

Digital literacy of older people



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1. EU demographic change

On January 1st, 2021, there were 447.2 million people living in the European Union (EU), most people were living in Germany (83.2 million, 19% of the EU total), followed by France (67.7 million, 15% of the EU), Italy (59.2 million, 13% of the EU), Spain (47.4 million, 11% of the EU) and Poland (37.8 million, 8% of the EU). In total, these five Member States accounted for 2/3 of the EU population. At the other end of the range, the least populous EU Member States were Malta (500 thousand people, corresponding to 0.1% of the EU total), Luxembourg (600 thousand, 0.1% of the EU) and Cyprus (900 thousand, 0.2% of the EU).

Between January 1st, 2020, and January 1st, 2021, 278.000 people **less** were living in the EU: in absolute terms, the highest decrease was observed in Italy (-405 thousand, corresponding to -0.7% of its population) followed by Romania (-127 thousand, -0.7% of its population) and Poland (-118 thousand, -0.3% of its population)¹.

1.1 A decrease of young people below 20

Over the period 2001-2021 the share of young people has declined in all Member States, from the highest decrease in Malta (-10 p.p.) and Cyprus (-9 p.p.) to the lowest in Sweden and Belgium (both -1 p.p.). People below 14 years old decreased 2 percentage points (p.p.), from 17% in 2001 to 15% in 2021 and people aged 15 to 19 decreased 1 percentage point (p.p.), from 6% in 2001 to 5% in 2021.

1.2 The median age ²

A range of factors may influence the median age, including fertility, life expectancy, social and economic development. In 2019, the median age of the EU-27 population was 43.7 years (**see Figure 1**). Across the EU Member States, the median age was

¹https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Ageing_Europe_-_statistics_on_population_developments

² Age that divides the population in two parts of equal size, that is, there are as many persons with ages above the median as there are with ages below the median.



below 40.0 years in Luxembourg (39.5 years), Cyprus and Ireland (both 37.7 years), while in Germany it was 46.0 years and in Italy 46.7 years.

From 2001 to 2021 the median age in the EU increased 6 years. In 2021 Italy had the highest median age (48 years), Germany, Portugal and Greece followed with 46 years, Bulgaria and Spain 45 years, while the lowest was recorded in Cyprus (38 years), Ireland (39 years), Luxembourg and Malta (both 40 years). The EU-27's median age is projected to increase by 4.5 years during the next three decades, to reach 48.2 years by 2050.

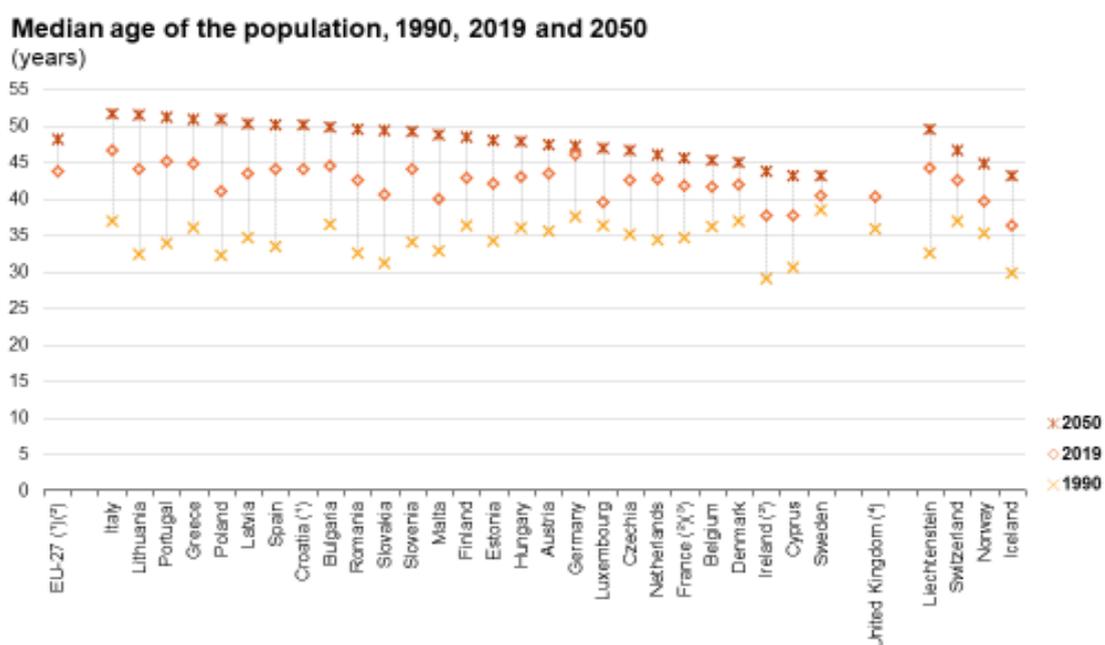


Figure 1: Median age of the population, 1990, 2019 and 2050 (years) Source: Eurostat ([demo_pjanind](#)) and ([proj_19ndbi](#))

The total population of the EU-27 is projected to increase marginally from 446.8 million at the start of 2019 to peak at 449.3 million during 2026-2029, before falling slowly back to 441.9 million by 2050.

2. An ageing population

The population in the EU is ageing and this can be seen through several different statistical indicators, such as the evolution of the share of the elderly population, the old age dependency ratio, and the median age.

In 2019, people aged 55 years or more accounted for just over one third (33.6 %) of the total EU-27 population. Among the EU Member States, this share was higher than one third in 10 of the EU Member States and peaked at 36.5% in Italy. The share of this age group (55 years or more) in the EU-27 population will increase in all Member States and it is projected to reach 40.6% by 2050. People aged 55 years, or more are projected to reach 45.9% of the population in Italy, and 45.0% in Lithuania, Portugal, Greece and Latvia. In 2021, 21% of the population were aged 65+, while in 2001 older people were 16% of the total EU population, which shows a significant increase of 5 percent in 20 years. The share of people over 80 almost doubled during this period, since in 2001 it was around 3% and in 2021 it reached 6%. On the other hand, the percentage of young people (aged 0 to 19 years old) in the EU decreased, since in 2001 it used to be 23% and in 2021 it shrank to 20%.

Looking at the share of persons aged 65+ in the total population, Italy (24%), Finland and Greece (both 23%) as well as Portugal, Germany, and Bulgaria (all 22%) had the highest shares, while Ireland and Luxembourg (both 15%) had the lowest.

The population of older people (defined here as those aged 65 years or more) in the EU-27 will increase significantly, rising **from 90.5 million at the start of 2019 to 129.8 million by 2050**. During this period, the number of people in the EU-27 aged 65-74 is projected to increase 16.6% while the number of people aged 75-84 is projected to expand 56.1%. Additionally, the latest projections for the share of people below the age of 55 suggest that it will decrease 13.5% until 2050.

2.1 A rapid expansion of people 85+

In 2019, the share of people 85+ in the EU-27 population was 2.8%. There were 5 EU Member States where this share was less than 2.0%, with Ireland, Cyprus and Slovakia registering the lowest shares (1.5-1.6 %). France, Portugal, Spain, Greece,



and Italy showed the highest share of people 85+, with a peak of 3.6% recorded in Italy. Between 2001 and 2021, the number increased except Sweden where it remained constant (5%). In some of the Member States, this share more than doubled.³ Between 2019 and 2050, the number of people 85+ in the EU-27 is projected to more than double, up 113.9%, meaning that from 12.5 million in 2019 it will reach 26.8 million by 2050. At the same time the number of people aged 100 years or more is projected to grow from 96.600 in 2019 to almost half million (484.000) by 2050.

2.2 Older women and older men

Women outnumber men at older ages within the EU-27. This gender gap is projected to narrow somewhat in the coming years with an increasing share of older men. While there were 1.33 women aged 65 years or more for every man of the same age in 2019, this ratio is projected to fall to 1.24 women aged 65+ for every man of the same age by 2050 (see Figure 2).

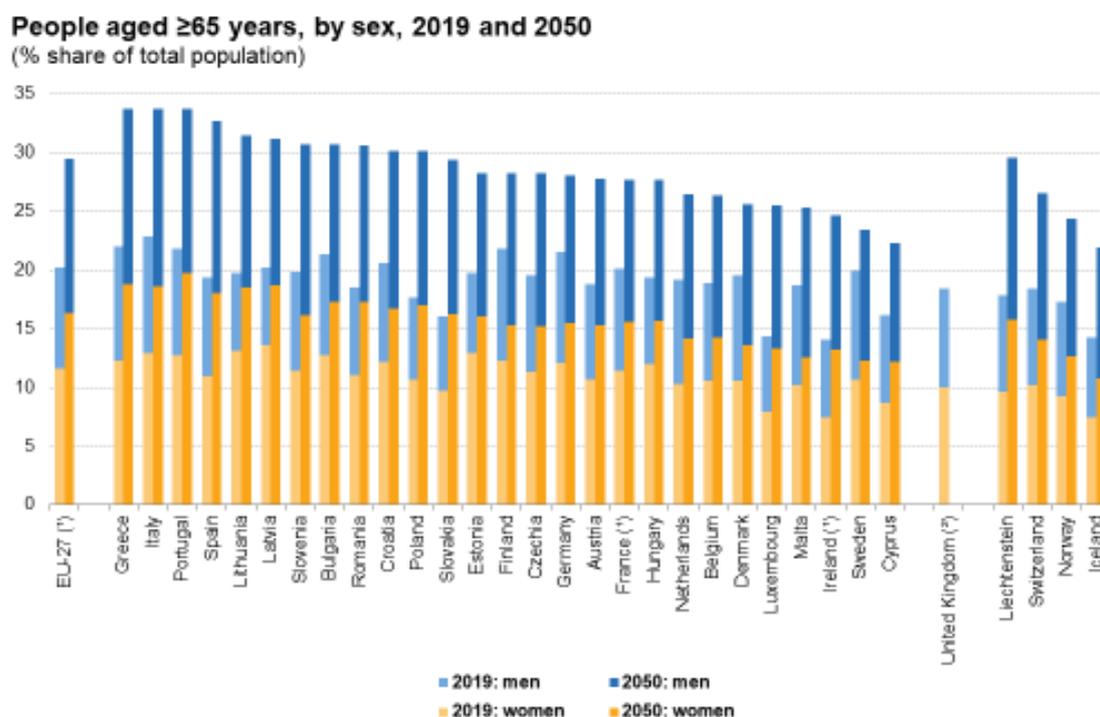


Figure 2: People aged ≥65 years, by sex, 2019 and 2050 (% share of total population) Source: Eurostat ([demo_pjangroup](#)) and ([proj_19np](#))

³ e.g., in Lithuania, Croatia and Slovenia from 2 % in 2001 to 6 % in 2021, in Latvia and Estonia from 3 % to 6 %, and in Romania and Bulgaria from 2 % to 5 %.

There were more women 85+ than men of the same age in each of the EU Member States, however, the share of men was generally rising at a faster pace than the share of women between 2001 and 2019 (see Figure 3). Greece and Italy are among the Member States with the highest shares of people 85+ and consequently are characterised by having relatively large populations of men of this age.

People aged ≥85 years, by sex, 2001 and 2019
(% share of total population)

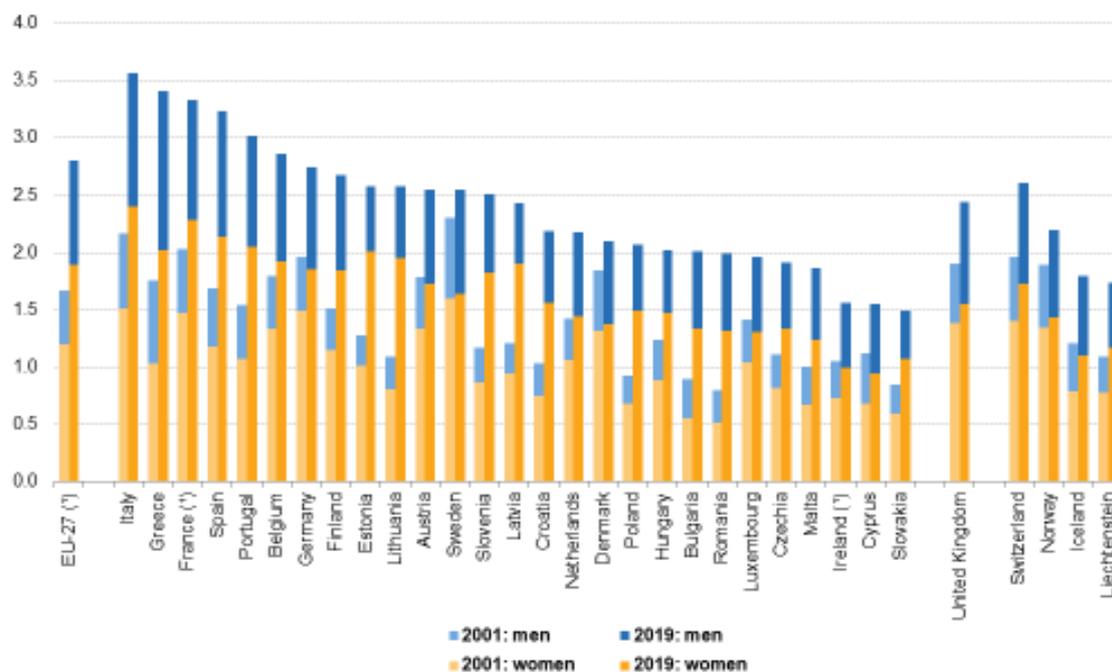


Figure 3: People aged ≥85 years, by sex, 2001 and 2019 (% share of total population) Source: Eurostat ([demo_pjangroup](#))

2.3 Older age dependency ratio

The old age dependency ratio may be used to study the level of support that potentially can be given to older people by the working-age population (defined as people aged 20-64 years). This ratio expresses the relative size of the older part of the population compared to the working-age population.

The old-age dependency ratio for the EU-27 was 25.9% in 2001; as such, there were slightly fewer than 4 persons of working age for every person aged 65 years or more. By 2019, the old-age dependency ratio increased to 34.1%, in other words, there were fewer than 3 persons of working age for every older person. Across the EU Member

States it ranged from (lowest) 22.4% in Luxembourg and 24.0% in Ireland to 37.6% in Greece, 38.4% in Finland and 38.6% in Italy (highest).

Population projections suggest that the EU-27 old-age dependency ratio will continue to rise reaching 56.7% by 2050, when there will be fewer than 2 persons of working age for each older person. There are 7 Member States where the old-age dependency ratio is projected to reach a level of at least 60.0%, with **the highest ratios projected in Italy (66.5%), Greece (68.1%) and Portugal (68.8%)** (see Figure 5).

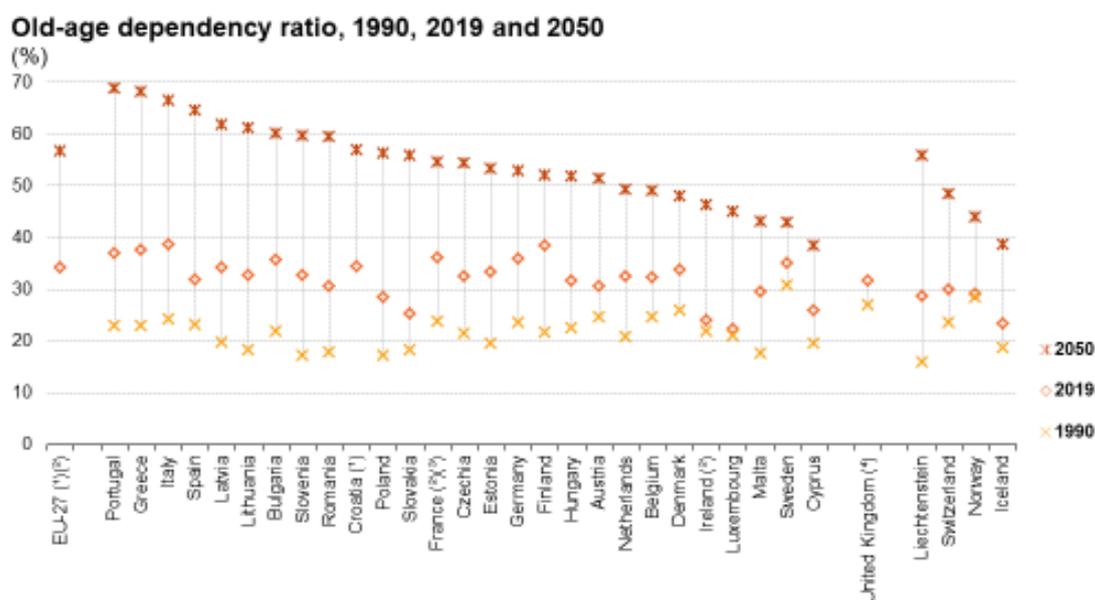


Figure 5: Old-age dependency ratio, 1990, 2019 and 2050 (%) Source: Eurostat ([demo_pjanind](#)) and ([proj_19ndbi](#))

3. Greece, Italy, Portugal and Spain

In 2019, there were 17 regions across the EU where older people made up more than one quarter of the total population. Among these locations were northern/central Italy, Liguria (north-western Italy, 28.5%), north-western/central Spain, and Ipeiros (north-western Greece, 27.0%).

There are several relatively sparsely populated and remote regions where older people represent a large proportion of the population, such as Tâmega, northern Portugal, where older people account for 30.3% of the population. Also, Ourense in north-western Spain has a population of 31.4% older people and the Greek region of Evrytania - a relatively mountainous, rural, sparsely populated area, has a population of 36.7% older people- more than 1/3 of the total population.

Range of NUTS level 3 regions with the highest and lowest shares of people aged ≥65 years, 2019
(% share of total population)

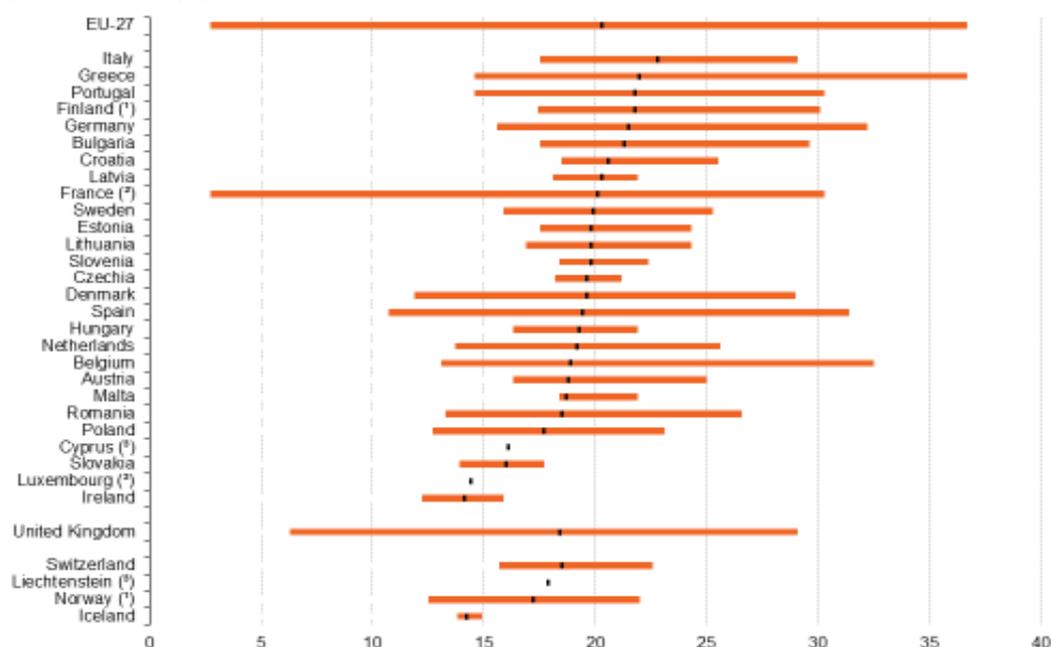


Figure 7: Range of NUTS level 3 regions with the highest and lowest shares of people aged ≥65 years, 2019 (% share of total population) *Source:* Eurostat ([demo_r_pjanind3](#))

3.1 The case of Greece

Greece's population will decrease significantly in the future. Demographic data make it certain that the population will continue to decline further until the middle of the next decade, as the natural balances will continue to be negative, and demographic ageing will not be halted. In 2050 the country's population is estimated to be between 10 million (in the most optimistic scenario) and 8.3 million (in the most pessimistic scenario). The population reduction will range from about 800 thousand to 2.5 million people⁴.

At the same time the country's population is ageing (**see Figure 8**). In the last 65 years its population has increased by 46%, but in the same period people 65+ quadrupled, while people 85+ increased tenfold. In 1961 only 8.3% of the population was over 65, while 26.2% was under 14. In 2014 the composition of the population seemed completely different: 20.5% were over 65, and only 14.7% under 14.

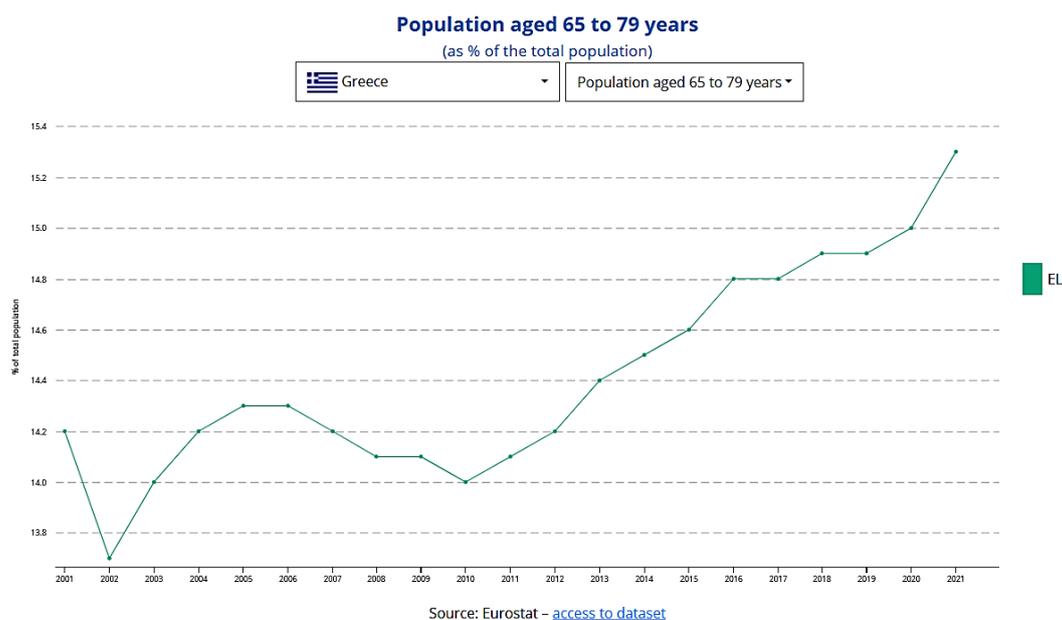


Figure 8: Source Eurostat

From 1956 onwards, a gradual but uninterrupted decline in fertility began, which continues to this day (unlike other Western European countries Greece did not experience the "baby boom" after the war). Population growth in recent decades was

⁴ <https://www.dianeosis.org/research/demography/>

due exclusively to periodic migratory flows and a rapid increase in life expectancy, which during this period increased by 8 years for men and 10 years for women.

The projections for the future show that in Greece the population will continue to age. School-age children (3 to 17 years old) will fall from 1.6 million today to 1.4 million (optimistic scenario) to 1 million (pessimistic scenario) in 2050, after a sharp fluctuation in the intervening decades. The working-age population (i.e. all citizens aged 20-69) will fall from 7 million in 2015 to 4.8-5.5 million in 2050.

3.2 The case of Italy

In September 2022, Istat⁵ predicted that the country's population could contract by one-fifth, and possibly fall to 54.2 million in 2050 and 47.7 million in 2070. The share of older people in Italian society has been growing constantly in recent years (see **Figure 9**). In 2019, Italy was the European country with the largest percentage of older population. That year, 22.8% of the country's population was aged 65 years or more, followed by Greece and Portugal. Two years later, in 2021, the number of older people increased to 23.4% of the total population. The last few years, the share of the younger population has experienced a decrease, resulting in the rise of the average age of Italians from 43.6 years in 2011 to 45.7 years in 2020. In Italy, there are 36.2 older people for every 100 individuals of working age⁶.

There are two main explanations for Italy's ageing population: a high life expectancy and a low birth rate. Italy ranks among the countries with the highest life expectancy worldwide -for females, it reached 85 years, while for males 81 years- and among the countries with the lowest fertility rates in the world. The result is that people live longer, alongside a declining number of births⁷.

⁵ <https://www.istat.it/en/population-and-households>

⁶ <https://data.worldbank.org/indicator/SP.POP.65UP.TO.ZS?locations=IT>

⁷ <https://www.prb.org/resources/countries-with-the-oldest-populations-in-the-world/>



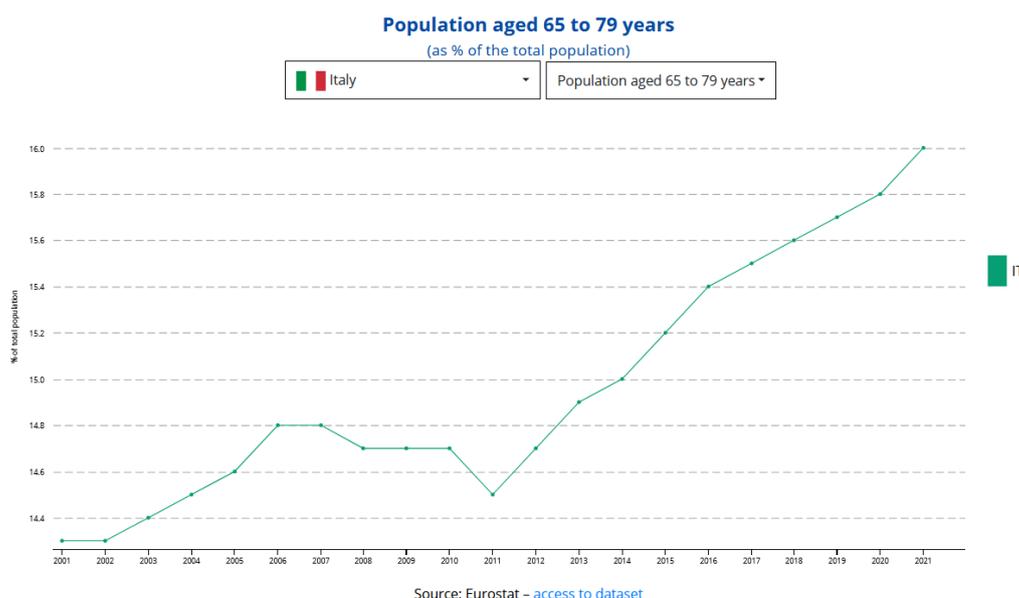


Figure 9: Source Eurostat

However, there are some regional differences. The oldest regions of the country are Liguria and Friuli-Venezia Giulia, both situated in the North, while the youngest regions are Campania, in the South, and Trentino-South Tyrol, in the North-East. The birth rate is highest in the Southern regions and on the Islands, while it is lowest in the Central and North-Western regions⁸. The birth rate in the country has been constantly decreasing: in 2019, 7 babies were born per 1,000 inhabitants, about 2 children less than in 2010. In the South of Italy, the birth rate stood at 7.5 infants per 1,000 inhabitants, whereas in Central Italy it reached 6.9 in 2019, the highest and lowest rates in the country, respectively.

3.3 The case of Portugal

In the past three decades, the older population tripled in Portugal (see Figure 10), recording an annual ageing rate of 3.6%, higher than all EU countries. In 1990, Portugal registered 66 older (aged 65 years and above) for every 100 young people, while currently the country registers 182 older for every 100 young people (aged up to 14 years), becoming the fastest ageing country in the European Union. Population

⁸ <https://www.statista.com/topics/8379/aging-population-of-italy/>

aged 65 and above in Portugal was reported at 23.15% in 2021, according to the World Bank collection of development indicators⁹.

The reduction in the birth rate is the main factor behind the ageing population in Portugal, as it narrows the lower part of the population pyramid. In the beginning of the 1980s, in both Spain and Portugal the fertility rate stood below the replacement rate - the rate that would allow the total population to remain constant without immigration, which is around 2.1 children per woman. Since the 1990s, it has stood well below this threshold, at around 1.3 children. In addition to the low birth rate, there is an increase in life expectancy, which widens the top of the population pyramid as the older population grows. Life expectancy has risen to 84.3 years in Portugal, while it is expected to reach above 89 in 2050¹⁰.

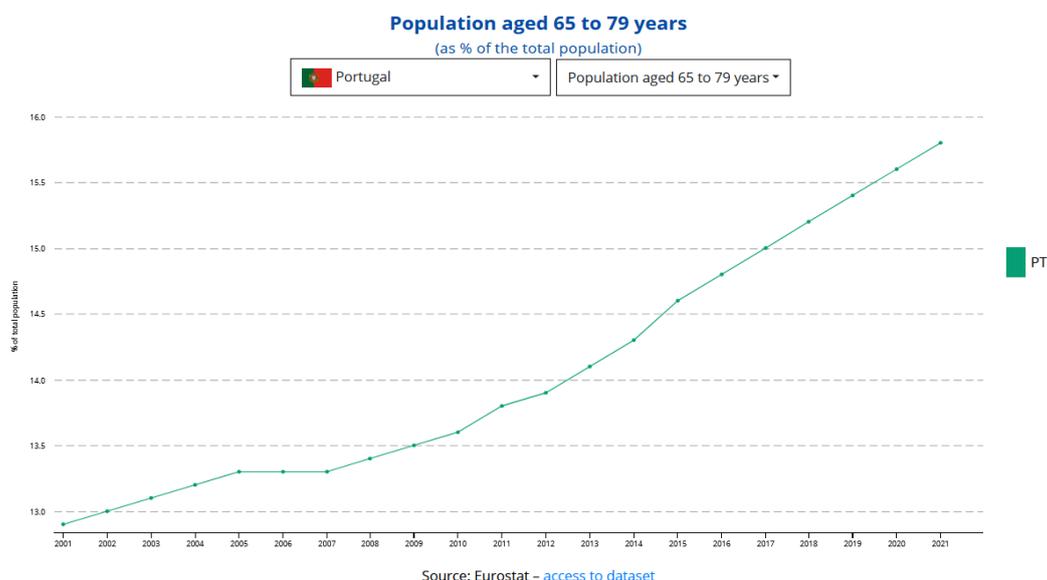


Figure 10: Source Eurostat

As a result, the older population will continue to grow, while the working-age population is most likely to remain constant or even decline. Therefore, the dependency rate, which is the ratio between the population over the age of 65 and the working-age population, which stood at 33.9% in 2018 will rise to 56.4% by 2040. Also, the ratio of

⁹ <https://tradingeconomics.com/portugal/population-ages-65-and-above-percent-of-total-wb-data.html>

¹⁰ https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_publicacoes&PUBLICACOESpub_boui=586659473&PUBLICACOESmodo=2

the population aged 60+ compared to the population aged 20+ has increased from 27% in 1991 to 35% in 2017.

The ageing of the population has a particularly marked effect in the regions of the so-called «deserted» Portugal. The main reason for this is that, for several decades now, a significant portion of the population, mostly of working age, has been migrating from these areas towards the country's main urban centres creating a key demographic imbalance between regions. As such, population ageing in the rural parts of these regions is even higher than it is in urban areas, posing a huge social challenge.

3.4 The case of Spain

Spanish society will get older and will be made up of more immigrants in the future, according to INE¹¹. Spain will gain over 4 million (4,236,335) people by 2037, reaching 51 million of the total population, an increase of 8.9%. The estimated population growth is predicted to be largely due to immigration, meaning that the Spanish-born population will see a steady decline from 84.5% (2022) to 63.5% within 50 years. The birth rate has been declining for around a century, to the extent that in 2021 7 births accounted for every 1,000 people, and the total number of births reached the lowest number in history (338,532 babies were born). That represents a 39% drop compared to a decade ago.

The Spanish population is also set to get older. Between 2002 and 2022, the older population has increased by more than two million resulting 20% of the total population to be 65 years old or more currently¹². In January 2022, the population aged over 65 years in Spain was 9.54 million people, representing nearly a fifth of the total country's population, continuing the upward trend of previous years. People 65+ are predicted to peak in 2050 representing almost 1/3 of the total population and it is estimated that by 2070 older people in Spain will increase to over 8.1 million women and 6.3 million men, representing a rise of five million people 65+.

¹¹https://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176953&menu=ultiDatos&idp=1254735572981

¹²<https://www.thelocal.es/20221017/older-and-more-diverse-what-spains-population-will-be-like-in-50-years/>



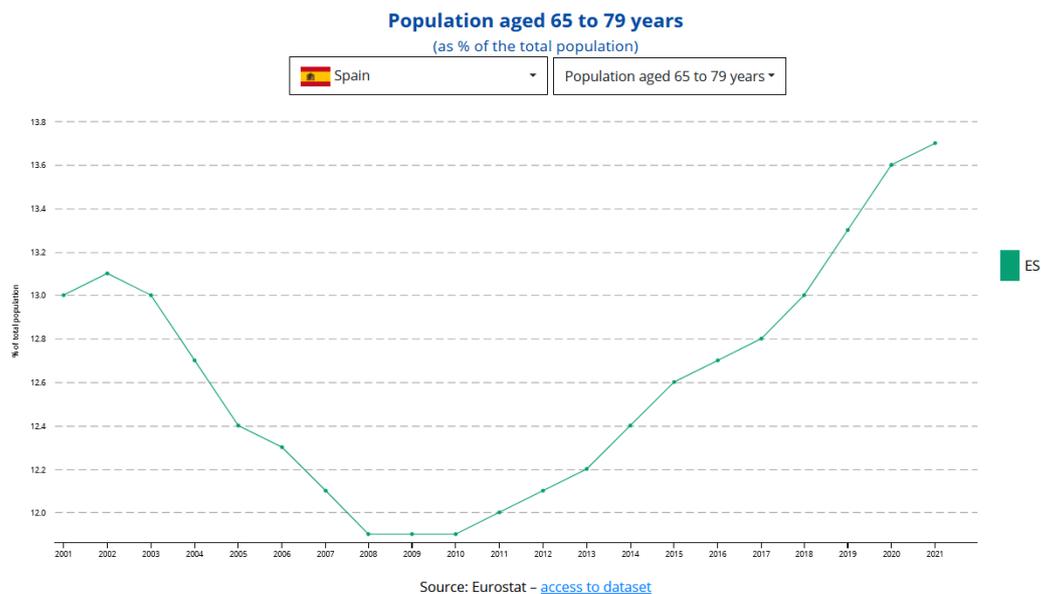


Figure 11: Source Eurostat

4. Older age and digital skills

As we are living longer, our world is becoming increasingly digital. The rapid advancement of new digital technology continuously transforms our societies and the world we live in. Information and Communication Technologies (ICT) are becoming omnipresent in our daily lives due to the increasing tendency to use the Internet and mobile devices such as smartphones and tablets, that have allowed access to information and services anytime, anywhere, thanks to their portability¹³. Consequently, an increasing number of older adults are expected to use Internet-based services - health, education, finance, and others - as information and services are becoming more and more decentralised and they are often available in the cloud.

4.1 Use of technology from older people

Internet use from older people seems to increase but still it remains in very low levels comparing to younger generations¹⁴. In 2017 more than two fifths (44%) of people aged 65-74 years in the EU-27 had never used a computer. In Italy and Romania, the share of older people having never used a computer was just higher than 2/3, and almost 3/4 in Croatia (73%), Bulgaria (74%) and Greece (78%) (**see Figure 12**).

¹³ Navarro, J. L. A., López Ruiz, V. R., and Nevado Peña, D. (2017). The effect of ICT use and capability on knowledge-based cities. *Cities* 60A, 272–280. doi: 10.1016/j.cities.2016.09.010

¹⁴ https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Community_survey_on_ICT_usage_in_households_and_by_individuals:%20https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Ageing_Europe_-_statistics_on_social_life_and_opinions&oldid=581876#Education_and_digital_society_among_older_people;



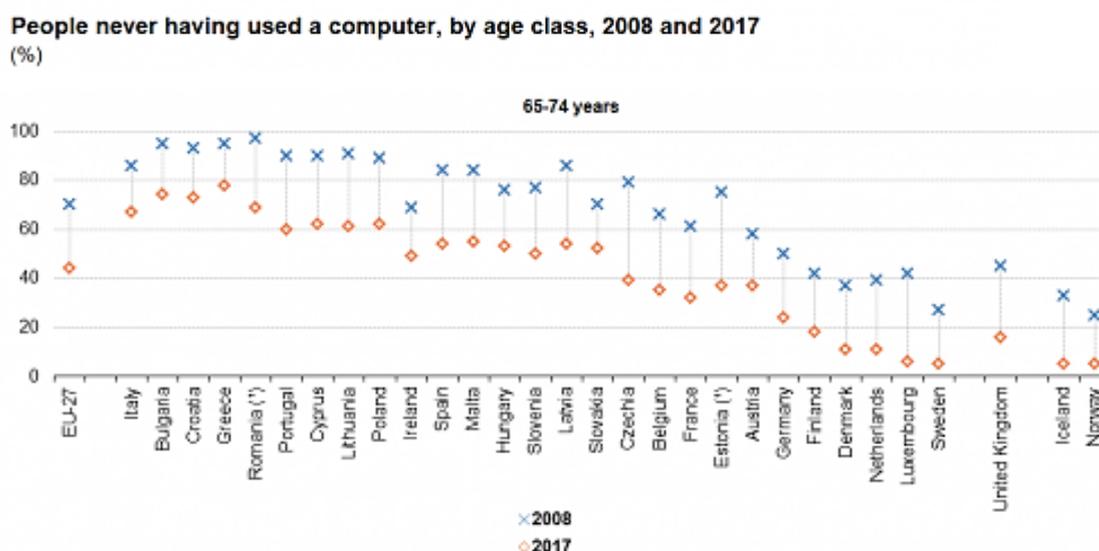


Figure 12: People never having used a computer, by age class, 2008 and 2017 (%) Source: Eurostat ([isoc_ci_cfp_cu](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&code=isoc_ci_cfp_cu))

In 2019, the situation still has not changed a lot. More than 2/5 (43%) of older people didn't use the internet, which equals three times less (14%) of all adults (aged 16-74 years) not to have used the internet. This gap between the generations was particularly marked in southern, eastern and Baltic EU Member States. For example, in Bulgaria and Greece the share of older people that had not used the internet was 47 p.p. higher than the share for the whole of the adult population, and between 39 and 46 p.p. in Slovakia, Croatia, Poland, Romania, Lithuania, Portugal, Cyprus, Malta and Hungary. In 2021, during Covid-19, the share for older people (aged 65–74 years) using the internet in the EU reached 50%.

4.2 Digital skills of older people

Given that most older people do not use the internet, is it not a surprise that they lack digital skills. In 2019, almost 1/3 (31%) of the EU-27 adult population had above basic digital skills but the shares for older people were much lower, at 16% for people aged 55-64 years and 7% for those aged 65-74 years (see Figure 13).

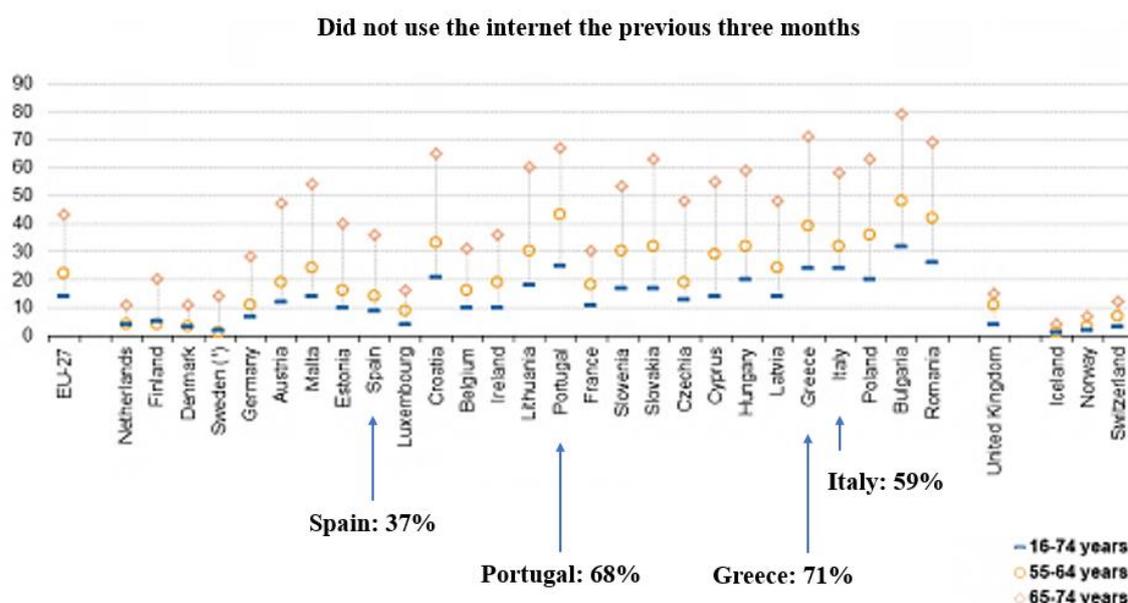
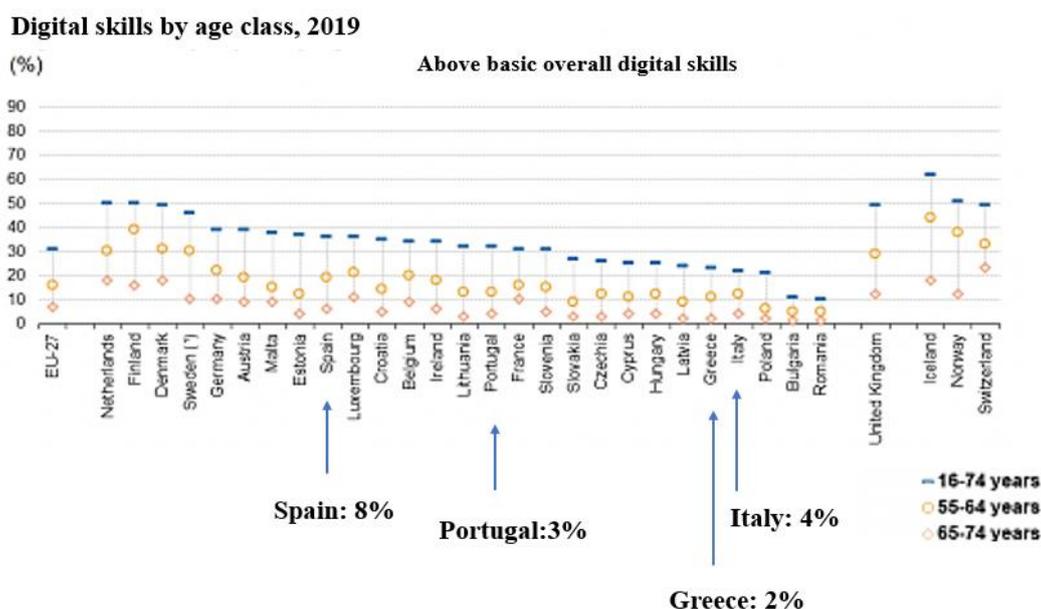


Figure 13: Digital skills of people, by age class, 2019 (%) Source: Eurostat

4.3 Internet activities of older people

As a result, internet activities such as sending emails, calling friends, searching for information and internet banking, are not common for older people (see Figure 14).

Even though all the above-mentioned internet activities increased from 2009 to 2019 for all generations, still the share of older people remained much lower. Sending/receiving e-mails was the most common activity among older people in the EU-27 (44% in 2019), while they were less likely to use other forms of communication, such as telephone or video calls over the internet (24%).

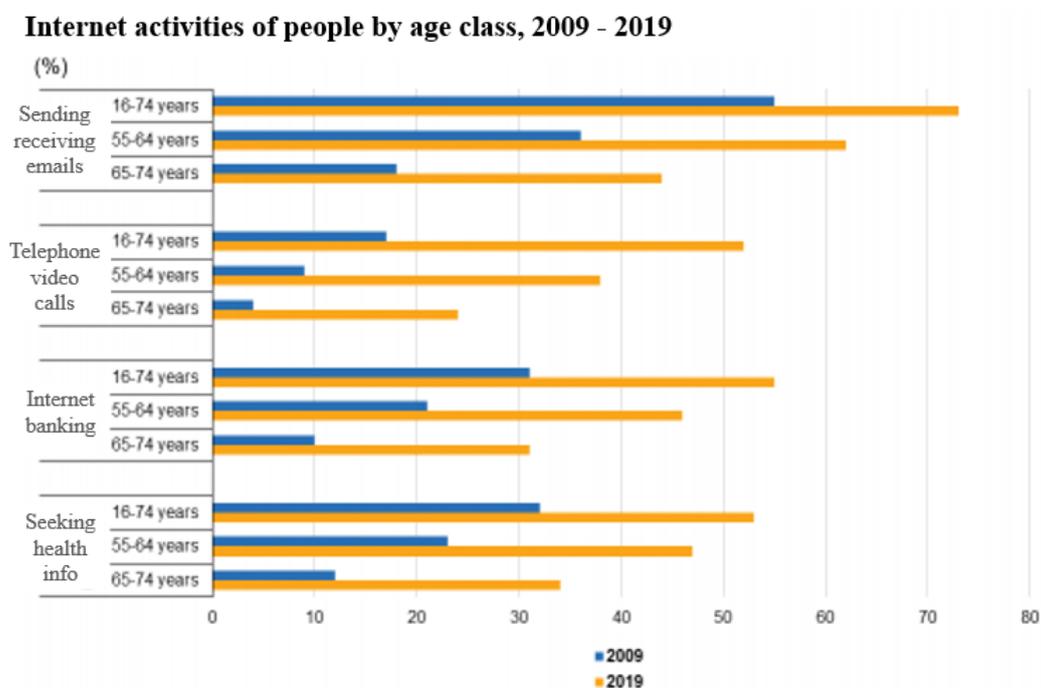


Figure 14: Internet activities of people, by age class, EU-27, 2009 and 2019 (%) Source: Eurostat ([isoc_ci_ac_i](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1))

Older people (aged 65-74 years) in the EU-27 were less likely to proceed to **internet communication activities**. In 2019, less than one fifth (18%) of older people participated in social networks, compared with an average of 54% for all adults. Interestingly in countries that are characterised by high overall levels of digital activity, such as Denmark and the Netherlands, the digital divide between generations was narrower than in countries of southern / eastern Europe and the Baltic (**see Figure 15**).

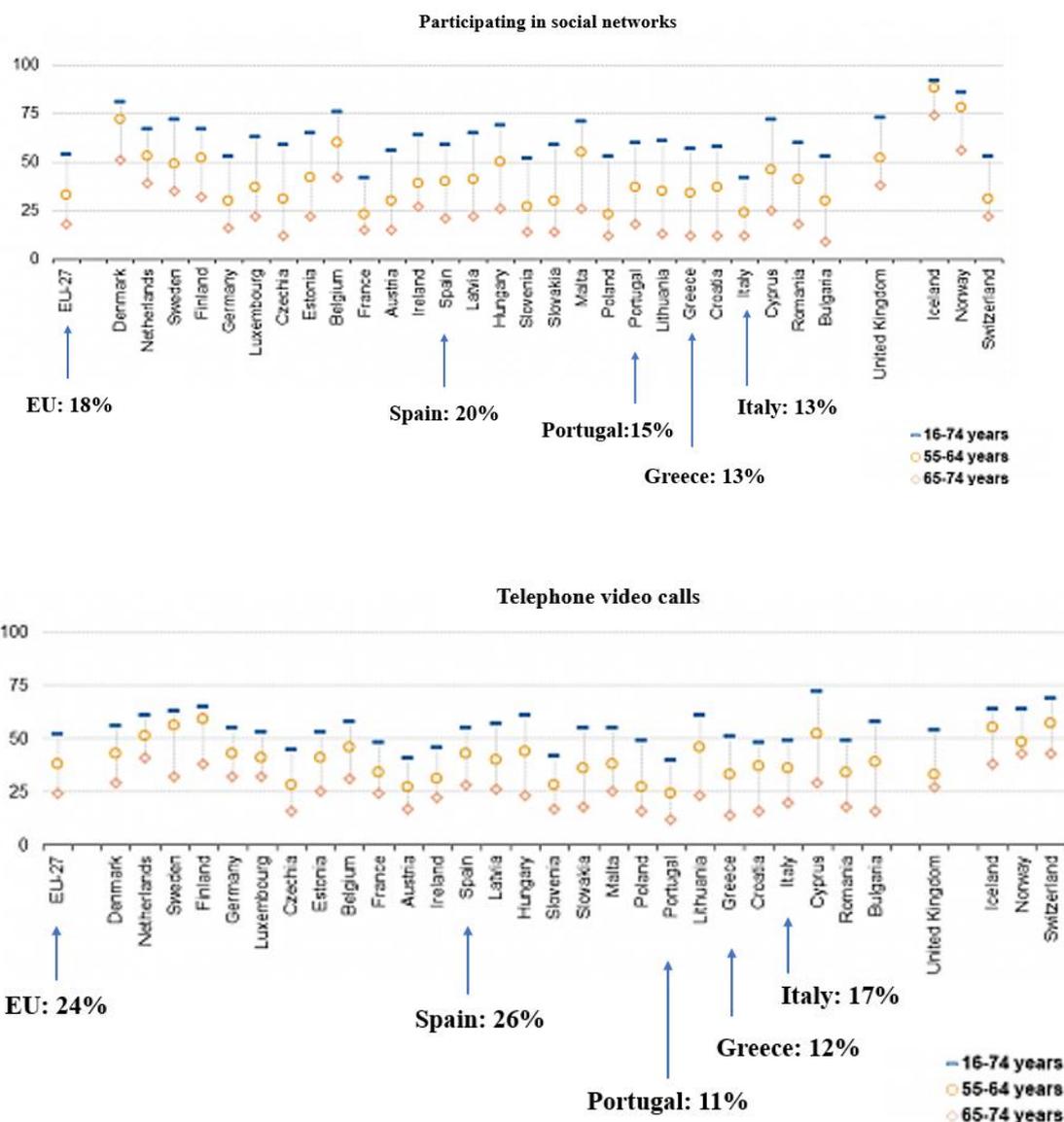


Figure 15: Internet communication activities of people, by age class, 2019 (%) Source: Eurostat

Online purchases seem to be used by a growing share of older people but still it remains at low levels. In 2019, 28% of the EU-27 population aged 65-74 years made at least one online purchase, with the majority of them living in Denmark (peak 65%), the Netherlands and Sweden. Older people in Bulgaria, Romania, Greece, Portugal and Cyprus had the lowest share of online purchases, with the Bulgaria and Romania ratio being lowest at 2% and 3% respectively.

Internet purchases by age class in the previous 12 months, 2019

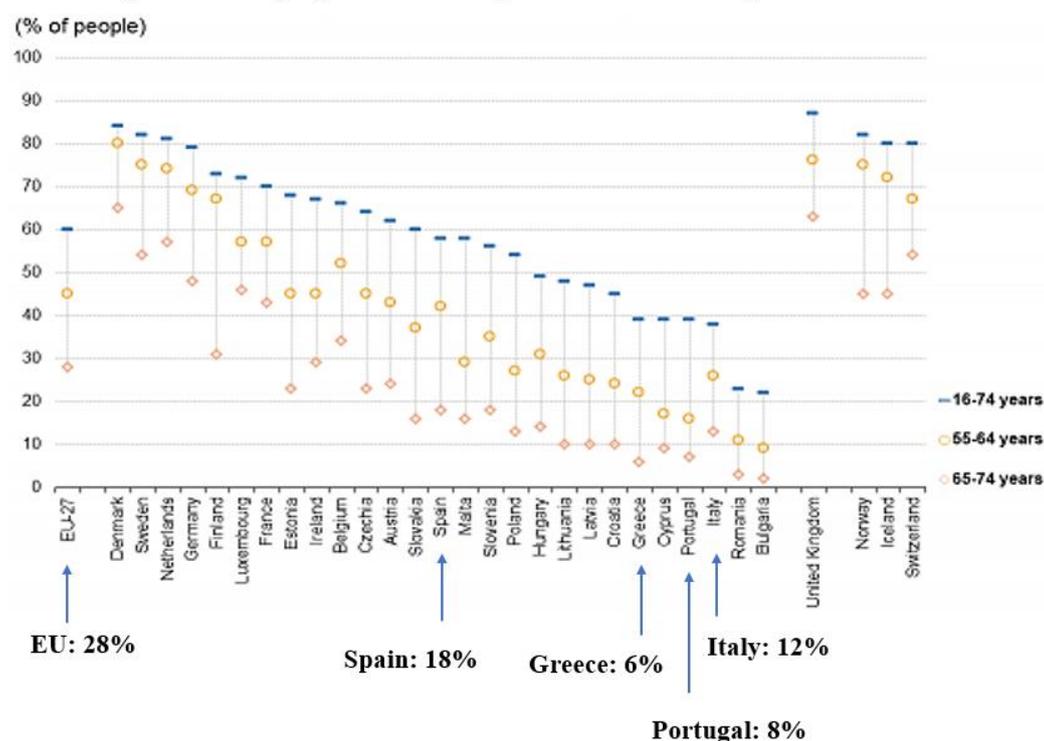
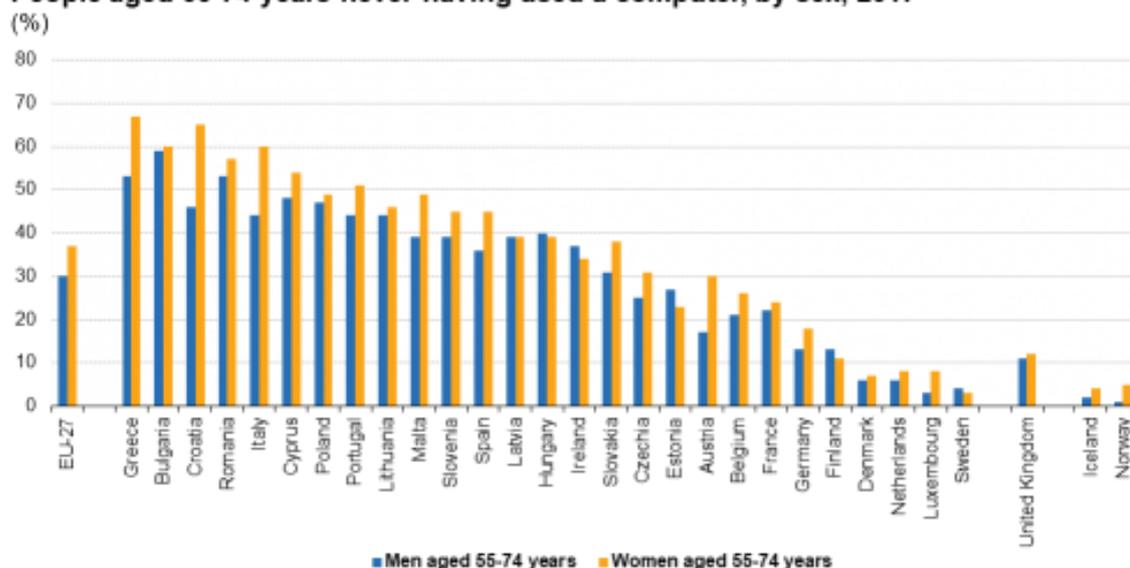


Figure 16: Source: Eurostat

4.4 Differences between sexes

Older men tend to be more digital than older women. In 2017, 37% of women aged 55-74 had never used a computer, while for men of the same age group the share was 30% (see Figure 17). In most EU countries older women seem to use digital technology less frequently, except Estonia, Ireland, Finland, Sweden and Hungary as well as Latvia where the share was equal in both sexes.

People aged 55-74 years never having used a computer, by sex, 2017



Note: the figure is ranked on the share of the population (both sexes) aged 55-74 years never having used a computer.

Source: Eurostat (online data code: isoc_ci_cfp_cu)



Figure 17: People aged 55-74 years never having used a computer, by sex, 2017 (%) Source: Eurostat ([isoc_ci_cfp_cu](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&code=isoc_ci_cfp_cu))

5. Internet use by older people during Covid-19

The COVID-19 pandemic had a major impact on the lives of everyone, but in particular on the well-being of older people. It has also disrupted the way that individuals access services and interact with one another, and physical distancing and “Stay at Home” orders have seen digital interaction become a necessity¹⁵. Still there is limited evidence on how older adults have actually adapted to this greater reliance on technology during the pandemic and whether this context has influenced older adult everyday technology use. The data collected below come from Universities (Italy), National institutions (Portugal, Spain) and private polling companies (Greece), that have conducted research or surveys after the outbreak of Covid-19. As the data will show, there has been an increase of internet use by older adults during Covid-19, revealing the positive attitude of older people to adapting to new technologies but still there is no evidence that the digital skills of older people have improved.

5.1 The case of Italy

Research by the Department of Economics, Business and Economic Law (Di.SEA.DE) of the University of Milan Bicocca 2021¹⁶ about Internet use from people 65+ during Covid-19 showed that the most significant change was the increase in the use of mobile phones with internet access, computers and WhatsApp. In terms of the online services used during the first lockdown, the survey found that those most frequently used by older people were: online advice on bank accounts (37.8%), arranging bank transfers (28%) and paying fines, taxes and stamps (20.1%). On the other hand, recreational use of computers, mobile phones or tablets to enjoy cultural products was very low (e.g. 41% say they have never or almost never watched movies via new technologies).

To the question “What would you like to learn?”, on the other hand, 21% answered “learn how to use photo applications” (shooting, archiving, editing). This, as the researchers point out, indicates the prevalence of a focus on using new technologies

¹⁵ Sixsmith A, Horst BR, Simeonov D, Mihailidis A. Older People’s Use of Digital Technology During the COVID-19 Pandemic. Bull Sci Technol Soc. 2022 Jun;42(1-2):19–24. doi: 10.1177/02704676221094731. PMID: PMC9038938.

¹⁶ <https://www.parmateneo.it/?p=73708>



as a tool for socialising and sharing images, understood as memories, information or useful documents. In second place is "using online services such as home banking and public administration" (19%) and in third place is "listening to music online and enjoying videos online" (11%). Important, however, is to note that 12% said they did not need to learn anything else about the use of new technologies. Many turn to their children and grandchildren for help, and a few ask for support from the call centres. In terms of digital and financial literacy, the best results were found to be achieved mainly by men, aged between 65 and 75, living with their spouse or relatives, in good health and with a high level of education. In addition, men were more digitally literate, particularly in Lombardy. Also, during Covid-19 one in five people 65+ were victims of online fraud as they unknowingly purchased or activated services on websites or mobile (such as horoscopes, ringtones, etc.), while one in three received emails asking them to reveal their credentials or passwords.

5.2 The case of Portugal

The use of a computer and the internet has increased over time among the Portuguese population, also including the older population (Dias, 2012)¹⁷. Despite this general trend, clear disparities are found according to age and other factors. As far as age is concerned, internet use decreases significantly with increasing age: in 2018, while in the age groups under 55 the proportion of internet users was always greater than 80%, in the age group 55-64, it was 55% and in the age group 65-74, it decreased significantly to 34%.

According to the research by the National Statistics Institute INE¹⁸ conducted from June to August 2022 people 65-74 who have used the Internet in early 2022 reached 51,2% while the proportion of people aged 65-74 using IoT-connected equipment or systems was 43,6%. Also, 32,5% of people 65-74 accessed websites of public bodies in the 12 months and 9,7% used e-commerce.

¹⁷ Dias, Isabel (2012). O uso das tecnologias digitais entre os seniores: motivações e interesses, *Sociologia – Problemas e Práticas* [Online], 68, consultado no dia 30 abril 2019. URL: <http://journals.openedition.org/spp/686>

¹⁸ https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica_C&cid=1254736176741&menu=resultados&idp=1254735576692



5.3 The case of Spain

According to the National Observatory for Technology and Society people over 65 connect much more to the Internet after Covid-19 marking a spectacular evolution¹⁹. The National Observatory notes that the European Commission announced that in Spain the percentage of connection grew by more than 20 points between 2018 and 2020, reaching 70% of people aged between 65 and 74. It has also managed to reduce the connection gap by 20 points during the same period with respect to younger groups.

According to the newspaper's 65YMÁS Senior Observatory macro-survey, older people believe that the challenges to be faced are data protection (77%), cybersecurity (45%) and the digital divide (54%). INE's (national statistics institute) survey on equipment and use of information and communication technologies in households (2022)²⁰ revealed that people 65-74:

- 97,3% used the mobile phone.
- 76,4% have used the Internet in the last 3 months.
- 72,3% used the Internet at least once a week in the last 3 months.
- 59,9% used the Internet daily (at least 5 days a week).
- 23,7% have shopped on the Internet in the last 3 months.

5.4 The case of Greece

In 2020 there has been a significant increase of internet use by older people as the survey of Focus Bari²¹ reveals. People 65+ used the internet by 7.6 p.p. more in 2020 compared to 2019 and specifically 66% of people 65-74 used the internet compared to 60% of 2019, showing an increase of 10%. Also, from 2015 the percentages for internet use of older people have doubled, from 11.4% to 22.8%.

¹⁹ https://www.65ymas.com/sociedad/tecnologia/54-mayores-50-anos-estan-preocupados-por-brecha-digital_37227_102.html

²⁰ https://www.ine.es/dynqs/INEbase/en/operacion.htm?c=Estadistica_C&cid=1254736176741&menu=resultados&idp=1254735576692

²¹ <https://www.kathimerini.gr/society/561244942/focus-bari-i-ellada-to-2020-agkaliase-to-diadiktyo-me-pososto-96/>



Results of the 2022 survey conducted by Focus Bari²² showed that people 65+ who are connected to the internet reached 79%, compared to 61% in 2019. 67% of them are connected via their mobile phone while 32% have made at least one electronic purchase in the period covered by the survey.

²²<https://focusbari.gr/el/%CF%84%CE%AC%CF%83%CE%B5%CE%B9%CF%82/focus-on-tech-life-tips-%CE%B9%CE%B1%CE%BD%CE%BF%CF%85%CE%AC%CF%81%CE%B9%CE%BF%CF%82-%CE%BC%CE%AC%CF%81%CF%84%CE%B9%CE%BF%CF%82-2022>



6. Why digital exclusion of older people is an issue

This high level of digital exclusion of older persons in the EU prevents them from fully seizing the opportunities of digital communications, but also from participating in digital learning opportunities. Digital exclusion implies unequal access and incapacity to use technology, which is an essential element to fully participate in society. It is a fact that constant evolution in ICT brings about the need for people to acquire ever higher levels of digital literacy to maintain their sense of inclusion. COVID-19 accelerated this challenge as digital services including telehealth and e-banking became increasingly the norm. In a context where older persons were particularly encouraged to stay home because of the risks related to COVID-19, this constituted a huge loss in opportunity for social interaction, learning and quality of life, but also civic and cultural participation.

The increased pace of digital transformation and automation exacerbates existing inequalities across and within populations and can lead to social and economic exclusion, power imbalances, threats to individuals' privacy and security. Technological advancements are perceived as highly promising in fostering active and healthy ageing: they have been found to be effective tools in combating social isolation and increasing social participation in later life, promoting physical activity, supporting autonomous and independent living, and improving health and long-term care. While technology holds promise to improve the lives of older people, a digital divide has opened up between older and younger people that is partly due to ageism. For example, older adults who internalise the stereotype that older people cannot master technology may not even try to adopt new technologies. Ageist stereotypes may also explain why older adults are seldom included in focus groups assessing the design of new digital technologies²³.

Individuals of all ages and societies are challenged by increasing digitalisation.

Older persons should be able to embrace technology as a core part of everyday life and to continuously adapt to and integrate new digital technologies into daily routines and living environments. Digital literacy is a set of skills associated with the use of ICT that every individual should develop to be able to perform in a computerised society²⁴.

²³ World Health Organization. Global report on Ageism. 2021.

²⁴ Friemel, T. N. (2016). The digital divide has grown old: determinants of a digital divide among seniors. *New Media Soc.* 18, 313–331. doi: 10.1177/1461444814538648



Thus, it can be said that digital literacy constitutes a fundamental element in the development of any individual, as it allows its insertion in modern society in a more participatory manner. To be digitally included, people need to be able to access a device, data and digital skills support. Common barriers to digital inclusion are accessibility, lack of skills, lack of confidence (including not knowing where to start or fear of online crime) and lack of motivation (if people do not see why the internet might be beneficial).



7. Why digital literacy of older people is important

Independency: In most communities, seniors are living on their own longer and technology is introducing a broad range of conveniences, which support and facilitate independent living. These conveniences are not limited to online or digital purchasing, but also includes areas such as healthcare, safety and security, such as through the use of personal monitoring devices. It is important for older people to learn how to use these tech devices/applications to continue to enjoy the independence to which they have become accustomed²⁵.

Mental health support: Studies²⁶ show that internet use by older people may become a motive for improving self-reliance, normalisation, facilitated expression, and mood, since there are functions that facilitate behaviours that would promote well-being, flourishing, and mental health.

Tackles loneliness: The problem of the digital divide contributes to social isolation. Many older adults in rural communities or with mobility issues lack community and social connections, which leads to loneliness. A study by the University of Michigan²⁷ found that older adults were feeling lonelier than ever before during the pandemic. Also, a 2019 study²⁸ that analysed data from more than 580,000 adults found that social isolation increases the risk of premature death from every cause for every race.

Access information about health / nutrition / exercise: Information communication technology increasingly empowers and engages EU citizens in health self-management, as exemplified by wearable sensors and m-health; assists older people living at home, offering them security, safety and help in daily functioning; and facilitates communication with family members, friends and communities. A unique electronic medical chart interoperable in all EU countries, telemonitoring, and integrated diagnostic and data science could help transform health services, from

²⁵ <https://www.ict-pulse.com/2021/07/5-reasons-why-digital-literacy-must-include-senior-citizens/>

²⁶ Andrews JA, Brown LJ, Hawley MS, Astell AJ. Older Adults' Perspectives on Using Digital Technology to Maintain Good Mental Health: Interactive Group Study. *J Med Internet Res*. 2019 Feb 13;21(2):e11694. doi: 10.2196/11694. PMID: 30758292; PMCID: PMC6391644. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6391644/>

²⁷ <https://www.healthyingpoll.org/reports-more/report/loneliness-among-older-adults-and-during-covid-19-pandemic>

²⁸ <https://academic.oup.com/aje/article/188/1/102/5133254?login=false>



diagnostics to care delivery and rehabilitative processes, and benefit from robotic assistance²⁹.

Misinformation / fake news: Media and digital literacy overlap where skills necessary to the access, understanding, interaction with online information are at stake. With the rapid spread of digital technologies as means of information and communication, media and digital literacy become more and more intertwined. In a way, the technical skills part of one's digital literacy to use computers, tablets, or smartphones can be regarded as key competences to access but also to interact with online information that is available on social media or news websites³⁰.

Fight against ageism: Ageism limits how we think about older people and ICT (e.g., older people are not technically savvy), the way we frame the problems (e.g., older people can't learn) and the solutions that we find.³¹

²⁹ <https://sapea.info/topic/ageing/>

³⁰ Digitol. A cross-country analysis of digital literacy training for generations to combat fake news together. <https://age-platform.eu/policy-work/news/digital-literacy-older-people-overview>

³¹ <https://www.weforum.org/agenda/2021/10/how-can-we-ensure-digital-inclusion-for-older-adults/>



8. National Surveys

In order to provide a complete need analysis for the 4 countries participating in Digital Life Learning project (Italy, Greece, Portugal, Spain) the partners implemented qualitative research. A questionnaire has been formed to be completed by older people, aged 65-74, that explores digital weaknesses, difficulties, specific requirements, needs, fears and desires.

The questionnaire has been separated into 8 sections, each section covering specific topics of research. The sections have been:

- SECTION I – Use of electronic devices
- SECTION II – Use of Internet Services
- SECTION III – Information & Entertainment
- SECTION IV – Communication Skills
- SECTION V – eGovernment
- SECTION VI – eHealth
- SECTION VII – e-Banking
- SECTION VIII – Tasks (i.e. use of Word, Excel)
- SECTION IX – Digital literacy Self-Assessment

The national findings from each partner country that are presented in text (below) and graphics (see Annex I) has informed the next activities of the Digital Life Learning project, such as the Learning Toolkit development.

8.1 National Report from Portugal

The questionnaire collection was carried out between 23 March and 10 April 2023 at the Parish Council of Santo António dos Olivais, the Social Centre of São Pedro, the Community Centre of São José, and the Community Insertion Centre. The survey has been implemented by Cáritas Diocesana de Coimbra and Instituto Pedro Nunes - Associação para a Inovação e Desenvolvimento em Ciência e Tecnologia. The socio-



demographic data collected showed that there were 53 participants between 65 and 74 years old and the group was composed of 41 women and 12 men.

According to the responses received, most older people use cell phones (36), 17 use a smartphone, 14 use tablets, and 16 computers. Regarding the frequency with which they use their equipment, 24 people use their cell phones daily and 14 their smartphones but 32 never use a computer, and 37 never use a tablet. 73.1% use its equipment autonomously and 81.1% consider them to be age friendly. The ones that considered the devices age-unfriendly mostly identify, as an issue, lack of preparation or knowledge (75%), mobility problems (12.5%), and problems related to the design of the applications (12.5%).

Regarding the general use of the Internet, 15 participants never use it, 5 do it once or twice a month, 8 once or twice a week, 6 several times a week, and 19 every day. 71.7% use the internet at least once a month, mostly to search on the Google search engine, 62% of respondents do it at least once a month, YouTube by 55%, while the percentage relating to the use of Google Maps is lower - it's used by 30% of the surveyed population. The digital tools related to communication have the following usage rate: 40% use email, 19% use Viber or other instant messaging services, 51% use WhatsApp, and 45% Messenger. Moving to the evaluation of the use of services on digital platforms, 19% use public services through the Internet, 9% book hotels and trips online, and 6% buy tickets for cultural events. 23% also refer to playing online games. The feeling of safety divides the older adults proportionally: 50% feel safe and the other half insecure.

In question *Which of the following bothers you when using the internet?* an open question, two major clusters were identified, one related to the accessibility and the other to the design of the applications: Concerning accessibility most of them refer to concerns and difficulty in transferring to another site or in returning to some they saw before, or constraints in following some instructions like "login" to access an account. Regarding the design of the applications, the size of the text and numbers, or the color scheme, were frequently indicated as small/difficult to view. In addition, the touch area for interactive elements is also often an impediment to good interaction. They also mentioned that some interaction icons, particularly those related to advertising, also hinder the use of digital applications, decreasing users' receptiveness to adopting the technological solution in their daily lives.



Although the levels of Internet usage are higher than 50% for some applications/search engines, in the self-assessment regarding the level of experience in using the Internet, 73.6% classified themselves as inexperienced, 24.5% as experienced, and 1.9% as very experienced.

The percentage of internet users that access online information sites, newspapers, and other online news is 60%, a figure that decreases slightly to 53% when asked about the use of social networks. In this context, the social networks that stand out are Facebook (78%), Instagram (37%), and Pinterest (22%). Regarding interaction on social media 65% from the people who answered the questionnaire know how to share photos and videos, 62% know how to make a publication, but 51% never comment or post likes. Also, about half of the respondents have security concerns when using social networks: 50% feel unsafe, 2% feel very safe, and 48% feel safe.

The survey results indicate that the proportion of users who communicate via e-mail is 38%, amongst which 24% check their inbox daily, 14% several times a week, 17% once or twice a week, 14% once or twice a month, and 31% never check it. 62% know how to write an e-mail message although only 36% can fill in all the fields (subject, cc, bcc), and 24% can attach photos or other files to messages. The percentage drops to 21% when asked if they know how to download attached photos or files.

Digital communication skills are more focused on the ability to make video calls (51%), 55% know how to write and send instant messages through social networks and 86% use them several times a week or daily.

E-health seems not to be used by older people. Only 9.4% use health apps, 13.2% know how to schedule appointments online, and 15.1% can request prescriptions or complementary medical diagnosis exams online. The 9.4% who use health apps refer to using exercise, nutritional, and well-being apps.

E-banking services are used by 15,1%, and less than 1 in five use e-banking services for daily transactions and purchases, and most of them feel unsafe using e-banking services.

Most older adults do not use tools to produce text material, edit spreadsheets, make graphics, or perform other tasks. Only 15% know how to create a new folder, 23% know how to copy-paste, 15% know how to find a downloaded document or picture, 20% know how to create a text document and 17% can use an Excel file.



Evaluating their digital literacy skills 8 out of 10 older people assessed themselves as having very low or low digital skills.

8.2 National Report from Italy

The survey has been implemented by Università degli studi di Roma Tor Vergata and Fondazione garagErasmus.

The sample includes 105 people and almost all of them (89) are from 65 to 74 years old. Most of them are females (61.90%) and males are 38.10%.

The results show that more than 57% of the people own a mobile phone and 87% of them have a smartphone. The computer is owned by more than 86% and less than 44% has a tablet. The computer is used less than two times a week for almost 40% of cases and less than 40% of people use it every day. More than 55% do not use tablets at all and less than 13% use it every day. The smartphone and the cell phone are the devices more frequently used by older people (almost 60% used it every day). More than 70% of the respondents do not need assistance in using devices and less than 46% said that the devices are not age-friendly for older people.

Activities mainly done online by older people are General Internet use, Google search, YouTube, WhatsApp, E-mail and attachments. Most older people do not use Viber or other instant messaging services, Google Maps and do not proceed to electronic transactions. The main issue of online activities is the lack of confidence in using online solutions (59%) and only the 5% consider online activities as very safe. Main issues that are considered as a problem for using online solutions are pop-up ads (75%), mandatory login (70%), difficulty in identifying relevant (69%) and credible websites (65%) and publicity in online press and articles (62%). Most of the participants consider themselves experienced in using the internet (70%) but only one of them said that he/she is “very experienced”.

72% of the interviewed use websites for reading newspapers. 61% are using social media, mainly Facebook, Instagram, and LinkedIn, while Twitter, Pinterest and TikTok are used by less than 10 of people interviewed. Even though 55% of them know how to share pictures and videos, 59% how to post and they comment on social media at least once a month (54%), 40% do not feel safe while using social media.



E-mail is used by 84% and the majority (51%) check emails every day. They know how to write an email on their own (82%) properly using all the fields of the e-mail (70%) and download attachments (78%). A lot of them can do video calls (75%), write instant messages (93%) and 89% communicate via instant messages several times a week.

E-services in general are not very famous among older people. 59% do not use public e-services, do not pay taxes online (73%) and do not pay public debts online (52%). From the 33% who use health apps 46% prefer well-being and 37% exercise apps. On the other hand, more than 50% know how to book a medical appointment online and almost 75% know how to ask for medical recipes and check medical exams online.

Most people interviewed are using e-banking services (70%) mainly for daily transactions and purchases (51%) and 50% of them feel safe or very safe while using e-banking.

Regarding other knowledge, they can create folders (66%), copy and paste (68%), find a document/ picture and download it (65%) and create a text document (66%) but only a few of them know how to create and use an excel file (38%).

On average the level of digital literacy is around 2.6 and only five people interviewed consider themselves as fully digitally literate.

8.3 National Report from Spain

The national report from Spain has been implemented by Plataforma del Voluntariado de España and includes 50 responses from older people aged 65-74, with a majority response from women, 64% out of 36% of men. People who filled the questionnaire were participants at the presentation event for the project in Madrid, as well as people from 7 Adult Centers and Senior Centers of the Community of Madrid.

Smartphones are used by 90% of older people, followed by computers (76%), tablets (42%) and only 18% own a phone with only call access. They use their mobile phone daily, compared to the other devices, which they use more occasionally. 92% say that they can use their devices independently, and 82% say that they consider their device to be friendly for older people. The reasons why 18% do not consider it suitable are mainly due to unintuitive and difficult access.



WhatsApp application is used by 29 people daily, compared to other services provided by the mobile phone such as internet use, Google search, YouTube. It should be noted that the services least used by older people are instant messaging services (Telegram) and online games.

54% of users feel safe when using the internet, compared to 38% who feel unsafe. What makes it most difficult and tiring for users are advertisements and there is a split (50%-50%) between users who feel experienced and inexperienced.

76% tend to read newspapers or magazines on a frequent basis. 52% of users do not use social networks, but 48% do. Facebook is the most used social networking site (56%). Half of the users are familiar with sharing photos and videos on their social networks, but the other half are not and therefore do not know how to make posts (66%), more than half do not interact with posts. 38% feel safe using their social networks.

94% use e-mail and check their inboxes frequently (every day or several times a week), almost 94% know how to write an email and almost 90% know how to attach images or other files. 76% know how to initiate a video conference and 90% know how to write an instant message. In addition, 66% use this type of communication on a frequent basis.

68% do not use online public services and more than 70% do not use digital public services for tax matters. Although they are generally not very familiar with these types of services, the public administration services they find most useful are those related to social security and health. On the other hand, most (74%) do not use health apps, and only a negligible number of people have any kind of app related to nutrition, wellbeing, or physical exercise. 74% do know how to make an online medical appointment, but 62% do not know how to order prescriptions or consult their medical check-ups online.

Regarding the different functions that can be carried out on a computer, such as creating a folder, copy-paste, searching for a document that you have previously downloaded or creating a text document, they have quite mastered it, as around 80% know how to do it, except for some more specific function such as creating an Excel document, which 52% do not know how to do it.

On a scale of 1-5 where 1 is the minimum and 5 is the maximum, 54% self-assess themselves on a scale of "3" as digitally literate.



8.4 National Report from Greece

The questionnaire in Greece was distributed online to 120 people 65-74 years old, from 15 to 31 March 2023. 58,3% of them are women and 41,7% men.

Most of the respondents use a smartphone (72.5%) and 67.5% a computer. Less (52.5%) use tablets and 46.7% phones only for phone calling. Smartphones, computers and cell phones are used daily by most older people (73, 50, 59 people respectively). Most of them use the devices autonomously (89.2%) but 36,7% say that the devices are not age friendly. Main reasons are: the fact that many words are in English and they should also be written in English, the letters are small, the devices are small and there are lots of advertisements and updates.

More than 80 people say that they never use WhatsApp, and around 70 never use e-booking services for cultural events or travelling and they don't prefer online purchases. On the contrary 71 people daily connect to the internet, most search on Google and write emails (57 people in each case), 49 people use Viber and 45 Messenger. YouTube, Google maps and e-government services are used rarely.

51.7% feel safe using the Internet but still 39.2% feel unsafe and 9.2% do not know. Main issues that bother older people while using the internet are pop-up ads, ads in online articles, mandatory login and small letters. 12.7% stated that they consider themselves as very experienced internet users, 44.9% as experienced and 42.4% inexperienced.

More than 86% said that they read online newspapers and 80,8% that use social media. Most famous social media is Facebook (89,9%), followed by Instagram (32.3%) and Pinterest (24.2%). 55.5% stated that they are familiar with uploading and posting photos and videos on social media and 36.4% comment / like posts several times per week. 24.6% never interact on social media, while 44.1% don't feel safe while using them.

Almost all participants use their email (the form was completed online) and 54.2% say that they check their emails daily. 88.2% knows how to write an email however 34.2% are not familiar with completing all email fields (such as "topic", "cc", "bcc") and the same percentage does not know who to attach an image or video. 39.2% do not know who to download attachments from emails and 45% have no idea how to start a video call. 89.2% know how to write instant messages and they use this solution quite frequently.



E-government services are used by 67.5% but 41.5% don't choose online for tax issues. Most used online public service is medical prescription and medical appointment booking. 42.4% still do not know how to book a medical appointment online and 44.1% how to ask for online medical prescriptions.

Most older people (68.6%) do not use e-health applications. From the 31.4% who use health apps they mostly prefer apps for physical exercise. E-banking is used by 63% of older people but 40.2% feel unsafe.

In terms of other tasks while using a computer the participants said that they do not know how to create a folder (45.4%) but 70% know how to copy and paste. Most of them are familiar with Word and finding an image that they have downloaded but 63% do not know how to create an Excel file.

From the 120 people who participated in the questionnaire, 30 said that they believe they are digitally illiterate, 56 think they are at an intermediate level and 34 feel very confident with their digital literacy level.



9. Conclusions

SECTION I – Use of electronic devices

Comparing the results concerning the use of electronic devices from the National Reports it is revealed that except in Portugal, where cellphones are mostly used, in Italy, Spain and Greece smartphones are preferred by older people. They use their smartphones daily and their computers less frequently. Interestingly, in all 4 countries older people do not seem to use tablets.

Most older people do not ask for help while using electronic devices and feel autonomous. In all countries more than 50% of the participants considered their devices to be age-friendly, however there are still people who face issues such as lack of knowledge on how to use a device, mobility issues, difficulties in access, the use of English language as well as troubles due to design (i.e. small letters and small devices).

SECTION II – Use of Internet Services

Google search is the main reason for older people to use the internet. Another reason is to open or/and write emails as well as to communicate through WhatsApp (Italy, Spain, Portugal) and Viber (Greece). Messenger and YouTube are quite famous among older people, while Google maps, booking and public services are not a good reason for older people to use the internet. They also do not proceed to electronic transactions.

Things that bother older people in internet use are:

- small letters
- colour scheme
- touch screens
- pop-up ads
- mandatory login
- difficulties in transferring to another site or in returning to some they saw before
- difficulty in identifying relevant and credible websites

In almost all 4 countries the level of safety feeling while using the internet is 50-50 -in Italy it is interesting that only 5% stated that they feel very safe. From the people who answered the questionnaires in Italy, Spain and Greece most feel experienced in



internet use, contrary to Portugal where most older people classified themselves as inexperienced.

SECTION III – Information & Entertainment

All National Reports reveal that a great proportion of older people who participated in the surveys read online newspapers (around 70%) and a bit less use social media. The most famous social media is Facebook in all countries, followed by Instagram, Pinterest (Portugal & Greece) and LinkedIn (Italy). Half or around half of the people who answered the questionnaire know how to share photos/videos on social media and how to post, but they do not interact (comment / like posts) often.

Interestingly, even though most of them use social media, still they don't feel very safe while using them. In Italy, Spain and Greece the level of safety feeling in social media use is around 60% (don't feel safe) – 40 (feel safe). In Portugal the share is 50-50.

SECTION IV – Communication Skills

Regarding the skills of older people in communicating via email, in all countries except Portugal – where less than half use email to communicate and lack relevant literacy- the great proportion of respondents use this solution and know how to compose emails. In Greece however they lack knowledge on how to complete all fields (subject, cc, bcc), attach photos and download attachments.

In terms of making video calls in Italy and Spain, older people seem to be experts. On the contrary in Greece, they are still not familiar with this way of communicating as well as in Portugal where a bit more than half speak through video calls.

Finally instant messaging is used very frequently by older people in all countries, and almost feel confident with composing instant messages.

SECTIONS V, VI, VII – eGovernment, eHealth, e-Banking

E-services in general are not very famous among older people. They do not prefer to use online public services or to proceed to tax payments online -only in Greece the percentage of people who use e-Government is a bit less than 70%.

Most older people stated that the public administration services they find most useful are those related to social security and health. However, only in Italy and Spain there is a good proportion (50% and more) of older people who know how to book a medical



appointment online, and Italians are also familiar with asking for medical recipes and checking medical exams online.

E-health apps are not really preferred by older people, especially in Portugal where only 9.4% use them. In Greece, Italy and Spain around 30% of older people use health apps, especially for physical exercise and well-being.

E-banking services are used mostly in Italy, Spain and Greece (from 60% to 70%) -in Portugal the percentage is only 15.1% - but still quite a few people feel unsafe while using internet banking in all countries (40% - 50%).

SECTION VIII – Tasks (i.e., use of Word, Excel)

Regarding other activities that one can do using a computer such as writing in docs, creating folders, copy and paste most older people in 3 of the 4 countries of this survey (Italy, Greece, and Spain) seem to be able to proceed without issues. Still there is a 30%-40% of people who do not know how to properly use these functions though. In Portugal older people are not that familiar as only around 20% can follow such tasks. Excel spreadsheets is not a function that older people from any of the 4 countries seem to be able to use.

SECTION IX – Digital literacy Self-Assessment

At the end of the questionnaire, each person self-evaluates their digital skills, meaning the ability to use technological tools effectively in daily life, to know the new tools available, understand them critically, and also understand the responsibilities, advantages, and disadvantages of these new technological tools, the best way to use them, as well as their consequences and constantly evolving dynamics.

Not surprisingly most older participants from Portugal considered themselves as having very low or low digital skills. In Italy only 5 out of 89 people believe they are fully digitally literate. Spanish results show that more than half participants say their level is intermediate and in Greece 75% consider themselves as either intermediate or fully digitally literate.



10. Final remarks

Taking under consideration that:

- All National surveys for this report were conducted in spring 2023 by the partners of this project
- In each country the responses were collected in different ways (online / offline)
- The number of responses from older people in each country is from 50 (min) to 120 (max)

It is fairly understandable that the results do not necessarily represent the digital literacy level of older people for each country as a whole.

However, we can make some useful remarks:

- After Covid-19 in all countries older people seem to be more open and positive to digital solutions for communication.
- Smartphones are the main device that older people use every day, followed by computers.
- Even though many older people consider the devices as age-friendly still they face issues in terms of accessibility and design.
- Even though more and more older people use technology, almost half of them feel unsafe in the digital environment.
- Most older people read newspapers online.
- Many older people get informed from social media, especially Facebook.
- Even though older people use social media, many still feel very unsafe.
- Most older people prefer online instant messaging.
- E-services are not famous among older people.
- Even though they are mostly interested in health issues, older people do not use e-health applications.
- Half of older people feel unsafe while using e-banking.
- Most older people are not familiar with Excel.

From the above remarks one can easily point out that there is a remarkable improvement in the digital literacy of older people in all 4 countries of this project, compared to the previous statistics. However, there is still a lot to do. Older people need to feel safer in the digital environment and this can happen only through constant digital literacy courses / workshops, tailor made to each group's needs from people



who will be properly trained to teach them. Deep need analysis is definitely the starting point for any program, and this is what this report aimed to achieve: to serve as a reference point for improving existing training for older people in order to further improve the level of inclusiveness of older people in the digital world.



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