



ISPRA

Istituto Superiore per la Protezione
e la Ricerca Ambientale

Target 5 developments: *Implementation phase of the Invasive Alien Species Regulation*

Piero Genovesi

Institute for Environmental Protection and Research – Rome
Chair IUCN/SSC Invasive Species Specialist Group

*EU Biodiversity and
Nature Directors meeting*

Rome, 25-26 November 2014





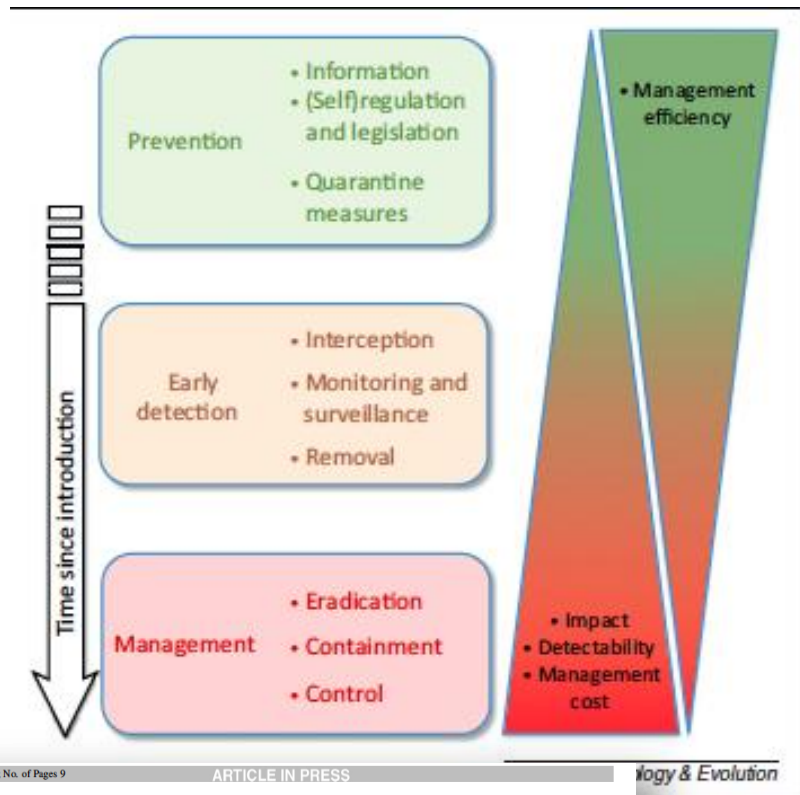
IAS CAUSE MAJOR IMPACTS IN EUROPE

- Second driver of biodiversity loss after habitat destruction and major cause of animal extinctions
- Severe impacts on health; over 100 IAS are pathogens
- Huge economic costs in Europe > € 12 bln/year
- IAS threatening biodiversity also impact economy. By protecting biodiversity we protect our livelihood





HOW TO ADDRESS INVASIONS



CBD guiding principles

- Prevention as the first line of defence
- Early detection rapid response
- Eradication when feasible
- Permanent management when appropriate

TREE-1578; No. of Pages 9

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Ecology & Evolution

Review



Impacts of biological invasions: what's what and the way forward

Daniel Simberloff¹, Jean-Louis Martin², Piero Genovesi³, Virginie Maris², David A. Wardle⁴, James Aronson^{2,5}, Franck Courchamp⁶, Bella Galil⁷, Emili Garcia-Berthou⁸, Michel Pascal⁹, Petr Pyšek^{10,11}, Ronaldo Sousa^{12,13}, Eric Tabacchi¹⁴ and Montserrat Vilà^{15*}

Decision VI/23 on Alien Species that threaten ecosystems, habitats and species; COPVI, The Hague, April 2002

FOCUSING ON PRIORITY IAS AND PATHWAYS



- **Target 9 CBD Strategic Plan 2020:**
by 2020, **IAS and pathways** are identified and **prioritized**, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment
- **Target 5 EU Biodiversity Strategy 2020:**
by 2020 IAS and their pathways are identified and prioritized, priority species are controlled or eradicated, and pathways are managed to prevent the introduction and establishment of new IAS



TOWARD A EU POLICY ON IAS

European Strategy on Invasive Alien Species (Genovesi & Shine 2004)

- Approved by the Standing Committee of the Bern Convention in 2003; welcomed by the European Council and by the CBD COP (Decision VI/23)

Based on a hierarchical approach:

- Prevention
- Early warning rapid response
- Eradication
- Permanent control



TOWARD A EU POLICY ON IAS

2004: Strategy on IAS adopted by Bern Conv. - Council of Europe

2006: Commitment to develop an EU strategy

2008: Consultation meetings with representatives from MS and stakeholders, web-based public consultation

2008: Communication: Towards an EU Strategy on IAS

2009: European Council decision: new dedicated legislative instrument, early warning rapid response

2013: September, EC presented a formal proposal



ADOPTION OF EU REGULATION

- “Trialog” among Parliament, the Council, and the European Commission. In-depth technical discussion
- April 16th text passed at the EU Parliament with a large majority (606 to 36, with 4 abstentions)
- September 29th EU Council formally adopted the text
- Published on OJEU Nov 4th (Regulation 1143/2014)
- Entry into force January 1st 2015



**Biodiversity's
Ticking
Time Bomb**



**JOINT CALL
November 2013**

**Call for a science-based approach
concerning the EU Regulation on Invasive Alien Species**

Invasive alien species (IAS) are responsible for damage to biodiversity, ecosystem services, economies and human well-being. It is estimated that the damage caused by IAS in the EU is more than 12 billion Euros yearly.
The Convention on Biological Diversity (CBD) Aichi Biodiversity Target 9 calls for: "By 2020, invasive alien species and pathways are i

**EU
Regulation
on Invasive
Alien
Species**



BASIC PRINCIPLES

- Based on the principles of prevention, prioritisation and coordination
- Core of the system is the “**list of IAS of Union concern**”
- General ban from the EU, including introduction, trade, keeping, breeding and release (limited exceptions for uses in confined conditions)
- Proposed cap of 50 species removed during the trialog
- Inclusion in the EU list shall be based on risk assessment

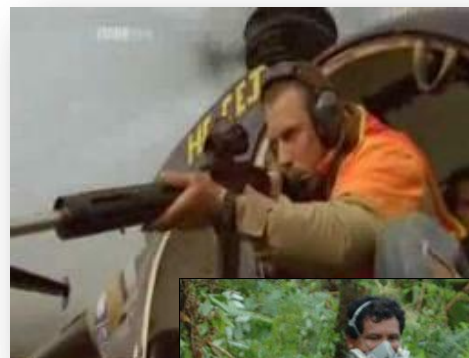
ACTION AT COUNTRY SCALE

- Regulation does not cover IAS that are native to some parts of the Union but invasive to others
- MS will have the power to develop lists of **IAS of Member State concern**, applying stringent measures to regulate them



EARLY DETECTION RAPID RESPONSE

- MS shall establish within 18 months a **surveillance system** for IAS of Union concern
- Obligation to notify new incursions, and to immediately apply **eradication** (within 3 months), when feasible and not disproportionately costly



MANAGEMENT OF WIDESPREAD IAS

- within 18 months MS shall have in place **effective management measures** for IAS of Union concern that are widespread in their territory





INTERNATIONAL COOPERATION

- Several “mild” obligations for MS to enhance cooperation at the international scale:
 - MS shall make every effort to ensure coordination with other concerned states, when practical and appropriate
 - MS shall endeavour to cooperate with third countries
 - Ensure coordination and cooperation for what concerns action plans on pathways, exchange of best practices on management, public awareness programs



ADDRESSING PATHWAYS

- Member States have the obligation to identify within 18 months the most relevant pathways of unintentional introduction of IAS of Union concern
- Within 3 years MS shall establish and implement at least one action plan to address a relevant pathway





PATHWAY CATEGORIZATION

- Common terminology crucial to allow comparison of data
- Standard categorization of pathways discussed at SBSTTA 18
- COP 12 decisions encourage CBD Parties to use standard pathway categorization

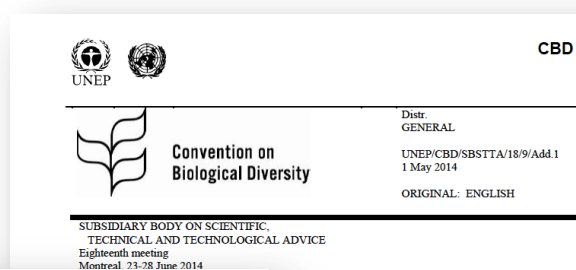


Table 1: Categorization of pathways for the introduction of alien species

Category	Subcategory	COP decision			
RELEASE IN NATURE (1)	Biological control Erosion control/dune stabilization (windbreaks, hedges, ...) Fishery in the wild (including game fishing) Hunting in the wild Landscape/flora/fauna "improvement" in the wild Introduction for conservation purposes Release in nature for use (other than above, e.g., fur, transport, medical use) Other intentional release	VIII/27 VIII/27, X/38 X/38			
	ESCAPE FROM CONFINEMENT (2)	Agriculture (including floating feedstocks) Aquaculture / mariculture Botanical gardens/aquaria (excluding domestic aquaria) P/aquaria/terrarium species (including live food for tank species) Farmed animals (including animals left under limited control) Forestry (including reforestation) Fur farms Horticulture Ornamental purpose other than horticulture Research and ex-situ breeding (in facilities) Live food and live bait Other escape from confinement	X/38 VIII/27, D/4 X/28 VIII/27, X/38, X/28 VIII/27		
TRANSPORT - CONTAMINANT (3)		Containerment nursery material Containerment bait Food contaminant (including of live food) Contaminant on animals (except parasite, species transported by host/vector) Parasites on animals (including species transported by host and vector) Contaminant on plants (except parasite, species transported by host/vector) Parasites on plants (including species transported by host and vector) Seed contaminant Timber trade Transportation of habitat material (soil, vegetation, ...)	VIII/27, X/28 X/28 X/28 X/28 X/28 VIII/27		
		TRANSPORT - STOWAWAY (4)	Angling/fishing equipment Container/bulk Hitchhikers in or on airplanes Hitchhikers on ship/boat (including ballast water and hull fouling) Machinery/equipment People and their luggage/equipment (in particular tourism) Organic packing material, in particular wood packaging Ship/boat ballast water Ship/boat hull fouling Vehicles (car, train, ...) Other means of transport	VIII/27 VIII/27 VIII/27, D/4 VIII/27 VIII/27 VIII/27 VIII/27, D/4	
			CORRIDOR (5)	Interconnected waterway chains/lakes Tunnels and land bridges	VIII/27
				UNASSISTED (6)	Natural dispersal across barriers of invasive alien species that have been introduced through pathways 1 to 5

OF INVASIVE SPECIES, THEIR PRIORITIZATION AND MANAGEMENT
by the Executive Secretary

INTRODUCTION
Prevention, Introduction and Mitigation of Impacts of Alien Invertebrates and Species (the Guiding Principles) annexed to its and organizations with guidance for developing effective impact of invasive alien species. In particular, the Guiding



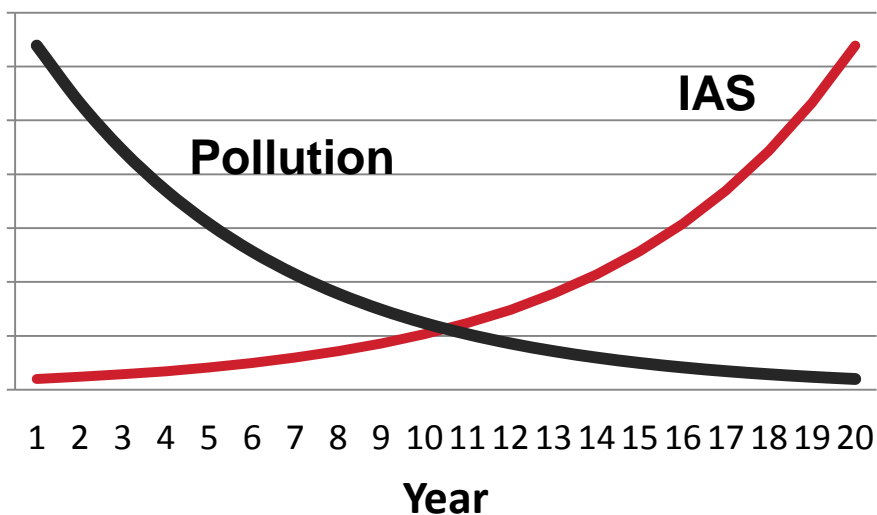
DECISION PROCESS

- Decision process based on Committee
- “*Scientific forum*” will advice, but with no clear indications on how it may provide inputs to the Committee and EC



FINANCIAL ASPECTS

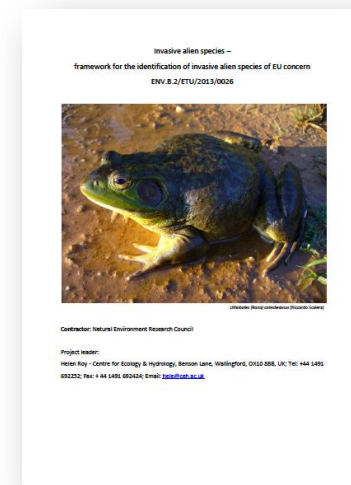
- No specific financial mechanisms to support the implementation of the Regulation
- Regulation encourages application of the Polluter Pays Principle
- This is a challenging approach to IAS, because – differently to pollution – the effects of IAS tend to increase over time





PRELIMINARY ASSESSMENT

- Review of available Risk Assessment protocols
- Proposes criteria
- Informs development of minimum standards
- Analysis of available information for a list of 80 IAS compiled by the EC, with inputs from MS and relevant organisations (e.g.: EPPO)
- Proposes recommendations for future work
- Horizon Scanning exercise, to identify IAS at higher risk of invading Europe





PRELIMINARY ASSESSMENT

- | | | |
|----|---|----|
| 1. | IAS with “substantially compliant” RA, complying with the criteria | 50 |
| 2. | IAS with compliant risk assessment but not yet validated | 1 |
| 3. | IAS with “substantially compliant” risk assessments, but possibly not complying with criteria (low impact in at least part of the EU) | 9 |
| 4. | IAS with “substantially compliant” risk assessments, but not complying with criteria (the native IAS) | 7 |
| 5. | IAS with ongoing “substantially compliant” risk assessments | 23 |
| 6. | IAS for which a “substantially compliant” risk assessment is not available | 44 |
| 7. | IAS prioritized for future risks | 2 |



CHALLENGES

- Most risk assessments carried out in a few European countries (e.g.: UK, BE)
- European MS will need to develop capacity to carry on risk assessments
- Decision process needs to be detailed, including inputs from Scientific Forum to Committee

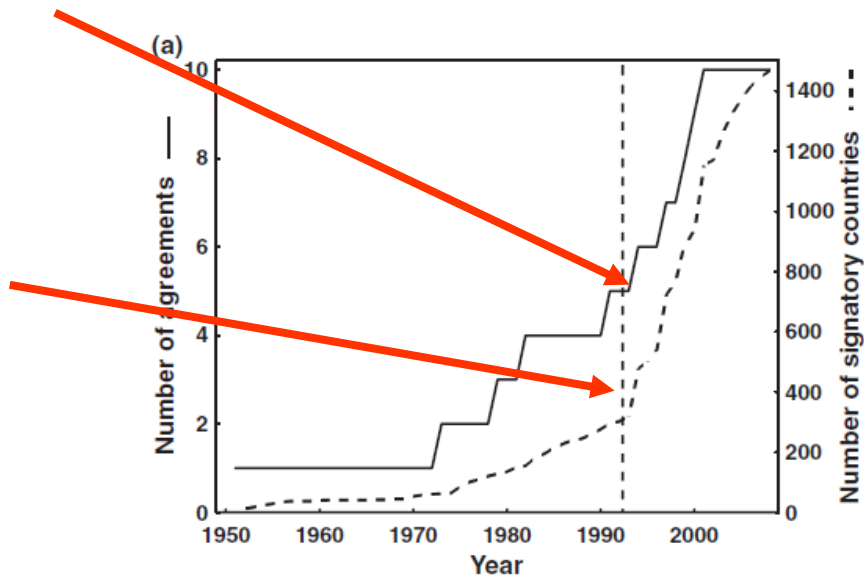


CONCLUSIONS

- Innovative approach, largely based on improved understanding of the mechanisms of invasions
- Stringent measures for IAS of Union concern
- Decision process needs to be clarified and structured. Committee needs to be ambitious
- Action plans on key pathways indeed innovative, but based on mild obligations
- Other measures – national lists, IAS native of Europe, international cooperation – will largely depend on the commitment of national authorities
- Lack of financial mechanisms may severely limit the overall impact of the Regulation

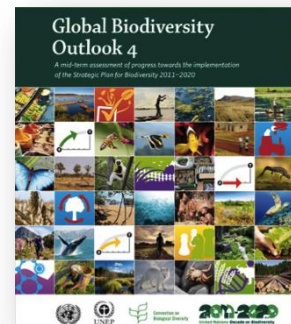
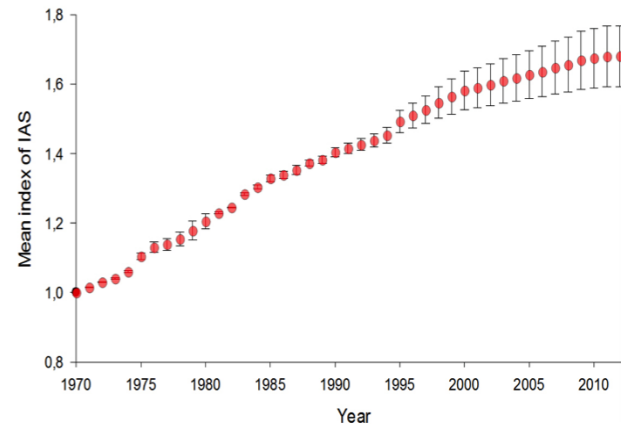
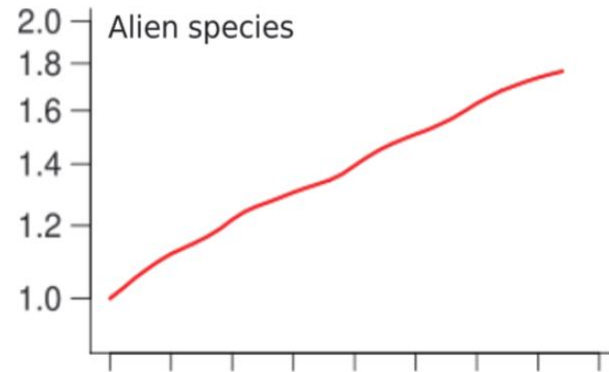
GLOBAL EFFECTS OF POLICIES

- Number of international agreements relevant to IAS
- Cumulative number of countries party to those agreements



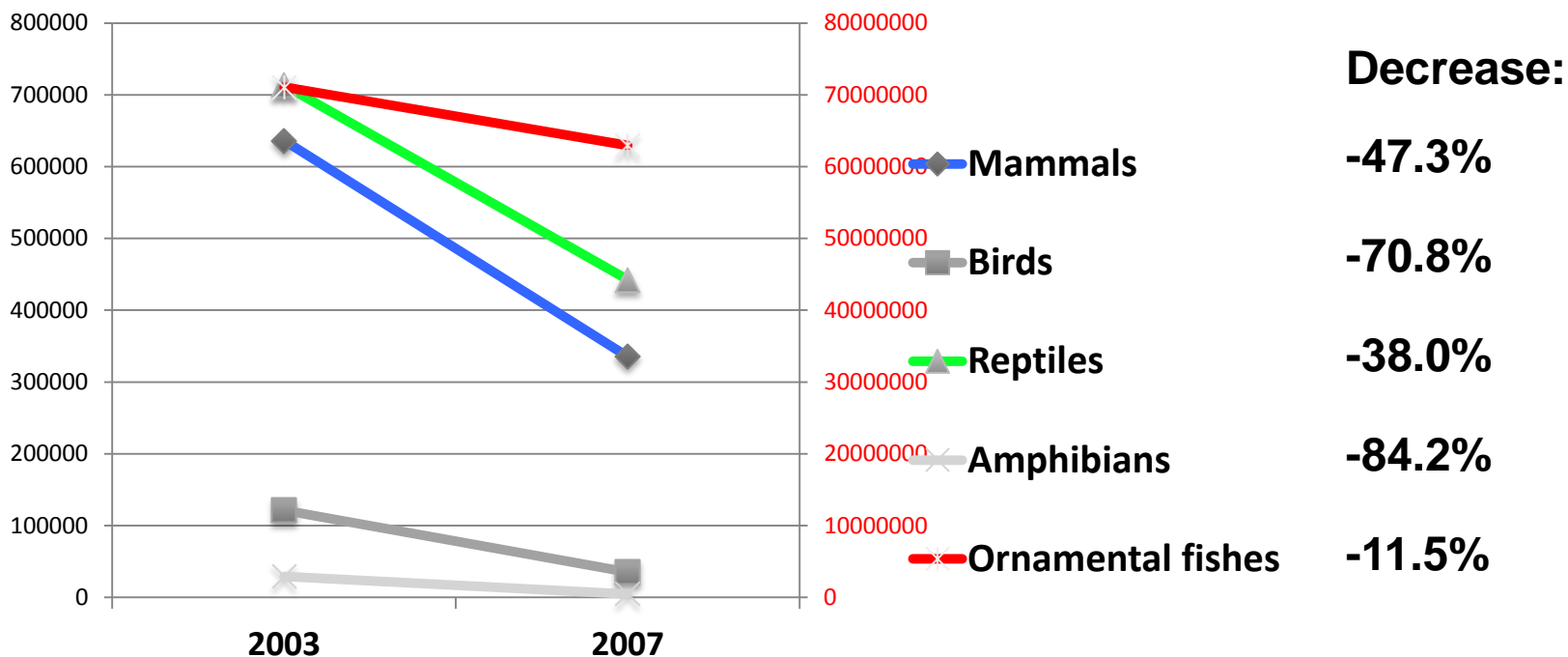
GLOBAL EFFECTS OF POLICIES

- Number of alien species increased 76% in the 1970-2007 period
- More recent analysis confirms this trend (1975-2012)



GLOBAL EFFECTS OF POLICIES

Japan legislation on IAS – Black list



GLOBAL EFFECTS OF POLICIES

New Zealand biosecurity policy

- N. of alien mammals in Europe
- N. of alien mammals in New Zealand

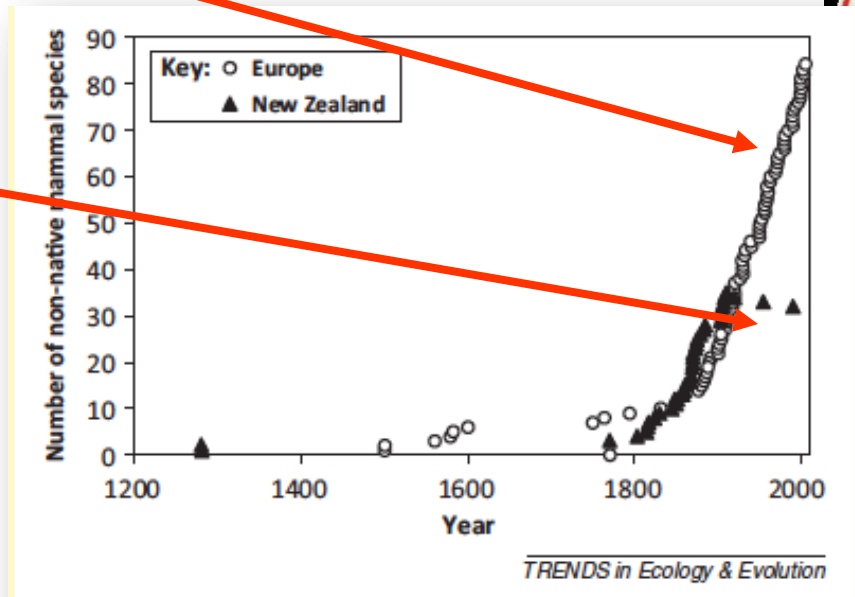


Figure I. Numbers of non-native mammal species established in Europe and New Zealand over eight centuries (compiled by P. Genovesi and M. Clout).



.. A FEW MORE GENERAL CONCLUSIONS..

- New EU Regulation could effectively reduce the impacts of IAS, but for this aim it is crucial:
 - An effective decision process, based on science, and ambitious
 - Adequate resources at the EU and MS scale
 - Political commitment and will
 - Effective communication and engagement of the society

Voluntary Regulatory

