



PROGETTO ERASMUS+ TRASFORMAZIONE ECOLOGICA RESILIENTE 2021-1-IT02-KA220-ADU-000035323

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## **EUROPEAN GUIDE: AN ADULT EDUCATION GEARED TOWARDS ECOLOGICAL AND SOCIAL TRANSFORMATION FOR CLIMATE NEUTRALITY BY 2050**

The guide was produced as part of the ERASMUS+/Adult Education project n. 2021-1-IT02-KA220-ADU-000035323 called "Resilient Ecological Transformation".

The project had three main missions:

- To improve the skills of the youth workers of the 3 partners (and their networks) on the issues of climate change and resilient ecological transformation.
- To stimulate and strengthen the role of "catalysts, agents" of social, environmental and economic change of the people who work in our organizations and in the networks of which we are part.
- Forming the new European citizenship of the European Green Deal.

The three promoters of the project, FAGIC<sup>1</sup>, Federación de Asociaciones Gitanas de Cataluña, Ligue de l'Enseignement de la Loire<sup>2</sup> and the leader of the project, the social cooperative "Le Mille e Una Notte"<sup>3</sup>, present in this guide a significant summary of the work of three years of joint activities around the five axes of the project:

O1 – Methodological framework;

O2 – Compendium of good practices on the three themes Climate and Water, Climate and Biodiversity, Climate and Green, Inclusive and Resilient Cities;

O3 – Training path;

O4 – Audiovisual resources;

O5 – this Guide.

The results of the work are contained in the other parts of the final publication, in particular in section 2 with the 60 good practices and in the third, which contains the guides and training tools. Finally, the audiovisual creations can be seen on the project's Youtube channel:

[https://www.youtube.com/@progetto\\_transformer](https://www.youtube.com/@progetto_transformer).

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<sup>1</sup> <http://www.fagic.org/>

<sup>2</sup> <https://www.laligue42.org/>

<sup>3</sup> <https://www.le1000e1notte.it/>

The project has solid scientific bases: the research, communication and action work of the United Nations and the World Meteorological Organization, as well as the organization created in 1988 by these two and called IPCC,<sup>4</sup> Intergovernmental Panel on Climate Change, whose Italian focal point, the CMCC<sup>5</sup> - Euro-Mediterranean Center on Climate Change, is an active partner in the project, with the involvement of Giulia Galluccio, Director of the Information Systems for Climate Science and Decision-Making Division. Other sources considered were the work of the World Health Organization<sup>6</sup>, the International Union for Conservation of Nature<sup>7</sup>, UNEP, UNESCO<sup>8</sup>, IPBES<sup>9</sup> (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services), the European network Natura 2000<sup>10</sup>, Noémie Périgaud (green and blue contract of the Roanne Agglomeration), experts in water management and biodiversity, Corrado Battisti (responsible for the Metropolitan City of Rome of the protected area Palude di Torre Flavia Natural Monument and lecturer at the University of Roma Tre), Umberto Pessolano (director of the Nazzano River Museum, partner), Frédéric Martel (Loire Forez), Isabelle Dullaert (architect, vice-president of the European Greenways Association), Daniele Badaloni (director of the Lake Bracciano and Martignano Regional Natural Park) and Guido Baldi (Lake Bracciano and Martignano Regional Natural Park Martignano), Alessandra De Santis (biologist, Southern Association), among others.

The three promoters are part of regional, national and European networks committed to the issues of social inclusion, ethnic and cultural non-discrimination and through genetic diversity and/or disability as well as gender equality, sustainable development including the active protection of the Biodiversity and the promotion of Nature.

The project is carried out by the "Nature and Culture" sector of the social cooperative "Le Mille e Una Notte", federated with the general association of Italian cooperatives AGCI, ASVIS,<sup>11</sup> the Italian Alliance for Sustainable Development, and is also an active member of the Italian Forum for Sustainable Development<sup>12</sup>, whose head is, at the moment, deputy coordinator of the "Planet" working group. The "Nature and Culture" sector operates with the Bioparco Foundation of Rome and in the main parks of the Lazio Region, in the regional network of scientific museums of the RE.SI.NA circuit, at the Presidential Estate of Castel Porziano and in the protected areas of the Metropolitan City of Rome (CMRC).

In particular, the Ligue de l'Enseignement de la Loire is one of the territorial committees of the largest French association for popular education with its 102 departmental federations, 21,000 local associations present in 24,000 municipalities and representing more than 1 million members.

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<sup>4</sup> <https://www.ipcc.ch/languages-2/francais/>

<sup>5</sup> <https://www.cmcc.it/it>

<sup>6</sup> <https://www.who.int/fr/>

<sup>7</sup> <https://iucn.org/fr>

<sup>8</sup> <https://whc.unesco.org/fr/biodiversite/> -

<sup>9</sup> <https://www.ipbes.net/fr>

<sup>10</sup> <https://www.eea.europa.eu/themes/biodiversity/natura-2000/the-natura-2000-protected-areas-network>.

<sup>11</sup> <https://asvis.it/>

<sup>12</sup> <https://www.mase.gov.it/pagina/il-contributo-della-societa-civile-il-forum>.

The Ligue is federated into numerous networks (LLP Platform, Solidar, EAEA, etc. at European level, GRAINES and other networks at national level), operates in ministerial commissions for education and instruction as well as for environmental education and sustainable development.

For its part, FAGIC, Federation of Gypsy Associations of Catalonia, collaborates and manages numerous projects at European level, as part of programs to promote the rights of the Roma People and promote anti-Gypsyism, as well as in several ERASMUS+ projects in support of European education and inclusion of the new generations of Roma. At the national level, the FAGIC cooperates with regional and national authorities, municipalities and foundations on issues and for the inclusion of the Roma people from a social, educational and employment point of view.

The three promoters of the project also thank all the associations and institutions that participated by telling us their "stories and practices" and/or accompanying us in the realization of the project:

- **Municipalities and public institutions:** the agglomeration of Roanne in department 42 of the Loire (Green and Blue Contract), the cities of Lentigny, Roanne, St-Léger-sur-Roanne, St.-Etienne and Lyon, the city of Barcelona and other Catalan municipalities (de l'Anellà, El Prat de Llobregat, La Garriga, St. Cugat del Vallès, St. Adrià del Besós, Tarragona, Sabadell, Terrassa, Mollet del Vallès, Reserva integral de les Illes Medes, etc.), the Metropolitan City of Rome (Municipality of Rome VIII, Nazzano, Protected Areas Service, Torre Flavia Marshes Natural Monument, Nazzano River Museum, Bracciano and Martignano Regional Natural Park, the Family Center in Via Sergio Tofano) and the Ripi Museum.
- **Associations and foundations:** Asociación vecinal PAU de l'ensanche de Vallecas (Madrid), asociación CERCA, association A sud – Ecologia e Cooperazione, Insieme per l'Aniene, Fondazione Bioparco di Roma (project partner), Gli Amici di Villa Leopardi, Legambiente, Roannaise de l'Eau, Loireforez, asociación de los amigos del Parque natural del Cabo de Gata-Nijàr, association La Fabrique, ERN-SOS Loire vivante, Écologistes en action de Catalonia, Earthgardeners, Semivolanti, Movimento per la decrescita felice (Circolo di Roma)... the Red House, Association Biocultura, the Association Fleuve Loire Fertile, Asociación Somos Tribu VK de la commune de Vallecas (Madrid).
- **Cooperatives and companies:** Obrint portes, Orto Magico, Europconsulting, Sostre Cívic, Segni d'Integrazione, Plato consortium, Itaca consortium, Diomedea, the Besson rural company, the Besós-Tordera consortium.
- Serge Bultez, Noel Collomb, the citizens of "Un temps pour un autre" of the municipality of Riorges (department of Loire).
- Corrado Battisti, Referent for the Metropolitan City of Rome (CMRC) of the Torre Flavia Marsh Natural Monument and professor in charge of ecology and ecosystem management at the University of Roma Tre;
- Giulia Galluccio, Director of the Information Systems for Climate Science and Decision-Making Division at CMCC, associated partner;

- Lorenzo Giardinetti (President of the Council Commission for School, Youth Policies and Special Projects for the Educating Community of the Municipality of Rome VIII) and Francesca Vetrugno (Councillor for School and Educational Policies, Youth Policies, Gender Policies, School Construction and School Green, Special Projects) of the Municipality of Rome VIII, partner associated with the project;
- Massimiliano Di Giovanni, Bioparco Foundation of Rome;
- Umberto Pessolano, geologist expert in biodiversity and Director of the Nazzano River Museum, associated partner in the project;
- Federico Varazi, director of the Energy Museum of Ripi (FR), associated partner of the project;
- Maria Chiara Pettenati, Director of Research INDIRE, National Institute of Documentation, Innovation and Educational Research and Ambassador of the European Climate Pact.

## THE PROJECT GROUP

FAGIC: Bianca Galusca, Indira García, Patricia Julian, Anabel Carballo, Núria Queralt, Francisco Vargas, Jordi Peral, Israel Mercader.

Le Mille e Una Notte: Milvia Rastrelli, Miriam Ferrara, Caterina Pepe, Giovanni Esposito, Mario Mangiacotti, Roberto Rosso.

Ligue de l'Enseignement de la Loire: Pierre-Alain Larue, Clémentine Roux-Frappaz, Franck Beysson.

### Contacts:

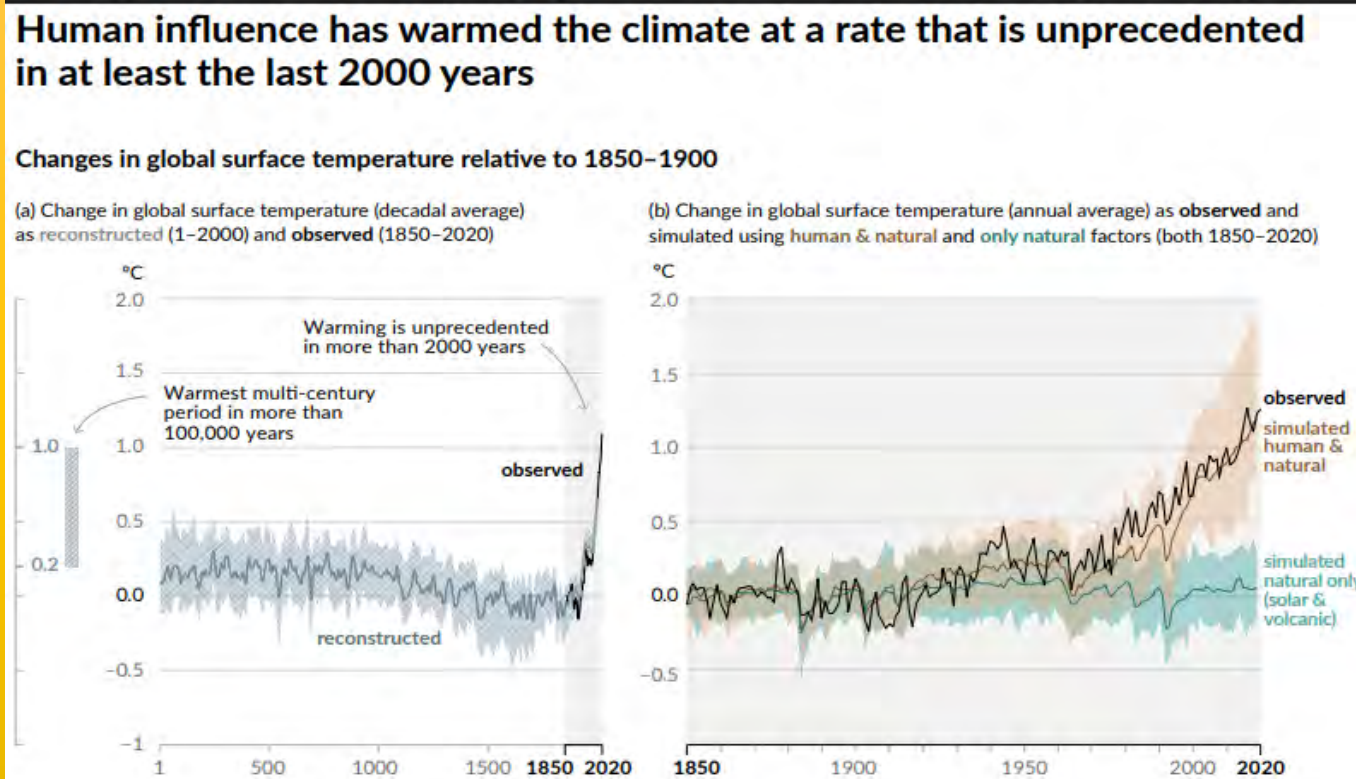
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## 1. CLIMATE CHANGE IS A SCIENTIFICALLY VERIFIED REALITY

According to data recorded by the IPCC<sup>13</sup>, the current warming of surface temperature is unprecedented in the last 2000 years and the warmest in the last 100,000 years:



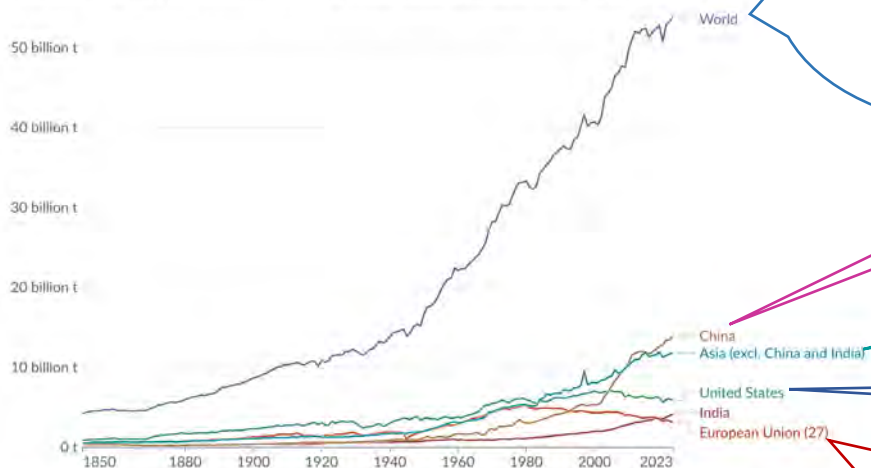


## 2. GREENHOUSE GAS EMISSIONS ARE CONSTANTLY AND RAPIDLY INCREASING

Global warming is linked to the increase in greenhouse gases in the atmosphere.

### Greenhouse gas emissions

Greenhouse gas emissions<sup>1</sup> include carbon dioxide, methane and nitrous oxide from all sources, including land-use change. They are measured in tonnes of carbon dioxide-equivalents<sup>2</sup> over a 100-year timescale.



Data source: Jones et al. (2024)

Note: Land-use change emissions can be negative

**1. Greenhouse gas emissions:** A greenhouse gas (GHG) is a gas that causes the atmosphere to warm by absorbing and emitting radiant energy. Greenhouse gases absorb radiation that is radiated by Earth, preventing this heat from escaping to space. Carbon dioxide (CO<sub>2</sub>) is the most well-known greenhouse gas, but there are others including methane, nitrous oxide, and in fact, water vapor. Human-made emissions of greenhouse gases from fossil fuels, industry, and agriculture are the leading cause of global climate change. Greenhouse gas emissions measure the total amount of all greenhouse gases that are emitted. These are often quantified in carbon dioxide equivalents (CO<sub>2</sub>eq) which take account of the amount of warming that each molecule of different gases creates.

**2. Carbon dioxide equivalents (CO<sub>2</sub>eq):** Carbon dioxide is the most important greenhouse gas, but not the only one. To capture all greenhouse gas emissions, researchers express them in "carbon dioxide equivalents" (CO<sub>2</sub>eq). This takes all greenhouse gases into account, not just CO<sub>2</sub>. To express all greenhouse gases in carbon dioxide equivalents (CO<sub>2</sub>eq), each one is weighted by its global warming potential (GWP) value. GWP measures the amount of warming a gas creates compared to CO<sub>2</sub>. CO<sub>2</sub> is given a GWP value of one. If a gas had a GWP of 10 then one kilogram of that gas would generate ten times the warming effect as one kilogram of CO<sub>2</sub>. Carbon dioxide equivalents are calculated for each gas by multiplying the mass of emissions of a specific greenhouse gas by its GWP factor. This warming can be stated over different timescales. To calculate CO<sub>2</sub>eq over 100 years, we'd multiply each gas by its GWP over a 100-year timescale (GWP100). Total greenhouse gas emissions – measured in CO<sub>2</sub>eq – are then calculated by summing each gas' CO<sub>2</sub>eq value.

53.82 billion tons of CO<sub>2</sub> equivalent in 2023 worldwide

13.97 billion tons of CO<sub>2</sub> equivalent (2023)

11.82 billion tons of CO<sub>2</sub> equivalent (2023)

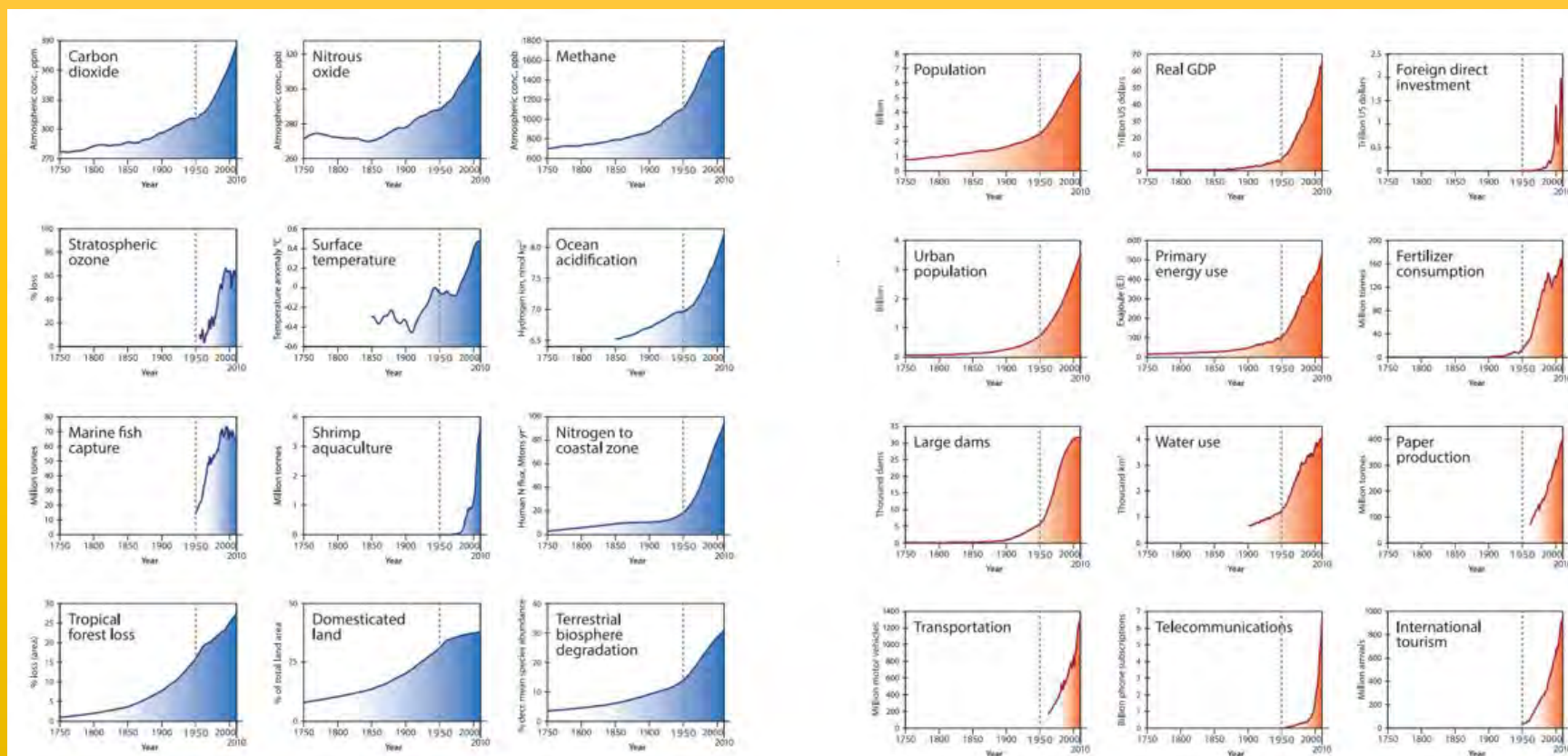
5.89 billion tons of CO<sub>2</sub> equivalent (2023)

3.11 billion tons of CO<sub>2</sub> equivalent in 2023

Data source re-elaboration by: FAO (Food and Agricultural Organisation)

### 3. CLIMATE CHANGE IS CAUSED BY UNSUSTAINABLE HUMAN ACTIVITIES

"It is unequivocal that humans are causing warming. Changes in the sun's activity and volcanic eruptions are not the cause of the warming trend" (IPCC/ WGI – AR6 – The Physical Science Basis; 2021)

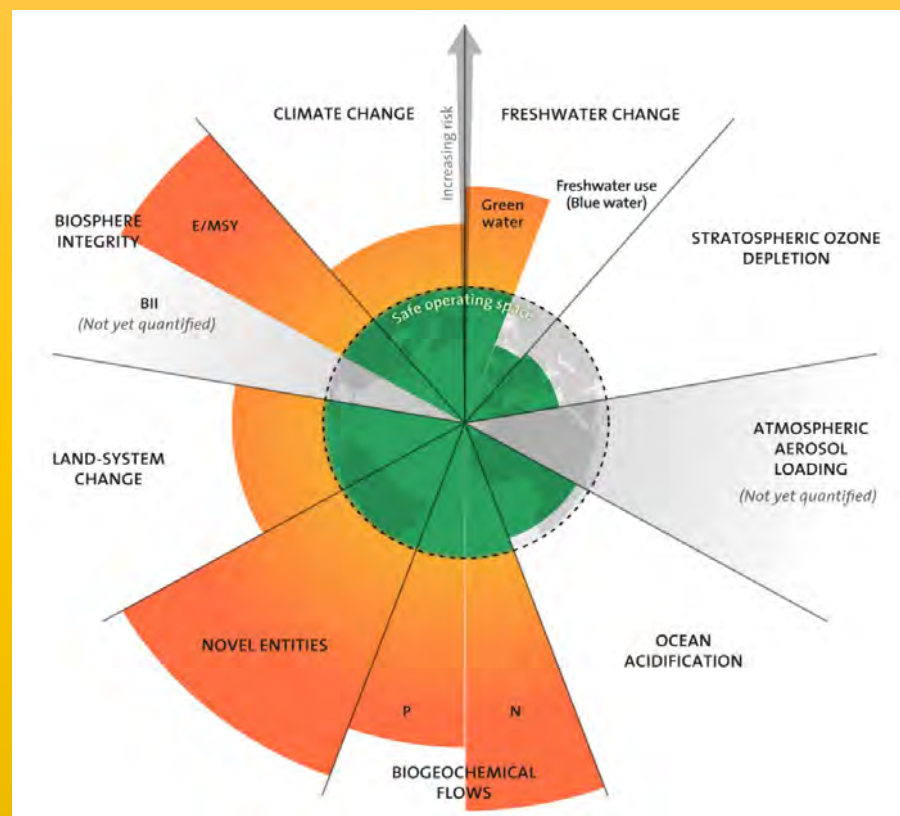


**THE GREAT ACCELERATION since 1950 (W. Steffen et al., 2015)**

[https://www.researchgate.net/publication/272418379\\_The\\_Trajectory\\_of\\_the\\_Anthropocene\\_The\\_Great\\_Acceleration](https://www.researchgate.net/publication/272418379_The_Trajectory_of_the_Anthropocene_The_Great_Acceleration)



#### 4. SEVERAL PLANETARY LIMITS HAVE BEEN EXCEEDED<sup>14</sup> (in red the most critical limits; 2022)

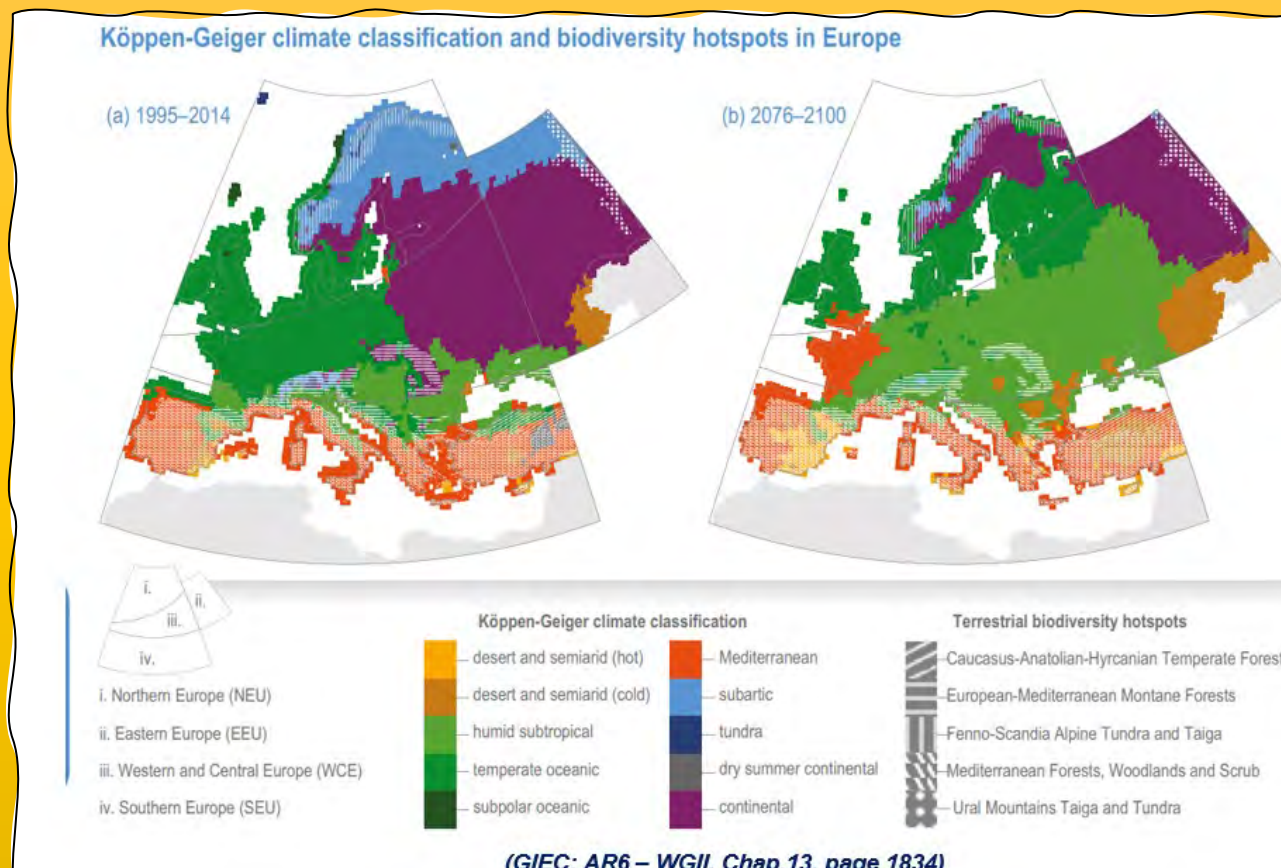


##### Attention!

The Climate Limit has been calculated at 350 parts of CO<sub>2</sub> per million and on December 11, 2024 we were at 427.85 ppm (Mauna Loa Observatory) – The Limit for the genetic variety of Biodiversity has been set at 10 extinctions max per 10,000 species in 100 years and we are at 24/10,000 in 100 years (IUCN) globally. For Europe, the IUCN calculates 36 species that have disappeared since 2015, almost 4 times more than the limit and in less than 10 years. Other species (1677) are on the Red List of Endangered Species. (<https://www.europarl.europa.eu/topics/fr/article/20200519STO79424/especies-menacees-en-europe-faits-et-chiffres-infographie>)

## 5. THE CLIMATE SITUATION IN EUROPE

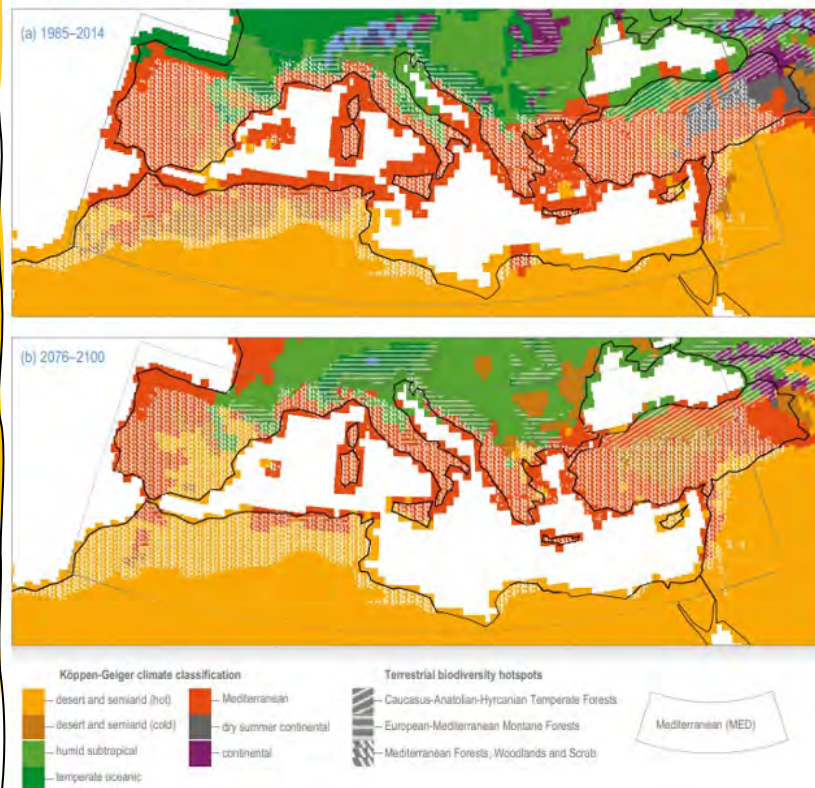
The continent of Europe is increasingly evolving towards a Mediterranean, desert and/or "humid-subtropical" climate (IPCC map of 2022 below). In contrast, subarctic and continental climates are decreasing.



## 6. EUROPE'S CLIMATE SITUATION – THE MEDITERRANEAN HOTSPOT

The Mediterranean region is the second warmest area on Earth, one of the richest in biodiversity and also in habitats and species at risk of extinction.

Bioclimatic regions (Köppen-Geiger classification) and terrestrial biodiversity hotspots in the Mediterranean region



<https://www.iucnredlist.org/regions/mediterranean> (video)

(IPCC: AR6 – WGII Report, Chapter 4, page 2241)

The Mediterranean region is the 2nd hotspot of global terrestrial and marine biodiversity.

Located at the intersection of 3 continents - Europe, Asia and Africa - it has a very diverse fauna and flora.

Its more than 30 states have a lot of terrestrial habitats: forests, scrubland, scrubland, pastures, wetlands, coastal areas and transition areas to deserts.

2,500,000 km<sup>2</sup> of the Mediterranean Sea have a great diversity of habitats: seamounts and submarine canyons, seagrasslands, maerl banks and coralligenous communities.

The long human history of this Region, which has created the interrelationships between its flora, landscapes and cultural monuments, has shaped the fauna and flora.

The hotspot addresses rapid changes due to population growth (529 million in the 2025) and economic development.

## 7. WHAT TO DO? EUROPEAN POLICIES

### ACHIEVING CLIMATE NEUTRALITY BY 2050!

- In 2008, the EU set a target of reducing emissions by 20% compared to 1990 levels by 2020. Emissions fell by 24% in 2019 and 31% in 2020, partly due to the Covid-10 pandemic.
- Under the Paris Agreement, the EU committed in 2015 to reducing greenhouse gas emissions in the EU by at least 40% compared to 1990 levels by 2030.
- In 2021, the target was changed to at least a 55% reduction by 2030 and carbon neutrality by 2050 with the CLIMATE LAW.
- The European Green Deal is the EU's roadmap to becoming climate neutral by 2050. Concrete legislation to reduce emissions and energy is contained in the "Fit for 55" program that the EU adopted [in 2023](https://www.europarl.europa.eu/topics/en/article/20180703STO07129/eu-measures-against-climate-change).

<https://www.europarl.europa.eu/topics/en/article/20180703STO07129/eu-measures-against-climate-change>

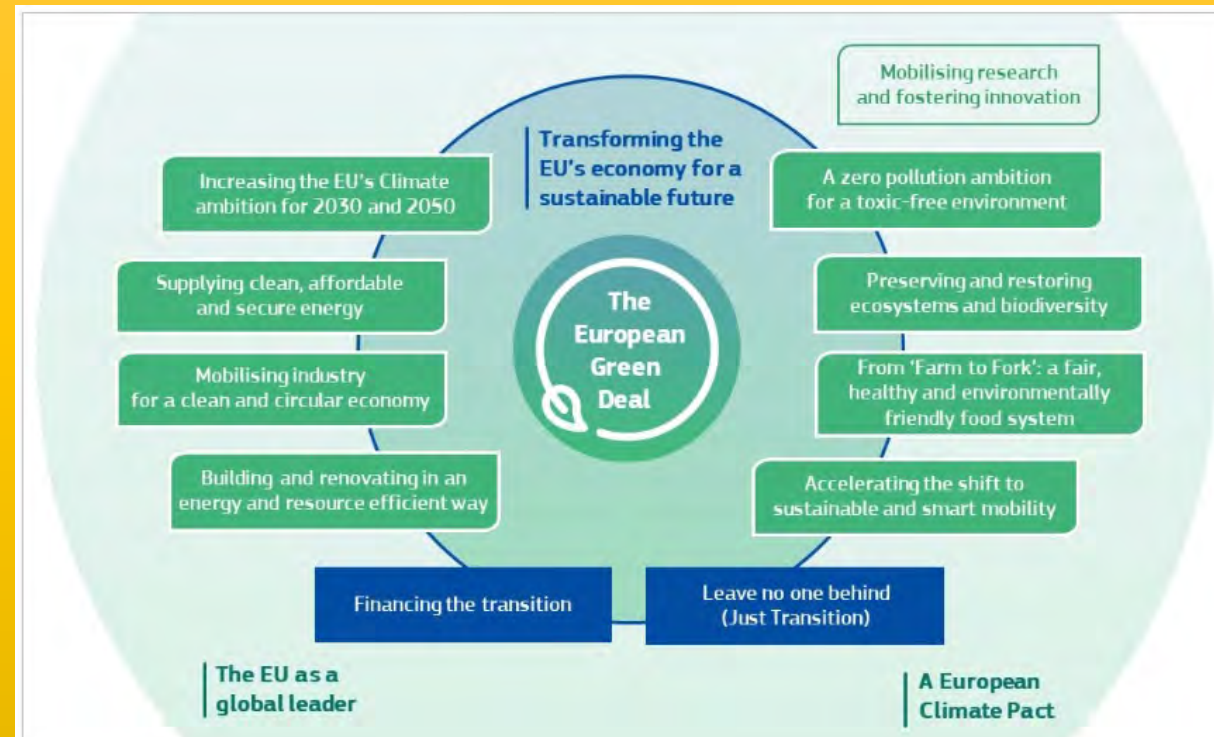


## 8. WHAT TO DO? EUROPEAN POLICIES



# THE EUROPEAN GREEN DEAL

<https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52019DC0640>



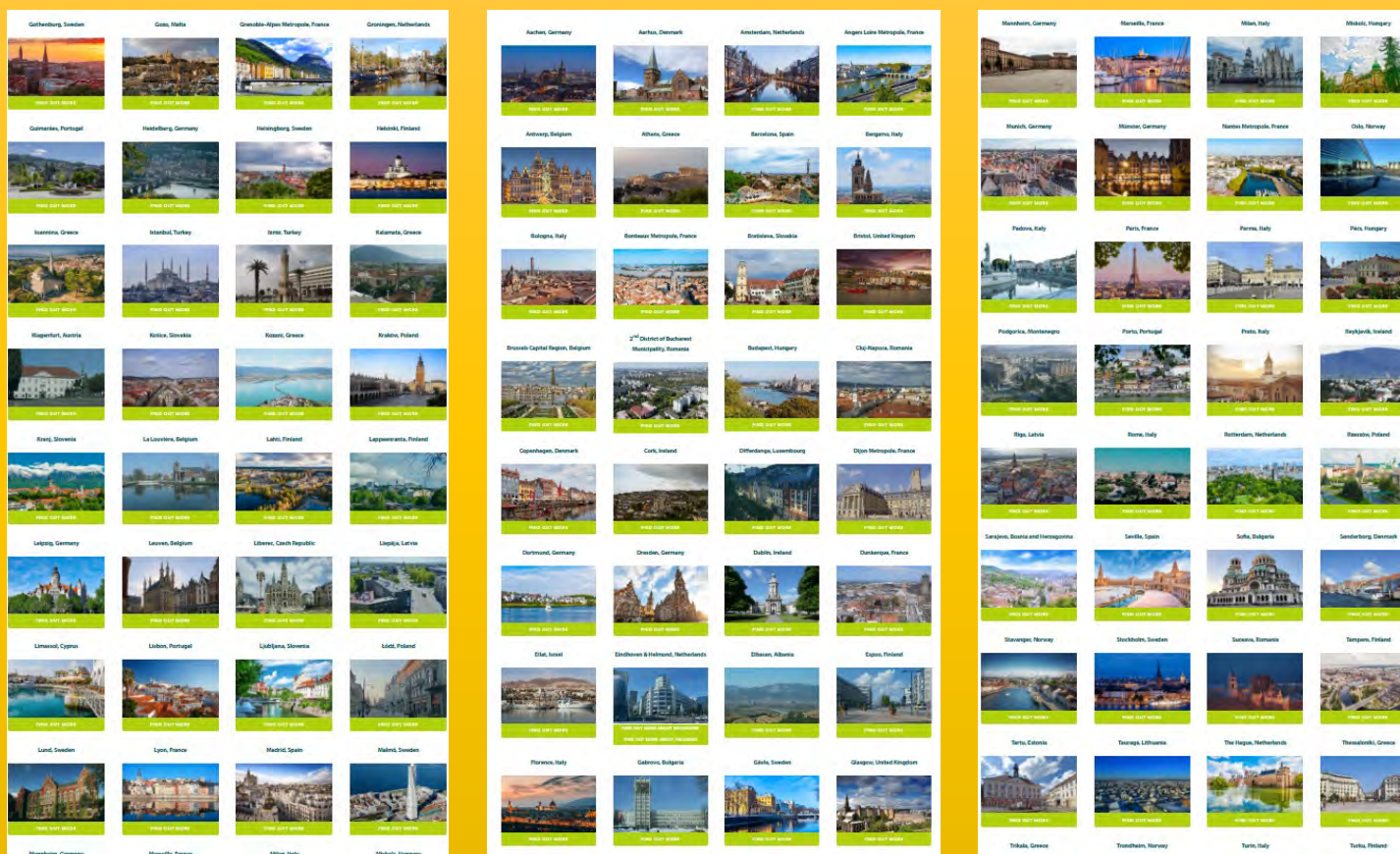
Restoring natural ecosystems and conserving biodiversity are important for mitigating climate change, increasing carbon storage capacities in nature, and increasing resilience to climate change. In April 2023, Parliament adopted rules to ensure that goods imported into the EU have not contributed to deforestation or forest degradation elsewhere. **In February 2024, MEPs backed a new law obliging all EU countries to work to restore natural habitats.**





## 9. WHAT TO DO? THE NETZEROCITIES NETWORK... 112 EUROPEAN CITIES FOR THE MISSION "CLIMATE NEUTRALITY BY 2050"

EU cities occupy only 4% of the EU's land area, but are home to 75% of European citizens, consume more than 65% of energy and are responsible for more than 70% of global CO2 emissions.



[https:// netzerocities.eu/mission-cities /](https://netzerocities.eu/mission-cities/)



O3 – Output n° 3 – TRAINING COURSE "RESILIENT ECOLOGICAL TRANSFORMATION" PROJECT / activity 2.7. Resilient people and territories  
[https:// netzerocities.eu/mission-cities /](https://netzerocities.eu/mission-cities/)

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## 11. WE CAN ALL DO SOMETHING! THE VALUE OF INDIVIDUAL AND COLLECTIVE INITIATIVE

According to Giulia Galluccio: "We are at a time when we all hear about climate change. It's important to know. There are so many possibilities... .. Make sure you get the information in the right places."

Each of us can do something... You don't have to be a scientist... Each of us can play a small role and provide a small solution.



As adults, we have a great responsibility... Taking care of what future generations or even the current young generations will be.

But above all, let's start imagining what each of us can do for the future.

<https://www.youtube.com/watch?v=aeWFAF6lOmI> – Interview with Giulia Galluccio, Director of the Information Systems for Climate Science and Decision-Making Division at CMCC, Euro-Mediterranean Center on Climate Change (<https://www.cmcc.it/>), IPCC focal point in Italy, as part of the "Resilient Ecological Transformation" project. The Climate issues are part of National laws in France, Spain, Germany and Sweden. Italy, in art. 9 of the Constitution: "It protects the environment, biodiversity and ecosystems, also for the benefit of future generations."

## 12. WE CAN ALL DO SOMETHING! THE VALUE OF INDIVIDUAL AND COLLECTIVE INITIATIVE



It is important to take action,  
even to feel good about  
yourself, because we are doing  
something that changes things...

**CORRADO BATTISTI**



Everyone, in their own  
small way, must save  
resources...

**UMBERTO PESSOLANO**

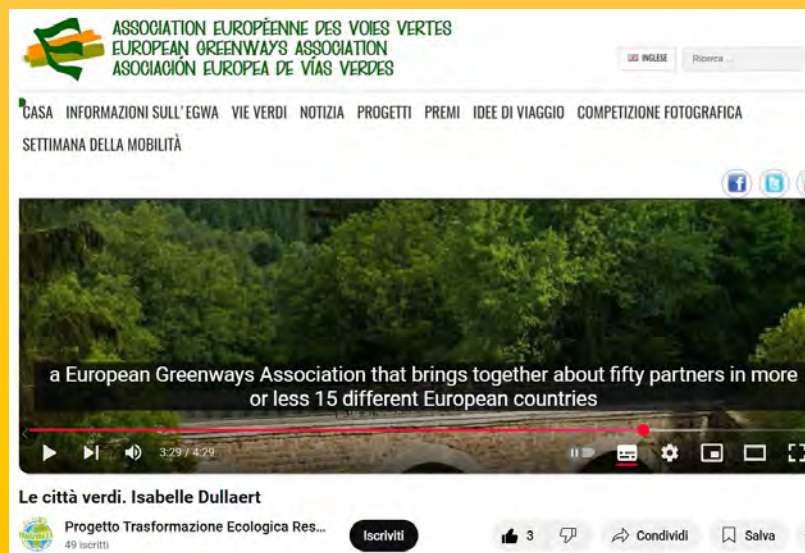


Perhaps the most  
important action is to  
contain our consumption...

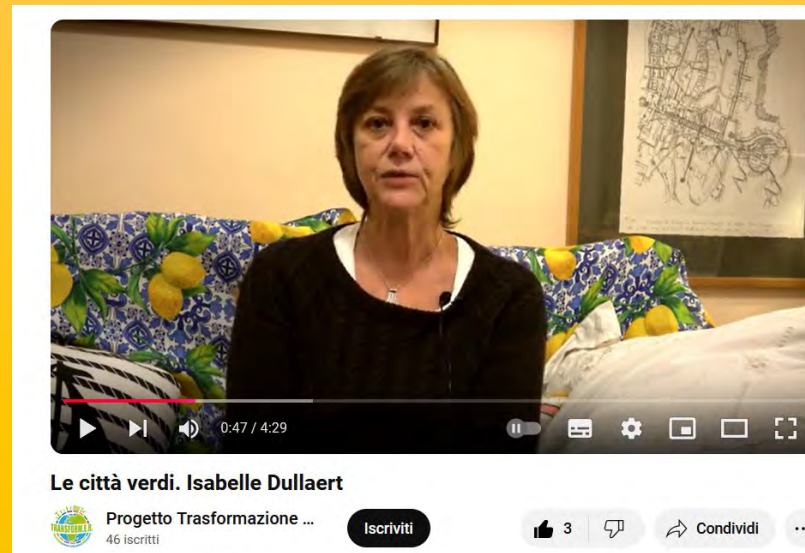
**ROBERTO ROSSO**

<https://www.youtube.com/watch?v=-QeZcpb7Xxc&t=1s> – Interview on responses to threats and problems of biodiversity with Corrado Battisti, Head of the Special Protection Area "Natural Monument Palude di Torre Flavia" and professor in charge of applied ecology at the University of Roma Tre, Umberto Pessolano (Director of the River Museum of Nazzano (RM) and Roberto Rosso, Expert in Scientific Dissemination of the Energy Museum of Ripi (FR).

### 13. WE CAN ALL DO SOMETHING! THE VALUE OF INDIVIDUAL AND COLLECTIVE INITIATIVE



Thousands of kilometers... No noise...  
pollution-free... accessible to all in the  
heart of Europe...



These are infrastructures for sustainable  
mobility that are used for recreational or  
tourist activities... but also to use to go to  
work...

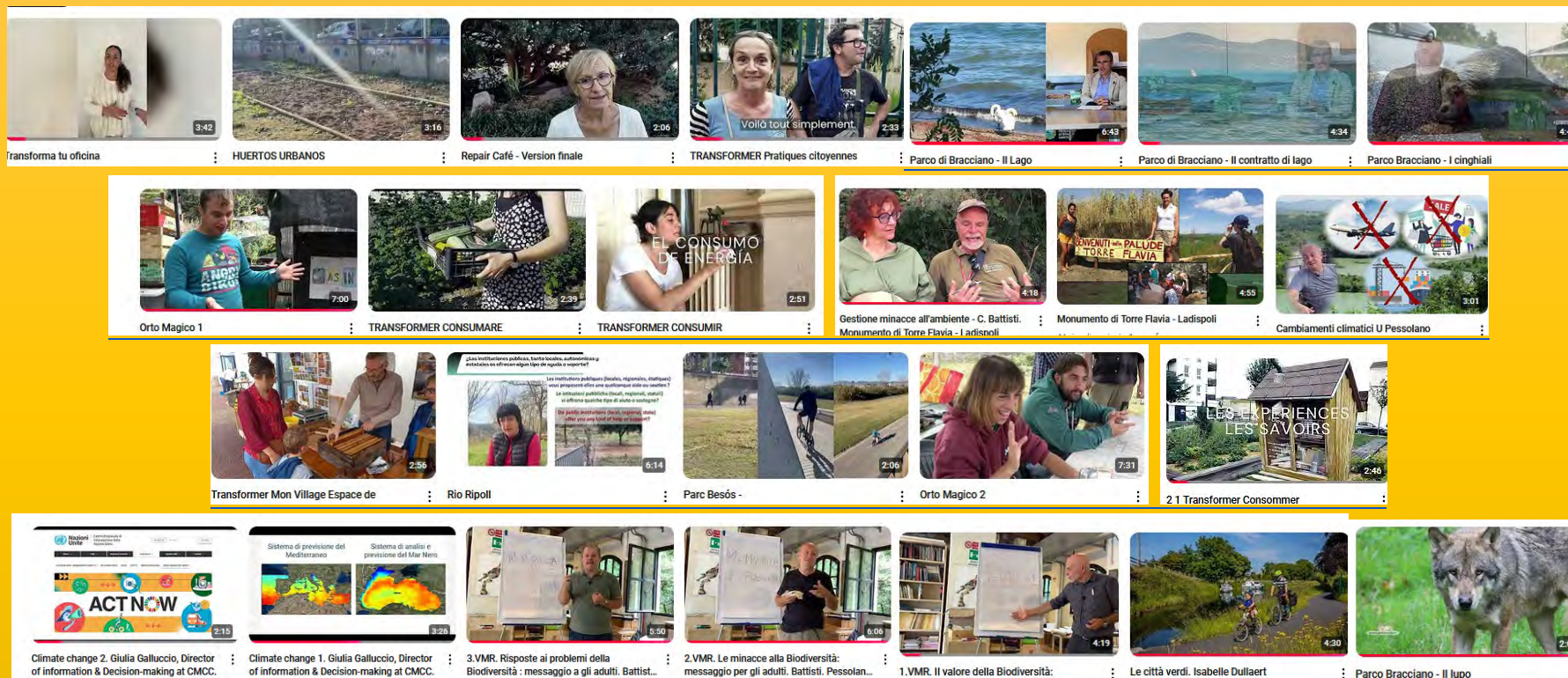
<https://www.youtube.com/watch?v=e7juTzR7oQA&t=154s> – Interview on sustainable mobility accessible to all and respectful of the environment with Isabelle Dullaert, Vice-President of the European Greenways Association. <https://www.aevv-egwa.org/fr/>



## 14. WE CAN ALL DO SOMETHING! THE VALUE OF INDIVIDUAL AND COLLECTIVE INITIATIVE

25 videos concerning as many inspiring practices on water resource management, biodiversity and green, inclusive and resilient cities...in four European languages!

+



[https://www.youtube.com/@progetto\\_transformer](https://www.youtube.com/@progetto_transformer) : Interviews with 25 "inspirational practices" from the Transformer project team in France, Italy and Spain.

O4 – AUDIOVISUAL – PROJECT "RESILIENT ECOLOGICAL TRANSFORMATION"

## 15. WE CAN ALL DO SOMETHING! THE VALUE OF INDIVIDUAL AND COLLECTIVE INITIATIVE

The transnational working group of the Transformer project interviewed 60 inspiring practices on the management of water resources, biodiversity and for the green, inclusive and resilient city... in the three partner countries, in fifty different territories of Spain, France and Italy.



### Summary of the initiatives

1. Ripensare la continuità ecologica su larga scala
2. Incantarsi di nuovo accanto all'acqua
3. Adattare le nostre dighe alla continuità ecologica
4. Orientare le grondaie a terra
5. Liberare il fiume Ondaine
6. La città permeabile lascia filtrare le acque piovane
7. Adattare l'agricoltura alla siccità
8. Ripristinare l'imboschimento alluvionale per migliorare la resilienza degli ambienti acquatici
9. Roma-UP: imparare ad essere ecocittadini monitorando il fiume Tevere
10. Appassionarsi alla vita nell'acqua al Museo del Fiume di Nazzano
11. Gestire operativamente il Monumento Naturale Palude di Torre Flavia
12. Salvaguardare il patrimonio naturale e fare educazione ambientale lungo il tratto urbano del fiume Aniene
13. Salvaguardare il lago di Bracciano uniti nel Contratto di Lago
14. Salvaguardare gli ambienti lacustri del lago di Bracciano all'interno del progetto di Legambiente LIFE Blue Lakes
15. Recupero del fiume Ripoll, Sabadell
16. Gestione dei rifiuti al Porto di Tarragona
17. Una costa sana per tutti
18. Gestione delle acque reflue a San Cugat
19. Il sistema fognario e impianto di trattamento delle acque reflue del fiume Besòs
20. La Catalogna risparmia acqua: un'esperienza di risparmio idrico nelle abitazioni
21. Realizzare la lotta biologica a Roma
22. Tutelare la biodiversità al Parco Regionale Naturale di Bracciano
23. Tutelare con i bambini e le donne la biodiversità a Torre Flavia
24. Operazione Foca Monaco
25. Diffondere il Discovery Kit RESINA per apprezzare la biodiversità del Lazio
26. Sostenere azioni di educazione ambientale per lo sviluppo sostenibile al Di Natura
27. Conservare la biodiversità anche nelle nostre città
28. Diffondere la conoscenza della biodiversità e la scienza di cittadinanza attraverso il teatro
29. Il Comune spegne le luci per accogliere al meglio i rapaci notturni
30. Alcuni cittadini condividono le sementi e diventano autonomi
31. Trasformare il proprio paese in spazio di biodiversità
32. Ribellarsi per proteggere la biodiversità
33. Togliere l'asfalto e rinverdire i marciapiedi del quartiere
34. Adattare le nostre foreste al riscaldamento globale
35. Rete di tutela per la protezione delle aree non ancora edificate
36. Promozione degli spazi verdi attraverso le relazioni sociali tra gli anziani e gli orti urbani
37. L'agricoltura biologica come spazio culturale e ricreativo
38. Protezione della biodiversità nel delta del Llobregat
39. In difesa del prezioso patrimonio naturale del Parco naturale Cabo de Gata-Níjar, Almería
40. Il Mediterraneo ritrova la sua bellezza unica
41. In rete reinventando la città inclusiva e resiliente al Binario e Villaggio 95
42. Spazio Gioco: giocare e imparare a crescere insieme
43. Progettare la città dei quindici minuti al Municipio Roma VIII
44. Partecipare ad attività di agricoltura sociale con/per le persone disabili
45. Condividere percorsi culturali ed educativi per l'energia sostenibile al Museo dell'Energia di Ripi
46. Sensibilizzare alla decrescita felice per favorire il ben-essere della cittadinanza
47. Promuovere la partecipazione attiva e inclusiva dei cittadini per autogovernare il territorio come Bene Comune
48. Riconnettersi al mondo del vivente
49. Vacanze leggere a Baugy'te?
50. Fornirsi dei servizi l'un l'altro: i nostri vicini sono competenti!
51. Riparare oggetti e meccanismi mentre si prende un caffè insieme
52. Sviluppare la cooperazione per la transizione ecologica
53. Restituire la città ai cittadini: il caso di Superillas
54. Siamo tribù!
55. Gestione Porta a Porta a La Garriga - Residui Zero
56. Prenditi cura di te e vivi!
57. Parco La Gavia: gli abitanti si uniscono per un quartiere inclusivo!
58. Servizi di e per il quartiere "la Caixa d'Eines i Feines"
59. Gli abitanti per il cambiamento!
60. Costruire nel verde: Alloggi Cooperativi Círrers, Barcellona.

O2 – Collection of Good Practices - PROJECT "RESILIENT ECOLOGICAL TRANSFORMATION"



## 16. WE CAN ALL DO SOMETHING! THE VALUE OF INDIVIDUAL AND COLLECTIVE INITIATIVE

The 60 inspiring practices on the management of water resources, biodiversity and for the green, inclusive and resilient city collected delve into the different aspects that a plan and/or action for resilient ecological (and social) territorial transformation faces, with many dilemmas and obstacles, but also a great creative and motivating energy to participate to change things for the well-being of all, other living beings, landscapes and natural resources and beauties.

A natural space is enriched by the memories, knowledge, emotions of those who cross it and contributes to solving problems...

The home of those who don't

We live, we protect, we educate along the river...

Participatory processes take time but are a good investment...

All services have been reconfigured to ensure everyone's well-being!



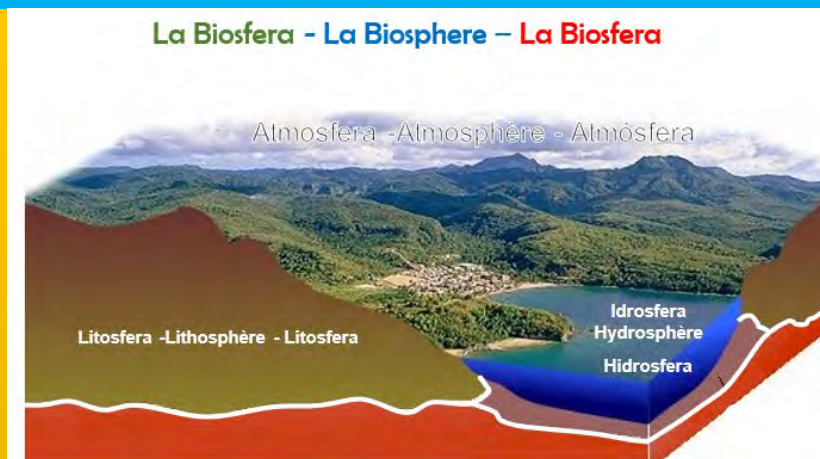
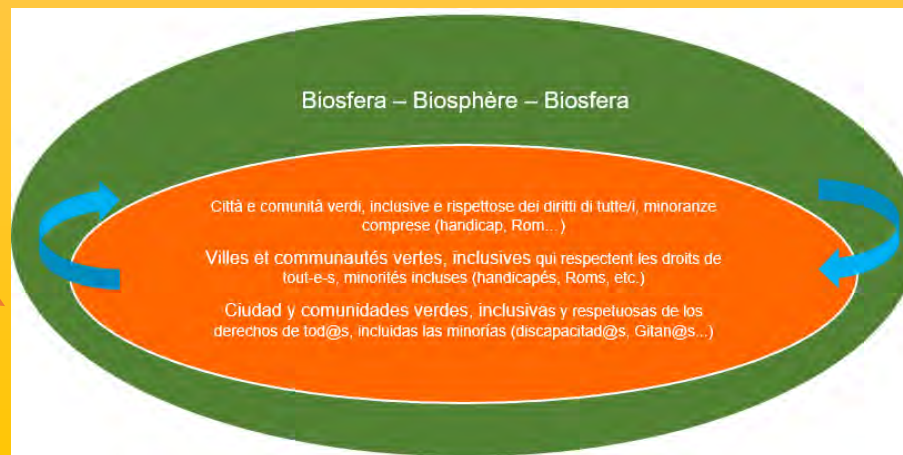
X 60 files interviewed, described, told...

O2 – Collection of Good Practices - PROJECT "RESILIENT ECOLOGICAL TRANSFORMATION"

## 17. THE SCIENTIFIC FRAMEWORK OF THE PROJECT "RESILIENT ECOLOGICAL (AND SOCIAL) TRANSFORMATION"

The scientific framework of the project includes the research work carried out by the IPCC, UNEP, IPBES, UNESCO, the IUCN (International Union for Conservation of Nature), the European Parliament, the Spanish, French and Italian Ministries of the Environment and Ecological Transition. All the scientific sources and models considered are included in the teaching materials of the training course.

Without green,  
inclusive and resilient  
cities and  
communities... No  
health, happiness and  
well-being!



Without a healthy  
biosphere, life on  
Earth is  
impossible!

O1 – Scientific framework of the Transformer project

## 18. THE ROLE OF ADULT EDUCATION IN THE TRANSFORMATION OF ATTITUDES AND BEHAVIOURS

Tackling the triple planetary crisis – ecological, social and economic – requires the training of new skills, competences for life and sustainability, with the aim of facilitating adaptation and mitigation of the growing effects of climate change.

"The most important question is how to educate people who left the public education system more than twenty years ago, when environmental education was not yet a curricular teaching:

- Do we address professionals, doctors, journalists, lawyers, categories that follow periodic training refresher plans, with appropriate paths and with practical implications for their professional lives, for example the disposal of special waste, etc.? Climate change adaptation plans?
- Or, instead, focus on the most vulnerable sections of the population, those who have lost their jobs due to technology, for example, and need a new professional start?"

*(Interview of 11 December 2024 with Maria Chiara Pettenati, Director of Research INDIRE, National Institute of Documentation, Innovation and Educational Research and Ambassador for the European Climate Pact.*



## 19. THE PEDAGOGICAL FRAMEWORK OF THE PROJECT "RESILIENT ECOLOGICAL (AND SOCIAL) TRANSFORMATION"

Problems in adult education on climate and scientific issues in general:

- Disconnection from nature.
- Poor perception of the cause-effect links of daily human actions on Nature and vice versa.
- Strong prejudices and political polarization on climate issues.
- Presence of "fake news" on the Internet.
- Denial of climate change, lack of interest, anxiety, de-responsibility...

### TRANSFORMER METHODOLOGICAL FRAMEWORK

- Popular education for all : No one should be excluded from understanding current challenges, as well as from participating in transformative actions:
  - Training activities of a maximum of 1 hour.
  - Science.
  - Contextualized, problem-based, and project-based learning.
  - Peer learning, but with facilitation on the more scientific and methodological aspects.
- Critical, democratic and reflective education , based on values.
- Action research, experiential learning, eco-citizenship.

**New individual and collective "personal, social, lifelong learning and green competences"** are prerequisites for:

- Understand the complexity of effects of human actions on the Climate and, in turn, on us and on the Biosphere (the sphere of life) as well as:
- To act, individually or collectively,
- In the workplace, as well as in the social life of leisure time.

O3 – TRAINING COURSE - PROJECT "RESILIENT ECOLOGICAL TRANSFORMATION"

## 20. ADULT PROBLEMS WITH CLIMATE IN THE TRANSFORMER TRAINING COURSE

### Module 1 - Learning to do things together to:

- ✓ To "open the mind" and to open up to others, here and elsewhere on the planet.
- ✓ To relearn to listen to points of view different from one's own
- ✓ To recover dialogue on issues of common interest.

Thanks to a kit with approaches, perspectives, techniques that are easy to apply.

### Module 2- Learning to understand climate and the impacts of human actions on the biosphere offers:

- ✓ The new "climate lexicon", an essential glossary for understanding the changing world around us, here and elsewhere, inside and outside Europe.
- ✓ A solid knowledge base, based on the most recent data and studies, useful for understanding climate challenges, and the impacts of our choices and actions;
- ✓ Workshop activities to face dilemmas and solution options to problems together, to understand the value of the Biosphere and common goods, taking action to change things, starting from our areas of life and territories;
- ✓ To learn about the networks active within the Climate Plans of our territories and/or in other bottom-up initiatives.

### Module 3 – Acting with oneself and with others, proposes:

- ✓ a strategy;
- ✓ content (6 thematic sheets relating to everyday life);
- ✓ two methods and tools to move to action, in the organization of work, and / or in other bodies of belonging, of free time or at the level of associations and / or volunteering in the neighborhood ...



### PROBLEMS, TRAINING DEFICITS:

- Disinformation (fake news);
- Withdrawal into oneself, fear, overt or hidden climatic anxieties, depression, apathy, cynicism;
- Presence of implicit and explicit prejudices, political polarization of the "most hot" issues;
- Individualism, populism, whateverism;
- Poor participation in group activities, difficulty in confronting others in a serene way.

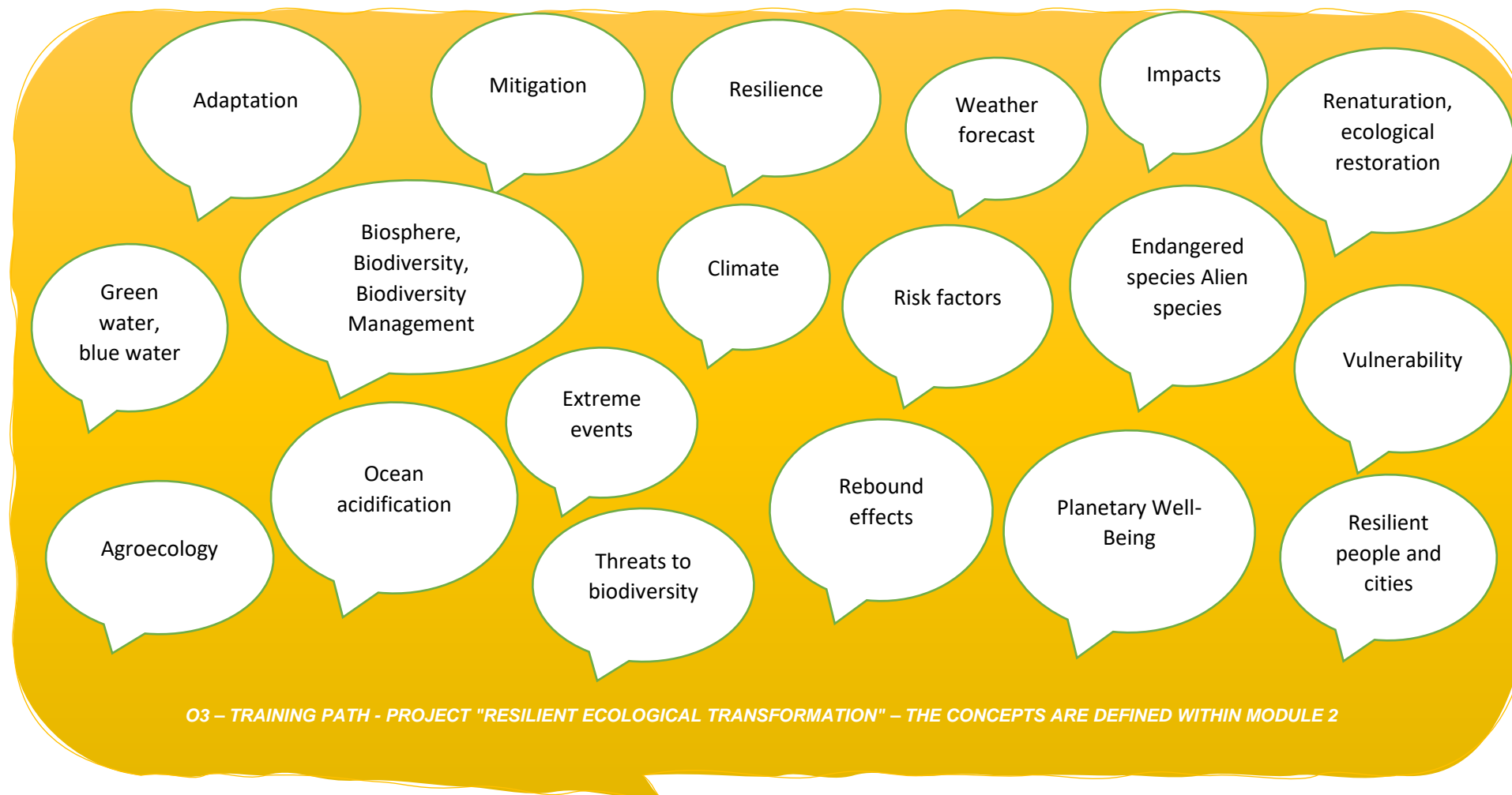
## 21. THE TRANSFORMER TRAINING COURSE

The training course of the Transformer project is divided into three modules. **The first module is more methodological**, the **second, of information and understanding of scientific evidence with activities of understanding a new vocabulary**, reading, interchange and reflective learning in groups on the 60 practices collected by the project. Finally, the **third module is oriented towards group action, in the organization** in which the participants work or are active in their free time.

Module 1 - Learning to do things together (23 activities)	Module 2 - Learning to understand climate and the impacts of human actions on the biosphere.
U.A. 1.1.: Learning to open up and dialogue with others.	U.A. 2.1 – The Climate.
U.A. 1.2.: Becoming autonomous as "agents" of resilient ecological and social transformation.	U.A. 2.2 – The climate situation.
U.A. 1.3: To take action and experiment with new behaviors and actions.	U.A. 2.3 – Climate and Water.
U.A. 1.4: Communicating the Resilient Ecological and Social Transformation.	U.A. 2.4. - Climate and Biodiversity.
	U.A. 2.5 – Climate and planetary well-being.
	U.A. 2.6 – Climate and rebound effects.
U.A. 1.5.: Learning with Art.	U.A. 2.7 – Resilient people and territories.
	U.A. 2.8 - 12 Reasons for acting.
	U.A. 2.9 – Stimulating practices.
<b>Module 3 – Acting with oneself and others</b>	
U.A. 3.1 Acting together in the organization	
On 6 key themes:	
1. Planetary well-being, 2. Planetary Citizenship, 3. Consume less and better energy and water; 4. Transforming the diet, 5. Consume fewer and better quality goods; 6. Sustainable mobility.	
U.A. 3.2 Setting in motion individual actions with a collective approach.	

O3 – TRAINING COURSE - PROJECT "RESILIENT ECOLOGICAL TRANSFORMATION"

## 22. THE NEW LEXICON TO UNDERSTAND AND PARTICIPATE IN RESILIENT ECOLOGICAL TRANSFORMATION




O3 – TRAINING PATH - PROJECT "RESILIENT ECOLOGICAL TRANSFORMATION" – THE CONCEPTS ARE DEFINED WITHIN MODULE 2



## 23. THE SKILLS FORMED BY THE TRANSFORMER PROJECT

The training course of the Transformer project prepares a fairly rich and varied framework of competences, throughout the life span (consistent with the European LIFE-COMP framework<sup>15</sup>), for sustainability (European Green-Comp framework<sup>16</sup>) as well as the seven key competences indicated by Edgar Morin<sup>17</sup>.

LIFE-COMP Competencies	GreenComp Competencies		7 Key competences (E. Morin)
 <p>LifeComp - The Competence Tree describes nine competences, organised into three domains: the "personal" domain (P1, P2, P3), the "social" domain (S1, S2, S3) and the "learning to learn" domain (L1, L2, L3) / © EU 2020, creative commons (C BY 4.0)</p>	<b>Competence 1 – Embracing sustainability values</b> <ul style="list-style-type: none"> <li>1.1 Enhancing sustainability</li> <li>1.2. Promoting fairness and ethics</li> <li>1.3. Promoting nature</li> </ul>	<b>Competency 2 – Embracing complexity in sustainability</b> <ul style="list-style-type: none"> <li>2.1. Critical thinking,</li> <li>2.2. Systems thinking,</li> <li>2.3. Problem solving</li> </ul>	<b>Competence 1:</b> Blindness to knowledge: error and illusion <b>Competence 2:</b> The principles of relevant knowledge <b>Skill 3:</b> Teaching the Human Condition <b>Competence 4:</b> Teaching the identity and consciousness of the earth <b>Competence 5:</b> Dealing with uncertainties (knowledge, reality, uncertainties of the ecology of action) <b>Skill 6:</b> Teaching Understanding (Obstacles, ethics, awareness of complexity) <b>Competence 7:</b> Ethics. Teaching democracy and earthly citizenship.
	<b>Competence 3 – Imagining the future of sustainability</b> <ul style="list-style-type: none"> <li>3.1. Imagining alternative futures</li> <li>3.2. Adaptability</li> <li>3.3. Exploratory reflection</li> </ul>	<b>Competence 4 – Acting for sustainability</b> <ul style="list-style-type: none"> <li>4.1. Individual action</li> <li>4.2. Collective action</li> <li>4.3. Identifying the responsibilities of political actors</li> </ul>	

### O3 – SKILLS FORMED BY THE "RESILIENT ECOLOGICAL TRANSFORMATION" TRACK

<sup>15</sup> [https://joint-research-centre.ec.europa.eu/lifecomp\\_en](https://joint-research-centre.ec.europa.eu/lifecomp_en)

<sup>16</sup> [https://joint-research-centre.ec.europa.eu/greencomp-european-sustainability-competence-framework\\_en?](https://joint-research-centre.ec.europa.eu/greencomp-european-sustainability-competence-framework_en?)

<sup>17</sup> Morin, E., Seven Complex Lessons in Education for the Future: <https://unesdoc.unesco.org/ark:/48223/pf0000117740>



## 24. TRANSFORMER TRAINING COURSE TEACHING MATERIALS



# ENJOY SOME GOOD RESILIENT TRANSFORMATION ACTIVITIES!

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[https://www.youtube.com/@progetto\\_transformer](https://www.youtube.com/@progetto_transformer)

<https://erasmus-transformer.le1000e1notte.it/>



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Co-funded by  
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