BREATH GUIDE

ADVISING IN ECOLOGICAL TRANSITION, WHY AND HOW?

Co-funded by the Erasmus+ Programme of the European Union

BREATH
LEARN TO DO FROM NATURE

This guide is produced as part of the European BREATH Project - Biomimicry Resilience Ecology Alliance Training Holistic - (2021-1-FR01-KA220-VET-000033004) supported by the ERASMUS + program, a program for education, training, youth and sport.

www.breath-project.eu

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PREAMBLE

This guide is produced as part of the European BREATH Project (2022-2024) - Biomimicry Resilience Ecology Alliance Training Holistic - a Key Action 2 Project for Cooperation Partnership on Vocational Education and Training. It is supported and financed by the Erasmus+ program working for the development of educational projects and for the production of formal or non formal training for professional adults. Four partners from three European Union countries, France, Slovenia and Spain were involved.

BREATH
LEARN TO DO FROM NATURE

The BREATH project is a response to the need to implement the Green Deal for Europe to face crises. It aims to multiply approaches inspired by Nature in the field of agriculture, energy, building and spatial planning. The project objective is the adoption of new concepts and techniques to facilitate global approaches to ecological transition, by improving professional competences of the advisor profession through vocational training.

The project partners and authors of this guide are :

les 7 Vents
La cooperative de l'énergie et du développement durable

The collective interest cooperative society *Les 7 Vents* has been working since 1998 to accelerate changes towards sustainable systems, particularly in the energy and ecological fields. Our non-profit company supports communities, businesses and individuals in reducing their footprint on the planet by drawing on their lived experiences.

'ARBAN
SCIC

The cooperative *Arban* was created in 2010 by a citizen's initiative to find housing solutions in rural areas. *Arban* works in different fields: local development, urban planning and eco-renovation in the Limousin mountains (rural mid-mountain area). *Arban* aims to meet the challenges of ecological transition and revitalize rural town centers.

IAMB
Institute for Applied Mycology and Biotechnology

The *Institute of Applied Mycology and Biotechnology* was founded in 2016. Its aim is to protect fungal biodiversity and spread the knowledge about the use of fungi in biotechnology and applied mycology. The Institute's main activities are research, mycelium production, education and project work.

Taph Taph

The *Asociación Taph Taph Bioconstrucción, Arquitectura y Paisaje Holístico* is a NGO founded in 2016, whose aims are to promote habitat and shelter construction through horizontal, participative and healthy methodologies. It promotes assembly culture, gender equality, consensus decision and open pedagogy. A holistic approach to improve our societies.

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PREFACE

Dr. Andrej Lukšič

Before the human race began to understand the natural world, it lived helplessly in it, just as all other living beings did. The first insights into natural processes allowed the first agricultural civilizations to develop, and humanity established a social world that was different from the natural world, yet dependent on it. At the same time, human knowledge also shaped a third, technical world, situated between the social and natural world to help the social world to flourish further. The social and technical worlds are human creations; the human race has been able to build both because of its new insights into the workings and laws of the natural world. By integrating all three worlds, the cycle of development of civilization was gradually established. Through new knowledge of each world separately and all three together, the process of interaction and further development of each world began.

The human race thus had sufficient reason to believe that it is in the centre of the world, the centre of the animal kingdom, and to dominate the world, to subdue the natural world, to depend less and less on it, and to no longer be helplessly subject to its laws. Increasingly, humanity has become trapped in the technical world, believing it had subdued both the natural and technical world. This hegemony over nature was (only) intellectual, more of an illusion and by no means a reality. In the interplay of the three worlds, knowledge was accelerated and deepened, and later specialised, giving rise to the natural sciences, technical disciplines, as well as the humanities and social sciences. Eventually, this dynamic led to the point where the workings of the technical and social worlds began affecting the very natural conditions of existence of the human race and of all other living beings.

The self-image of the human race was being overturned by new insights into nature, society, and the human psyche. Copernicus said that man is not the centre of the universe, Darwin that he is not the crown of the animal world, Freud that he is not even the master of his own house.

The overthrowing of this all-too-self-important notion the human race had of itself, in fact, marks the beginning of the collapse of a civilization, of a particular human culture, and at the same time the beginning of the construction of a new word, more in tune with maintaining the natural conditions of existence for all living beings.

We seem to be at a civilizational and cultural turning point. New lines of thought are already here, new tendencies of changing the current dynamic cycles between the three worlds are already present, new ideas about the human race and its place in the natural and technological world are already being transformed. The agents of a new time have already been born and are actively at work.

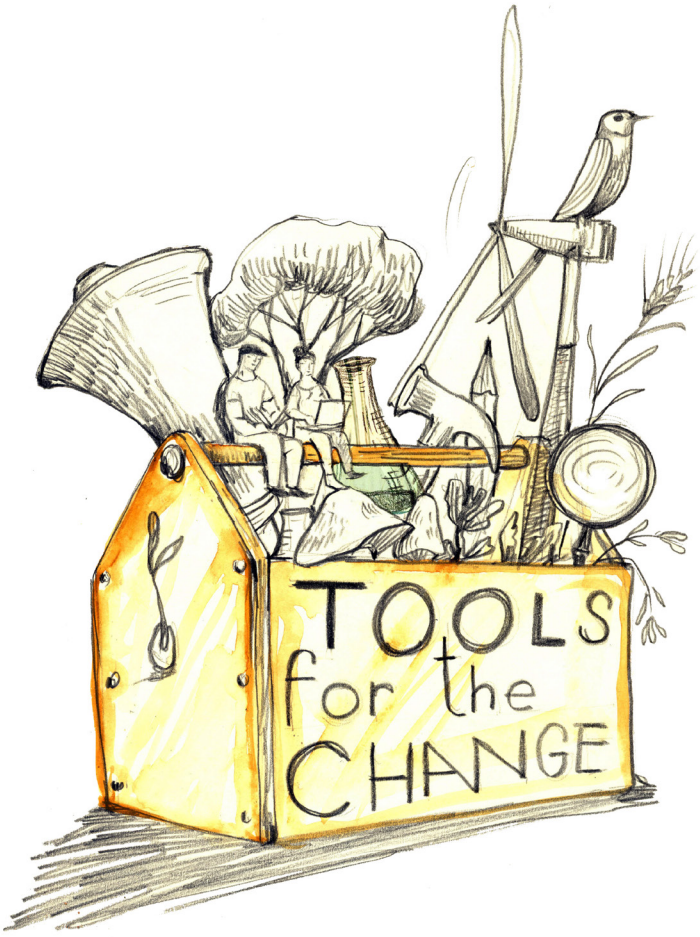
The following text reflects the spirit of the moment; it is framed by these new trends of the emerging new world.

INTRODUCTION

This guide offers the *BREATH systemic approach* for implementing advice in ecological transition. It outlines how support for ecological transition can be reconsidered through the prisms of observing, evolving, practicing, and fostering. It is the result of a three-year collaboration between four European partners.

Thanks to the BREATH project, thirty-three case studies and thirty-one field surveys were carried out among professionals and were supplemented by four disciplinary studies in the fields of pedagogical methods, agriculture, building and spatial planning. Also included was the design of a cycle of four training courses on the *BREATH systemic approach* and the experimentation of them in three countries (France, Slovenia, Spain). The recommendations given here are based on these experiences and on a dedicated competency framework called *BREATH Competency framework for Advisors in ecological transition*. This conceptual framework summarizes the key competences to be mastered for advising in this field, particularly those linked to systemic, cooperation and support for change.

This guide is designed to be transferable and adaptable across a wide range of occupations for learning and teaching purposes. This and other tools presented here and in annexes are available on the project website - *http://breath-project.eu/* - in order to facilitate adaptations.



WHAT IS THE AIM OF THIS GUIDE?

This guide mainly aims to support advising professionals to foster change and to ensure that more and more of them are trained in the field of ecological transition. Furthermore, there are other specific aims:

- TO SHOW users what is the *BREATH systemic approach*;

- TO SHARE good practices as professional references to provide guidance to users;

- TO USE this guide as a pedagogical tool before, during, and after a training based on the *BREATH systemic approach*;

- TO PROVIDE new ideas and inspiration to people who want to accelerate change together towards sustainable systems.

WHAT ARE THE PROBLEMS WE ARE FACING AND WHY DO WE NEED THIS GUIDE?

Humans have with their activities altered up to 70 % of the Earth's land area from its natural state, which has caused "unparalleled environmental degradation" and contributed "significantly to global warming" (United Nations Convention to Combat Desertification [UNCCD], 2022). Recent data says that of the nine "planetary boundaries" – limits on how humans can safely use Earth's resources – six have already been exceeded: climate change, pollution, biosphere integrity, land use change, fresh water, chemical pollution and geochemical cycles (Caesar et al., 2024).

Our unsustainable practices in land use – from spatial planning and architecture to agriculture and energy production – are the major drivers of this degradation. These actions are depleting vital resources needed to sustain life and are accelerating the loss of biodiversity, which is crucial for the resilience of our planet and holds key solutions to the challenges we face.

Of course, the ecological stakes are alarming but on a social level, unsustainability is also spectacularly evident in the growth of inequalities. The planet is producing more and more wealth, yet it is concentrated in the hands of a handful of people. For the past 20 years, the richest 1 % have owned nearly half of the world's total wealth (Oxfam, 2021).

In parallel with these processes of wealth accumulation and GDP growth in rich countries, we are witnessing a global threat to democratic modes of governance. Authoritarian, conservative and populist regimes are on the rise, to the detriment of environmental struggles and social movements calling for global solidarity.

These multiple contradictions tend to cause ecological and social forces to diverge. But we won't make progress on the ecological challenges if we don't also make progress on the social question.

These realizations led us to develop the *BREATH systemic approach*, designed to support people in their search for holistic solutions or projects deeply rooted in their social and ecological environments by providing a framework for learning, monitoring, and evaluation. By doing so, we hope to support the development of solutions that are socially inclusive and ecologically sustainable.

Our goal is to foster a critical mindset in readers, and encourage them to shift from a linear way of thinking to a circular one. This is one of nature's fundamental teachings where everything, after its lifetime, becomes a resource for something else.

METHODS USED FOR THE CREATION OF THIS GUIDE

The integrated approach that we propose consists of alternating analysis phases with implementation phases. This process of continuous experimentation makes it possible to collect information on the context experienced by the people supported, while guiding them on the path to transition.

The contextual analysis methods use the methodological elements implemented during the BREATH project:

- CASE STUDIES

to understand the professional context through good practices, knowledge, skills and competences in ecological transition through inspiration from nature;

- STUDIES TO UNDERSTAND

the main fields of knowledge linked to pedagogical methods, agriculture, building and spatial planning;

- FIELD SURVEYS

with professionals from different disciplines to find out about situations and problems experienced and deconstruct practices;

- A COMPETENCY FRAMEWORK

to focus on the skills needed for the ecological transition and broaden our vision of professional practice towards human skills and eco-responsible ethics;

- SELF-ASSESSMENT TOOL

to measure impact and provide support for continuous improvement.

These different methodological elements aim to improve the practice of what can be considered as ecological integration through advice and training.


E.T.
ecological
transition.

PART 1

WHY DO ADVISING IN ECOLOGICAL TRANSITION?

1-1
THINGS TO KNOW BEFORE ENGAGING IN THE PRACTICE OF ECOLOGICAL TRANSITION

The need for action to support ecological and social transition is immensely important and urgent. Given the need for systemic change in our society and the difficulties of changing practices and ways of thinking that have been ingrained for generations, we believe that transmitting messages, skills, tools and a culture of transition through vocational education and training can have a very beneficial long-term effect on the environment.

WHY IS IT NECESSARY TO FACE CHANGE?

The profound crisis facing our civilization (climate emergency, loss of biodiversity, social inequalities, energy crisis, authoritarian regimes...) cannot be resolved without a profound change in our lifestyles. These changes in behavior will have an impact on our relationship with the land, with other human beings and with the rest of the living world.

Faced with the challenges of this necessary ecological and social transition, professional practices must evolve towards solutions for adapting and accompanying change. The objective is to jointly accelerate transitions towards sustainable systems and adopt new concepts and techniques to facilitate global approaches to ecological and social transition.

Connecting people with their environment (ecological and social) in a relationship of global egalitarianism, is one of the keys to overcoming poor living conditions and their consequences for humanity.

Improving our relationship with nature, understood as a collective living environment in continuity with life in society, is a way of improving our relationship with ourselves, with other humans and with the living world as a whole.

In a very short space of time, we need to be able to change direction. Now more than ever, we need a paradigm shift, to move towards other models of life, more sober, more sustainable, more democratic. To accompany this change, we need to change our approach and equip ourselves with tools to support individuals and groups. It is through individual change that we will be able to change society and make the ecological and social transition desirable.

The *BREATH approach* is global: it responds to operational, strategic and environmental issues in the broad sense. Advising thus becomes:

- AN ETHICAL COMMITMENT to the need to support change;

- A DRIVING FORCE for awareness of our need to relate to others and to the rest of the living world;

- A LEVER for individual and collective emancipation;

- A DRIVER of individual and collective capacity for action, enabling us to become agents of change.

It's a global approach that seeks to lay the foundations for a new way of bringing projects to life. Projects that are the expression of a renewed society, a society and a system capable of responding to the need to improve living conditions and thus the well-being of humanity and all living things.

CONCEPTS DEFINITIONS

We recognized the ambiguity of the terms Nature, System, Eco - responsible Ethics and Ecological and Social Transition which can vary depending on uses and contexts. Here's what we agreed on.

CONCEPT

NATURE

SIMPLIFIED DEFINITION

We have agreed on a vision of man within the environment. For us, man is an entity in and within nature. Human life is part of a collective life and all natural phenomena are present in its existence. A human being is by definition a living being and an organism. There is an indispensable continuity between nature, society and culture (Chuboda, 2015).

Depending on the context, nature may be:

- A PLACE (in nature) – not opposed to an urbanized space for example;
- AN ELEMENT, which has its own personality in certain cultures (mother nature);
- A CONCEPT linked to identity, to genes (it's your nature);
- A CONCEPT that shelters living things and natural resources (universal nature);
- A COSMOVISION of humankind's existence in the Universe.

NOT TO BE CONFUSED

with the environment, living, or natural resources.

NOTA BENE

The main bias put forward by the interviewees consists in excluding humans and their activity from nature itself. Many of the people we meet are uncomfortable with the concept of nature. They prefer to talk about the living.

CONCEPT

SYSTEM

SIMPLIFIED DEFINITION

A system is a set of interacting elements, forming a whole, such that the modification of one of them results in the modification of all the others, (this modification concerns the relationships, not the elements) (Le Moigne, 1977).

A system is a set of elements in relation to each other and forming a whole. A system is said to be open when it is in contact with an environment that can transform it or that it can transform itself. Every system organizes itself, spontaneously or intentionally, according to one or more goals. Explicit or implicit, these goals generally respond to a need for survival or development specific to the system (Houillon, n.d.).

Depending on the context, we speak of:

- LIVING SYSTEM – an organism, ecosystem, or social system – is an integrated whole whose properties cannot be reduced to those of smaller part;
- SYSTEM OF THOUGHT, political, economic, social for human organizations;
- ECOSYSTEMS for groups composed of living and non-living things;
- TECHNICAL SYSTEM for objects (heating, electrical, digital, automatic systems, etc.);
- SOCIOTECHNICAL SYSTEM for an object and its user;
- IMMUNE SYSTEM: set of mechanisms involved in the body's defense against pathogenic microbes (Selosse, 2017).

NOT TO BE CONFUSED

with an object, element, or thing.

NOTA BENE

The system is the basic concept of the Systemic Approach and Systems Thinking.

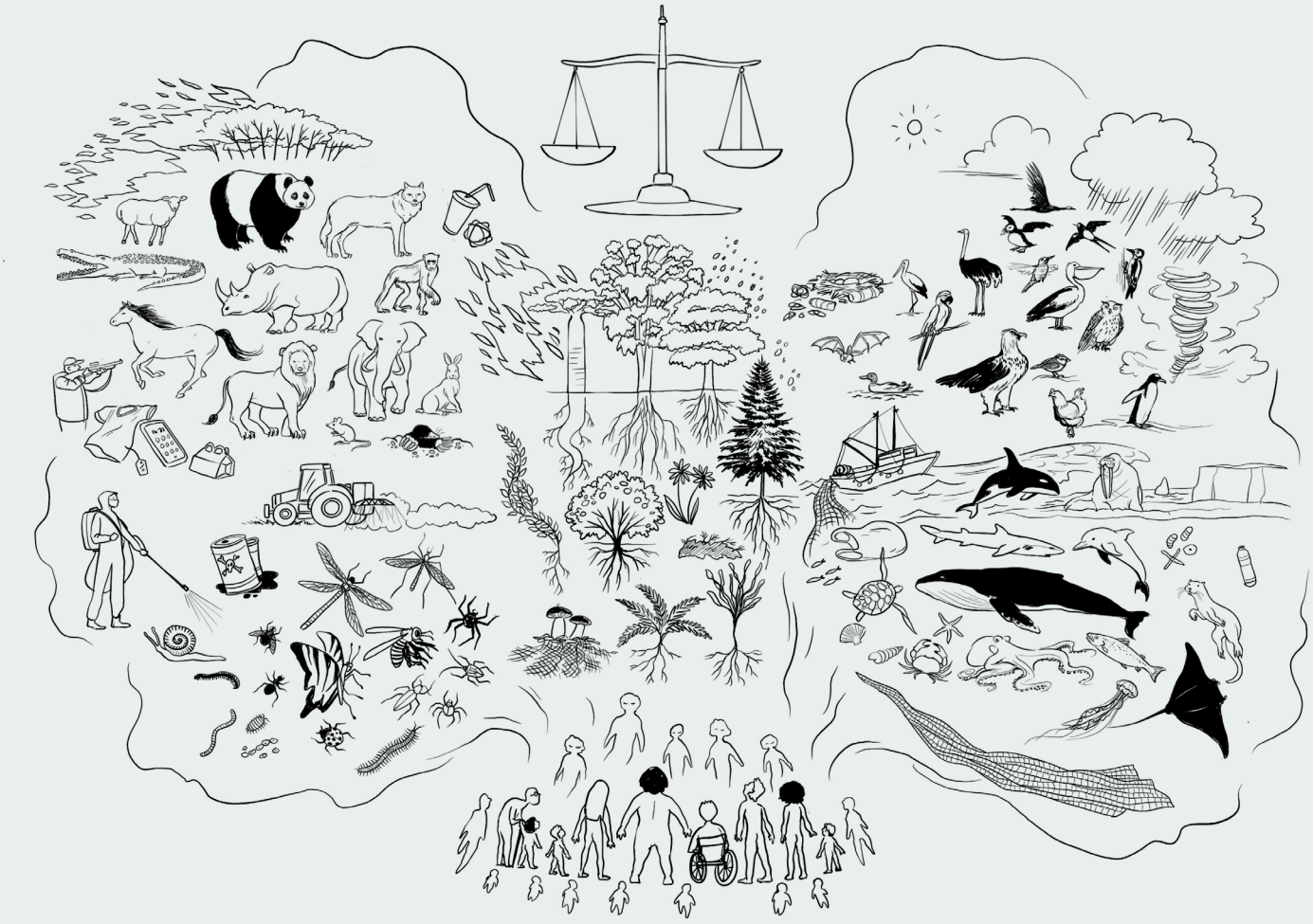
CONCEPT

ECO-RESPONSIBLE ETHIC

SIMPLIFIED DEFINITION

A set of moral principles and values that integrate notions of environmental justice, considering the interests and capacities of other species and ecosystems to support future developments. It integrates the needs of current and future generations, fostering a sense of belonging to a common and united humanity, where each being maintains an intrinsic relationship with other beings.

Eco-responsible ethics enable us to assess and question our personal needs in order to manage resources prudently with a view to achieving common objectives and interests in the longer term. Eco-responsible ethics is a priority value for becoming an agent of change.



NOT TO BE CONFUSED

with sustainable development or ecological or environmental awareness.

NOTA BENE

The main purpose of eco-responsible ethic is to include the human and non-human world into decision making.

CONCEPT

ECOLOGICAL AND SOCIAL TRANSITION

SIMPLIFIED DEFINITION

The ecological and social transition is a process that leads to a change in modes of production, consumption and living towards a more equitable sharing of power and wealth. More broadly, the transition aims to transform the development model by building a more respectful, ecologically sustainable, socially equitable and economically viable society.

NOT TO BE CONFUSED

with the transition from low-tech solutions to high-tech solutions.

NOTA BENE

The transition must be carried out within the framework of a democratic and participatory dialogue to guarantee the cohesion of the territories.

1-2
SUSTAINABLE CHANGES EXPECTED

This guide aims to bring about changes at three levels:

CHANGES IN SOCIAL SITUATIONS

It can have an influence on the contexts in which the people being advised operate.

- ENCOURAGE a solution to the socio-economic and cultural awareness of the ecological self-punishment imposed by a technocratic and capitalist economy.

- ANIMATES private and public bodies to listen to ecologists and implement new policies to safeguard ecosystems by social and participative transitions.

- BECOME AWARE of the political responsibility of institutions for the future of society and natural resources.

CHANGES INTRINSIC TO PEOPLE

Helping people to identify their own needs and consider their power of action in shaping their own lives and their relationship with their environment.

- CONSIDER nature as a system in which each element is important and interconnected.

- DEVELOP projects and activities through systems thinking.

- DEVELOP an ethical and responsible relationship with other humans and living things.

CHANGES IN PROFESSIONAL PRACTICES

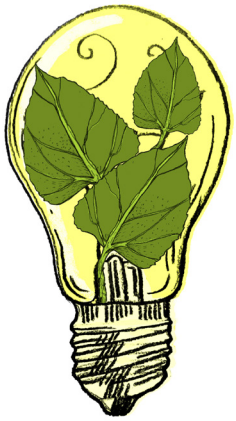
The skills offered with the *BREATH systemic approach* promotes the following changes:

- **from conventional agriculture to regenerative agriculture** - lowering usage of artificial fertilizers, shortening transport routes, diversifying means of income for farmers, making farmers resilient and autonomous;

- **from toxic and unhealthy buildings,** based on conventional construction and architecture disciplines **to bio-architecture and bio-construction**, promoting healthy, local and natural construction material and clean technology, fostering fertility and diversity of ecosystems;

- **urban planning projects that consume agricultural and forestry land** and respond to the capitalist logic of concentrating wealth in metropolises, to switch to adapted solutions that prioritize social utility and the protection of natural resources.

These three levels of change require a holistic view of the professional practice of the advisor in ecological transition. By a holistic view, we mean that a professional is never dissociated from his or her own human qualities as an individual. This individual dimension of the advisor is itself never dissociated from his or her own social condition and ability to act within an ethical and political framework.



WHAT MOTIVATES US TO CONNECT WITH OUR ENVIRONMENT?

The first competence of the *BREATH systemic approach* is our individual ability to observe the natural complexity of systems. Beyond the scientific approach, this ability to observe is also an individual awareness of our place as humans in a complex, changing and unstable world. Arne Naess, one of the founders of deep ecology, supports the idea that nothing exists separately, that "a thing only exists by virtue of the relationships it supports with the environment in which it is immersed" (Naess, 2017).

Deep ecology invites us to cultivate a relationship of empathy and understanding with other forms of life that is not based solely on an ethical or intellectual relationship with the world around us.

These moments of individual awareness can be triggered either by the practice of living, as a farmer or gardener, or by the ability to observe and connect sensitively with the environment around us.

Agustín Troya, *Farmer, Spain*

I realized we are not something
apart from Nature,
we are part of it and the responsibility we have
to maintain it. Every action in the environment affects us.
Then, during the work of my family as farmers,
I decided it should be changed.
The challenge is how to be more efficient
and accompany Nature,
because ***Nature is very efficient****.*

Lili Mahne, *Farmer, Slovenia*

It was then that
I began to realize that
something was not right in the landscape,
that something was wrong
with the methods we were using
in spatial planning.
At that time, a sense awakened within
me—connecting me with the energy
of the landscape and
a desire to protect it.

There is no hierarchy
in the living world.
Each species, each element has
its role and an impact on the environment.
If we situate ourselves in this ecosystem,
if we apply the network system of networks
and beneficial biological interactions (symbiosis),
perhaps this can help us
to find our place
in the ecosystem.

Marjorie Masseglia, *Landscaper, France*

Maud Corcoral, *Urban planner, France*

I remember my first emotion :
at the age of 7 I went to Lebanon
(my mother's native country),
it was the first time I saw the mountain.
Something inexplicable happened to me,
something of wonder.
My need, my desire to work
for the environment comes from that moment,
from a crazy love
for the beauty of the mountains.

WHAT MOTIVATES US TO TAKE CARE OF OUR ENVIRONMENT?

Deep ecology shows the importance of affectionate bond that is created between individuals and their territory, or more precisely, their place of life. For them, an individual can only have regard for a place insofar as it matters to him or her, insofar as he or she has an affective bond with it. Arne Naess defends the postulate that no person ever acts unless driven to do so by his or her affects.

Ines Drame, *Herbalist, Slovenia*

Conventional approaches
to gardening and farming would certainly
not have convinced me.
Experimenting with permaculture techniques,
however, thrilled me. *(...)*
The permaculture techniques I discovered along the way
actually strengthened my confidence that I truly feel the land
and am not afraid of it. I have no reservations
about experimenting. ***I trust the soil and seeds.***
Once you make real contact with the land,
all fears fade away.

Élise Girard, *Co-partner de Créateur de Forêt, France*

We create
biodiversity spaces on land
belonging to communities,
where it is interesting to act.
We practice eco-socio design to reduce
our environmental impact and to have
as much positive impact as possible.
We work with school structures, integration projects, and
disabled people to have the most inclusion
on our sites.
We also try to have a positive societal impact. *(...)*
Observation in nature
remains the best teaching.

Stéphanie DOUILLARD, *Anthropologist, France*

I think I was very small.
I used to play outside all the time,
in the trees, with the earth,
I was cooking with the porridge...
I used to put leaves in to flavor it.
I think that's already a form of caring,
of trusting in the richness
you have around you.

Pauline CABARET, *Nature reserve curator, France*

I have an image from
when I was a kid,
I went to the mountains with my parents.
I was so lucky !
I identified a flower and named it.
I was able to contemplate the beauty of nature.
What's more, I was connected to wide open spaces.
Then I had an urge to protect this flower...
but to protect it
just for its intrinsic value.

WHAT ENABLES US TO LEARN FROM OUR ENVIRONMENT?

In terms of professional practices, we can identify two distinct technical cultures:

- A DOMINANT, TECHNOCRATIC CULTURE,

which imposes the professional gaze through the act of technical expertise based on top-down knowledge;

- AN EMPIRICAL, SENSITIVE AND ATTENTIVE CULTURE,

that aims to accompany processes, to influence without wanting to command. It's an approach that seeks to put itself at the service of others, that treats nature as a partner.

In our interviews with professionals from different sectors, we were inspired by these empirical and experimental approaches that work within context. We were also inspired by professionals who start from the principle of observing and imitating living things.

These are professional practices based on an approach attentive to context. An approach based on humility and listening, which seeks to adapt its advice to support and facilitate change.

Christophe Lambert, *Mobility manager, France*

I became interested
in the subject of working together
with participative approaches and studies
to revitalize town centers.
We'll only be able to achieve results
if we can move forward together.
You can be right on your own,
but you won't change things.
Sometimes, I think we should forget
that we know, or that we have solutions.
You have to be patient.
You have to give it time.

Being in touch with nature
means admitting that ***you have no clue***
what nature wants, but you observe
what it does and learn from it.
And then, like a small child, you simply mimic.
Let nature be your main teacher.
And so, my greatest insight was that nature
sows and does not plant.
We must come to terms with the fact that
natural selection is the process of creating ecosystems,
and we use this realization
in designing perennial plantations.

Danijel Motaln, *Forester, Slovenia*

Maud Corcoral, *Urban planner, France*

At every moment
I feel like I am always readjusting,
according to my needs,
the abilities of each person,
in the influence of each person,
to see how to team up together.
To be the central theme of all activities
that claim to be linked to ecology.
The more each person is in their rightful place,
the more we will find our place
in a larger environment.

Michel Frémont, *Co-founder of the SCIC IDÉE, France*

In 1998, I created Les 7 Vents
as an association which became
a cooperative society
of collective interest in 2005.
The first in the Normandy region
with a social, environmental and ethical approach.
I work on energy management projects, energy saving,
solar photovoltaic, small wind power, hydraulics. (...)
We present ethics in relation to energy,
and that's how we train.

WHAT MOTIVATES US TO LEARN BY DOING? TO ACCEPT OUR MISTAKES?

It is often said today that the place of the trainer is changing: he is no longer (or in any case should no longer be) the knower who provides his knowledge to passive learners, but rather a facilitator of learning, promoting active and collaborative learning, in which he will organize interactive activities, games and times of reflection to make the learners work and think (Carré, 2005) (Perrenoud, 1996).

BUT WHAT ARE THE REASONS FOR THIS EVOLUTION?

Indeed, in psychology, learning is defined as a change observed in the behavior of the organism which results from its interaction with the environment. These pedagogical approaches have undergone many developments among constructivists. For them, an individual learns through an iterative process of trial and error.

Along these theories of teaching, thought must always be considered in a situation, in a certain context, in an environment. Among these approaches based on experience, we can highlight those which seek to privilege manipulation and experimentation.

David Blasco, *Architect, Spain*

The great nature there is in Chile
and all kinds of buildings they have,
made me feel ***my studies had not been linked to nature****.*
But the link and ***exchanges with some professors***
during my previous architecture degree, helped me
to be prepared for this awareness.
Then I did an expert course on bio-architecture
at the University of Seville and after I did a ***nine months volunteering term about permaculture****.*
All ***that made me think about how to transform my profession*** *and*
use the knowledge acquired.

Realizing the importance of learning
to observe without preconceived ideas
of what we want to see or do has been crucial for me.
We may look, but often our minds are closed.
Nature is constantly showing us where and what
to plant, independent of our notions.
The breakthrough that needs to happen in people
is for them to truly see
what is in front of them.

Danijel Motaln, *Forester, Slovenia*

Pauline CABARET, *Nature reserve curator, France*

Evaluation is becoming
an increasingly important part
of our work, and is required
by our financial partners.
We take measurements before work begins,
which gives us real data on water quality, for example.
Having well-targeted indicators is the key.
Everyone has their own theory.
You're entitled to make mistakes,
but it's the experimentation that interests me...
Evaluation is a great support for us,
it allows us to know if the recipe is good.

Isabelle Radtke, *Artist and Co-founder of the third place Lab01, France*

I realized that in trying to do this,
I still hadn't changed anything
in the relationship we have with the living,
because I was still trying to use it as a resource.
My realization was there, what can we do for the living ?
How can we have something where it's win-win ?
In seeking to do symbiotic bio-production,
we must also seek a round trip with the living.
And so, ***we must first see what***
we can do for the trees/plants,
so that they also benefit from this relationship.

WHAT MOTIVATES US TO BECOME AGENTS OF CHANGE?

The European Competence Framework for Sustainability, GreenComp, encourages learners to act simultaneously on three levels of agency: at the individual level, at the collective level and in a political framework. Regarding the latter level, political agency deals with the capacity of each individual to become an agent of change and to participate in the political and social debate that concerns the future of our society. Political agency can be focused on advocating for a change in norms, rules, regulations, or an institutional commitment to sustainability. It can also be proactive and encourage green innovation or the promotion of changes in lifestyles and behaviors. GreenComp also highlights the importance of small-scale actions and their mobilizing capacity to spread experiences beyond borders, capable of developing sustainable lifestyles (European commission, 2022).

I became a tutor for environmental protection associations such as Green Touch, and others that worked for equality, diversity, etc. (...) ***I want to work with my heart,*** *to be in tune with the person I really am... I initiated meetings with external partners, both on the environment and on the social aspect and inserted myself into a local ecosystem that I really liked.* ***Maturity and the desire to act*** *pushed me to create my company in order to be fully aligned with my values.*

Christine Morin, *Founder of d'Arbor et Sens (RSE), France*

Jožica Fabjan, *Permaculture designer, Slovenia*

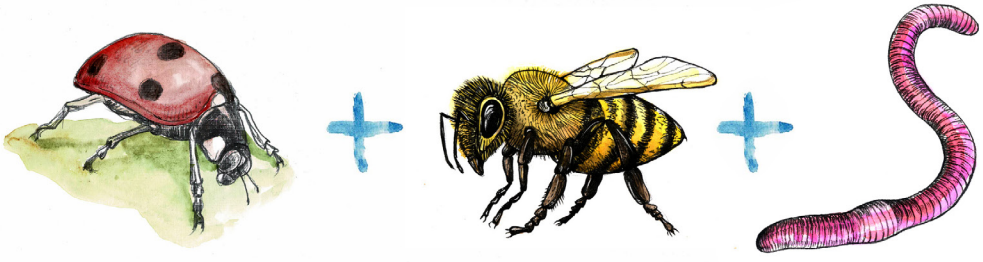
We have taken complete control of nature, but ***I have trust in nature, an inherent trust that she always justifies to me.*** *In my work in my own garden and in community gardens, I try to grow as many seeds of useful plants as possible in a way that exposes them to the rhythms of nature. In this way, my vegetables and plants have self-defense and vitality, and so do the seeds.*

Marc Beteau, *Project manager for facilitating participatory approaches, France*

Protecting nature cannot be an injunction. The idea is to start with people. People have ideas, the ability to act. Through social action and popular education. On the one hand, through social action we overcome the consequences of social inequalities ; then, through popular education, ***we engage means of collective emancipation, then of social transformation. The ecological transition and the social transition are linked.***

I planned my job
from a political approach.
The origin of carpentry is in the forest
and linked to Nature.
But the industrial sector has split this link.
I build traditional wooden structures
with natural wood and a minimum
of simple metal pieces
which can be produced
by artisan blacksmiths.

Loris Carboni, *Structures carpenter and trainer, Spain*



1-3
OUR TARGET AND THEIR BENEFICIARIES

Our main target audience are people who want to accelerate change together towards sustainable systems.
In particular, we are targeting **Advisors, Trainers, Supporters in the field of agriculture, energy, building and spatial planning, Designers.** Additionally, we are also targeting the general public and professionals from other sectors, Users/ Inhabitants and Teachers.

ADVISORS PROFESSIONALS

The definition of the profession of advisor as we understand it is made up of the abilities to:

- **Be expert in the respective topics or field of work.**

- **Analyze a context, an ecosystem, techniques, and technologies**: advisors are skilled in assessing various environmental and technological factors to understand the broader context of their work.

- **Advise, train, support, facilitate assimilation, empower and give meaning to their work**: advisors not only provide advice but also support and empower others, facilitating learning and ensuring that their work is meaningful and impactful.

- **Change scale, catalyze, support emergence, facilitate cooperation, and work in a network**: advisors are adept at scaling their efforts, catalyzing change, supporting new initiatives, and fostering cooperation within networks.

- **Understand a culture, key issues, relationships, and interdependencies.**

THEIR BENEFICIARIES: THE PEOPLE ADVISED AND THEIR ENVIRONMENT

Among these target groups, for the improvement of skills in the different fields of work of the BREATH project, the beneficiaries are as follows:

AGRICULTURE: Advisors in agriculture and nature conservation, Agricultural extension officers, Farmers, Administrators of protected areas, Employees in state administration working in the field of nature and the environment, Employees in municipalities and communal companies, Researchers and scientists in agricultural and environmental studies, NGOs focused on sustainable agriculture and rural development, Educators and trainers in agricultural and environmental programs.

SPATIAL PLANNING: Local representatives, Employees in municipalities and communal companies, Public service employees, Farmers, Residents, Shopkeepers, Architects, Urban planners, Landscapers, Engineers.

BUILDING: Building contractors, Construction and structure Engineers, Construction material producers, Construction material suppliers, Architects, Public servants of building services, Professors and trainers of Higher Education and Vocational Education and Training levels, Scientists, Advising building professionals and enterprises.

ENERGY: Inhabitants in precariousness, Citizens, Professionals in construction field, Architects, Design offices, Craftsmen, Local authorities, Municipalities, NGOs in the social and solidarity economy, Enterprises, Associations, Local actors.

HOW TO REACH THEM?

Our targets and their beneficiaries are made up of actors who participated in our cycle of training and multiplier events and are able to promote and replicate their learning.

To reach them the deployment process was a bit different for training than for multiplier events, but remains the same overall.

For training, we targeted small groups inside the partnership and actors working with them to involve them in the realization of the project. The means of communication used were targeted emails, newsletters and direct oral contacts.

Whereas for multiplier events we targeted larger groups to disseminate the project objectives and its results.
In order to reach a wide audience, we entered into partnerships with local associations to benefit from their networks. Also, some dissemination events were programmed within local agendas on environmental issues. This was a way of broadening our targets and benefiting from their own means of communication.

We communicated on social networks (Facebook, LinkedIn), by emailing (newsletters), by direct contacts, with the project leaflet, as well as through posters in public places (shops, tourist offices, town halls).

Our dissemination strategy also involves our professional practices and concrete exchanges with our partners outside the BREATH project. This project has made us aware of the skills required for cooperation within multidisciplinary teams. We use BREATH methods with our work teams to disseminate them and bring them to life.


CUIDADOS

PART 2

HOW TO DO ADVISING IN ECOLOGICAL TRANSITION?

2-1

CONTEXTUAL ANALYSIS, PRELIMINARY STEP TO ADVICE

OBSERVE

Understanding the context of implementing the advice is essential. To do this, during this project, we used three types of studies and two types of tools:

STUDIES

- Case study.
- Disciplinary studies and transfer of methods.
- Analysis of professional practices.

TOOLS

- The competency framework.
- Self-assessment.

CASE STUDY

In order to understand how referenced professionals linked to advice and to ecological transition develop their practice, a first set of interviews was done to illustrate through concrete cases and feedback the implementation of working and learning methods inspired by nature. It also allowed us to highlight transversal professional competences which helped us to build the *BREATH Competency framework for advisors in ecological transition*, as well as this guide.

The method used to do this case study was the design of an interview model based on the self-studies of our own structures, on our characteristics and uses in the field of ecological transition and our professional practices inspired by nature. This model contained several questions illustrated with examples observed in nature which have inspired professional practices in agriculture, advice, building and spatial planning. These questions were first tested in our own structures then during interviews, face to face or online, with professionals, members of our networks, that we selected. The interview guide also included some questions related to interviewed people and their entity in order to know to what extent they are linked to advice and to ecological transition. Finally, a last question was asked to get their feedback, as well as contacts from organizations in their professional circle as new useful sources for the BREATH Project.

A total of 33 professionals, linked to public bodies, associations and enterprises, were interviewed. Some interesting learning was obtained to improve the BREATH Project:
- recognition of the ambiguity of the terms nature, system, biomimicry, depending on uses and contexts;
- need for a consensus on competences of observation, pedagogy, cooperation, and humility;
- need to take into account the main risks mentioned by the interviewed professionals: disruption of ecosystems, immobilism in the face of paradoxical injunctions, and potential for instrumentation.

Some orientations resulting from this experience were proposed to facilitate our second survey on professions in transition. The three main recommendations for carrying out the business study are as follows:

- MAINTAIN the relationships initiated to sustain a resilient network.

- IMPROVE the questionnaire to allow more freedom of speech.

- LINK key learnings to BREATH competences blocks.

Results obtained in these case studies allowed us to organize the consistency of our training cycle, to build the *BREATH competency framework* and prepare the second survey.

Indeed the first phase, and year, of the project aimed to lead a holistic and international exploration of the knowledge and competences related to inspiration by nature. Based on concrete cases, we were able to apprehend the subject in a concerted way for the rest of the project.

DISCIPLINARY STUDIES AND TRANSFER OF METHODS

Following observations made during the case studies, it was also important to understand the fields of work or study linked to what we want to develop, as well as the possibility of transfer of methods. In our case we focused, during four studies, on the building, spatial planning, agriculture and pedagogical methods themes. Then, we made additional research to establish pedagogical recommendations. This involved in particular projecting the transfer of methods from one theme to another or from one audience to another (school teaching methods through nature transferred to the professional world, or evaluation methods used in organic farming transferred to the construction sector for example). The aim of this research was to know and understand the most important thinking and doing lines of these four disciplines, linked to ecological transition and linked to training programs and methods for professional adults. Here we present a summary of our studies.

BUILDING: EDUCATION AND EMPLOYMENT IN ECOLOGICAL TRANSITION IN EUROPE AND SPAIN

Some social claims about a natural way of life appeared during the beginning of Industrial times of the XIX. century in Europe. Bio-construction and Bio-architecture fields of study appeared around the sixties of the last century in Germany, as an answer to the problems caused by chemicals in synthetic construction materials in buildings. The Asociación de Estudios Geobiológicos de España, created in 1991, was the first institution in Spain which gathered professionals and proposed discussion about the different topics involved, mainly technical awareness about geo and bio-based construction material and the presence of electrical and electromagnetic pollution in buildings and environment. Mainly, bio-construction means the proper feasibility of buildings in the surrounding landscape and habitats, with an affordable location, ground, design, construction material and its life cycle, and good indoor conditions, by means of health and environment criteria, and taking into consideration natural and artificial radiations. There are also important topics linked to building and health: sick building syndrome, vernacular architecture, appropriate technology for building, bioclimatism, geobiology, bio-habitability, etc. Following the current European policies, all these disciplines will have to be implemented in the upcoming building education and employment offer.

SPATIAL PLANNING: SPACE, TIME AND RELATIONSHIP

Many people think that spatial planning means equipping the territory. But spatial planning is much more than that. Spatial planning is materializing our culture, our way of being in the world (Jousseaume, 2022). We defend a vision of planning that supports the inhabitant, the one who is able to create links with the world around him. A planning that provides adequate responses to the singularity of the territory and at the local level and that allows the direct participation of local communities in all decisions and actions concerning them.

A spatial planning is aimed at ordinary inhabitants, those who invest their time and energy in the locality. They are the wealth, the creative human capital. Spatial planning must be able to organize the activities of city dwellers in a democratic way to produce «common heritage».

It is, as Henri Lefebvre says, *to produce the space of the human species, as a collective work, to create the planetary space as a social support for a metamorphosed daily life* (Lefebvre, 1967).

AGRICULTURE: FROM PRODUCTIVITY TO SUSTAINABILITY OF THE LANDS

Agriculture is rapidly changing. Because of the pressure for constant increase in productivity, it is heading towards intensification and specialization, aided by new technologies. Consequently, the connections that farmers used to have with the land and their customers are being lost. By the most credible estimates, up to 52 % of global agricultural lands are now moderately to severely degraded, with millions of hectares per year degrading to the point they are abandoned by the land manager. To address these a number of strategies are being actively promoted, along with specific combinations of practices including conservation agriculture, organic agriculture and regenerative agriculture. While industrial methods see food as something to be manufactured from a set of raw materials, alternative practices rooted in traditional agriculture – such as agroecology and permaculture understand agriculture as an ecological system based on cyclic, symbiotic relationships. Common to these practices is the understanding that the soil is a living organism that needs to be nourished with diverse plants, animals and fungi, and disturbed as little as possible.

PEDAGOGICAL METHODS
SYSTEM THINKING INTEGRATED INTO TEACHING PRACTICES

In general, a pedagogical method is a means used to develop learning and to fulfill a specific pedagogical objective. There are five major theories of learning in training, including the trainer and trainee roles, which are: behaviorism (or the transmissive method); cognitivism (or the demonstrative method); constructivism (or the experiential method); socio-constructivism (or the interrogative method); connectivism (or the active method of discovery). Various innovative tools can be combined with these pedagogical methods to meet a well-defined objective, making it possible to design a good vocational training course or to lead it effectively. There are also different forms of environmental education that can be used in vocational training. In particular, education in the environment and through *the environment, the environment is both a learning environment and a pedagogical resource* (Sauvé, 1994). The objective, centered on the person, is to connect the participant with the environment. It is also necessary to reflect on the importance of teaching ecosystem thinking, of developing "eco-literacy," as Fritjof Capra points out in one of his essays: *This thinking that focuses on relationships more than on elements and interprets the world in terms of interconnected systems seems more relevant than ever.* (Capra, 1999)

From these studies the transferring pedagogical methods we identified are as follows. We are convinced that they are transferable in whole or in part to the cross-disciplinary field of advising and to the main target group of BREATH project.

Miguel Martínez, Architect and education manager, Spain

In the bio-construction field of work it is very important the psychology of the habitat, the use of certified healthy construction material by specialized professionals. In Spain this is not so easy, that is why it is very important to work with professionals specialized in bio-construction.

TRANSFER OF METHODS: BUILDING

The official building training offer for VET and Higher Education in Spain, is mainly focused on conventional or non ecological building. However, some recent Master degrees organized by private entities linked to public universities offer bio-construction and bio-architecture specialization, using different pedagogical methods. On the other hand, there is a higher offer of short practical (20-30 hours) hands-on training provided by non formal private education entities. Then there is a lack of VET offer. There are some different pedagogical methods used in these training programs of different education levels. However, the recommendations are:

Regenerative cultures are models to follow and regenerate the plant and ourselves. As specialists linked to other professionals, more and more people are asking us to be advised in bio-construction, permaculture and development of ecovillages.

Toni Marín, ecology magazine editor, Spain

- CREATE LONG TERM EDUCATION PROGRAMS of 400 to 2 000 hours, learning outcomes and access requirements scheduled by levels of knowledge, skills, competences and expertise of the applicants and trainers.

- PROMOTE A MIX OF PEDAGOGICAL METHODS providing a good percentage of experiential and active methods and promoting internships by dual modes of learning at education centers and at enterprises. A mix of education modes should be developed: 50 % face to face + 50 % on-line, could be interesting.

- EDUCATION CENTERS should be integrated into Nature and be designed and built by Bio-architecture and Bio-construction criteria.

TRANSFER OF METHODS:
SPATIAL PLANNING

Going through Spatial planning, there are methods that can be adapted to a short-term vocational training context and aimed at a professional audience of ecological transition advisors:

- GRAPHIC FACILITATION OR VISUAL THINKING uses the power of drawing to convey information and make complex subjects more accessible during training. The graphic facilitator accompanies the group throughout the course, helping them to develop and understand their ideas and the learning process.

- ROLE-PLAYING enables learners to gain a better understanding of a situation by putting themselves in the shoes of the players involved. These moments of collective production are also opportunities to confront ideas, to debate points of view, to learn to arbitrate choices and thus develop one's own critical thinking.

Christophe Lambert, *Mobility manager, France*

For example, I carry out diagnostics while driving. The best way to raise awareness is through first-hand experience. It sometimes changes the way they look at things. In terms of animation, you have to engage the body, you have to get people moving. We try to experience things. We also like to experiment and test. We do tactical urban planning. We test a use, an intervention. We allow ourselves to make mistakes without consequences.

Céline Thibault, *Botany and landscaping teacher, France*

Cartesian things don't work. You have to show them the beauty of things. You have to show them life. I'm coming back more and more to sensitive things.

- USING IMAGINATION AND CREATIVITY is a way to meet the challenges of the ecological and social transition. The teaching methods used are those of collective exploration of solutions. This collective work must first allow everyone, individually, to explore their feelings, by calling on their intuition. Then, the facilitator sets up an animation method that allows for a shift from the individual approach to the collective approach.

- INTRODUCING AN EXPERIENTIAL EDUCATIONAL APPROACH with field visits is a way to use the environment as a learning environment and educational resource. The facilitator acts as a mediator between the group and the environment that is observed and analyzed. It is a way to be made aware of our relationship with our environment, with the living and the beauty of nature.

The good thing about studying agronomy is that it teaches you to look at things through biology, botany, chemistry, biochemistry, physiology, pedology, and you build the technological foundations on top of that. We quickly saw that you can reduce costs if you use materials more rationally. We were taught to look at the cycle and not just at certain segments. So you get an ecosystem view. Agronomy teaches you to observe ; both on a micro and macro level.

Rok Mihelič, *Assist. Prof. agronomy, Slovenia*

TRANSFER OF METHODS: AGRICULTURE

In the diverse field of agriculture, practitioners range from those with lower educational degrees to those with advanced qualifications. To effectively transfer knowledge among such a varied group, different teaching methods need to be employed:

- ON-FARM DEMONSTRATIONS whose primary goal is to introduce innovations and foster knowledge sharing among various stakeholders through a multi-actor approach. The steps are: why are we doing this demo, what do we want to demonstrate, who is the target audience of the demo, and how we set-up the demo and the learning methods;

- MENTORSHIP to help trainees with their assignments and to discuss any emerging problems during the learning process. This enables the host organization to track participants' progress and gather valuable information for future training sessions;

- STORYTELLING to make information and facts tangible since they engage our feelings and are relatable. It is a useful tool for presenting and understanding complex ideas. Through storytelling, we can transmit our experiences and demonstrate what we have learned through trial and error;

- LIVING LABS to address farmers' needs on a very practical level using co-creative methods to plan and conduct real-life experimentations such as on-farm trials, experimental fields set up on working organic farms, or product development;

- LIGHTHOUSES, these are single sites, like a farm or a park, for demonstration, education and peer-to-peer learning where good practices are tested or are in place and can be shown to inspire other practitioners to move towards sustainable land management.

We often talk about the layers in a forest – tall trees, short trees, shrubs, herbs – but we frequently forget about humans, who are an important part of the ecosystem and should not be separated from it. Unfortunately, a societal belief has emerged that if we want agricultural land to be productive, ecology will suffer. We fail to realize that we need to integrate the two.

Danijel Motaln, *Forester, Slovenia*

Paul Boulanger, Strategy advisor of ecological redirection, France

I am convinced that if you really want to train people in the knowledge of living things, they must be in contact with living things. We are too cerebral. We must experiment, we must experience the living. Today we don't do it enough, because it's complicated to find the right framework, people, etc. But I think we only do 20 to 30% of the work if we stay in the brain.

TRANSFER OF METHODS: PEDAGOGICAL METHODS

Based on the study on pedagogical methods, we have identified a few examples of methods that can be adapted to a short-term professional training context and aimed at a professional audience of ecological transition advisors:

I start from the principle that we are faced with issues/challenges that we cannot face alone. Many of our activities are based on the notion of system thinking, we draw inspiration from what exists in nature to set up our projects with synergies, in an ecosystem. Very small actions can have an impact on the entire system.

Igor Louboff, Founder of La Cop des territoires, France

- THE SCHOOL OUTSIDE OR THE PEDAGOGY THROUGH NATURE (PTN):

the PTN is a process that promotes the holistic development of its participants through regular discovery activities in a natural environment. This specific approach is based on the observation of learning, thoughtful and caring support and respect for the pace of the participants. The role of the trainer is rather on the side of observation, support and guidance rather than direct transmission. The environment is considered as an educational tool transformed into an educational mediator. It is an experiential method where the trainer seeks to identify the processes put in place by the participants and not the result. Interaction with a natural environment allows awareness of different issues.

- EDUCATION THROUGH AND IN THE ENVIRONMENT:

environmental education *corresponds to a pedagogical strategy: it involves learning through contact with the environment, either through the environment outside the school or through the biophysical or social context in which one lives* (Collectif, 2001). The objective, centered on the person, is to connect the participant with the environment. The environment, thus closely encountered, allows one to learn about oneself, promotes the emergence of values and capacities, and leads one to situate oneself in relation to the Other (humans and other living beings). It is an interpretative approach that aims to build a solid bond between the person and their environment, to develop values and to promote empathy. It emphasizes the person and their relationship to the environment. The participant is an actor in their learning.

- ECO LITERACY OR SYSTEMS THINKING:

it is an ability to understand and use the operating principles of living systems and the ability to embody them in the daily life of human communities. This thinking focuses on relationships rather than on elements and interprets the world in terms of interconnected systems. Systems thinking makes it possible to design a professional training program as a whole with interconnections and interrelationships through project-based learning.

ANALYSIS OF PROFESSIONAL PRACTICES

In order to outline the necessary professional skills and competences, possibly new and linked to ecology, which have transformed working methods or working conditions of selected professionals, a second set of interviews was done. The aim of the first survey was to highlight transversal professional competences which could help us to build the *BREATH Competency framework for advisors in ecological transition*. But also to understand how people personally became aware of the need of ecology and how they applied it in their professional life, with what motivation and improved methods.

The tool used to do this survey was an interview guide built from the testimonies of members of our own structures on the transformations they have experienced in their work. It contained five questions focused on the personal changes that every professional had during her/his life:

YOU FIRST BECAME AWARE OF THE NEED FOR ECOLOGY PERSONALLY, INTERNALLY. WHAT WAS THAT MOMENT? WHAT CHANGED IN YOU IN THE SHORT TERM?

AT WHAT MOMENT
DID YOU ADAPT YOUR PROFESSION
FOR THE BENEFIT OF THE ENVIRONMENT?
WHAT IS YOUR JOB NOW, WHAT GREEN
COMPETENCES DO YOU MOBILIZE?
WHAT ARE YOUR MOTIVATIONS,
YOUR ATTITUDES
AND VALUES INHERENT
IN YOUR PRACTICE?

HOW HAVE THESE CHANGES
INFLUENCED
YOUR WORKING METHODS?

WHAT NEW OR IMPROVED
METHODS HAVE YOU
IMPLEMENTED?

TO WHAT EXTENT
CAN WE CONSIDER
THAT THEY ARE INSPIRED BY NATURE?
HOW DO YOU RECOGNIZE OR
HAVE YOUR ECOLOGICAL SKILLS
RECOGNIZED?

A total of 31 professionals from the contacts mentioned by the interviewees in our case study were interviewed. Here are the interesting observations and conclusions we can draw from them:

- THE PERSONAL EXPERIENCES which awoke the need to integrate ecology in personal day-to-day and professional work, is composed by a wide range of motivations, especially: decay of personal health because of the use of toxic products, habits and unhealthy ambient; long stays in rural natural areas with the presence of non industrialized societies like the current European ones; convivial moments with experienced old professionals or even with old family relatives on a farm or in the countryside.

- THE CONCEPTION OF NATURE AND HOW HUMAN LIFE IS LINKED TO OR IS PART OF IT, also had different personal approaches: humankind is part of nature and every human action influences the whole system of nature, capitalism, industrialization and humans classify nature and split the relationships from its elements , producing waste and a lack of efficiency.

- ALL THESE PERSONAL *ECOLOGY AND NATURE AWARENESSES* also produced a wide range of concrete personal changes: reduction of machinery and pollutants; implementation of horizontal governance methods; implementation of active listening and humility; educational methods more adapted to nature and moving of work and living places to natural areas; use of humor and equity to create a friendly atmosphere; promotion of ecology professional network creation, etc.

2-2
COMPETENCES NECESSARY FOR ECOLOGICAL TRANSITION
EVOLVE

Improving competences in terms of advice translates for us into an ability to better integrate nature into the advice provided.

In the *BREATH competency framework for advisors in ecological transition*, we have identified and associated essential transversal skills, competences, and knowledge to support advisors in ecological transition.

To build this competency framework we have used the following sources:

1- Exploratory survey of targeted business skills.

2- ESCO (European Skills, Competences, Qualifications, and Occupations) framework.

3- Transversal skills gathered from our interview case studies of the use of methods inspired by nature.

4- Transversal skills gathered from our field survey on trades in transition.

5- Disciplinary studies on agriculture, pedagogical methods, spatial planning and building.

6- Pilot testing of the competency framework during BREATH training cycle.

In the last stage of development the competency framework was shared with professionals working in diverse fields of ecological and social transition for further comments and final assessment.

The framework is divided into four main blocks of competences that together represent the *BREATH systemic approach* that we have illustrated on the following page. The four blocks of competences are explained and exemplified below, and the framework is detailed in the annexes of this guide.

BREATH SYSTEMIC APPROACH

for an advisor in ECOLOGICAL TRANSITION

OBSERVE :

EVOLVE

ECORESPONSIBLE ETHIC

FOSTER CHANGE

MULTIDISCIPLINARY

PRACTICE

EMPOWER MODELS TO USERS

1
OBSERVE AND UNDERSTAND NATURAL COMPLEXITIES OF SYSTEMS

This competence focuses on understanding the intricate and interconnected nature of ecosystems, promoting a holistic view of ecological transition.

Špela Koblar Habič, *Forest engineer and nature conservationist, Slovenia*

By studying and observing
natural processes, interspecies relations
as well as characteristics of different organisms,
we can discover fantastic solutions in nature
that inspire us on a daily basis.
Love towards nature
and spending time in nature are basics.

Hugo Bachelier, *Supporter of biomimicry deployment at CEEBIOS, France*

In living things
we observe mechanisms
of cooperation, parasitism, processes,
and interactions.
There are several schemes
that allow us to arrive
at several operating mechanisms.

Alejandro Muchada, *Farmer, Spain*

My work is based on the local knowledge
about traditional wine crops,
in my western Andalusian region,
and improving it through the philosophy of biodynamics,
permaculture and ecology.
My dream was to create a wine agriculture school,
theoretical and practical,
involving local and traditional farmers.

Céline Thibault, *Botany and landscaping teacher, France*

We need to think in global terms
(water, natural environments, human activities...).
Understand that everything is linked.
Become aware of our place in nature.
We are a drop of water.
We can't operate on an ad hoc basis,
with great certainties.

2
EVOLVE WITHIN AN « ECO-RESPONSIBLE » ETHICAL FRAMEWORK

Advisors are encouraged to act within a set of moral principles that prioritize environmentally responsible behavior and decision-making, acknowledging the intrinsic value of all organisms within an ecosystem.

Primož Turnšek, Microbiologist, *Slovenia*

One of the central aspects of ecological transition is adapting patterns by which ecosystems work into human systems (circular economy, production of energy, reuse of materials, taking into account cycling of elements such as carbon, nitrogen, phosphorus, ect.) and recognizing limits of the environment and abiding by them. By observing and researching nature (scientific approach is of vital importance) we can understand patterns in nature and determine limits of the environment.

Olivier Blanc, ex Co-director Le FRENE, *France*

The Education for the Environment and Sustainable Development that we want involves at least two essential points : that of a happy encounter with nature, with others, and that of learning through action.

Christophe Lambert, Mobility manager, *France*

My grandparents lived on a farm. They were part of the circular economy without knowing it. With them, nothing went to waste. If you want to apply concepts to my grandparents' practices, you could talk about the notion of sobriety. I think that my childhood experience has given me a character and a way of being that I've acquired.

Loris Carboni, Carpenter and Trainer, *Spain*

I realize that as a human, you are able to interact with Nature, obtaining a wellbeing profit surrounded by natural elements and silence. These moments were shared with other friends below stars. As an adult, globalization, industrialization and capitalism made me ask myself about my role in the world and which way to walk.

3
PUT IN PRACTICE
ADVICE INSPIRED BY NATURE

This involves offering equitable, fair, and empowering models to users, adapting advice to meet the needs of both humans and the natural world.

Alejandro Muchada, *Farmer, Spain*

It is important to have enough time
and promote efficiency for the self-production
of bio-fertilizers and compost,
based on ecological raw material.
Time ago, before industrialization times
of the last century, the historical agricultural practices
were complemented with cattle rising.
On the other hand, we must be aware
that agriculture is not a wild Nature.

To advise our beneficiaries
I demonstrate with sketches, diagrams
that certain standardized products are not suitable,
to then direct them towards
more sustainable bio-sourced materials.(...)
We must know how to listen,
know how to adapt to each profile,
and know how to adapt
to the resources of the beneficiaries.

Jean Michel Lefebvre , *Advisor at Les 7 Vents, France*

Florence Leplé, *Agent at the regional nature park, France*

My approach is that of a landscape designer.
You have to start from what already exists,
from the way the plant world functions,
from the local level, while respecting the dynamics,
human needs and ways of life of the people in the area...
It's not easy to get things across to elected representatives
either. Sometimes, a structure is judged
not to be conspicuous enough...
in other words, it doesn't show.
You have to do more, when in fact you have
to do less, keep it simple,
minimize the impact.

Ana Vovk, *Founder of Dole International Center for Self-Sufficency, Slovenia*

In order to authentically connect people
with nature, it is necessary to live with nature,
to feel it. Only theoretical knowledge is not enough,
but a deep connection with nature.
A deep understanding of nature
removes many self-imposed barriers.
It allows you to see new opportunities
in the business and social world
and to go to the edge,
see beyond and introduce
completely new approaches.

4
LEAN ON ONE'S ENVIRONMENT TO FOSTER CHANGE

Advisors are guided to rely on their environment and harness collective strengths, empowering individuals to be responsible and autonomous.

When you set up a project,
you shouldn't want to do everything yourself.
You should always ask yourself
whether it is useful to develop
skills internally or to seek
out a local actor who has the skills.

Clément Bresciani, Founder of Les Vagabond.es de l'énergie, *France*

Román Moral, Building operator, *Spain*

Human relationships are crucial
and you take a risk during the work
because of the wild market.
Bio-construction should be centered
also in human relationships.
Realizing that using natural material
and techniques produces
good comfort conditions in housing,
it was inspiring.

Vincent Magnet, Forestry advisor, *France*

I'm thinking of the link
with « low tech » renovation,
to enable people to find solutions on their own,
to find sustainable solutions.
We also need to avoid resorting to technical solutions,
where people become dependent on external systems,
sometimes incurring additional expenses.
The idea is to make people more autonomous.

We work very much in teams,
and collective intelligence
is the key element of our work.
Everyone brings his or her particular attitude,
skill and knowledge.
By listening to each other and learning
from each other we know more,
and can have better results
than one person alone could have.

Manja Vrenko, Coordinator of European Network of Ecovillages, *Slovenia*

ADVICE INSPIRED BY NATURE

Advice inspired by Nature refers to principles derived from observing nature.

It is about asking which principles from nature can help us provide sensible advice for ecological transition. Behind the concept of nature, which will be defined more precisely in the following pages, we want to defend a global vision that studies the interdependence of living systems on the planet.

PRINCIPLES INSPIRED BY NATURE

We have identified five main principles that are easily adopted for this purpose:

- CIRCULAR THINKING, CLOSED-LOOP SYSTEMS, HAPPY SUFFICIENCY - In nature, there is no such thing as overproduction or waste; everything that is produced has a purpose, and is then recycled and reused. A product for one organism is an input for another.
(Example from Nature: When a tree dies, it becomes food for fungi, which then become food for organisms in the soil and for animals.)

- LOCALLY SOURCED MATERIALS AND KNOWLEDGE - This understanding of local specifics – materials and knowledge – ensures that solutions meet local needs and resources.
(Example from Nature: When a beaver searches for materials to build a dam, it uses local materials. Animals also learn through observation, imitation and learning from one another, passing specific environmental knowledge to their offspring.)

- COLLECTIVE INTELLIGENCE OR « SWARM INTELLIGENCE » - The whole is greater than the sum of its parts (Aristotle). *(Example from Nature: An individual ant has limited capabilities, but within a colony, complex processes are developed, enabling targeted food searches and nest construction.)*

- INTERDEPENDENT AND INTERCONNECTED SOLUTIONS - It is important that while searching for solutions we connect multiple local human and non-human actors, thus making them interdependent, which limits the impact on the environment and ensures resilience.
(Example from Nature: The soil food web includes various organisms such as nematodes, bacteria, protozoa, and fungi that are interdependent and interconnected, providing minerals and nutrients for plants.)

- SUPPORT BIODIVERSITY - When seeking advice, it is important to support social and ecological biodiversity, involving multiple stakeholders, cultures, and species.
(Example from Nature: A diverse plot of land, unlike monocrops, features various species.)

2-3
TRAINING DESIGN
PRACTICE

As part of the project, we have created a document to highlight the BREATH training cycle designed for advisors in ecological transition, undertaken during the term of the project, including pedagogical aims and methods. It also aims to provide guidance on how to learn to design training for professionals, through the BREATH systemic approach. This instrument is flexible, reusable and adaptable to any field of work or study.

A cycle of four non formal experimental training sessions was done by the partners, in three different European countries, in order to test the modules created to transfer the skills needed for replications of the proposed methods. These activities also helped to strengthen cooperation and networking between organizations and to recognize and validate knowledge, skills and competences to adapt the system to local contexts. The training courses undertaken were:

- TRAINING 1.

What competences, pedagogical devices and innovative training tools to facilitate change towards sustainable systems?
Coordinated by Les 7 Vents. France, January, 2023.

- TRAINING 2.

Nature and agriculture, how to transcend the dominant/ dominated relationship?
Coordinated by IAMB. Slovenia, August, 2023.

- TRAINING 3.

Bio-architecture and Bio-construction inspiration.
Coordinated by Taph Taph. Spain, March, 2024.

- TRAINING 4.

Revisiting the tools available to support spatial planning projects facing the transition.
Coordinated by Arban. France, June, 2024.

Following the implementation of these training courses, the partners were able to learn lessons and assess the evolution of their quality, then balance and discuss possible adaptations to meet the *BREATH competency framework* developed. In conclusion and as a recommendation, here we present an improved model of two days training, based on the experiences undertaken during the term of the project.

The objective of this training model is to transmit knowledge, skills and competences of the *BREATH systemic approach*. This model is flexible, reusable and adaptable to any field of work or study. Although at the time of writing this guide, the certification project entitled "Upskilling transversal competences of an advisor in ecological transition" and submitted by SCIC *Les 7 Vents* is currently being examined by the official French agency - France Compétences - this training program was also developed as part of this certification.

The main pedagogical aims are:

- Put into practice the *BREATH Systemic approach for advisors in ecological transition*.

- Understand the key knowledge, skills and competencies necessary to support ecological transition and facilitate change.

- Develop awareness of the importance of listening to others and adopting a humble attitude when advising them.

- Discover tools to facilitate collective work and empower individuals.

The main contents are as follows:

- Interknowledge of participants, expression of expectations, give the tone of the training, and objectives of each.

- Theoretical contributions on *BREATH systemic approach*.

- Observe and understand the natural complexities of systems.

- Evolve within an « eco-responsible » ethical framework.

- Put into practice advice inspired by nature.

- Lean on one's environment to foster change.

- Time for discussion on participants' feelings and feedback.

TRAINING

FACILITATING CHANGE WITH BREATH SYSTEMIC APPROACH

BREATH
LEARN TO DO FROM NATURE

DAY 1

		Description	Objective of the sequence	Pedagogical methods
30 m	**Welcome**	Discovery of places and people	Set the participatory tone, immerse yourself in the places and the program	
15 m	**Introduction**	Presentation of the program, the pedagogical objectives and the course of the training	Explain the common thread of the training: back and forth between experimenting with training actions and taking a step back from the objectives, methods and learning.	
30 m	**Ice Breaker**	Interknowledge sequence, participants and speakers get to know each other	Enable each participant to identify the resources (skills, aptitudes) they already possess and which they can put at the service of the group.	
50 m	**BREATH** sysmetic approach	Presentation of the BREATH systemic approach	Understand the complexity of the four blocks of competencies of BREATH framework, as well as their interconnection and complementarity.	
30 m	**Self evaluation**	Self-positioning in relation to the targeted competencies of the BREATH systemic approach. Collection of needs, expectations, and objectives of each.	Better understand how learners' perspectives align with BREATH systemic approach, and enable each participant to identify their strengths and weaknesses within this system.	
40 m	**Introduction** ecological principles	Presentation of ecological principles and solutions considering eco-responsible ethics	Understand the key elements needed to develop sustainable and environmentally ethical advice.	
15 m	**Chronobiological** rhythm	A quick game for introducing the chronolobiological rhythms	Experiencing an energizing (and biomimetic) moment as an example illustrating chronobiological rhythms.	
75 m	**Workshop** natural complexities of systems	Mimicking ecosystem with BREATH systemic approach	Put in practice the BREATH systemic approach to work in a systemic and transversal manner for a global vision of the ecological transition.	
75 m	**Workshop** eco-responsible ethical	Team building for the identification, production and workmanship of local, natural and healthy material	To be able to consider, understand and respect natural societal limits and constraint in order to adapt its proposal to the human and environmental context.	
15 m	**Harvest of day one**	Individual assessment + collective debriedfing	Time for feedback, sharing everyone's feelings and answering questions.	
	End of the day			

Pedagogical methods *Participative* *Transmissive* *Active discovering* *Experiential*

TRAINING

FACILITATING CHANGE WITH BREATH SYSTEMIC APPROACH

BREATH
LEARN TO DO FROM NATURE

DAY 2

		Description	Objective of the sequence	Pedagogical methods
	Welcome			
15 m	**Ice Breaker**	Participants express their mood of the day and feelings	Restart and get feelings of each participant	
10 m	**Introduction**	Introduction and explanation of the course of the day	Set the tone of the day	
20 m	**LISTENING** levels	Develop participants' ability to engage in deeper, empathetic listening, fostering collaboration and holistic solutions in ecological transition.	Deepen understanding and develop listening skills	
45 m	**PEDAGOGICAL** methods	Presentation of different means of communication and pedagogical methods to facilitate the change	Discover expository, interrogative, and demonstrative methods, as well as the commented walk, graphic facilitation, etc. to effectively use them for successful collaborative work	
75 m	**Workshop** put in to practice advise	Put in to practice advice using different pedagogical methods and means of communication	Sensitize participants to develop common solutions through deep listening to each other and nature	
20 m	**Introduction** collaborative work	Presentation of the tool 'Bono's hats' : a tool for collective creativity	Enable participants to learn the perceptive qualities of each member of a group, so as to adapt their advice to the needs of each individual	
75 m	**Workshop** foster change	Experiment a collaborative method to act and cooperate in a social and cultural context to foster change	Rely on one's environment and harnessing collective strengths to empower individuals to be responsible and autonomous	
30 m	**Take a step back**	Feedback of the experience lived	Collective conclusion and feedbacks on the 2 training days	
20 m	**Conclusion**	Summary of the 2 training days + conclusion on the follow-up to be given (self-assessment)	Reminding of pedagogical objectives and plan the continuation of the learner's journey	
30 m	**Assessment**	Individual assessment + Satisfaction questionnaire	Time for feedback, sharing everyone's feelings and answering questions	
	End of the day			

Pedagogical methods *Participative* *Transmissive* *Active discovering* *Experiential*

2-4
SELF-ASSESSMENT TOOL
FOSTER CHANGES

In designing our cycle of training, we used a skills self-assessment tool and created questionnaires adapted to each training implemented during the project. We have also designed a self-assessment questionnaire in line with the program of the training "Facilitating change with *BREATH systemic approach*" presented above, which is a flexible, reusable and adaptable tool for any field of work or study. The self-assessment appeared to us to be the right tool to use for our trainings due to their short length (2 days), as well as to meet some of the BREATH approaches such as those of empowering and making people responsible in their practice. Thus, with self-assessment participants can test the resources learned during the training and validate the competences acquired in a concrete professional situation.

SKILL ACQUISITION PROCESS

When registering, participants are invited to define a professional challenge related to the training. The training makes it possible to understand a certain number of resources that can help participants achieve their challenge. Training is a pedagogical tool and is a means for acquiring resources. However, for these resources to become skills, they must be experienced in a professional environment.

At the end of the training, we give to each participant a self-assessment sheet so that they can, during a concrete professional situation, transfer to the skill based on specific evaluation criteria.

SKILLS VALIDATION PROCESS

First, we present some key concepts that underline the validation of skills. The concepts of learning outcomes, knowledge, skills and competences (European Commission, 2008):

- « Learning outcomes » are statements of what a learner knows, understands and is able to do as a result of a learning process, which are defined in terms of knowledge, skills and competences.

- « Knowledge » means the result of the assimilation of information through learning. Knowledge is the set of facts, principles, theories and practices that relate to a field of work or study. In the context of the European Qualifications Framework, knowledge is described as theoretical and/or factual.

- « Skill » means the ability to apply knowledge and know-how to accomplish tasks and solve problems. In the context of the European Qualifications Framework, competences are classified as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments).

- « Competence » means the demonstrated ability to use personal, social and/or methodological knowledge, skills and abilities in work or study situations and in professional and personal development. In the context of the European Qualifications Framework, competence is defined in terms of responsibility and autonomy.
Furthermore, one of the documents developed by CEDEFOP (European Centre for the Development of


Fecha
CONCEPTO
SEE NATURE AS A UNIVERSE OF IDEAS
AND LEARN FROM IT
BY OBSERVATION AND DEEP LISTENING!!

Vocational Training) constitute a fundamental reference point for the validation of competences; in fact, these documents identify four phases for the validation process (European Commission, 2015):

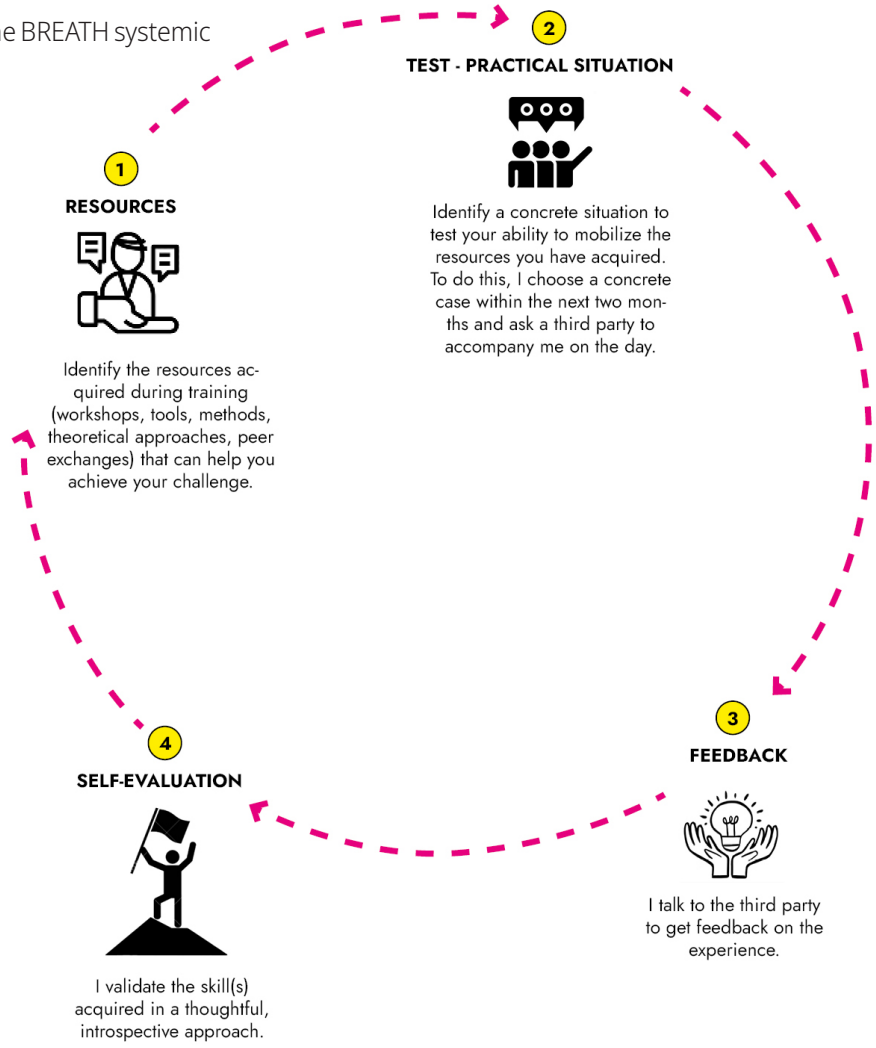
- IDENTIFICATION. Validation necessarily begins with the identification of acquired knowledge, skills and competences and it is here that the individual becomes increasingly aware of previous achievements. This stage is crucial because learning outcomes vary from person to person and have been acquired in various contexts: at home, at work or through voluntary activities. For many, the discovery and increased awareness of their own abilities is a valuable outcome of the process.

- DOCUMENTATION. Documentation will normally follow the identification stage and will include the provision of evidence of the learning outcomes acquired. This can be done through the 'construction' of a portfolio which tends to include a CV and a career history of the individual, with documents and/or work samples that attest to their learning outcomes. Validation should be open to a variety of types of evidence, from written documents to work samples and demonstrations of practice. This evidence should provide sufficient insight into the learning outcomes achieved : simply listing job titles or positions will not be sufficient.

- ASSESSMENT. Assessment is normally referred to as the stage at which an individual's learning outcomes are compared to specific benchmarks and/or standards. This may involve the assessment of written and documentary evidence, but also the assessment of other forms of evidence. Assessment is crucial to the overall credibility of the validation of non-formal and informal learning.

- CERTIFICATION. The final phase of validation is linked to the certification – and final assessment – of the learning identified, documented and assessed. It can take different forms, but usually involves obtaining a formal qualification (or a partial qualification).

The skills validation process used in the BREATH systemic approach in image:



As we saw above, when registering for the training course, participants are asked to identify their desires and projects in terms of skills enhancement.

At the end of the training course, participants are invited to identify the resources shared during the course (theoretical approaches, participative workshops, tools, methods, peer exchanges, etc.) that could help them acquire the skills they are looking for.

In this way, we propose that participants embark on a four-stage process of skills acquisition, starting with the identification of resources, followed by practical application, external feedback and acquisition. In this four-stage process, the apprentice commits to a work experience enabling him or her to test this new skill, and is accompanied by a third party for external feedback.

Two months after the training course, participants are expected to put the skills into practice and validate them. Thus, based on a concrete professional situation they can fill out the self-assessment sheet received at the end of the training.

The work experience thus enables the learner to self-assess the acquisition of the skill.

EPILOGUE

This guide is the culmination of three years' partnership work by a multicultural and multi-disciplinary team, combining fields from the natural and social sciences. This diversity of approaches and cultures was enriched by an iterative process alternating work meetings, training cycles, periods of investigation and research and analysis.

These experiences and the many exchanges with different professionals who have embarked on the path of transition have led us to collectively draw up this guide. The BREATH project would like to be part of a learning community that shares the desire to contribute to the issue of improving advising skills to cope with change.

We hope that this guide will provide readers with support tools, resources, questions, inspiring testimonials, training ideas, research projects and more. We hope to generate interest at individual level (among professionals in the various fields of advisory), at group training level (in companies or associations) and also resonate with public institutions,on the need to embark on the path of change.

Through the dissemination of the *BREATH systemic approach*, inspired by nature, we want to share our conviction about the need for our professional practices to evolve towards greater awareness of our environment (social and natural) and of our ability to act collectively while taking care of all living things.

In this way, we hope to provide a few references to help professionals embark on the path of improving their skills, abilities and knowledge in terms of ecological and social transition. We hope that this guide will help to lay some foundations for the ways in which we can nurture a strong relationship with our social and natural environment.

We hope to motivate professionals to share with us this desire to enter into a relationship with our environment and to commit to an ethical and responsible approach aimed at caring for all living things. We hope these methods and tools will inspire action and innovation. We also hope that these new methods will lead us to move towards more cooperative and less competitive systems, towards systems that are more sober and less consumptive, more sustainable and more respectful of our environment.

GLOSSARY

BIOMIMICRY: philosophy and interdisciplinary conceptual approaches taking nature as a model in order to meet the challenges of sustainable development (social, environmental and economic) (Ceebios, n.d.).

Biomimicry [From the Greek bios, life, and mimesis, imitation] or innovation inspired by nature, is based on three principles:

1. Nature as model. Biomimicry is a new science that studies nature's models and then imitates or takes inspiration from these designs and processes to solve human problems, e.g., a solar cell inspired by a leaf.

2. Nature as measure. Biomimicry uses an ecological standard to judge the "rightness" of our innovations. After 3.8 billion years of evolution, nature has learned: What works. What is appropriate. What lasts.

3. Nature as mentor. Biomimicry is a new way of viewing and valuing nature. It introduces an era based not on what we can extract from the natural world, but on what we can learn from it (Benyus, 1998).

CIRCULAR ECONOMY: is a system where materials never become waste and nature is regenerated. In a circular economy, products and materials are kept in circulation through processes like maintenance, reuse, refurbishment, remanufacture, recycling, and composting. The circular economy tackles climate change and other global challenges, like biodiversity loss, waste, and pollution, by decoupling economic activity from the consumption of finite resources (Ellen Macarthur Foundation, n.d.).

ECOLITERACY: it is an ability to understand and use the operating principles of living systems and the ability to embody them in the daily life of human communities (Capra, 1999).

ECOLOGICAL RESILIENCE: the ability of an ecosystem to maintain its normal patterns of nutrient cycling and biomass production after being subjected to damage caused by an ecological disturbance (Levin, 2024).

ECOLOGICAL TRANSITION: the term ecological transition designates the process leading from the current economic and productive system - which requires very large quantities of resources to operate and which has strong impacts on ecosystems and living beings, including humans - towards a much more sober system and, therefore, probably more sustainable, more equitable and more stable in a world where resources are limited and to be shared among a growing number of individuals (Bourg D. ,& Papaux A., 2015).

DEEP ECOLOGY: philosophy based on the belief that humans must radically change their relationship to nature. From one that values nature solely for its usefulness to human beings to one that recognizes that nature has an inherent value, and as a whole, it should be respected and regarded as having certain basic moral and legal rights to live and flourish, independent of its instrumental benefits for human use.

HAPPY SUFFICIENCY: concept which seeks to go beyond the negative, declinist aspect of sobriety, to offer an emancipatory vision of sobriety. Using the expression 'fewer goods, more connections', this concept seeks to go beyond the limiting vision of reducing consumption, to emphasize access to sources of pleasure rather than material goods (excluding vital needs), in particular human relationships, which would enable individuals to achieve real fulfillment (Rabhi, 2010).

PLANETARY BOUNDARIES FRAMEWORK: outlines nine key processes, influenced by humanity, that threaten the stability of the entire Earth System. These are: climate change, biodiversity integrity (functional and genetic), ocean acidification, depletion of the ozone layer, atmospheric aerosol pollution, biogeochemical flows of nitrogen and phosphorus, freshwater use, land-system change, and release of novel chemicals (including heavy metals, radioactive materials, plastics, and more). Together, the stability of these nine processes is essential in maintaining the Earth's atmosphere, oceans and ecosystems in the delicate balance that has allowed human civilizations to flourish. However, these are also the processes that human activities have impacted most profoundly (Asher, 2021).

SYSTEM THINKING: discipline for seeing wholes and a framework for seeing interrelationships rather than things, for seeing patterns of change rather than static snapshots (Senge, 1990).

SUSTAINABLE DEVELOPMENT: development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987).

LIST OF TABLES

LIST OF FIGURES

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ANNEXES

SUGGESTIONS

for reference trainings and useful resources

ENERGY

VOCATIONAL EDUCATION AND TRAINING

1. Socio-technical support for housing self-rehabilitation actions
https://www.francecompetences.fr/recherche/rs/6510/

2. Project manager in energy renovation and building intelligence
https://www.francecompetences.fr/recherche/rncp/38239/#ancre4

3. Eco-energetician
https://www.francecompetences.fr/recherche/rncp/37626/#ancre4

4. Energy transition expert
https://www.francecompetences.fr/recherche/rncp/37986/#ancre2

HIGHER EDUCATION

1. Professional license Energy Performance Climate Engineering
https://sciences-techniques.univ-nantes.fr/formations/licences-generales/licence-professionnelle-performance-energetique-genie-climatique-pegc

2. Master's degree in Earth and planetary sciences, environment : Eco-construction
https://www.cyu.fr/formation/trouver-sa-formation/catalogue-des-formations/mastersciences-de-la-terre-et-des-planetes-environnement-eco-construction#presentation

NON FORMAL TRAINING

1. The FocusLab Biomimicry
https://communaute.futurs-souhaitables.org/page/la-focuslab-biomimetisme

SPATIAL PLANNING

NON FORMAL PROFESSIONAL COMPETENCES SYSTEMS

1. HQE sustainable development (HQE-AD)
https://www.cstb.fr/nos-offres/toutes-nos-offres/formation-devenir-referent-certification-hqe-amenagement-durable

2. The environmental approach to urban planning (AEU2)
https://outil2amenagement.cerema.fr/outils/lapproche-environnementale-lurbanisme-aeu2

VOCATIONAL EDUCATION AND TRAINING

1. Co-constructing regional transition dynamics inspired by living strategies
https://communaute.futurs-souhaitables.org/page/la-focuslab-territoires

2. Resilient urbanism : a global approach to urban planning in transition
https://www.odeys.fr/sites/default/files/2021-11/FD_g%C3%A9n%C3%A9rique_URBANISME_RESILIENT.pdf

HIGHER EDUCATION

1. Master in geography and planning. Management and development of territories in transition
https://formations.univ-poitiers.fr/plugins/odf-web/odf/_content/subprogram-parcours-transitions-sociales-

et-environnementales-fr-fr-fr-fr-fr-fr/Parcours%20Gestion%20et%20d%C3%A9veloppement%20des%20territoires%20en%20transition%20(GESTT).pdf

2. Master in geography and planning. Environmental Transitions in Territories
https://www.univ-tlse2.fr/accueil/formation-insertion/master-transitions-environnementales-dans-les-territoires

BUILDING

NON FORMAL PROFESSIONAL COMPETENCES SYSTEMS

1. ECVET Earth
https://ecvetearth.hypotheses.org/about-earth

2. STEP Strawbale Training for European Professionals
https://strawbale.training/en/welcome-at-buildstrawpro/

HIGHER EDUCATION

1. Master in Expert in habitat biology and bio-construction
https://www.baubiologie.es/master-en-bioconstruccion-ieb/

2. Master in Eco-architecture and applied Bio-construction
http://www.masterbioconstruccionudg.com/

VOCATIONAL EDUCATION AND TRAINING

1. Energy efficiency Passive systems in Buildings
http://www.madrid.org/sfoc_web/2022/ENAC14.pdf

2. Bio-construction
https://sede.sepe.gob.es/es/portaltrabaja/resources/pdf/especialidades/EOCB01.pdf

AGRICULTURE

NON FORMAL TRAINING AND COMPETENCES SYSTEMS

1. RegAgri4Europe Course
https://regagri4europe.eu/

2. European Permaculture Network
https://permaculture-network.eu/

3. A European Association For Agroecology
https://www.agroecology-europe.org/

4. CIRCular Economy through Integrated LEarning in VET_agriculture
https://circlelearning.eu/agriculture-training/

5. Soil food web school
https://www.soilfoodweb.com/soil-food-web-essentials-courses-overview/

VOCATIONAL EDUCATION AND TRAINING

1. Ecologic farmer
https://www.bc-naklo.si/izobrazevanje-odraslih-npk-tecaji-in-delavnice/tecaji-usposabljanja-delavnice/kmetijstvo-in-gozdarstvo/ekolosko-kmetovanje/

BREATH COMPETENCY FRAMEWORK

Blocks of competences	Knowledge - The advisor in ecological transition knows and understands…
1. Observe and understand the natural complexities of systems	design based on the principles of **adaptability, moderation and sustainability**, integrating constraints related to future environmental risks.
	the territorialist approach to spatial planning (bio-region) as a tool for understanding the territory and local and global needs (multiscalar).
	ecology as a relational system where each being has an **intrinsic relationship** with other beings. This **ecological awareness** is a priority value to encourage change.
	the concept of **nature's regenerative cycles** and their relation **to circular economy** and ways to implement it.
	the concepts of biology, ecology, and **physics** essential for understanding natural systems.
	interconnections and **interactions** among different elements in natural environments
2. Evolve within an "eco-responsible" ethical framework	the evaluation of **risks** in order to improve **resilience.**
	technical and **ethical criteria** essential for the successful implementation of ecological transition.
	environmental and public legislation and **policy.**
	social debates, environmental ethics and principles of sustainable development.
3. Put in practice advice inspired by nature	**the principles of biomimicry** and how to draw **inspiration from nature** to inform innovative and sustainable solutions in **design** and **problem-solving.**
	the application and promotion of **ecological principles** while offering a critical explanation of how these principles may vary among individuals.
	the **principles and concepts** of **sustainable construction**, including the importance of using **locally sourced**, **natural**, and **healthy materials**, as well as incorporating **low-tech solutions** and **minimizing environmental impact.**
4. Lean on one's environment to foster change	the importance of bringing together **multidisciplinary teams** and **stakeholders** in order to collaborate and address complex challenges.
	experiences in **blended learning** approaches to connect both traditional and experimental educational methods to enhance the understanding and **application of ecological transition**.
	a "**bottom-up**" approach to consulting, associating public authorities with citizens' expertise.
	the analysis of local and current challenges and opportunities for implementing sustainable practices.
	local ecosystems, cultures, and social dynamics.

FOR ADVISORS IN ECOLOGICAL TRANSITION

Skills - The advisor in ecological transition is able to...	**Competences in terms of responsibility and autonomy - The advisor in ecological transition is in a position to…**
consider nature as a **complex** and **interconnected living system**, full of **mutual connections** among diverse organisms and is able to act respectfully within this system.	observe **behaviors, patterns and processes** in nature, and anticipate their evolution.
take into account the **unique requirements** of the local environment and give priority to the use of **indigenous species** and minimize maintenance requirements.	integrate **ecological principles** and **nature-inspired solutions** into design, contributing to the ecological transition.
measure the impact of a **strategic choice** and identify variables to manage the impact.	develop and use **holistic systems thinking.**
observe and **perceive** subtle changes in the environment and develop a forward-looking approach to change management.	interpret **natural signals** and adapt to changes in the natural environment.
analyze **complex systems** and identify key factors.	use scientific methods to test, measure, reproduce and demonstrate his or her observations.
adopt a **humble attitude**, with value given to relationships.	**consider**, **understand** and **respect** natural and societal limits and constraints.
evaluate waste management plans, r**educe use of non-recyclable** materials and products.	apply **environmental ethics** and **ecosystem principles** in research activities.
promote moderation, cultivate **responsible consumption** and promote sustainable solutions within diverse contexts.	use ethical advising techniques **to build trust** and foster **positive relationships**.
make **ethically grounded decisions** in complex situations involving multiple perspectives and interests.	practice **decision-making skills** with an ethical awareness of policies
lead and guide others in accordance with **ethical principles**, promoting ethical conduct and responsibility within the organization.	
see nature as **a universe of ideas** and learn from it by observation and deep listening.	guide **projects** towards nature-inspired and sustainable outcomes, **adapting to the human and environmental context.**
offer **equitable**, **fair** and **empowering models** to users.	promote the **use of local and natural materials** and **short supply chain** with a focus on **moderation, simplicity** and s**ustainability**.
create **visual representations to facilitate communication** and project pedagogy, utilizing drawings as effective tools to convey concepts, ideas, and project details.	have effective communication and collaboration with diverse stakeholders **through a simple, effective and entertaining means of communication.**
	guide the public towards **nature-inspired choices** while adapting his/her advice according to the needs of the public.
	have **good team communication and a respectful cooperative attitude** when using a pedagogical approach.
adapt to challenges that appear while implementing **ecological transition**, relying on the environment for **support and solutions.**	empower individuals to be **responsible** and **autonomous**.
promote **knowledge transfer** to citizens and local users.	maintain **relations** with local representatives.
mentor individuals on applying **critical thinking** when searching for solutions.	act and cooperate in a **social** and **cultural context**.
develop a network of **interdisciplinary** professionals and people from various backgrounds.	**collaborate** with diverse stakeholders.
have empathy and the ability to listen to all those concerned, so as to be able to reach out to others and not to prioritise one's own point of view.	encourage **collaboration** and **teamwork.**

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