Comparative Report

Country context analysis: availability and infrastructure of informal learning space

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Introduction

The NIILS Comparative Report provides a synthesis of the findings of the NIILS Country Context Reports, elaborated by the partner universities of the NIILS project: Akdeniz University (Antalya, Türkiye; AKD), Hochschule für Technik und Wirtschaft Berlin (Berlin, Deutschland; HTWB), Mykolas Romeris University (Vilnius, Lithuania; MRU), Sapienza University (Rome, Italy; SAP), and University for Continuing Education Krems (Krems, Austria; UWK). It also refers to the European context with regard to the current development of informal learning spaces (ILS) in higher education. This report presents the findings of the research collected on (technologically enhanced) informal and non-conventional learning environments regarding:

a) "State of the art" in five partner countries: existing networks, stakeholder communities, previous projects, tools, and guidance material addressing and dealing with informal and non-conventional learning spaces
b) Spatial characteristics, availability, accessibility, equipment, and infrastructure of informal and non-conventional learning spaces provided by the partner universities
c) Awareness and existing strategies of university administration and other stakeholders to promote inclusive and supportive technologically enhanced informal and non-conventional learning environments and to mitigate existing inequalities.

Following parts shed light on the context in five countries and partner universities concerning higher education system and inclusive and informal learning spaces. It is followed by the description of universities in terms of physical characteristics of the campus and building infrastructure with special attention to informal learning spaces and the last part presents the findings of the focus group interviews conducted with the key stakeholders of the partner universities.

Higher Education Institutions in Europe and in the NIILS Partner Countries

It is not possible to provide a clear classification of higher education institutions in the European higher education system, due to diverse structure of each higher education system in the countries. The Bologna Process, which was launched with the Bologna Declaration of 1999, is one of the main voluntary processes at European level and it aims at creating a coherent higher education area that is inclusive, accessible, open, and permeable at national and European level. It is nowadays implemented in 49 States, and it defines the European Higher Education Area (EHEA).

Despite these efforts to create a coherent EHEA, diversity among countries and higher education institutions is remarkably high, and lack of a unified system of higher education still resonates. Thus, a basic distinction can be made between higher education institutions, universities of applied sciences and research universities. Universities of applied sciences are focused on the practical application of arts and science. Research universities offer research-orientated programmes in an academic setting (European Commission (n.d.)). Table 1 presents the diversity of higher education institutions and the number of each institution in the NIILS partner countries.

Table 1: Higher education institutions in the NIILS partner countries

Austria	Türkiye	Germany	Lithuania	Italy
22 public universities	129 state universities (3 of them also provide online education)	108 universities (~ 80% public, ~20% private)	19 universities	67 public universities
21 universities of applied sciences	75 foundation universities	211 universities of applied sciences (~ 60% public, ~40% private)	22 colleges	19 legally recognised non-public universities
17 private universities	4 foundation vocational schools	52 universities of art and music		11 on-line universities
14 university colleges of teacher education		30 universities of applied administrative science		55 state conservatories and 18 state-recognized music colleges
		16 theological universities		
		6 universities of education		
74 HEIs	208 HEIs	423 HEIs	41 HEIs	170 HEIs

Source: Austria (BMBWF (2022). Science in Austria/2022 Statistics, p. 9), Türkiye (YÖK, 2022b), Germany (Satista Research Department, 2023a), Lithuania (Statistics of Lithuania, 2022), Italy (MIUR, 2021/2022)

Table 1 indicates that partner countries HEI numbers differ in line with the population of the countries. Due to Bologna process, the degree structure in higher education is same in all partner countries (Bachelor, Masters, and PhD). However, the Turkish higher education system differs in terms of the duration of the Bachelor and PhD programmes where Bachelor is for four years and PhD lasts 5 years in comparison to 3 years of Bachelor and 3 years of PhD in European HEIs.

University admission systems are also diverse: some countries are highly selective starting from an early age on such as Austria and Germany in specific study programs such as psychology and medicine, while others are more open allowing all high school graduates to apply for studying at a higher education institution. Türkiye is the only partner that conducts a central and standardized university entrance exam, while other countries require a matriculation exam as one of the criteria for admissions. Admission systems have important consequences for the equity, equality, and inclusivity of the higher education institutions (Haj et al., 2018). Yet, discussion on this is out of our scope in this report.

Higher Education Students in Europe and in the NIILS Partner Countries

According to Eurostat (2022), 34.3% of the EU population aged 25-64 had completed tertiary education in 2022. Whereas 37.1% of woman and 31.4% of men aged 25-34 completed tertiary education. The NIILS partner countries Austria, Germany, Italy, Lithuania, and

Türkiye have diverse levels of higher education attainment levels. Lithuania is one of the countries with the highest number of higher education graduates (46.5%) in Europe, while it is 35.6% in Austria, 32.3% in Germany, 20.3% in Italy (Eurostat, 2022). Turkish statistics are available for 2018 and according to this 22% of the population aged 23-64 had a degree in higher education.

In the EU there were 18.0 million tertiary education students in 2020 (Eurostat, 2022). Germany – the most populous EU Member State – had 3.3 million tertiary education students in 2020, which was the highest number in the EU and equivalent to 18.2 % of the EU total, and Italy (11.3 %) had the next largest tertiary student populations. Among the 18.0 million tertiary education students in the EU:

- 7.3 % were following short-cycle tertiary courses;
- 59.7 % were studying for bachelor's degrees;
- 29.4 % were studying for master's degrees; and
- 3.6 % were studying for doctoral degrees.

Students of bachelor's and master's degrees accounted for 89.1 % of the total. Notably higher shares for these two levels were reported for Italy (97.5 %), Lithuania (97.4 %), and notably lower shares were recorded for Austria (78.4 %) (Eurostat, 2022).

Table 2 provides the number of students at Higher Education Institutions in the NIILS partner countries, as well as the number of international students and the number of students with disabilities.

Table 2: Number of students at Higher Education Institutions in the NIILS partner countries

	Austria	Türkiye	Germany	Lithuania	Italy
Number of students	Students (total): 396.311 public universities (304.015) universities of applied sciences (59.673) private universities (13.963) university colleges of teacher education (18.660)	Students (total): 3.740.332 state universities (3.124.705) foundation universities (604.066) foundation vocational schools (11.561)	Students (total): 2.950.000	Students (total): 103.373 universities (71.566) colleges (31.807)	Students (total): 1.822.141
International students	18%** (International students come from Germany (40.4%), South Tirol (9.9%), Bosnia and Herz. (3.3%), other EU (21%) and non-EU (22.5%))	2%** (In total 162k students. The highest number of international students are from Syria, Azerbaijan, and Turkmenistan)	15.7%** (most international students come from India and China (approx. 43k students), Türkiye (approx. 35k students),	6%**	3%**
Students with health impairment /	12% (4.9% suffer from mental illness, 3.2%	1.5%* disabled students (n = 56.672)	11% (55% suffer from mental diseases,	0.6%* According to the	3.1 %

disability limiting their studies	from chronic somatic illness, 1% from mobility impairments, partial performance disorders, visual and auditive impairments and allergies; the majority are impairments that are not readily perceivable by third parties (70%) SWFO include students with care responsibilities, elderly and full-time working students as well as with migration background.	(male= 36524, female = 19143) (Types of impairment: 'other long-standing health problems and functional limitations / impairments' as impairment status)	30% from chronic somatic diseases, 10% from visual and auditive impairment, 10% from mobility impairment, and 11% do not specify their impairments). SWFO include students with children and elderly students.	Department of Disability Affairs (2020), the number of students with disabilities dropped from 1000 to 620 between 2015 and 2019 in Lithuanian higher education institutions.

*Source: Austria (BMBWF (2022). Science in Austria/2022 Statistics, p. 9; Research Report 2020), Türkiye (YÖK, 2022b), Germany (Rudnicka, 2022/Statista Research Development, 2023b), Lithuania (Statistics of Lithuania, 2022), Italy (MIUR, 2021/2022), OECD Stats (2020) *calculated from the total number of students.*

Analysis of the country report indicates that the number of students with disabilities in higher education in the partner countries has an increasing trend (except Lithuania) which can be considered as a positive development, yet still behind the expected rates. On this issue, we want to underline that statistics concerning the international students and inclusion should be interpreted with caution keeping in mind the different methods and definition of international and disabled students. Moreover, some countries also keep record of students with fewer opportunities (SWFO), and they are also mentioned in inclusion statistics. For example, gender is one of the variables also used to explain inclusivity of the education systems. In our cases, according to Eurostat 2021 statistics Türkiye (49.2%) and Germany (49.6%) have slightly fewer female students compared to Austria (54.2%), Italy (55.9%) and Lithuania (58%). Another important variable that emerged in our reports is the students with migration background, especially in Austria where only 8.7% of the higher education students come from a migration background (Social Survey Austria, 2020) and in Germany where 17.3% of the students are with a migration background (22. Social Survey, 2023). Türkiye, on the other hand, has been dealing with refugees. In the 2021-2022 academic year, 31.666 Syrian students registered to higher education institutions in Türkiye. Thus, discourse on inclusive higher education is shaped around this as well.

International student statistics indicate that Austria has the highest percentage of international students (18%, in comparison to Italy, Lithuania and Türkiye where only 2% of the student population is comprised of international students). However, the majority of the

international students in Austria are students from Germany and other German speaking countries.

Inclusion in Higher Education in Europe and in the NIILS Partner Countries

At the European level, several political commitments have been made in recent years to strengthen diversity and inclusion in higher education. The Bologna Process emphasizes and encourages the inclusivity in European HEIs, it is one of the goals of the Bologna Process working group “Social Dimension.” In the Yerevan Communiqué (2015), it was agreed that "Making our systems more inclusive is an essential aim for the EHEA as our populations become more and more diversified, also due to immigration and demographic changes" (EHEA, n.d.). This is also reflected in the Paris Communiqué of the Bologna Process (2018), to strengthen the social dimension of higher education, which was introduced as a concept in earlier Communiqués. In 2017, the European Commission included the topic in its renewed agenda for higher education, and at the same time it became part of the policies to strengthen the social dimension of European integration through the reinforcement of the European social pillar (European University Association, 2019, p. 8). It is well recognized that “underrepresentation of the certain groups, even if it is unintentional, poses problems both at the individual and the collective level” (European Commission/EACEA/Eurydice, 2022, p. 14). Thus, it is utmost important to create ways, strategies, tools, and policies to open the way to higher education systems to those who can be excluded because of their economic situation, educational background, personal background and insufficient support systems and policies.

Giving priority to diversity, equity, and inclusion in universities is often a strategic choice and the issue is very often driven by the central leadership of the institution. In a study conducted by the European University Association on diversity, equity, and inclusion in European higher education institutions (2019), the vast majority of respondents indicated that the topic is addressed in institution-wide policies and strategies at central level. More than half the respondents have strategies both for the whole institution as well as at the level of faculties and departments (European University Association, 2019, p.14). At the central level, diversity, equity, and inclusion are part of the main strategy of the institution in three out of four cases, but there are also specific, institution-wide strategies for the topic in more than half of the responding institutions. It was rare to find cases where strategies only existed at the level of faculties or departments (European University Association, 2019, p. 15).

In our project, diverse measures for inclusion in the higher education system are described by the partners in the Country Context Reports. National strategies or regulations are reported in most of the partner countries along with the strategies, commissions, and committees at the university level. In the following, a brief overview of the contents on inclusion from the Country Context Reports is given.

In the Austrian Country Context Report, the National Disability Action Plan 2012-2020 (BMASK, 2012) is presented, that provides measures regarding inclusion, which have been taken in the higher education system in recent years. It supports a cultural shift towards social inclusion, gender equality and diversity in universities. Furthermore the “National Strategy on the Social Dimension of Higher Education” (BMWFW, 2017) prepared by the Federal Ministry of Education, Science and Research is described, which addresses a wider

group of students who are identified as “underrepresented groups” and “groups with specific needs”:

Underrepresented groups are listed as:

- Students whose parents do not have higher education entrance qualifications or who come from lower socio-economic backgrounds
- Underrepresentation of women or men in particular degree programmes (e.g., women in technical studies, men in veterinary medicine studies)
- Students from particular regions/federal states
- Students with migrant backgrounds (with an Austrian entrance qualification)
- Students with a disability and/or chronic illness

Groups with specific needs include:

- Students with young children or other care responsibilities
- Students with a disability and/or chronic illness
- Students with delayed entry to higher education (i.e., at least two years since leaving school or “second chance” education)
- Students in employment

In the Turkish Country Context Report, the gender aspect of inclusion is discussed, with the rate of female students being lower than that of male students. Further topics, which are described regarding inclusion are the number of disabled students and financial issues.

The German Country Context Report points out that the landscape in Germany includes diverse students especially defined as Students with Fewer Opportunities (SWFO). Universities must therefore meet the requirements for socio-cultural sustainability, namely freedom of barriers, family friendliness, and health to be considered inclusive (Wissenschaftsrat, 2022, p.33).

The Lithuanian Country Context Report addresses that since 2018, inclusion has focused on improving the accessibility and quality of higher education for people with disabilities and on increasing the flexibility of their employment and working conditions.

The Italian Country Context Report describes the different responsibilities of the ministries concerning the inclusion in higher education institutions. Ministry of Equal Opportunities and Family and Ministry of People with Disabilities illustrates the importance given to inclusivity and awareness about the diversity management.

Based on the country contexts and previous research, in our project, we defined “Students with fewer opportunities” (SWFOs) based on the following categories:

- Physical impairment (e.g., mobility, visual, auditive)
- Chronic somatic disease (e.g., multiple sclerosis, cancer, diabetes)
- Mental disease (e.g., burnout)
- Learning disabilities (e.g., dyslexia, dyscalculia, ADHD)
- Cultural differences (e.g., different cultural background to my university)
- Language (I do not study in my mother tongue)
- Economic obstacles (e.g., financial barriers)
- Need to work for living while studying
- Family related obstacles (e.g., responsible for children or nursing cases)
- Geographic obstacles (e.g., remote residence)
- Age

State of the Art in Europe and Project Countries

This chapter presents the results of the desk search and provides an overview and comparative information on the situation in the partner countries regarding the "State of the art" in the project countries and regions and presenting the existing networks, stakeholder communities, previous projects, tools, and guidance material. addressing and dealing with informal and non-conventional learning spaces. The first part deals with the key stakeholders.

Key Stakeholders

This part of the report brings together the results of the desk search conducted in partner countries concerning the main stakeholders, networks, and communities dealing with learning spaces and inclusivity in higher education.

Provision, Management and Design of Learning Spaces in Higher Education

At the European level, our search did not yield any European network or community directly related to design, management, or provision of learning spaces in higher education institutions. The European University Association (EUA) which represents more than 850 universities and national rectors' conferences in 49 European countries can be mentioned as one of the biggest stakeholders in European higher education (European University Association, 2019). EUA is not directly related to learning environment and learning spaces, but it plays a crucial role in the Bologna Process and in influencing EU policies on higher education, research, and innovation. Thus, it is important to mention them as a key stakeholder in shaping the European higher education area.

Another platform worth mentioning is the NEB Lab Project initiated by the New European Bauhaus community supported by the European Commission. "The NEB Lab is the "think and do tank" to co-create, prototype, and assess the tools, solutions, and policy actions that will facilitate transformation on the ground. The lab will function as an accelerator and connector. The lab will pursue its community-building journey to embrace concrete projects inspired by the New European Bauhaus. It will start with the official Partners, High-Level Roundtable (HLRT) members, winners and finalists of the New European Bauhaus prizes and the National Contact Points" (New European Bauhaus, 2023). Within the NEB Lab, a sub-project called "Transformation of places of learning" connects transformation initiatives, proof of concepts and practices making a difference in where and how people learn across Europe and beyond - from classrooms to streets, playgrounds, and libraries. The project seeks to build a collaborative network and make places of learning that are aligned with the New European Bauhaus values more visible. The network is meant to become an accelerator for beautiful, sustainable, and inclusive places and ways of learning. As it was stated in the web-site of the project "Individuals and organisations involved in education, training, informal learning or youth project(s) in Europe and beyond, are welcome to share their ongoing projects (started not longer than 2 years ago) or new transformative projects reflecting the values of the New European Bauhaus in the fields of education, training, youth and knowledge, aiming at the transformation of: (a) a physical place of education and knowledge, (b) the ways of learning and/or the education and knowledge focus, and (c) the relationship with the local community" (https://new-european-bauhaus.europa.eu/get-

inspired/inspiring-projects-and-ideas/neb-lab-transformation-places-learning_en). NIILS Project is also part of the sub-project “Transformation of places of learning.”

In our partner countries, various groups of stakeholders are responsible for the provision, management, and design of learning spaces at universities. Our analysis showed that in most of the partner countries a centralized or national/federal level institution has the main responsibility or decision-making power concerning the development of the higher education institutions. Thus, it is important to underline the minimum involvement of grass-root organizations or student unions and representativeness. Table 3 gives an insight into the key stakeholders of the project partners' countries.

Promoting and Supporting of Inclusivity in Higher Education

At the beginning of the 21st century, there is a renewed political, scholarly, and public interest in issues of social and economic equality. It is widely recognized that inequality in higher education in Europe is an important and complex issue (Piketty, 2021, see European Commission/EACEA/Eurydice, 2022). The European Commission's Communication of September 30, 2020, on the realisation of the European Education Area by 2025 defines inclusion as one of its key objectives to ensure that higher education is accessible to diverse student populations.

With a sense of urgency, the Bologna Follow-Up Group (BFUG) has also responded by developing the document "Principles and Guidelines to Strengthen the Social Dimension of Higher Education in the EHEA" - hereafter referred to as Principles and Guidelines (P&Gs) - to address the social dimension. This document was adopted by the Ministers of Higher Education at the Rome Ministerial Conference in November 2000 (European Commission/EACEA/Eurydice, 2022).

Inclusiveness, equity, and diversity are all concepts related to social justice and the fair distribution of rights, resources and ultimately power in society. Education, and higher education in particular, is often seen as a means of addressing, at least in part, socio-economic inequalities (European Commission/EACEA/Eurydice, 2022).

The Principles and Guidelines aim to help national education authorities improve the social dimension of higher education "by going beyond the extension of accessibility clauses and focusing instead on the concept of 'leaving no one behind'". The ten principles agreed by ministers in the EHEA suggest actions that should be taken to improve the social dimension of higher education and thereby make it more equitable. The principles are as follows: 1) Strategies on higher education with a social dimension, 2) Flexibility, 3) Lifelong learning, 4) Data, 5) Guidance and counselling, 6) Funding, 7) Staff training and institutional mission, 8) Mobility, 9) Community engagement and 10) Policy dialogue (European Commission/EACEA/Eurydice, 2022).

Our results indicate that in the partner countries several stakeholders, including public institutions, and civil society organizations exist, and they address diversity, inclusion and equality and equity in higher education, as well as society in general.

Table 4 provides an overview of the key stakeholders involved in the provision of higher education inclusion policies in the NIILS partner countries. Our search yielded a more complex context and network of stakeholders in countries as Germany, Türkiye, and Austria.

Table 3: Identified key stakeholders dealing with provision, management and design of learning spaces in the NIILS partner countries.

Austria	Türkiye	Germany	Lithuania*	Italy
Bundesimmobiliengesellschaft (BIG- Austrian Federal Real Estate Company) About 90% of the building infrastructure used by the Austrian public universities are owned and managed by the Universities Division of the Austrian Federal Real Estate Company.	**Council of Higher Education (YÖK)** All HEIs are connected to YÖK, as a main stakeholder. YÖK provides domestic and international education and research scholarships at various levels in higher education.	**HIS-HE Institut für Hochschulentwicklung (transl. Institute for Higher Education Development) (national, Germany)** HIS-HE is a leading institution for higher education (HE) planning and development in Germany, which supports universities and ministries in guiding them through spatial university planning and development changes	**Parliament** The parliament forms education policy at the national level and adopts laws on policy changes	**Individual universities in Italy** are responsible for creating university facilities, whether official or informal study areas.
FM-Plus Facility Management GmbH The building infrastructure used by the UWK is provided and managed by the FM-Plus Facility Management GmbH, which is wholly owned by the province of Lower Austria and serves to provide the building infrastructure for scientific and cultural institutions in Lower Austria.	**The General Directorate of Student Loans and Dormitories** This institution is responsible for all private and state dormitories in Türkiye and provides scholarships and loans to students.	**HFD - Hochschulforum Digitalisierung (transl. Forum of higher education for digitalization) (national, Germany)** The HFD brings lecturers, university staff, and students together within its German-wide HE networks, promotes exchange across disciplines and universities, and aims at skill building for digital teaching and learning.	**The government and the Ministry of Education, Science and Sports** These institutions formulate and implement education policy and adopt and implement legal acts other than laws.	**Student clubs** (each with its own representatives) buy and adjust "unused" places and regions to their own purposes. This occurs more at humanities faculties.
Österreichisches Institut für Schul- und Sportstättenbau (ÖISS) The Austrian Institute for School and Sports Facility Construction (ÖISS) is a federal foundation, acting as a competence centre for planning, construction, and operation of educational and sports facilities in Austria.	**Governmental institutions, municipalities, foundations, and NGOs** are also main stakeholders in higher education	**Stifterverband für die Deutsche Wissenschaft (transl. Donor's Association for German Science) (national, Germany)** The Stifterverband is a joint initiative of companies and foundations, providing holistic advice, networking, and funding in education, science, and innovation.		
	Sabancı Foundation (SF) Sabanci Foundation is one of the biggest NGO, which provides scholarships to students and built many buildings for educational institutions. SF has built more than 120 institutions in 78 residential areas among Turkey, including schools, dormitories, teachers' centres, healthcare facilities, sports facilities, cultural centres, and social facilities. Sabancı University is also founded by SF.	**DINI - Deutsche Initiative für Netzwerkinformation e.V. (transl. German Initiative for Network Information e.V.) (national, Germany)** The DINI promotes improving universities' information and communication services and information infrastructure regionally and nationally.		

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	The Turkish Education Foundation (TEV) It is another NGO and a relevant stakeholder by providing scholarships and concerning the maintenance of educational buildings.	

*Source: NIILS Country Context Reports; *Lithuania: Networks or communities which focus on improving the learning spaces in higher education institutions are currently not available. More attention is given to learning spaces in primary and secondary educational institutions.*

Table 4: Identified key stakeholders dealing with promoting and supporting of inclusivity in Higher Education in the NIILS partner countries.

Austria	Türkiye	Germany	Lithuania*	Italy
ÖH – Austrian National Union of Students The working units of the ÖH include the office for social policy, which aims to support students in difficult social situations, the office for inclusive education, an office for foreign students, and a queer office.	**Council of Higher Education (YÖK)** It is the main responsible body regarding inclusion in HEI's.	**Deutsches Studentenwerk (DSW) (transl. German student services) (national, Germany)** The German Studentenwerke are "institution[s] at universities for the social support of the students" (transl. Oxford, 2022).		**Coordinator of Disability Affairs** The guidelines for Open university were approved in 2017. The following measures were taken to adapt the study process to persons with disabilities: (1) individual meetings with students; (2) assessment of individual needs arising from disability; (3) recommendations to faculties; (4) personalized plans for studies; (5) provision of advice to lecturers, administration, and students.
Consulting Board for Inclusive Education and Special Needs Education It was established in 2021 in the Austrian Federal Ministry of Education, Science and Research. The consulting strategy paper states that students with special needs or disabilities can study and participate in university life in a self-determined way. With regard to building infrastructure, the strategic fields of action include the implementation of legally prescribed measures relating to barrier-free design. (BMBWF, 2021a)	**Disabled Student Commission affiliated to YÖK** It was established for promoting inclusivity of disabled students.	**Deutscher Bibliotheksverband e.V. (transl. German library association) (national, Germany)** The German Bibliotheksverband e.V. is an association of more than nine thousand German libraries with the objective of "strengthening libraries regarding free access to media and information for all citizens".		**Ministry for People with Disabilities** It is in charge of the steps required for the implementation of interventions related to the implementation of policies aimed at ensuring the protection and promotion of the rights of persons with disabilities, as well as promoting their full and effective participation, social inclusion, and autonomy, in accordance with the United Nations Convention on the Rights of Persons with Disabilities and the European Charter of Fundamental Rights.
Counselling and Service Offers at Higher Education Institutions Contact points are either disabilities representatives, equal opportunities working parties or separate departments dealing with the topic of studying with disabilities. (BMBWF, 2022b)	**YÖK, the Ministry of National Education, ÖSYM, municipalities, foundations, and NGOs** It provides scholarships for financially disadvantaged university students.			**Diversity and Inclusion Committee** It was established by Sapienza on January 29, 2021. The Technical-Scientific Committee on Diversity and Inclusion works to foster inclusion processes and counter all forms of discrimination

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Uniability It was founded in 1996 and is a working group of disabilities representatives, affected persons and others whose aim it is to improve the study and working conditions at all Austrian higher education institutions for affected persons. (Uniability, 2022)	**Sabancı Foundation Grant Programs** It supports the projects of civil society organizations to promote access to equal opportunities for women, youth, and persons with disabilities to participate in all aspects of society.
	Türkiye Barrier-Free Informatics Platform It prepared accessible course material education video series and prepared short videos explaining what should be considered for accessibility while preparing a presentation.

*Source: NIILS Country Context Reports; *Lithuania: The choice of institutions is limited since only a fraction of the universities and colleges have the physically adapted environments for mobility-impaired students and possibilities to personalise the study process (Education News, 2020).*

Table 5: Identified stakeholders engaging with informal and non-conventional learning spaces in the NIILS partner countries.

Austria	Türkiye	Germany	Lithuania*	Italy
Research Team »Arbeitsraum Bildung« (English: "Education Workspace") Formed in 2015 at Technical University Vienna (TU Wien) it consists of researchers from the fields of architecture and spatial planning developing different approaches and complementary topics and tools for spatial systems of educational landscapes, with a focus on elementary, primary and secondary education levels. (Forschungsteam »Arbeitsraum Bildung«, TU Wien, 2022)	**Informal Learning Youth Center (YAŞÖM)** is an initiative for informal learning, which was founded by a group of young people with the support of Sabancı Foundation in 2011. The centre was built to raise awareness on "learning by experience" and create an informal learning space for young people to develop activities in accordance with their own wishes and needs. The centre serves young people between 18 and 30 years of age and has hosted various activities and projects such as peer training model, personal development, and hobby workshop in 151 different subjects; 8 speaking clubs; 7 community support projects. All YAŞÖM workshops are free of charge international volunteers both teach their own language and culture and learn Turkish culture.	**DINI-AG Lernräume** The DINI-AG Lernräume is an existing stakeholder community on behalf of the DINI that explicitly addresses ILS in HE. It consists of different actors of libraries, computer and media centers, and institutions within the DACH-region, who promote innovative and technologically enhanced learning spaces in HE institutions (DINI, 2022b).		**The Ente Lombardo di lingua e cultura italiana in Milan** (a place where foreigners learn Italian through specific courses) is promoting a campaign for group and collaborative study, scattering the location of spaces spread throughout the city where they can "throw themselves into books and at the same time enjoy a good coffee."
ARGE Bildungshäuser Österreich (ARGE BHÖ) The "Arbeitsgemeinschaft Bildungshäuser Österreich" (English: Association of Education Houses Austria) is an independent, non-profit association whose members are institutions of adult education in different sponsorships (dioceses, chambers, provinces, religious orders, associations). From 2021 to 2022, it coordinated the Erasmus+ project "Educational buildings of the future - needs-oriented learning space concepts in adult education", whose main goal is to analyse modern learning space concepts and new learning spaces, such as "third	**The Journal of Research in Informal Environments** is an open access and peer reviewed journal which publishes manuscripts relating to teaching-learning activities in informal settings and the effects of these settings on different variables. However, most of the articles published in this journal are related to other educational levels rather than higher education, such as secondary school or high school. Moreover, in most of the articles, what is meant as informal learning is learning activities carried out outside the classroom environment in the presence of a teacher, not the learning activities that are planned and run by the students			**RomaTips**, (an independent site that promotes culture, Roman food, and music), like many other websites have done, gathered information on what we call Informal Learning Spaces, and then produced an article called "15 Spaces Where to Study (or Work) in Rome: 15 Places with Free Wi-Fi and More." These are unconventional spaces (not libraries or study rooms), but places that combine good food (as in the best Italian tradition!), free wi-fi (because being connected with others is a primary need) and equipped spaces.

places" (co-working, makerspaces, fab labs or repair cafes) to derive potential fields of development for adult education. (ARGE Bildungshäuser Österreich, 2022)	themselves. Therefore, although learning activities are carried out outside of traditional learning environments, such as museums, gardens, etc., these are studies related to the curriculum and conducted under the guidance of teachers. In this context, it can be thought that there is a conceptual confusion about the concept of "informal learning environment."	

*Source: NIILS Country Context Reports; *Lithuania: Currently there are no networks, initiatives, or stakeholder communities explicitly addressing and dealing with informal and non-conventional learning spaces (in higher education) (Education News, 2020).*

Engaging with Informal and Non-conventional Learning Spaces

Our analysis of the desk search results showed that informal learning spaces are not represented in most of the project countries. In Austria, Italy and Lithuania, there is no network, interest groups or associations specifically concerned with informal and non-conventional learning spaces. In Germany, the DINI-AG Lernräume is the only existing stakeholder community that explicitly addresses informal learning spaces in HE. It consists of different actors of libraries, computer and media centres, and institutions within their regions and they promote innovative and technologically enhanced learning spaces in HE institutions. In Türkiye, on the other hand, a place built for providing an informal learning space for young people to develop activities in accordance with their own wishes and needs exists. Informal Learning Youth Center (YAŞÖM) is an initiative for informal learning, which was founded by a group of young people with the support of Sabancı Foundation in 2011. The centre serves young people between 18 and 30 years of age and has hosted various activities and projects such as peer training model, personal development and hobby workshops, activity clubs and other community free of charge.

There is a certain lack of visibility of informal learning spaces not only in policy and higher education practices, but also in terms of civil society and academic research in comparison to formal learning spaces design and management in K-12 education. Thus, our project is crucial in bringing networks and stakeholders together but also for increasing the visibility of informal learning spaces in higher education policy, practice, and research.

State of the Art: Informal and Non-conventional Learning Spaces in Project Countries

The following specifications refer to examples and initiatives such as spatial implementation, tools and guidelines, scientific projects, and publications. in the project countries and on international level in which discussions on informal learning spaces (ILS) are taking place from different perspectives. The information is based on the country reports and desk research conducted by the project partners, in which more than 100 examples, projects, initiatives and publications were identified.

The results of the conducted desk research are divided into following categories for the easiness of analysis: existing networks, stakeholder communities, previous projects, best practice examples, tools, guidance materials and other (e.g., articles, publications etc.). Table 6 provides a quantitative overview of the results achieved.

Table 6: Results of desk research on tools, guidance materials and scientific publications in the NIILS partner countries

	Existing networks	Stakeholder communities	Previous projects	Best practice examples	Tools	Guidance material	Other (e.g., articles, …)
Total	11	6	14	6	6	10	42

Projects and Good Practice Examples

In our desk search, we also explored various projects, good practice examples and other approaches on ILS. Parallel to the findings of the previous tracks of analysis, we could identify only a handful projects and works that directly target informal learning spaces at

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higher education institutions. Below we briefly present a few examples from partner countries with different focus:

- **Project**: *Designing Future Innovative Learning Spaces Project (Design FILS)*, funded by European Union's Erasmus+ KA2
  Design FILS aims to design innovative, multi-disciplinary, flexible learning spaces based on digital skills. Project outputs include preparing a methodological framework for innovative classroom training, developing a pedagogical guide for trainers, designing scenario-based learning activities, and creating an online training platform. Even though this project does not directly target the higher education institutions, it does address technology enhanced ILS specifically (Nominated by: AKD)
- **Collection**: *Learning Space-Atlas* by German Initiative for Network Information e.V. (DINI), overview of good practice examples that consider freedom of barriers and user-friendliness for all people in innovative physical learning spaces. https://lernraum-toolkit.github.io/ (19.4.2023). (Nominated by: HTWB)
- **Showcase, implementation**; Kaunas University of Technology (KTU) as a leading institution in terms of the breadth of learning environments offered to students. Examples of innovative learning environments at KTU include KTU Campus Library, Student housing facilities, VR Project Hub, Design Thinking Laboratory. (Nominated by: MRU)
- **Showcase**: The city of Rome encounters two museums that provide their own equipped spaces and cafeteria the *MACRO* (Contemporary Art Museum) and the *MAXXI* (National centre for the Contemporary Art and Architecture). These museums provide ILS with all the necessary amenities (Nominated by: SAP)
- **Space resource management-tool:** *roomTUlearn*, Vienna University of Technology; Centrally managed learning spaces are available for students to participate in distance learning events, for example if this is not possible at home or the commuting time between courses is too long, or simply if they need a quiet place to work. https://www.tuwien.at/en/studies/teaching-at-tu-wien/strategic-education-development-center/central-room-management-for-teaching-and-learning/roomtulearn-learning-rooms (19.06.2023). (Nominated by: UWK)
- **Project**: *Learning and Teaching Space in Higher Education (LTSHE);* Erasmus+ project to explore basic principles for developing new learning and teaching spaces in HEIS; project coordinator: Birmingham City University (LTSHE, 2021). (Nominated by: UWK)

Tools, Guidance Material, Scientific Publications

The imbalance among the countries on the initiatives addressing the ILS in higher education settings is observed in this part too. We summarized the results with the relevant examples from the countries. Examples out of the distinct categories selected by the project partners are presented below:

- **Best practice example:** AKD presents *University without barriers flag awards* given in three categories. Accessibility in space, accessibility in education, and accessibility in socio-cultural activities.
  https://www.aa.com.tr/tr/egitim/yok-baskani-sarac-engelsiz-universite-odulleri-icin-bu-yil-837-basvuru-yapildi/2230255 (18.4.2023)
- **Existing network:** HTWB presents *Institute for Higher Education Development (HIS_HE)* as a leading institution for higher education planning and development in

Germany. The institution supports universities and ministries in guiding them through changes in spatial university planning and development. https://hochschulforumdigitalisierung.de/en (18.4.2023)

- **Tools:** HTWB presents *11 libraries where you can read, study, or work undisturbed*, insider article on recommendations where to find the best libraries to study in Berlin. https://mitvergnuegen.com/2017/11-bibliotheken-in-denen-ihr-super-lernen-koennt/ (18.4.2023)
- **Previous projects:** MRU presents *Co-education in Green tools for adult educators to transform common outdoor into accessible green learning spaces* - an Erasmus+ (KA2) project, aiming to empower adult educators in community education, giving emphasis on environmental and accessibility issues for people with disabilities. https://coeducationingreen.eu/en (18.4.2023)
- **Stakeholder communities resp. networks:** UWK presents *Office for accessibility and inclusive education of the Federal Austrian Students Union (ÖH)* that advocates for the empowerment of students, who are hindered by universities in their self-determination, due to impairments/ disabilities/ (chronic)illnesses. https://www.oeh.ac.at/en/referate/office-barrier-free-education (18.4.2023)
- **Guidance material:** UWK presents *Designing learning spaces* enabling sustainable learning with simple means http://blog.refak.at/blog/wp-content/uploads/2014/04/Hand-Out-Lernr%C3%A4ume_FINAL.pdf (18.4.2023)

In addition, the thematic range of scientific publications on ILS is illustrated by a cross-section of examples nominated by the project partners.

- **Landscape Design of a Campus Outdoor Spaces***;* Süleyman Demirel University Faculty of Forestry Building; This study describes the outdoor design process of a campus learning environment. Before the design phase, spatial, functional, and natural landscape data of the area were analysed and positive and negative qualities, and user needs were determined. Landscape design of the faculty was constructed in detail regarding semantic, syntactic and pragmatics dimensions and “reflecting formal education to outdoors” became the concept of the design. (Nominated by: AKD) https://dergipark.org.tr/en/download/article-file/159759 (19.4.2023)
- **Onlife Learning Spaces;** Perspectives of hybrid learning environments at universities. (Nominated: HTWB) https://www.researchgate.net/publication/355691295_Onlife_Learning_Spaces_Handlungsperspektiven_hybrider_Lernumgebungen_an_Hochschulen
- **The need for a favourable study environment. A case study of the generation Z;** Although the paradigm of university science is in constant dynamics, Generation Z poses an exceptional demand for a favourable environment in higher education. (Nominated by: MRU) https://vb.lka.lt/object/elaba:47017026/MAIN (19.4.2023)
- **Hands-on science education as a bridge between language and cultural worlds, experiences from the practice of the Wissens°räume in Vienna;** In this publication typical characteristics of informal learning and informal learning places are discussed. (Nominated by: UWK) https://www.science-center-net.at/wp-content/uploads/2018/06/Schneider_Schulze-2017_Hands-on-

Wissenschaftsvermittlung-als-Bru%CC%88cke-zwischen-Sprach-und-Kulturwelten_Solidee.pdf (19.4.2023)

- **Higher education and stakeholders' donations;** Study on crowdfunding activities for the improvement of facilities and services at public universities. (Nominated by: SAP) Colasanti, N., Frondizi, R., & Meneguzzo, M. (2018). Higher education and stakeholders' donations: Successful civic crowdfunding in an Italian University. Public Money & Management, 38(4), 281–288. https://doi.org/10.1080/09540962.2018.1449471

In summary it is noted that the engagement with ILS takes place on various levels. A wide range of topics is covered, from outdoor spaces, demographic aspects, implementation-related and financial issues to digitalization. In contrast, awareness of the importance of ILS for the development of learning spaces varies across partner countries and stakeholders.

Analysis: Informal Learning Spaces & Inclusion

The topic of accessibility of learning spaces is of foremost importance in the partner countries and is seen in connection with the concept of inclusion. Nevertheless, explicit engagement with informal learning spaces and their promotion at the political level takes place only to a small extent:

- In the Austrian higher education system, the topic of inclusion has a high priority. There are numerous efforts (action plans, regulations, etc.) to create a legal and practical framework to promote and improve inclusion and diversity. However, informal physical learning spaces have no official significance in this context.
- In the German higher education sector, the development of strategies to promote inclusive, technologically enhanced learning spaces is still at an early stage. Even though there are legal regulations on accessibility, the promotion of learning spaces and their importance for student learning is missing in higher education laws.
- While in Lithuania aspects of accessibility to higher education institutions are explicitly addressed, there are currently no networks, communities, etc. focused on improving learning spaces in higher education institutions. In contrast, significantly more attention is paid to learning spaces in primary and secondary education institutions.
- In Italy, there are currently no policy agendas or strategies to promote informal physical learning spaces. However, the Covid-19 pandemic, in particular, has led to addressing ways to introduce distance learning.
- In Türkiye, studies on inclusion at universities focus primarily on the areas of accessibility or the situation of economically disadvantaged students. While awareness of the importance of informal learning environments is beginning to emerge, they are not yet a high priority on the agenda of policymakers.

Situation of ILS at Institutional Level

The following chapter first clarifies the specific framework and general information about the locations and participating institutions such as thematic orientation, staff size, number of students, but also geographical and climatic aspects. In addition, the spatial conditions such as different ILS-typologies provided by the institutions, and campus qualities are described.

Institutional Context

General Information

Three partner universities of the NIILS project are located in European capitals: Berlin (Germany), Rome (Italy) and Vilnius (Lithuania). The fifth largest city in Türkiye, Antalya, and the fifth largest town in the federal state of Lower Austria, Krems, are of regional importance. With about 3.7 million inhabitants, Berlin is the largest of the university cities involved in the project, while Krems is the smallest with about 25,000. In addition to their size, the sites, which are spread over large parts of Europe and Asia Minor, show great climatic differences. Previous research clearly indicates that climatic conditions highly impact the design features of learning spaces both for formal and informal learning spaces. Thus, it is important to understand the campus structure and design of learning spaces in our project.

Figure 1: Geographical distribution of university locations

Source: Own illustration

Antalya has the highest average annual temperature of about 17 °C and is the site with the most annual precipitation (1081 mm/m²/a), while Vilnius is the coldest city with an average of 7.2 °C. Berlin has the lowest annual precipitation (669 mm/m²/a). Table 7 presents different demographic, geographic and climatic characteristics of the project sites.

Table 7: Demographic, geographic and climatic characteristics of the project sites.

	Inhabitants (-)	Urban area (km²)	Sea level (m)	Annual mean temperature (°C)	Annual precipitation (mm/m²/a)
Antalya	2 600 000	1417	30	17,8	1081
Berlin	3 700 000	892	115	10,1	669
Krems	25 000	52	203	9,5	803
Rome	2 800 000	1287	37	15,8	878
Vilnius	570 000	401	112	7,2	764

Source: Wikipedia; climate-data.org

An overview of the universities involved in the project is provided by specifying various parameters (year of foundation, number of faculties and courses offered, content-related orientation of the courses offered, and information on the number of staff and currently enrolled students), which are summarized in Table 8. The differences between the partner universities become visible in this table as it clearly identifies the population and capacity of the universities. An important distinction to mention is the student population of UWK. UWK students are non-traditional students whose average age is around 40. Most of the students are employed while studying with several years of work experience, with different levels of education.

Table 8: Overview of key data for universities in the NIILS partner countries.

	Founding year	# Faculties	# Study programs	Fields of study	# Students	# Staff members
AKD	1982	24	171	Health science, Social science, Fine arts, Education, Engineering, Business Administration, Architecture …	~ 67.000	7072 (2687 academic staff)
HTWB	1994	5	75	Business, Engineering, Computer science, Design and Culture	~ 14.000	~ 900
MRU	1990	4	21	Law, Public Security, Human and Social Studies, Public Governance and Business	~ 7.500	~ 400 (academic staff)
SAP	1303	11	>500	Architecture, Economics, Pharmacy and Medicine, Law, Civil and Industrial Engineering, Information Technology, Humanities and Philosophy, …	> 100.000	~ 10.500
UWK*	1995	3	200	Business and Globalisation, Health and Medicine, Education, Arts and Architecture	~ 8.000	~ 720

Source: NIILS Country Context Reports
** focus on postgraduate education*

Four of the five universities are located in their own distinct campus(es). The facilities of the Sapienza University, on the other hand, are spread over numerous locations with two large campuses (Città Universitariat and Sede Castro Laurenziano Campus). Other university buildings are embedded in the urban fabric of Rome, especially the department for Architecture. The following figures show campus plans and exemplary building characteristics of the partner universities Akdeniz University, HTW Berlin, MRU and UWK Krems. Diversity concerning the size, architecture and planning is also visible and the effect of surrounding structures are clearly visible. AKD, for example, has an exceptionally large campus specifically designed as a university, while HTWB and UWK campuses are transformed from existing historical industrial buildings to campus space. SAP also has

historical buildings; thus, it is more challenging to meet the needs concerning ILS and inclusion. Most of the university campuses are designed to provide accessibility for the physically disabled students, however, country reports concludes that other disadvantages groups and students with fewer opportunities are not considered, especially regarding the provision of ILSs.

Figure 2: Akdeniz University; campus map and exemplary view

Figure 3: Hochschule für Technik und Wirtschaft Berlin; exemplary view and campus-maps Wilhelminenhof and Tescowallee

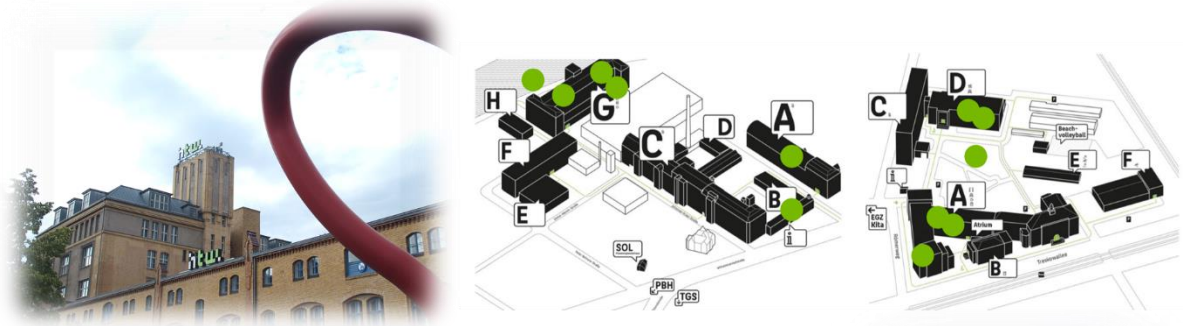


Figure 4: Mykolas Romeris University; 3-D plan and exemplary view

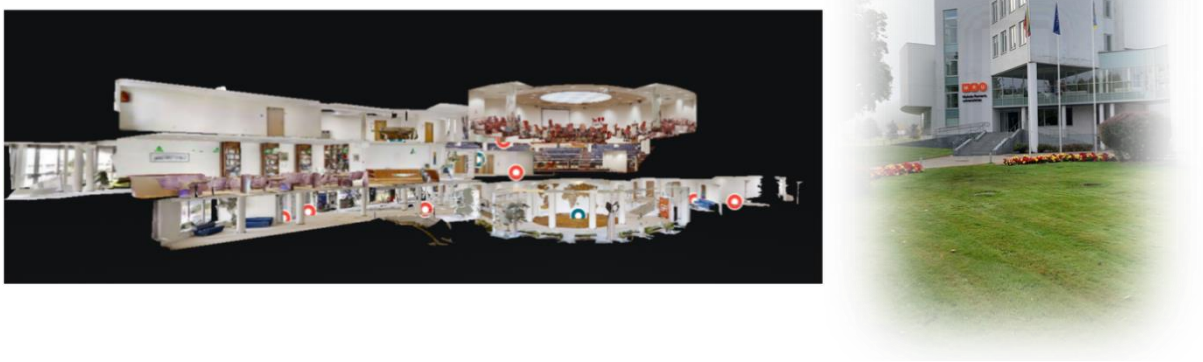


Figure 5 University of Sapienza Main Campus and Architecture Department Building

Figure 6: University for Continuing Education Krems; campus map and exemplary view

Physical Infrastructure and Learning Spaces

Country reports identify different spatial areas that are used as ILS at the respective universities. All the universities mention the importance of libraries as part of informal learning spaces and infrastructure that addresses the student needs, especially concerning the study areas for different learning activities. ILSs are abundant, visible, and promoted in some universities while they are few and not that well known in others. Table 9 provides an overview of the different space typologies mentioned in the country reports including the off-campus areas.

Table 9 Overview of different space typologies and their locations on and off campus in the NIILS partner countries.

	Room type
Indoor ILS	Lounges
	Mensa / Canteens
	Cafeteria

	Library
	Hallways / Corridors / Foyers
	Seminar Rooms / Lecture Halls
	Study rooms
	Dormitories
	Social / club rooms
	Incubations centre
Outdoor ILS	Beach
	Parks / Garden/ Green areas
	Amphitheatre
	Outdoor canteen/cafes
Off campus ILS	Libraries in town
	Cafes / book cafes
	Youth Center
	Study halls
	Museums

Source: NIILS Country Context Reports

Further information on the space available and the spatial infrastructure which are described in detail in the country reports, are summarized below.

- Akdeniz University, the second largest partner university after Sapienza points out a variety of different space typologies for formal and informal learning. In addition to libraries, faculty buildings, and other building typologies, student dormitories are also located on campus, and open spaces include numerous sports facilities. The high architectural quality at the campus has already been recognized with prestigious awards.
- The Hochschule für Technik und Wirtschaft Berlin is located at two sites in different districts of Berlin: Campus Wilhelminenhof (district Treptow-Köpenick) and Campus Treskowallee (district Karlshorst). It is the largest state university for applied sciences in Berlin.
- Mykolas Romeris University points out that the premises and university buildings, as well as the green areas in between, were recently completed. The library with its nine reading rooms and extensive technical equipment is one of the most modern university libraries in Europe. The quality of the web infrastructure is also state-of-the-art and ranks among the world's top in terms of quality. The university has publicly accessible room areas with mobile workstations, and consideration of the requirements of people with special needs has a high priority.
- Sapienza University also refers to several sites in the city region, some of which are of outstanding architectural and historical significance. The historical value of this heritage requires constant attention and investment in its preservation and adaptation to modern requirements, which limits addressing the issues related to ILS.
- The campus of the University for Continuing Education Krems is located at a UNESCO World Heritage Site and is shared by a total of three higher education institutions. The main university building is housed in a historic industrial building. The formal

learning space offered consists mainly of seminar rooms for 24 to 50 people, which corresponds to the typical group size of the university focusing on continuing or adult education. During the pandemic, almost all seminar rooms were re-equipped with technology to enable teaching in hybrid mode. The main informal learning spaces include the library, a lounge area, seating and acoustic booths in hallways and halls scattered throughout the campus, and green and open space areas.

Our findings indicated that provision of informal learning spaces depends heavily on the physical infrastructure and general structure of the campuses and university buildings as well as the size and location.

Stakeholder Focus Groups / Interviews

This chapter presents an overall meta-analysis of the results of the focus groups and interviews conducted in the partner countries in relation to issues, strategies and awareness of the inclusivity and informal learning spaces based on the differences/similarities.

Methodology

In this part of our project, we followed a qualitative data collection procedure based on interviews/focus groups with the stakeholders. Stakeholders were identified to be the persons involved in providing, managing, operating, and supporting learning spaces from university administration (e.g., facility management, technical support, students' contact points, study coordinators, department heads, librarians, student representative councils /unions, etc.), as well as from public authorities and other key stakeholder groups.

Focus groups or single interviews aimed to investigate two key issues regarding the informal learning spaces on campus at partner universities:

- **spatial characteristics, availability, accessibility, equipment, and infrastructure of informal and non-conventional learning spaces** provided by the institutions in the consortium and in the university surrounding, as well as
- **awareness, perception, and existing strategies** within the involved stakeholders to promote inclusive and supportive technologically enhanced informal and non-conventional learning environments, as well as established approaches to mitigate existing inequalities.

Interview guidelines were developed by UWK as the work package (PR1) coordinator in English, and they were revised two times following the suggestions and comments of the project partners in a participatory process. Final guidelines including interview questions and some instructions concerning the interview process were translated into all partner languages (German, Italian, Lithuanian and Turkish) and adapted to campus situations of each partner university (See Appendix A for the English version of the interview guidelines used to collect data). Following themes were the crucial issues discussed during the interviews:

- Spatial characteristics of the informal learning environment at the university
- availability, accessibility, usability, equipment, and infrastructure of informal and non-conventional learning spaces
- awareness and perception related to inclusivity (problems, challenges, measurements taken)

- Role of digitalization in using learning spaces
- Future perspectives and plans

The aim was to conduct one focus group with at least 3-5 stakeholders or individual interviews with 3-5 stakeholders in each partner country.

Data was transcribed and analysed according to guidelines developed by the UWK in cooperation with the partners (See Appendix B). Each partner provided their results in their country report. For this report, a meta-analysis of the partner countries reports was conducted to provide a comparative but holistic view providing a synthesis. MAxQDA was utilized as a tool to conduct the analysis.

Implementation

The stakeholders were contacted through e-mails and telephone and were invited to our focus group interviews or alternative to individual interviews. Focus groups and interviews were conducted between June 2022 and September 2022 in the localities of the partner universities. Most of the focus groups were held in person, while a few interviews were conducted online, e.g., in Austria. Most of the interviews were moderated by two researchers leading an open and semi-structured discussion. In total 39 stakeholders participated in the study. A detailed distribution of the participants according to partners is presented in Table 10.

Table 10: Number of Focus Groups and Interview Participants according to the NIILS Partner Universities

Institution	Focus Groups & Participants	Interview Participants	Total # Stakeholders
AKD	FG 1: 7 participants FG 2: 4 participants		11
HTWB	FG: 5 participants		5
MRU	FG: 5 participants	1 participant	6
SU	FG: 4 participants	1 participant	5
UWK	FG: 8 participants	4 participants	12
Total	33	6	39

Our sample consists of experts, administrators, officers and representatives of students and lecturers from a wide range of stakeholder groups who have been involved in campus management, planning, constructing, or catering students' needs and well-being (a detailed list of participants according to partner institutions can be seen in Appendix C). Table 11 lists the stakeholder groups from five universities. As it is presented in Table 11, the majority of the participants are from facility and construction management who are responsible for the management of the campus spaces. Secondly library administration is represented due to libraries being one of the most important informal learning spaces on the university campuses. We also have participants from the student unions and student services, which we consider crucial to understand the experiences of students who are end users. This maximum variation observed in the sample provides us a holistic and detailed picture and

deeper understanding concerning the informal learning spaces on campuses, their accessibility and availability and the usage, including the awareness about issues as inclusion and well-being of the students and lecturers.

Table 11: Categories of Stakeholders and the Frequencies

Stakeholders	*f*
Department Administration	1
Lecturer Service Center	1
Diversity / Inclusion Office-Service	1
Digital and Online Learning Centres/Units	3
Student Union/Representative	3
International Relations Office	1
Dormitory Management	1
Health and Sports Directorate	1
Facility and Construction Management	9
Faculty Administration	4
Rectorate/University Management	2
Student Services	2
Library/information resources	8
External Stakeholder-School and Sports Facility Construction	1
External Stakeholders-Federal Real Estate Company	1
Total	39

Results

Our analysis yielded insights about the informal learning spaces and their usage as well as the awareness of the inclusivity on campus.

Existing Informal Learning Spaces

One of the first questions discussed in the focus groups and interviews with the stakeholders was the existing informal learning spaces on and off campus that they are aware off. Our analysis yielded 65 various informal learning spaces in five universities mentioned by the stakeholders. Table 12 provides an overview concerning the classifications of these 65 ILSs according to indoor/outdoor, suitability for focused learning/collaborative learning and type.

The majority of these places are indoor while a few of them, such as canteens and cafes, were identified having both indoor and outdoor spaces. A striking result is the small number of ILS dedicated to focused learning, while most of the places are considered suitable for collaborative and group work. Stakeholders mentioned diverse ILS on and off campus, some specifically designed as ILS, and some have other purposes but are used as an ILS. Libraries are among the most frequently ILS mentioned as well as lounges and social areas specifically designed for learning and student socialization.

Table 12: Important informal learning spaces and their classification as identified by stakeholders

Informal Learning Spaces		*f*
Indoor/Outdoor		
	Indoor	44
	Outdoor	18
	Both	3
Study Type		
	Focused	13
	Collaborative	21
	Both	31
Types of ILS		
	Off-campus ILS	3
	Outdoor spaces (seating groups, parks)	18
	Lecture halls, seminar rooms	4
	Social areas, lounges	8
	Library	8
	Cafes and restaurants	4
	Foyers, hallways	7
	University canteens and cafes	6
	Study areas, study rooms	7
Total		65

While libraries are mainly categorized for focused learning, exception of group study rooms, lounges, and social spaces most of the time are considered suitable for collaborative learning with a few exceptions, such as the ÖH Lounge at UWK, providing space for focused as well as individual learning. In addition to lounges and social areas, study rooms specially designed for students to study are marked both for focused learning and collaborative learning. Informal learning spaces in the hallways, foyers, and entrances of the buildings are also listed mainly for collaborative rather than focused learning activities. One participant from Akdeniz University mentioned a foyer which students enjoy: “There is a small foyer in the Faculty of Tourism... specially designed in the form of street view, it receives natural light from the ceiling… plants were placed… It was custom made... students love it... (P3)”. However, it is important to highlight that in most of the cases foyers and hallways are not designed as ILS, and their usage is limited to restrictions, safety regulations and noise. This is specifically mentioned by the UWK participants. Canteens and cafes on the campus are marked mainly for collaborative learning in all universities. Cafes and restaurants are also identified as ILS in four universities. Lecture halls and seminar rooms were mentioned to be used by students as ILS in four cases except UWK. Lastly, outdoor learning spaces around the campus were among the most frequently mentioned ILS in each university. Each university has spaces outside that students use as learning space. Green areas, parks, botanical garden, amphitheatre, spaces around a pool or pond or the river in HTWB case are among popular spaces. Moreover, outside areas of the canteens and cafes on the campus are also among

the outdoor ILS used by students. Universities having a larger campus, as in the case of Akdeniz University provide more outdoor spaces that can be used as learning spaces. A stakeholder from Akdeniz University specifically identified the botanical garden as popular space: “Students use the botanic garden… we see conservatory students rehearsing there frequently. (P. 3)”.

Characteristics of informal learning spaces

Second issue that was discussed during the interviews and focus groups is the characteristics of these listed ILS according to basic needs (food and hygiene), indoor environmental quality (acoustics, lightening, air quality), equipment and furnishing (W-Lan, technology, furniture, infrastructure), and design and attractiveness. A code list was shared with the partners to guide the data analysis. A similar code list was followed for the meta-analysis of the characteristics of the ILS in five universities. Results will be presented according to main characteristics mentioned above.

Concerning the *basic needs such as water, food, and hygiene*, most of the ILS mentioned in five universities provide sufficient and necessary conditions for meeting the basic needs. Vending machines were mentioned in Austria and Italy being in close proximity to major ILS. Moreover, cafes and canteens scattered around the campus were considered as sufficient. Akdeniz University students have access to free food and drinks in two youth centres in close distance to the university. One of the issues emerged in terms of food is the lack of kitchens or spaces where students can warm up and eat their own food on campus. Austrian and Italian stakeholders discussed this, but in Austria, a common kitchen was considered to be difficult due to safety and liability. There have been no serious issues mentioned under the *hygiene*, except one university’s main library. Stakeholders mentioned that hygiene in the restrooms is not easy to keep as a standard, due to considerable number of student flow, which is over the capacity of the library.

Second category that was discussed was *equipment and furnishing*. *Equipment* includes *infrastructure*, including electric plugs and technology and internet available in the ILSs. In two campuses, stakeholders mentioned the availability of necessary infrastructure, especially in terms of plugs, while in two other universities lack of technical infrastructure was underlined. Especially in the library, lack of plugs was mentioned as an issue that students also complained about. On the other hand, technology is considered to be a crucial supporting element for learning activities in ILSs listed. However, in most of the universities, necessary educational technology infrastructure such as screens, computers, and boards or flipcharts are available only in the lecture halls and seminar rooms, but not in other ILS such as outdoors or specially designed learning spaces. One example learning space that was equipped with the educational technology can be given as the ÖH study lounge at UWK. Pictures below can give a clear idea concerning the infrastructure and technology in the ILS. However, it is important to note that this has been one of the exceptional learning spaces. *Internet and WLAN* are considered to be crucial for online and offline learning activities at the campus. All of the stakeholders in partner universities agreed that, in general, the WLAN and internet access is sufficient indoors, e.g., libraries, while outdoor areas were not covered. Stakeholders are aware about the necessity of widening the access in a way to cover the outdoor ILSs as one participant from UWK mentioned: “It cannot be confirmed that every corner of each university is already supplied with WLAN. However, it is on everyone's focus, on everyone's radar (PI3)."

Furniture was another prominent issue for discussion, including *comfort*, *design*, *type,* and *use*. Majority of the furniture used in the ILSs in the five universities were identified to be not very comfortable and ergonomic. One of the issues mentioned by Akdeniz University stakeholders is the amount and size of the tables and seats, especially in the library. It is mentioned that desks are tables are small and students do not find them comfortable to use: "Students are not comfortable when working at those tables, especially while using a book and a notebook together" (AKD Report). Another issue for the use of the furniture which was especially underlined in the case of SAP is the fixed furniture. This lack of flexibility affects the form and type of the activity that are conducted at the learning spaces. Another theme that emerged was the issue of privacy and visual protection. In most of the universities, spaces for retraction and focused learning protected from disturbances are not available. A participant at UWK underlined the discomfort due to lack of privacy and visual protection: "I would find it very disturbing that the stream of visitors has to pass through. It's just a walkway and [...] you still notice it when you're sitting inside, and people walk by. [...] you sit in the display. (FG5, NIILS PR1 Country context report Austria, p. 28). Same issues are also mentioned for the outdoor areas.

The use of ILS furniture depends on the location, design, and flexibility of the furniture as well as the fit to learning activity. With a few exceptions the furniture provided in informal learning spaces at the partner universities is not generally attractive, flexible, comfortable, ergonomic, and designed for the well-being of the students. A common understanding among stakeholders was that some of the places on the campus, indoor and outdoor were not planned and designed as ILSs, thus they do not cater the basic requirements for the learning spaces which focus on learners' well-being and inclusivity.

Next categories emerged in the discussions were *acoustics*, *lighting,* and *thermal comfort*. Three out of 5 universities mentioned negative issues with the acoustics, both indoor and outdoor ILS, and both for focused learning and collaborative learning, especially for spaces such as hallways, corridors and foyers and some issues are mentioned for certain sections of the libraries. A main issue is the level of noise in and around ILS. Lighting is perceived to be sufficient in all of the universities and no issues concerning the lighting conditions in ILS emerged except at UWK where the library blinds are controlled by the facility management and cannot be adjusted by users according to the weather conditions. Thermal comfort was discussed for both indoor and outdoor learning spaces. The climate creates a significant impact on the issues concerning thermal comfort. Outdoor places especially in summer were mentioned to be too hot, stakeholders at UWK, for example, underlined the lack of shades in outdoor areas, while AKD is more concerned with the indoor cooling. On the other hand, MRU stakeholders are dealing with low temperatures and heating issues in wintertime.

Usability of Informal Learning Spaces

Another general theme that emerged in the discussions is the usability of the informal learning spaces which covers how the stakeholders perceive the usage and other issues concerning the ILS on the campus. Based on the data, we classified the usability of the ILS under five main categories: *inclusivity*, *accessibility*, *capacity and circulation*, *structure of the space*, and *problems and challenges*.

Inclusivity was mainly discussed around students with special needs and physical disabilities. In most of the campuses, inclusivity was mentioned to be guaranteed. However, deficiencies such as floor surfaces that are not wheelchair accessible, passages that are difficult to open,

or a lack of elevators (e.g., in student dormitories) are mentioned. Other groups mentioned by the stakeholders are the international students and students with care responsibilities. In the case of international students, language and communication is a barrier for using the ILS especially when university staff do not have the necessary knowledge to use a common foreign language (e.g., English). UWK, on the other hand, notes that many of their students have childcare responsibilities. Yet, there is a lack of retreat areas for this, such as for breastfeeding infants or changing diapers. In addition, the campus kindergarten is only available to university employees, but not to students. It is important to underline here that the students' characteristics is one of the main determiners of the needs and the usage of the ILS.

The final theme that emerged under inclusivity is *online and hybrid learning opportunities*. These learning modes are considered highly inclusive by the stakeholders: "I believe that hybrid formats will have a very inclusive effect on our teaching offers […] because it increases the flexibility, i.e., there are no more travelling times, which should not be underestimated. I can also react much more spontaneously when I have problems, when I am responsible for people, care, or children, and I can possibly also look at the content asynchronously and this flexibility is a great opportunity for a much more inclusive teaching offer." (SI2, 2022, UWK Report, p. 29). Moreover, it was stated that physically disabled students have a better chance of participation through online/hybrid settings.

Accessibility is the second important issue that emerged during the interviews related to usability of the ILSs. Stakeholders discussed accessibility in terms of *administrative accessibility* and *physical accessibility and barrier-free access*. Stakeholders in all universities considered the *administrative regulations* for ILS on the campus easily accessible due to long opening hours for libraries and accessing indoor areas freely or with student ID cards. No administrative procedure is required for using most of the ILS on the campus. Only exceptions underlined were the rooms with high-technic equipment and campus canteens outside lunch times. Regarding *physical access and barrier-free access*, almost all of the universities follow the existing regulations concerning the construction of barrier-free access to all buildings on campus: "To give a specific example, there must not be any higher education building where a wheelchair user cannot get in." (SI3, 2022, UWK Report, p. 30). Access to books through braille system was also mentioned at Akdeniz University. However, despite the strict regulations there are still some issues that make the physical accessibility difficult or challenging for students such as self-opening doors, glass walls that are not correctly marked, heavy doors and unpaved paths for reaching outdoor ILS. One concern mentioned by the stakeholders is the difficulty of following the regulations concerning the barrier-free access due to historical and architectural structure of the existing buildings. Another critical issue to note is the awareness about the complexity of barrier-free access or accessibility. It was pointed out in one stakeholder group that different physical or mental impairments can lead to quite different special needs and that it is not possible to respond to all of them in advance: "There is no such thing as the 'standard impaired' or disabled person. One has a wheelchair, the other is blind, the other is hearing impaired or limited in mobility or suffers from social anxiety. […] accessibility is thus a huge and indefinable topic." (FG1, UWK Report, p.30).

The third issue emerged under usability of ILS is the *capacity and circulation of the spaces.* The spatial offer of ILS is perceived very differently and ranges from sufficient (e.g., HTWB)

to insufficient (SAP). UWK notes that the offer of ILS is of different importance for diverse groups of students and strongly depends on the presence phases in the study programs. For foreign students ILS are particularly important, especially if the respective residential situation in the host country only allows learning in private to a limited extent. Moreover, certain periods such as exam weeks, circulation and length of use is significantly increasing in ILSs such as libraries and this also creates an issue for the capacity. Thus, temporality has emerged as a critical point for the capacity and the circulation of the spaces.

Structure of the space are discussed mainly in relation to *flexibility* and *comfort characteristics* of ILS and with varying perspectives: on the one hand, special room amenities for relaxation and personal exchange, such as billiard tables, common areas, etc., are associated with the term comfort (HTWB, SAP), on the other hand, indoor environmental quality (IEQ) characteristics such as temperature, acoustics, illumination, etc. were mentioned to be important for comfort. UWK notes that the demands of students in terms of IEQ are remarkably high and good room climate as well as retreat areas are demanded. AKD mentions that air conditioning of rooms is a critical issue, especially in summer, as is the provision of shaded outdoor areas. (Besides shading, WLAN availability is crucial for the use of outdoor ILS). Sun protection but also protection against glare and the individual controllability of sun protection devices are considered particularly important by UWK, as is protection against heat, precipitation, and wind for outdoor spaces. Concerning flexibility, stakeholders mostly described the furniture and the structure of the places as inflexible, not designed according to the needs of the learners in almost all universities. SAP points out that room areas that are small and equipped with fixed furniture, which makes flexible use with different learning settings impossible. At the same time, UWK emphasizes that hybrid learning formats require flexible room structures. In the case of large rooms, there should be the possibility to subdivide them, for example, with furniture, and acoustic elements. The quality and ergonomics of furniture is also frequently addressed. AKD notes that functionality, size, and placement of tables can be problematic - e.g., due to too dense room occupancy with small and fixed tables. UWK adds that flipcharts and other collaboration furniture improve the usability of ILS.

Last issue emerged under the usability of ILSs is the *problems and challenges*. A lengthy list of problems and challenges have been mentioned. Table 12 presents the main categories of problems and challenges emerged along with the frequencies.

Table 13 Issues raised in Focus Groups regarding informal learning spaces

Problems and Challenges	*f*
Financial issues	4
Structure of the buildings & physical barriers	4
Management and regulations	4
Maintenance and control of ILS	4

Financial issues concerning planning, developing, and maintaining the ILSs is one of the most frequently discussed problem for the stakeholders. They all agree that there is a lack of funding for informal learning spaces, as the design and maintenance of formal learning

spaces, such as classrooms and laboratories, is the priority for decision makers. However, most of the problems concerning the ILSs such as acoustics, heating/cooling, flexible and comfortable furniture, infrastructure, catering to basic needs and maintenance of these spaces require funds. Financial issues for libraries are specifically stated as a critical issue to deal with.

Another important challenge according to stakeholders is the *physical structure* of the existing buildings and barriers related to these. In two campuses, there are old buildings which are not easy to repair or restructure. SAP and AKD underlined these issues in relation to the existing buildings, while HTWB mentioned the physical barriers for students with fewer opportunities around the campus, making certain buildings and facilities less accessible.

Management and regulations were also discussed as problems during the interviews. Key issues identified under this category are limited opening hours for facilities and buildings, not providing information concerning the ILSs, deficient bookings systems for the learning places and facilities. In terms of UWK, one main problem concerns the high variation of the number of students and staff on campus due to modular study format and irregular presence times of the most offered courses. This variation makes the management of the learning spaces and facilities quite challenging. AKD is concerned about the red-tape bureaucracy that is required to take permission to use or change a learning space as the system is highly centralized.

In addition to management, *maintenance and control* of the learning spaces is another crucial issue. Strict regulations for the use of the learning spaces, especially for the rooms that are technically equipped, safety management issues, maintenance of the ILS, vandalism and conflict management are among the issues discussed.

Awareness and Strategies on ILS

In the last section of the results, we are presenting the findings concerning the existing strategies and awareness on ILS as well as future plans and perspectives.
First of all, we investigated the awareness among the stakeholders on the ILS regarding *inclusivity* and *well-being of the students and teachers*. The majority of our participants show a high level of awareness about the importance of ILS on the campus and SAP mentions that awareness was created and strengthened through the content addressed in the focus groups. In general, an open and approachable attitude toward ILS is evident. However, concrete strategies to promote ILS are only present to a small extent, not all of the universities have existing strategies for increasing the access to ILS and well-being of the students. Accessibility issues are more visible and known to stakeholders compared to aspects related to well-being, thus more strategies exist for accessibility, especially for physical accessibility. The available concepts range from communication and providing information of ILS on campus as well as granting access to ILS by using the student cards (HTWB), improvement of technological equipment (MRU), improvement of barrier-free access, adaptation of outdoor areas (AKD) to considerations for freeing up space resources through desk sharing and implementation of a room booking system (UWK). AKD, for example, considers the well-being of the students during the restoration or design of new buildings on campus, paying attention to the quality of indoor and outdoor ILSs and safety.
The second issue discussed in this part was the *use of formal spaces as informal learning spaces*. In some of the universities, HTWB and AKD, formal learning spaces such as

classrooms, seminar halls and other areas designed for instructional activities can be used by the students when they are free and when they are not equipped with expensive technical devices. At UWK, on the other hand, all of the formal learning places are locked when they are not used for teaching. One of the main discussion issues about formal learning places was the maintenance, security, and management of these spaces. However, most of the stakeholders agree that these places should be open to all learners for learning activities outside instructional activities.

Next theme emerged in our analysis is the *influence of pandemic and digitalisation on teaching and learning activities and informal learning spaces*. All partners agree that massive changes in teaching and learning activities have occurred as a result of the pandemic and will continue into the future, impacting spatial settings at universities. They all commented that there is no way back to the old system. The changes did not happen only in didactics, but also the structure and physical conditions at the universities were improved as classrooms were equipped with the necessary technologies to conduct online and hybrid teaching. Main categories discussed under this topic are the accelerated digitalization that changed the way teaching and learning occur, importance of flexible and hybrid settings and hybrid teaching methods and well-being of the students and inclusivity. Concerning the inclusivity and well-being of the students, some stakeholders stated that pandemic and digitalisation were contributing to inclusivity as this brought the freedom, especially for students who have physical barriers, to join lessons from anywhere. On the other hand, some stakeholders underlined the negative effect of online teaching on students with fewer opportunities, who do not have the necessary conditions at home for creating a learning environment that caters to their well-being, e.g., due to living in crowded households, or care duties. Moreover, reducing the use of ILS causes hinders social integration with peers and lecturers.

Hence, the role of informal learning spaces has taken a new perspective. Stakeholders in most of the universities were aware that informal learning spaces will be more important especially for flexible learning and collaborative learning activities. The participants also added that this will require flexible and multipurpose spaces that cater to students' needs. At the same time lecturers will need to develop new methods for teaching and gain new competences in digitalization of instruction.

Finally, we asked stakeholders about their expectations and plans for future developments at universities in relation to ILSs and inclusivity. Their answers were diverse while there was an agreement on the role of digitalization in the future with an impact on didactics, learning spaces and management of these spaces. MRU emphasizes the need to paying attention to digitalization and to create specific plans for the use of informal learning spaces at universities in the summer (during vacations). It is suggested to involve architects in the process of creating new informal learning spaces and to improve inclusivity. AKD proposes the creation of a comprehensive library with indoor, transitional, and outdoor areas, as well as communication and quiet zones. The use of vacant and unused space resources is another need, as is the activation of the botanical garden as a learning space. Digital preparation and presentation of ILS capabilities and features (furniture, equipment, and capacity) is considered essential. UWK notes the need for flexible and hybrid uses of spaces but also the importance of face-to-face contact in presence. Future learning environments feature a balance of informal and formal learning spaces with fewer lecture halls and auditoriums.

Finally, it is suggested to create comfort zones and provide opportunities to hold courses in varied spatial environments.

Conclusion

Our analysis of the country context reports provided insights, information, and perspectives to understand and create a holistic picture of inclusive informal learning spaces in the project countries and partner universities. Based on our findings, we came to the following conclusions about the design, planning, management, usage, and research of informal learning spaces in line with inclusivity, as well as existing networks and stakeholders.

From a political and academic perspective, inclusivity is more prominent in all of the project countries. Policy documents, regulations, networks, organizations, and research on inclusivity in higher education are abundant, while informal learning spaces, even learning spaces at a more general level, lack visibility and community both at the political and academic level. Our results yielded only a handful directly related networks, projects, and research, not only in the project countries, but also at the European level.

Inclusivity, on the other hand, is perceived and defined in a narrow sense mainly based on physical disabilities, while other vulnerabilities that we used in our framework, such as mental health issues, income, age and language, are not much taken into account in regulations, policy documents and also research. Parallel to this conceptualization, accessibility of learning spaces is mainly identified in terms of physical accessibility and other barriers for students are not taken into account in regulations, guidelines and policy documents dealing with the provision and design of learning spaces. It is therefore a critical issue that needs to be addressed in order to develop a more comprehensive understanding of inclusivity and accessibility in relation to learning spaces.

Concerning the existing ILSs, our analysis showed that in most of the partner universities, the ILSs provided at/around campuses are far from being satisfactory, both in terms of quantity and quality. Most of the ILSs are not flexible, have issues concerning the indoor or outdoor environment quality such as temperature, acoustics, and lighting, as well as regarding learners' well-being and learning needs e.g., different conditions for different learning activities. A common understanding among stakeholders was that some of the used places on the campus, indoor and outdoor, were not planned and designed as ILS, thus they do not cater the basic requirements for the learning spaces which focus on learners' well-being and inclusivity. In general, there is a concern about learners' well-being. Stakeholders are in most cases aware about the issues catering the well-being of the learners, yet existing ILSs do not fulfil the requirements from the learners' perspective. One of the reasons is the lack of resources. In almost all project countries financial resources are mentioned as one of the most important challenges in designing, building and managing the ILSs. Formal learning spaces are given the priority to provide a high-quality learning space with limited resources. Lack of human resources for management and maintenance of the ILSs is also related to lack of resources and a common challenge in almost all partner universities. Another reason is the geographic and climatic conditions. These play a crucial role in shaping the needs of the learners and accordingly shaping the ILSs. Stakeholders in warmer climates are more concerned about providing cooling and shading while in colder climates they are concerned about keeping the spaces warm.

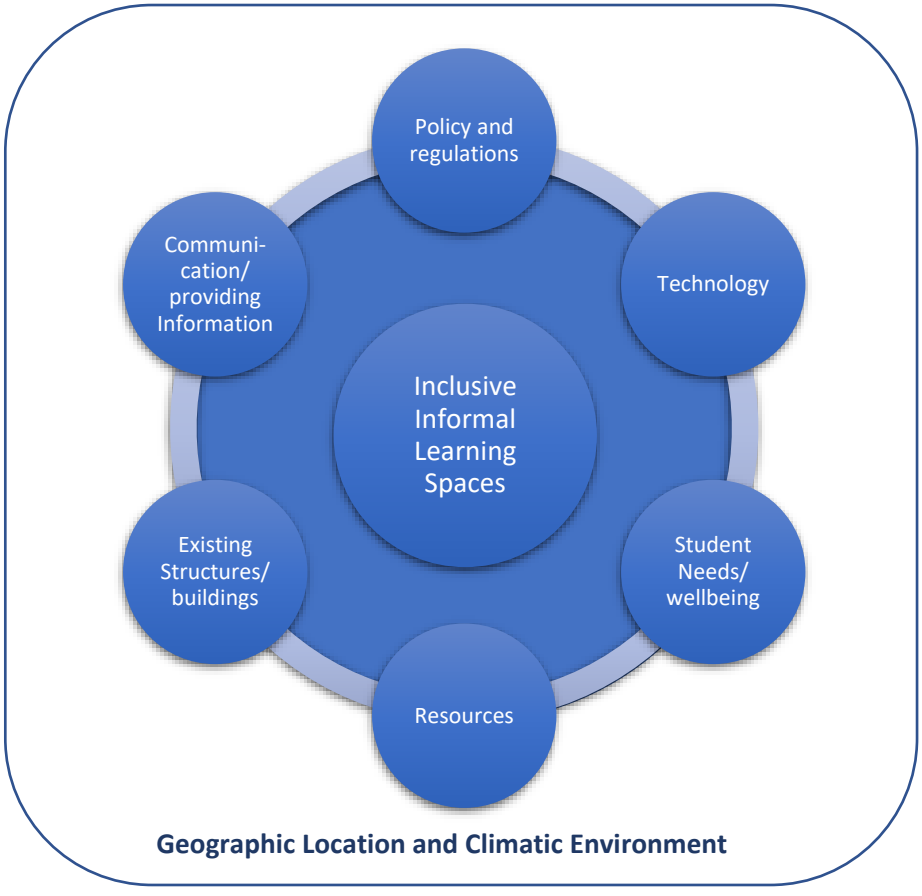
Our analysis also showed that the design and development of ILS is not a collective process including all necessary stakeholders such as students and lecturers. In most cases high level decision makers decide together with architects. Thus, the needs and well-being of learners' can be easily neglected at the planning phase.

Covid-19 pandemic had a significant impact on the use of ILSs and formal learning spaces at the universities. In connection with the technological advancements, digitalization of learning brought about new teaching and learning modes and our analysis indicates that these transformations will be permanent leading way to a more innovative usage of ILSs and formal learning spaces. Thus, planning and designing new ILS also requires the impact and use of technology and learning modalities in addition to other factors.

Last but not least, we observed that concrete strategies to promote ILS are only present to a small extent. Not all of the universities have existing strategies for increasing the access to ILS considering the well-being of the students. Hence, creating awareness at all stakeholders is utmost important.

As a final contribution, we created a framework for designing, building, and managing inclusive ILSs based on our desk search and the empirical evidence we collected from the partner universities. We identified five factors that are powerful on designing, building, and managing inclusive ILSs in HEIs. These factors are policy and regulations, existing structures and buildings, resources, learners' needs and well-being, and technology (See Figure 7). These factors of course interact with each other and with the geographic location and climatic environment.

Figure 7 NIILS Framework for designing, building, and managing inclusive ILSs



The results from this and the following studies will be synthesised to provide the basis for the implementation of learning communities for students,' lecturers, and university administrations as well as the development of recommendations and guidelines to promote inclusive and supportive informal learning spaces.

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Appendix A – Guidelines for Stakeholder Focus Groups / Interviews

Guidelines for Focus Group Interviews with Stakeholders

Project Result 1 - Country context analysis: availability and infrastructure of informal learning space

22.04.2022

NIiLS New Approaches for
Inclusive Informal Learning Spaces

Stakeholder Focus Group Interview Guide: New Approaches for Inclusive Informal Learning Spaces

Send "Research Information & Participation Consent Form" to participants in advance to the focus group interview

Checklist for face-to-face focus groups / interviews:

- Interview guide
- Equipment for audio recording
- Consent forms (for each participant)
- Background questions (for each participant)
- Campus map (with background questions or separate)
- Coloured pencils and/or stickers to mark places on the campus map

Checklist for online focus groups / interviews:

- Interview guide
- Mural Board with campus map and background questions
- Ask participants to send the signed consent form before you start the interview

ALTERNATIVE: The declaration of consent may be recorded at the beginning of the interview on tape and transcribed (thus no signature collection & storage)!

NIILS New Approaches for
Inclusive Informal Learning Spaces

As soon as you start, collect the signed consent declaration or distribute the consent forms and give the participants time to read and sign the consent declaration.

Introduction (5 mins):

Dear Participants,

Thank you for agreeing to participate and taking your time to talk about your insights and perspective on this issue. With this focus group (interview) we want to learn more about the informal learning spaces and their usage in your campus and around the campus. With informal learning spaces, we mean places, which are chosen by students independently and in a self-organised way for different (individual or collaborative) learning activities outside of face-to-face teaching sessions. These are usually places outside seminar rooms and lecture halls like student lounges, foyers and hallway areas, library spaces, cafés or outdoor places. In this focus group we aim to address and learn more about:

- spatial characteristics, availability, accessibility, equipment, and infrastructure of informal and non-conventional learning spaces provided by your institutions in the university surrounding, as well as
- your perspectives on inclusive and supportive technologically enhanced informal and non-conventional learning environments, as well as your strategies and established approaches to mitigate existing inequalities among students.

Our discussion will take 60 to 90 Minutes. For your privacy, I would like to remind the following issues which are also stated in the consent form:

1) This session will be audio-taped and the recorded audio will be held with high confidentiality according to European data protection regulations.
2) Your real name will not be used, instead we will use pseudonyms.
3) Only the project team will have access to tapes.
4) You may choose to stop the interview any time you want.

Your participation is very valuable for our research. If you have any further questions about our research or the focus group (interview) process, please do not hesitate to ask.

Start audio recording

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Questions:

Background (10 mins): If you conduct the focus group/interview face-to-face, distribute the campus map and these background questions. If you conduct the interviews online, share the link to mural page with the campus map and these background questions.

1. Could you please introduce yourself?
    a. What's your position?
    b. Which department are you in?
    c. What are your tasks and responsibilities?

Informal Learning Spaces (30 mins): In this part of our discussion, we will investigate spatial characteristics, availability, accessibility, equipment, and infrastructure of informal and non-conventional learning spaces provided by your institutions in the university surrounding. Please mark the most frequently used/the most prominent informal learning places on your maps using the stickers.

2. What kind of informal learning spaces exist at your campus and in the surrounding area, that are available for students?

3. What are the characteristics of these spaces in terms of light, acoustics, temperature, ventilation, furniture (colour/material/usage), technology infrastructure (including W-LAN, plugs and sockets), access to food and beverage, and hygiene?

4. How do the students use these spaces? Which spaces are used for focused learning activities? Which spaces are used for collaborative (community/group) learning activities? *(Note: Here we can tell the participants to mark these places with different colours on the map or on mural board)*

5. In the following part, we would like to hear your opinion on the usability of the informal learning spaces at your university campus regarding *capacity, comfort, accessibility, circulation, adaptability, diversity, flexibility*:
    a. Are there requirements (administrative, financial, regulatory) for the usage of these places?
    b. Is the capacity enough for the student population?
    c. Are these places comfortable and conducive to students' well-being and learning?
    d. How accessible are these places in terms physical accessibility, administrative accessibility? Do you think all students have equal chances of accessing and using these spaces? If no, why not?
    e. How flexible and adaptable are these informal learning places?
    f. Regarding the term "circulation": What is the average length of stay/use within ne day in these informal learning spaces?

6. We are interested in your opinion regarding problems and challenges in relation to the informal learning spaces mentioned in terms of regulations, management, financial and administrative perspective as well as from student perspective.

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a. What are the problems or challenges you are aware of regarding regulations and management of these ILS?
b. What are the problems or challenges you are aware of regarding financial and administrative issues?
c. What are problems and challenges you are aware of from students' perspective?

Strategies to increase attractiveness, usage and access to these places (30 mins): In the next part of our discussion we would like to learn your perspectives on inclusive and supportive technologically enhanced informal and non-conventional learning environments, as well as your strategies and established approaches to mitigate existing inequalities among students. We also want to talk about future plans.

7. Do you have existing strategies regarding increasing attractiveness, usage and access to these places?

    a. If yes, what are these? Can you tell us more about these strategies?
    b. If no, do you have plans to increase accessibility and usage and comfort to support student learning and well-being?

8. During the pandemic many courses and learning activities took place online. We have seen that digitalization is a key for the future of formal and informal learning. Considering the post-pandemic period and ongoing digitalisation, what are your expectations and preferences regarding the use of informal learning spaces?

    a. Do you expect that learning and teaching modes will go back as they were before the pandemic?
    b. Probably, in the future some courses will still be given online. That means that classrooms will be used less. Do you think seminar rooms might be used for informal learning activities?
    c. What are your future forecasts (visions) regarding informal learning spaces, esp. on the campus (change of importance, increased use by students, etc.)?

9. Is there anything you would like to add to what we have been discussing?

Closure (5 mins): Thank you very much for your time and contribution to our study. It has been an enriching discussion. If you would like to review the transcriptions, we would be happy to share it with you. We will also share the final report with you.

Stop audio recording

Appendix B – Guidelines for Data Analysis

Guidelines for Transcribing Focus Group Interviews with Stakeholders

Project Result 1 - Country context analysis: availability and infrastructure of informal learning space

Version: June 2022, ENG

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Stakeholder Focus Group Interview Guide: New Approaches for Inclusive Informal Learning Spaces

In order to create a common understanding of our data and a coherent data set for the qualitative data that we collect from our project, we suggest following this guideline while doing the transcriptions.

Our approach is producing verbatim (or orthographic) transcript[1].

Hepburn and Bolden (2017) assert that "There are different levels of how much to capture from the sound or video files that form your data. When setting out, a standard **orthographic** transcript may be enough to familiarize you with your data, and to provide you with a searchable and shareable record of what the speakers said" (p. 14). Guidelines to create your transcriptions according to this approach is as follow:

1) Listen to your recordings thoroughly with the most appropriate equipment.
2) You can use some software (see for example: https://www.g2.com/categories/transcription/free) to transcribe the text. But follow the guideline below for shaping the layout and organization of the text.
3) Use **row layout for each speaker**, not the column format ("The benefit of using row representation is that there are fewer layout problems when transcribing multi-party interaction. Unlike column representation, placing speakers at the beginning of rows allows for more horizontal transcribing space, as the utterance of one speaker occupies the entire row. Furthermore, having rows represent speakers enhances the readability of transcripts" (Jenks, 2011, p. 32). (see the example)
4) Use **line numbers** ("Line numbers offer quick identification of specific stretches and features of talk and interaction, provide some indications of how long transcripts are, and when smaller segments of transcripts are used for dissemination and/or publication, they allow researchers to know where, sequentially, the segments fits within a larger transcript. Line numbers should always correspond to talk and interaction, and not the interactants under investigation" (Jenks, 2011, p. 34). But if you combine all the transcriptions in one document, do NOT use CONTINOUS line numbering and restart at each focus group/interview.
5) Use **1.5 spacing**
6) Add **time stamps** at critical points
7) **Don't aim** to **'tidy up' the grammar**, e.g., change words around and introduce words that aren't there.
8) Make sure **words are spelled correctly**.

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[1] Other types of transcriptions according to the details:
Type 1 *narrative* i.e., a narrative account of the communicative event
Type 2 *orthographic* i.e., words only
Type 3 *interactional* e.g., pauses and overlapping speech
Type 4 *paralinguistic* e.g., elongation, voice amplitude, stress, intonation
Type 5 *multimodal* e.g., written notes and video stills of gestures

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9) **Anonymize the information** about the participants. You can give participants **pseudonyms** and replace other identifying information (such as addresses and telephone numbers).
10) You can add some details as laughing or too long pauses or not comprehensible parts in parentheses.
11) You can also differentiate the questions from answers using different text colours or formats (italics, bold, etc.)
12) Do not forget to proofread while listening to the recordings one final time.

You can have a look at the example below regarding the format and style.

Example:

Transkription Fokusgruppe STAKEHOLDERS_on DATE & PLACE

[01:00] DUK: Good, we always record it twice so that nothing goes wrong, so if something should go wrong with the recording, so that we still have a backup copy, like that. Okay, let's start with the first question: What role does digitalisation play for you in your everyday work?

A: I'll start.

DUK: Someone has to start.

A: Someone has to, it's quite easy. The man in the round.

B: No, why?

DUK: (laughs briefly)

A: You can do it.

B: Well, OK, then I'll start, I think it's very important that it's digitalised, because in general access is easier for the staff and everything is a bit more transparent, I'm so young myself and that's why I come from the digital age (laughs briefly), so for me it's not so difficult now, let's say so, for me it's rather the other thing that I'm not used to, so if you're like that, yes, so for me, I think it's important.

A: In our operating theatre, digitalisation is taking hold in small steps, the operating theatre documentation itself is still in paper form, but we have the appropriate monitors and all the equipment in digital form, so that we already have the X-ray images on the monitor in digital view and there has been talk for a long time about introducing the operating theatre documentation in digital form, but that hasn't happened yet. In other hospitals it has already happened, I have seen that in the course of my various internships, but I have also seen that it is not always advantageous, at least when everything is still documented twice, digitally on the one hand, but the paper form has not yet disappeared, so today I still don't know exactly whether I should look forward to the day when it comes to us or, yes, I am glad that it is not there yet, I am still a bit in doubt.

C: For me, upstairs, 80 per cent of it is digital, so I think that's quite good, because otherwise the documentation on the curves, they often wrote sloppily, you don't read

Appendix C – Participants of Stakeholder Focus Groups / Interviews

Participants	Institution	Department / Division	Tasks / Responsibilities
Participant 1	UWK – University for Continuing Education Krems	Students' Service Center	Student's consulting and support
Participant 2	UWK – University for Continuing Education Krems	Division of Infrastructure	
Participant 3	UWK – University for Continuing Education Krems	Division of Infrastructure	Facility management
Participant 4	UWK – University for Continuing Education Krems	Division of Infrastructure	Facility management
Participant 5	UWK – University for Continuing Education Krems	Division of Infrastructure	Library and university archives
Participant 6	UWK – University for Continuing Education Krems	Division of Digitalisation, Teaching Innovation and Digital Competence Development	Teaching development and evaluation
Participant 7	UWK – University for Continuing Education Krems	Rectorate	Educational affairs, academic continuing education, and digital transformation
Participant 8	ÖH - Austrian National Union of Students	Office of the Students' Union at UWK	Students' representation and counselling
Participant 9	ÖH - Austrian National Union of Students	Office of the Students' Union at UWK	Students' representation and counselling
Participant 10	FM-Plus – Facility Management for Science and Culture in Lower Austria	Head Office, University Campuses	Real estate and facility management
Participant 11	BIG – Federal Real Estate Company	Business Unit Universities	Project development
Participant 12	ÖISS – Austrian Institute for School and Sports Facility Construction	Educational Buildings	Consulting, information and development of standards and guidelines
Participant 8	AKD	One of the faculties	Dean (using and developing the faculty and its affiliated units, providing necessary social services to students, conducting education, scientific research, and publication activities, supervising, and supervising all activities).
Participant 1	AKD	Construction and Maintenance Directorate	Architect (to make the projects of the university buildings and facilities, to control the constructions, to carry out the maintenance

			works and execution of tender processes for new projects and maintenance works).
Participant 3	AKD	Construction and Maintenance Directorate Landscape Unit	Landscape Architect (designing and landscaping of the campus open areas, carrying out the maintenance, and execution of tender processes for new projects and maintenance works).
Participant 9	AKD	Main Library	Library and Documentation Unit Personnel (development of printed and electronic collection, budget planning, supplies, equipment, and materials, building cleaning, maintenance-repair and repair works).
Participant 4	AKD	Main Library	Library Reference Services Unit Personnel (operations Related to Library Automation Program, cataloguing and classification, collection development and provisioning, database operations, orientation and user training, Electronic Library Portal for visually impaired individuals).
Participant 11	AKD	Student Affairs Directorate	Student Affairs Personnel (to organize all works related to first-time registration, admission and course status of students, graduation, identity, scholarship and tracking of graduates).
Participant 10	AKD	Health, Culture and Sports Directorate	Health, Culture and Sports Directorate Personnel (providing services related to the physical and mental health of the students, providing accommodation, nutrition, study, and social-cultural environments, and providing services to improve their health and social conditions).
Participant 2	AKDKD	AKUZEM (Akdeniz University Distance Education Center) Content Development Unit	Distance Education Center Staff (to carry out distance education programs, student affairs, content development, conducting procedures related to automation systems, to develop e-

			learning-based courses and programs, to support the formal education with information and communication technologies, and exam organizations).
Participant 5	AKD	General Directorate of Student Loans and Dormitories. One of the Dormitories	Psycho-social Services Staff (orientation, counselling, and guidance services for the students in dormitory, social relations, and community work).
Participant 6	AKD	International Relations Office	International Students Personnel (Designing and implementing international student recruitment process, providing information and consultancy services regarding the admission and entry requirements of international students, orientation processes of the university, directing students to the relevant units. Free Mover and Erasmus student admission procedures).
Participant 7	AKD	Faculty Secretary	Faculty Secretary (managing the administrative works in the faculties, organizing the cleaning, maintenance and repair works, providing educational equipment, preparing the faculty budget).
Participant 1	HTW Berlin	Student representative	Part of the Executive Committee of the Student Parliament (cf. SV, 2022, ln. 47).
Participant 2	HTW Berlin	Representative for disabled and chronically ill students (SWFO)	Part of the general student advisory service and student advisor representative for disabled and chronically ill students (cf. SWFOV, 2022, ln. 50-51).
Participant 3	HTW Berlin	Library representative	Responsible in the library for management of magazines, newspapers, theses, and public service, i.e., lending, returning, and information (cf. BV, 2022, ln. 54-57).
Participant 4	HTW Berlin	Lecturer Service Center representative	Representative of the Lecturer Service Center, mainly responsible for didactics, media didactics, and

			qualifications for lecturers (cf. LSCV, 2022, ln. 59-60)
Participant 5	HTW Berlin	University management representative	Budget management, management of the university administration, which includes, among other things, the student service, the human resources department, the budget department, and the technical department, management of the data centre. Further responsibilities include university construction and campus space management (cf. HM, 2022, ln. 64-72).
Participant 1	MRU – Mykolas Romeris University	Center for Academic Affairs, Digital Studies Group	Digital facility management, Student's consulting for digital studies and support
Participant 2	MRU – Mykolas Romeris University	Division of Infrastructure, Library	Facility management
Participant 3	MRU – Mykolas Romeris University	Information resources formation group	Informational facility management, Student's consulting for information resources and support
Participant 4	MRU – Mykolas Romeris University	Information Services and Education Group	Information services facility management
Participant 5	MRU – Mykolas Romeris University	Library, Customer service and consulting group	Library and university archives, Student's consulting, and support
Participant 6	MRU – Mykolas Romeris University	Library, Science Data Formation Group	Library and university archives
Participant 1	Sapienza University of Rome – Architecture Faculty	Technical division	Coordinator of administrative technical staff.
Participant 2	Sapienza University of Rome	Area Gestione Edilizia (Property Management Area)	Managing the digitization process of Sapienza's properties.
Participant 3	Sapienza University of Rome – Architecture Faculty	Faculty Management	Teaching Management
Participant 4	Sapienza University of Rome – Architecture Faculty	Faculty Management	Program curriculum office
Participant 5	Sapienza University of Rome – Architecture Faculty	Department Director	Administrative and Scientific management of History, Representation and Restoration of Architecture Department

Appendix D – Country Context Reports

The country context reports and other outcomes from the NIILS project are available for download at: https://www.donau-uni.ac.at/niils

NIILS Country Context Report & Situation Analysis (2022). Project Result 1. Country context analysis: availability and infrastructure of informal learning space. University for Continuing Education Krems, Austria.

NIILS Country Context Report & Situation Analysis (2022). Project Result 1. Country context analysis: availability and infrastructure of informal learning space. Akdeniz University, Türkiye.

NIILS Country Context Report & Situation Analysis (2022). Project Result 1. Country context analysis: availability and infrastructure of informal learning space. HTWB Berlin, Germany.

NIILS Country Context Report & Situation Analysis (2022). Project Result 1. Country context analysis: availability and infrastructure of informal learning space. Mykolas Romeris University, Lithuania.

NIILS Country Context Report & Situation Analysis (2022). Project Result 1. Country context analysis: availability and infrastructure of informal learning space. Sapienza University of Rome, Italy.