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Setting the scene of IALE-Europe

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The European Association for Landscape Ecology (IALE-Europe)

Setting the scene:

The specificity of landscape ecology in Europe in the 21st century

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Five years of preparation

The European Association for Landscape Ecology (IALE-Europe) has been under construction since 2004.

The structure and related statutes as well as external relations have been discussed intensively. The structure should ensure representativeness in the IALE Council, facilitate the cooperation between European landscape ecologists and act as a platform at the science-policy interface to assist policy making at the European level.

The European Commission and related organisations have substantial influence on the development of European landscapes. With the passage of the European Landscape Convention the European Council is up to now the only European body with legal consequences concerning landscapes in Europe. Contacts to the European Commission and related organisations (e.g. the European Environmental Agency (EEA)), as well as to the European Council has been established to facilitate the involvement of our membership expertise in the planning and management of the European landscapes, as well as in the implementation of the European Landscape Convention.

Plans for the development of landscape ecological education at a European level are under development, especially at the PhD-level to ensure new generations of European landscape ecologists.

A strengthening of the interests of educated professional landscape ecologists within landscape planning and management has been initiated with the goal to establish a specific organisational frame within IALE-Europe for these members.

Statutes ensuring a flexible combination of individual and national chapter based membership, and promoting election of the IALE-Europe executive committee through the formation of voting-list with different programs for the development of IALE-Europe are established.

IALE-Europe will be launched 13th of July 2009 during the European IALE Conference in Salzburg.

Why a IALE-Europe?

The European Association for Landscape Ecology (IALE-Europe) groups landscape ecologists working on the specific problems of landscapes in Europe. The specificity of European landscapes, their history, use, conservation and constant change justify such an association besides the existing International Association (IALE) and its national chapters. The reasons and context are discussed in this paper. They have to do with the development of the scientific discipline of landscape ecology, with the concept landscape with its multiple interpretations, with the landscape characteristics of Europe and with the changing demands for research, planning and management in a rapidly transforming world.

Landscape ecology: a brief history

It was the German geographer Carl Troll who developed before the Second World War a methodological approach for a holistic and integrated approach to study the landscape using the emerging technique of aerial photography as a new way of observing the face of the earth. He introduced the term *Landschaftsökologie* and called it an '*Anschauungsweise*', a way of looking at the landscape from a combined ecological and geographical perspective, resulting in a holistic and interdisciplinary synthesis.

After the Second World War, this integrative approach was suppressed by a continuing specialisation in all science. But it gradually became clear that environmental problems and societal demands on the landscape are too complex to be solved by individual disciplines. This was the main topic of discussion during an international and multidisciplinary Congress on '*Perspectives in Landscape Ecology – Contributions to research, planning and management of our environment*' in Veldhoven (The Netherlands) in April 1981. As a result, the broken link with the tradition of landscape ecology as defined by Troll was re-established and led to the formal creation of the discipline of **landscape ecology**, integrating many different disciplines dealing with landscape research. In October 1982, the International Association of Landscape Ecology (**IALE**) was founded in Piešťany (Slovakia), based on an emerging cooperation between Western and Eastern Europe. Eastern Europe had been through a parallel process of growing interdisciplinary and practice-oriented development among different schools of landscape science, coordinated through regularly (triennially) international symposia, organized by the Institute of Landscape Ecology of the Slovak Academy of Sciences in Bratislava since 1967. The resulting general ideas on landscape ecology were exported to North America, where they were rapidly accepted by ecologists.

IALE defines landscape ecology as the study of spatial variation in landscapes at a variety of scales, including biophysical and societal causes and consequences of landscape heterogeneity. It is broadly interdisciplinary and links natural and human sciences and studies with all kinds of landscapes. In its mission statement, IALE aims to develop landscape ecology as a scientific

basis for analysis, planning and management of the landscapes of the world and advances international co-operation and interdisciplinary synergism.

In 30 years, landscape ecology developed its own theories, paradigms and methods, which brought about several innovations to landscape research. New concepts were introduced (such as holons, matrix, patches and corridors), permitting landscape ecology to deal with landscape heterogeneity, connectivity and landscape change, using a wide variety of abstract landscape metrics at different spatial scales. Certainly, the introduction of the patch-corridor-matrix model was fundamentally original, as it allowed to model complex landscapes using spatial analysis. Some of these techniques were already developed in geography, but remained mainly at the theoretical level, because the technical tools and digital data were still missing at that time. Only with the rapid development of GIS and remote sensing has the development of practical applications become possible. Landscape ecologists took the opportunity and this resulted in the general use of modelling and landscape metrics in the study of landscape patterns and processes. Fundamental and theoretical work followed from this, such as the meaning of scale and context, the hierarchical structure and the holistic concept.

Landscape ecology evolved, but so did landscapes and societies. Landscapes transformed irreversibly at increasingly faster paces due to technological improvements and the environmental change, which posed new challenges in studying, planning and managing them. The new problems, often referred to as “environmental crises”, raise questions that were very different according to each regional setting. Thus resulted in different types of regional focus and development of landscape research in general as well as within landscape ecology. Gradually, two distinctive approaches emerged, which are often referred to as a North-American and European one, although overlaps and a more or less constant stimulating dialogue between these two approaches can now be ascertained. Where North-American landscape ecology has inclined to develop a discipline around theory and modelling of spatial analysis at different scales, European landscape ecology has more focused on uniting different disciplines and professions rooted in different traditions of landscape conceptualisations, as well as in the practical analysis and management of different types of landscapes, especially cultural landscapes.

In densely populated Europe, the main concern is on cultural landscapes and the natural and cultural heritage related to these. Most traditional landscapes lose rapidly their ecological and heritage values, which are considered as “natural and cultural capital”. There is a growing need to plan future landscapes in an increasingly urbanised society and polarised environment in the perspective of sustainable development and participatory planning. In rural areas, the EU Common Agricultural Policy (CAP) resulted in new demands for landscape researchers, e.g. related to the formulation of policy relevant indicators of land use change and landscape characterisation. Further, in the transition processes from intensive agriculture towards more multiple types of land use going on in several speeds and intensities in different regions, the new challenges for the rural landscape require new analysis approaches and new management strategies. This is a challenge for scientific research on its own. Sustainable land use and biodiversity planning in cultural landscapes, with often complicated ownership relations, puts growing demands on scientific knowledge on habitat qualities and on the dispersal of threatened species in the landscape. It also forces interested parties to binding cooperations with planners and managers within other (e.g. productive and recreational uses) of the same landscape. As a

result, landscape analysis was “discovered” by more disciplines, such as archaeology, landscape architecture, planning and a whole range of human sciences, which had no tradition in landscape research. In Europe, landscape ecologists are a small group amongst all landscape researchers and practitioners.

Today many disciplines are involved in landscape research. Landscape ecology has evolved as a widely recognised distinctive approach among these cooperating disciplines, but there are many transitions between this approach and other relevant approaches in landscape research and its application in planning and management. Landscape ecology should be flexible and recognise its strength and weaknesses in the cooperation within broader landscape research. In some cases it is clear that the term ‘ecology’ gives a bias of ‘too much’ biology or biogeography, blocking other social and cultural aspects of the landscape. In other cases ‘ecology’ can ensure that landscapes are considered as more than social constructions and emotional pictures of the environment and presupposes scientific research methods.

Summarising the perspectives of landscape ecology in a conference on the trends of agricultural landscapes Moss (2000, p.138) put it as follows: “To me, landscape ecology is simply about the study of landscapes and of the need to derive understanding about landscapes in order to enhance our abilities to manage them more effectively. Landscape ecology is not the only field to focus on the landscape but it has emerged in the last few decades because, quite clearly, existing approaches that sought to address a whole range of landscape- scale environmental issues were proving to be inadequate.”

Landscape: what’s in a name?

The originally Dutch word ‘*landschap*’ emerged in the 13th century and referred to an organised area of land, managed in a specific way giving it a proper character, which could be seen by anyone. Since the Renaissance, pictorial representations of the landscape scenery were also called ‘landscapes’. Consequently, in common language, the word landscape has multiple meanings which also vary among languages. Most people accept their physical environment as a material reality, but when they see it as a landscape, it refers to a subjective observation and experience and thus has a perceptive, aesthetic and artistic meaning. If the relation to the landscape has been close and persistent, the landscape might have existential meaning, deeply rooted in their culture and history, and reflecting the identity of their land. This is often expressed by proper names given to landscapes or the areas (regions) they form. Landscapes vary from place to place, and differ from each other by their proper characters. Obviously, landscapes are complex holistic systems that can be studied from within very different perspectives.

Descriptions of landscapes existed already in ancient times as a result of discovery and conquest of new regions, but scientific observations only emerged in the 19th century, often in the realm of naturalist explorations. Representation of land and landscape started much earlier with the Renaissance painting and cartography. Also, land(scape) management and (landscape) architecture was practised already since the ancient times, but was not called as such.

It is remarkable that no generally and internationally accepted definition of landscape as object of scientific study or planning was created. A particular problem is given by the subtle

differences in meaning of landscape- related concepts in the many languages used in Europe, impeding international co-operation. For example, the German '*Landschaft*' has a focus on the territorial meaning, while the English 'landscape' mainly refers to the scenery. The American term 'landscape' was introduced from the German '*Landschaft*' and has more a meaning of region of spatial system, than scenery. The French '*paysage*' clearly refers to the characteristic appearance of a '*pays*', a characteristic region of land with deep historical roots. In old Nordic tradition 'landscape laws' were landscape specific frames for regional land use regulation. The Greek '*topos*' refers to 'place', whence the greek word for landscape ("topio").

The diversity of landscapes is also expressed by many adjectives used to clarify the type of landscape one is speaking about. In European – Christian – tradition, a sharp distinction has been between 'natural' and 'cultural' landscape, as well as between 'rural' and 'urban' landscapes, but many others were created, also in metaphorically, such as in the expression 'political landscape'. A variety of concepts connected to landscape make the picture even more complex. Typical examples are 'countryside', 'campagne', 'region', 'territorium' etc.

The first formal definitions that are internationally accepted and implemented in legislations are the ones based on conventions. In 1992 'cultural landscapes' were introduced as a new category in the UNESCO World Heritage list. They were formally defined as areas that represent the "combined works of nature and of man" ... "They are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal."

The interpretation of 'cultural' is very broad as can be seen from the World heritage List, and may include landscapes with very specific natural properties, as far as these have also (symbolic) cultural meaning.

The definition formulated in the **European Landscape Convention** is particularly important for many reasons: "*Landscape*" means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors" (Art. 1, European Landscape Convention). First, it is the only common basis available among the many different linguistic meanings in Europe. It combines different notions and meanings: territory ("area"), scenery and existential meaning ("as perceived by people"), regional identity and holism ("character"), history and ecological dynamics ("result of the action and interaction") in a transdisciplinary and integrated way ("natural and/or human factors"). Also important is that all kind of landscapes should be considered equally. This evokes special response in the tradition of landscape ecology, typically broadening the often more narrow perspectives of conservation biology, restauration ecology or countryside planning. In fact, the definition of landscape in the Landscape Convention returns to the original concept, where landscape is seen as a unique synthesis between the natural and cultural characteristics of a region.

European landscapes: a mirror of Europe's identity and diversity

The exceptional diversity of the European landscapes is derived from a long interaction between varied natural and cultural factors and the particular shape of the continent. Europe has a highly

contorted and dissected coastline, creating many large peninsulas and sea straits. During history, the continental seas were seldom barriers in the development of civilizations and nations, quite the opposite. The interior of the continent shows particularly in the western and central parts many spatial compartments formed by mountain ridges and tectonic basins or river valleys. Each of these formed a niche for the settling of different ethnic groups as is still indicated by the distribution of languages in Europe. These geographic compartments formed comfortable cradles for the establishment of most nation-states of Europe. To the east, land becomes more flat and vast plains extend. The political borders among states were more stable during history in the more compartmented part of Europe. Thus, European landscapes became an essential characteristic of cultural and regional identities and of the whole continent as well.

The first environmental assessment by the European Environmental Agency (the ‘Dobříš Assessment’ 1995) devoted chapter 8 to the situation and condition of the landscapes in the European Union. The introduction of the chapter starts with the following statement:

“The richness and diversity of rural landscapes in Europe is a distinctive feature of the continent. There is probably nowhere else where the signs of human interaction with nature in landscape are so varied, contrasting and localised. Despite the immense scale of socio-economic changes that have accompanied this century's wave of industrialisation and urbanisation in many parts of Europe, much of this diversity remains, giving distinctive character to countries, regions and local areas.” (Stanners and Bourdeau, 1995).

Today the political construction of Europe has made it possible to create common policy orientations and instruments that do have a strong influence on the landscape, and end up also contributing to this identity construction. The most evident example is clearly the Common Agricultural Policy. Even if it started with mainly production and social concerns, this policy has evolved to acknowledge and defend the rich natural and cultural diversity of European agricultural landscapes, and the important role of landscape in the regional identity and differentiation of Europe. Certainly it leads to a reinforcement of the public acknowledgment of the landscape and its role. With another functioning, also the European Landscape Convention reflects the role that landscape has particularly in Europe. It shows the jointness of interests and relevant issues, based on the landscape, in the European sphere.

Landscape research in Europe: a long history and broadening scope

Although descriptions and representations of landscapes in Europe exist already since the 14th century, scientific research in landscapes begins with the development of natural sciences during the 19th century. It was strongly influenced by the naturalist explorations such as those carried out by Humboldt and Darwin, as well as by Kant's philosophy. Landscape research became a core topic in the emerging geographical science. The term *Landschaftskunde* was introduced by the German geographer Oppel in 1884 and an important German school of landscape research developed focusing on theoretical concepts for the description and analysis of the relations between the ‘natural’ and ‘cultural’ landscape. Besides the term *Landschaftskunde*, also *Landschaftslehre* and *Landschaftsökologie* were introduced. The Finnish geographer J.G.Granö added to this also the perceptive properties of landscapes. In France, the focus was more on the relationship between the way of life (*genre de vie*) of local communities in shaping typical landscapes reflecting a particular ‘agrarian civilization’ (*civilisation agraire*). In Great Britain

and Ireland, landscape research was deeply rooted in the archaeological and historical development of the country.

Hence, very different ('national') schools of landscape research emerged in Europe. One of the first international organisations of academics studying the European landscapes was the Permanent European Conference for the Study of the Rural Landscape (**PECSRL**) founded in 1957 and organized a bi-annual conference. The Landscape Research Group (**LRG**) was founded in 1967 and publishes the journal *Landscape Research*. The International Association for Landscape Ecology (**IALE**) was established in 1982. It organises a world congress every four years. A European Congress is organized also every four years, in two years distance from the World Congress. But in between the World and European events, national chapters of IALE organise local and regional conferences as well. In parallel, many different disciplines up to this time having more or less neglected the spatial aspects of their study got more and more interested in the landscape, often supported by the rapid growing possibilities offered by technologies such as the GIS and Remote Sensing. National journals within the disciplines related to landscape ecology were gradually offered to an international audience, such as the Journal for Ecological Problems of the Biosphere Ecology/ČSSR/ founded in 1982 – since 1993 *Ecology (Bratislava)*.

A number of new landscape ecological oriented international journals for landscape research were published: *Landscape and Urban Planning* in 1986 and *Landscape Ecology* in 1987, *Landscape* in 2000 and *Landscape Online* in 2008.

In the last twenty years, several European networks were set up dealing with landscape research in different perspectives.

Landscape Europe is an interdisciplinary network of expertise on landscapes, based on the partnership of about 20 leading European institutes and expert groups. The expertise is situated in the themes of landscape assessment, planning and management with synergy to policy implementation, education and implementation of sustainable landscapes.

Landscape Tomorrow is a European research network for sustainable development of multifunctional landscape and brings together 23 partner institutions in the field of landscape science and rural development.

EucaLand started in 2005 and deals with the cultural and agricultural landscapes in Europe, more specific to promote the consideration of these landscapes and the use among people and to preserve their identity and cultural heritage.

Archaeologists organized themselves in the *European Association of Archeologists (EAA)* founded in 1994 and showing an increasing interest in landscape archaeology. Since 1999, responsables for heritage protection find each other in the *Europae Archaeologiae Consilium (EAC)*.

Besides academia, also landscape architects were active in their profession and organized themselves in the *European Foundation of Landscape Architecture (EFLA)* founded in 1989 as the European branch of *International Foundation IFLA*. In order to improve the academic basis in their education, also a *European Council of Landscape Architecture Schools (ECLAS)* was founded 1991, soon followed by the *European Landscape Architects Students Association (ELASA)*.

The International Farming Systems Association (IFSA) now always includes a session on landscapes on their international meetings.

The European Council of Spatial Planners (ECTP), founded in 1985, brings together 26 professional town planning associations and institutes from 24 European countries.

Changing landscapes, changing landscape research

Society and environment are both changing in increasing speed and magnitude ever since the Second World War. Consequently, landscapes are also changing in a profound way: new landscapes largely wipe out the traditional ones, causing a significant loss of landscape diversity and an increasing homogenisation. Many warnings that this trend is unsustainable and disastrous were formulated. Recently they have been stressed in tandem with the turn towards the study of multifunctionality of landscapes, based on new landscape demands, competing against production, having dominated land use up to now. The description and analysis of these processes and their consequences from many different disciplines has resulted in a confusing variety of new concepts, not yet coordinated, but it leads all to an increased scientific interest in European landscapes and in the ways by which we may understand and master their changes and challenges.

Changing landscape research, changing political interest and cooperation

The emergence of an integrated scientific effort to study the trends and problems of European landscapes have been paralleled to a growing interest and coordination at the European political level.

The Dobříš Assessment (1995) was important to focus the attention of policy-makers and researchers on the problems related to landscape change. It stresses for the first time the importance of landscape diversity and links landscape character to biodiversity, sustainable land use and cultural identity. Indirectly it expresses the fear that the loss of this landscape diversity and character may lead to the loss of not only Europe's natural and historical heritage, but also of its cultural identity. Consequently, it implicitly sets the broad policy agenda and the landscape planning goals as preservation and enhancement of the existing landscape diversity. Also, the concern for the landscape is seen as a key for success of the policy efforts in other environmental issues:

“Europe's landscapes are immensely diverse and rich in natural and cultural values. A series of factors are bringing pressures to bear on these landscapes, causing changes that are both subtle and dramatic, and many of which are occurring at great speed. Often the changes being invoked are unintentional consequences of other activities, where the roles and values of landscapes are not taken fully into consideration. This is resulting in a general replacement of natural and regional diversity by artificial diversity or homogeneity, and in some cases is accompanied by more specific environmental degradation. In the past, the approach to conservation has been species- or site-specific. Now, however, the fragility of whole landscapes is an issue. Approaches to halt the loss of biodiversity and cultural identity in Europe's landscapes can be successful only if they encompass the economic viability of rural communities. An understanding of the important links that exist between cultural landscapes and the people who live within them is essential for promoting both environmentally sensitive changes and social-economic integration. This in turn requires a framework of national and international support which recognises that there is a European interest in the future of Europe's landscapes and rural communities.” (Stanners and Bourdeau, 1995).

A breakthrough for the political engagement in the problems related to European landscapes has

been the passing of the European Landscape Convention in 2004, organised at a pan-European level by the Council of Europe:

“Chapter 8 deals with landscapes, and in its conclusions it expresses the hope that the Council of Europe will take the lead in drawing up a European convention on rural landscapes.” (Council of Europe, 2000).

It took five years to finalize the text of the European Landscape Convention. Its preparation implicated a broad concerted effort, involving the Committee of Ministers of the Council of Europe, the Chamber of Local Authorities and Chamber of Regions, as well as hearings for private and public national and regional scientific bodies, non-governmental organisations, international organisations and regional authorities. The draft text was examined by the Committee for the activities of the Council of Europe in the field of biological and landscape diversity (CO-DBP) and the Cultural Heritage Committee (CC-PAT), which contributed to the integration of the efforts for the conservation of biodiversity and cultural heritage. The text also refers to UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage, the Convention for the Protection of the Architectural Heritage of Europe, the Convention on the Conservation of European Wildlife and Natural Habitats, the European Convention for the Protection of the Archaeological Heritage.

Although the Council of Europe made already many recommendations concerning nature and landscape protection since the 1970s, the explanatory report of the European Landscape Convention refers explicitly to the Dobříš Assessment as one of the origins of this convention, thus showing the close connection between the (sometimes difficult) binding character of policy formulation in the EU and the broader (programmatic) perspectives of the activities of the Council of Europe.

IALE-Europe as a frame for the stimulation of landscape ecological knowledge for the benefit of the future in the European landscapes

The European Association for Landscape Ecology, gathering researchers, professionals and administration is, more than anything else, an integrative platform where the many facets of the landscape can be combined. In relation to the general interest of IALE-Europe in landscapes all around the world, the specific conditions of European landscapes and their demands for research, communication and landscape practice will be stressed.

The interconnection between several disciplines and perspectives and between researchers and practitioners, as it has been the traditional within IALE and its many national chapters in Europe, should be used to stimulate an innovative research path in a way that at the same time can avoid restrict corporativism. The membership democracy of IALE-Europe should be strictly observed by a transparent process of an open involvement of the members in the explanation of relevant innovative research problems for the development of European landscapes.

The creation of IALE-Europe will thus be based on the fact that all knowledge, scientific or otherwise, is contextualized, i.e., produced within a particular area and culture and set of spatial and social arrangements. The importance of this contextualization is growing while the

world is becoming increasingly more fuzzy and because more and more components of the contextualization have to be considered by research. Thus a more specific contextualization of the research, enhanced through the interdisciplinarity and cooperation between researchers and practitioners, can promote a more reliable and socially robust research contribution. In the expansion of international relations outside Europe, IALE-Europe should be aware of the need for development of specific approaches for Europe, leading to the corresponding research tools and integration paths.

IALE-Europe and the European Union

As argued before, Europe's identity highly rests on the exceptional diversity of its landscapes. Maintaining this diversity and taking it as a starting point to enhance sustainable development, gains support in an increasing number of countries and regions. However, a policy that seeks to provide answers to the questions arising from the fundamental landscape transformations that currently occurring throughout Europe, should start from that European level, in order to be successful. Indeed, many of the landscape changes in the continent result directly or indirectly from European policies. It is well known that current European policies (for instance nature, water, transport, agricultural policy) have a huge impact on the spatial characteristics and organisation of the territory. Parts of Europe are in the process of rapid urbanisation and industrialisation, while others face extensive land abandonment. Spatial and environmental transformations are radical and affect living conditions as well as potential goods and services supplied by healthy ecosystems and landscapes. Climate change and land use change ignore national boundaries. Hence, it can be considered as an imperfection that a comprehensive landscape policy is not within the scope of EU's competences. A number of European sectoral policies however refer to landscape values and functions, define strategies that take account and make use of these values and functions, and even set clear goals regarding landscapes. All these policies have in common is that they seek to improve integration of environmental concerns, an objective that is a main issue in the "Cardiff process" and the rural development plans. Indeed, only an international and integrated policy and management, based on sound scientific research, and carried out in close cooperation with the different stakeholders, may yield success in an attempt to cope with the different challenges we face today. Cooperation both within the member states and at the community level are thus of paramount importance.

In response to the increasing need to deal with uncertainty concerning the future of changes in the geographic territory of the European Union, IALE-Europe will enhance the development of methods for evaluating existing European rural and regional policies in the context of landscape change.

Such methods may take into account (aside of individual or collective scientific landscape ecological research), expert opinions of relevant committees, as well as national statistical data.

These initiatives will strengthen the EU's existing mechanisms of rural and regional decision making and will inform EU's leading authorities about any anticipated undesired landscape changes.

Furthermore, besides promoting sound landscape management and elucidating the causes and consequences of landscape change, IALE-Europe may aspire to serve as the prominent inter-European scientific platform for the study of the relationships between landscape ecological parameters and landscape aesthetics. IALE-Europe will thus contribute to fostering stronger links

between the practices of environmentally responsible tourism and nature protection on the one hand and rigorous theory of landscape ecological analysis on the other.

To this end, IALE-Europe will encourage research in combined quantitative landscape analyses, qualitative assessments and practical approaches to land management and land use, so as to eventually formulate sets of good practices per landscape type of Europe.

These combined approaches will then be used in conjunction with educational activities mentioned earlier, in order to promote models of optimal landscape use in Europe.

The European Association for Landscape Ecology will be a perfect platform to organize the knowledge transfer, the collaboration amongst scientists of the different disciplines, and the development and organization of common methodologies, data exchange, targeted working groups, etc. In that respect, permanent contacts are and will be established with key actors on the EU level. The main aim is to discuss knowledge needs and emerging research issues attending alternative policy options. Thus, the objective of IALE-Europe is double: mobilizing the potentials for a proper scientific contribution to EU policy and making the landscape ecology science community aware of forthcoming research questions. EU institutions and stakeholder organizations on the European and global level of particular importance are

- The *DG “Environment”*, *DG “Agriculture and Rural Development”*, *DG “Energy and Transport”* and the *European Environmental Agency (EEA)*. For these institutions, landscape ecology could be the main integrative science for the preparation, implementation and outcome assessment of policies for e.g. biodiversity and Natura2000, climate change adaptation and mitigation, rural development, biofuels etc.
- *DG “Research”* and the *European Platform for Biodiversity Research Strategy*. Here, the organization of inter- and transdisciplinary research, the attuning of knowledge supply and demand and the dissemination of the results of major research projects will be discussed.
- The *International Union for Conservation of Nature (IUCN)*, the *European Landowners’ Organization*, and other interest groups and NGO’s that are important as partners to revitalize European landscapes and to develop appropriate collaborative knowledge and planning systems.
- *ICOMOS*, the *International Council of Monuments and Sites*, focussing on the conservation of historical monuments and sites, including cultural landscape in the framework of the World Heritage Convention.
- *ESPON* is the *European Spatial Planning Observation Network*, a European programme on spatial development of an enlarging European Union. It is set up to support policy development and to build a European scientific community in the field of territorial development. The main aim is to increase the knowledge about territorial structures, trends and policy impacts.

Attaining these objectives implies active involvement of as many members of IALE-Europe as possible. Therefore the Association will arrange special events where new policy strategies, challenging developments, new visions for European landscapes, new scientific demands will be discussed. Dedicated e-conferences and targeted workshops and symposia have proven that they can yield a wealth of ideas, proposals and data, that may be of particular importance for policy makers. Therefore, it will be a main task of IALE-Europe to set up such discussion forums, preferably in collaboration with the competent EU institution. A possible string of meetings,

resulting from a preliminary consultation of European institutions and stakeholders could be the following: a general research question or policy issue is spread amongst the IALE-Europe members and accompanied by an e-conference. Then a number of smaller regional meetings, organized by the regional IALE-chapters in Europe, is organized. There the topic is discussed and studied with respect to the particular regional context. Results will be state-of-the-art of knowledge, assessment and further analysis of the topic, conditions for success of regional strategies, etc. Finally results and conclusions of these regional meetings will be dealt with during the European umbrella conference of IALE-Europe. Such a series of events ensures a geographically balanced and comprehensive discussion of relevant societal and policy issues. However, there is a risk that the impact remains low, because of bad timing, too lengthy procedure, etc. Therefore, IALE-Europe will also encourage that regional chapters involve actively in ongoing discussions. The surplus value of a backing European scientific organization will then be that also other members will be invited to take part in the process and share their experience and data.

The above is the context for IALE-Europe to bring together researchers and practitioners of different disciplines and to stimulate the development of integrated projects. Integration of science which may lead to the construction of new visions for European landscapes and the solution of their spatial problems.

IALE-Europe and the European Council

The contact with the European Council will be established primarily on the basis of on-going, direct contact with officers engaged in the Landscape Convention implementation, in different countries. Exchange of information and trust developed through these on-going contacts, will be the basis of the relationship to be established. Contacts of that kind are already in place in some countries. The IALE-Europe member responsible to building up and maintaining the linkage, should preferably function for a range of years, to secure some continuity. These national or regional officers do have the privileged contacts with the European Council and can advance where the IALE-Europe expertise can best be useful and enrich the debates going-on. They should contribute to ensure that the IALE-Europe can be integrated in the network of bodies participating in several initiatives, not only the ateliers, but also as advisory body at the Conferences of the Convention, and other relevant events, as stipulated in the guidelines for the implementation of the European Landscape Convention (Recommendation CM/Rec (2008)3 from the Committee of Ministers, 6/2 2008. In this way, not only the relation with the European Council is secured, but also with the processes and actors leading to the implementation of the Convention, at national or regional level. Contacts with stakeholders or research networks will also be established – and have already been done also. The expertise from the members of IALE-Europe can be used in this context in several ways: advising at regional, national or European level, promotion of discussions related to up-dated aspects of the implementation, analysis of particular issues in relation to the same, etc.

Notwithstanding the great differences and similarities of European landscapes across bioclimatic zones, IALE-Europe will aim to highlight the idiosyncratic nature of each one European landscape, by drawing the attention of researchers, policy-makers and laymen alike, to the uniqueness of each one landscape of the continent.

Only in this way will European citizens appreciate the cultural heritage that these landscapes have carried through the ages of Europe's history and will eventually adopt landscape-friendly attitudes towards them.

IALE-Europe and European landscape ecological education

IALE-Europe will aim to lay emphasis on Vocational and Professional Training in sound landscape management, thus serving as a major actor in turning the hitherto (landscape-insensitive) "land management" to future (landscape-sensitive) "landscape management".

For this to be achieved, landscape ecology must be understood by all those involved in "land management" (from farmers and cultivators to landscape designers and civil servants taking decisions on planning, forestry and agriculture), not only as a theoretical framework, but also as a framework for policy making, action and everyday practice for the benefits of nature and humanity.

This aim goes in tandem with the European Union's repeatedly stated aims to foster vocational training across Europe, not only at the national level, but also at the local and regional levels.

IALE-Europe will promote European Landscape ecological educational initiatives that connect to the IALE Working Group Landscape Ecology Education Network (LE-Net). LE-Net was approved through the IALE Executive Committee in July 2005 and initiated at the World IALE Congress in Wageningen in July 2007. LE-Net aims at linking existing teaching projects and initiatives, coordinating and assessing teaching and training in the field on an international platform, and promoting the needs for teaching and training in Landscape Ecology and related disciplines. The IALE-Europe educational initiatives and LE-Net have many aims in common:

- gain an overview of existing landscape ecological courses (with respect to PhD courses), summer schools, networks etc.;
- link with existing teaching projects/initiatives (e.g. *ECLAS*, *AESOP*, *UNISCAPE*)
- co-ordinate and assess teaching and training on international and European platforms;
- develop criteria for selecting PhD and related courses linked to IALE congresses / conferences (statements of interest);
- assess and co-ordinate the actual diverse credit point systems;
- promote the needs for teaching and training in our field; and
- set up funding sources which allow students to attend PhD courses linked to IALE congresses /conferences / research activities.

Creation of the functioning European landscape ecological educational initiatives will be significant for the organisation of PhD courses, summer schools and other educational courses that are organised as guiding activities of the European IALE conferences and other PhD courses. An overview of the courses can be a good support for the preparation of new events. An important by-product will be the creation of a network of lecturers, with their professional focus.

The IALE-Europe educational initiatives should be in close links with already created and well-functioning networks with related thematic orientation, e.g.

- *ECLAS* (*European Council of Landscape Architecture Schools*), formed and met first Wageningen (the Netherlands) in 1991. With over 150 full members and over 30

Associated Members, the European Council of Landscape Architecture Schools aims to foster and develop scholarship in landscape architecture throughout Europe, by strengthening contacts and enriching the dialogue between the members of Europe's landscape academic community and by representing the interests of this community within the wider European social and institutional context.

- **AESOP** (*Association of European Schools of Planning*). The formal charter establishing AESOP was signed in Dortmund, Germany in 1987. AESOP has been registered as a **non-profit association** under Belgian law since May 1992. With over 150 members, AESOP is the only representation body which brings together the Planning Schools of Europe. Given this unique position, AESOP will strengthen its profile as a professional body. AESOP will mobilize its resources taking a leading role and entering its expertise into ongoing debates and initiatives regarding planning education and planning qualification of future professionals. AESOP will promote its agenda with politicians and all other key stakeholders in place development and management across Europe.
- **UNISCAPE** (*European Network of Universities for the implementation of the European Landscape Convention*). The aim is to contribute to the implementation of the European Landscape Convention – *ELC* (constituted in January 2008 in Florence, Italy). *UNISCAPE* supports landscape research, promotes education and training in the skills necessary to realise the principles and objectives of *ELC*, and works on a general level to foster deeper public awareness of the *ELC*. *UNISCAPE* also works closely alongside similar networks designed for local and regional authorities (*ENELC - the European Network of Local and Regional Authorities for the Implementation of the ELC*) and non-governmental organisations (*Civilscape - a network that brings together non-governmental organisations (NGOs) working in the area of landscape to support the principles and objectives of ELC*).

Addressing and solving the problems of sustainable land utilization of land requires broad interdisciplinary cooperation will be also with other sciences (Such as social science and economics as well as with the new science of sustainability). Therefore we recommend safeguarding in the frame of *European educational initiatives* the contacts on other organizations. Aside of these, IALE-Europe may liaise with the *European Society for Ecological Economics*. The concept of ecological economy as the analysis of the interactions between economy, society and environment can be very well used in the frame of PhD courses, summer schools and other courses for landscape ecologists.

Structure and organisation of IALE-Europe

Within IALE, a consensus on the following organizational principles for a European Chapter of has been established:

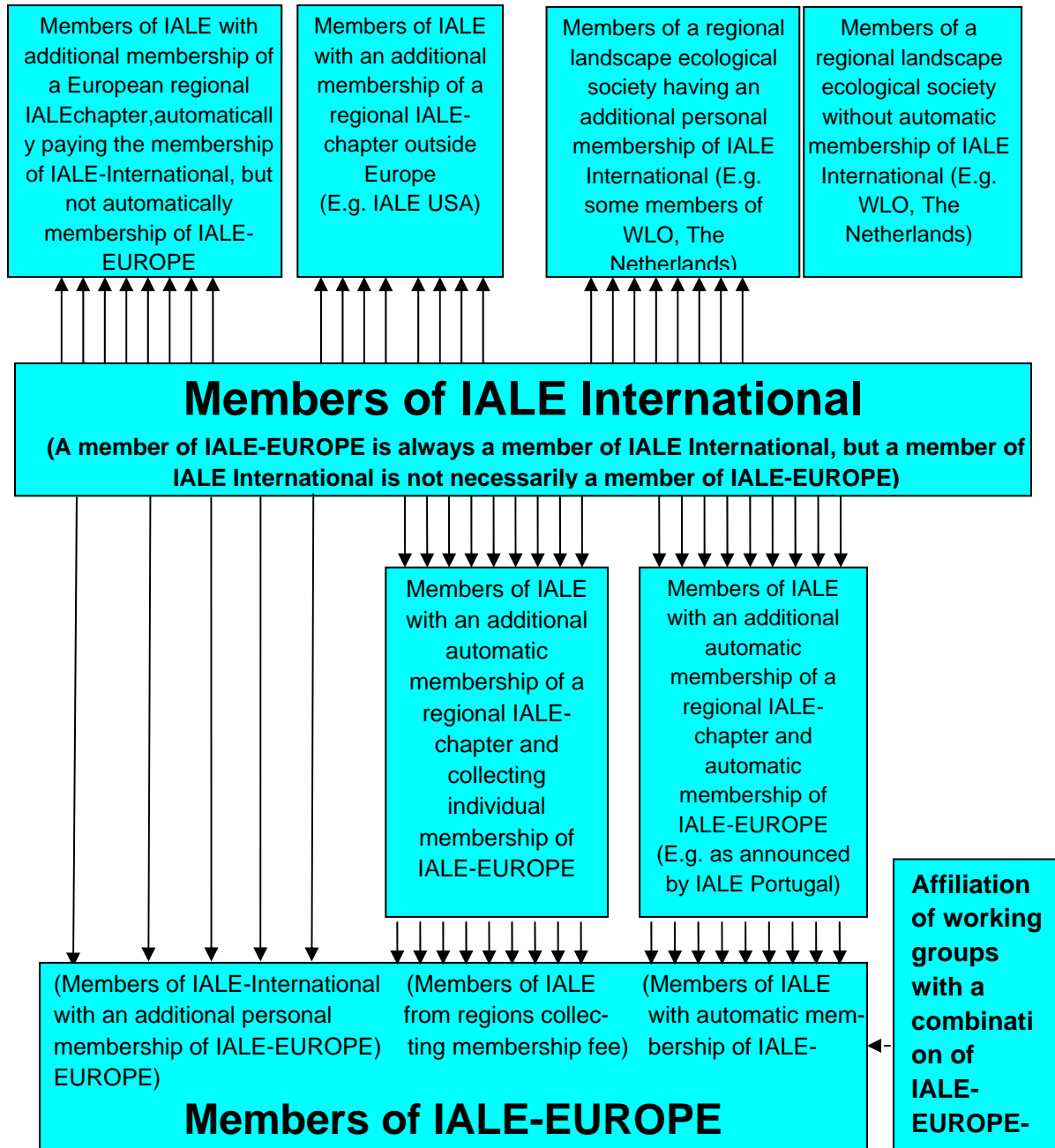


Figure 1. Principle organisational structure of IALE-Europe.

IALE-Europe will be open to all members of IALE International. So, every person having paid his or her fee for IALE-International (eventually together with a fee for a regional national chapter) can be a member of IALE-Europe for an additional fee. Since there can be many reasons for a member to live outside Europe, the membership is not restricted to persons with a permanent address in Europe. Regional (up to now solely national) chapters in Europe can become corporate members of IALE-Europe by including an individual membership of IALE-Europe in the membership of the regional chapter. Thus, in this case all members of the regional

chapter (being also members of IALE-international) are automatically also members of IALE-Europe (See figure 1).

Persons, who are not a member of IALE International can not be a member of IALE-Europe. However, IALE-Europe will facilitate a close cooperation with other groups and organizations not affiliated with IALE through any membership. The new revised statutes of IALE (April 2007) promote working groups based on cooperation with other groups outside IALE. This should be used to find practical ways of combining the common interests of IALE-Europe -members and other groups and individuals with relation to landscape science and its application.

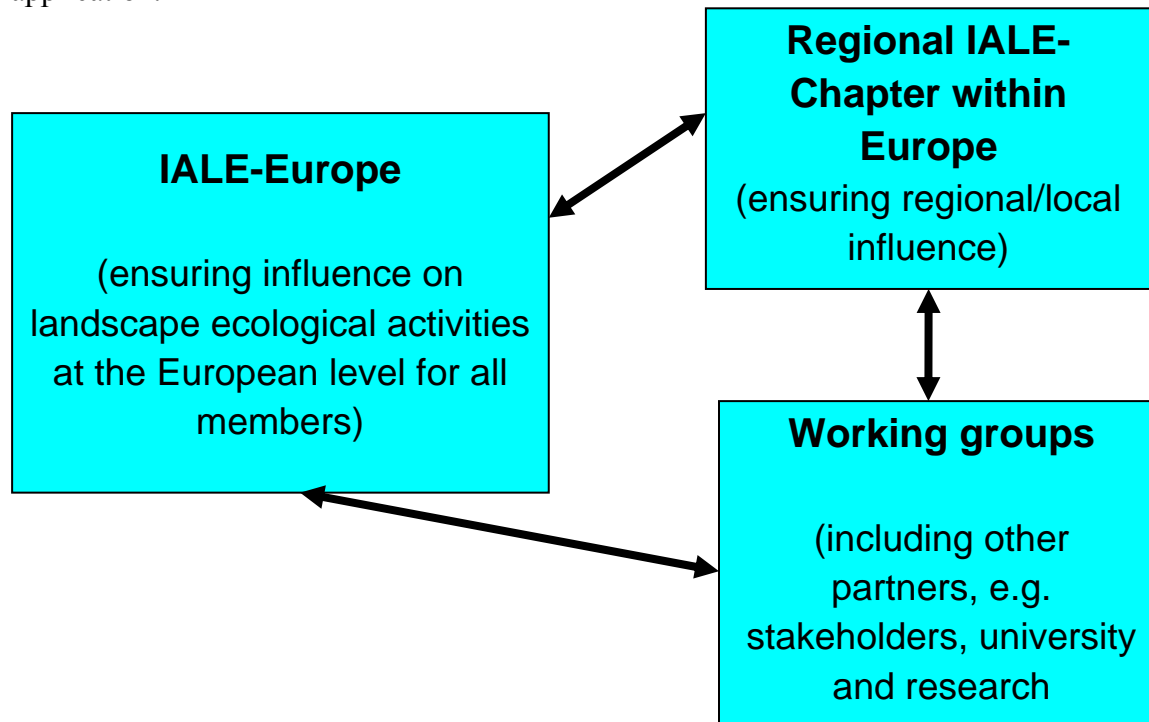


Figure 2. The organizational development of landscape ecology at the European level will depend on a close, but complementary and flexible cooperation between IALE-Europe, the European regional chapters and related working groups, including relevant partners outside IALE.

Since landscape ecological practise has first of all to be implemented at the local and regional level, European regional IALE chapters at a national, sub-national and cross-national level will stay as a main organisational frame for landscape ecologists interested in the application of landscape ecology.

Thus a close and flexible cooperation between IALE-Europe, the regional chapters in Europe, and Working groups, connecting these to various partners with interests and/or expertise of landscape ecological relevance should be in focus by the organisational development of landscape ecology at the European level (se figure 2).

IALE will be chaired by an Executive Committee with at least four members, expected to have a broad European representation. To facilitate a close cooperation within the Executive Committee it will be nominated and elected as a list, in competition with other nominated lists. If

only one list appears by the General Assembly, the list will be elected by acclamation. If there are more lists, a web-based election among all members of IALE-Europe will be carried out after the General Assembly.

On the General Assembly a representative to the IALE Council will be elected, and this representative will chair a nominating committee arranging the election of the Executive Committee.

All the representatives to the IALE Council from European IALE Chapters might easily form a IALE-Europe Council that could support and complement the Executive Committee, if needed. But this has not been implemented as a mandatory arrangement in the present statutes.

The fee level of IALE-Europe will be related to the level of activities and alternative ways of financing. It should however also take into consideration the responsibility of IALE-Europe to promote the formation and preservation of small regional and cross-regional chapters, engaged in the enhancement of the rich European diversity in landscapes and related cultural and linguistic differences.

The Statutes of IALE-Europe, as forwarded to the IALE Council, can be found at www.iale-Europe.eu [url since January 2012].