ID 459 - An EU Common Training Framework for Landscape Architecture addressing the current needs of society

Abstract

The European Union (EU) Directive 2013/55/EC amends Directive 2005/36/EC on the recognition of professional qualifications. The 2013 amendment allows Member States to decide on a common set of minimum knowledge, skills and competences required to pursue a given profession through a Common Training Framework (CTF). Such a framework must combine training requirements formally documented by at least one third of the Member States. Qualifications gained under a CTF may be recognised automatically across the internal borders of the EU, but in any case, an agreed CTF for Landscape Architects would usefully act as a benchmark document for both teaching and professional recognition in countries across Europe.

The backbone of the CTF for Landscape Architecture proposed by IFLA Europe and ECLAS is outlined in the body of this paper. The InnoLAND project organised a collaborative process for setting up this CTF as a basis for Landscape Architectural Training. Content is based on educational documents created by IFLA world, IFLA Europe and ECLAS and texts resulting from the EU-TEACH and the EU-LAND21 projects. Content also reflects evolving policies on urban and rural landscapes, higher education, and the needs of society for sustainable, biodiversity-rich landscapes and land uses, landscape democracy, health, and safety. Furthermore, this proposed CTF for Landscape Architecture responds to the United Nations Sustainable Development Goals (UNSDGs) that call for the explicit integration of thematic issues relating to life on earth, biodiversity, water, energy, climate, oceans, urbanisation, transport, science, and technology.

The CTF for Landscape Architecture is based on an Equivalence of Standards in education, training, qualifications, knowledge, skills, competences, and the professional conduct associated with practice. In addition, InnoLAND has identified 9 EU Member States that formally regulate the profession of Landscape Architecture and are able to meet Equivalence of Standards as required by the EU Commission. The profession is also regulated in the United Kingdom.

The creation of a CTF for Landscape Architects will support and contribute to the EU's goals of increasing professional mobility, safeguarding consumers, and ensuring an equitable distribution of skills and expertise across Member States. The content of the proposed CTF provides a template for national professional bodies and/or competent authorities to engage with the EU Commission.

Keywords

common training framework; equivalence of standards; EU directive 2013/55/EC; recognition of professional qualifications; landscape architecture education, European Qualification Framework.

ACRONYMS

ESD	Education for Sustainable Development	ICOMOS	International Council on Monuments and Sites
SDG	Sustainable Development Goals	ELC	European Landscape Convention
UN	United Nations	CPD	Continuous Professional Development
LAR	Landscape Architecture	ILO	International Labour Organisation
LA	Landscape Architect	ISCO	International Standard Classification of Occupations
LAs	Landscape Architects	IFLA	International Federation for Landscape Architecture
EU	European Union	IFLA Europe	The European Region of IFLA
UNESCO	United Nations Educational, Scientific and Cultural Organization	ECLAS	European Council of Landscape Architecture Schools
		CAP	Common Agricultural Policy

Content

1. Setting the scene

1.1 The existing foundations for the Common Training Framework

IFLA Europe and ECLAS are developing a Common Training Framework (CTF) for landscape architecture. The aim is to have a common set of standards for professional qualifications that support the quality of the profession and education of landscape architects (LAs). The CTF is developed in an open process with school contact persons of ECLAS and IFLA Europe delegates as one of the activities of the InnoLAND project. It will include an updated version of the Warsaw declaration by IFLA Europe and ECLAS.

The European Union (EU) Directive 2013/55/EC amends Directive 2005/36/EC on the recognition of professional qualifications (PQD). The 2013 amendment allows Member States to decide on a common set of minimum knowledge, skills and competences required to pursue a given profession through a CTF. According to the PDQ there are seven professions with automatic recognition: doctors, nurses responsible for general care, dental practitioners, veterinary surgeons, midwives, pharmacists, and architects, with the fundamental principle of automatic recognition of the evidence of formal qualifications on the basis of coordinated minimum conditions for training. Qualifications gained under a CTF may be recognised automatically across the internal borders of the EU, but in any case, an agreed CTF for LAs would usefully act as a benchmark document for both teaching and professional recognition in countries across Europe.

Contemporary landscape architecture (LAR) can range from carrying out large scale landscape planning or design projects, such as developing landscape proposals for the future of whole regions or integrating infrastructure projects into the landscape and ameliorating their impacts on the environment, through the formulation of strategies for the provision of green space structures and urban nature conservation, to the detailed design of new housing or commercial areas, individual parks, urban public spaces and gardens. Equally LAs may be involved in the development of concepts for the long-term management of historic gardens and landscapes, recreation areas in the urban fringe or of national parks and protected landscapes (Sarlov Herlin, 2009).

The estimated number of LAs across the EU that are members of national associations and/or chambers adds up to 14,000. This includes researchers, practitioners, and civil servants, while many of these combine academic work (teaching and research) with professional practice. Their contribution continues to develop through research (including research by design and participatory action research) and addressing the current needs of society for climate resilience, flood prevention, enhancing biodiversity, food security and inclusiveness of all members of the society. The competences of landscape are growing by technical advances, like applying nature-based solutions and technical solutions for green infrastructure, and the increasing knowledge and skills of the practitioners.

The profession of landscape architecture falls in the “general system” of the Professional Qualifications Directive (PQD). A CTF must combine training requirements formally documented by at least one third of the Member States. Qualifications gained under a CTF may be recognised automatically across the internal borders of the EU, which provides opportunities for the mutual recognition of qualifications for the estimated 600 professions in the “general system”. This helps catalyse a more rapid and equitable distribution of human resource and services across the Union, and supports individuals seeking unhindered professional migration across EU borders. Professionals who have gained their qualifications under a CTF will be able to have these recognised automatically without further ‘compensation measures’ being imposed.

An agreed CTF for LAs would usefully act as a benchmark document for both teaching and professional recognition in countries across the EU and beyond.

Proposing the recognition of LAs is in line with the mission of the International Federation for Landscape Architecture Europe (IFLA Europe) and the European Council of Landscape Architecture Schools (ECLAS) and contribution in ensuring equitable, high quality, safe services across the EU’s single market. ECLAS, that also carried out the Tuning Project for landscape architecture (ECLAS, 2010), and IFLA Europe, drew up joint advice for the EU Member States based on education, training, qualifications, continuous professional development, and

professional conduct that it considered appropriate with the professional qualifications for landscape architecture. The preceding process is shown in Figure 1.

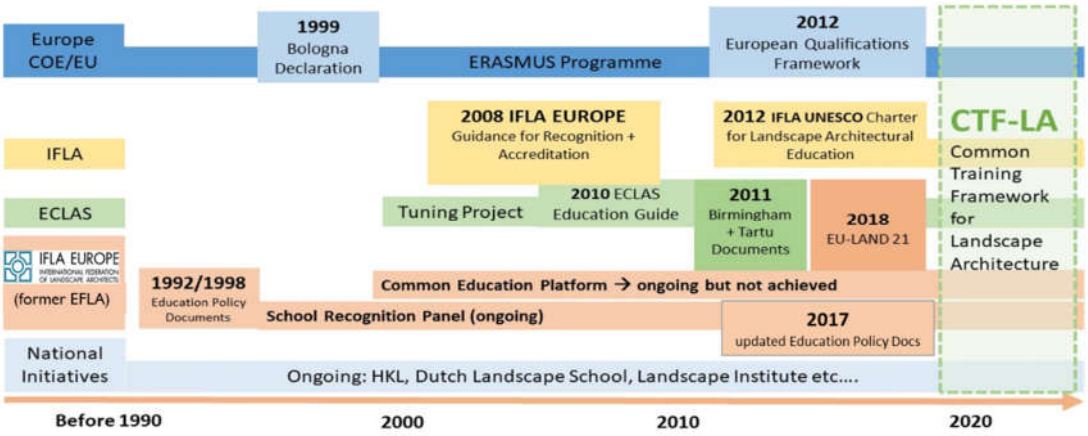

Figure 1. The European pathway to education guidance in landscape architecture (adapted from E. Fetzer). In 2006 the European Foundation for Landscape Architecture (EFLA) joined with IFLA and was renamed IFLA EUROPE.

These foundation documents together with the expected knowledge, skills, and competencies for practicing as a LA form the backbone of a proposed CTF which is outlined here.

In setting the scene for the proposed framework first an overview is provided of LAs unique contributions and their demographic profile in relation to further stipulations laid down by the PQD for example on regulation status and adoption of professional titles. The proposed CTF aims to be approved by the IFLA and ECLAS and then will offer the EU Member States a template for submission to the EU Commission. The context of the CTF is presented in Figure 2.

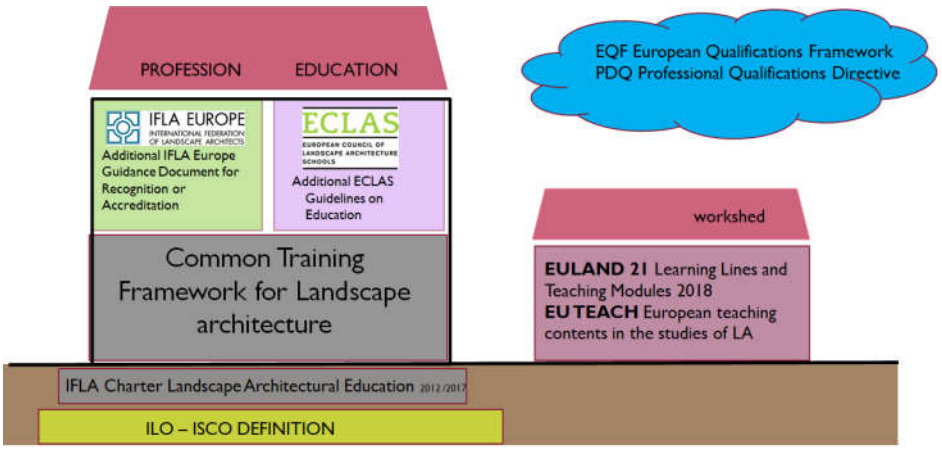

Figure 2. The context of the Common Training Framework for Landscape Architecture

Overarching regulations are the PQD and the European Qualification Framework (EQF). The foundation for the CTF consists of the ILO-ISCO definition that an approved by IFLA world and the IFLA Charter Landscape Architectural Education. With the CTF as a common document for the profession and education the ECLAS guidelines for landscape architecture education are updated. These give institutes for higher education further guidance on the content and structure of LA programmes. For professional recognition IFLA Europe provides guidelines on the process of recognition and an elaboration of the standards that are set in the CTF. Additional information on competences, learning lines, teaching modes, assessment methods, exemplary modules, etcetera can be found in the publications of EU Teach and EULAND 21.

1.2 New challenges and developments and actual needs of society

Landscape architecture as a field of professional activity and an academic discipline, is concerned with the shaping of landscapes at various scales. Core competences centre on the process of intervention in landscapes to create new or revitalised places, by means of landscape planning, design, and management, as well as by project implementation. It aims are to create, enhance, maintain, and protect places so as to be functional, aesthetically pleasing, meaningful and sustainable and appropriate to diverse human needs and goals. Landscape architects must have a holistic and systemic knowledge and understanding of landscape in time and space, and the pressures and driving forces to which landscapes are subjected; they involve not only specialist knowledge from a wide range of disciplines, but also the interests of the public.

European and EU policies

The European policies for which LAs have a role in the implementation cover a wide range of themes. A holistic, systemic, and transdisciplinary approach is essential. In order to address complex challenges there is a trend for a harmonisation of policies and objectives (such as the integration of environmental and climate legislation between the Common Agricultural Policy (CAP) and the integration by the Green Deal and local policies). Figure 3 shows the impact of the main European policies related to landscape for landscape architecture competences.

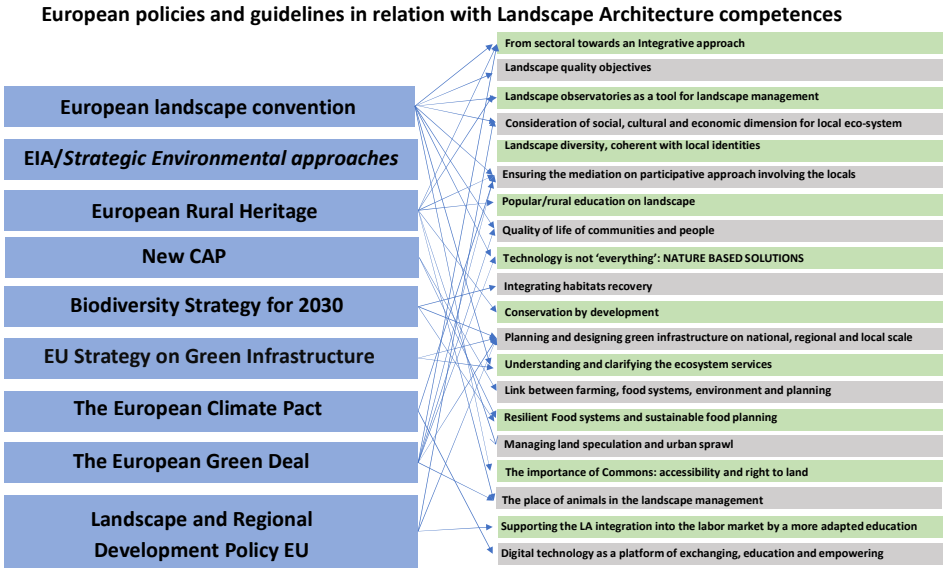

Figure 3. Impact of European and EU policies on competences of landscape architects (Triboi, 2021)

LAs work together with other disciplines on the implementation of these policies by addressing the corresponding challenges in a holistic way, linking the ecological, social, economic, and aesthetical aspects. For instance by fostering global health, strengthening ecosystem services, enhancing climate resilience, local and circular economy by inclusive and participatory approaches.

Sustainability goals (Fetzer, 2021, in preparation)

UNESCO has been promoting Education for Sustainable Development (ESD) since 1992. The first step for promoting ESD was the UN Decade of Education for Sustainable Development (2005-2014), followed by the Global Action Programme (GAP) on ESD (2015-2019). The GAP is currently in process of implementation at the national levels.

Figure 4. Overview of the Sustainable Development Goals, related to landscape layers. (Source: Stockholm Resilience Centre)

Each UN member state is following-up similar parallel processes in this field. In recent years, various educational scientists (de Haan, 2010; Wiek, 2011,2015; Rieckmann, 2012) have dealt with a definition of skills and competencies that could serve as a target framework for training in this context.

Arnim Wiek (2011, 2015) defined five key competences: Systems thinking, Futures thinking (or anticipatory) competence, Values thinking (or normative) competence, Strategic thinking (or action-oriented) competence, and Collaboration (or interpersonal) competence. The UNESCO report on Sustainability Competences (2017) adds three more to these: Critical thinking, Self-awareness and Integral problem-solving. Even if these key competences seem rather generic, they are very compatible with the identity of landscape architecture as a profession focussing on changing existing landscapes towards a better, more sustainable future.

2. The collaborative process of developing a CTF

2.1 Process and stakeholders

In 2020 and the first months of 2021 IFLA Europe carried out a survey on professional recognition and accreditation among the National Associations in all European countries. The survey aimed to identify: (1) the up-to-date problems for each country, regarding the state and procedures of LA professional recognition and regulation, (2) any good practices or procedures regarding the process of achieving the professional recognition, or any good examples which help the professional accreditation and development, (3) the future trends of the profession, and (4) the obstacles or opportunities regarding the professional mobility.

From January until June 2021 a collaborative process was conducted within the framework of the InnoLAND project. Some 60 LAs from academia and professional practice took part, with representatives of 24 national landscape architecture organisations in the EU and of landscape architecture programmes across Europe. The participants are located in 24 EU-countries, 6 other European countries, and some colleagues from outside Europe.

2.2 Outcomes

The collaborative process resulted in a strengthened common understanding of the roles and competences of LAs. The participants developed a roadmap for updating the guidelines for landscape architecture education and the principles of recognition by IFLA Europe. It resulted in a draft CTF for landscape architecture (section 4 of this paper) that will be presented to the general assemblies of the ECLAS and IFLA Europe.

3. The contribution of landscape architects to sustainable landscapes and healthy environments

3.1 Roles and responsibilities

The task and roles of LAs are developing and, in this context, the Council of IFLA World voted on a renewed definition and proposed it to the ILO.

Landscape Architects plan, design and manage natural, rural, and built environments, applying aesthetic and scientific principles to address the sustainability, quality and health of landscapes, collective memory, heritage and culture, and territorial justice. By leading and coordinating other disciplines, landscape architects deal with the interactions between natural and cultural ecosystems, such as adaptation and mitigation related to climate change and the stability of ecosystems, socio-economic improvements, and community health and welfare to create places that anticipate social and economic well-being. (IFLA World Council, 2020)

Whilst the scope of practice at specialist level varies across the EU Member States the overlap is considerable such that common roles and responsibilities can be drawn out as follows:

1. Developing new/ improved theories and methods, providing advice on landscape policies.
2. Provision of professional and scientific leadership to direct and determine the scope and organisation of planning and design that are appropriate for local landscapes and its inhabitants and stakeholders.
3. Working from an extensive, up to date knowledge to ensure best practice.
4. Ability to work in a professional planning and designing environment to guide landscape strategies, planning, design, management, and project implementation.
5. Leading and supporting research and development: innovating and implementing new technologies; initiating, conducting, and evaluating research; delivering quality assurance programmes, undertaking continuous audit and evaluation, understanding of ethical, legal and governance considerations.
6. Participation in and/or leading teaching, education, and training programmes in landscape architecture.
7. Providing the landscape leadership that focuses on well-being, healthy environments, landscape aesthetics and contributing to the development of sustainable landscapes that foster biodiversity, climate resilience and that deliver ecosystem services and contribute to the well-being of people.
8. Evaluating and inspecting areas and sites, consulting clients, management, and other stakeholders to determine type, style, size of proposed constructions, landscape interventions, parks, public spaces, green infrastructure, roads, and other urban/rural outdoor spaces.
9. Compiling and analysing data on regional, local landscapes and project sites with community data (geographical, ecological features, landforms, soils, vegetation, hydrology, visual characteristics, human-made structures, stakeholder mapping) for land use and development recommendations, feasibility studies and environmental impact analysis.
10. Drawing up reports, strategic plans, site plans, working drawings, specifications, and cost estimates for landscape development, showing location and details of proposals, including ground modelling, structures, vegetation, water system, and access.
11. Writing specifications and contract documents for use by builders and civil engineering contractors and calling tenders.
12. Making necessary contracts to ensure feasibility of projects regarding style, cost, timing, and compliance with regulations.
13. Identifying and finding best solutions for problems regarding function and quality of outdoor environments and making necessary designs, drawings, and plans.

3.2 The context of their contributions and the actual needs of society

Society at large has a great concern for quality of life, safety, and functionality of rural and urban areas, and for biological and landscape diversity. European policies form a basis for a common strategy to improve conditions for people and their environment. These policies are implemented by national and regional laws and programmes. The first international treaty to be exclusively devoted to all aspects of European landscape, the European Landscape Convention (ELC) was adopted in 2000 and has two main objectives: individual and social well-being, and the sustainable development based on a balanced and harmonious relationship between social needs, economic activity, and the environment. Article 3 aims to promote landscape protection, management, and planning, and to organise European co-operation on landscape issues. Important policies refer to cultural heritage, urban and rural development, climate change, biodiversity, soil protection, water management and flood risk prevention. All these policies relate to sustainable development. This variety of subjects calls for integrated and, at the same time, critical approaches to teaching, learning, and research. The key policies and programmes that have a direct link to territorial development and landscape architecture are shown in Figure 3.

To address the current needs of society the following tasks are essential:

a) Integral planning and designing blue-green infrastructure that provides ecosystem services for urban, peri-urban, and rural landscapes.
b) Integral planning and designing of urban open space that provides safe, healthy, inclusive environments for people.
c) Integral planning and designing of landscapes for reducing flood risks, improving climate resilience and biodiversity.
d) Drawing up plans, projects and designs for the conservation and sustainable development of heritage sites and landscapes with heritage value, such as cultural landscapes, UNESCO/ICOMOS protected areas and sites and modern heritage.
e) Making plans for productive landscapes that provide ecosystem services, fulfil the aims of the new Common Agriculture Policy and foster sustainable development of food production and energy.
f) Empowerment of communities by co-creation and democratic design of environments in order to provide in inclusive public spaces and other landscapes.

Knowledge, skills, and competencies arm the LAs to provide solutions to these ever-changing demands. In part these demands are predicated by individual member state priorities but, increasingly, common themes emerge in the provision of sustainable landscapes for communities.

4. The demographics of the profession and higher education

4.1 Current status of regulation and professional recognition in EU-countries

Table 1 presents an overview of the EU countries where the profession is regulated, with the national names of the profession, the number higher education institutes (HEIs) that deliver landscape architecture programmes, the names of the degrees and whether the programmes are recognised by IFLA Europe.

[NOTE: TABLE 1 Still has to be completed, question for representatives of each country to complete, correct it]

Table 1. Overview of aspects of landscape architecture profession and education for EU member states [1])

	Country	Is the profession regulated?[2])	National name of the profession	Number of LA HEIs & main types of faculties	Number registered LA [3])	Names of degrees	Program(s) recognised by IFLA Europe [4])
1	Austria	-	Landschaftsarchitekt	2, Life Sciences and Technical University			-
2	Belgium	-	Landschap- en tuinarchitectuur /	3, Arts,		Bachelor Landscape Architecture Bachelor in Garden and Landscape architecture Master in Landscape architecture	Yes, both bachelor and master
3	Bulgaria	-		1,		Master in Landscape Architecture	Yes
4	Croatia	-		1, Agriculture			-
5	Cyprus	-					-
6	Czech Republic	Yes, general system	Krajinarsky architekt,	2, Life Sciences		Bachelor in Garden and Landscape Architecture (plus elective studies) Bachelor and Master Landscape Architecture -	Yes
7	Denmark	-				MA Urban Design/Landscapes	yes
8	Estonia	-	Maastikuarhitekuri	1, Life Sciences			-
9	Finland	-		1, Arts		Bachelor in Landscape Architecture Master in Landscape Architecture	yes
10	France	Yes, general system	Paysagiste concepteur	6, Architecture, Nature, Agriculture, Landscape Architecture		MA Landscape Architecture Paysagiste ESAJ (Landscape Architect ESAJ), Bachelor Diplôme d'etat de Paysagiste (DEP)+ Master Degree Diplôme d'Etat de Paysagiste MA Landscape Architecture	yes
11	Germany	Yes, general system	Landschafts- und Gartenarchitect				
12	Greece	-		2, Agriculture and Architecture		Master in Landscape Architecture	yes
13	Hungary	Yes, general system	Kertépítészeti műtárgy tervezési szakterület / Építészeti-műszaki tervezési tevékenység & Táj- és kertépítészeti tervezési szakterület / Építészeti-műszaki tervezési tevékenység	1, Agriculture and Life Sciences		Landscape management and garden construction Okleveles tájépítészmé rnök/ Certified Landscape (MSc) Architect Tájépítész és kertm Űvé sz/Garden art and Landscape design Master of Arts in Landscape Architecture (MLA)	yes
14	Ireland	-					
15	Italy	Yes, general system	Paesaggista				

Table 1. Overview of aspects of landscape architecture profession and education for EU member states [1])							
	Country	Is the profession regulated?[2])	National name of the profession	Number of LA HEIs & main types of faculties	Number registered LA [3])	Names of degrees	Program(s) recognised by IFLA Europe [4])
16	Latvia	-					
17	Lithuania	-					
18	Luxembourg	Yes, architect specialist	Architecte-paysagiste et ingénieur-paysagiste				
19	Malta	-					
20	Netherlands	Yes, general system	Tuin- en landschapsarchitect				
21	Poland	-		3, Technology and Agriculture		Full Programme - (Bachelor and Master Landscape Architecture Engineer Landscape Architecture	yes
22	Portugal	-					-
23	Romania	-		2, Architecture and Agriculture			-
24	Slovakia	Yes, general system	Krajinný architect	2, Architecture and		Bachelor Landscape Architecture	-
25	Slovenia	Yes, general system	Pooblaščeni krajinski arhitekt	1, Biotechnical		Bachelor in Landscape Architecture MSc of landscape architecture	Yes, bacherlor
26	Spain	-		1, Architecture, Agriculture and Politechnic		MA Landscape Architecture (MAP) BCN Master in Landscape Architecture Extended (MLAE) Master Universitari en Paisatgisme (MUP) Master Barcelona in Lnadscape Architecture (MBLandArch) Master Universitario en Jardinería y Paisaje	Yes
27	Sweden	-	Landskaparkitekt	1, Life Sciences		MSc Landscape Architecture	- -

1) The recognised programmes in Iceland, Norway are not mentioned in this table
2) Source web site EU-Union: http://ec.europa.eu/growth/tools-databases/regprof/index.cfm?action=profession&id_profession=6480
3) To be provided by the National Associations (if not available before Jun2 15, 2021 this column will be taken out.
4) List of recognised schools as presented on the IFLA Europe website, consulted on May 15, 2021

The profession is regulated in 9 member states of the EU. The programmes of 11 member states have gained professional recognition by IFLA Europe. The total number of LAs that are members of IFLA Europe, either as a professional member of a National Association or member of a national Chamber in the EU adds up to 14,000.

4.2 Problems that landscape architects encounter in their work across and in EU countries.

IFLA Europe carried out a survey on the "Professional recognition in IFLA Europe countries: Problems and opportunities at national level". The data were collected from July 2020 till March 2021 and 25 national organisations who are member of IFLA Europe sent their answers.

Regarding the obstacles and problems for landscape architects to work in another EU-member country a wide range of difficulties were mentioned. Those who can be addressed by the establishment of a CTF are: in some countries the qualifications of other countries were not recognised (Italy and Spain), in several countries a LA had to work together with a local landscape office in order to fulfil the requirements, in some countries LAs encountered administrative problems or difficulties in proving the acquired qualification (for instance to be registered at the national chamber).

5. The shape of the common training framework

5.1 The core of the Common Training Framework for Landscape Architecture

A. Landscape Architects plan, design and manage natural and built environments, applying aesthetic and scientific principles to address ecological sustainability, quality and health of landscapes, collective memory, heritage and culture, and territorial justice. By leading and coordinating other disciplines, landscape architects deal with the interactions between natural and cultural ecosystems, such as adaptation and mitigation related to climate change and the stability of ecosystems, socio-economic improvements, and community health and welfare to create places that anticipate social and economic well-being (IFLA World,2018)

B. To meet the academic requirement for national or state recognition for the profession of landscape architect the level of graduation should be at **level 7 of the European Qualification Framework**, a master diploma or equivalent, in **combination with of followed by a professional practice period** with an **approved exit qualification/certificate** by the national organisation competent for this. The diploma for landscape architecture can be a Master, Master of Arts, or a Master of Science.

C. Requires landscape architects to be included in a **professional register** (if available) in their home country and to maintain their competence and knowledge base through participation in **Continuous Professional Development** activities and comply with the IFLA EUROPE **code of professional standards and ethics**.

D. To be recognised as a component of professional recognition, landscape architecture programmes delivered by university level institutions must teach **competences in the core area of the discipline**, which is **landscape planning, design, and management**. This is carried out through the conception, development, communication and implementation of landscape projects, programmes and strategies, involving intervention in the landscape at different scales of time and space.

E. To ensure that these **projects, programmes and strategies** grow out of and fit into their social, environmental, political and cultural context, with the participation of all relevant actors and are both feasible and sustainable, landscape architecture programmes are expected to follow the ECLAS/IFLA Europe Guidance that identifies the competences required to plan, design, and manage sustainable landscapes of various scales. The graduates need to acquire the following knowledge, skills and understanding:

1. The structure of the physical landscape as well as the natural systems and processes operating to shape it;
2. The historical development and the land use and management systems that have led to today's typical patterns of vernacular cultural landscapes;
3. The development, morphology, and function of urban settlements, including their characteristic built form and building types and in particular their related open space structures;
4. The ways in which individuals, social groups, and society as a whole, both past and present, have perceived, and continue to perceive, value, and interact with their landscapes;

5. The legal, political, institutional and policy frameworks which influence the conservation and development of the landscape, and how they come into being, as well as the contemporary discourse relating to environmental planning and design;
6. Approaches, methods, and techniques (including digital competences) for representing and analysing the landscape with its systems and processes, and for understanding the needs and expectations of its actual and potential users and other relevant actors;
7. The canon of historic and contemporary parks, gardens, planned and designed landscapes, landscape designs and plans together with the ideas and individuals behind them;
8. Practical planning, management and design principles and skills for landscapes, as well as the underlying theories and concepts on which they are based;
9. The materials, both living and inert, and techniques relevant for landscape projects, together with related design and construction standards involved in project implementation and aftercare;
10. The professional practice of landscape architecture, including the development and role of the professions, professional ethics, the stages of the planning and design process and the practices of project management and interdisciplinary collaboration;
11. Strategies, methodology, and methods on design, for design and through design;
12. Transformative competences of landscape architects: systems thinking, anticipatory competence, normative competence, strategic competence, collaboration competence, critical thinking, self-awareness, and integral problem-solving in order to contribute to sustainable landscapes.

5.2 The expected base of knowledge, skills, and competences for landscape architecture

The key elements of the standards include core competences, subject-specific competences, and generic competences. The generic ones comprise transformative, instrumental, interpersonal, and systemic competences.

Core competences

The core competences of LAs are defined in the proposed International Labour Organisation definition that is approved by the IFLA World Council.
Core competences of landscape architecture centre on the process of intervention in landscapes to create new or revitalised places, by means of landscape planning, design, management, and project implementation.

Subject specific competences

The subject specific competences are:
A1 Carrying out research for, on and through design and participatory action research
G1 Analysing landscape systems, processes, patterns with their characteristics, meaning and challenges
B1 Landscape planning: developing plans, strategies, scenarios, and visions for sustainable urban and rural landscapes
B2 Landscape design: Designing aesthetic, functional and meaningful landscapes
B3 Landscape Management: Developing strategic, tactical, and operational landscape management plans
C1 Creating and developing policies for sustainable urban open spaces and systems
C2 Conserving and developing cultural and heritage landscapes
C3 Conservation and management of parks and gardens
C4 Planning and design for infrastructure projects taking into account their landscape impacts
D1 Implementing landscape designs by hard landscaping and planting
D2 Restoring habitats and vegetation establishment
E1 Applying of Geodesign, Geo Information Systems and ICT in landscape architecture
F1 Acting as a professional landscape architect: entrepreneurship and ethics.
I-1 Organising participation and co-creating inclusive, democratic landscapes.
I-2 Including the perception, values and interaction of individuals, social groups, and society as a whole with their landscapes.
I-3 Creating productive landscapes with sustainable food production and renewable energy.

These subject specific competences are elaborated in the ECLAS/IFLA Europe guidance documents.

Generic competences: transformative, instrumental, interpersonal, and systemic

The transformative competences of LAs are: systems thinking, anticipatory competence, normative competence, strategic competence, collaboration competence, critical thinking, self-awareness, and integral problem-solving. The content of these competences can be seen in the table below.

Table 2. Transformative competences for landscape architecture: the abilities to:	
Systems thinking competency	recognize and understand relationships; to analyse complex systems; to think of how systems are embedded within different domains and different scales; and to deal with uncertainty.
Anticipatory competency	understand and evaluate multiple futures – possible, probable, and desirable; to create one's own visions for the future; to apply the precautionary principle; to assess the consequences of actions; and to deal with risks and changes.
Normative competency	understand and reflect on the norms and values that underlie one's actions; and to negotiate sustainability values, principles, goals, and targets, in a context of conflicts of interests and trade-offs, uncertain knowledge and contradictions.
Strategic competency	collectively develop and implement innovative actions that further sustainability at the local level and further afield.
Collaboration competency	learn from others; to understand and respect the needs, perspectives, and actions of others (empathy); to understand, relate to and be sensitive to others (empathic leadership); to deal with conflicts in a group; and to facilitate collaborative and participatory problem solving.
Critical thinking competency	question norms, practices, and opinions; to reflect on own one's values, perceptions, and actions; and to take a position in the sustainability discourse.
Self-awareness competency	reflect on one's own role in the local community and (global) society; to continually evaluate and further motivate one's actions; and to deal with one's feelings and desires.
Integrated problem-solving competency	apply different problem-solving frameworks to complex sustainability problems and develop viable, inclusive, and equitable solution options that promote sustainable development, integrating the abovementioned competences.

Instrumental competences

Instrumental competences are capacity for organisation and planning; grounding in basic knowledge of the profession: Spatial (3D) thinking; Ability to take the dimension of time into account; visual, oral and written communication; knowledge of a second language; ability to explore, organise and support participatory processes and co-creation; ability to work with digital data, digital tools such as virtual representations; understand the possibilities of Artificial Intelligence; knowledge of technology in interaction with nature or led/driven by nature; ability to apply Nature Based Solutions; and drawing and visual representation skills.

Interpersonal competences

The interpersonal competences are ability to accept criticism and to take it into account; ability to work in an interdisciplinary team; ability to communicate with experts in other fields; ability to work in an international context; ability to work with communities and stakeholders; understanding of natural diversity; and understanding and appreciation of physical, psychological requirements and desires of a diverse multi-/intercultural society.

Systemic competences

The systemic competences are: capacity for applying knowledge in practice; research skills; capacity to adapt in new situation; capacity to generate new ideas; ability to work autonomously; project design and management; initiative and entrepreneurial spirit; concern for quality; will to succeed; capacity of argumentation, abstraction, project management, to set priorities; and ability to act as a critical and committed citizen.

5.3 The level of education and requirements for being registered as a landscape architect

5.3.1 EQF level

The level of competence is in accordance with level 7 of the European Qualification Framework. This entails that the qualified LA:

- Explores and defines the context him-/herself and can support others in this.
- Defines problems fields and assignments, and advises commissioners or group of stakeholders in defining these.
- Studies and works as professionals seeking feedback from peers and experts.
- Has an excellent overview of the professional field and can define their position in it.
- Innovates methods and approaches of the discipline, including research and entrepreneurial competences.

To acquire all competences needed to be a LA, a master degree in landscape architecture (MA in landscape architecture, MSc Landscape Architecture, MLA) is thought to be the entrance level for professional recognition as a LA in the EU. Part of the competences may be acquired by doing an internship or traineeship at a landscape office.

Candidates who have acquired competences outside a formal education system, can be assessed by examination committees which are competent to provide access to national registers and/or chambers for landscape architecture.

5.3.2 Professional traineeship and continuous professional development

After successful graduation of a master an additional professional traineeship under supervision of a qualified LA is required to be recognized as a LA. The organisation and recognition process of this traineeship are defined by the competent national bodies.
Registered Las are expected to maintain their competence and knowledge base through participation in CPD and have this registered according to the national regulations.

5.4 An expected code of ethics and professional conduct

The Code of Ethics and Professional Conduct of IFLA Europe ensures that professionals conduct themselves in a manner that does not bring into disrepute the discipline and the profession of landscape architecture. They shall seek to establish the highest standards on landscape professions, and seeks to protect, conserve, and enhance the natural and built environment for the benefit of the public and sustainable development within the framework of the Sustainability Development Goals. They shall value integrity, impartiality and respect for persons and strive for landscape justice, inclusive landscapes, and landscape democracy. Taking account of their obligations under the law, they shall hold the interest and welfare of clients and users of the landscapes alike.

The overarching principles for this code are defined in the IFLA World Code of Ethics (IFLA World, 2014) and the General Assembly of IFLA Europe approved the European Code of Ethics and Professional Conduct (further referred to as ‘the Code’). The national associations and chambers where LAs are registered defined their national codes.

5.4.1 Conduct, values, ethical standards.

IFLA EUROPE (2014) places a strong emphasis on the integrity, competence, and professionalism of its members, and therefore encourages the member associations to adopt this 'Code of Ethics and Professional Conduct' and requires all IFLA EUROPE members to conduct themselves in accordance with this Code within their professional and business life.

The Code (Appendix II) should be considered central to the professional life of any IFLA EUROPE landscape professional not only as a source of ethical guidance, but also as a common-sense indicator to principles of good practice. It lays down standards of professional conduct and practice expected of all landscape professionals of IFLA EUROPE, whatever their category of membership. Members are expected to be guided in their professional conduct and work as much by the spirit of the Code as by its express terms. The purpose of the Code is to promote the highest professional standards, rather than constitute a basis for undertaking disciplinary actions.

The code contains 32 standards for Professional Attitudes, Professional Competences, and the Landscape and the Environment. The section relating to the Environment contains the following codes: to recognize and protect the cultural and historical context and the ecosystem to which the landscape belongs when generating design, planning and management proposals (Standard 30); to develop, use and specify materials, products and processes which exemplify the principles of sustainable management and landscape regeneration (Standard 31), and to advocate values that support human health, environmental protection, and biodiversity (Standard 32).

5.4.2 Compliance to the code of conduct

The National Associations have adopted the Code and will comply to it. Each country should integrate it in the national codes of ethics and professional conduct by referring the European could and making sure that the national regulation for this do not contradict the European Code. Registered LAs agree to comply to the Code taking into account their own national laws and regulations.

5. Discussion

5.1 Discussion on the content of the CTF

There are no specialisations for LA programmes defined in the CTF. Some argue for mentioning landscape planning and landscape design. As long as landscape architecture programmes meet the standards of the CTF, programmes can have different focuses in the content or HEIs can have courses with different specialisations. There might be confusion if two specialisations are mentioned because this would call for a specification of the standards and competences for each specialisation.

The structure and length of landscape architecture programmes is not included in the CTF. National regulations vary and the CTF should not set standards for this. Learners can also acquire the competences in an individual way, combining working periods, modules with a final assessment. The CTF should be open to that. Further advice on the content of programmes, conversion masters, acknowledgment of earlier acquired competences can be included in the ECLAS guidance.

The defined level of qualification is EQF level 7 (master level). The IFLA Europe recognition standards now define a training of minimum 4 years. In some countries a diploma course or bachelor level can give admission to the register of the National Association or the Chamber. Since the CTF does not overrule national regulations and LAs need to be on the same level of competence as other disciplines (e.g. architects), a master level is essential and does not compromise the national context.

The length, structure, and form of assessment of the professional traineeship is not defined in the CTF. A proposal of a minimum period (some mention 2 years), main content and a terms of reference formal assessment by a national competent body might help to raise the standard. At the other hand this might be too challenging for some countries.

The requirement for continuous professional development (CPD) is included in the CTF. There is a general agreement that the CTF should not set standards for this, nor define the consequences for not meeting these requirements. The situation in the countries widely differs and the implementation of CPD is still in development. Some state that CPD should only be recommended in the CTF and not required, but that again is not in line with the standards of other regulated professions.

The Code of Ethics of IFLA Europe is included as a reference, while the core CTF only states that compliance is needed with a further elaboration of the main content. Since the code might be changed in accordance with development of the role and tasks of LAs in the future a more general reference is called for. Others state however that a better awareness of the content of the code is called for, but for this, other activities might be better suited than including it in the CTF.

5.2 Discussion on the adoption of the CTF by the EU

In line with three key conditions of the PQD that need to be fulfilled for being subject to a CTF, LAs: (a) can be identified as a regulated profession and/or a profession whose training is regulated in at least one third (33%) of the EU member states, (b) are not already subject to automatic recognition as a sectorial profession nor to another level CTF, and (c) would possibly have their professional mobility enhanced with the adoption of a CTF.

The PQD has been modified an amended since 2005. Within the trend of de-regulation the EU has set further conditions for regulated professions.

The proposed CTF builds on EU guidance for a 'bottom up' approach in which professional organisations or competent authorities from at least one third of the Member States may submit suggestions for a framework to the Commission. Such an approach is meant to ensure that proposals respond to real needs felt by the profession and benefit from the in-depth knowledge and understanding of the area concerned. At the time of writing 9 of IFLA Europe's affiliated national societies in the EU highlight their country's ability to meet the federation's standards for recognition, the expected level of knowledge, skill and competency, and the code of conduct.

Amongst these 27 Member States 9 are also able to meet the requirements of the proposed CTF in that the profession and/or training is regulated, and their national qualification frameworks are formally linked (referenced) to the European Qualifications Framework for lifelong learning, a further EU Commission requirement for submission of the framework.

In progressing a submission the opportunity arises for the EU Commission to adopt a CTF by "delegated act" (a delegation granted in the text of an EU law such as the Professional Qualifications Directive that allows consideration of a suggested framework by delegated authorities within the Commission) followed by an implementing act to list the national professional qualifications and national titles that benefit from automatic recognition under the adopted CTF. However, whilst landscape architecture has established key building blocks for the mutual recognition of its specialist practitioners' qualifications a current 'a priori' challenge across the EU is determining the 'proportionality' of the professional regulatory frameworks held within the individual member states which may have been built up and/or modified over many years (EU, 2018). The uneven scrutiny of the regulation of professions across the EU has been deemed to have a negative impact on the provision of services and the mobility of professionals in a single EU market - the need for a mutual evaluation exercise facilitated by the Commission was identified within EC Directive 2013/55/EC to ensure greater transparency and justification. Within the exercise Member States provide a list of their regulated professions, the activities reserved for them and a justification of the need for regulation. The subsequent 2018 Proportionality Directive supplements provisions within the 2013 Directive and now requires Member States to review existing regulations of professions or when proposing new ones.

6. Conclusions

6.1 Main conclusions

Through the engagement of professional organisations of 9 EU Member States have been identified as candidate signatories to a CTF for LAs. Achieving recognition is an ongoing project in part dictated by external timelines and jurisdictions but crucially also by professional organisations and competent authorities who recognise the effect the PQD brings to harmonising the education and training that enhances the development of sustainable landscapes that support well-being, and climate resilience. This enables the free mobility of landscape architecture professionals across countries of the EU. Whilst CTFs do not replace national programmes unless a Member State decides otherwise the updated guidelines by ECLAS and IFLA Europe will provide a solid base for recognition of programmes and qualifications. Pending progress with achieving proportionate professional regulation and further guidance from the EU Commission the onus is on national societies and competent authorities to capitalise on opportunities to submit suggestions for a CTF as and when they arise.

In turn the framework supports and contributes to the Directive's enabling goals for increasing professional mobility, supporting the implementation of sustainability goals and EU-landscape policies. It also can help to ensure a more equitable distribution of skills and expertise across the Member States.

6.2 Pathway to an CTF adopted by ECLAS, IFLA Europe and the EU

The proposed CTF will be further developed based on the discussion during the ECLAS 2021 conference and the decisions of the ECLAS 2021 General Assembly and the IFLA Europe Assembly in Autumn 2021. On the basis of this ECLAS plans to update its Guidance for Landscape Architecture Education and the IFLA Europe School Recognition panel aims to update the IFLA Europe Recognition documents for Landscape Architecture Schools.

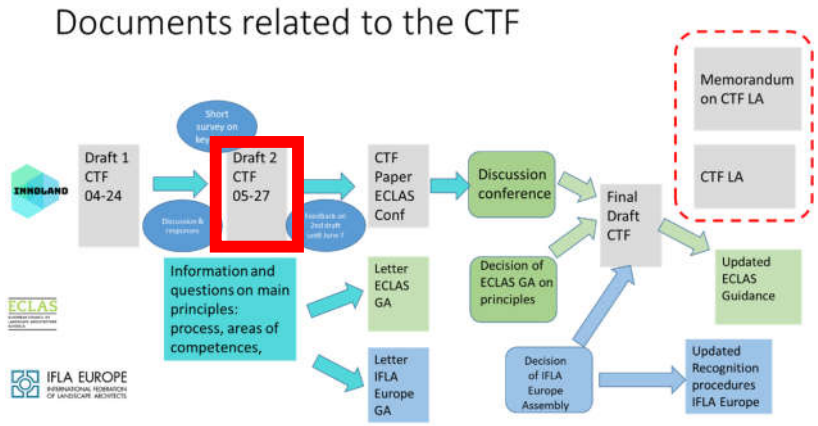

Figure 5.The development of this draft CTF in the context of other documents (in the red rectangle the current draft)

When a final draft of the CTF has been drawn up, there will follow a wider consultation by representants of neighbouring disciplines and stakeholders in the field of landscape.

The plan is to submit a document to the National Regulating Bodies (governments, ministries) that have a role in the EU-recognition of the CTF. To the core CTF will be added: (1) a description of the current arrangements for regulating the profession (in the nine countries that do it), (2) the statistics required (how many professionals), (4) a description of the current arrangements for international mobility of professionals (between different countries), and (5) an evaluation the advantages and disadvantages of the CTF to each country that regulates the profession.

As a parallel process IFLA Europe and the partners of the InnoLAND project plan to communicate with DG GROW on the pathway to legally establish the CTF as an EU regulation.
Further consultation of ECLAS and IFLA Europe will take place in the Spring of 2022 and the aim is to have approval of the CTF by the Assemblies of ECLAS and IFLA Europe in the autumn of 2022.

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Definitions

'regulated profession': a professional activity or group of professional activities, access to which, the pursuit of which, or one of the modes of pursuit of which is subject, directly or indirectly, by virtue of legislative, regulatory or administrative provisions to the possession of specific professional qualifications; in particular, the use of a professional title limited by legislative, regulatory or administrative provisions to holders of a given professional qualification shall constitute a mode of pursuit. Where the first sentence of this definition does not apply, a profession shall be treated as a regulated profession;

professional qualifications': qualifications attested by evidence of formal qualifications, an attestation of competence referred to in the PDQ, Article 11, point (a) (i) and/or professional experience;

'evidence of formal qualifications': diplomas, certificates and other evidence issued by an authority in a Member State designated pursuant to legislative, regulatory or administrative provisions of that Member State and certifying successful completion of professional training obtained mainly in the Community. Where the first sentence of this definition does not apply, evidence of formal qualifications shall be treated as evidence of formal qualifications;

'competent authority': any authority or body empowered by a Member State specifically to issue or receive training diplomas and other documents or information and to receive the applications, and take the decisions, referred to in the PDQ;

'regulated education and training': any training which is specifically geared to the pursuit of a given profession and which comprises a course or courses complemented, where appropriate, by professional training, or probationary or professional practice. The structure and level of the professional training, probationary or professional practice shall be determined by the laws, regulations or administrative provisions of the Member State concerned or monitored or approved by the authority designated for that purpose;

'professional experience': the actual and lawful full-time or equivalent part-time pursuit of the profession concerned in a Member State.

'professional traineeship': without prejudice to Article 46(4) of the PDQ, a period of professional practice carried out under supervision provided it constitutes a condition for access to a regulated profession, and which can take place either during or after completion of an education leading to a diploma;

'lifelong learning': all general education, vocational education and training, non-formal education and informal learning undertaken throughout life, resulting in an improvement in knowledge, skills and competences, which may include professional ethics;

'European Credit Transfer and Accumulation System or ECTS credits': the credit system for higher education used in the European Higher Education Area