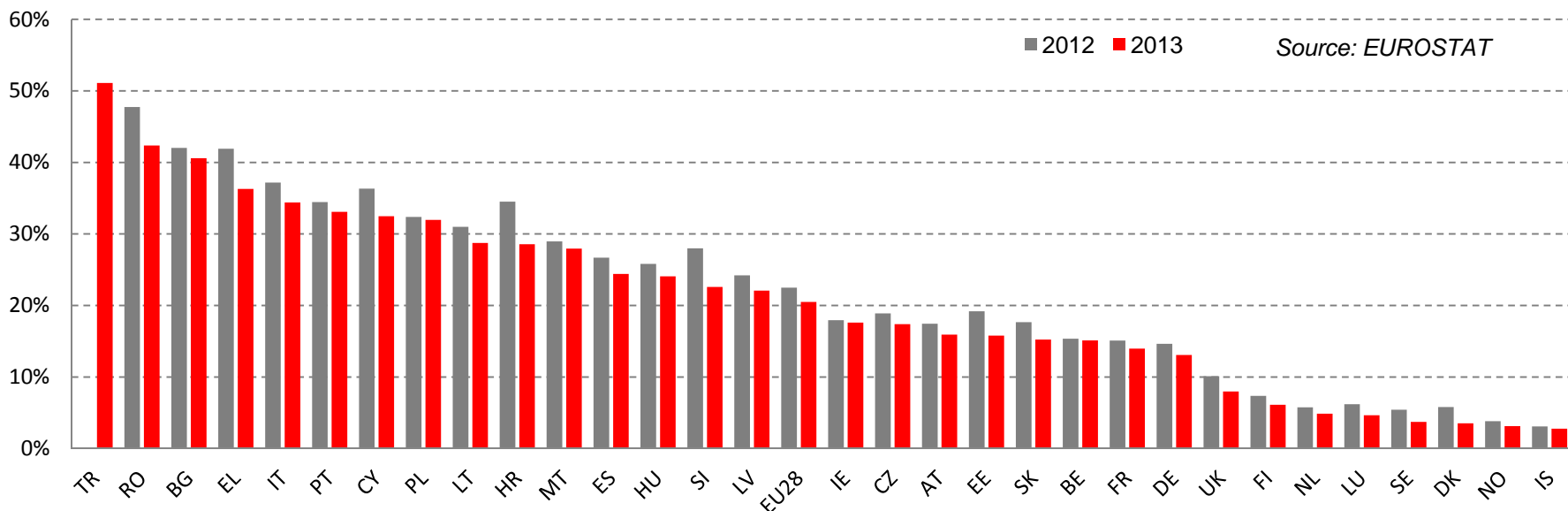
The rate of non-internet users in the EU fell marginally in 2013, to 20% from 22% a year earlier. All Member States made some improvement in reducing rates of non-users. The biggest improvements were made in Croatia, Greece, Romania, Slovenia, Cyprus, Estonia and Italy. However, most of these countries still need to do more to reduce their relatively high rates of non-internet users. Furthermore, a number of countries (BG, PT, PL and MT) with above average rates of non-users made little improvement in the last year in.

### Our Target

Halve the number of non-users from 30% (in 2009) to 15% by 2015 – **20% in 2013**



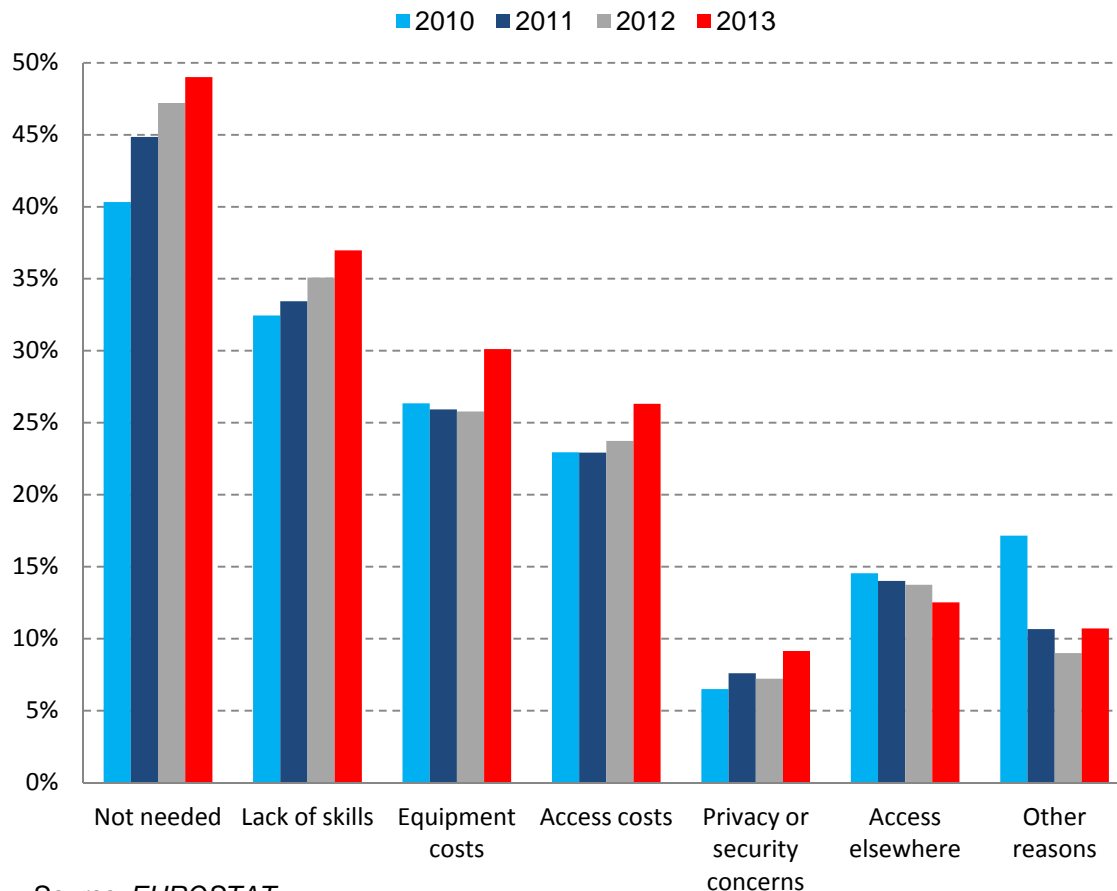
Non-internet users in the EU: % individuals who never used internet



# The biggest **barriers to internet access at home** in the EU are lack of need, insufficient skills and cost barriers. For families with children and low income households costs are particularly important

The three most important reasons for households not having internet access are that it is not needed (49%), due to a lack of skills (37%) and because the equipment (30%) and access (26%) costs are too high. All three reasons have become increasingly important over time. However, cost reasons have gained substantially in importance over the last year. Looking at different household types, cost factors are substantially more important reasons for not having internet access at home amongst households with children and those on low incomes.

**Barriers to internet access at home in the EU28 (% households without internet access)**



Source: EUROSTAT

# 47% of the EU population has insufficient digital skills, 23% has none at all.

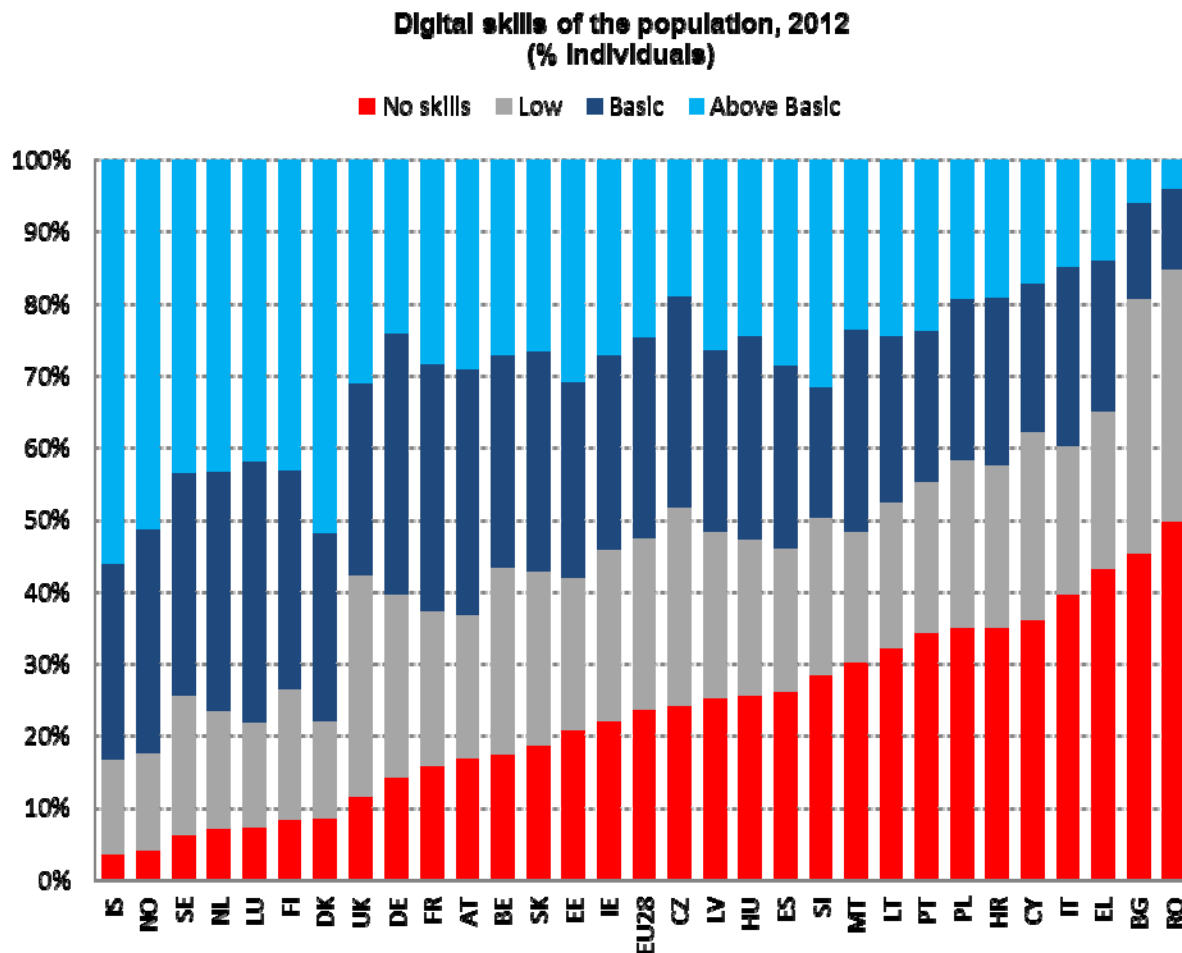
According to a newly constructed Digital Skills Indicator\*, based on the Digital Competence Framework\*\* (developed by DG EAC and IPTS on-going), 23% of the EU population has no digital skills (2012); ranging from 6% in Sweden to 50% in Romania. In ten countries (MT, LT, PT, PL, HR, CY, IT, EL, BG and RO) 30% or more of the population have no digital skills. In four countries (IT, EL, BG, RO) rates are 40% or more. In Italy, with its large population, this equates to almost 18 million people without digital skills.

Considering that to function effectively in the digital society one needs more than low level skills, almost half the EU population (47%) can be considered as insufficiently digitally skilled (having either low or no digital skills).\*\*\* In eleven Member States (CZ, SI, LT, PT, PL, HR, CY, IT, EL, BG, RO) rates are at or above 50% of the population. In Bulgaria (81%) and Romania (85%) most of the population does not have the digital skills they need.

\* [Measuring Digital Skills across the EU: EU wide indicators of Digital Competence](#)

\*\* [Ferrari, A. \(2013\), DIGCOMP: A Framework for Developing and Understanding Digital Competence in Europe, JRC Scientific and Policy Reports.](#)

\*\*\* To be classified as Low skilled an individual has to have carried out activities from only one of the four Digital Competence domains included in the index (information, communication, content-creation and problem-solving). To have basic skills, an individual has to have basic in at least one domain, but no none. To be classified Above basic the individual has to score above basic in each of the four domains.



Source: Commission services based on Eurostat data

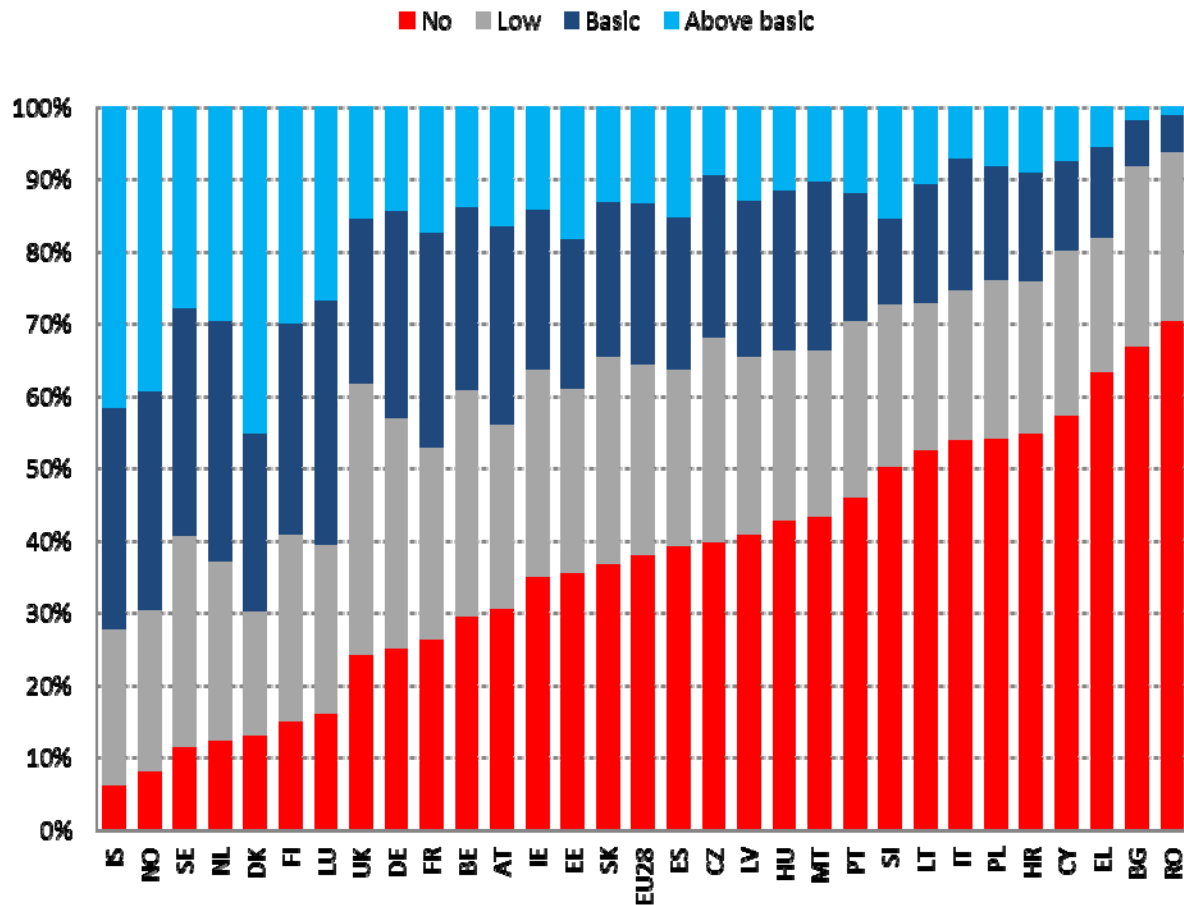
**64%** of disadvantaged people (aged 55-74, low educated, or unemployed, retired or inactive) have an insufficient level of digital skills, **38%** have no digital skills.

The digital skills of disadvantaged people\* are generally significantly lower than those of the average population. In the EU28 38% of disadvantaged people have no digital skills at all. The EU countries with the lowest rates of no skills among disadvantaged people are Sweden (11%), the Netherlands (12%), Denmark (13%), Finland (15%) and Luxembourg (16%). The countries with the highest rates are Romania (70%), Bulgaria (67%), Greece (63%), Cyprus (57%), Croatia (55%), Poland (54%), Italy (54%), Lithuania (52%) and Slovenia (50%).

Adding to this figure those individuals with only low level skills the figure rises considerably. Indeed almost two thirds of disadvantaged people in the EU (64%) have an insufficient level of digital skills (having either low or no digital skills). Fourteen Member States (CZ, LV, HU, MT, PT, SI, LT, IT, PL, HR, CY, EL, BG, RO) have rates above this. In Bulgaria (92%) and Romania (94%) most disadvantaged people have low or no digital skills.

\*Disadvantaged people are defined as individuals belonging to at least one of the following three groups: aged 55-74, low educated or unemployed, retired or inactive.

**Digital skills of disadvantaged people, 2012 (% Individuals)**

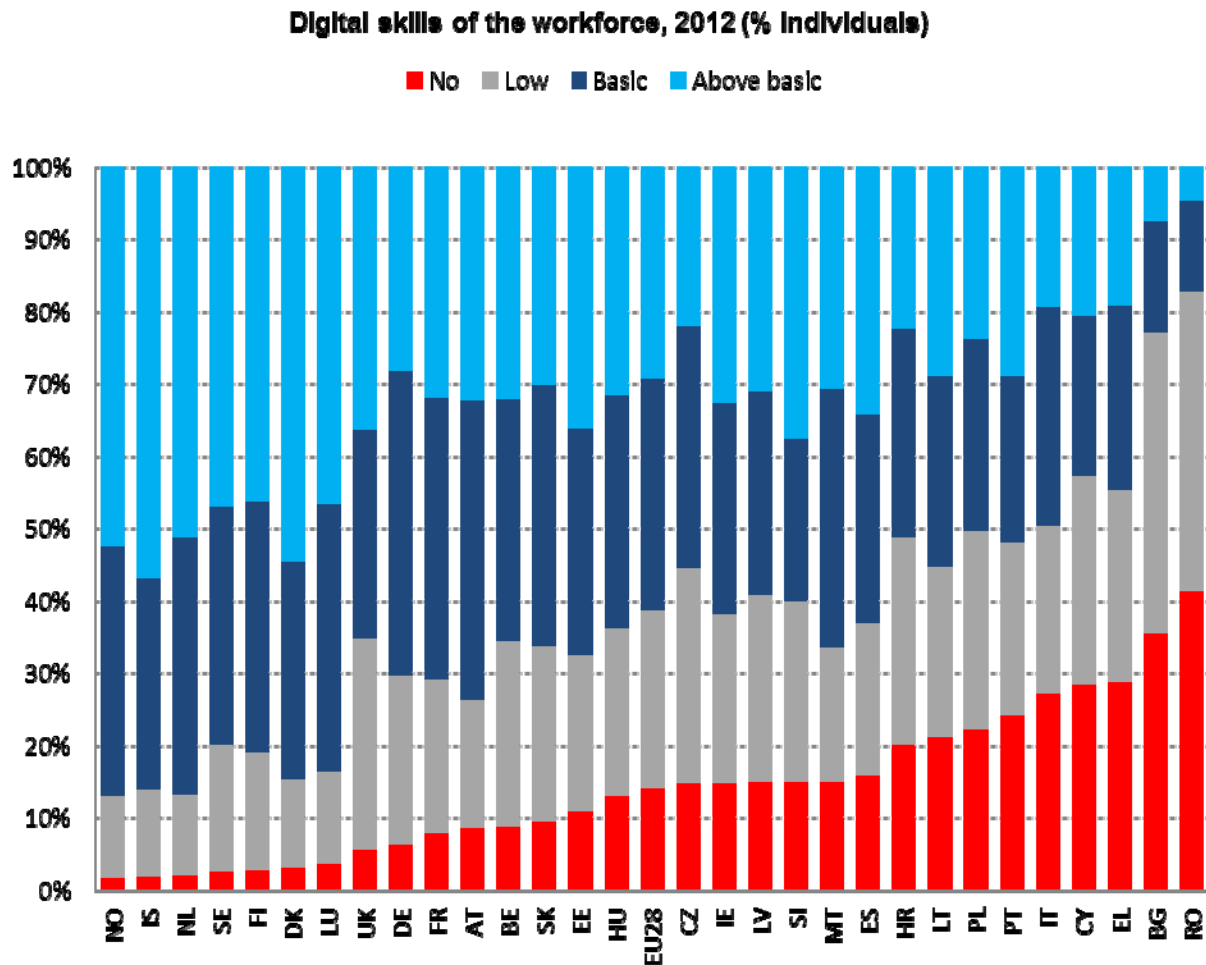


Source: Commission services based on Eurostat data

**39%** of the EU workforce has insufficient digital skills, **14%** has no digital skills at all.

Rates of digital skills amongst the workforce are on average higher than for the average population in the EU. Only 14% of the EU workforce has no digital skills. However, in some countries rates are still relatively high. In nine countries (HR, LT, PL, PT, IT, CY, EL, BG and RO) rates are at or above 20% of the workforce. In Romania and Bulgaria a third or more of the workforce has no digital skills.

If we also add to this the percentage of the workforce who have only a low level of skill, we get a figure of around two fifths of the EU workforce (39%) that can be considered to be insufficiently digitally skilled. In twelve Member States (SI, LV, CZ, LT, HR, PL, PT, IT, CY, EL, BG, RO) the percentage is higher. In Bulgaria (77%) and Romania (83%) it is most of the workforce.



Source: Commission services based on Eurostat data



## On average **ICT specialist employment** has grown over 4% a year since 2000, seven times higher than total employment growth over the same period.

Over the period 2000-2012 employment of ICT specialists in the EU-27 grew significantly. Based on a narrow definition\*, ICT skilled employment grew by 2 million over this period from 3.1 million in 2000 to 5.1 million in 2012. \*\* This resulted in an increase in the share of ICT employment in total employment from 1.6% to 2.4% over this period. Based on a broad definition\*\*\*, it increased to 6.1 million, or 2.8% of total employment in 2012, up from 1.9% in 2004. On average, ICT employment growth was 4.3% p.a. (narrow definition) over the period 2000-2012, more than 7 times higher than total employment growth over this period. Under a broad definition, the rate of growth appears to be higher.

\* Essentially, ISCO codes 25 and 35.

\*\* JRC (IPTS) "The evolution of EU ICT employment 2000-2012" Technical Report (forthcoming).

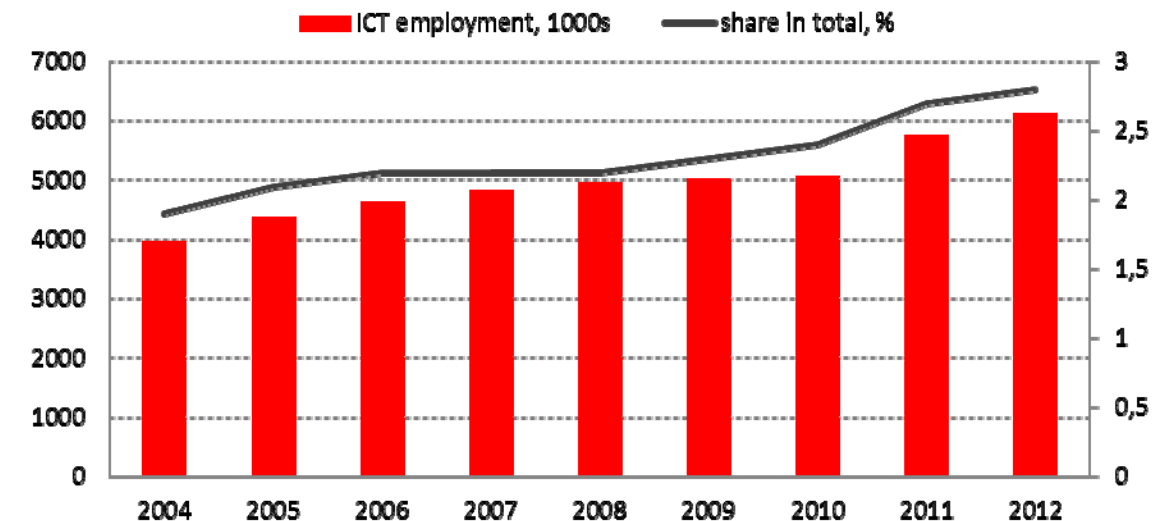
\*\*\* ISCO codes 25 and 35 plus ICT graduates in certain adjacent ISCO codes.

\*\*\*\* Empirica (February 2013), "E-Skills Monitoring and Benchmarking Policies and Partnerships", final report draft version.

Most EU countries have increased their share of ICT specialist employment. In 2012, the highest ICT shares were recorded in Sweden (4.8%), Finland (4.7%) and the UK (4.2%), the lowest in Romania (1.3%) and Greece (1.4%).

The biggest employment gains have been made in the ICT services sector (+ 25% since 2000) and in non-ICT sectors (+27%) of the economy.\*\*\*\* Employment of ICT professionals in the ICT-manufacturing sector has fallen (-28%), though the size of the decline is small relative to increases made in the other sectors.

**Employment of ICT specialists in absolute terms and as a share of total employment (broad definition), 2004-2012**



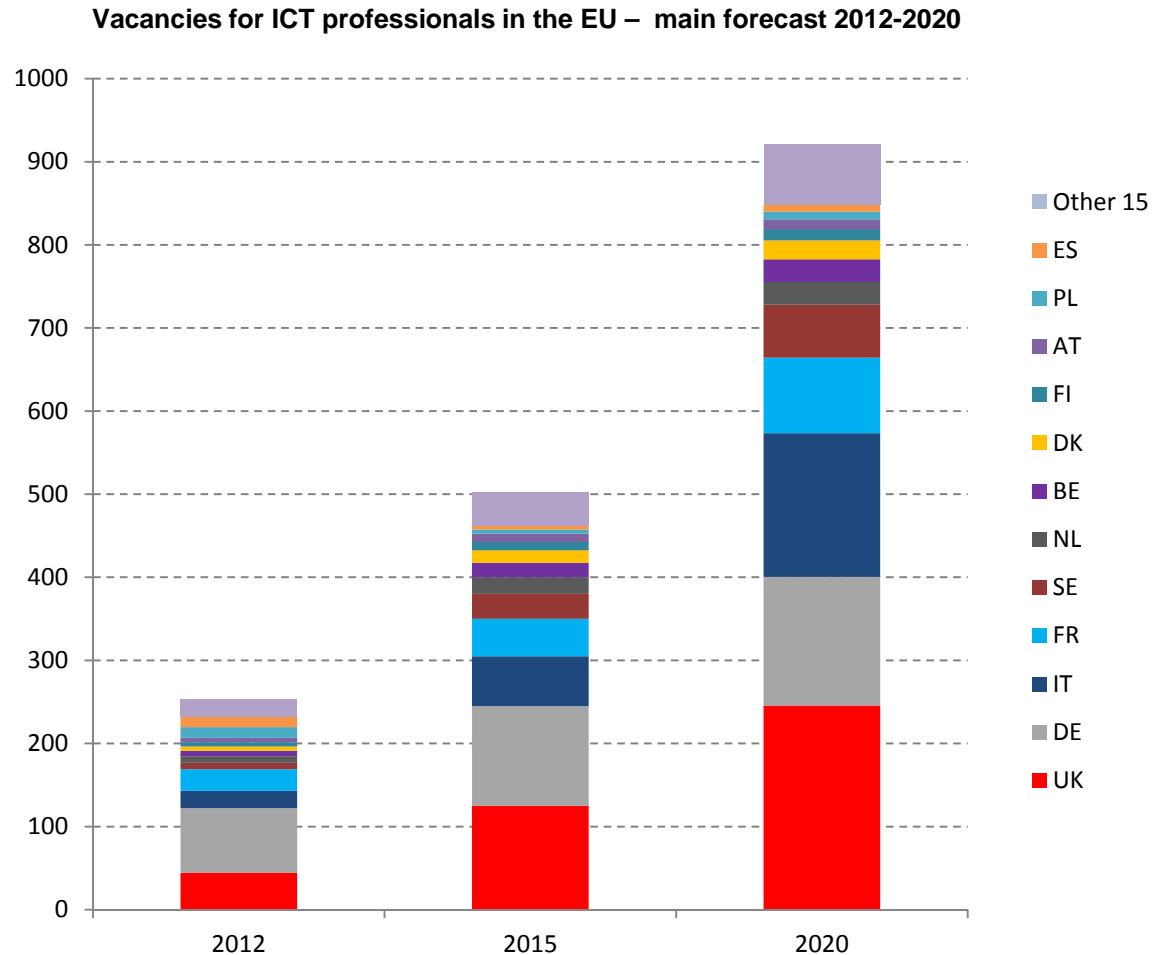
Source: JRC (IPTS) "The evolution of EU ICT employment 2000-2012" Technical Report (forthcoming)

# The EU has a growing deficit of ICT professional skills, forecast to reach 900,000 by 2020.

Despite the strong positive evolution in the employment of ICT professionals in the EU over the past decade, the **employment potential of ICT is underexploited**. Evidence shows that there is a growing gap emerging between the demand and supply of ICT specialists in Europe. This gap has been projected could reach 900 000 by 2020 if not addressed.

It is the purpose of the Commission's **Grand Coalition** for Digital Jobs initiative to address this issue of lacking ICT professional skills.

Currently the largest ICT professional skills gap is to be found in **Germany**. However, latest forecasts suggest that over the period up to 2020 the ICT professionals skills gaps will be severely aggravated in the **UK** and **Italy** in particular; largely due to the insufficient production of ICT graduates to keep up with strongly increasing demand for ICT professionals in these countries.



Source: Empirica model forecast