

Tackling invasive alien species spreading pathogens and threatening wildlife in Europe

Riccardo Scalera

Independent consultant

Department of Science, Roma Tre University
IUCN SSC Invasive Species Specialist Group
IUCN SSC Wildlife Health Specialist Group



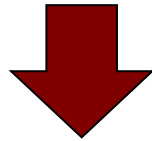
**Joint meeting of the Groups of Experts on
amphibians and reptiles
and on Invasive Alien Species**

7 October 2025, 9h30-11h00, online



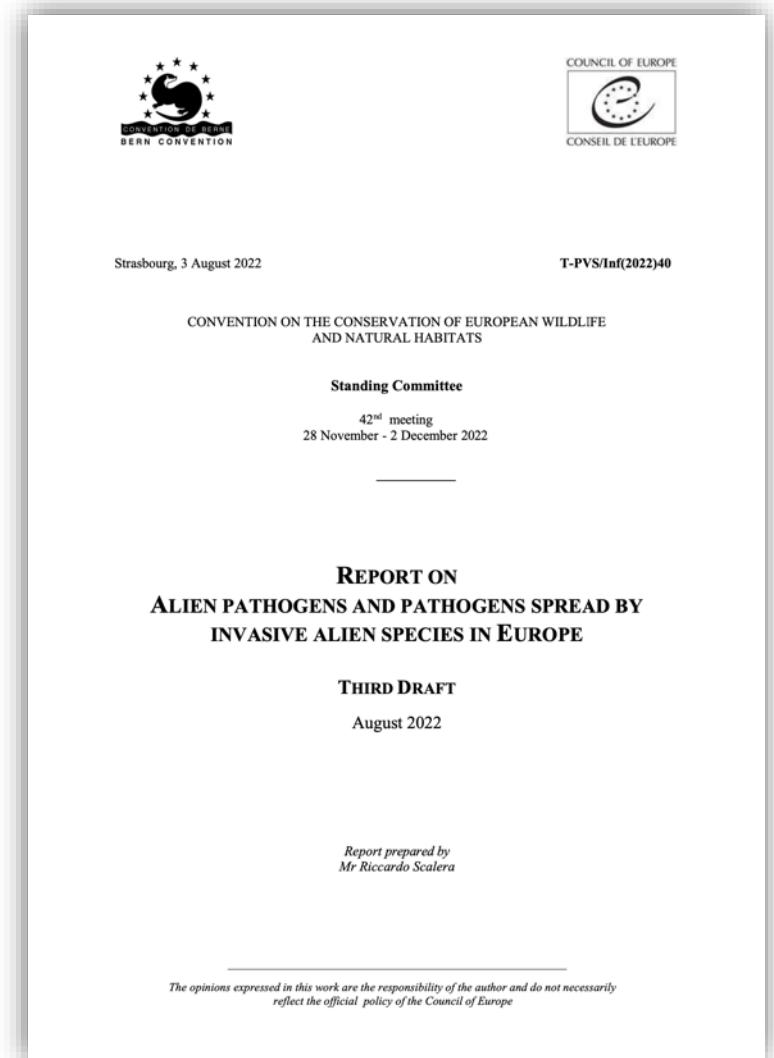
Report on IAS and pathogens

**Alien pathogens and
pathogens spread by
invasive alien species**



with a specific focus on
those having an impact
on **wildlife**

Formally adopted through Recommendation No. 215 (2022)



Report on IAS and pathogens - Objectives



- The aim is to provide Member States of the Council of Europe with an overview of the issues at stake in relation to alien pathogens and pathogens spread by IAS.
- The main gaps in knowledge, science, policy and legislation (including at the EU level) which may have an impact on the conservation objectives set by the Bern Convention are highlighted.
- This overview should set the basis for a larger discussion in the relevant scientific bodies of the Bern Convention, on the conservation actions (including research priorities) and possible policy and legislative recommendations that could be promoted

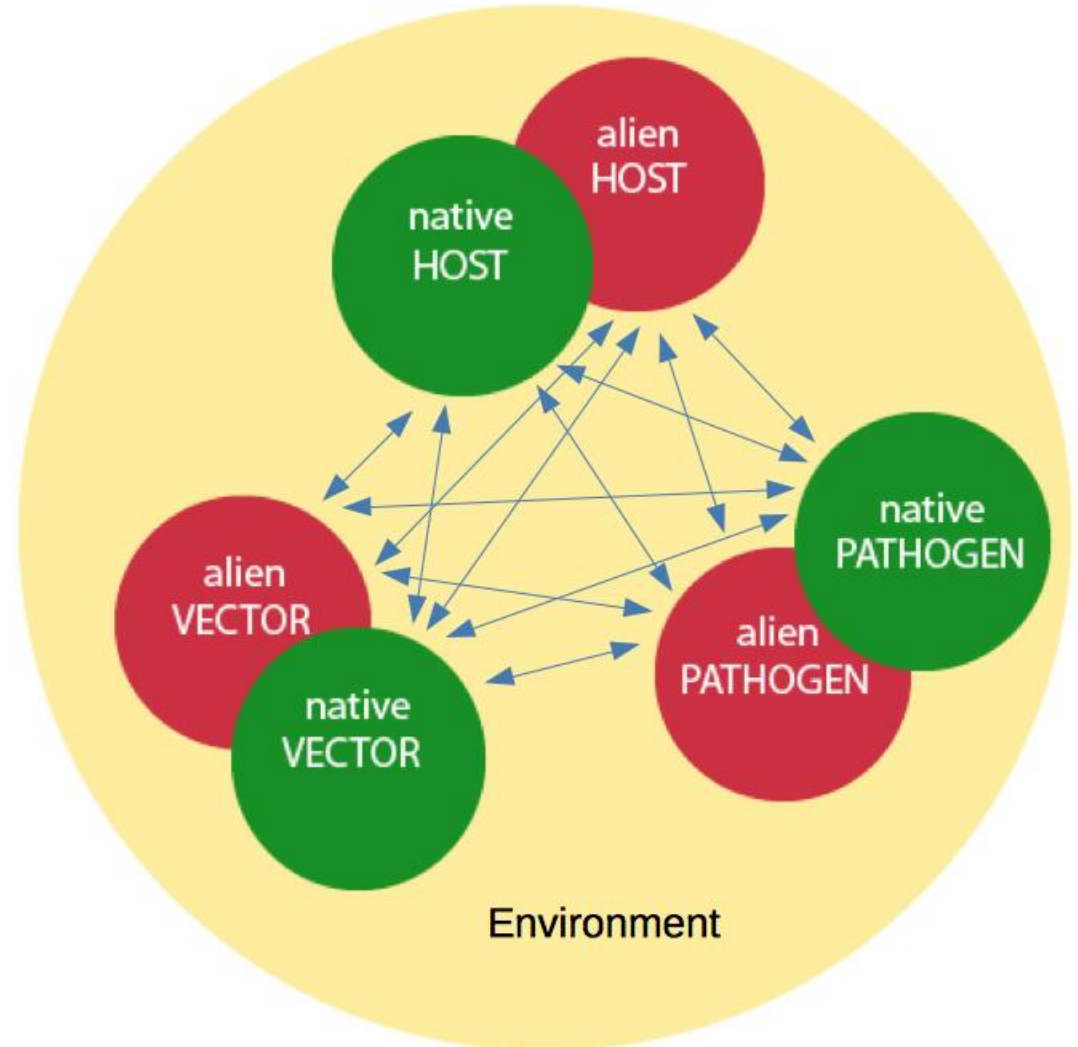
Overview on alien pathogens and pathogens spread by IAS

IAS can act in different ways:

- as pathogens themselves,
- as vectors of:
 - Native/alien pathogens
- as host of:
 - Native parasites acting as vectors of:
 - Native/alien pathogens
 - Alien parasites acting as vectors of:
 - Native/alien pathogens
- as facilitators of hosts and/or vectors of pathogens

May alter the epidemiology of local pathogens, e.g. by introducing changes in the vector-host-parasite relationship

Studies confirmed that alien pathogens affecting wildlife have received little attention, despite the magnitude of their impact



Case study - *Batrachochytrium salamandrivorans*

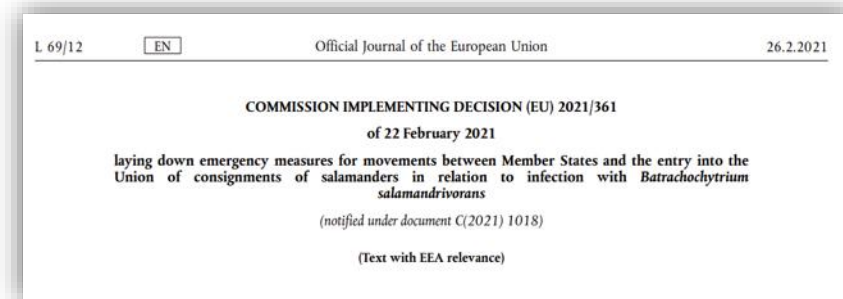
2013 - *Batrachochytrium salamandrivorans* identified and described (Martel, Blooi, Bossuyt and Pasmans, 2013)

2015 - Recommendation No. 176 (2015) on the prevention and control of the *Batrachochytrium salamandrivorans* chytrid fungus

2017 - *Batrachochytrium salamandrivorans* listed in OIE Aquatic Animal Health Code

2017 - EU project aimed at “Mitigating a new infectious disease in salamanders to counteract the loss of European biodiversity” (900,000 euro)

2018 - Commission Implementing Decision (EU) 2018/320 of 28 February 2018 on certain animal health protection measures for intra-Union trade in salamanders and the introduction into the Union of such animals in relation to the fungus *Batrachochytrium salamandrivorans*



Animal Health Law (Regulation 2016/429) since April 21, 2021

Recommendation No. 215 (2022)



Convention on the Conservation
of European Wildlife and Natural Habitats

Standing Committee

Recommendation No. 215 (2022) of the Standing Committee, adopted on 2nd December 2022, on alien pathogens and pathogens spread by Invasive Alien Species.

The Standing Committee to the Convention on the Conservation of European Wildlife and Natural Habitats, acting under the terms of Article 14 of the Convention.

Having regard to the aims of the Convention to conserve wild flora and fauna and its natural habitats; Recalling that Article 11, paragraph 2.b, of the Convention requires parties to strictly control the introduction of non-native species;

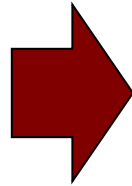
Recalling its Recommendation No. 99 (2003) on the European Strategy on Invasive Alien Species, which refers to the need to prevent disease incursions at source, and on arrival, through border control and quarantine measures;

Recalling its Recommendations addressing pathways for the introduction of Invasive Alien Species, which led to the development of several codes of conduct, most of which including measures to prevent pathogens being moved by alien species through the relevant pathways either directly or indirectly, as appropriate, as shown in:

- Recommendation No. 160 (2012) on European Code of Conduct for Botanic Gardens on Invasive Alien Species,
- Recommendation No. 161 (2012) on the European Code of Conduct on Zoological Gardens and Aquaria and Invasive Alien Species,
- Recommendation No. 166 (2013) on the European Code of Conduct on Hunting and IAS,
- Recommendation No. 170 (2014) on the European Code of Conduct on Recreational Fishing and Invasive Alien Species,
- Recommendation No. 193 (2017) on the European Code of Conduct for Invasive Alien Trees,
- Recommendation No. 194 (2017) on the European Code of Conduct on International Travel and Invasive Alien Species;

Recalling the Strategic Plan for Biodiversity 2011-2020 with its 20 headline Aichi targets for 2020, adopted at COP 10 of the CBD and in particular Target 9 devoted to Invasive Alien Species (IAS): "By 2020, invasive alien species and pathways are identified and prioritised, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment", and welcoming the future post-2020 global biodiversity framework and its foreseen target on invasive alien species, expected to be adopted at CBD COP 15;

Recalling its Recommendations focusing on alien pathogens affecting native herpetofauna, such as Recommendation No. 176 (2015) on the prevention and control of the *Batrachochytrium*



1. Identify all concerned actors...
2. Improve knowledge on alien pathogens and pathogens spread by IAS...
3. Analyse existing measures, policy and legislation...
4. Prioritise the management of introduction pathways.
5. Increase awareness...



CBD study on IAS and pathogens



CBD/COP/16/INF/28



**Convention on
Biological Diversity**

Distr.: General
1 October 2024

English only

**Conference of the Parties to the
Convention on Biological Diversity
Sixteenth meeting**
Cali, Colombia, 21 October–1 November 2024
Item 21 of the provisional agenda*
Invasive alien species

**Progress on requests to the Executive Secretary from decision 15/27 on
invasive alien species****

CBD/COP/16/INF/28

Annex I

**Study on how approaches for the prevention, control and management of
invasive alien species may be usefully applied to biological invasions of
pathogenic agents, in particular zoonotic pathogens**

Compiled by: Riccardo Scalera (IUCN SSC ISSG), Kevin Smith (IUCN)

Review: Inter-Agency Liaison Group on Invasive Alien Species - François Diaz (WOAH), Claire Cayol (WOAH), Paolo Tizzani (WOAH), Artur Shamilov (IPPC), Roger Day (CABI), Arne Witt (CABI); Secretariat of the Convention on Biological Diversity - Marianela Araya Quesada; IUCN SSC Wildlife Health Specialist Group (WHSG) - Catherine Machalaba, Tiggy Grillo; IUCN SSC ISSG – Helen Roy, Ana Isabel Gonzalez.

The present document was developed with the generous support from the Japan Biodiversity Fund

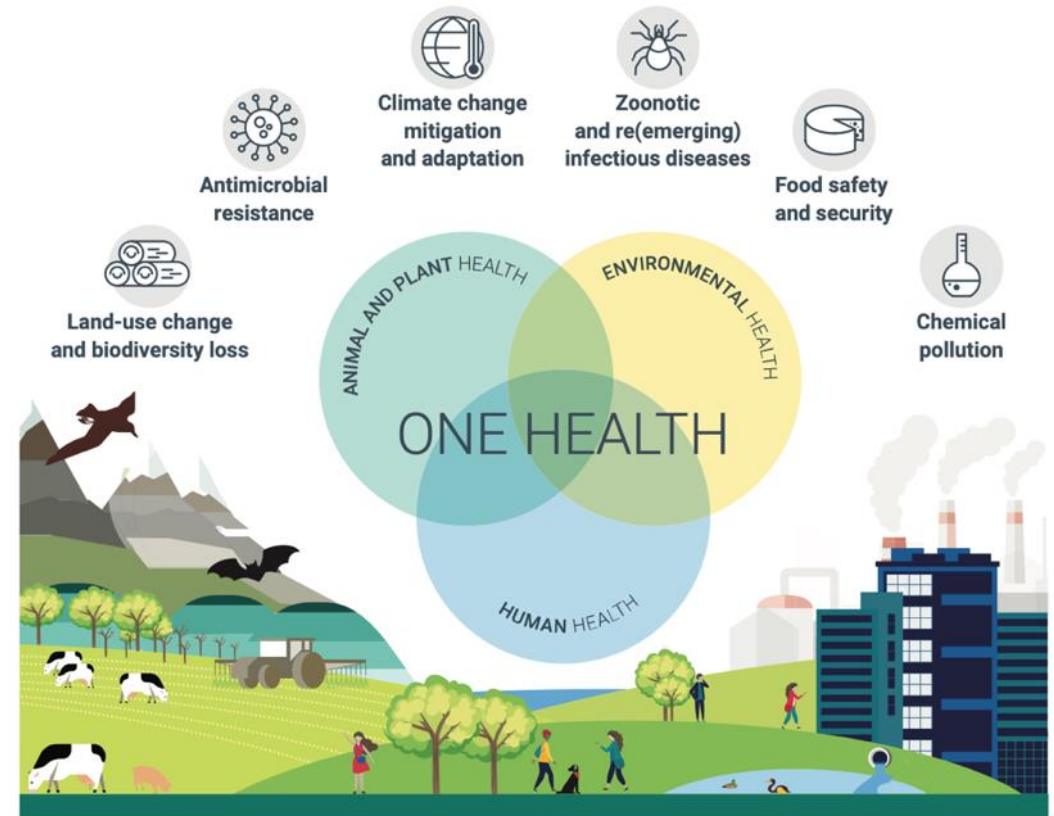




The need to adopt a One Health approach to address IAS, integrating different policies into a consistent framework, was duly recognised at CBD COP16

Beyond IAS: viewing biological invasions through a One Health lens

- Urgent need for multisectoral and transdisciplinary collaboration across the domains of human, wildlife and ecosystem health
- Once IAS are fully recognised as a key component of the One Health concept, there are **synergies between the management of biological invasions and of EIDs** that may be actively promoted, e.g. biosecurity, or eradicating IAS will remove important hosts/vectors of pathogens resulting in **one health benefits**



Source: EEA.

Conclusions

Invasive alien species are:

- ✓ part of the problem
- ✓ part of the solution

Next Steps

Developing a global, cross-disciplinary network and addressing policy gaps are crucial steps to effectively manage IAS-related disease threats and ensure coordinated action at the global scale.

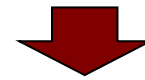


Recommendation No. 215 (2022) – Follow up



1. Identify all concerned actors, including but not limited to experts on invasive alien species and emerging infectious diseases and authorities competent for dealing specifically with wildlife pathogens and relevant pathways.

Creation of a horizontal working group on wildlife pathogens under the umbrella of the Bern Convention



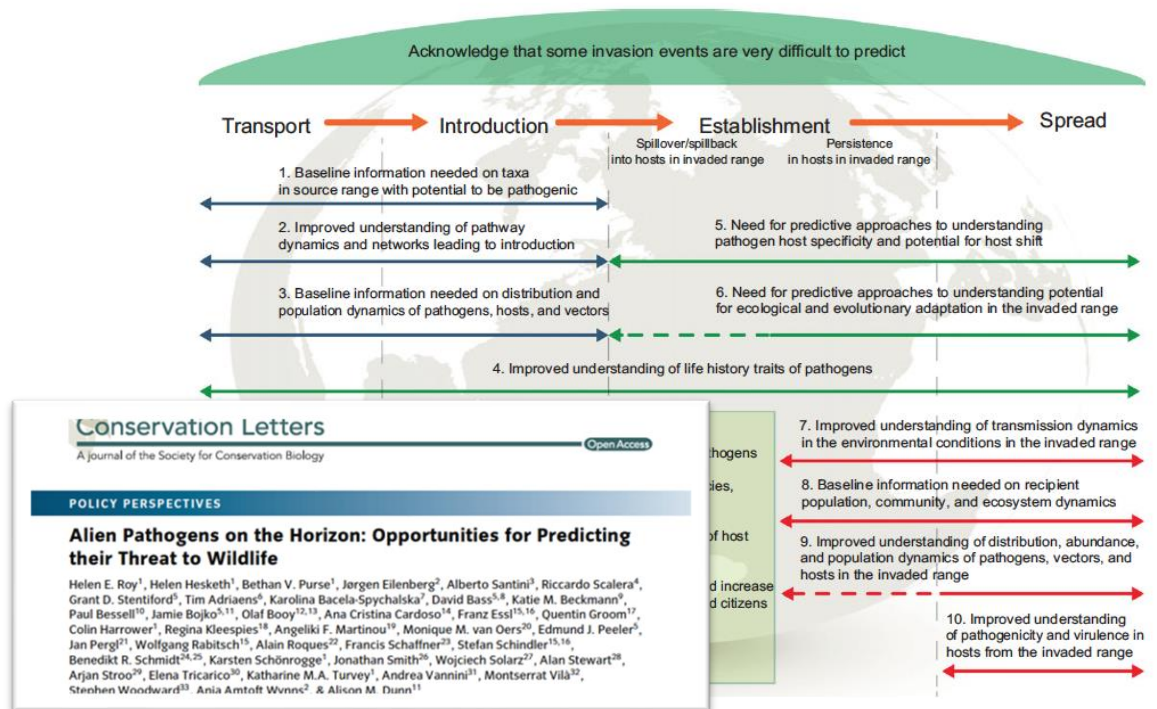
Collaboration between

- Group of Experts on invasive alien species
- Group of Experts on the Conservation of Amphibians and Reptiles

Recommendation No. 215 (2022) – Follow up

2. Improve knowledge on alien pathogens and pathogens spread by IAS.

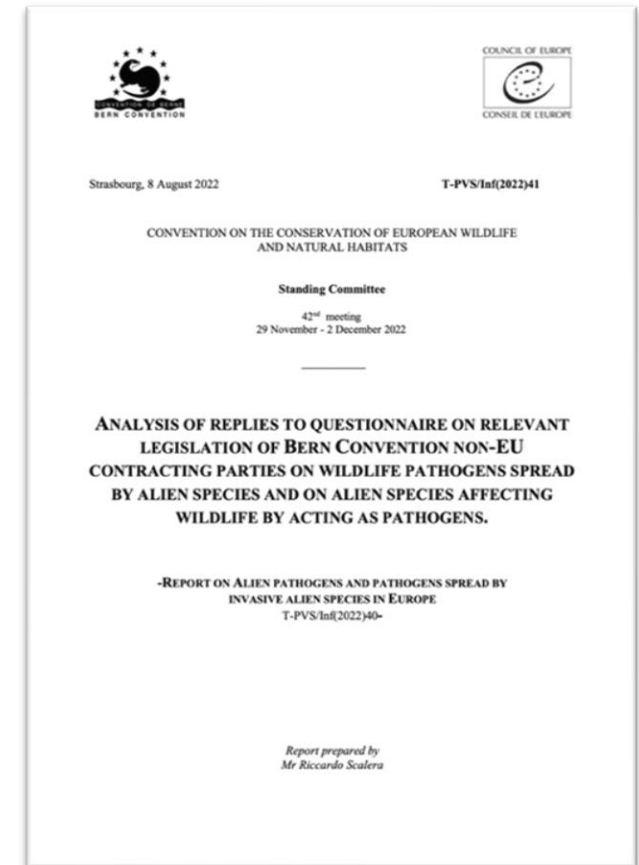
- An horizontal working group on wildlife pathogens under the umbrella of the Bern Convention would be key to connect research initiatives across countries and fields of expertise
- Circulation of a questionnaire to Contracting Parties to the Bern Convention and/or the chairs of the main working groups to ask for research priorities
- Clear formulation of research topics (see Roy et al. 2017)



Recommendation No. 215 (2022) – Follow up

3. Analyse existing measures, policy and legislation to assess gaps, constraints and barriers which prevent effective management of alien pathogens and pathogens spread by IAS affecting wildlife.

- Analysis of the current policy and legislation relevant to all Bern Convention parties
- Analysis of current gaps which prevent an effective management of the problem
- Circulation of questionnaires to Contracting Parties to the Bern Convention and the chairs of the main working groups to assess needs and expectancies in relation to any future activity on wildlife pathogens and alien species



Recommendation No. 215 (2022) – Follow up

3. Analyse existing measures, policy and legislation to assess gaps, constraints and barriers which prevent effective management of alien pathogens and pathogens spread by IAS affecting wildlife.



Organisation of one or more dedicated workshops to assess actual and potential threats linked to the gaps in knowledge, policy and legislation and opportunities to prioritise action in this context



Preparatory meeting of a selected group of experts aimed at planning the details of the agenda and scope of the workshop



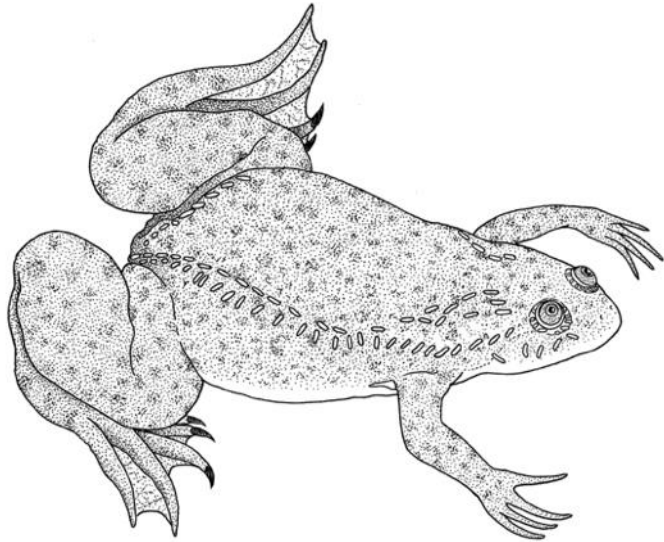
Recommendation No. 215 (2022) – Follow up

4. Prioritise the management of introduction pathways by assessing the risk of invasion by alien pathogens and pathogens spread by IAS in both risk assessments (and relevant management annex) and pathway action plans.

- Development of an action plan for wildlife pathogens
- Identification and discussion of key management tool



Recommendation No. 215 (2022) – Follow up



5. Increase awareness on the impact of wildlife pathogens among policy and decision makers, wildlife managers, scientists, and citizens.

- Communication plan for the dissemination of materials in multiple languages
- Peer-reviewed scientific journals
- Organization of events, including conferences, workshops and webinars

Thank you for your attention!

Your are welcome to contact me here
scalera.riccardo@gmail.com

