

Background

Even though access to information and communication technologies (ICT) has improved in all regions of Europe over the past few decades, inequality of opportunity must be recognized. The term "digital divide" means that not every population group has the same opportunities to access information on the internet (access) and use it for themselves (exploitation). Due to the major changes, particularly driven by the Covid-19 pandemic, jobs, education and media, politics, and administration have changed fundamentally, causing the **digital divide** in society to grow. The social gap is exacerbated by developments on the internet that are harmful to democracy, in particular disinformation, fake news and hate speech (e-teaching.org, 2023; kurz&knapp, 2017; Medienkompetenz, 2023).

The European Union aims to overcome and avoid a digital divide in the future and to develop a "**digital society**" in which all citizens can participate in digital advantages. As a result, the digital world is in harmony with democratic rights and values (European Commission, EU and international partners put forward a Declaration for the Future of the Internet, 2022). To achieve this goal, the European Commission relies on training digital skills for all citizens, which go hand in hand with the digital transformation of everyday life, the world of work and learning systems that are mutually dependent and beneficial.

It is not about the development of one-off learning arrangements but rather about the continuation of the concept of "**lifelong learning**" that the European Commission already mentioned in 2001 in the "*Memorandum on Lifelong Learning*" (Commission of the European Communities, 2000).

Learning is not only institutionalised; actually, 80% of learning is non-formal and informal. This means that learning takes place mainly outside educational institutions, and people often do not have the intention to learn. Moreover, focusing exclusively on digitalizing formal learning processes excludes many people. This is because the institutionalised educational provision is often limited to certain target groups, e.g., children and trainees or certain professional groups. So not everyone has access or the financial means to participate in educational provision. Another problem is that institutionalised education often does not keep pace with societal developments. For example, although it has been discussed for years that financial education should be included in the school curriculum, the integration is slow.

An important **partner for the digital society** in this context is not only the traditional educational institutions but, above all, the other social support structures, such as civil

society organisations, companies, and universities. And this is exactly where the Erasmus+ project "**University and Business Inclusive Digital Learning Coaches (UnInLeCo)**" comes in. The UnInLeCo project aims to set up and consolidate a **social support system that encourages disadvantaged groups to further train their digital skills** and develop an attitude conducive to learning.

The project was developed due to the challenges of the Covid-19 crisis in the partner countries. The challenging situation and problems in general and concerning the partner countries are described below.

Challenges due to the Covid-19 Pandemic

The Covid-19 crisis has shown that education systems are unprepared for major digital transformation processes. The crisis has led to the sudden use of digital media and IT applications to communicate and deliver education by schools and other bodies, such as civil society organisations. The institutions have used various means to overcome the crisis. For example, schools have moved lessons to the Internet or sent learning materials by post. In the meantime, many institutions also have learning platforms, partly through cross-school cooperation or media competence centres in the regions or use systems such as YouTube to provide digital learning media.

The sudden change in how education is delivered has particularly affected pupils and parents from economically disadvantaged neighbourhoods with immigrant and socially disadvantaged backgrounds. They tend to have weak digital skills, sparse hardware equipment and, in some cases, little motivation for using written communication. While the cliché says that precisely these target groups are addicted to mobile phones, studies show that digital participation in this group of people is insufficient. Rather, the disadvantaged groups have almost no knowledge of the general and systematic digital means of learning, such as learning platforms, video conferences, and the systematic use of online resources. In addition, many parents of pupils do not have access to wireless internet and are mostly limited to volume-limited mobile data plans and cell phones, which are often outdated. There is also a lack of knowledge about the hardware and software and the general concepts and requirements for the digital learning tools provided. As a result, the crisis increased the exclusion of the most vulnerable groups from education and non-formal and informal learning opportunities. In addition, the risk of general social exclusion increases due to higher individual and societal costs.

The European Commission also points out that the Covid-19 crisis highlights one of the most important prerequisites for effective digital education and training: connectivity and appropriate digital equipment for learners and teachers; confidence

and competencies in using digital technologies to support learning processes; cooperation and exchange of best practices and innovative teaching methods (European Commission, Digital Education Action Plan (2021-2027), 2021).

Experiences from this period show that educational institutions that had previously invested in digital capabilities were better prepared to adapt and expand their pedagogical approaches, keep learners engaged, and continue learning. In particular, the emergency confirmed that all educators must be able to leverage digital technologies in the learning processes and ensure that everyone can participate in digital education. Teachers and learners also need to develop the skills and know-how for this different way of learning. We are now moving beyond the unplanned and emergency phase affecting education providers and digital collaborations.

The needs analysis of the project partners with a view to the young target group of pupils and parents resulted in the following findings for the partner countries:

In **Spain**, the social hardship following the economic recession has weakened the access and retention of disadvantaged groups in the education system (Escorihuela, 2016). Therefore, universities and businesses need to cooperate with civil society to re-engage these groups.

The closure of Spanish schools at the beginning of the lockdown forced teachers, students, and parents to adapt to the new improvised methodologies for learning. In addition, the situation forced online training for everyone, and most Spanish students had to finish the courses from home.

To focus on what was happening to Spanish schools' teaching and learning methods during the COVID-19 pandemic, we can start by discussing the benefits of a strong relationship between families and schools. It is evidenced by creating cooperation and communication links, facilitating the management of shared educational challenges such as online education in times of crisis (Serrano-Díaz, Aragón-Mendizabal, & Mérida-Serrano, 2022). However, the situation changes when this communication must take place in families with fewer economic and social resources. Many studies demonstrate the great inequality of access to education that generates associated problems of social significance in contexts of low socioeconomic level (López-Noguero, García-Lázaro, & Gallardo-López, 2021). Cabrera argues that the online telematics teaching that took place in Spain during COVID-19 increases educational inequalities among students since it reveals the material deficiencies of electronic devices in the most disadvantaged homes, with lower income and fewer resources, especially single-parent households, even more so with parents with compulsory

secondary education or lower, from public centres and especially from the southern communities of Spain, including Galicia and the Canary Islands (Cabrera, 2020).

A report of the Fundación FOESSA (2021) also identifies the “digital divide” as a new driver of social exclusion and inequality. Not having a sufficient connection or a connected device and the skills to manage in the digital environment make a strong difference in an increasingly digitalized society: it means a loss of opportunities in areas such as employment, education, public aid, or personal social relationships. This reality affects 46% of households in a situation of exclusion compared to 35% of households.

Educational policies have tried with relative success to curb the most negative impacts of the new educational gaps. The transfer of education from the school to the family sphere during the state of alarm has evidenced an already existing inequality, but one which in these exceptional circumstances takes on new forms: gaps in access to the digital connection, in the use of technologies and, therefore, greater inequality of results. In addition, in households with Roma children, the lack of Internet connection (44%) is four times higher than in the general population. In households with disabled children, it is twice as high as in those without. The Fundación FOESSA report concludes that the pandemic has intensified the existing educational gaps in a context marked by high levels of inequality in access to training, learning conditions, and educational results (Fundación FOESSA, 2021).

In **Slovenian** schools, cooperation with students during the Covid-19 pandemic took place virtually through video conferences, in online classrooms, by e-mail, and with video explanations. In addition, the Ministry tried to solve the problems with technical equipment by introducing the DIGI school project, which aims to reach children from socially disadvantaged areas. With the help of donors, a larger number of computers were collected for students who need computers for distance learning but cannot afford them (Ermenc et al., 2021). Children also had an opportunity to borrow computers from schools all over Slovenia.

The main problems with using a computer were that some had to share it with other siblings, that they did not know how to use it or did not have an appropriate environment to learn to use a computer, and problems with the Internet connection. Children with learning difficulties received additional (individual learning support) via distance learning.

Support for teachers on how to implement online learning was quite good. Materials and support tools supplied by the Ministry were available to support teachers in online teaching. As a result, some teachers were better prepared to teach, and some were

less prepared. Nevertheless, according to the TAILS survey 2018, 67% of Slovenian teachers felt ready to use ICT for teaching.

One of the problems that might be worth noting is that the teachers prepared videos using the knowledge and technology they had at home. As a result, often, these recordings were of poorer quality and sound, which could be disturbing for students with certain deficits.

In Slovenia, the target group of Roma and migrant children have suffered from the Covid-19 crisis. The position of intercultural mediators, developed in a preliminary project, is ideal for creating such a connection with the beneficiaries if supplemented with a compact training program for digital skills transfer.

In **North Macedonia**, the spread of Covid-19 impacted almost all parts of society, especially limiting the distance for encounters. For example, national health authorities In North Macedonia made a lot of efforts to use the available technology to provide better services and to successfully manage the health system. In this line, the WHO and the UN in North Macedonia have come up with a joint program to support this activity, “Safe and Innovative Health Services during the Covid-19 pandemic in North Macedonia”, implemented by UNICEF, WHO and UNFPA, funded by the Covid-19 Fund (United Nations North Macedonia, WHO and UN promote the use of digital technologies to improve immunization services in North Macedonia, 2022).

In addition, educational institutions were among institutions that suffered a lot from this pandemic. As a result of the spread of Covid-19, all schools were closed on the 10th of March in North Macedonia by the Government, and all children had to stay home. However, most schools were unprepared to shift their learning and teaching process into a distance learning mode from home because of many difficulties. Moreover, apart from the challenges, this pandemic shed light on the incompetence of some institutions in providing suitable conditions for their staff to be prepared for the delivery of the teaching and learning process at a distance. But, also with the educational layers or study groups, the following segment was more volatile to these changing modes of teaching and learning delivery:

Primary education seemed to be more volatile to the need to shift from onsite to online classes due to many difficulties. First, schools in rural areas faced the problem with internet access or the low speed of the internet, which made it difficult for more online classes to use any online platforms for organizing online classes. Many families did not have a PC, laptop, or any other hardware to follow lectures, connect with their virtual classes, and follow the learning process regularly. In this line, many older staff lacked the digital skills to cope with this new situation. The situation was a bit better in

urban areas where the internet connection was more stable. As a result, the Ministry of Education had to develop a platform that would be used as a national platform for organizing online learning during pandemics.

The situation was quite the same in secondary schools; they were also unprepared for this forced learning transition from onsite to online delivery of the learning and teaching process. It is worth mentioning that most families had children in primary and secondary schools, and they only had at their disposal just one digital device that could not be used by both children simultaneously, which worsened the existing bad conditions. Apart from children, parents had a more difficult burden because they needed to secure paying high internet bills apart from securing any devices to help the process of online learning.

Some universities were almost prepared for this situation, especially some private universities that used some Learning Management Systems (LMS), and because of the digitalization of many services, students and teachers were accustomed to such an online learning environment.

Besides the hardware and software challenges, there was the need for training the teachers on how to use such applications. For example, most of them had difficulty assigning assignments using online platforms. They could just meet the students online but could not assign and get assignments, let's say, collecting them in special folders, etc. Consequently, the Ministry of Education in North Macedonia assured that the 2020/2021 school year, amid growing uncertainties due to the Covid-19 pandemic, where over 270,000 high school and primary school students, of which 19,000 were first-graders, were to start school online at home (Civil.Today, 2020), communicating with their teachers via the national distance learning platform. Therefore, the national distance learning platform aimed to help systematize and unify the educational process. However, the issue of educational access continued, particularly for vulnerable populations such as children at risk of poverty, Roma children, and children with disabilities (Programme United Nations Development, 2020).

Managing pupils' well-being was an important issue due to the Covid-19 pandemic condition and the well-being of children and their parents. People's lives have been impacted in many facets by this pandemic. Many psychological issues and unanswered questions surfaced, leading to demotivation and concern. All communities had to confront and deal with the Covid-19 epidemic, which created certain difficulties for them (Zeqiri, Kareva, Alija, & Pejic Bach, 2022)

Children's mental health has been badly impacted by movement limitations, quarantines, shifting to distance schooling, and reduced sociability. With the transition

to distance learning, teachers saw a rise of 25% in students' tension and anxiety in secondary schools and an 18% rise in tension and anxiety in elementary schools (United Nations North Macedonia, Not all children are accessing vital services due to the COVID-19 pandemic putting them at continued risk, 2021).

Therefore, almost all institutions faced challenges because of Covid-19 isolation and decreased face-to-face contact, resulting in the need for distance communications. Patients needed to communicate with their doctors, service providers with their clients, business with their stakeholders, teachers with their pupils and students, etc. This pandemic evoked the need for more digital perspectives and acquiring more digital skills to cope with such unpleasant situations.

The extreme interculturality of the North Macedonian society, including the Roma minority, requires a concentrated effort by opinion-forming educational institutions to address societal contradictions and divisions. One approach is to expose students from all walks of life to social phenomena and design social innovations to mitigate such phenomena.

In **Germany**, the regular school programs were mainly stored on the Internet, which did not sufficiently reach the target group of students with a refugee or migration background during the Covid-19 crisis as many parents lacked hardware, software, and conceptual understanding of teaching in a virtual environment. This need is currently being met by collaborating between universities, municipalities, and companies.

The focus on the children of our society gives a good impression of the disadvantages in society. However, it is not only the level of education, origin and income level of the parents that influences the digital competence of young people in Europe. Rather, it is also well known that people from rural areas have fewer digital access options and that certain core demographic dimensions, such as gender, age, and disabilities, shape the digital divide. Moreover, especially during the Covid-19 pandemic, it became clear that not all adults participate equally in the digital transformation. Hence, it is important to consider these attributes because they shape a democratic, digital Europe. The following observations were made in the partner countries during the Covid-19 crisis.

Additionally, seniors are often excluded from the digital world in Germany, even though digital media could make everyday life easier. There are now initiatives such as computer and mobile phone courses or online platforms suitable for seniors, but these are useless without internet access. Because the main reason for non-use is technical-structural barriers, especially in rural areas and retirement homes. In contrast to the

young target groups, there is also the hurdle that the seniors are often critical of new media (Bank für Sozialwirtschaft, 2023).

Although the “digital divide” between large and small municipalities in Germany is still substantial, also because of “digital refuseniks” and “digital laggards” (Initiative Stadt.Land.Digital, 2018), the rural population has caught up in terms of their level of digitalisation. Even though they are lagging in the competence and use of digital media, their openness towards digital media has increased greatly (Initiative D21, D21 Digital Index 2018/2019, 2019; Initiative D21, *Wie digital ist Deutschland?*, 2020; Roßmann, 2020; Bürger & Grau, 2021).

However, around 48 per cent of Germans would like to be more involved in the digital world, for example, when buying tickets via the app, booking a doctor's appointment online or using smart home applications. The study clarifies that digital technologies are changing everyday life and that many people face challenges in coping with everyday life. The study concludes that more offers are needed that promote skills in dealing with digital technologies (Digitaltag, 2023).

Observing and systematically recording this disadvantage is important because an OECD study from 2019 shows that inequalities can increase because of digital transformation, and people can lose touch. Strengthening skills through a comprehensive and coordinated political approach with strategies for skills development as a central element of the European digital transformation is therefore indispensable (OECD, *OECD Skills Outlook 2019*, 2019).

Characteristics of people in the digital divide

In summary, it can be concluded from our study analysis and country-specific problem research that the following characteristics influence the opportunities for participation in a digitally shaped world:

Geographical location: There is also a digital divide between town and country. Even though the digital divide has narrowed considerably in Europe over the last decade, for example, through access to basic broadband, there is a risk that rural areas have less access and benefit less from digital progress than European cities (BBSR, 2017; Nüßlein & Schmidt, 2020; Masterson, 2022).

With the publication of the Briefing “*Bridging the digital divide in the EU*”, the European Parliament is working on closing the digital gap in rural areas (Negreiro, 2015; DigitalEurope, 2020; European Committee of the Regions, 2021). One instrument to increase the transparency of indicators on Europe's digital performance is the “Digital

Economy and Society Index (DESI)” (European Commission, The Digital Economy and Society Index (DESI), 2023).

Level of education: The lower the level of education, the less digital competence is developed. Studies show that the number of years of education is strongly related to the level of digital skills. For example, people with no, low, or middle school qualifications have below-average digital skills. Particularly in the case of educationally disadvantaged population groups, there is a risk of being left behind in all areas of life due to increasing digitization (Bachmann et al., 2021).

Economic class: The level of education often affects the economic class. Studies show that income also greatly impacts how much one dares to do in the digital future. High-income people use digital devices more frequently because they can afford the latest devices and internet connections. In other words, income determines access to the Internet (Nüßlein & Schmidt, 2020; bidt, 2023).

With the “*Digital Education Action Plan 2021-2027*”, including the “*European Framework of Digital Competence (DigComp)*”, the European Commission plans to improve the digital readiness of key multipliers and educators, as well as risk groups (European Commission, 2021; European Commission, DigComp Framework, 2023). Furthermore, with the Erasmus+ Program, the European Commission wants to focus on the topic “*Digital Europe - a European fit for the digital age*” from 2019 to 2024. In this context, an outstanding initiative is the European network “All Digital – enhancing digital skills across Europe”, which empowers digital disadvantage groups to build digital skills and exploit the benefits and opportunities of digital transformation (All Digital, 2023).

Writing and language skills: Especially people with a refugee or migration background often have an educational disadvantage, also in digital competence building. Therefore, people with language barriers and illiteracy will likely lose touch in the digital world. Regarding language skills, there is a connection with a person's origin. There is a risk that people with a migration background are less involved in a social society (Borde Prof. Dr., Engelhardt, & Schulz, 2021; Bachmann et al., 2021; European Commission, Action plan on Integration and Inclusion 2021-2027: Questions and Answers, 2020; European Commission, Migration Whitepaper: a new approach to digital services for migrants, 2021).

People with a migration background are also particularly disadvantaged. As a result, an Action Plan for Integration and Inclusion for 2021 to 2027 was adopted, and the “*White Paper on Migration*” was published, which makes a strategic contribution to improving integration and shaping future EU migration policy. The focus is on ICT-based solutions,

participatory design and co-design of these solutions, and end-to-end cooperation between the various actors involved in the integration of migrants into European societies (European Commission, Action plan on Integration and Inclusion 2021-2027: Questions and Answers, 2020; European Commission, Migration Whitepaper: a new approach to digital services for migrants, 2021).

A person with disabilities: Even though digitalisation is a great opportunity for people with disabilities, access barriers must be removed, and investment must be made in digital skills training. Furthermore, it is important to raise society's awareness of the barriers online, especially those who develop digital media, hardware or IT programmes, so that no new barriers are created (Aktion Mensch e.V., 2020; Taskiran, 2021; BMBF, 2023).

The European Commission published a study on inclusive web accessibility for persons with cognitive disabilities (European Commission, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 2021; European Commission, Commission publishes a study on inclusive web-accessibility for persons with cognitive disabilities, 2022). However, the Social Europe Initiative criticises that the European Commission did not sufficiently consider the needs of people with disabilities at the conference on the future of Europe. This was evident, among other things, in the participation opportunities at the conference and especially in the lack of accessibility of the online conference platform (Moledo & Couceiro, 2022).

Age: Age also influences the level of digital skills. Studies show that the digital skills of children and young people are overestimated. Even if the 14- to 24-year-olds are the supposed "digital natives" who grew up with the Internet and significantly influenced its technical innovations through their actions and interactions, their digital competence is usually insufficient. At the same time, there is a public debate about the fact that digital skills are usually lower, especially among the older population. They are often referred to as "digital immigrants": People who were born before 1980 and therefore have to learn how to use digital technologies as adults of their own accord (Bank für Sozialwirtschaft, 2023; DIVSI, 2018; Nüßlein & Schmidt, 2020; OECD, Promoting Active Ageing in the Digital Economy: Inclusion, Adaptation and Innovation, 2015; Hansen Dr., Schäfer, & Kaspar Dr., 2021).

Demographic change makes it necessary for the European Commission to address the ageing society. With the "Digital Agenda for Europe" from 2010, the European Commission wants to face these challenges (European Commission, Mitteilung der

Kommission and das Europäische Parlament, den Rat, den Europäischen Wirtschafts- und Sozialausschuss und den Ausschuss der Regionen, 2010).

Since the Covid-19 pandemic, support for seniors has also been focused on political responsibility. For example, a Council of Europe publication entitled “*The digital age? I'm part of it too! Media and information literacy: the key to guaranteeing rights older people on participation in the digital age*” provides an overview of the topic as well as good practices and draws attention to age-appropriate media education (Hermans Prof. em. Dr., 2022). The study also presents a study of the Council of Europe from 2021 entitled “*Against Ageism and Towards Active Social Citizenship for Older Persons*”. It examines the influence of the corona pandemic and, in particular, the use and necessity of digital technologies to ensure social participation and active citizenship of older people as a demography-promoting element of society and addresses age-phobia in a digitally shaped world (Council of Europe, 2021). With a view to “*Europe's digital decade: digital goals for 2030*”, digital citizenship of adults, therefore, requires freedom of choice, protection and security, solidarity and inclusion, participation, sustainability and, above all, in the transformation process, the focus must be on people in order to promote democracy (European Commission, Europe's Digital Decade: digital targets for 2030, 2023).

Gender: Although gender-specific differences in childhood and adolescence are small, they widen by adulthood. Therefore, another vulnerable group are women. Not only does the OECD study “Bridging the digital gender divide – include, upskill, innovate” (OECD, Bridging the Digital Gender Divide, 2018) draw attention to the problem, but also the European Commission shows that women are less likely to have specific digital skills and work in ICT than men. According to the “*Women in Digital (WiD) Scoreboard 2020*”, only 18% of ICT professionals are women, and the gender gap is present in all 12 indicators measured (European Commission, Women in Digital Scoreboard 2020, 2020; betterplace lab, 2017; Initiative D21, Digitales Leben, 2020; European Commission, Women in Digital Scoreboard 2021, 2021).

The European Institute of Gender Equality (EIGE) stands up for gender equality and digitalisation in the European Union (EIGE, 2018). Moreover, several initiatives of members of the European parliament promote digital gender equality, such as “#EUDIGITALMANIFEST” and “Euractiv” with the event “Closing the Digital Gender Gap: Women's Participation. In The Digital Economy” (Manifesto, 2023; Euractiv, 2022). Furthermore, with the “Factsheet in Focus: EU Measures for Women”, the European Commission prepared all the activities to increase equality between women and men in the digital world (European Commission, EU Action for Women, 2020).

The disadvantages cannot be compensated with institutionalised learning offers; rather, an approach suitable for everyday life is needed that is oriented towards the lives of those affected. In the "*Memorandum for Lifelong Learning*", above all, "learning in social environments" was seen as a field of action for the promotion and design of transformative change processes in societies (Commission of the European Communities, 2000). The approach is briefly explained in the following, and the actors for lifelong learning are introduced.

Learning opportunity in social environments for digital society

In addition to the obvious, institutionalized, and formal educational processes, learning also occurs in other contexts. Learning in a social environment should be mentioned here as a concept. It describes learning in activities outside of institutionalized learning processes, like in school, company, and adult education, which are particularly important in times of global change processes. Typical examples are voluntary work, cultural, social, and ecological projects, family work or leisure activities such as playing sports or attending cultural events (Trier et al., 2001; Stahl, 2003). Additionally, digital spaces become places of social learning and opinion formation (Amadeu Antonio Stiftung, 2019).

The European Commission published the term "learning in a social environment" for the first time in the "*Memorandum on Lifelong Learning*". There, three basic categories of "appropriate learning activities" are distinguished:

- 1) **Formal learning** occurs in educational and training institutions, leading to recognized degrees and qualifications.
- 2) **Non-formal learning** occurs outside mainstream education and training systems and does not necessarily lead to formal qualifications. Typical examples are "learning-on-the-job" and art, music, and sports courses, as well as activities in civil society, such as youth organisations, trade unions and political parties.
- 3) **Informal learning** is a natural part of daily life. However, unlike the other two learning activities, it is not necessarily intentional learning, so the learners themselves may not perceive it as increasing their knowledge and skills, yet it shapes their abilities (Commission of the European Communities, 2000; Stahl, 2003).

Learning in a social environment also enables excluded and disadvantaged target groups to participate in social development and acquire digital skills in a playful way related to their daily life and digital practices.

This is especially important because another development can be observed in the digitally influenced world in recent years. The internet and social media can also threaten society and the individual. Especially in times of crisis, the internet has become a space for cybercrime. In addition, fake news, disinformation and hate speech have become commonplace, undermining democracy in the global world.

This is one of the reasons why the EU and international partners have proposed in a declaration on the “Future of the Internet” to make the future of the Internet a space for the future of democracy and humanity. The internet has brought humanity together as never before in history, and therefore the democratic values we preserve offline must also be protected online. The aim is to make the Internet a safe and trustworthy place for all and to ensure that the Internet serves our individual freedom (European Commission, EU and international partners put forward a Declaration for the Future of the Internet, 2022). In addition to political actors and the media as the fourth estate, universities, businesses, and civil society play an important role in building and developing a digital society in Europe.

Partners for digital societies

Besides the **government**, universities are important in supporting digital transformation and closing the digital gap. Of course, it goes without saying that the government is responsible for providing the necessary resources for the digital society and for developing educational and support measures and regulations. Nevertheless, other social actors, especially universities and companies, are important partners, stimulus, and resource donors for the digital society.

The keyword “Third Mission”, which refers to the low-threshold collaboration of the **university** with non-university partners in civil society, is an approach that has gained importance in recent years. The third Mission extends the Triple Helix discussion (cooperation of universities with industry and public organisations). It includes various activities, including knowledge and technology transfer, commitment in the region, civil society research cooperation, student participation, start-up support and science communication (Centrum für Hochschulentwicklung, 2023).

Another important player in a digital society is **businesses**. They have the corporate responsibility to consider the impact on society and disadvantaged individuals caused by the introduction of digital products and services during their development and to ensure that they are compatible with social values. The digital transformation expands the classic concept of “Corporate Social Responsibility (CSR)” (Deloitte Germany, 2022). In addition, companies should take advantage of the opportunity to become socially involved, for example, with donations in cash and kind, free services and

discounts on products, crowdfunding, and support for social enterprises, providing premises and infrastructure or releasing employees for social activities (RiskPlayWin, 2023).

Important for the digital transformation is the digital support of **civil society organizations**. Civil organisations often engage with disadvantaged groups and, consequently, have access to and see eye-to-eye with them. Civil organisations can help their target groups develop a basic understanding of IT and advanced skills in dealing with IT systems and processes. Low-threshold educational offers, like computer courses, and especially informal learning offers by civil organisations, are therefore important to individually support, promote and challenge disadvantaged groups in the digitally shaped world to access and navigate the digital world.

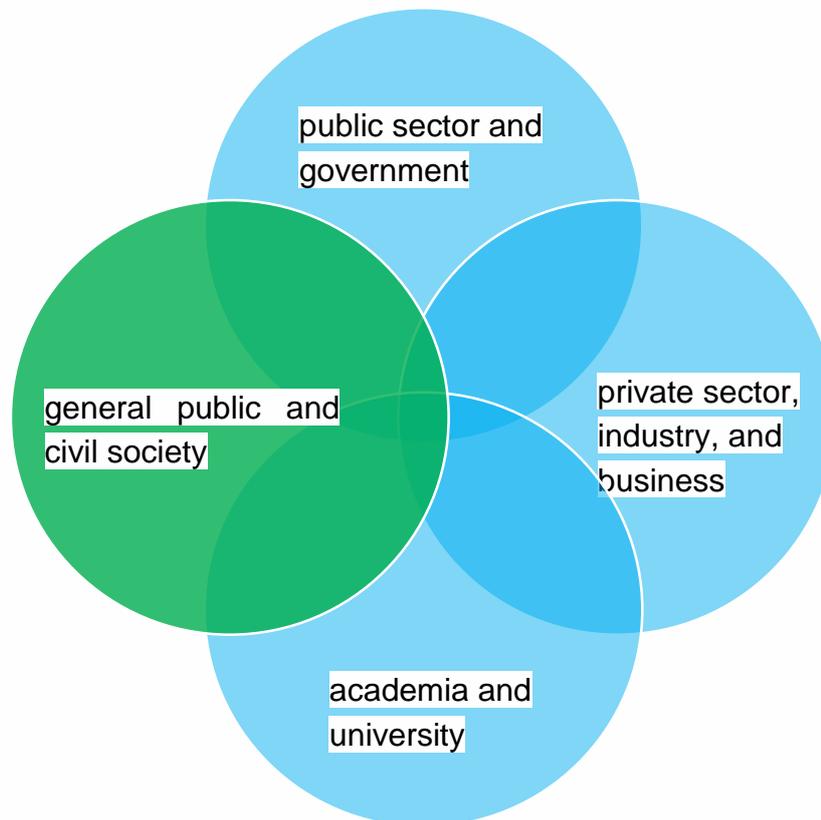


Figure 1 Quadruple Helix (GRRIP Project, 2020; Centrum für Hochschulentwicklung, 2023)

Universities, businesses, and some civil society organizations can use their digital skills and educational and other resources to support the **training of digital learning coaches within the Erasmus+ Project UnInLeCo**. They build and support a group of multipliers from relevant civil society organizations (professionals and experienced volunteers), also including from the advantaged groups of disadvantaged populations. This cooperation can be visualized with the model “**Quadruple Helix**” of **Campbell and Carayannis (2012) (Roessler, 2016)**.