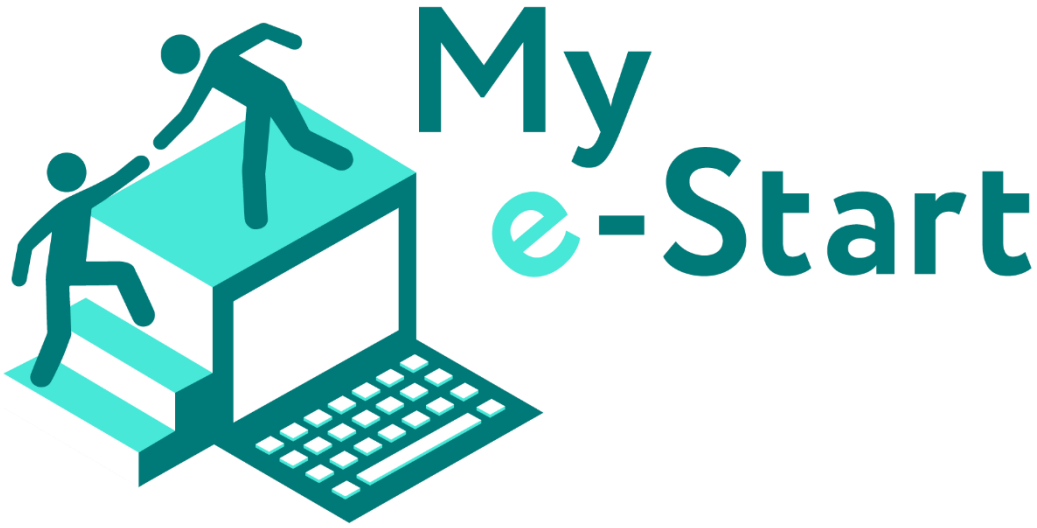

IO1: REPORT: DIGITAL COMPETENCES FOR E-GOVERNMENT

TRANSNATIONAL RESEARCH REPORT

CATRO BULGARIA

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I. Executive summary

The My e-Start project aims to equip disadvantaged adults with skills necessary for using the most common e-Government and e-Commerce services in their countries and ensuring a positive (first) e-experience as well as a sense of digital achievement. In order to establish the needs of these group, partners carried out research in each participating country (Austria, Bulgaria, Cyprus, Germany, and the UK), taking into account variations between countries and even within the countries themselves. This research aimed to identify what digital services are available in partner countries and how citizens can make use of them.

Even though partner counties have achieved impressive results in providing cheap and assessable Internet services to their citizens, in no country does the level of basic digital skills as defined by DESI (The Digital Economy and Society Index) match the number of Internet users. Thus, a dangerous **digital skill gap** has developed, making citizens an easy prey for data theft, scams, and disinformation, or barring their access to services they should be able to afford.

The group most widely excluded from the digital world, are, beyond a doubt, the **older citizens**. Age is the most important predicting factor for digital exclusion. While some of the older people simply don't perceive a need to go online, many of them lack the digital skills necessary to do so. In addition, there are widespread security concerns that prevent people from making full use of the potential services available to them.

In addition to age, one's **educational level, economic status**, and a presence of a **disability** also impact the participation in digital service. People with a lesser educational status, economically inactive, or suffering from a disability, are less likely to make use of online services. On a positive note, gender and migration status by and large do not appear to effect the digital participation of citizens considerably.

Unfortunately, a **common European approach** addressing the low digital competence of citizens **is lacking**. Some countries have detailed national strategies in place, while in others there is a distinct lack of available measures to address the identified priorities, even if they have been already formulated. It is probably not coincidental that the countries that have the most well-developed training infrastructure also have the highest level of digital competence of their citizens. Still, older people have consistently the least access to digital training in all partner countries – a problem that the My e-Start projects aims to address.

The picture presented by partner research regarding device use appears to be mixed and inconclusive. Smartphones are increasing in penetration everywhere, but some users in the older generation still only have a home PC or laptop. Because of that, neither technology can be excluded from the educational approach of the project. A training needs to address both and be available on both in order to truly achieve the goal of digital inclusion.

The usage of online services also varies considerably by country. A common pattern in all countries is the increase in the use of all e-services. There are several key areas growing in prominence: entertainment, communication, news and information, e-Commerce, e-Banking, and e-Government.

In order to use many of these services, a digital identity is often necessary. However, partner countries have reached different stages towards establishing a unified digital identity for their citizens. The German-speaking countries are taking the lead, while Bulgaria, Cyprus, and the UK have yet to establish a unified digital identity. The need for using different methods for identification for each service is a barrier to their effective use by disadvantaged groups. While the only long-term solution is the creation of a single identity, in the meantime educating adults about e-signatures and PIN can assist them in accessing some of the more important services.

Learners also need to learn about online payments. New payment methods are replacing the older ones, and disadvantaged adults need to acquire knowledge of their features, as well as how to handle them safely, in order to be empowered to make use of all available e-Government and e-Commerce services. Through the services of e-banking bank transfers can make a smooth transition to an online environment while retaining the safety and reliability associated with them. Cards and e-wallets are also widely used as methods for online payments.

In order to make effective use of the e-services available to them, disadvantaged adults require certain skills and competences. Based on an analysis of 26 popular e-Government and e-Commerce services in Austria, Bulgaria, Cyprus, Germany, and the UK, it appears that they need to learn how to:

- browse, search and filter online information;
- evaluate that information;
- engage in citizenship through digital technologies;
- manage their digital identity;
- protect their personal data;
- identify the technological responses to their needs.

In order to train disadvantaged adults, the way the information is presented is especially important. Easy language concepts have been specifically designed for people with learning difficulties or reduced linguistic capacity to simplify complex facts and enhance the understanding of text. Partners have

prepared checklists of what these concepts entail in practice for Bulgarian, German, Greek, and English, so that the requirements of easy language are respected in the development of training material to address the identified needs of disadvantaged adults.

II. Introduction

An increasing number of European countries are implementing online civic and commercial services to enable easier, cheaper and faster administrative operations for citizens. The future trend is obvious: the demand of such services will increase significantly and so will the implementation by governments and businesses. Even though e-Government and e-Commerce offer a myriad of benefits, taking advantage of such services requires certain digital skills and know-how, which disadvantaged groups of people often lack.

The objective of My e-Start is to equip disadvantaged groups of people with skills necessary for using the most common e-Government and e-Commerce services in their countries and ensuring a positive (first) e-experience as well as a sense of digital achievement. My e-Start is focusing on a group, which is particularly vulnerable to digital exclusion, namely the elderly, those with low levels of education and training and those with a migration background. The explicit aim of the project is to contribute to digital inclusion of disadvantaged groups of people and address the increasing digital gap by designing, developing and promoting sustainable and tailored products, which are widely applicable and highly impactful.

In order to establish the needs of these groups of people, partners carried out research in each participating country, taking into account variations between countries and even within the countries themselves. This research aimed to identify what digital services are available in partner countries and how citizens can make use of them. It was carried out with a special focus on the three groups of disadvantaged adults: the elderly, people with a low education level and training and migrants. In order to complete the aims of the research, partners carried out three different streams of activities:

- A screening of the most important and common e-Government and e-Commerce services available, resulting in a set of the most common civic and commercial activities that can be done online (e.g. registering with the police, applying for a passport, submitting tax declarations etc.).
- An analysis of these services in order to identify the digital competences required to use them, leading to a competence framework describing the digital competences needed to use e-Government and e-Commerce services. The 6 competences included in the framework are cross-referenced to the DigiComp European framework.
- A research of the “easy language” concepts of the partner languages, like Ogden’s “Basic English” or the German “Einfache Sprache”, resulting in checklists for the involved languages (Bulgarian, German, Greek and English) that will be applied in the following development work.

The findings of the IO1 report will serve as a basis for the development of content of the IO2 training course.

III. E-services analysis

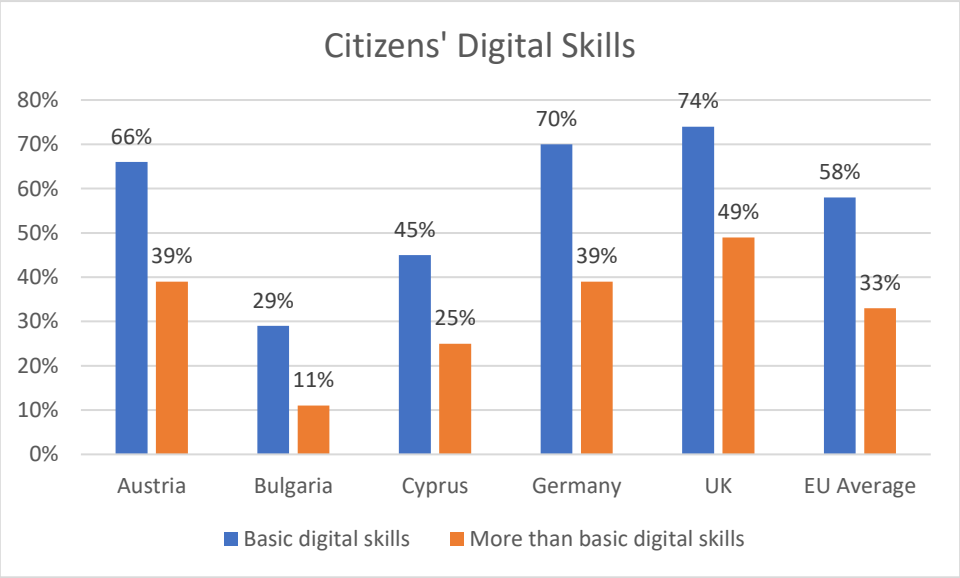
1. Overall level of internet penetration

1.1. Overview

Research indicates a discrepancy between the availability of **cheap and assessable Internet services** in the partner countries and the skills necessary to make use of them. Internet users in most partner countries are close to or above 90% of the population, and even in lagging Bulgaria close to 70% of the population are regular Internet users. The internet services are growing in speed, coverage (both broadband and mobile), and are becoming cheaper.

When it comes to digital competences however, the situation doesn't look as bright. In no country does the level of basic digital skills as defined by DESI (The Digital Economy and Society Index) match the number of Internet users. Some countries, like the UK, Austria, and Germany, are doing better than the EU average, but even there, a **digital skill gap** is visible. In countries such as Cyprus and Bulgaria, this gap has developed to a **dangerous level** – the majority of Internet users lack even the basic digital skills, making them an easy prey for data theft, scams, and disinformation.

Even more is left to be desired when it comes to digital skills above the basic level. The division of counties in two groups – a more advanced one and one lagging behind – is still present, but in no country with the partial exception of the UK is the majority of population close to being equipped with the skillset necessary to tackle the challenges of the 21st century.



1.2. Austria

Austria performs **very well on aggregate 4G and fast broadband coverage** (100% and 84% of households respectively). With 68%, rural coverage is above the EU average. With an overall fixed broadband take-up of 72%, Austria is below the EU average of 78%. This can be accounted for by the strong presence of mobile broadband. Both broadband and mobile prices are below the EU average, making Internet connection rather affordable even for persons in a disadvantaged socio-economic position. **86 %** of Austrians are regular Internet users, and 10 % have never used the Internet.

Austria is an **above average performer** in every indicator of the **Human Capital** dimension of the DESI (digital skills, software skills, ICT graduates and specialists). 66 % of Austrians have at least basic digital skills, and 39 % above that level, both above the EU average. With the implementation of the "Digital Basic Education" subject in the schools of the lower secondary level in 2018/19, all Austrian pupils will acquire digital skills.

1.3. Bulgaria

75 % of Bulgarian households have internet access, all of them broadband. 63 % have mobile phones with internet access. With regard to prices (adjusted for purchasing power parity) in all the baskets, Bulgaria performs slightly better than the EU average. 67 % of Bulgarians use the internet regularly (**last place in the EU**). A significant 24.5 % have never used the internet.

Bulgaria holds the **last place in the Digital Economy and Society Index** (DESI), not demonstrating any visible progress on the last 5 years. Bulgaria is on the last place for digital skills of the citizens and connectivity. People with at least basic digital skills account for 29% of the total adult population, against an EU average of 58%, while only 11% have skills above a basic level. Only 10 % of Bulgarian companies provide ICT training for their employees. Bulgaria takes the last place in the adoption of e-business technologies. In contrast to that, Bulgaria is doing well with the adoption of e-Government services for business. The use of pre-filled forms for public administration has increased significantly.

A survey of the e-skills of the Bulgarian population in 2019 revealed the following results:

- Copying or moving a file or folder 44.1 %
- Transferring files between computer and other devices 43.2 %
- Using word processing software 27.3 %
- Installing software or applications (apps) 21.5 %
- Using spread sheet software 15.9 %
- Using software to edit photos, video or audio files 10.6 %

- Creating electronic presentations with presentation software (e.g. slides), including e.g. images, sound, video or charts 14.5 %
- Modifying or verifying the configuration parameters of software applications 7.4 %
- Writing a computer program 1.1 %

1.4. Cyprus

Internet penetration in Cyprus is high and internet access is widely available both in households and workspaces, recording a tremendous transformation in the last two decades. The internet penetration in households has reached 92.8% in late 2020, recording a 61.1% increase since 2005, while 86.1% of the population aged between 16 and 74 have access to the internet.

Access to a computer (either desktop, mobile, netbook or tablet) varies considerably based on the composition of the households. A total of 94.5% of households with young dependants have access to a computer, while in households with no young dependants the ownership of a computer falls to 71.0%.

According to the Digital Economy and Society Index (DESI), Cyprus ranks 23rd in terms of Human Capital, scoring 35.8, well below the EU average. An eighth of the population has never used the internet, while only 45% have basic digital skills, well below the EU average of 58%. The lack of digital competences among the population can be another obstacle to accessing the internet.

1.5. Germany

Compared to 2019, the number of Internet users has increased by around 3.5 million in 2020, so that the number of people in Germany who use the Internet at least infrequently now amounts to around 66.4 million. The proportion of online users in Germany in 2020 was 94 percent. In the previous year, 89 percent of the German population aged 14 and over were Internet users.

100 percent of the 14 to 49-year-olds in Germany are Internet users. The proportion of Internet users is also very high among 50- to 59-year-olds, at 96 percent. Among the 60- to 69-year-olds, the proportion was 93 percent, and among those aged 70 and over, almost 75 percent. On the other hand, in 2019, five percent of German private individuals had never used the internet at home, at work or elsewhere before.

In 2020, there were around 31 million people in the German-speaking population aged 14 and over who used the Internet several times a day. The number of people who used the Internet continuously was 11.03 million.

According to an e-Government survey, 34 percent of respondents said they had downloaded or printed official forms in the 12 months prior to the survey. 42 percent of the Internet users surveyed cited the lack of consistency of the offerings as an obstacle to the use of online government services. According to the eGovernment Monitor 2018, 42 percent of respondents said that fear of data theft discourages them from (more intensive) use of online government services.

1.6. UK

Internet penetration in the UK, as a proportion of the population, is around **91- 92%** in terms of 'accessing the internet in the last 3 months' (2019 and 2020). However, the number drops to 84% in terms of not being 'digitally excluded' and therefore 'able to participate in a digital society' (2020).

Looking at similar measures, DESI reports the following as proportions of the UK population (2019): 95% are internet users, 74% have at least basic digital skills, both over above the EU average. Using the measure 'percentage of adults who have used the internet in the last 3 months', ONS data puts the UK's overall internet penetration in 2019 at 90.8%. Lloyds 2020 attitudinal data indicates that for 2020 it is now 8% overall who have not used the internet in the last 3 months – suggesting a more current penetration value of 92%. The Lloyds 2020 report also uses the Foundation-level of the Essential Digital Skills framework to measure the proportion of the UK population (aged 15+) who are/aren't considered digitally excluded. On this basis, they report that 84% of the UK is "able to participate in a digital society".

2. Significant factors for digital exclusion

2.1. Overview

Because the overall level of internet usage and digital skills among the partner countries varies to a wide degree, the raw number, as well of the overall proportion of people excluded from online services also varies. In some cases, the number of excluded citizens is relatively small, in others – it approaches a majority. Nevertheless, across all partners there have been observed similar factors that significantly influence the likelihood of being digitally excluded.

The most significant factor is, beyond doubt, **age**. The younger generation has practically grown with the Internet, and can be considered, to a large degree, digital natives. However, as people approach and pass retirement age, both the number of Internet users and the frequency of their use experience a fall. Many of these people grew up in an offline environment. **Digital skills** are new competences that they need to acquire, and many of them have been outside of the scope of training and education for

a long time. Since they managed well without them so far, sometimes they **don't perceive the need** to go online. If they are satisfied with the life they lead so far, and there is no pressure on the side of employers or government to make use of new services, some people simply choose not to experiment with them. In addition to these factors, the older generation is generally a lot more concerned with **security issues**: is online data really safe? Are online payments as safe as going to the bank? How can one discover online fraud? Older people are well equipped from experience to deal with threats they are familiar with, but these are brand new threats that require new behaviours.

In addition to age, one's **education** and **economic status** also appear to have a noticeable, although less significant, influence on the chance of being digitally excluded. People of lesser educational status and who are economically inactive are more likely not to use online services. In many cases, those are also people who have grown without the internet, and because of their vulnerable status and the challenges they had to face daily, never managed to acquire the competences needed to make use of online services.

On the other hand, there does not appear to be a significant **gender gap** in the use of online services, at least in most countries. The one exception to this rule appears to be Germany, where significantly more women than men are digitally excluded. This presents us with the puzzling question – either there are specific factors influencing the German-speaking Internet, that, however, are not visible in Austria, or, perhaps, given that German population is significantly older that the other partner countries, and women are overrepresented in the older age groups, that has led to an interference of the two factors. Still, it has been noted that utility and user-friendliness of applications is more likely to attract or put off women than men, so it is a factor to be considered.

There appear to be no specific factors related to **migration**, other than their linguistic capacity. Migrants seem to have compatible digital skills to their peers of similar age and education. The presence of a **disability**, however, does impact one's capacity to go online. Because there are many different types of disability, requiring different sorts of specialised assistance, they go beyond the scope of the My e-Start project.

2.2. Austria

The main group lagging behind with Internet use in Austria are **the elderly people**. Migrants/refugees they don't have problems with the use of services and accessing information, but are often challenged by **low language skills**.

The main reasons for lagging behind in the use of e-services include:

- the absence of sufficient **information** or promotion of existing services;

- a **lack of motivation** to actively use e-services, as well as a perceived lack of need;

- a **lack of skills** to deal with internet services and technology devices

- the use of complicated, technical language makes services difficult to understand for some groups.

Thus, the implementation of easy language is highly recommended in order to make e-services more accessible.

2.3. Bulgaria

While regular internet use in Bulgaria is 67%, it drops significantly for the following categories:

- 37 % for People with **basic education** or lower;

- 51 % for people aged 55 – 64;

- 20 % for **people aged 65 – 74**;

- 45 % for unemployed;

- 30 % for **inactive**;

- there are no significant gender differences (2.5 % less females than males).

The most significant factor for not using internet at all are a perceived **lack of need** (12.5 %) and a **lack of skills** (10.5 %).

2.4. Cyprus

Data from 2020, indicate that nine out of ten individuals use the internet at least once a week; these are considered frequent internet users. Internet use by men and women is at similar levels, both recording about 90%, indicating that there are no major discrepancies between frequent internet users based on their gender. Frequent internet users divided by gender and age also record similar patterns, with both women and men above 55 years noting the lowest level of internet use at 70%.

Breaking down the frequent internet users by **age**, it's clear that there is a stable decrease in the number of users as they grow old. Individuals between the ages of 16-24 record a universal use of the internet (99.6%). Frequent users fall just below 95% for people aged 45-54, while of those aged 55-64 only 81.7% are considered frequent users. The most senior age group, 65-74, records the lowest number of frequent internet users at 56.8%.

The percentage of frequent internet users fluctuates proportionately to the level of **education**. Among individuals with low education (no education or up to lower secondary school) two out of three (68.6%) are considered frequent internet users, while of those with medium education (up to post-secondary Vocational Education and Training) 93% are frequent internet users. People with high education, namely, those with a certificate in higher education up to a PhD, are almost exclusively considered frequent internet users with 99.1%. Overall, the gap in internet use between individuals with low and high education is around 30.5%.

A significant find is that education in younger individuals does not affect their almost universal use of the internet, a trend which gradually decreases in older age groups, especially when they are of low education. Between the ages of 25-54 the number of frequent internet users with low education slightly falls to 8 in 10, while their counterparts with high formal education reported that 10 out of 10 use the internet frequently.

However, the level of education of individuals aged 55+ has major effect on their level of internet usage. Only 3 in 10 individuals with low education are frequent internet users, while same-age individuals with high formal education reported that that 9 in 10 are frequent internet users.

From the aforementioned data, it is clear that age and level of education are the most critical factors that determine the frequency of internet use by individuals, irrelevant of their gender.

2.5. Germany

A 14% of the German population are still offline – a tendency that is visibly decreasing. The demographics of these non-users specify as follows:

- On average they are **71 years old**.
- 71% of them have no or the **lowest school degree;**
- 67% of the non-users are **female**.

A good three-quarters of the non-users mention a **lack of interest** as a reason for their absence from the internet. Around one third, on the other hand, finds the internet **too complicated**. They do not see any benefit in using the internet or rely on assistance of friends and family. Classical media are perceived as sufficient by a quarter. Fear, too much time or infrastructural issues play only a minor role in non-use. The results show that non-use of the internet depends mainly on personal factors and less on external circumstances. However, slightly more offliners are afraid of surveillance on the internet than in the previous year. This fear is more prevalent in the eastern federal states and more among men than women. More education can enable responsible and safe use of the internet.

A quarter of the non-users would consider using the internet if it had a clear added value for them. Help with the application, easier use and comprehensibility are also strong motivators. For the group of middle educated people, security aspects also play a central role. So there are definitely starting points on how non-users can successfully enter the digital world, namely through education as well as concrete projects for the targeted promotion of digital skills and know-how.

Occupation also continues to have a decisive influence on a person's Internet use. In addition, the more urban the environment is or the more people live in the household, the more likely they are to use the internet.

89 % of men in Germany use the Internet. For women, the proportion is still lower at 82%, where the gender difference is clearly evident. For women, the utility and user-friendliness of applications and devices are important motivators for openness and use of digital applications. But our world is still largely designed by men for men in many areas. The needs and requirements of women and other groups that have not been sufficiently represented up to now must be examined more closely and explicitly taken into account when developing digital applications and devices. Women still have less confidence in the digital world than men. Experiences of self-efficacy can strengthen confidence and thus also openness and interest in technology and digitalisation.

2.6. UK

The most significant UK demographic factors, for not going online, would seem to be:

- age 65 and over;
- having an employment status of retired (might be included in above) or inactive;
- a disability status;
- a low educational background;

The most significant reasons given for not accessing online services are:

- lack of interest (particularly prevalent in those aged over 60);
- concerns about privacy, security, the way their data would be used and identity theft;
- spending money on other things;
- services are considered too complicated.

By far the most significant factor, with regard to lower than overall UK rate of internet use, is age. ONS 2019 data indicates that only 83.2% adults aged 65 to 74 used the internet – 7.6% lower than the UK rate. The difference is even more marked for those aged 75 and over – at 46.8%, coming in 44% lower than the UK rate. It should be noted that the data does not allow for more granularity – in particular,

to see how the picture develops over the age range 55-64. ONS states that adults over 65 "have consistently made up the largest proportion of non-users" of the internet, and that in 2018 adults over 75 made up more than half of all adult non-users.

Lloyds 2018 reported that, of those people with access to bank accounts, 40% of those with both low financial and low digital capability were aged 60 or more – and more than 60% were aged 50 or more. In addition, only 7% of those aged over 70 are likely to be able to shop or manage their money online and, furthermore, 77% of this age group have 'very low' digital engagement. The report also finds that 52% of those offline are aged between 60 and 70.

Whilst the main Lloyds 2020 data pre-dated the Covid-19 outbreak, an ad hoc YouGov Plc survey was carried out in May 2020. The report observed that, for those aged 70-79, the proportion of online banking registrations for week beginning 20 April 2020 was 3x greater when compared to the same week in 2019. Indeed, the same comparison for the 60-69 years group is also worthy of note – a factor of more than 2x.

ONS 2019 data, when analysed by employment status, reinforces the picture seen above with regard to older adults, with only 66.8% of retired adults using the internet – that is 24% lower than the overall UK rate.

The same 2019 data indicates that unemployed adults fair better (+6.6%) than the UK rate in terms of going online. It is also a demographic which is well catered for. Aside from government employment & training programmes, participants of which are even further ahead (+7.6%) of the UK rate, there are many resources available– for this group. Signposted from the National Careers Service, for example, is the Learn My Way website – owned by the Good Things Foundation, the site provides free beginners' courses (for online or download use) to develop online digital skills.

It might be noted that those identifying as inactive in terms of employment, also lag behind the overall UK rate. Though the effect is relatively small, at -2.1%, analysis of the 2018 data identified that, among those of working age, this group are the most likely to be non-users of the internet. Furthermore, 22.3% of those inactive due to long term sickness or disability were non-users – compared with only 3.3% of those inactive for other reasons.

Those adults self-assessing as disabled, in line with the Equality Act definition, also lag behind the 2019 overall UK figure – by a factor of -12.5% (78.3% identifying as accessing the internet).

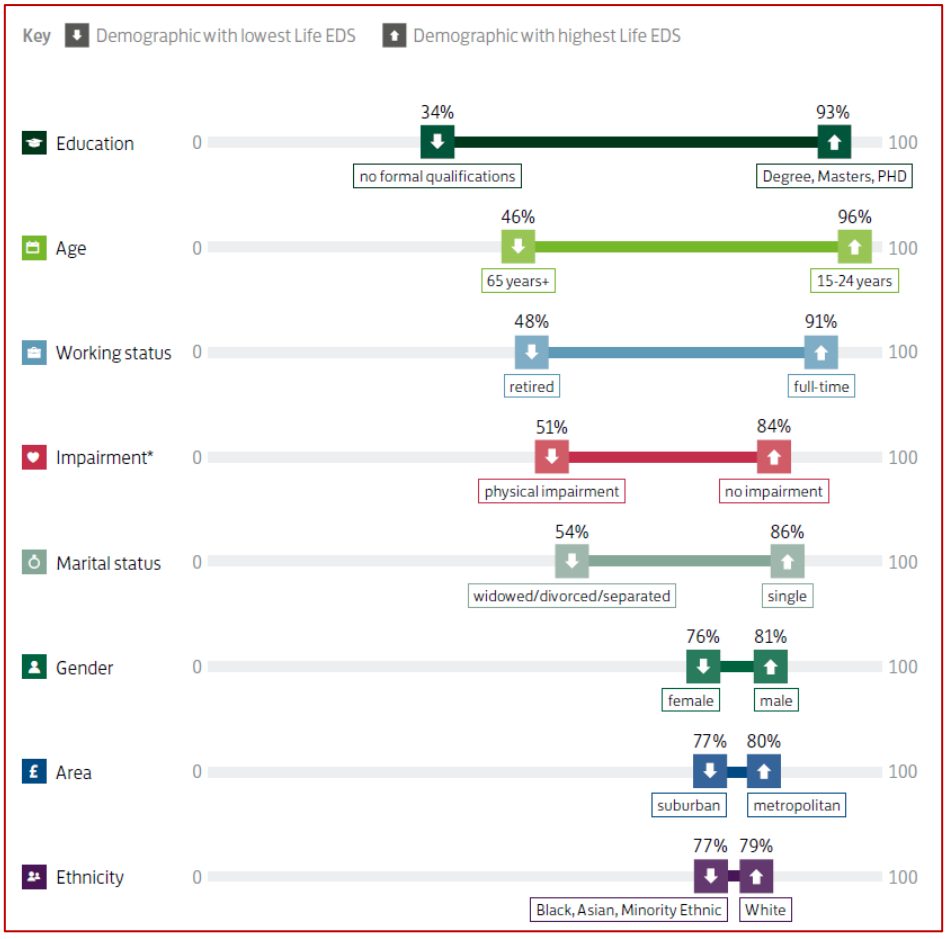
Only two ethnic groups fell below the 2019 UK rate, and then by very small margins, namely those identifying as: White by -0.3% (at 90.5%); Indian, Asian/Asian British by -0.4% (at 90.4%).

Interestingly, the 2019 data indicates that there remains a difference, in percentage of adults using the internet, between those identifying as male (92%) and those as female (89.6%). Here also however, the variance from the overall UK rate is small – at plus and minus 1.2% respectively.

ONS 2019 goes on to propose, however, that "it is important to recognise that… users of the internet can still be digitally excluded because they lack the skills to be able to confidently and safely navigate the digital world".

Data from a January 2020 Ipsos MORI survey, to assess a UK-representative group aged 15+ against the Essential Digital Skills framework, was explored further to estimate proportions of the population with the Foundation-level by different demographics. Whilst categories were not directly comparable with those used by ONS in 2019, findings largely supported the priorities surfaced earlier. However, results for the Education domain might support the argument that those with 'low education and training' should be considered as a target group.

The above might arguably be further supported by the report's finding that 50% of adults who believe their digital skills are insufficient are either retired and living on state pension or occupied in semi- or un-skilled manual work.



Survey data from 2020 (Lloyds) indicates that lack of interest continues to be one of the biggest barriers to going online and the report found this most prevalent in those aged over 60. Additional high-occurring reasons, each given by more than 30% of respondents, were: concerns about privacy/security, the way their data would be used and their identity being taken; spending money on other things; too complicated; other.

When asked what would encourage non-users to get online, the top five responses other than 'nothing', reflected the most common reasons for not doing so. With close results, these included:

- the ability to easily stop organisations from using personal data;
- more transparency about the data organisations are collecting and how they are using them;
- getting support from someone;
- a cheaper cost of the services;
- easier to understand services;

3. Public support measures directed at people with low digital competence

3.1. Overview

From the partners' research it has become apparent that a **common European approach** addressing the low digital competence of citizens **is lacking**. Some countries have detailed national strategies in place, while in others there is a distinct lack of available measures to address the identified priorities, even if they have been already formulated. It is probably not coincidental that the countries that have the most well-developed training infrastructure also have the highest level of digital competence of their citizens. From this fact it can be concluded that **government policy**, far from addressing the needs of the citizens, **has an active role to play** in shaping those needs. The UK has the most trainings available and the least proportion of digitally excluded citizens, while Bulgaria and Cyprus, who have the highest proportion, also have the least to offer on the training and support side.

A noticeable tendency even in well-developed countries is to focus on the needs of the educational system and the labour market – a sound starting point, but one which is likely to leave gaps in the training provision. **Older people have consistently the least access** to digital training in all partner countries – a problem that the My e-Start projects aims to address.

3.2. Austria

The '**Digital Roadmap Austria**' was published in January 2017. Fostering the digital transformation in selected priority topics (e.g. data, art/culture, climate and environment protection, etc.) and improving user-centric, modern e-Government services are among the main topics within the upcoming strategic action plans.

The new government programme recognises the importance of digital skills and provides for a number of measures to enable pupils and teachers to acquire digital competences to pupils and teachers. Digitisation of school education is a major priority. It is important that digital education is integrated into all curricula. Austria is also active in improving cybersecurity, by e.g. informing about COVID-19 themed phishing or malware emails and fake shops pretending to sell masks and other protective equipment.

Austria has developed its own competence model for digital skills, called **"Digital Competence Framework for Austria - DigComp 2.2 AT"** . It is based on the European Reference Framework for Digital Competences (DigComp 2.1). The Competence Framework serves to classify and compare digital skills and thereby makes a contribution to facilitate the exchange on desirable knowledge and competences in the digital world of life and work.

fit4internet is a non-partisan and independent association with the objective of qualifying and quantifying digital literacy among the Austrian population. The primary goal is to enable the competent use of digital technologies and ensure a broad participation of the entire society in the digitalisation process. the association maintains a database of courses on digital competences offered by different providers in German or English: (https://www.fit4internet.at/page/course). In addition, the association offers six **multimedia info modules** on the six areas of competence of the Digital Competence Framework for Austria, taking about 10-15 min each to complete.

The video series "**Smartphone-ABC**" is an initiative of the Federal Ministry for Digital and Economic Affairs in cooperation with fit4internet. The implementation was supported by Emporia Telekom and Education Group. This film series offers simplified background information and step-by-step instructions for digital beginners who wish to better understand their smartphone and use it more safely.

Together with the Federal Ministry for Digitization and Business Location and the Austrian Seniors' Council, the fit4internet initiative started training for (basic) **digital skills for the 60+ generation**. A tailor-made offer to discover the possibilities of the mobile Internet, to actively use it and to communicate with it in a modern way. The initiative kicked off with the "Digital Coffee" taster course for senior citizens on October 18, 2018 at two locations in each federal state. Professional trainers imparted the

necessary basics in a relaxed and informal atmosphere so that senior citizens without (much) experience in the digital world can safely take their first steps on the Internet, with mobile phones etc. - uncomplicated and free of charge. However, because of the COVID-19 crisis, further trainings have been cancelled and will await a change in circumstances allowing for the continuation of face-to-face activities.

3.3. Bulgaria

Bulgaria's National Development Programme (NDP) **Bulgaria 2030** sets up priorities related to deploying high-speed networks, especially broadband in rural areas; effective assignment of the spectrum for wireless broadband and 5G; accelerated development and take-up of BB-dependent services such as cloud, IoT, development of new services etc. In terms of skills and competences, the programme prioritises the development of digital skills of the population.

How the government plans to realise these goals is not yet clear, but it can be expected that concrete action will be taken towards improving the quality of education at the school and university level. Government support for training in STEM and ICT faculties has already brought about a **revised school curriculum**. Computer modelling was introduced in the third year of school, starting in the 2018-2019 school year. There are now more classes with IT profiles in upper secondary school, such as the national programme 'Education for IT careers'.

Another focus will be given to improving the ICT competences of the **labour force**. No actions are foreseen to aid citizens who already left the labour force.

3.4. Germany

The German Federal Government wants to shape the digital transformation and prepare the country for the future in the best possible way. In its implementation strategy for shaping the digital transformation, it has identified five crucial fields of action: digital competence; infrastructure and equipment; innovation and digital transformation; society in the digital transformation; modern state.

The **Federal Ministry of Education and Research** plays an important role in shaping the digital transformation. In the area of "digital education", for example, the DigitalPakt Schule (Digital Pact for Schools) was launched. The Federal Government and the Länder have jointly committed themselves to better equipping German schools with digital technology and corresponding teaching methods. Equally important is the teaching of basic scientific and technical skills at an early age - the MINT Action Plan was set up for this purpose. In addition, various programmes are dedicated to the digitisation of the

higher education system, such as the Open Universities competition and the science system and National Research Data Infrastructure (NFDI). BAföG-Online is designed to make life easier for students.

Under the umbrella of Vocational Education 4.0, vocational education and training is being modernised and further developed by the Ministry of Education and the Federal Institute for Vocational Education and Training (BIBB) by means of various funding programmes. In addition, the national CET strategy, which is being implemented together with the Federal Ministry of Labour and Social Affairs (BMAS), focuses on teaching digital skills. This important approach is based on the principle of lifelong learning.

There are various offers to support digital competences in schools, of teens or in vocational education and further training. No specific programs for the support of digital competences in older generations have been found. The public support seems to be limited to studies assessing the user behaviour of older people, their needs and guidelines how to make e-services age-sensitive. But e.g. courses for older people or respective funding are not available on public level.

In the current legislative period, the Federal Government has set itself the goal of creating gigabit networks throughout Germany together with the telecommunications companies. It is therefore continuing the existing broadband funding in areas where no market-driven expansion is taking place, since the 6th funding call, now exclusively with gigabit targets. The funding programme's procedure has also been significantly simplified. This is the first important building block for achieving the gigabit targets. This means that all remaining white spots (available connection speed < 30 Mbit/s) will be directly connected to the gigabit network.

To enable SMEs to exploit the economic potential of digitalisation, the Federal Ministry for Economic Affairs and Energy (BMWi) supports small and medium-sized enterprises (SMEs) with the programme "Digital Now - Investment Support for SMEs". The programme offers financial grants and aims to encourage companies to invest more in digital technologies as well as in the qualification of their employees.

3.5. UK

The UK's Digital Strategy 2017 reported that, at that time (based upon ONS 2016 data), one in 10 UK adults had never accessed the internet and more still were digitally excluded through lack of connectivity, digital skills or motivation. It set out the intention to "enable people in every part of society... to access the opportunities of the internet".

The strategy cites some of the many organisations, national and local, providing programmes aimed at developing digital skills. Rather than try to centrally control these, they went on to establish a new Digital Skills Partnership (DSP) which would facilitate coordination between the various programmes.

One of the DSPs priorities is to support development of Local DSPs, in England. These regional entities would bring together cross-sector partners. They would "design, develop and coordinate innovative digital skills programmes, tackle digital exclusion…". There are currently 6 Local DSPS: Lancashire; Heart of the South West; West Midlands; Cornwall & Isles of Scilly; Cheshire & Warrington; South East.

One particularly innovative project, the 'Smart Homes' scheme, funds the improvement of a number of "digitally savvy" older people's digital skills to become 'digital boomers'. Their homes are then set up with technology so that they can have other older people visit to learn how use smart technology as well as communicate and transact online.

Several local council websites signpost locations from which devices to get online may be borrowed or used in situ. Colchester Borough Council, for example (, lists numerous locations of free to use 'Fixed Digital Access Points' – in venues such as GP surgeries, libraries, sheltered schemes and community centres

FutureDotNow, with the support of a host of organisations including big corporates and social enterprises, mobilised an emergency response for those facing exacerbated isolation due to the current pandemic. The DevicesDotNow response benefitted particularly vulnerable people getting online, providing devices, connectivity and support. Out of this initiative, an interactive platform 'Reboot' has been established by Nominet. Through Reboot, organisations, community groups and schools can make a contribution to community inclusion by collecting, restoring and distributing used devices to local households without online access. Otherwise, we have not identified any, currently available, public programmes to assist in the purchase of devices.

The National Careers Service's Skills Toolkit signposts to an external provider of 'computer essentials' – courses to help people use a computer, the internet and office programmes. Owned by the Good Things Foundation, the Learn My Way site provides free beginners' courses to develop a wide range of digital skills – including several which are specifically about online shopping, accessing e-Government services and online/mobile banking. Local council websites typically signpost Learn My Way courses. Additionally, many also offer free face to digital skills training for beginners at local venues – for example the Essential Digital Skills Qualification (Entry 3) offered at Leicestershire County Council venues.

Specifically for our primary target group, Age UK offers face to face computer training courses and a host of online guides. Also worth a mention here is Get Safe Online. This public-private sector partnership comes recommended by Action Fraud, the UK's national fraud and cybercrime reporting

centre. Its website provides a wealth of **free online safety guidance** around a number of themes. The government's National Cyber Security Centre also provides useful guidance on cyber security..

4. Most common form of devices used by disadvantaged groups

4.1. Overview

The picture presented by partner research regarding device use appears to be **mixed and inconclusive**. Smartphones are increasing in penetration everywhere, but they still have a long way to go before they become the default option for older users. A factor additionally influencing available data is the fact that many countries only collect information on the devices used to access the internet outside of home or work – and predictably, these are primarily mobile devices.

In some of the partner countries, there are results indicating that some users in the older generation still only have a home **PC or laptop** and no smartphone. Thus, despite the overall prevalence of smartphones, these cannot be excluded from the educational approach of the project. Smartphones are a newer technology, and the PC has had time to infiltrate the market and become familiar. It might also be worth noting that a large screen and a keyboard are much easier to use, especially if one is beginning to experience difficulties with one's vision.

However, even in the older target group**, smartphones** have increasingly become the gateway to access the internet. These devices are cheap, multi-purpose, easy to carry around, and the younger generation is often keen to demonstrate their use. Therefore, the trainings of this project should take into account the fact that some users will have only access to mobile devices.

A solution that appears to combine the positives of both world – the larger size and display of the laptop, and the ease of use and mobility of the smartphone, is the **tablet**. Data from the UK suggests that these devices are the most popular with the older users.

In conclusion, the information collected so far seems to suggest that no prevalence can be given to either PC or mobile devices, and a training needs to address both and be available on both in order to truly achieve the goal of digital inclusion.

4.2. Austria

In a five-year comparison from 2012 to 2017, the number of online shoppers in Austria increased bty 24%, while the number of mail order buyers decreased by 37%. Even in the 60+ generation, online shopping has now overtaken mail order orders by mail.

Between 2012 and 2017, the number of smartphone shoppers increased sixfold. 42% of Austrians use a smartphone use for product research on the Internet and 21 percent use it to shop online. The Austrian mobile commerce market is expected to continue expanding at a double-digit rate of 16 percent to 2021, by which point it is projected to be a €1.3 billion market.

While no current data on Austria exists, data from neighbouring Germany suggests that among the 50+ year group, notebook use is more prevalent than smartphone use – unlike all other age groups.

4.3. Bulgaria

Statistics are available on the use of mobile devices outside of home and office – 63% of the population use a smartphone, and 25% - a laptop. Those numbers, however, are not indicative of the overall use of these devices. According to a 2018 survey by Telenor, 66 % of the population aged 55-64 own a smartphone, and 28 % of those aged 65+. In 2018, 56 % of Internet users connected via smartphone, 32.5 % by laptop, 27.5% by desktop PC and 11.7 % by tablet.

e-Commerce is clearly underutilised, especially by older people. Only 8% of people aged 55-64 and 1.8 % of those aged 65+ made any online purchases in the last 12 months (data for 2018). On the other hand, the use of online media is much more prevalent. 56 % of users aged 64 and 25 % of those aged 65+ use an over-the-top (OTT) media service) - a streaming media service offered directly to viewers via the Internet. Facebook and YouTube are the most popular ones.

4.4. Cyprus

According to Eurostat's 2019 data, of those aged between 55-74 who had accessed the internet in the last three months, 82% used a mobile phone (or smart phone). Those who have used a device other than mobile to access the internet outside home or work stand at 24%, indicating that the main means to access the internet for this age group is the mobile phone.

A similar pattern is noted for individuals with no or low formal education. A total of 82% report using the mobile to access the internet, with a quarter saying they've used a device other than mobile to access the internet outside home or work.

4.5. Germany

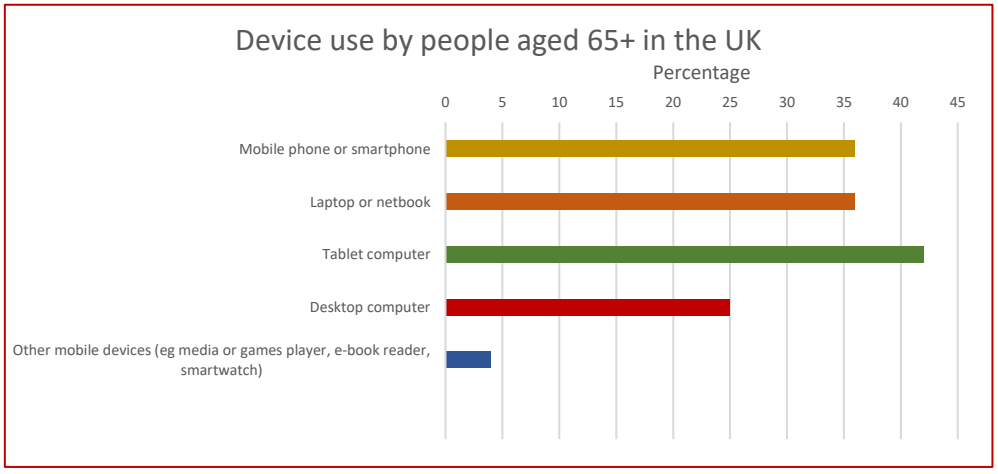
According to data from the Federal Statistical Office, most people in Germany use **smartphones as a device to access the Internet (87 percent).** Laptops are used by 65 per cent and desktop PCs by 62 per cent. 46 per cent use tablets. 85 per cent also access the net outside their home or workplace.

Statistics in Germany do distinguish between the use of specific devices but rather how the internet is accessed – via (home) network or mobile. While in the younger age groups the numbers are very close, this is not the case for older people: 52 % of the people aged 70+ use a **home connection** compared to only 32% for a mobile one. In the past year the internet access via mobile devices increased significantly in the older age groups 50+ with a plus of 8-9%.

When we look at the educational level of the target groups, the group with the lowest level of education increased its mobile internet use by 10% in the past year to 53% - catching up with, but still short of their home internet use of 64 %.

4.6. UK

ONS 2018 found that the **tablet computer** was the device most commonly used to access the internet by those aged over 65, by 42% of users. Laptop/netbook and mobile/smart phone use was also prevalent – each category used by 36% of respondents aged over 65. In contrast among all age groups mobile/smart phone was the most popular category of device used for accessing the internet. There was no equivalent data by level of education.



The ONS 2019 dataset does not allow for direct comparison, since it only explored devices used for accessing the internet 'on the go' – that is, away from the home. Overall 'on the go' access to the internet, by those aged over 65, increased from 39% in 2018 to 53% in 2019. Device preference order

in 2018 and 2019 remained the same for both years and, as might be anticipated, percentage use of the top three categories increased between the two years: Mobile/smart phone, 28% to 40%; tablet, 20% to 27%; laptop, 9% to 13%. Again, there was no equivalent data by level of education.

5. Most common e-services used

5.1. Overview

As with other aspects of citizens' digital competence, the actual usage of online services varies considerably by country. In addition, few countries collect data of the usage of services by age group, so results in the general population do not necessarily reflect their use by older people. Still, a common pattern in all countries is the **increase in the use of all e-services**. Some specific services grow faster that others in some partner countries, but the overall tendency is unmistakable.

By analysing the use of e-services in the partner countries, several general aspects of their use can be identified:

- **entertainment**: music and video services – it seems to be very popular due to a low entry barrier and few digital skills required;
- **communication:** social networks and video calls – these services are unmistakably on the rise, especially due to the Covid-19 isolation. For some older citizens, these fulfil an important mental health role, allowing them to stay in touch with their loved ones despite the lack of face-to-face communication.
- **information:** news – with the disappearance of traditional media, an increasing number of people are relying on internet news services to stay in touch with the latest developments of the world around them, though this might be less prevalent among the older generation
- **e-Commerce**: online shopping – in some counties it has already become the norm, while in others, like Bulgaria, there is still a lot of catching up to be done. Still, their use is clearly increasing.
- **e-Banking:** making payments and managing personal finance – despite the increase in these services, the older generation often has security concerns and is generally among the last to switch to them
- **e-Government**: taxes, registrations, social benefits – the Covid pandemic acted as a booster of this sector, forcing many administrations to adapt long-postponed measures. This is probably the sector most affected by the recent changes, and the one where users have the greatest need for support because of the comparatively high skill level required to make effective use of these services.

- online **education**: online courses appear to be among the least used e-services among the population in general, and certainly among our target group.

5.2. Austria

Overall, the use of internet services in Austria is below the EU average. Austria ranks 18th out of 28 Member States. According to the latest data, the most common e-services in Austria are ranked as follows: **music, videos and games** (80% of users); **banking** (72 %); **shopping** (71%); news (67 %), social networks (63%), video calls (47%). In contrast, only 9% have attended an online course. Internet banking is the area where the use of an e-service in Austria goes above the EU average. 79 % of the Internet users make use of e-Government services, and 53% submit filled forms.

Interestingly, there is data available on the percentage of e-shoppers who buy items in a particular market segment:

- Clothes and sports goods 66%
- Travel and holiday accommodation 56%
- Books/magazines/newspapers 39%
- Household goods 37%
- Tickets for events 36%
- Electronic equipment 34%
- Computer software 31%
- Films/music 30%
- Computer hardware 23%
- Food/groceries 19%
- Medicine 14%
- Others 7%

Austria performs very well with **digital public services**, ranking 8th in the EU. The country performs well in the pre-filled forms indicator (Austrian score: 81, EU: 59) and in online service completion (Austrian score: 97, EU: 90). Austrian administrations are obliged to offer the possibility to send important documents electronically. Since the entry of force of the Austrian e-Government Act in 2020, citizens have been guaranteed the right to electronic correspondence with the public administration and can hande all their contacts with the authorities electronically. In March 2019 a revised one stop platform for government services went online (oesterreich.gv.at). In addition, a chatbot named “Mona” and a dedicated mobile app (Digital Office App) were launched to improve the service quality of Austria’s most used e-Goverment portal for citizens.

5.3. Bulgaria

According to DESI, Bulgarian Internet users use the following services;

- Video calls 85%
- Social networks 78%
- News 66%
- Music, videos and games 64%
- Shopping 31%
- Banking 13%
- Selling online 9%
- Video on demand 9%
- Doing an online course 3%

Bulgarian internet users make more use of **video calls** than users elsewhere in the EU. They are also well above the EU average when it comes to **social network activities** (78% vs 65%). Bulgarian internet users are less keen to use other online services, especially online banking. Although use of e-banking has risen slightly, only 13% of internet users take advantage of it compared with the EU average of 66%. Only 31% of internet users shop online, against an EU average of 71%.

The **lack of a unified e-identification** is a main hinderance to making use of online e-Government services. As a result, for example, citizens are required to obtain a separate Personal Identification Code (PIC) from, among others, the National Revenue Agency and the National Insurance Institute. Still, **25 %** of citizens make use of **e-Government** services. 20 % of citizens obtain information from public authorities' websites, 12.5 % download forms from them, and 10 % submit filled forms.

Close to 80 % of public services can be completed online. All services of the National Revenue Agency are available online. Most significantly, 80 % of **tax declarations** in the year 2020 have been submitted online. However, only people who receive extra income in addition to their main salary need to submit a declaration, so that usually excludes the main groups who use less internet. Citizens can **pay** all taxes and fines to both local and central administration online.However, **healthcare services are notably lagging behind**. Citizens are still required to bring paper documents with them, and no online alternative exist.

5.4. Cyprus

The most common e-services in Cyprus include:

- JCC (a platform for e-payments; 200,000 registered users-10,000 transactions/day)

- Foody/Volt/Wolt (food orders: Foody: 400K orders/month)

- Taxisnet (tax returns-no data available)

- eBanking (1 in 3)

- General Health System (GHS): The General Health System (GHS) provides citizens with an online platform where they can register to receive universal healthcare. This service is not included in the third section for two reasons. First, the page's main function is to register in the system, which the great majority of the population has already done so. The service does not provide the option to book appointments online, so it was considered of little value, and thus, was not included.

According to Eurostat, the overall online interaction of civilians with the authorities stands at 50% as of 2019, increasing from 25% in 2010. Furthermore, 37% said they were able to download forms from government websites, of whom the great majority, namely 34%, reported they were able to submit forms online.

According to Eurostat, Cyprus ranks among the top countries whose citizens haven't carried out a purchase online in the past months, because of payment security concerns. Lastly, Eurostat data offer valuable insight as to the perceived barriers to buying/ordering over the internet. The data reveal that of those with internet access, 24% haven't purchased any goods or services due to lack of the necessary skills to do so.

5.5. Germany

In Germany studies rather look separately at commercial and government e-services and their usage. In the e-Commerce sector the most common e-services used are the following:

- Search for content and information in search engines – 82%
- Online shopping e.g. Amazon, Otto, Zalando, MediaMarkt ... – 71%
- Instant-Messaging – e.g. WhatsApp, Threema, Telegram – 70%
- Order or book services online, e.g. travel, food delivery service, car sharing, handyman – 58%
- Online Payments, e.g. PayPal, paydirect or Bitcoin – 55%
- On-Demand or Streaming services, e.g. Spotify, Netflix, Amazon Prime – 44%
- Computer games or game apps – 43%
- Collaboration with others via applications such as Google Docs, Microsoft OneDrive – 41%
- Learning opportunities via the internet, e.g. online courses, webinars, learning videos –36%
- Mobile Payments via Smartphone, e.g. Apple Pay or Google Pay – 29%

According to the 'e-Government Monitor 2020' the use of digital government services continues to rise: six percentage points more than last year and a total of 14 % more than at the beginning of the yearly measurement in 2011. At 54%, users outnumber non-users for the first time. At first glance, this increase suggests that the Corona pandemic has a strong influence here. The citizens had to switch to the digital path due to the restriction of personal contact possibilities and temporarily closed offices. On closer examination, however, several factors speak for a generally positive development, i.e. a general trend towards digital use. On the one hand, the survey targets the use of administrative services "within the past twelve months", of which only four fall within the period of the pandemic at the time of the survey. On the other hand, citizens were explicitly asked how they dealt with their administrative concerns during the pandemic. The main strategy here was: "avoidance". At the same time, only a few stated that they had used e-Government for the first time because of the pandemic. Accordingly, at least the citizens themselves do not see their digital actions in direct connection with the pandemic. All in all, however, the underlying awareness of digital administrative offerings has increased and a fundamentally more open attitude can be observed. Both are important steps in view of the need to catch up that Germany has had for years with regard to the use of e-Government - both in terms of the offerings and their acceptance by citizens.

The increase applies to all age groups, including 55 years and older. The share of users has grown most in the "pioneer group" of 18 to 34 year olds. Nevertheless, 48% of the 55 years and older used e-Government services in the past 12 months (compared to 36% in 2011). The most prevalent services include:

- Online search for information on responsibilities/opening hours etc. 84 %
- Downloading forms for preparing/handling administrative procedures 58 %
- Making an appointment online 57 %
- Digital communication with the authorities 46 %
- Handling of the electronic tax return 45 %
- Requesting postal voting documents online 33 %
- Applying for state benefits online 15 %
- Apply for child benefits online 10%

If e-Government offerings are used in principle, this generally leads to regular use: On average, users access digital government services 3.2 times a year.

5.6. UK

The ONS established the main activities carried out online by adults in 2018:

- finding information about goods/services – 77 %
- internet banking - 69%
- watching commercially-provided, on-demand videos – 62 %
- playing/downloading games – 31 %
- selling goods or services – 25 %

Lloyds 2020 looked at internet uses, overall and split by age. The report observed that engagement typically decreases with age. Their analysis shows the following, in descending order, to be the most undertaken e-Government and e-Commerce activities of those included in the survey:

- buying products/services 81 % / 69 % for people aged 70-79;
- streaming/downloading media 57 % / 31 % for people aged 70-79;
- accessing local council information 48 % / 50 % for people aged 70-79 – note that in this case older users are above the average.

Lloyds found in 2020 that 82% of internet users preferred to go online for day-to-day banking. DESI reported that, in 2019, 81% of internet users used internet banking (EU 66%). We might, therefore, take it that there is concurrence with ONS findings with regard to the inclusion of internet banking as a main activity for adults in 2020. They also explored reasons cited for not using online banking services: 62 % like the face-to-face relationship, 51 % have security concerns, and 23 % lack the skills needed to use them.

Whilst e-Government services did not feature in the earlier ONS analysis, the source asserts that while in the period 2014 - 2017 the use of the internet to interact with public authorities or services was stagnant, in 2018 there was clear rise. GOV.UK, the UK's official e-Government web site was set up in October 2012. Nearly 2,000 government websites were combined into a single site. GOV.UK is now the government's trusted online communications and public services channel and all ministerial departments are now accessible through it. Almost 18 million visitors per week access the site to find information and interact with government.

European Commission 2020 presents 2009-2019 Generic Information Society Indicators for the UK. These reflect Eurostat data, for people using the internet, and were as follows for 2019: 63% to interact with public authorities (EU 55%); 43% to obtain information from public authorities (EU 44%); 41% to download official forms from public authorities (EU 33%); 51% to submit completed forms to public authorities (EU 38%)

The four busiest organisational websites, accounting for more than half GOV.UK visits per week for the past two years, are:

- HM Revenue and Customs (HMRC)

- Department for Work and Pensions (DWP)
- Driver and Vehicle Standards Agency (DVSA)
- Driver and Vehicle Licensing Agency (DVLA)

HMRC and DWP combined get about half of all visits to central department websites, predominantly from people signing into their personal tax or Universal Credit accounts respectively. The DVLA and DVSA account for almost three quarters of all visits to non-departmental websites within GOV.UK, and attract more traffic each week than any main department other than HMRC and DWP. This is largely driven by people using digital services, such as checking the tax status of a vehicle (DVLA), or booking or changing a driving test (DVSA).

5.7. Important services for disadvantaged adults

Based on an analysis of the particular needs of disadvantaged adults, it can be concluded that some e-Government and e-Commerce services have a special relevance for them and should be prioritised when considering developing a training offer:

Search engines - To be able to find e-Government and e-Commerce services on the internet disadvantaged adults need to be able to use search engines, pick the right key words and after that to navigate government websites. Research indicates that, aside from UK central government, public websites in particular are often are complex and not user friendly.

Accessing information, downloading and submitting forms from/to public authority sites - it saves time and effort, and is also safer in Covid times than to go to the public administration and perform the services in person. There are social services especially relevant for disadvantaged adults, such as searching for a job and making use of social services. Online voting is also not to be disregarded.

Online shopping is gradually gaining in importance. Users need to know what is a legitimate online shop and how can they be identified.

e-banking is also increasingly becoming the norm. However, disadvantaged adults in particular have concerns about using them because of a lack of trust in their safety and reliability. Their fears of data protection flaws need to be addressed to reduce the general fear to use online services.

6. Unified digital identity

6.1. Overview

The different partner countries have reached **different stages** towards establishing a unified digital identity for their citizens. The German-speaking countries are taking the lead, with Germany opting to use a chip in **their national ID cards** and Austria creating a separate **electronic ID** accessed by a mobile phone. Bulgaria, Cyprus, and the UK, on the other hand, have yet to establish a unified digital identity. The lack thereof means that citizens are forced to use a separate identifier for each e-Government service. In some cases, this requires the establishment of an **e-signature** – a technology that is being progressively phased out, or a **PIN** issued by the institution. The need for using different methods for identification for each service is a barrier to their effective use by disadvantaged groups. Still, while the only long-term solution is the creation of a single identity, in the meantime educating adults about e-signatures and PIN can assist them in accessing some of the more important services.

6.2. Austria

In order to be able to carry out digital official channels safely and comprehensibly, authorities must be able to determine the identity of the applicant without any doubt. This requires an electronic tool that clearly identifies citizens and business people. This electronic ID is called the "**Citizen Card**" (Bürgerkarte). In addition to the ID function, the Citizen Card also offers the possibility of signing documents simply and securely electronically.

There are currently two versions of the "Citizen Card" available:

- on the mobile phone as a so-called **mobile phone signature** (Handy-Signatur). This requires a ready-to-receive mobile phone. The Mobile Phone Signature works with all mobile phones and is free of charge. The Mobile Phone Signature Account acts as a secure online document-storage area, as well as offering an option for electronic document signing and signature verification. Furthermore, an automated backup service is offered. All signed documents as well as the signature contract are to be found under the menu point “documents”.

- signature cards such as the e-card. This requires a smart card with activated Citizen Card functionality (e.g. A-Trust cards) and a smart-card reading device. With the migration to the new electronic identity E-ID starting in 2021, mobile solutions are aimed at and this option will be gradually discontinued.

Both alternatives can be used for the creation of legally valid signatures in online procedures. These signatures are legally equivalent to handwritten signatures. The Mobile Phone Signature and the chip card-based Citizen Card are comparable to an electronic ID card: In this sense, a pass is a concept that can have different characteristics, such as a passport, driver's license, student ID card or membership card.

The mobile phone signature can be activated in several ways:

- with existing Citizen Card;

- via FinanzOnline – an account is needed;

- via online banking (e.g. BriefButler) – this option requires a one-time fee of 6.00 EUR;

- via Post.at – an account is needed;

- in person in one of the registration sites and finance offices across Austria - an official photo identification and a mobile phone are needed. Since ctivation is carried out by specially trained employees, this is the recommended option for disadvantaged or less digitally skilled individuals.

6.3. Bulgaria

There is **no unified digital identity** for Bulgarian citizens at the moment. Several providers offer the issuing of an **e-signature**, which may be used to submit official documents to certain administrations. However, other forms of identification are still required:

- state agencies, such as the National Revenue Agency and the National Social Security Institute, issue their own **PICs**;

- the same applies to municipal administrations;

- banks use their own identificatory tied to customer accounts;

The PICs are often issued only in person, though recently options of online registration have started appearing – involving the use of an e-signature.

6.4. Cyprus

Efforts to create a unified digital identity in Cyprus have intensified in 2020, as the country has been **lagging in implementing a unified digital identity** per the European Order 910/2014. At the moment, citizens can only request an **electronic signature** through their bank or the JCC Trust Portal which can be used for all online transactions and submissions, and is recognised across all EU member states.

In terms of e-Governance, CY Login, is the official service of the Republic of Cyprus that is responsible for the management and identification of users. Eventually, all public services will be available through the platform Ariadni through a **Single Login**. The Ariadni platform will only provide access to government services. At the moment, only a handful of services are available on the platform. Civilians can register on the platform by physically visiting one of the Citizens Service Centers (CSCs) in the country or online by authoritising their bank to transfer the relevant identity data to the CY Login service.

6.5. Germany

The **German national identity card** (eID) acts as a unified digital identity. The eID function integrated in the ID card's chip can be used to identify a person on the Internet and at vending machines reliably and securely. The German National Identity Card's function is also a reliable way to verify the identity of your Internet business partner. For using the eID, a card reader or a smartphone app is needed.

The online service users can always clearly see which of the personal data - e.g. first and last name, date and place of birth or address - the provider requests. They agree, they can enter their six-digit PIN to send the data in encrypted form. There are background checks to verify the validity of the ID card and whether it has been blocked. At the same time the authorization of the online service provider to request the data is checked. Online service providers are authorized to request such data only if they have been certified by a public authority. This double check is not carried out by the online service provider but by an eID server. This rules out the possibility of misuse by a provider directly accessing the data or the use of a blocked ID card. This function is only available for people who are 16 years old or older.

6.6. UK

There is currently **no unified digital identity** in the UK. There are, however, some digital identifiers used in common across groups of UK government services. These do, however, require other proofs of identity to create.

'Government Gateway' user ID can be used to access services such as those provided by HMRC. It is set up directly on GOV.UK and requires the following proofs of identity:

- National Insurance number or a UK address
- a recent payslip, P60 or valid UK passport

'GOV.UK Verify' identity account can be used for things like Universal Credit, requesting a basic DBS check and Self-Assessment. The individual does not register directly through the government website but, instead, chooses from a list of government-approved identity providers – Barclays, Digidentity, Experian, the Post Office or SecureIdentity. The following proofs of identity are required:

- a UK address
- a mobile phone
- at least one valid photo ID from any country

From 17 July to 15 September 2019, a consultation was run to seek views on how the government might support development and use of digital identities. Whilst this consultation is now closed, and the government's analysis of responses states that it "is committed to enabling a digital identity system fit for the UK's growing digital economy", it goes on the set out that this forms only one part of the consultation process around digital identity – which, it stated, was ongoing. On 16 November 2020, at Identity Week 2020, the Minister for Digital Infrastructure announced that the government would be publishing the digital identity Trust Framework as an alpha in the new year.

7. Online payments

7.1. Overview

As with many other aspects of citizens' digital behaviour, their habits regarding online payments very considerably. A noticeable trend is the continued reliance on **bank transfers**, which still control the majority of the market share in Bulgaria and Germany, and have a noticeable presence in other countries. Through the services of e-banking, these can make a smooth transition to an online environment while retaining the safety and reliability associated with them.

Cards hold between 20 and 40 % of the market. There are some indications that they are gradually losing their market share in favour of other payment methods.

One of the methods gaining in prominence are **e-wallets**. While in Cyprus and Bulgaria their role remains marginal, and in Austria they lag behind cards, in Germany and the UK they have already reached a prominent place.

Because of this variety of payment methods in place, it can be concluded that the online payment sphere is in a **state of transition**. New payment methods are replacing the older ones, and users need to acquire knowledge of their features, as well as how to handle them safely, in order to be empowered to make use of all available e-Government and e-Commerce services.

7.2. Austria

Almost 50% of Austrians use smartphones to search for retail goods online but only **23% percent buy directly** via smartphone from e-Commerce sites. Browsers are still used for the majority of transactions, accounting for €0.4 billion sales, but apps are close behind, at €0.3 billion. Austria's most popular shopping apps include Lidl Plus and consumer-to-consumer selling platform Schpock.

At the moment, payments are being made by the following methods, ranked by prominence:

- 31 % are made by **card** (debit or credit);
- 28 % - through an **open invoice**;
- 16 % through a digital wallet, such as PayPal;
- 15 % through bank transfers;
- and, lastly, 7 % of online shoppers prefer still to use cash.

Debit cards are more popular than credit cards, with 1.12 debit cards per capita compared with just 0.39 credit cards per capita. Digital wallets are expected to be the fastest-growing payment method, with transactions forecast to increase at a compound annual growth rate of 25 percent out to 2021. PayPal is a well-utilized option for digital wallets, accounting for 12-15 percent of additional payment methods. Other methods look set to become increasingly prominent in the coming years; Google Pay is already available in the country for Android users and Apple is reportedly in talks with Payment Service Austria to launch Apple Pay. Physical products are typically paid for after they have been received via open invoicing, while digital products are more likely to be paid for at the point of purchase via card or digital wallets.

Electronic Payment Standard is a popular domestic online bank transfer payment service, accepted by 80 percent of Austrian merchants. At the point of purchase, the consumer logs into their online bank account and authorizes the payment before being returned back to the merchant's website. The funds are instantly debited from their bank account and the merchant receives an immediate payment confirmation. The service is offered by all major banks in Austria.

7.3. Bulgaria

There is no data for online payments specifically, but the overall transaction data reveals several interesting phenomena:

- Bank **transfers** are still the dominant way of payment (51%);
- **Cards are clearly underutilised** at 26%;

- Transfers by post remain surprisingly popular at 21%.

In e-Commerce, a very popular payment option remains a **cash payment upon delivery** – an option offered by all major delivery services.

7.4. Cyprus

Most organisations, public or private, that require a payment from a civilian or an organisation provide the option of online payment on their website. However, the **JCC Smart platform**, brings together about 450 public and private enterprises whose clients can make the payments through the platform. The platform allows the users to make multiple payments to different organisations, while requiring login details only for the JCC platform (Singe Login).

7.5. Germany

An online survey conducted in 2020 asked Germans aged 15-79 “Which of the following methods do you prefer to use when paying for a product you have bought online?". According to their answers, the most popular ways of paying online include:

- **Paypal** or similar providers 48%
- Buy on account 21%
- Credit card or direct debit 19%
- Mobile app 2%

However, according to the study "Online Payment 2020", payments by **bank transfer** are the strongest in terms of turnover.

7.6. UK

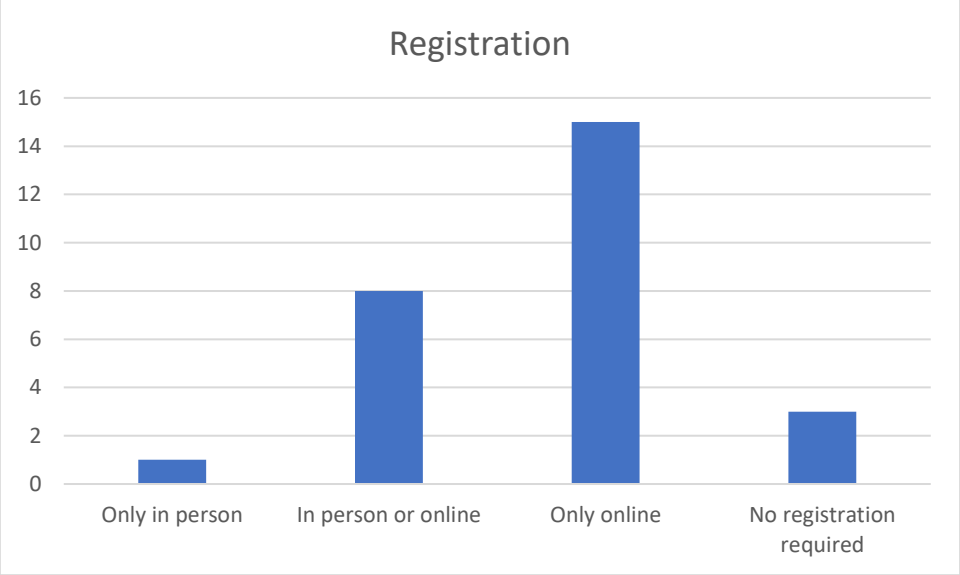
Business Matters January 2019 reported that, based upon 2018 data provided by Statista, the most popular method of payment online was by **card**, accounting for almost 52% of all online payments.

Based upon June 2019 survey data, however, Statista later reported that the picture had changed. **PayPal** was the most used online payment method (49%) with credit/debit cards the second most popular (37%). Digital wallets such as Google Pay, Amazon Pay and Apple Pay were used only by a small share of consumers.

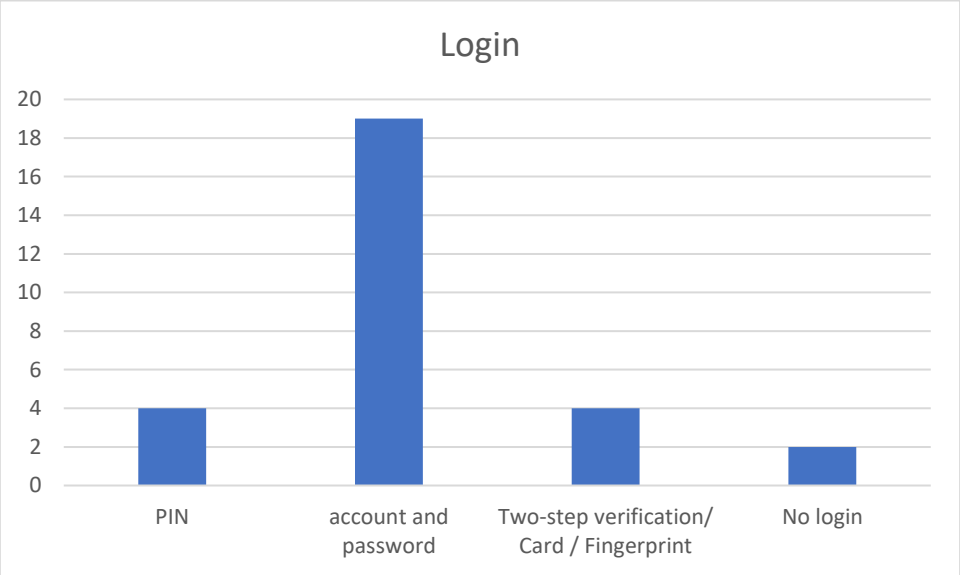
IV. E-services analysis

The partners surveyed 26 popular services in the partner countries. Prevalence was given to services considered most relevant to the target group of disadvantaged adults. E-Government services were given a priority over e-Banking and e-Commerce, although representatives of the latter two were included in every country. The main purpose of the surveyed e-services includes:

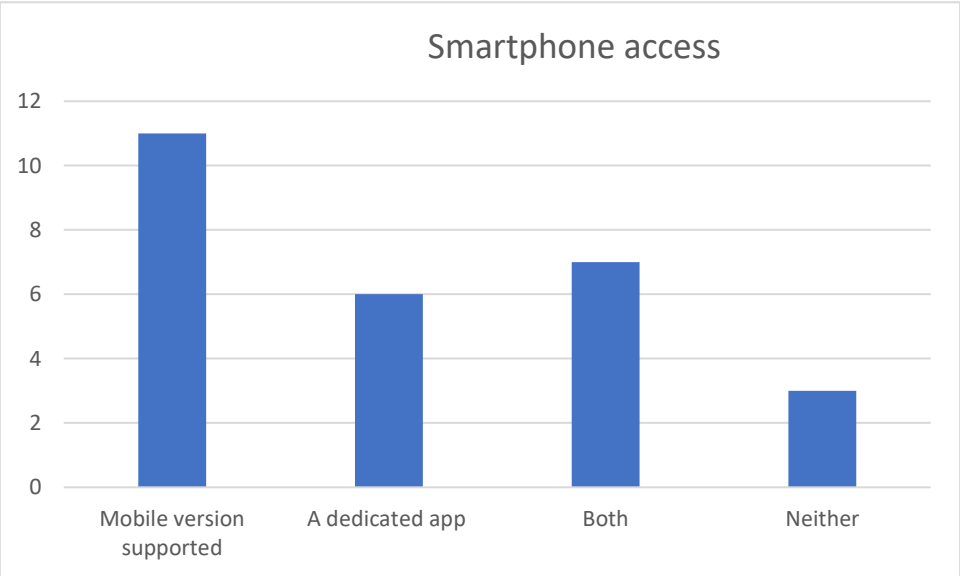
- contacting different public sector services (gateway);
- submitting and receiving financial information related to taxes;
- submitting and receiving information on different forms of social insurance: pensions, disability benefits, unemployment benefits, sick and maternity leave;
- arranging appointments with different government services;
- applying for different certificates and registration regimens;
- applying for a job;
- finding information on different local services available, such as public transport, a city map, regular news and weather updates;
- management of one's personal finances though the use of e-Banking;
- making payments for goods and services;
- making money transfers;
- buying and selling services and goods through the use of an online marketplace;
- ordering food and beverages.



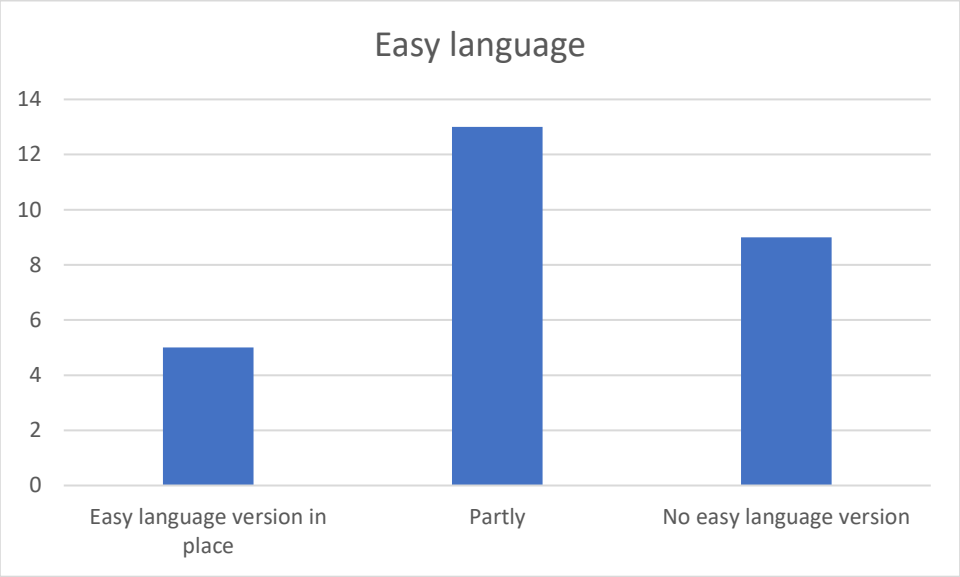
Based on the responses of the partners, it seems that after the outbreak of the COVID-19 pandemic there are very few services remaining where there is no possibility to **register** online. On the contrary – the ability to register for a service in person is increasingly becoming the exception. Users need to learn to adapt to the new environment – for example, the ability to seek technical assistance in person, on which some of the users may have depended in the past, cannot be relied upon in the new context. Users need to be able to deal with a fully digital environment.



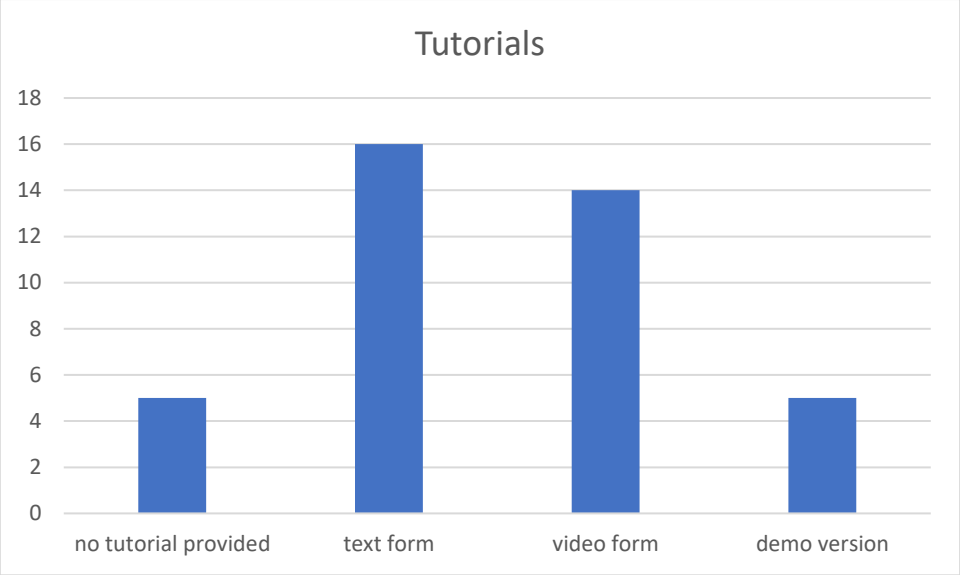
The majority of the services surveyed require the creation of an **account**, protected by a password. A few services are open to the public and require no login, while many e-Government and e-Banking services are protected by a PIN or some form of two-step verification. Because of that, it can be concluded that the ability to create a **secure password** and store it safely are of paramount importance, followed by an understanding of different forms of digital identity.



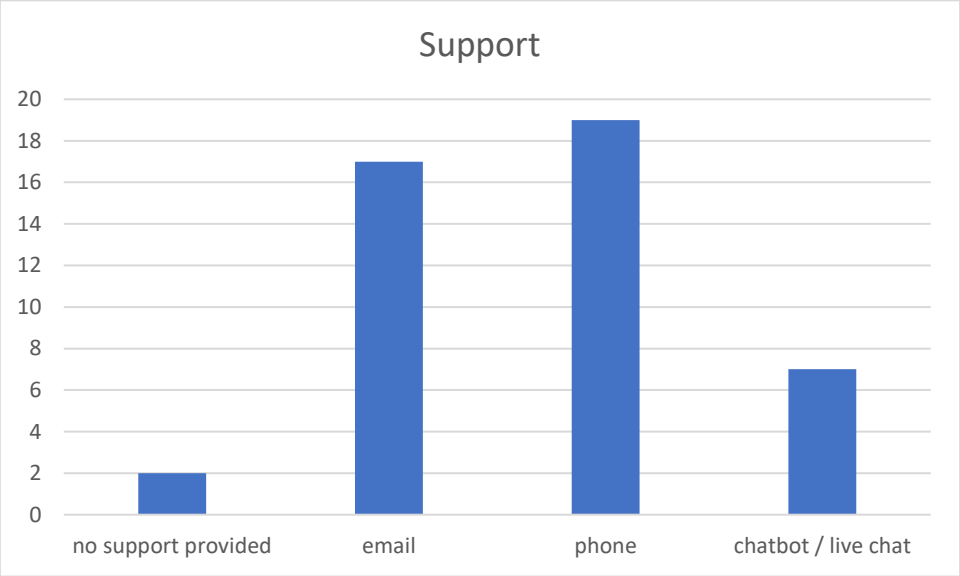
There are very few applications that don't have any support for mobile versions. A slight prevalence has been shown for **mobile versions** over dedicated apps. However, since a number of services can only be accessed by downloading a dedicated app, it cannot be said that a user is able to forgo the installation of apps and use only mobile versions of the services in a smartphone browser. A user needs to be able to find the current **apps**, download them safely and manage them in order to access many important services.



The research found **mixed results** in terms of website accessibility. Dedicated easy language versions, although increasing in numbers, are still a minority. Still, efforts to make the services more accessible are present in the majority of services. It cannot be neglected, though, that a considerable number of services do not attempt to adapt to users with a lower digital or linguistic competence. Users can be expected to encounter considerable difficulties when attempting to make use of these services, and are likely to require **extensive support**.

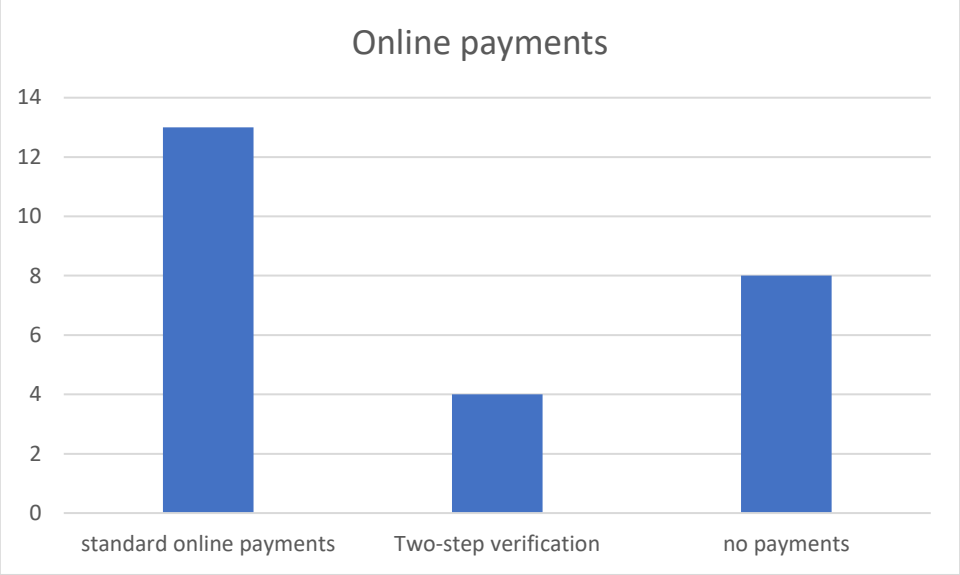


Tutorials are present in the vast majority of services surveyed. However, these tutorials vary in terms of accessibility. **Texts** in pdf or question and answer sections seem to be most popular because of the relative ease of creation and low cost required. This mode of assistance may be enough for some users, but is unlikely to suit well users with a lower digital or linguistic competence. The **video tutorial** presents itself as a useful alternative – fairly easy to create, but much more accessible. Demo versions of the services, although a great way of building competences by experimenting in a safe learning environment, are relatively rare because of the considerable effort required in creating them.



Nearly all services provide some form of assistance to the users. The most common form of assistance is the **phone line**, which allows the user to ask questions directly. This is also the most **accessible** way of assistance, since it does not require any additional competences. If the user doesn't formulate a request correctly, they can be asked clarifying questions. This is not the case with the other popular

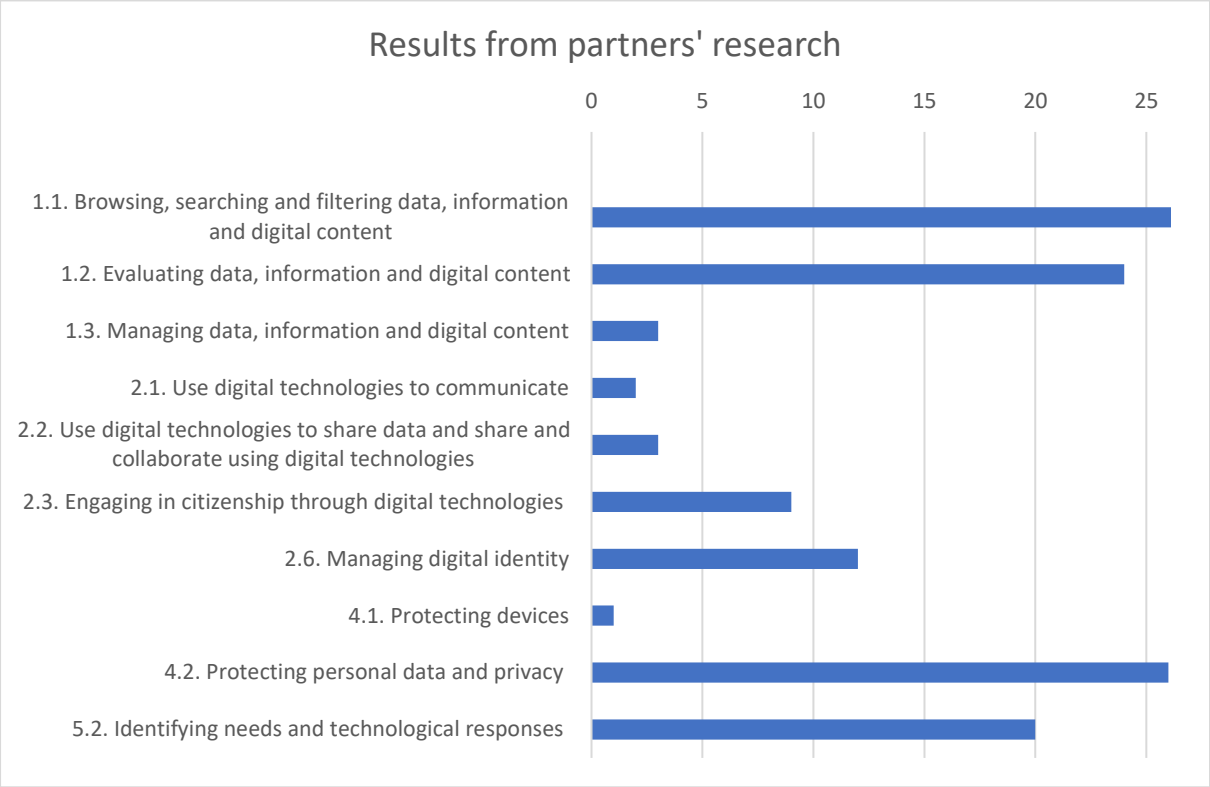
form of seeking assistance – **email** – where the inability to ask the correct question may lead to a prolonged exchange, taking days to weeks depending on the response rate of the service. A notable development is the introduction of chats into the support infrastructure of services. Some users might not be able to distinguish between a **chatbot** and a live chat, which is why it is advisable to bring their attention to the existence of both options.



Unsurprisingly, the majority of e-Government and e-Commerce services involve **online payments**. Only a minority – mostly in the e-Banking sector – are protected by a two-step verification process. Equipping users with the required **skillset** necessary for handling online payments safely is necessary to protect their personal data and finances. Unless users are certain they are capable of handling those transactions safely, they will be unlikely to make use of any features that involve payments. As demonstrated above, this is among the main reasons for a low use of such services.

V. Competence framework

Based on die Berater's experience with DigiComp 2.2 AT, a list of key competences was suggested for partners to review when examining e-Government and e-Commerce services. Each partner had to provide concrete behaviours the user would need to make effective use of the service. In addition to the competences suggested by die Berater, partners could include additional DigiComp competences. The initial selection of competences was confirmed by this overview. It should be noted that sometimes similar behaviours could be attributed to separate competences.



1.1. Browsing, searching and filtering data, information and digital content

- knowing what a **search engine** is;
- initial search engine use;
- search **preferences**: basic and advanced;
- recognising that a website is **secure** (eg incognito window & https)
- recognising different domains
- **pop-up windows**, concept of: working within, navigating away from, dealing with 'disabled in browser' scenario"

- recognising when you're **leaving a domain**, when the pages look alike, and whether the navigation is secure when sharing information;
- knowing that the website refers to the **correct service** (especially in the case of similar services);
- knowing the difference between an **online service**, an **app,** and a signing app;
- knowing how to use the **Google Play** and App Store;
- navigating through 'pages' in a tab (**tab vs window**);
- navigating through **menues;**
- inputting data in the correct **fields;**
- using **auto complete** lists;
- using different on-site **buttons;**
- viewing more info – image **link**, text link;
- using scroll bars; drop-down list; filters;
- knowing how you can find and use the **help centre;**
- writing a **review.**

1.2. Evaluating data, information and digital content

- deciding which information should be submitted to the concrete service;
- understanding the **proper channels** for communicating with a service;
- recognising bone fide emails;
- recognising **phishing** via messaging and email;
- recognising **copycat** sites
- deciding on veracity of product **reviews**/ratings;
- recognising fake or **misleading offers** on online marketplace platforms;
- knowing how to handle a **safe purchase**;
- **reporting** fake offers;

2.3. Engaging in citizenship through digital technologies

- understanding what **e-Government** is;
- understanding what i**nformation** needs to be provided;
- good knowledge of the how one is **identified** as a citizen (e-identity);
- understanding e-signatures, PIN, other identification methods;
- understanding the chosen method of **registration** and login;

2.6. Managing digital identity

- knowing how to **register** for a service;
- understand the purpose of and difference between different forms of **online identity**;
- knowing different ways of **authorisation**;
- understanding the use of **fingerprint/facial ID**;
- knowing how to create a **safe password**;
- knowing to turn features **on and off** if desired;
- defining when the service will **log** the user **out**;
- understanding the benefits of **enhanced security** options, such as 2-step verification;
- knowing how Facebook / Google is handling personal data in case of a **shared login**;
- knowing what kind of **personal data** the platform collects;

4.2. Protecting personal data and privacy

- knowing what kind of information users need and don't need to **share**;
- understanding different **cookies** settings;
- understanding **location** tracking and search history storing;
- understanding **safe password** choice;
- **storing** passwords: browser; offline repository;
- **signing out**;
- return visit **sign in**;
- **resetting** passwords;
- managing account **settings**;
- adding **bank cards** to an account;
- understanding the benefits of **2-step verification**;
- understanding the importance of **personal data protection**;
- understanding **GDPR** and local data protection laws;
- knowing the service's data protection **policy**;
- knowing how to **protect** personal data and privacy;

5.2. Identifying needs and technological responses

- ensuring the **correct app** is selected;

- accepting/declining receiving **notifications**;
- selecting the **appropriate service** from the platform;
- using **pre-filled forms** and pre-selection questions appropriately;
- being able to identify if features **work as advertised**;
- making use of **scanning document** features;
- selecting **payment options**;
- identifying how to **correct errors** in forms;
- managing several layers of **security.**

VI. Easy language

1. Concepts by countries

1.1. Bulgarian

There is no easy language concept for Bulgarian developed on the theoretical level, but some principles similar to Simple English and the German Leichte / Einfache Sprache can be applied to its practical use. The inputs for Bulgarian are the result of practical use of simple language for teaching migrants, an approach tested by CATRO in two projects.

1.2. German

Leichte Sprache is a specially regulated simple language. The linguistic expression of German is aimed at making it particularly easy to understand. The set of rules is published by the German association Netzwerk Leichte Sprache, which has been in existence since 2006. In addition to language rules, it also includes spelling rules as well as recommendations on typography and media use. Easy language is intended to make it easier for people who, for various reasons, have a low level of competence in the German language to understand texts. It thus also serves accessibility.

A similar concept is Simple Language (Einfache Sprache), which is less strictly regulated and closer to standard language, whose target group explicitly includes people whose first language is not German, in addition to people with cognitive impairments.

Simple Language texts have shorter sentences and simple sentence structures. Foreign words, stylistic figures that are difficult to understand, such as idioms or metaphors, are not used in Simple Language, nor are uncommon figurative expressions or allusions.

Simple Language texts enable a larger part of the population to access information or literature and are thus part of accessibility. Simple language is not about writing texts for educationally disadvantaged groups, but about adapting difficult texts to the reading skills of broad sections of the population.

Tabloid media usually have the level of Simple Language. If one compares Simple Language with the acquisition of a foreign language, it is approximately at level A2-B1 in the Common European Framework of Reference for Languages. Unlike ‘leichte Sprache’, ‘einfache Sprache’ does not have a fixed set of rules. The term "simple language" is not used systematically. Approaches to a definition can be found in the study Leichte Sprache - Einfache Sprache by Andreas Baumert and by the publisher Ralf Beekveldt, who sees a need for literature at a linguistic level between Leichter Sprache and Normalsprache.

In contrast to the Leichte Sprache, for example, the Einfache Sprache does not provide for any mandatory rules. Guidelines are to be understood as recommendations and allow authors the possibility of deviation. There is currently no association that publishes all the rules/principles for 'einfache Sprache' and gives them an official stamp of approval but there are many collections of advice and guidance. As 'einfache Sprache' does not follow a strict rulebook such as 'leichte Sprache' but rather provides guidelines, we will rather follow this approach in the My e-Start project – therefore in the following we will describe principles for 'einfache Sprache'.

1.3. Greek

There is not an equivalent tool of 'Basic English' in the Greek Language, while there is also no legal framework adopted by the Republic of Cyprus promoting easy language, in the public or private organisations' communications.

At a European Union (EU) level, there is also no mandatory legislation about the use of Basic Language, but is encouraged that is promoted and implemented by member states. Additionally, the EU Charter of Fundamental Rights, Article 41, recognises the "Right to Good Administration." According the article, every EU citizen is entitled that their "*affairs handled impartially, fairly and within a reasonable time by the institutions, bodies, offices and agencies of the Union*".

On the same note, the European Ombudsman, Emily O'Reilly, has advocated for the importance of plain language to facilitate civilians' access to information as well as communication between bodies and member states. O'Reilly noted on the matter, "I promote the use of plain language by the EU administration for a very simple reason: it is a requirement of a good administration." O'Reilly maintains that Article 41 implies 'the right to receive clear and effective communications from the EU's institutions.'

Despite the lack of legal framework both at a European and national level, for the purposes of this project - which aims to promote accessibility and a user-friendly experience for its participants - a series of different, existing tools and writing guidelines can be used to at least set the basic principles for what could consist a 'Basic Greek' equivalent.

According to George Babiniotis, a renowned Greek linguist, the Greek language has about 100,000 words and 300,000 meanings. Other experts put the Greek vocabulary to half a million words, noting that due to the rapid scientific developments the vocabulary has seen a great expansion in the last decades.

While it is difficult to count the exact number of words for each language, it has been consistently concluded that every language has its core words that are used on a daily basis by the people. For the Greek language, it is estimated that there are 800 – 1,000 common words that are mainly used by its speakers. These words consist the 'Basic Vocabulary' and is also the first to be taught in Greek classes for non-Greek speakers.

The Microsoft Greek Style Guide provides several examples about common English words, how they should be translated in Greek and which words should be chosen instead of others.

1.4. English

Ogden's Basic English itself is a concept which originates within the UK. However, Ogden's simplified language was released in 1930 – many decades before the arrival of the world wide web, and even longer before there was a device capable of accessing it in every home… let alone everyone's hand! Moreover, the main focus of our e-Services work here is e-Government. The period 2019 to 2021 is rather pivotal in terms of these online services – indeed for the online presences of all public sector bodies.

On 23 September 2018, new regulations (GOV.UK) came into force. These apply to UK public sector websites and mobile applications, which must achieve at least level AA of the 'Web Content Accessibility Guidelines' (WCAG 2.1) by the following deadlines:

- websites published on/after 23 September 2018, by 23 September 2019
- websites published before 23 September 2018, by 23 September 2020
- apps, by 23 June 2021.

The Guidelines are based around four principles:

Principle 1, Perceivable: that the services are recognisable and usable for users "with the senses that are available to them". This includes requirements such as 'alt text', video captions and audio/video transcripts, logical structure, text colours which show up clearly against background colour, functionality which is retained at specific zoom-levels, no text images, and responsiveness to changes in orientation.

Principle 2, Operable: that users can find and use content regardless how they choose to access it. This includes working for keyboard-only users, allowing play/pause/stop for moving content, absence or optional disabling of flashing content, descriptive titles for pages/frames, descriptive links so destinations are clear (for example, 'explore guidance on plain language' rather than 'click here'), meaningful headings and labels, and easy disabling/change of shortcut keys.

Principle 3, Understandable: ensure people can understand the content and how the service works. This includes the use of plain English (further elaborated below), short sentences, recognisable words/phrases (or explanations if unavoidable), explanations of all abbreviations/acronyms (unless commonly used, for example UK, EU, VAT), and visible/meaningful labels for all form fields.

Principle 4, Robust: ensure content interpretable by a wide variety of user agents (browsers, assistive technologies). This includes used of valid HTML, code information for assistive technologies, and clear information/interactivity of status messages and modal dialogs.

In terms of our considerations below, principle 3 and some aspects of principles 1 and 2 are most pertinent.

Plain English is mandatory on all GOV.UK sites. Whilst a list of 'Words to avoid' is defined, the guidance stresses that not only is the list not exhaustive, but that plain English is "a whole ethos… a way of writing". We expand with specifics later, but an overarching point of guidance is to

"*Write conversationally – picture your audience and write as if you were talking to them one-to-one but with the authority of someone who can actively help*".

GOV.UK guidance is based upon an average person who speaks English as a first language. It asserts that by age 9 we are building up our 'common words' vocabulary, which we use every day, comprising: a primary set of around 5,000 words; a secondary set of around 10,000 words.

The guidance states that web content should be kept simple. Indeed, it specifies to write content for a 9 year old reading age. Common words and recognisable phrases should be used – or an explanation provided if this is not possible. We recognise the shape of common words and so do not read one word at a time, rather, we scan and bounce around (especially online) and anticipate words.

Though not directly referenced by GOV.UK, it would seem remiss to omit mention of the Plain English Campaign. Active since 1979, the campaign asserts that it has assisted thousands of organisations to improve the clarity of their public information. It lists many organisations which have achieved its Charter Mark, including: government departments and councils; banks, building societies and financial organisations; utility companies; health and housing organisations; police forces and fire and rescue services.The campaign is independent and, whilst its work is funded by its commercial services such as editing and training, they do provide a variety of free guides.

WCAG 2.1 and GOV.UK guidelines largely reflect the campaigns guidance. As these more current sources relate directly to legislation for all the public sector, and are at the same time both specific to and more encompassing for online content, we shall focus on these for the remainder of this section.

However, the campaign's free guide 'The a-Z of alternative words' (2001) may prove helpful if GOV.UK's list of 'Words to avoid', discussed earlier and described as "not exhaustive", proves insufficient.

2. Checklist

The following checklists have been compiled based on partner inputs. Because the concept of easy language in general follows similar principles focused on facilitating the understanding of the reader, it might prove beneficial to adhere to most principles included in the list, not only to the ones explicitly mentioned for a given language.

Vocabulary	Bulgarian	German	Greek	English
avoid foreign words	x	x	x	x
avoid technical language	x		x	x
avoid rare, dialect, slang words	x	x	x	x
aviod long or compound words		x		x
avoid abbreviations	x	x		
aviod filler words (maybe, but, therefore)		x		
avoid methaphors and fixed expressions	x			x
name concrete items, not general categories	x		x	x
use descriptions to explain complicated terms	x			
use a consisent language (avoid synonyms)	x	x		
use terms from the same subject area		x		
give preference to verbs	x	x		
aviod nouns		x		
aviod adjectives		x	x	x
avoid contractions (e.g. could've)				x

Grammar	Bulgarian	German	Greek	English

use short sentences	x		x	x
use the active voice, not the passive one	x	x	x	x
use positive, not negative statements	x	x		
avoid subordinate clauses		x		
avoid using the conditional	x			
use commas and punctuation marks correctly			x	
refrain from back-references such as the former and the latter		x		

Layout	Bulgarian	German	Greek	English
use a simple font, not italics	x	x		x
be consistent with the font choice	x	x		
use a larger font size	x			
increase line spacing	x			
use British, not American spelling				x
avoid amphersands				x
avoid hyphenation		x		x
avoid using special characters		x		x
for page titles, do not use more than 65 characters including spaces				x
use a lot of headings and sub-headings	x	x		x
underline important parts	x			x
use emphassis sparingly		x		x
do not justify the text	x	x		
never use an image as a background for text	x			

use a linked table of contents for texts longer than 3000 characters		x		
use larger text for hyperlinks so that they can be easily seen			x	
avoid putting different hyperlinks next to each other			x	
use different colours to distinguish between visited and unvisited links			x	

Numbering	Bulgarian	German	Greek	English
use numerals, not words	x	x	x	x
when starting the sententce with a number, spell it out				x
use arabic, not roman numerals	x	x		
round-up large numbers	x			
use a 24 hour framework for time, not am/pm	x			
divide large numbers by spaces	x	x	x	
avoid using high numbers	x	x		
use a zero if there is no value before the decimal				x
use ‘to’ for numerical ranges				x

Whole text	Bulgarian	German	Greek	English
all text should be proofread to avoid errors			x	x
the user should be adressed directly ('you')	x	x		x
use inclusionary language			x	
use objective language				x
illustrate the meaning by concrete examples	x	x		
use appropriate images to illustrate your point	x	x		

make only one statement per sentence		x		
use a maximum of 14 words per sentence		x		
avoid bulleted lists within sentences		x		
each paragraph should contain one idea	x		x	x
each paragraph should contain 100-200 words			x	x
organise the information in a meaningful way		x		
state a rule first and then the exception		x		
place important information at the beginning of the text		x		
repeat important information		x		
omit unnecessary information		x		
limit the use of references	x	x		

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