



EUROPEAN UNION

EU MISSIONS

ADAPTATION TO CLIMATE CHANGE



# Welcome to the First Forum of the Mission on Adaption to Climate Change

**We start at 10:00**



EUROPEAN UNION



Join us on Sli.do to submit your  
questions via

**#ForumAdaptation**

Join us on Social Media

**#MissionClimate**

**#EUMissions**



EUROPEAN UNION

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# Opening Statements



**EUROPEAN UNION**

**EU MISSIONS**

**ADAPTATION TO CLIMATE CHANGE**



## **Vasco Ilídio Alves Cordeiro**

First Vice-President of the European Committee of the Regions, Member  
of the Regional Parliament of Azores

## **Frans Timmermans**

European Commission's Executive Vice-President for the European  
Green Deal

## **French Presidency**

of the Council of the European Union





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# Introduction to the Mission



**EUROPEAN UNION**



**Clara de la Torre**  
Mission Manager

**Connie Hedegaard**  
Chair of the Mission Board

**Kata Tüttő**  
Chair of the ENVE commission and Green Deal Going Local working group of the European Committee of the Regions, Deputy Mayor of Budapest

**Hans Bruyninckx**  
Director European Environment Agency

# The mission on adaptation to climate change: Knowledge to drive resilience and equality



Hans Bruyninckx | First Forum – Mission on climate change adaptation | 7 June 2022





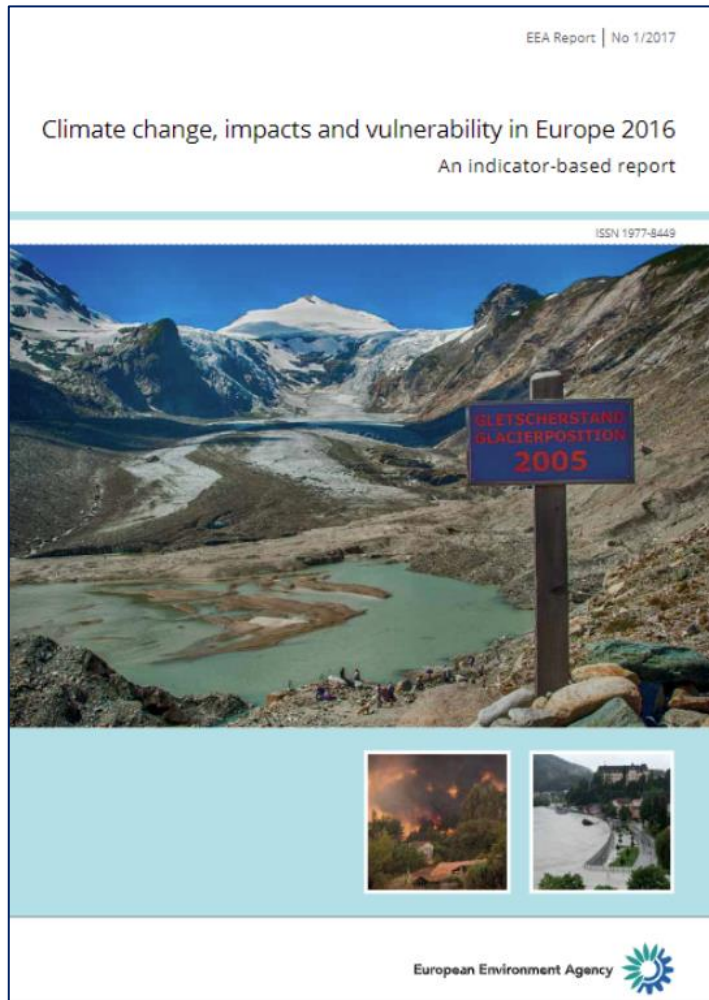
EEA support:

- Data and knowledge for regional information on climate risks
- Guidelines and tools for adaptation solutions
- Monitoring/evaluation of implementation progress
- EIONET provides unique capabilities to facilitate implementation

**Climate-ADAPT: mission knowledge hub/implementation platform**

# The European Climate Risk Assessment

## 2016: Climate change impacts and vulnerability report



## 2021: Climate change hazards interactive report



## 2024: European Climate Risk Assessment



# Solutions for action on adaptation

## Climate-ADAPT strategy 2022-2024

Sharing knowledge for a climate-resilient Europe



A screenshot of the Climate ADAPT website homepage. The page features a large background image of a modern building with a green roof. At the top, there is a navigation bar with the Climate ADAPT logo and a menu icon. Below the main image, there is a section titled "New EU Strategy on Adaptation to Climate Change" with a "READ MORE" link. A horizontal menu below this section contains six items: "New feature", "Search the Database", "EU Sector Policies", "Country Profiles", "Case Studies", and "Adaptation Support Tool". Below this menu, there are two main content blocks. The first block is for the "European Climate Data Explorer", which provides interactive access to many climate indices from the Copernicus Climate Change Service. The second block is for the "European Climate and Health Observatory", which provides access to a wide range of relevant publications, tools, websites, and other resources related to climate change and health. Both blocks have "Go to" buttons.



### New EU Strategy on Adaptation to Climate Change

As part of the European Green Deal, the EU launched the new EU Strategy on Adaptation to Climate Change. It comprises actions to implement the EU's long-term vision, which looks forward to 2050. ...

[READ MORE](#)



New feature



Search the Database



EU Sector Policies



Country Profiles



Case Studies



Adaptation Support Tool



European Climate Data Explorer

The European Climate Data Explorer provides interactive access to many climate indices from the Copernicus Climate Change Service in support of climate change adaptation.

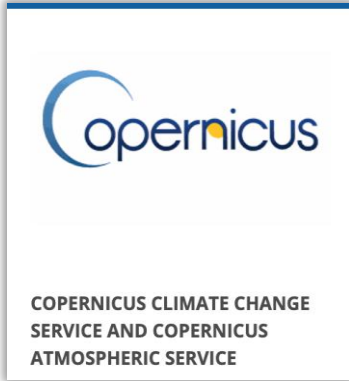
[Go to the European Climate Data Explorer](#)



European Climate and Health Observatory

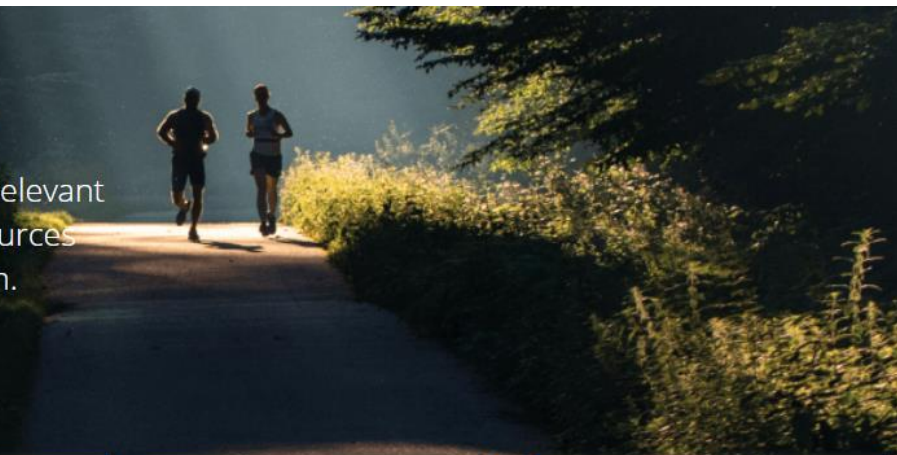
The European Climate and Health Observatory provides access to a wide range of relevant publications, tools, websites and other resources related to climate change and health.

[Go to the European Climate and Health Observatory](#)



# European Climate and Health Observatory

We provide easy access to a wide range of relevant publications, tools, websites and other resources related to climate change and human health.



## DISCOVER THE MAIN TOPICS AND TOOLS OF THE OBSERVATORY

**NEW INDICATORS**  
View climate and health indicators from different trusted information providers

[Learn More](#)

**PARTNERS**  
Discover who is contributing to the Observatory

[Learn More](#)

**COUNTRY PROFILES**  
See how countries are addressing climate change adaptation in public health

[Learn More](#)

**RESOURCE CATALOGUE**  
Search and access the Observatory's database containing case studies, publications, indicators, research projects and other

[Learn More](#)

<https://climate-adapt.eea.europa.eu/observatory>

# A knowledge hub with partnership at the core



# Action on adaptation in EU Member States: a mixed picture

- All EU Member States (MSs) have a dedicated adaptation policy in place
- All EU MSs have prepared climate change impact assessments
- Some MSs have started evaluation of the strategies and identifying adaptation measures

EEA member countries	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Austria													*				
Belgium																	
Bulgaria																	
Croatia																	
Cyprus																	
Czechia																	
Denmark																	
Estonia																	
Finland																	
France																	
Germany													*			*	
Greece																	
Hungary														*			
Ireland														*			
Italy																	
Latvia																	
Lithuania																	*
Luxembourg														*			
Malta																	
Netherlands													*				
Poland																	
Portugal													*				
Romania													*				
Slovakia														*			
Slovenia																	
Spain																*	
Sweden																	
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Liechtenstein																	
Norway																	
Switzerland																	
Turkey																	

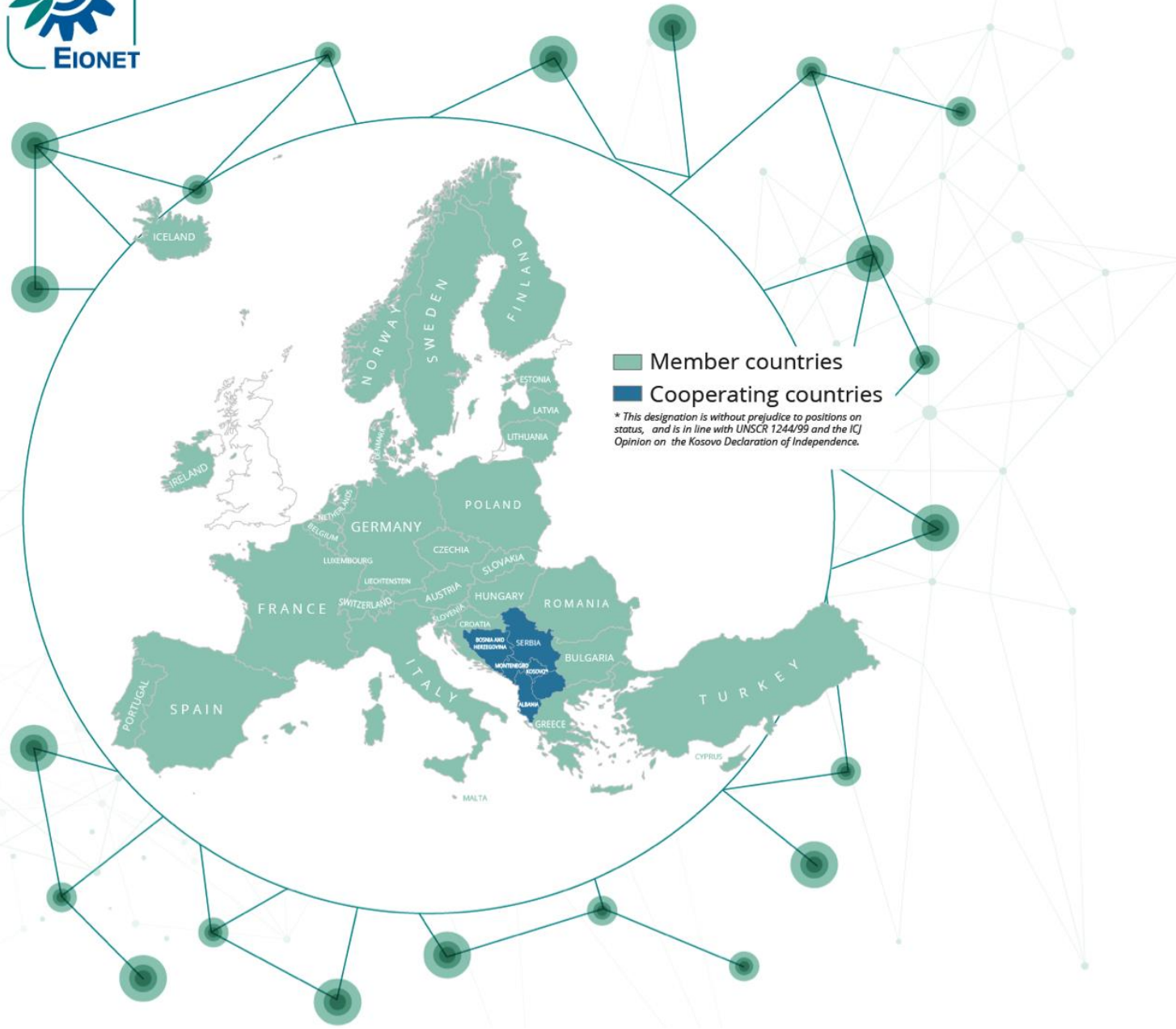
Legend:	
	No adaptation policy adopted
	National Adaptation Strategy (NAS) adopted
	National Adaptation Plan (NAP) adopted
	NAS and NAP adopted
*	NAS revision adopted
	Min. 1 Sectoral Adaptation Plan (SAP) adopted and reported (2021)
	Min. 1 Regional Adaptation Plan (RAP) adopted and reported (2021)
	SAP and NAP reported (2021)

<https://climate-adapt.eea.europa.eu/#t-countries>





# EIONET: Supporting adaptation implementation at national and subnational level



## Who we are

More than **500 institutions**

**38 countries**

around **1 500 experts**

**13 Eionet groups including adaptation**

**European Topic Centre on Climate change adaptation and LULUCF**

## What we do

over **50 publications** a year

**Climate Adapt + European climate and health observatory**

**European Climate Risk Assessment**





Thank you

Hans Bruyninckx | First Forum – Mission on climate change adaptation | 7 June 2022



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# Climate Adaptation in Europe and the Mission

*From the EU Adaptation Strategy to  
regional adaptation plans*

*Moderator: Elena Višnar Malinovská*

Head of Unit, Adaptation & Resilience to climate change



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**Barbara SIMONIČ**

Ministry of Environment and Spatial Planning, Member of EIONET,  
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**Peter Glas**

Delta Programme Commissioner

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Vice-President of the Nouvelle-Aquitaine Region





REPUBLIC OF SLOVENIA  
MINISTRY OF THE ENVIRONMENT AND SPATIAL PLANNING

# FORUM ON THE MISSION ADAPTATION

Climate Adaptation in Europe and the Mission

*Experience and views from Slovenia*

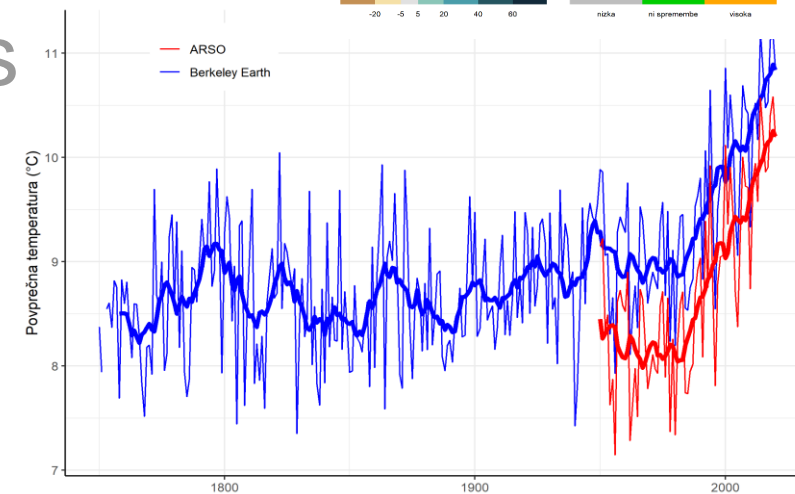
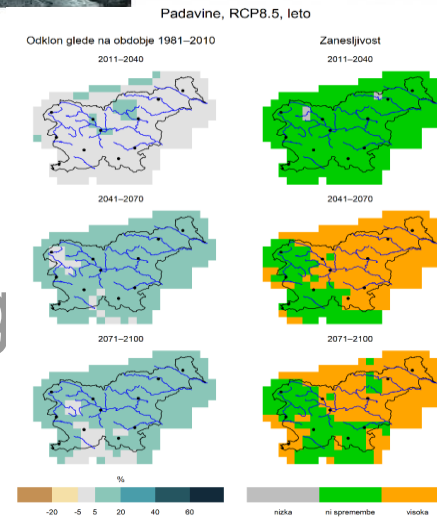
7 June 2022

Barbara Simonič  
Climate Change Unit



# Climate Adaptation in Slovenia

- NAS 2016, review 2020
- Scenarios and IA 2014-ongoing
- VA in municipalities underway
- Projects and measures





# EU strategy and cooperation

- Exchange of information
- Guidance and support
- Financial incentives for Regional SECAPs



## Climate Change and Major Projects

Outline of the climate change related requirements and guidance for major projects in the 2014-2020 programming period

Ensuring resilience to the adverse impacts of climate change and reducing the emission of greenhouse gases





# EOINET in Slovenia

- Knowledge and guidance
- Forum for exchange
- Country specific promotion of ClimateADAPT
  - Guidance
  - Webinar
  - Training



**Boosting adaptation to climate change: National and EU level knowledge and tools for Slovenia**

**Webinar**

17<sup>th</sup> March 2022

Climate ADAPT | Government of Slovenia | REPUBLIC OF SLOVENIA MINISTRY OF THE ENVIRONMENT AND SPATIAL PLANNING | RAMBOLL | eco logic | European Environment Agency



# EU mission on adaptation

- Some interest from regions – no regional authority in Slovenia
- Harmonized risk assessment for the EU at the regional level
- Important to use the ClimateADAPT as the go-to one stop shop
- Importance of the societal transformational change for climate resilience



# Thank you for your attention!



**I FEEL  
SLOVENIA**



**EUROPEAN UNION**



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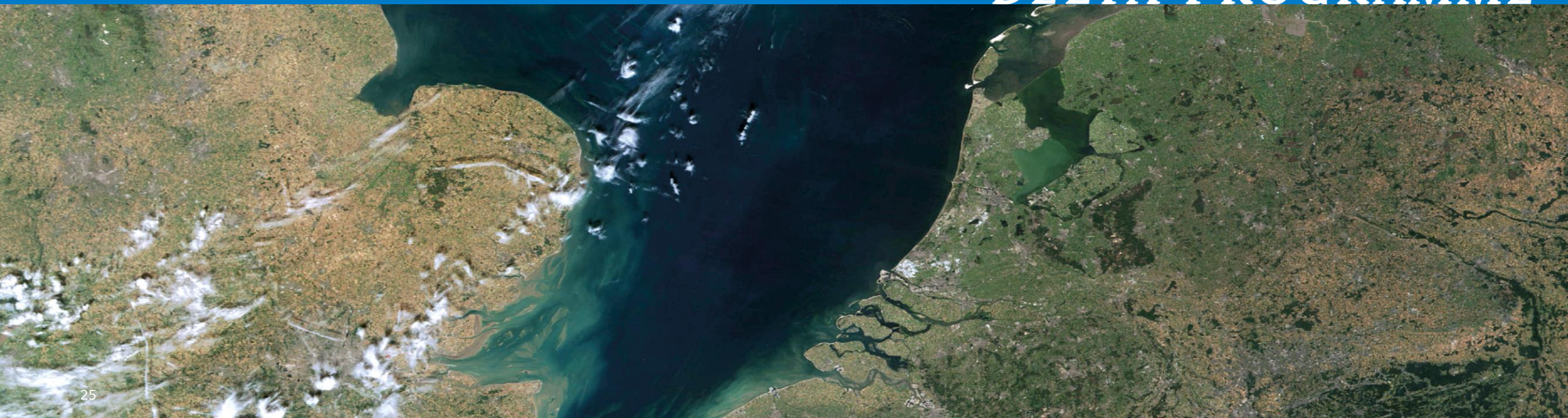


# Climate adaptation in the Netherlands, Lessons from the Delta Programme

Peter Glas, Delta Programme Commissioner

**NATIONAL**

**DELTA PROGRAMME**







## The Netherlands, a delta country





# A history of water management



around 1580



around 1700



2000





## 20th Century: flooding and protection

- 1916 floods (North)  
Damming off the Southern Sea, creation of Lake IJssel (1931)
- 1953 flood disaster (South-West)  
Civil engineering solutions with dams and barriers  
**First Delta Programme**, the Delta Works, shortening our coastline
- 1993/1995 high water levels (rivers)  
New concepts: **Room for the River and Building with Nature**
- 2021 'Water bomb' flooding in Germany, Luxemburg, Belgium, Netherlands







# Nederland/Waterland

More /extreme storms?

More/intense rainfall

More summer drought

Increased invested value

Spatial developments

Increased river discharge + 10%

Sealevel rise (20 cm--> 100 cm/100y)

Increased erosion

Salt intrusion

Subsidence 10 cm/100yr

Decreased river discharge - 60%



## 2nd Delta Programme

2008 Delta Committee

2010 Delta Commissioner

2011 Delta Act, Delta Fund (1 Bln/yr)

2011-pres. Annual Delta programme:

- Flood protection
- Fresh water availability
- Spatial Adaptation

2015 Delta decisions & strategies

2017 New safety standards

2020 first 6yr Recalibration



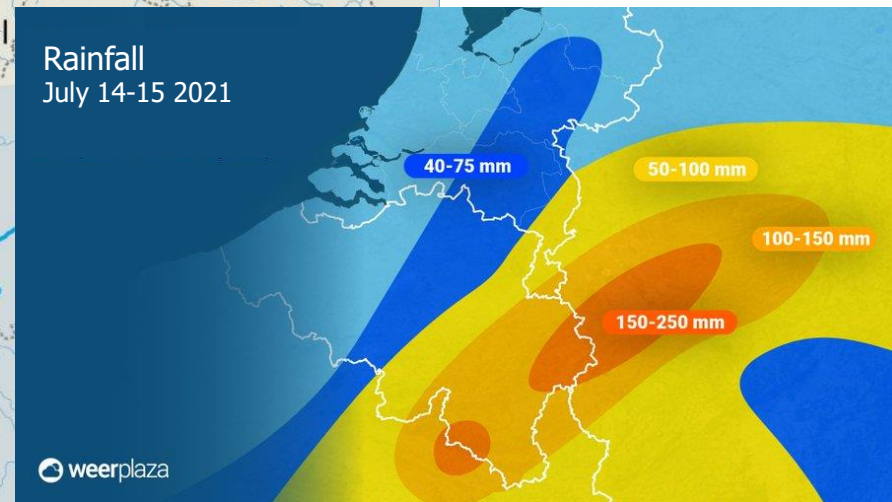




# 'Water bomb' – July 2021



Extreme rain





An aerial photograph of a river delta, showing a network of waterways and green land. Five circular callouts are overlaid on the image, arranged in a horizontal line from left to right. The first three callouts are blue, and the last two are orange. The text inside the callouts is white and bold.

**SAFE  
AGAINST  
FLOODING**

**SUFFICIENT  
FRESH WATER**

**RESILIENT  
AGAINST  
EXTREME  
WEATHER**

**NOW AND IN  
THE FUTURE**

**BASED ON  
UP-TO-DATE  
KNOWLEDGE**

**NATIONAL  
DELTA PROGRAMME**



# THE NATIONAL DELTA PROGRAMME INVOLVES US ALL



NATIONAL AND  
REGIONAL  
GOVERNMENTS



DELTA PROGRAMME  
COMMISSIONER  
COORDINATION



BUSINESSES  
AND NGOS



RESEARCH  
INSTITUTES



RESIDENTS

NATIONAL  
DELTA PROGRAMME





## Long term horizon → Dealing with uncertainty

### Uncertainty in drivers

- (climate change, demography, economy)

### Uncertainty in politics

- (discontinuity in support, priority, funding)

### Adaptive approach:

- Scenario's
- Adaptive strategies
- Flexible / robust measures
- Monitoring and periodic recalibration

### Securing implementation:

- Delta Fund
- Delta Commissioner
- Delta Act
- Annual progress report



# Delta programme regions – three annual Delta Plans



Flood protection



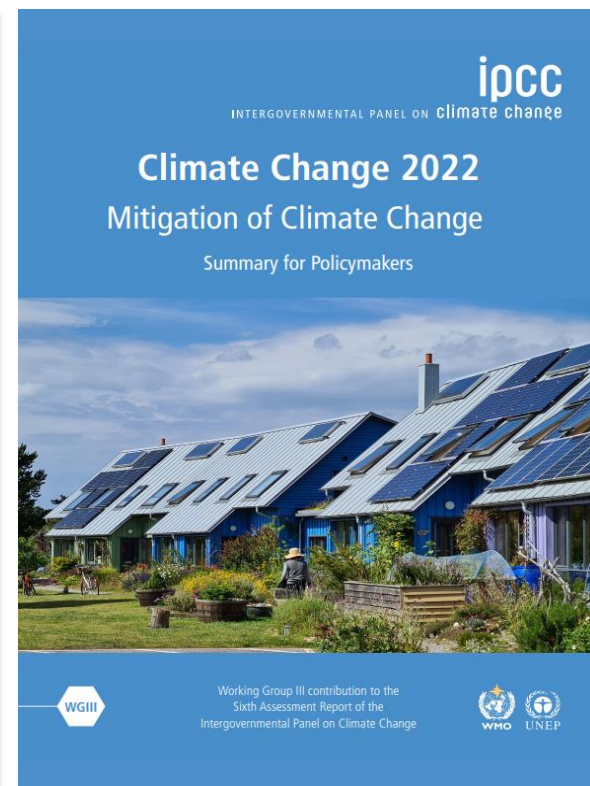
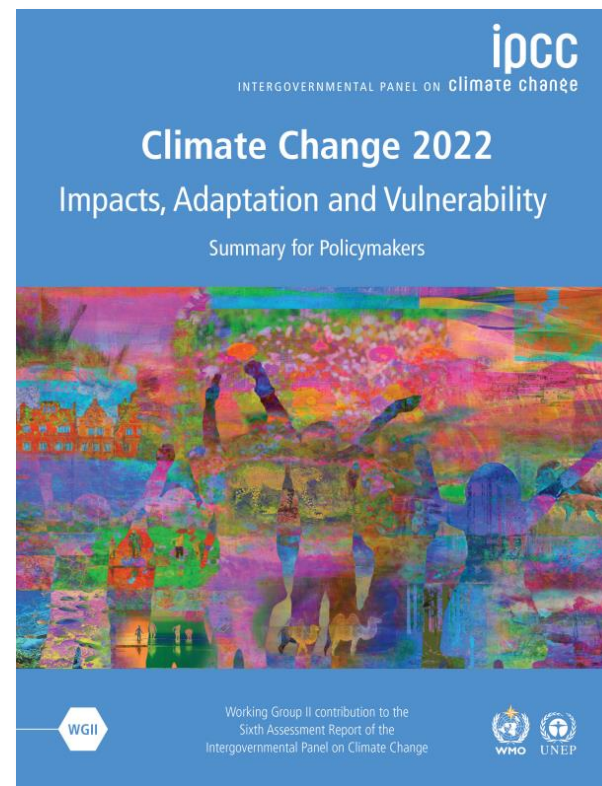
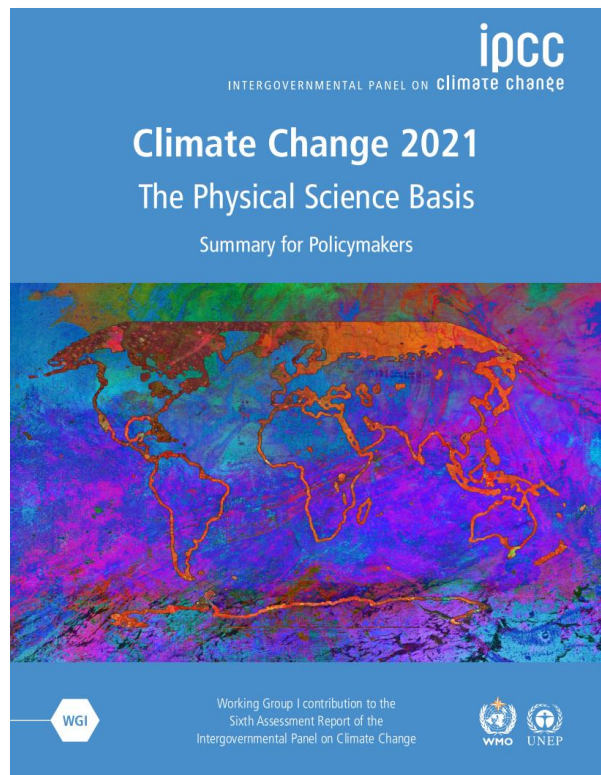
Freshwater availability



Spatial adaptation



# Science basis - IPCC and KNMI reports





# Delta Plan on Flood Protection

1500km/30yrs

400mIn/yr

## Hoogwaterbeschermingsprogramma 2022-2027

- Dijkprojecten 2022-2027
- Dijktrajecten 2022-2027
- primaire waterkering
- hogere gronden
- overstroomingsgevoelige dijkring / buitendijks gebied
- grens waterschap





## Decision making on adaptive strategies and adaptive measures...



### Decision making in uncertain future

→ adaptive **strategies**:

- Clear in objectives,
- Adaptable to actual conditions
- Flexible in “way to go”
- Do what is necessary now, keep future options open
- Linking short term agenda’s with long term water challenges

### Implementation in uncertain future

→ Flexible **measures** (“speed up/slow down”)

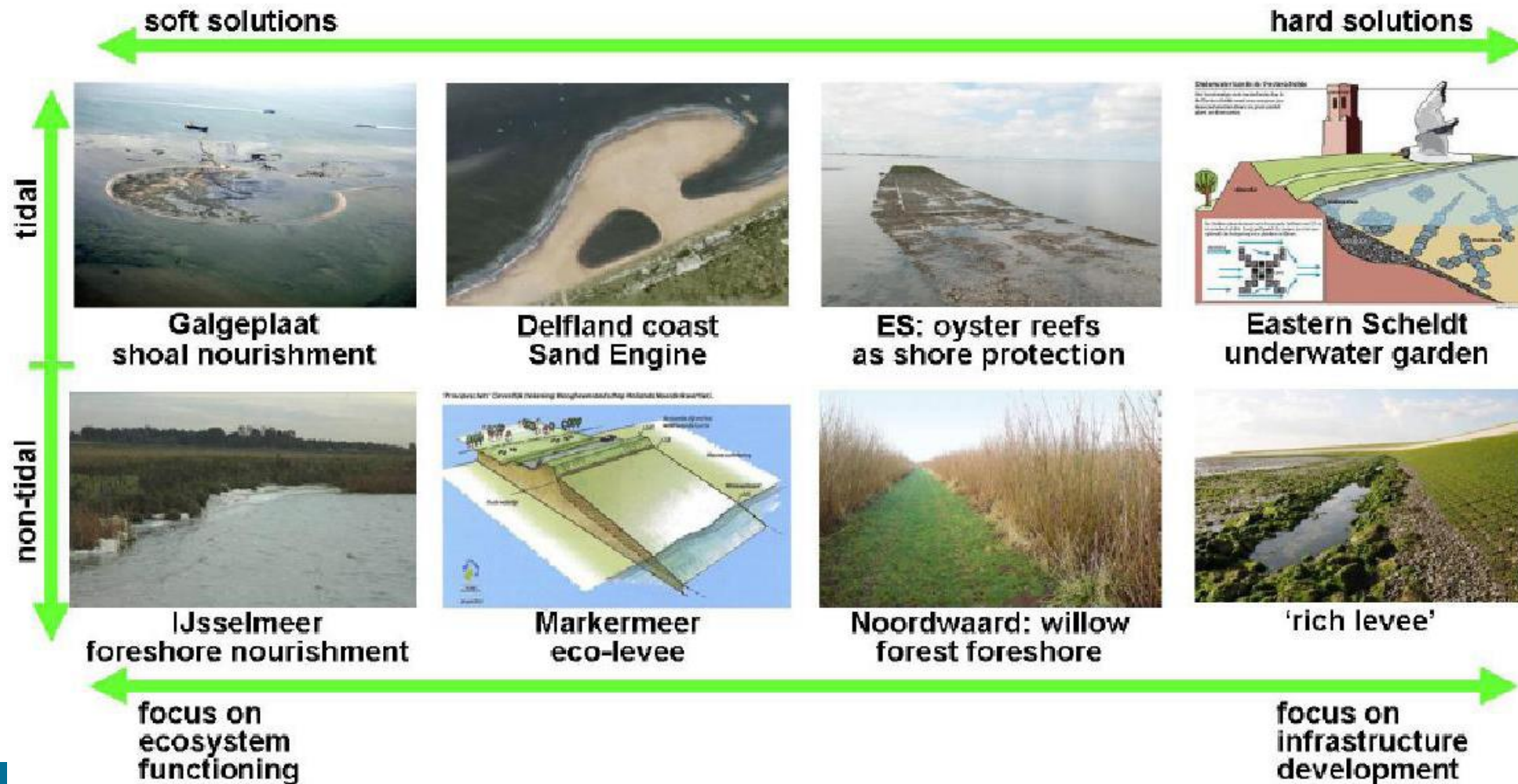
→ Building with Nature or robust design

→ Spatial reservations





# Flexible measures? Building with Nature!







# Delta Plan on Spatial Adaptation – 7 steps

- 1 Stress tests in 45 regions / 345 municipalities (flood risk, heat, drought)
- 2 Risk dialogues with stakeholders on ambitions and way forward
- 3 Develop programme of measures
- 4 Link with other major transitions (e.g. green energy, housing, agriculture, biodiversity)
- 5 Stimulate / facilitate realization (2021-2026 stimulus programme)
- 6 Regulate and secure planning & building standards
- 7 Preparation for emergencies





Learning by doing!

Stimulus programma  
600mIn (2021-2026)



Gebouwen op palen (deels) in water



Retentiegebied aanleggen



Aanleggen van geveltuintjes



Ontwerpen van tijdelijke regenwaterbuffers



Verhoogde vluchtwegen en paden

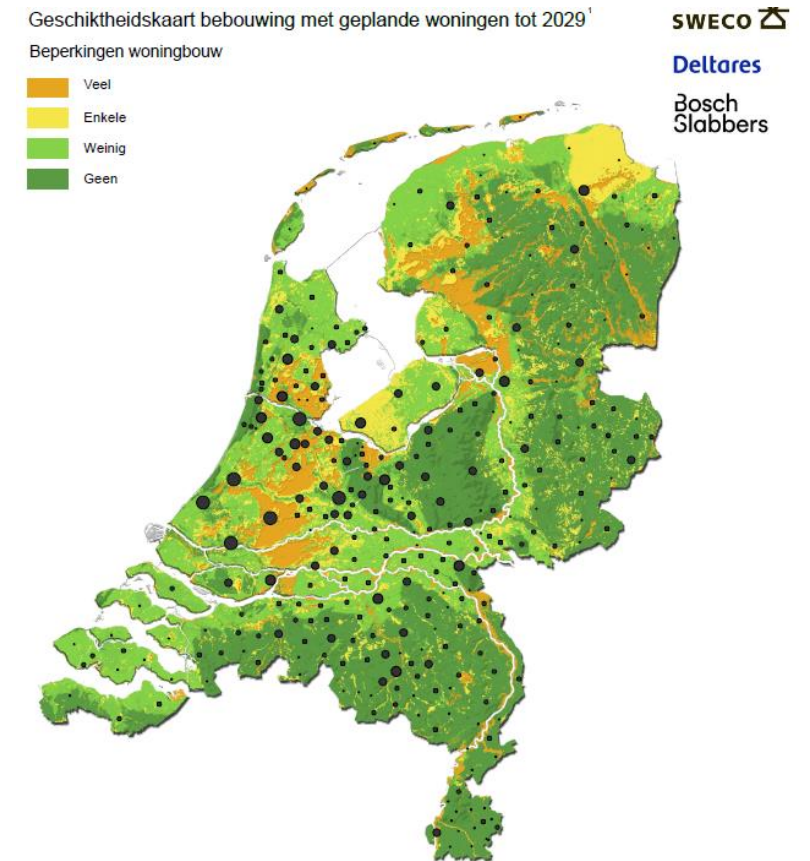


Stedelijke infiltratiestroken



## Water and Soil as a basis for Spatial Planning

- Government coalition agreement: “water and soil are the basis of spatial planning”
- Water and soil (and climate adaptation) will be at the heart of decision making in the 3 main transitions for the next coming years:
  - Building 1 mln houses;
  - Realising the energy transition;
  - Restoration of biodiversity







## Delta Plan on Fresh Water Availability

Stimulus programme  
800mIn 2022-2027





A photograph of a flooded street. The water is murky and turbulent, with ripples and small waves. In the background, there are several buildings, including a large brick building with a dark roof and several dormer windows. There are also many bare trees and streetlights. The sky is overcast and grey. The text "EXTREME WEATHER" and "TORRENTIAL RAIN" is overlaid in white, serif font in the lower right quadrant of the image.

EXTREME WEATHER  
TORRENTIAL RAIN

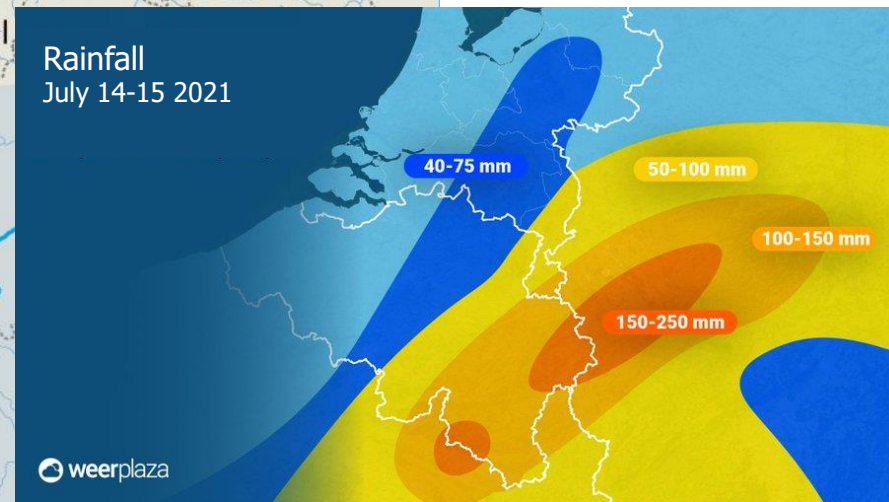




# High discharge – July 2021



Extreme rain







## July 2021: lessons (to be) learned



In the Netherlands a **national evaluation** has been commissioned.

Aspects to be considered:

- “Unprecedented” weather conditions (area, rain intensity, season)
- Coinciding high water levels during summer with summer land use
- Connecting scales (continental, national, regional, local)
- International dimension including crisis management
- Relation water - land use (water retention, spatial planning, building and infrastructure guidelines)



## Long-term thinking: lessons from the Delta approach



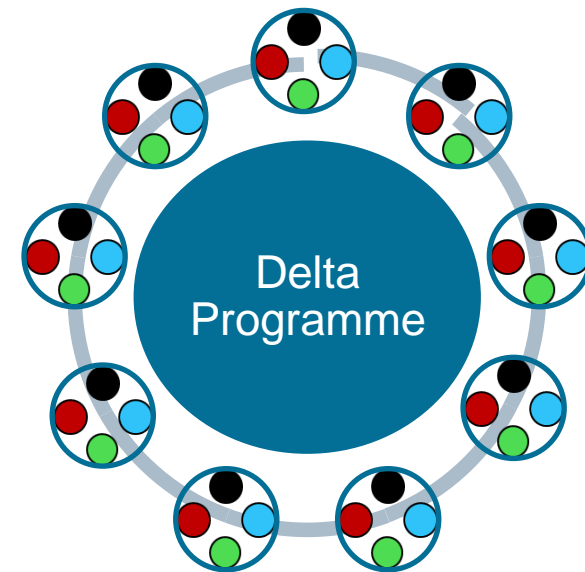
- Time scale 2020-2050-2100  
#AdaptNow!
- Integrated approach
- National & regional orientation combined
- Political-administrative, legal and financial conditions are key
- Values: Solidarity, flexibility, sustainability
- Create a Delta community (communication, annual conference, social media)



## Good governance: multi-government co-operation

Create common basis for regional work and national integration by:

- Regional approach:
- Use specific responsibility of all government levels involved
- Involve stakeholders / interest groups and built acceptance
- Joint fact finding
- Collect creative and innovative ideas
- Combine with local developments
  
- Supervised by **Delta Commissioner**
- Progress, uniformity, coherence, transparency
- Annual proposal to **Parliament**

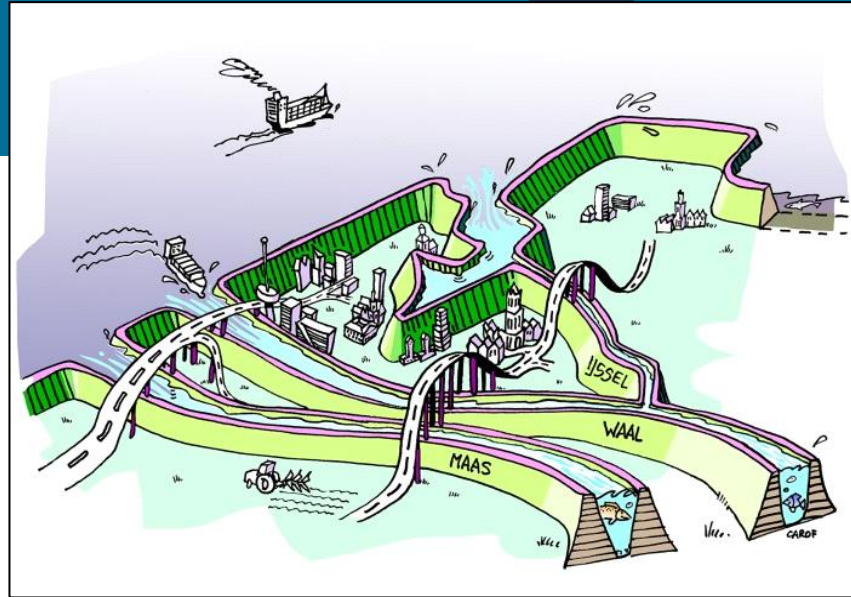




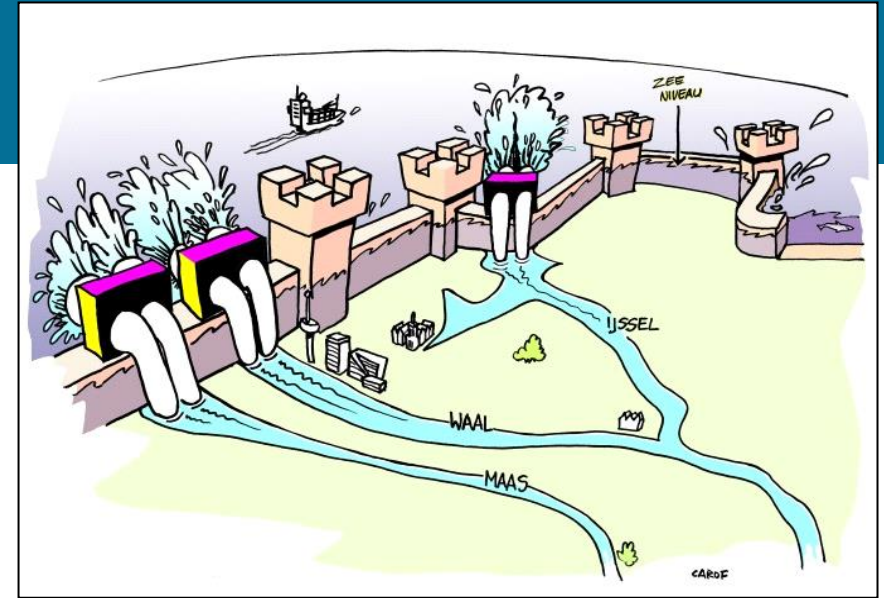
Beyond 2100...

Story line for  
a long term  
perspective

>2m SLR



Protect – open



Protect - closed



Seaward offensive



Tactical retreat



**Thank you for  
your attention**



Peter C.G. Glas MSc LLM  
Delta commissioner



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info@deltacommissaris.nl

<https://english.deltaprogramma.nl/delta-programme>



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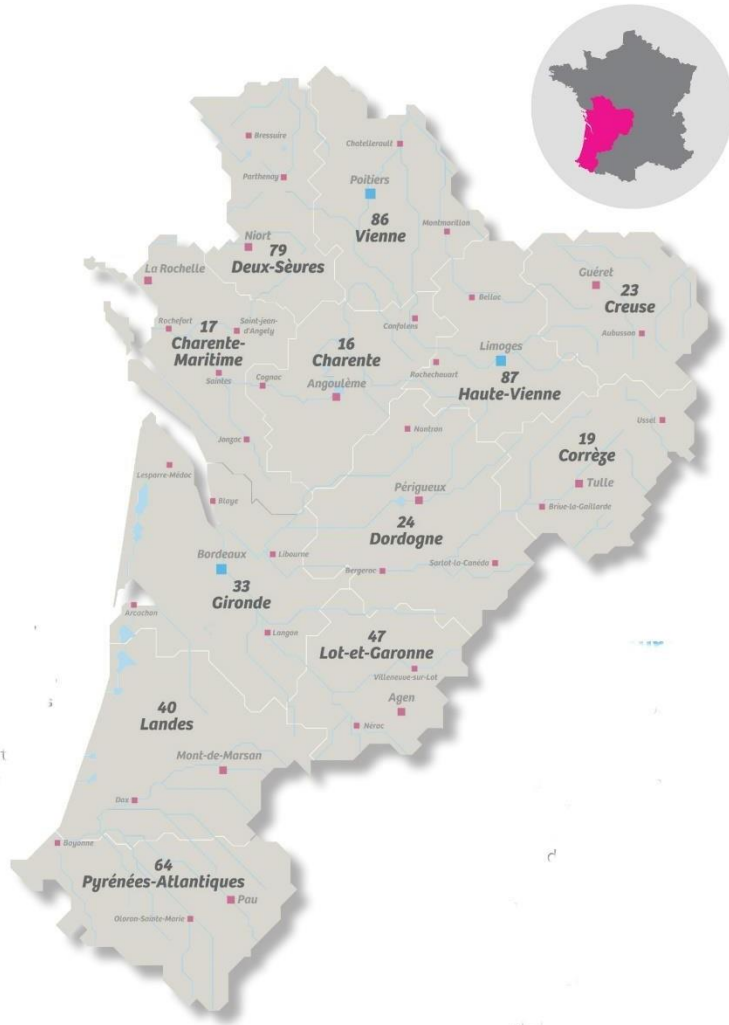


7 juin 2022



A regional roadmap  
for transitions

# Region Nouvelle Aquitaine



- **84 100 km<sup>2</sup>** (32 471 sq.mi)
- **6,01 millions of inhabitants** (déc.. 2021)
- **3rd economic region in France** with 177 billion € of GDP (2018)
- **1st destination for French tourists**
- **1st wooded region** in France
- **1st European area** in value of agricultural production
- More than **900 km of coastline**
- 153 public institutions for cooperation between cities
- 54 “territorial projects” (contracting with Regional authority)



# The roadmap Néo Terra

- >Regional roadmap voted in July 2019 dedicated to **environmental and energy transitions in Nouvelle-Aquitaine for 2030**
- > Based on scientific works from **Acclimaterra** and **Ecobiose** Committees
- >**Holistic** and **partnership** approach to embark on the transition and collectively succeed on our territory



1. Civic engagement



2. Agroecological transition



3. Business transition



4. Clean Mobility



5. A sustainable urban planning  
[En savoir plus](#)



6. A new energy mix  
[En savoir plus](#)



7. Zero waste objective  
[En savoir plus](#)



8. The preservation of biodiversity



9. The preservation of water resources  
[En savoir plus](#)



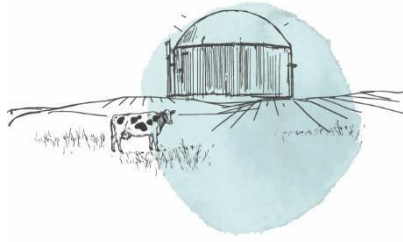
10. Preservation of agricultural and forest land



11. An exemplary administration

**11 goals of  
Néo Terra roadmap**





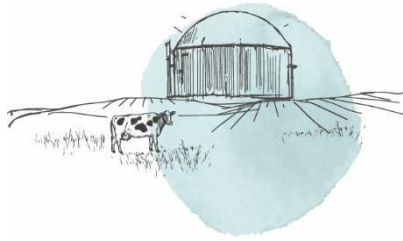
## **FOCUSON...the main guidelines of 6th goal of the roadmap « *A new Energy mix* »**

### ➤ **3 steps to change our relationship to energy**

1. Sobriety
2. Energy Efficiency
3. Renewable energies

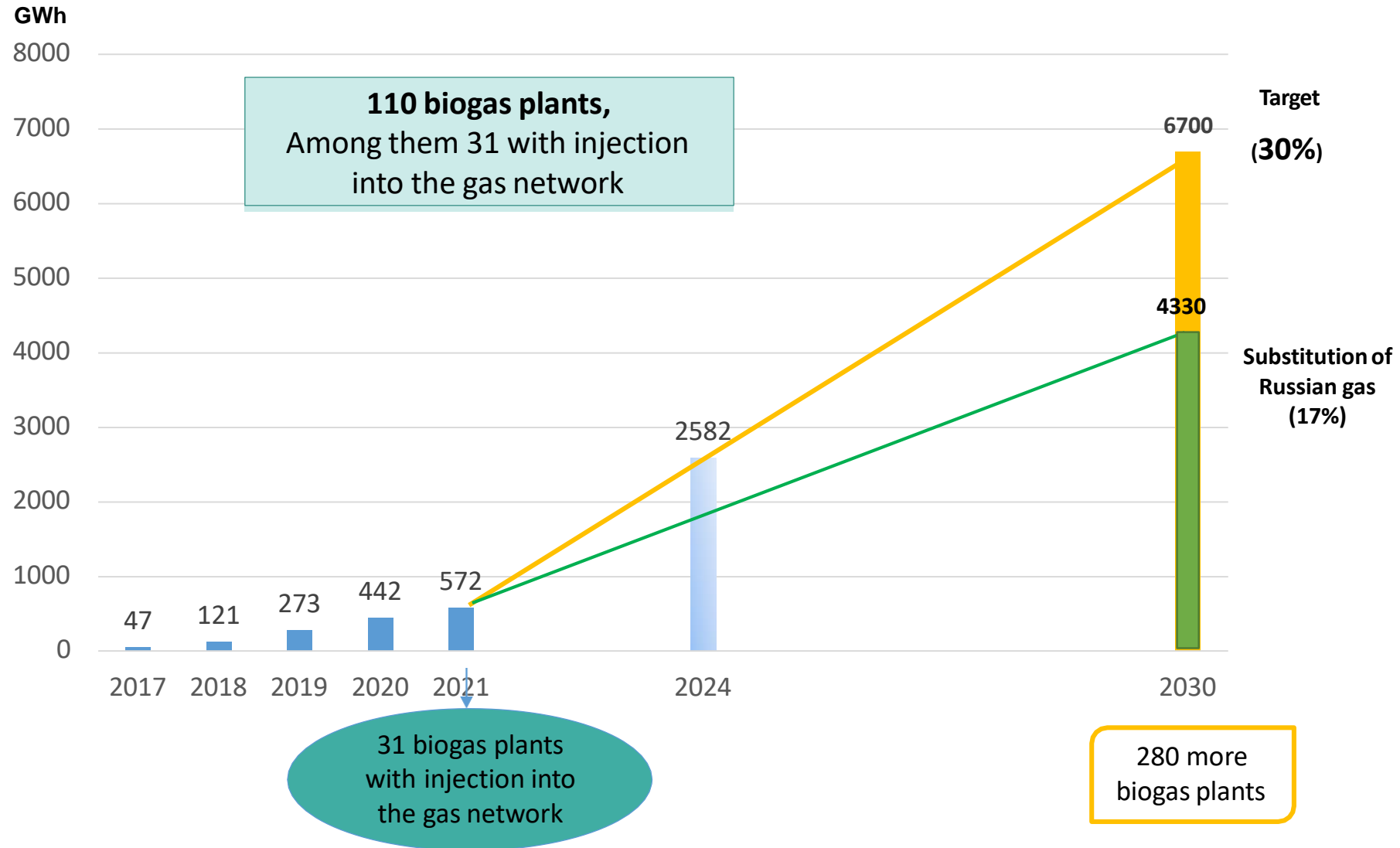
### ➤ **Key Targets of the Roadmap**

- 45% of renewable energy in 2030, 100% in 2050
- 30% of green gas injected in the grid in 2030, the Région exporting in 2050



## The 6th goal of the roadmap « *A new Energy mix* »

We have resources to achieve 30% of GREEN GAS by 2030





## FOCUSON...the main guidelines of 8th goal of the roadmap « *The preservation of Biodiversity* »

➤ **Diversity** of terrestrial and aquatic ecosystems, threatened by global warming and **increased urbanization**

### ➤ **Key Targets of the Roadmap**

- Creating 25 new **regional natural reserves** in 2030
- Zero net destruction of **wetlands** by 2030
- **Improving good farming practices** to restore and develop domestic and cultivated biodiversity





# The 8th goal of the roadmap « *The preservation of Biodiversity* »

Workshop areas – agro ecology Results from CNRS work

## area of Chizé

- Regional natural heritage
- *Tetrax Tetrax*, near threatened species which 95% of french population is receive in Nouvelle-Aquitaine
- Innovative design of management solutions for ecosystems

Ecobiose )))

La biodiversité, une composante essentielle pour l'économie et la culture en Nouvelle-Aquitaine

RÉSUMÉ D'ECOBIOSE À L'INTENTION DES DÉCIDEURS, POUR LES SOCIO-ÉCOSYSTÈMES DE PRODUCTION ET LES SYSTÈMES ARTIFICIALISÉS, ET LEUR GOUVERNANCE

cnrs

région Nouvelle-Aquitaine





# Néo Terra in 2022 Main results & prospect

- Need of a better knowledge basis **to convince and develop** public action: scientific research and political project closely linked
- Regional level of governance : **relevant for action.** It must be articulated with the other local partners
- New Human and financial conditions that force to **prioritize:** a new reading grid for projects needs to be built
- **The transversal approach is reinforced** by recent events (pandemic, war, etc.)
- The desire to **involve and enthuse all players:** associations, companies, territories, users... towards a **community of players** gathered around the Neo Terra brand.



7 juin 2022



Thank You



[Néo Terra - Transition énergétique et écologique en Nouvelle-Aquitaine \(neo-terra.fr\)](http://neo-terra.fr)  
[Diagnostics Climat et Biodiversité - Néo Terra - Région Nouvelle-Aquitaine \(neo-terra.fr\)](http://neo-terra.fr)

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[emilie.congiu-balleste@nouvelle-aquitaine.fr](mailto:emilie.congiu-balleste@nouvelle-aquitaine.fr)





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# Break & Networking

**We will be back at 12:00**



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# Panel discussion:

## *Success factors for the Mission*

*Moderator: Johannes Klumpers – Head of Mission Secretariat*





**EUROPEAN UNION**

**EU MISSIONS**

**ADAPTATION TO CLIMATE CHANGE**



## **Markku Markkula**

Vice-President of the European Committee of the Regions, Chair of the Espoo City Board and President of the Helsinki Region

## **Pirita Lindholm**

Director European Regions Research and Innovation Network

## **Kirsten Dunlop**

Chief Executive Officer Climate KIC

## **Valvanera Ulargui Aparicio**

Directora General, Oficina Española de Cambio Climático (OECC), Ministerio para la Transición Ecológica y Reto Demográfico

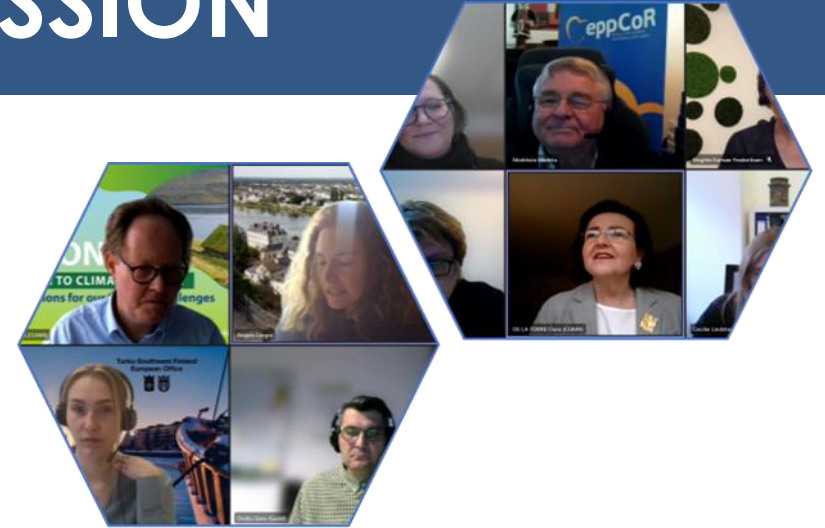
# ERRIN & ADAPTATION MISSION

ERRIN engagement so far

- Actively mobilising members
  - To inform about the mission
  - To provide inputs to the mission development process
- Group of ~30 regions actively engaging in the adaptation mission process
- Several meetings and exchanges with the Mission Secretariat
- Encourage and support members in applying to mission related projects



Key success factor: Close collaboration and continuous dialogue with regions and cities and their stakeholders



## HORIZON EUROPE MISSION AREA: ADAPTATION TO CLIMATE CHANGE

Horizon Europe will incorporate, as a new element, research and innovation missions. One of the five mission areas is adaptation to climate change. This mission area will support adjustment and solutions to climate change, but also address communities to lead the societal transformation.

The **Implementation Plan** published in September 2021 outlines the main goal of the Mission, which is to support at least 150 European regions and communities in becoming climate-resilient by 2030. In doing so, the Mission will engage local actors, notably in climate-vulnerable regions, as well as citizens by funding projects facilitating and requiring their involvement. Considering that the level of preparedness for climate impacts varies substantially between regions in Europe, this R&I support will be provided in different ways.

Specific objective 1: Preparing and planning for climate resilience o provide general support to European regions and communities to better understand, prepare for and manage climate risks and opportunities.

Specific objective 2: Accelerating transformations to climate resilience o work with at least 150 regions and communities to accelerate their transformation to a climate resilient future, supporting them in the co-creation of innovation pathways and the testing of solutions.

Specific objective 3: Demonstrating systemic transformations to climate resilience o deliver at least 75 large-scale demonstrations of systemic transformations to climate resilience across European regions and communities.

The Mission deploys the new impact oriented approaches of European research and innovation policy in support of European Green Deal objectives (e.g. climate change adaptation, disaster risk, biodiversity). It becomes a key implementation vector of the 2021 EU Adaptation Strategy and will trigger co-ordinated R&I efforts across Horizon Europe.



# SUCCESS FACTORS - ADAPTATION MISSION

## EU level

- Engagement of networks and other multipliers to connect regions and their stakeholders in the mission process
    - Sounding board meeting in February to discuss key issues (funding & financing, governance etc.)
    - Inputs on the mission charter, analysis of the current calls and recommendations to the Horizon Europe EU Missions work programmes
    - Encouraging regions and cities to join the mission and support the implementation process
- ➔ Sign the implementation charter as “friend” of the mission

## National level

- Increased multi-level governance collaboration
- National support frameworks

## Local level

- Ecosystem approach – new collaboration model that ensures that all actors are engaging towards a common goal



### ERRIN INPUT ON MISSION ADAPTATION TO CLIMATE CHANGE CHARTER

2<sup>nd</sup> May 2022

#### Who is signing the Charter?

Unlike the draft Charter developed in the Ocean and Waters Mission, the intended signatories of the Mission Adaptation to Climate Change Charter are currently intended to be regions and cities alone. ERRIN advocates for the engagement of quadruple helix stakeholders in research and innovation. This means breaking silos so that public and local authorities, academia and research organisations, industry and citizens are all involved in every step of innovative processes. Achieving the Adaptation Mission goals will require broad and structured collaboration of different stakeholders.

While we appreciate the recognition of the vital role local and regional authorities will play in adapting to climate change, these authorities on the ground in the regions cannot achieve the Mission objectives on their own without active engagement from the industry sector, such as farmers and forest owners, and research/academia. One of the commitments regional authorities could make in the Charter could be to coordinate the mobilisation of their regional stakeholders.



### MESSAGES FOR HORIZON EUROPE MISSIONS WORK PROGRAMMES 2023 – 2024

4<sup>th</sup> May 2022

As the Horizon Europe Work Programmes for 2023-2024 are currently underway, ERRIN is pleased to share its messages and recommendations on the Horizon Europe Missions Work Programmes for the coming period.

ERRIN's Policy Working Group organised an internal coordination meeting to analyse the current Mission Work Programmes and to collect inputs and recommendation to the upcoming Work Programme 2023-2024. As most of the EU Missions will be largely implemented at local and regional level, this should also be taken into account in the future mission support allowing further engagement of regional actors.

#### Common messages

Before outlining messages related to each Mission specifically, we would like to present a number of common messages for all of the EU Missions.





**EUROPEAN UNION**

**EU MISSIONS**

**ADAPTATION TO CLIMATE CHANGE**



## **Markku Markkula**

Vice-President of the European Committee of the Regions, Chair of the Espoo City Board and President of the Helsinki Region

## **Pirita Lindholm**

Director European Regions Research and Innovation Network

## **Kirsten Dunlop**

Chief Executive Officer Climate KIC

## **Valvanera Ulargui Aparicio**

Directora General, Oficina Española de Cambio Climático (OECC), Ministerio para la Transición Ecológica y Reto Demográfico



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# EU MISSIONS

**ADAPTATION TO CLIMATE CHANGE**

**Concrete solutions for our greatest challenges**



#EUmissions #HorizonEU #MissionClimate





EIT Climate-KIC is a climate innovation agency and community working to catalyse transformation, using systems innovation as a key tool.



# Systems innovation at work



Policy and regulatory frameworks



Funding and finance



Behaviour



Markets



Citizen participation



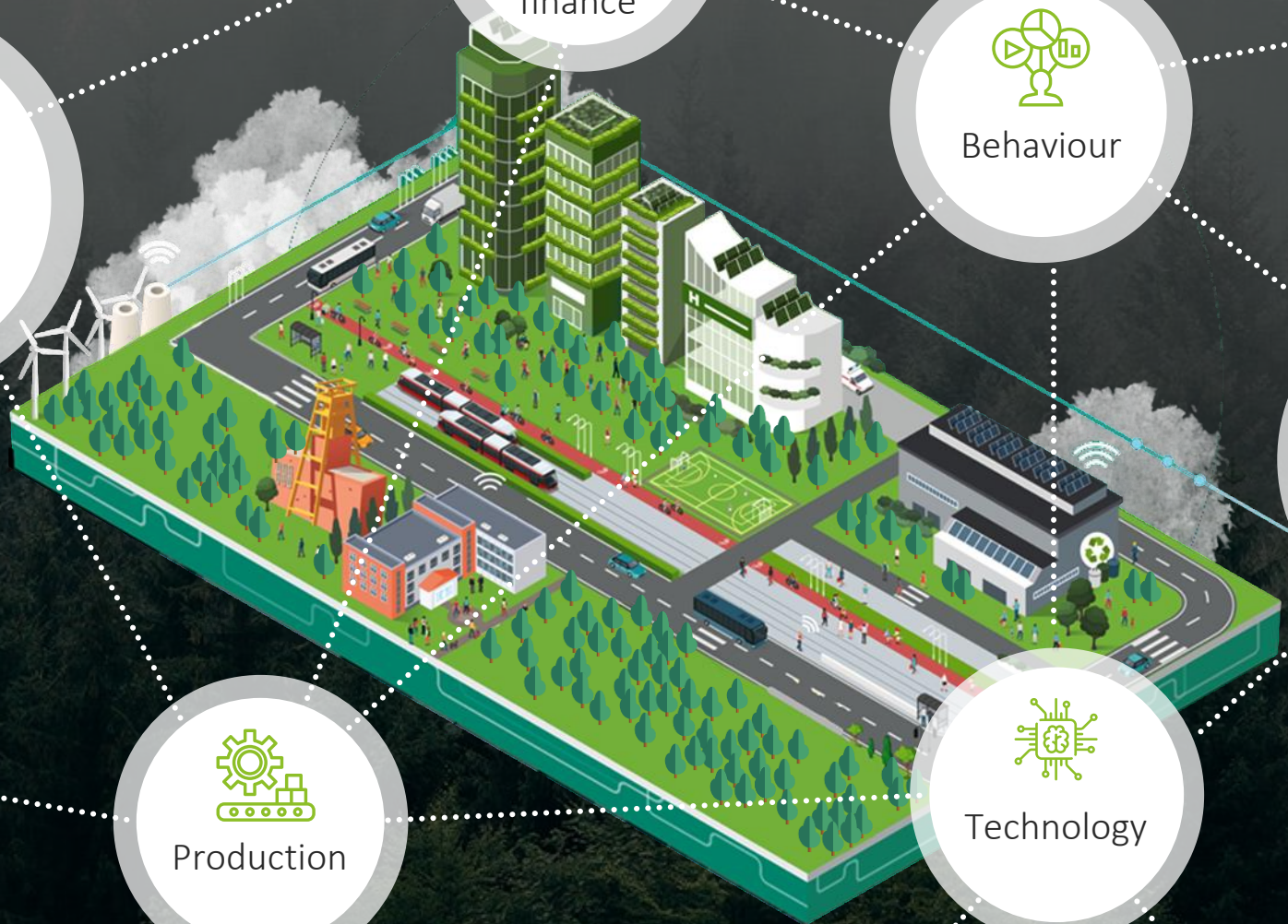
Education and skills



Production



Technology





# EIT Climate-KIC Resilient Regions

## Andalusia (ES)

- Foundation for Climate Research (FIC)
- Tecnalia
- Aquatec

## Dolomites Regional Governments (IT)

- Fondazione Edmund Mach
- Hub Innovazione Trentino
- University of Trento

## Glasgow City Region (UK)

- Sniffer
- Creative Carbon Scotland (CCS)
- Paul Watkins Associates (PWA)

## Nouvelle-Aquitaine (FR)

- Sorbonne Université
- I4CE
- Foundation IDDRI





# Example: Glasgow City Region Adaptation Strategy

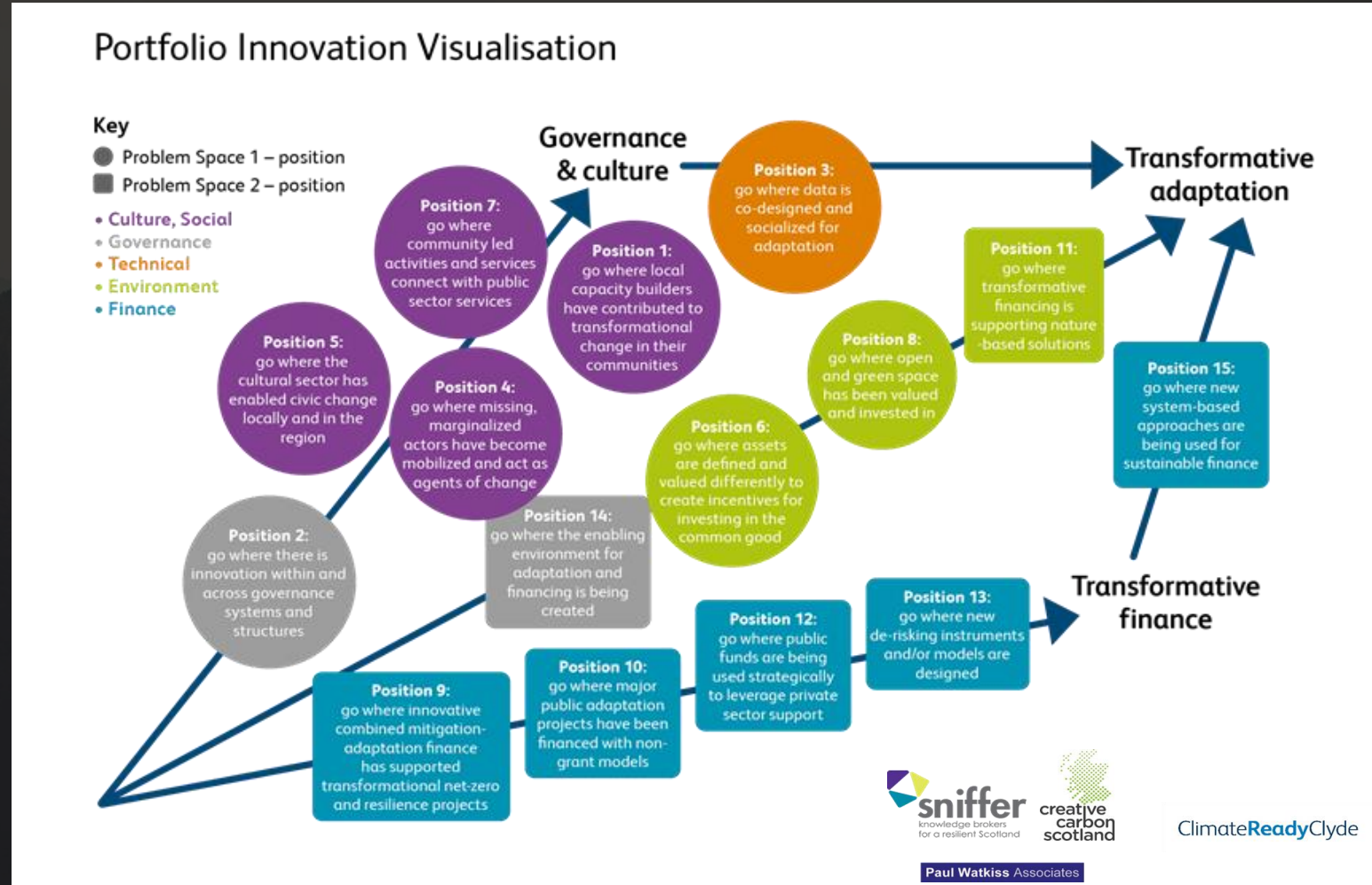
**Glasgow City Region  
Climate Adaptation  
Strategy and  
Action Plan**

**Choosing to flourish  
in our future  
climate**

Delivered by **sniffer** knowledge brokers for a resilient Scotland

Deep Demonstration  
Resilient Regions  
GLASGOW CITY REGION  
Clyde Retail

**GLASGOW  
CITY REGION**







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ADAPTATION TO CLIMATE CHANGE



# Announcement of the first Mission Charter signatories (ATRIUM)



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# Lunch Break

**We will be back at 14:30**



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Join us on Sli.do to submit your  
questions via

**#ForumAdaptation**

Join us on Social Media

**#MissionClimate**

**#EUMissions**





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# Challenges experienced by regions

*How do regions act on adaptation? What are  
the main challenges faced and are they  
overcome?*

*Moderator: Philippe Tulkens – Deputy Mission Manager*



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## **Czechia – Josef Jarý**

Environmental Partnership Association, Nadace Partnerství

## **Germany – Viktor Haase**

Head of Department Ministry for Environment, Agriculture, Conservation and Consumer Protection in North Rhine-Westphalia

&

## **Jürgen Schultze**

TU Dortmund University

## **Hungary – Zsuzsanna Hercig**

Life Logos 4 Waters Project Regional Coordinator, Coordination Office for Municipalities, Ministry of Interior

## **Belgium – Bart Somers**

Vice-Minister President of the Flemish Government and Minister of Internal Affairs, Integration and Living Together in Diversity



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MEMBER OF ENVIRONMENTAL  
PARTNERSHIP ASSOCIATION

# Our contribution to the Strategy on Climate adaptation in the Czech Republic



---

Josef Jarý  
Brussels Representative



# The Adaptation strategy

The adaptation strategy is aimed at addressing all significant manifestations of climate change in the Czech Republic:

- long-term **drought**
- **floods** and **flash floods**
- heavy rainfall
- rising temperatures
- extremely high temperatures
- extreme winds
- vegetation fires



# The Adaptation strategy – priority areas

Identified priority areas (sectors), which are expected to be the most affected by climate change

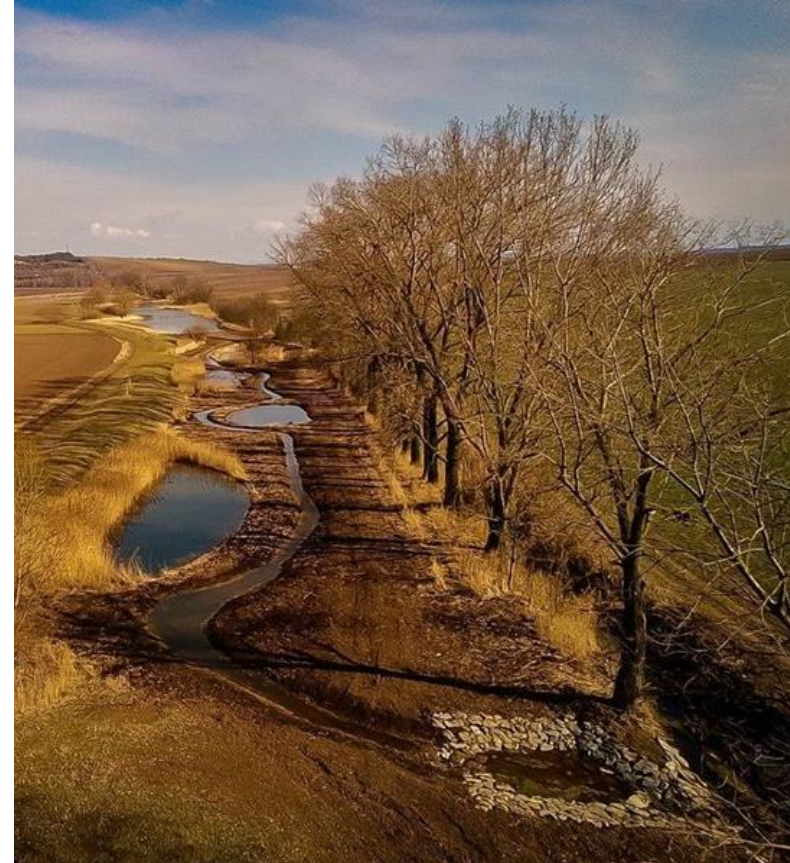
- Agriculture (**soil**, structure of farming land, agroforestry)
- **Water** regime in the landscape and water management (erosion, water retention, soil structure)
- Urban landscape (**heats**, missing green infrastructure)
- **Biodiversity** and ecosystem services (tree planting in cities and landscape)



# The Adaptation strategy – targets

## Czech Republic by 2050

- **functional landscape structure,**
- increased **ecological stability,** the scope and quality of the **ecosystem services** provided in urban areas
- uses the landscape and ecosystems in a **sustainable way**
- **mitigates its adverse effects of** climate change on the economy and ecosystems





# The Adaptation strategy – our response

We have identified couple of priorities for ourselves

- Apart of the Life Tree Check project the Foundation initiated two campaigns
  - Planting for the future (Planting4Future)  
<https://www.sazimebudoucnost.cz/> and
  - Living Soil <https://www.ziva-puda.cz/>





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# PLANTING4FUTURE 10 million trees for the Czech Republic

## 3 BILLION TREES FOR EUROPE

### LESSONS LEARNED FROM THE CZECH TREE PLANTING INITIATIVE





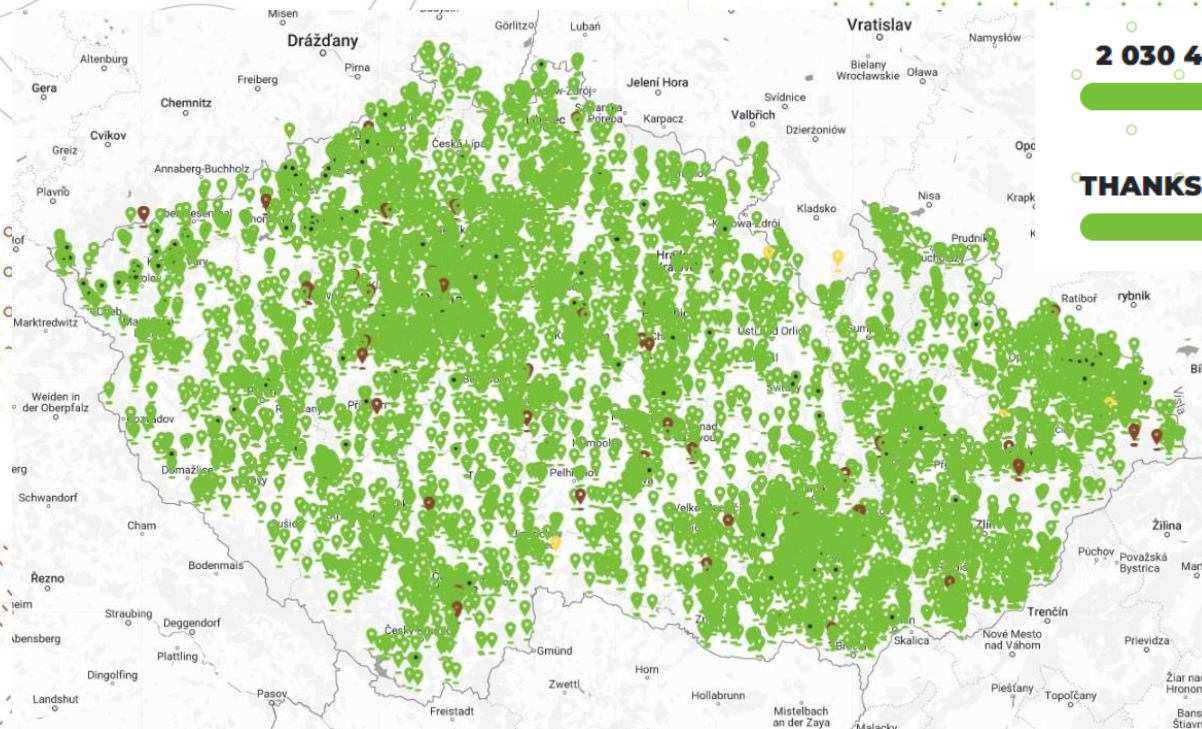
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# P4F initiative launched in 2019

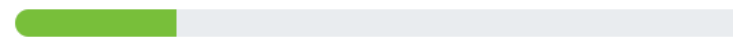
## 10 million trees in 5 years – 1 for each citizen!



**2 030 411 TREES ARE NEWLY GROWING**



**THANKS TO 61 260 PLANTERS**







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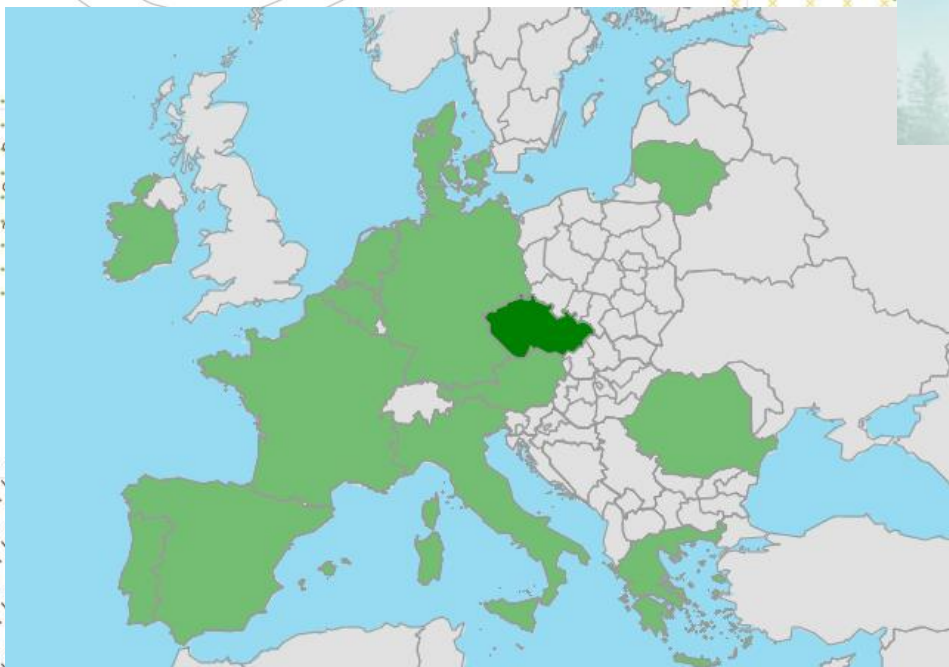
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## 9 YEARS TO COMPLETE EU'S AMBITIOUS PLEDGE

# 2,942,296

trees planted in the EU  
as part of the 3 Billion Trees Pledge



Since **20th May 2020** – publication of  
the EU biodiversity strategy for 2030  
(1,362,927 from CZ)





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## GROWING IMPORTANCE OF TREES FOR CLIMATE ADAPTATIONS

- **calming urban heat islands in cities** (Climate strategy)
- **recovering damaged agriculture landscape and soils** (synergy with Farm to Fork strategy)
- **recovering biodiversity** (Biodiversity strategy)
- **nature based carbon sequestration is minor: one tree planted in 2020 absorbs 1,2 tons of CO<sub>2</sub> by 2050!** (in 2018 the overall emissions per person in CZ was **12,19 tons/year** 10x more than trees absorbs in 30 years!!)





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# STARTING POINT 2019

- Integrated data on reforestations available, **NOT** on planting in cities or in open landscapes!
- Initiating workshop of key stakeholders – success of the Trees of Liberty campaign 2018

## Scattered data available in 2019:

- Prague: ca 100,000 annually, bigger cities – small thousands
- Nature conservation agency: cca 50,000 annually
- Other state agencies: not known
- Private sector, farmers, individuals: no data
- Sales from nurseries: small hundreds thousands

## Result of 2019 working group:

*10 million trees (one per citizen) is realistic in 5 years, if the campaign reaches out the whole nation = need for **planting movement!***

CZ annual reforestation - thousands of seedlings





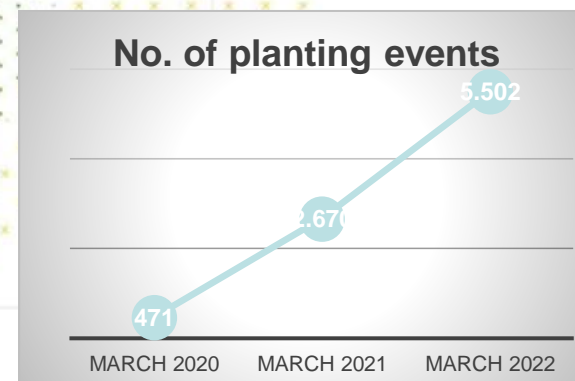
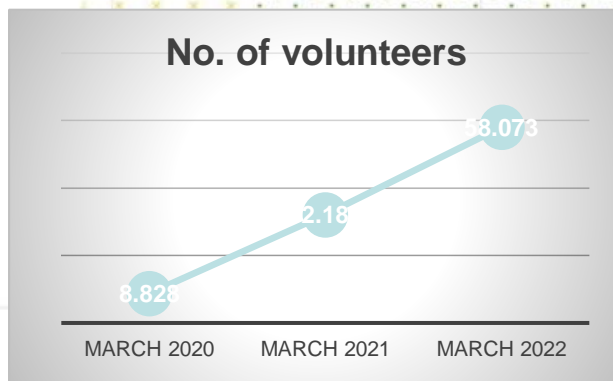
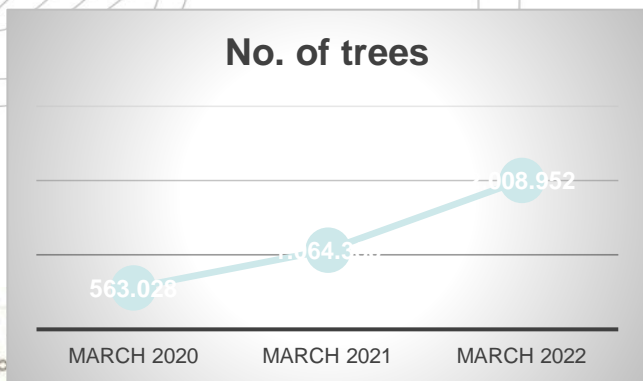


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# The Czechs Plant for Future





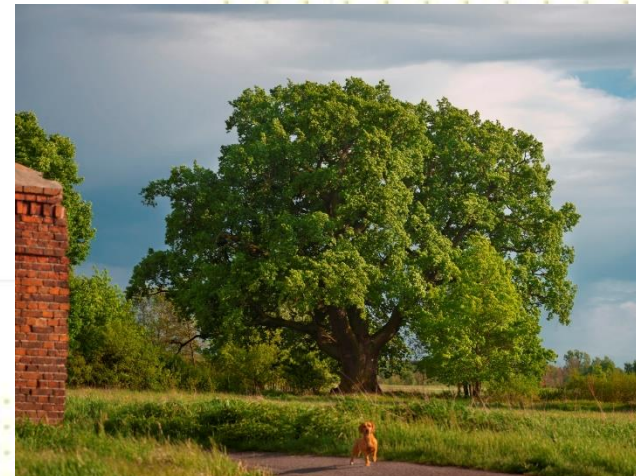
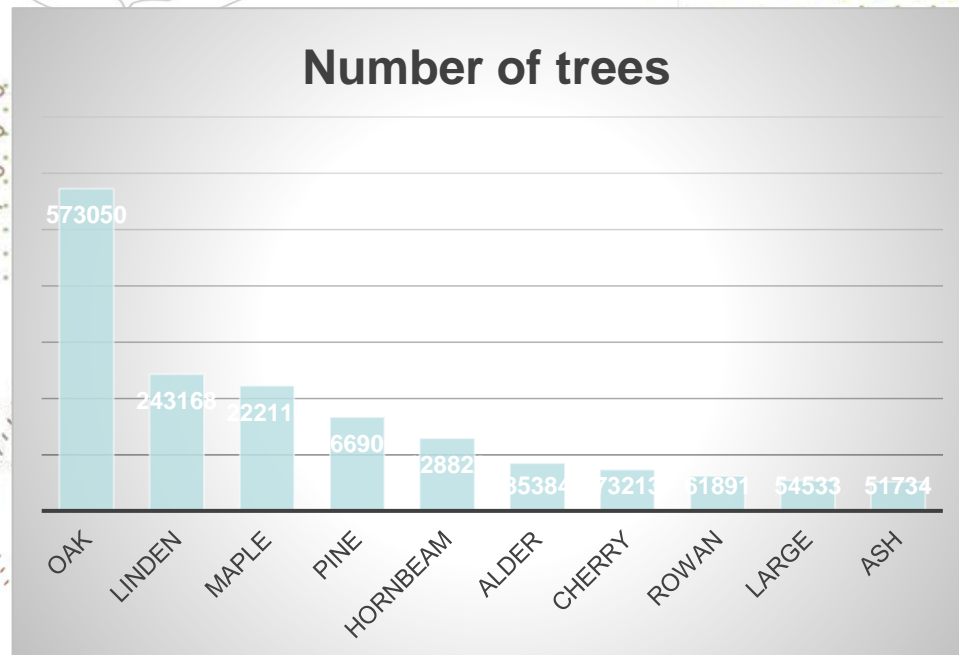


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# WHICH TREE SPECIES?

**Good news: The most frequent are deciduous trees, mainly oak, lime and maple.  
More sustainable compared to reforestations.**

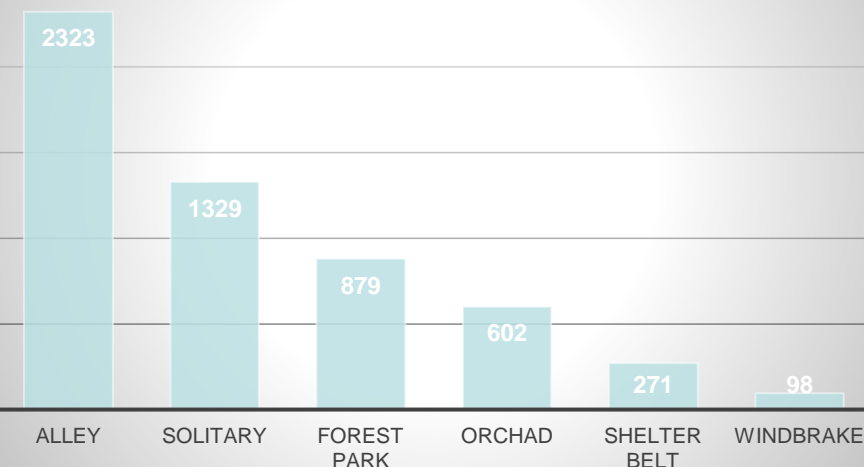




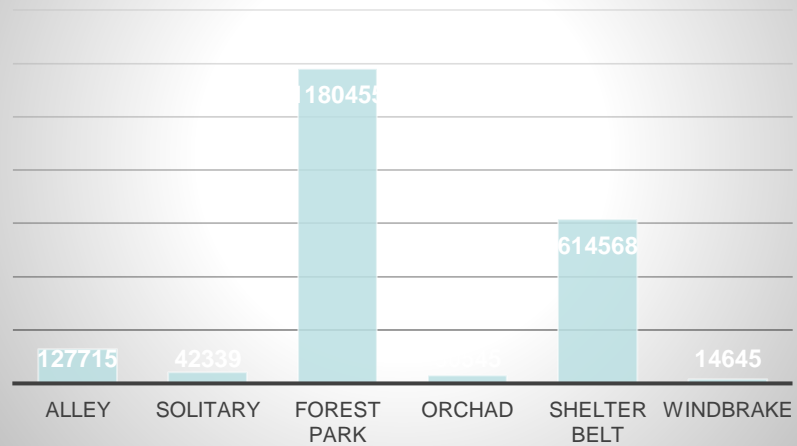
# PLANTING STRUCTURES

As for as number of plantations, most frequent are alleys (2,323 events), though majority of trees were planted as forest parks, mainly as restoration after mining.

Number of planting events



Number of newly planted trees

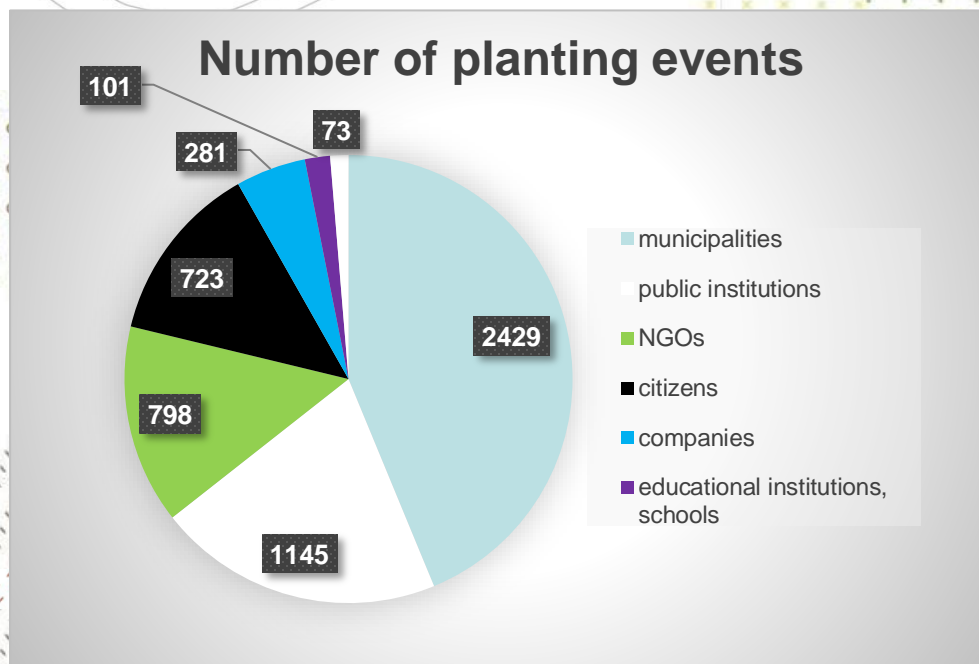






## MOST FREQUENT PLANTERS

The most active planters are municipalities (2,429 plantations), followed by public institutions (1,145 events), by NGOs (798 actions) and by individual citizens (723 events).







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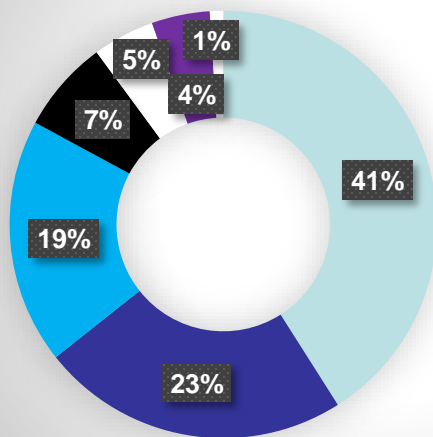
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# PLANTING VOLUNTEERS

More than **58,000** people joined planting since 2019. **Most of them came for events organized by municipalities (23,639), NGOs (13,458) or from companies (10,709).** Growing involvement of the corporate sector.

## Share of volunteers



- municipalities
- NGOs
- companies
- citizens
- public institutions
- educational institutions, schools
- farmers, landowners







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## Grants and management – how

- Integrated financial sources (companies, individuals, governmental money)
- Financial support for community planting (approx. 500.000 EUR in 2022)
- Removal of legislative obstacles for planting
- Technical support of communities in plantations and in tree aftercare
- Tree planting public events organised by Partnership Foundation





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e-on



Rotary CLUB PRAGUE INTERNATIONAL



STARBUCKS



ČLEN SKUPINY PPF



PORTIVA



RUNCZECH



SKANSKA



Národní Rozvojová Banka



Agentura pro podporu podnikání a investic



NADACE ČEZ



ARBOEKO



Mendelova univerzita v Brně



ČESKÁ ZEMĚDĚLSKÁ UNIVERZITA V PRAZE



STÁTNÍ POZEMKOVÝ ÚŘAD



SVAZ MĚST A OBČÍ ČESKÉ REPUBLIKY



ASOCIACE KRAJŮ ČESKÉ REPUBLIKY



NSMAS ČESKÉ REPUBLIKY



AGENTURA OCHRANY PŘÍRODY A KRAJINY ČESKÉ REPUBLIKY



SPOLEČNOST PRO ZAHRADNÍ A KRAJINÁŘSKOU TVORBU



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Povodí Ohře



Sázíme stromy



POVODÍ VLTAVY



VEREJNÁ ZELENĚNĚN MĚSTA BRNA



ARNIKA



Milión stromů



ENVIROS TOMORROW'S WORLD



Hnutí Brontosaurus





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## SUMMARY

- Planting events and emotions are driven by communities and citizens, **but volumes** of trees are **delivered by big institutions**
- After 3 years of intensive campaign **1 million / year** is registered. **Restorations** of mining areas are key in numbers (60+ %)
- **2 mil/Y** is realistic for 10 million CZ once road management and all municipalities are on board. Government should be included.
- Scale of the EU: **0,9 billion could be realistic by 2030** if supported by an extensive integrated campaign and networking
- Ambitious 3 billion pledge could only be reached if **agroforestry is included and supported on large scale**





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# FOR RESILIENT CITIES AND HEALTHY LANDSCAPES

[WWW.SAZIMEBUDOUNOST.CZ](http://WWW.SAZIMEBUDOUNOST.CZ)

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**EUROPEAN UNION**



## **Czechia – Josef Jarý**

Environmental Partnership Association, Nadace Partnerství

## **Germany – Viktor Haase**

Head of Department Ministry for Environment, Agriculture, Conservation and Consumer Protection in North Rhine-Westphalia

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## **Jürgen Schultze**

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## **Hungary – Zsuzsanna Hercig**

Life Logos 4 Waters Project Regional Coordinator, Coordination Office for Municipalities, Ministry of Interior

## **Belgium – Bart Somers**

Vice-Minister President of the Flemish Government and Minister of Internal Affairs, Integration and Living Together in Diversity



# Climate Change Adaptation in NRW

Forum Mission Adaptation; 7 June 2022

Viktor Haase, Head of Division VIII, Ministry for Environment NRW  
Jürgen Schultze, Katharina Schrot, TU Dortmund University





# Climate change impacts in NRW

Extreme weather events, in particular:

- Heavy rain/flooding
- Heat/warmth
- Drought
- Storm

# Climate Change Impacts NRW

## Heavy rain/ flooding (e.g. July 2021)



Source: Spiegel 2021, Walporzheim



Source: Tagesschau 2021, Erfstadt



Source: RND 2021, Ahrweiler



Source: Spiegel 2021, Erfstadt



Source: Tagesschau 2021, Altenahr

# Climate Change Impacts NRW

## Identification of areas impacted by heat - future

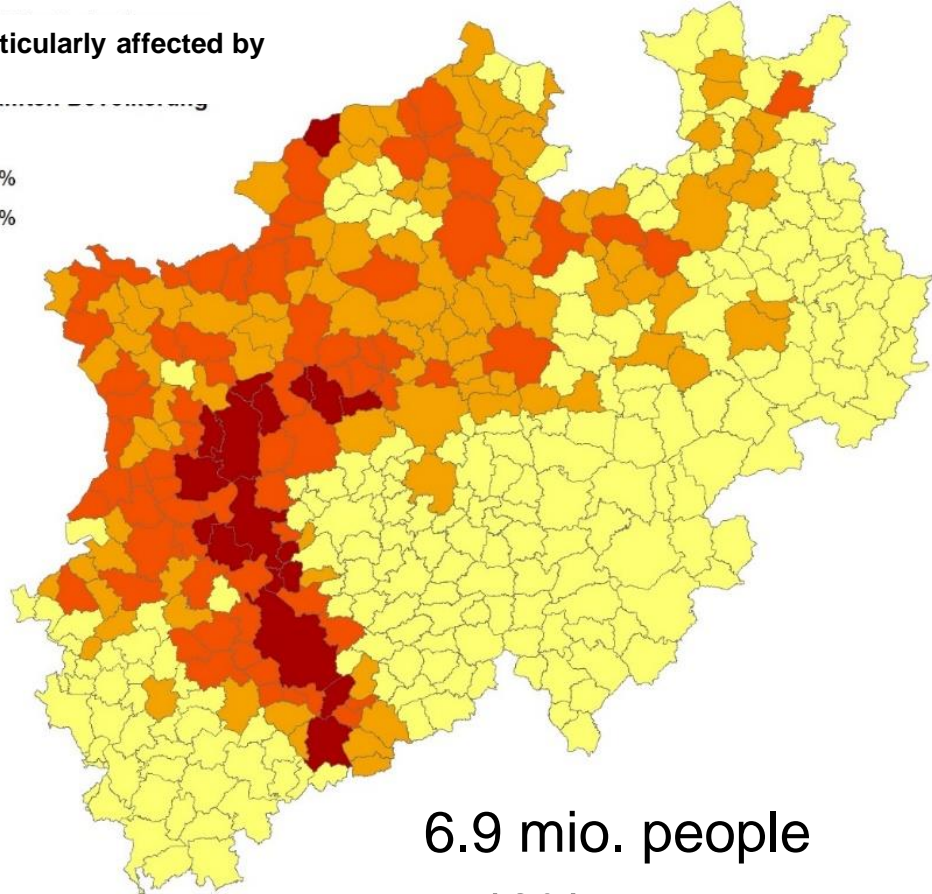


### Today

Population particularly affected by  
heat stress



Proportion of total  
population



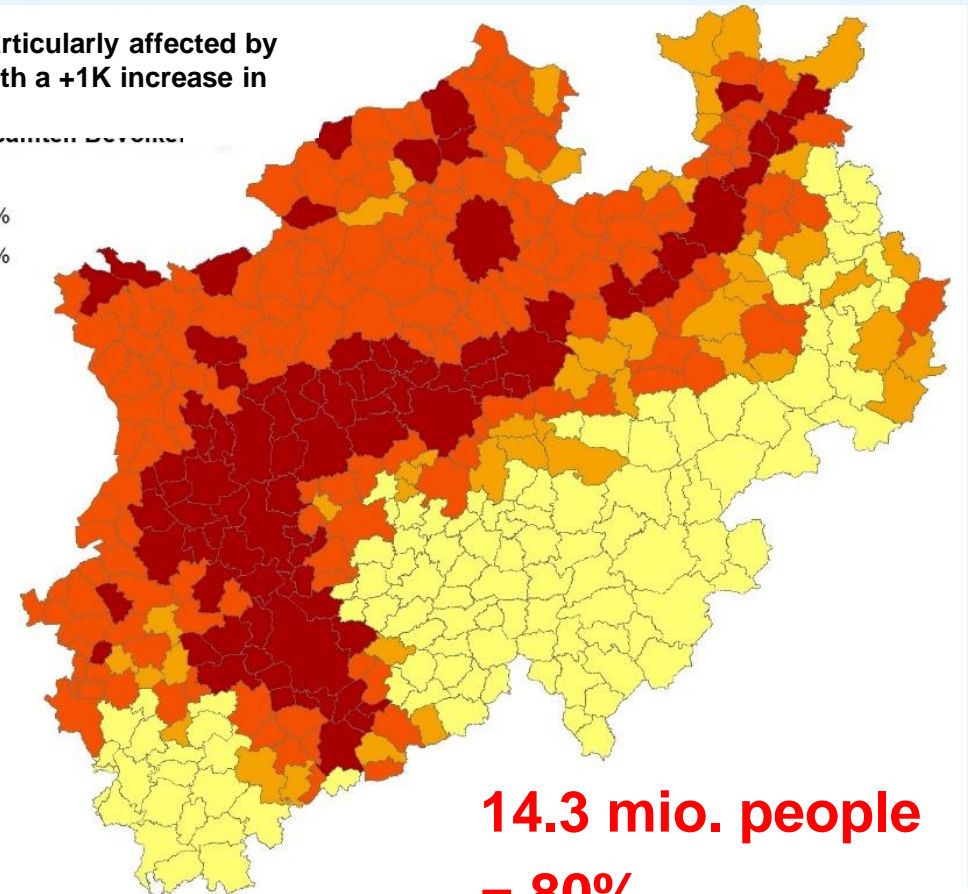
6.9 mio. people  
= 40%

### Future

Population particularly affected by  
heat stress with a +1K increase in  
temperature



Proportion of total  
population



14.3 mio. people  
= 80%



# Climate Change Impacts NRW

## Drought and Storm



### Drought (2020)



Source: Inge Lüdtko, LWK NRW



© Umweltministerium NRW

### Storm (e.g. 2022)



Source: Westfalen-Blatt (2022), Paderborn



Source: Zeit 2022, Paderborn

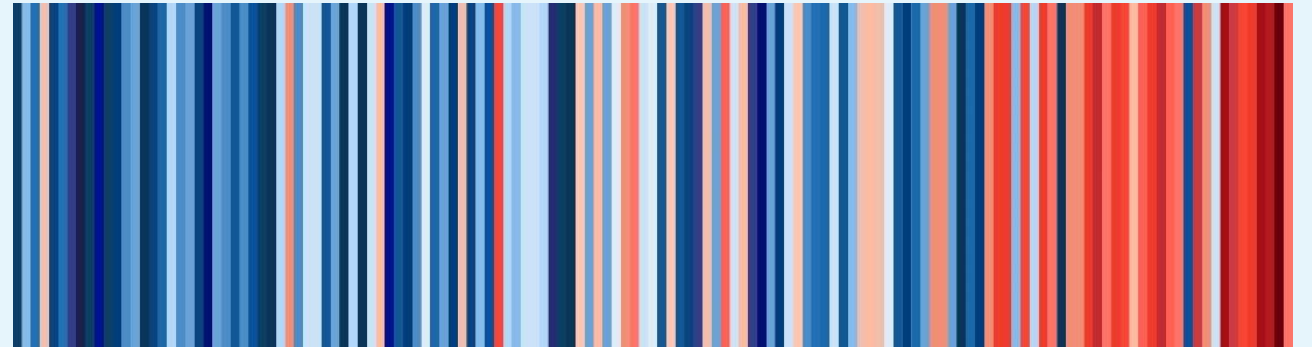


Source: Spiegel 2022, Lippstadt



# Climate change in NRW – Challenges

- Climate change is already happening
- Adaptation and resilience are equally important as mitigation
- Climate change adaptation is a cross-cutting issue
- Needs to involve
  - all levels of governments
  - all relevant sectors and departments
  - all relevant stakeholders





# NRW Climate Adaptation Act

- Legislative division and reorganization of climate policy action areas by:



- Amendment of the Climate Protection Act (MWIDE)
- **Nation's first Climate Adaptation Act (MULNV)**

→ both legislative processes were running in parallel in different departments





# NRW Climate Adaptation Act



**§ 1 Purpose of the Act**

**§ 2 Definitions**

**§ 3 Climate adaptation targets**

**§ 4 Implementation of climate  
adaptation targets by the State  
Government**

**§ 5 Climate adaptation by other public  
bodies**

**§ 6 Requirement to give consideration**

**§ 7 Generic preparedness**

**§ 8 Climate Adaptation Strategy**

**§ 9 Monitoring**

**§ 10 Responsibilities of the State  
Agency for Nature, Environment and  
Consumer Protection**

**§ 11 Advisory Council**

**§ 12 Entry into force**



# NRW Climate Adaptation Act

- **§ 3 Climate adaptation targets**
  - Limiting the **negative effects** of climate change
  - Climate adaptation as a **service of general interest**



- (1) *“The negative impacts of climate change shall be limited by the respective competent public authorities through the elaboration and implementation of adaptation measures specific to each field of action and adapted to the respective region.”*
- (2) *“Adaptation to climate change shall in particular also serve the prevention of hazards, the health of individuals and the general public, the safeguarding of a humane environment, the protection of the natural life support systems, also in view of the responsibility for future generations, and the promotion of a sustainable and competitive economy. Measures pursuant to paragraph 1 shall be aligned accordingly.”*



# NRW Climate Adaptation Act

- **§ 4 & 5 Implementation of climate adaptation targets by the State Government and other public bodies**
  - The State Government shall act as a role model
  - The ministry in whose area of responsibilities a particular field of action largely falls shall assume the coordination.
  - Allocation of importance of **Green Infrastructure**
  - „**Coherence regulation**“: Review Acts and regulations for climate resilience compatibility
  - Climate adaptation concepts as a recommendation
  - Climate adaptation as part of **services of general interest**







# NRW Climate Adaptation Act

- **§ 6 Requirement to give consideration**
  - Transfer from Federal Climate Protection Act to climate adaptation
  - The need for **climate adaptation must always be taken into account in political and planning decisions** in the future



*(1) „In their planning and decision-making, public bodies shall take into account the purpose of this Act and the objectives set for its fulfilment in an interdisciplinary and integrated manner.”*

- **§ 7 Generic preparedness**

*(1) „The task of climate adaptation is an important task for society as a whole. All persons and relevant community stakeholders and players are called upon to participate in the effort to achieve results.”*



# NRW Climate Adaptation Act

- **§ 8 Climate Adaptation Strategy**
  - Preparation of a climate adaptation strategy (shall be updated at least every five years)
  
- **§ 9 Monitoring**
  - Monitoring climate developments, impacts of climate change on humans, nature, environment and social, economic and employment impacts
  - Overview of the measures implemented in the adaptation strategy
  - Overview of the effects of the adaptation measures
  
- **§ 11 Advisory Council**
  - Representatives of relevant community and research-focussed sectors in the state
  - Advising on climate adaptation policy in North Rhine-Westphalia



# Climate Adaptation in NRW - Approach

## “16 Fields of Action”







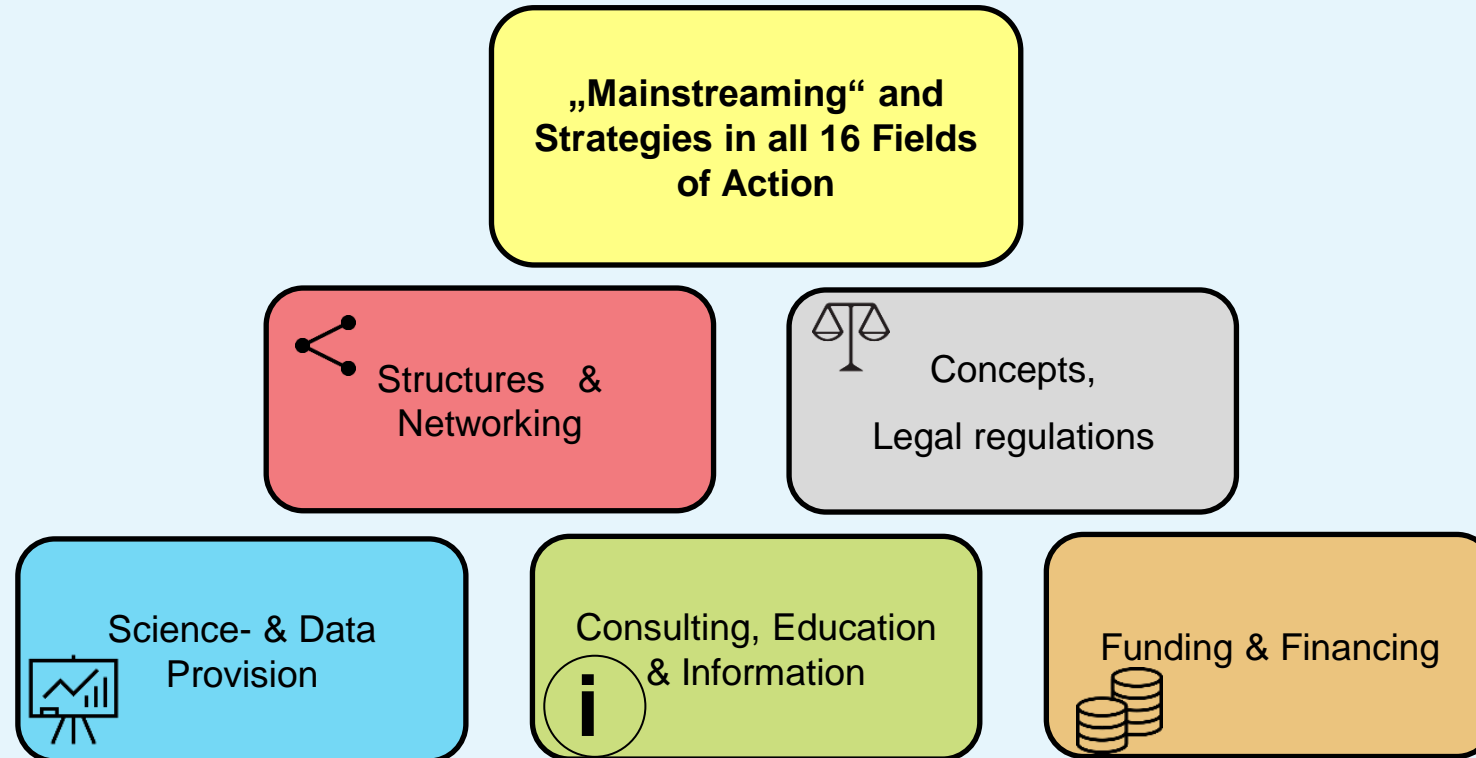
# Climate Adaptation in NRW - Approach

„ Adaptation Matrix“	Heavy rain/ flooding	Heat/ Warmth	Drought	Storm	...
Human Health					
Water Management and Flood Control					
Soil					
Biodiversity & Nature Conservation					
Agriculture and Fishing					
Forest Management					
Transport and Infrastructure					
Energy Sector					
Finance and Insurance Industry					
Industry and commerce					
Tourism					
Building and Living					
State and Regional Planning					
Urban Development & Municipal Planning					
Disaster Management					
Information, Education, Networks					



# Climate Adaptation in NRW - Approach

## “Pyramide of Climate Adaptation“





# Stakeholders

- Citizens
- Private Sector
- Public authorities (Municipalities, Cities, Gov. Districts)

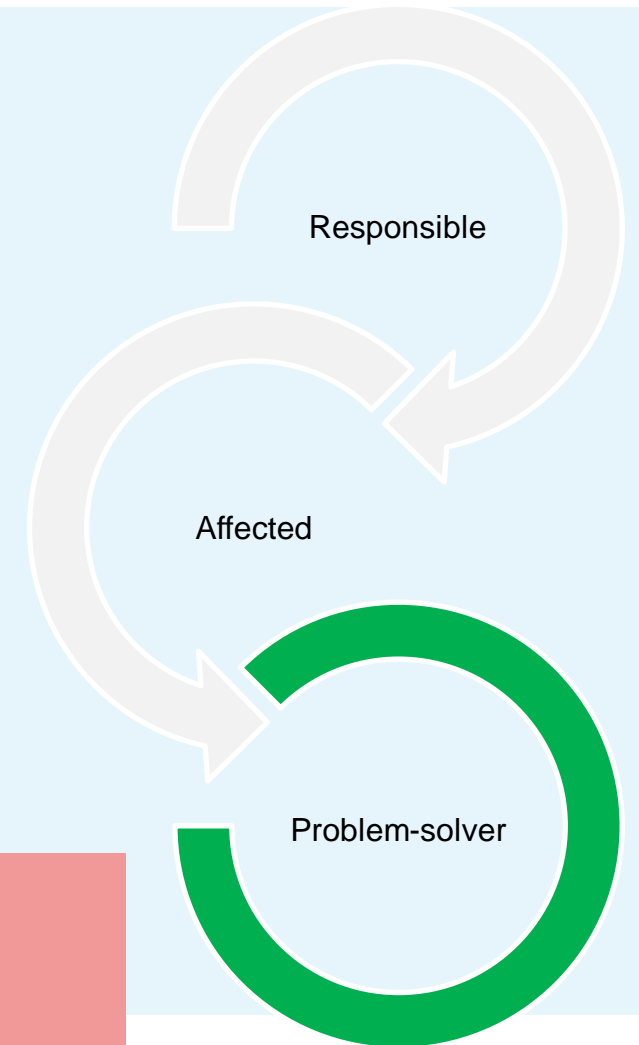
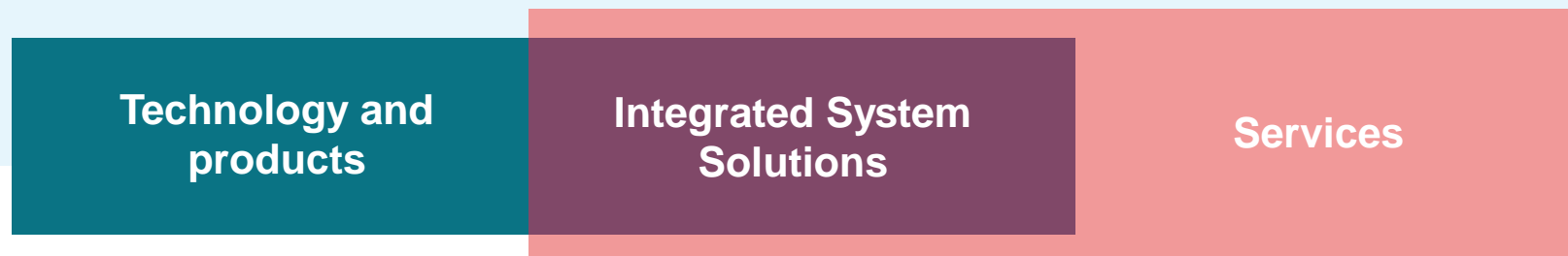




# Stakeholders – Private Sector

- Private companies as problem solvers?
- Goal: Climate adaptation **BY** companies with the help of products and services to reduce climate impacts (climate adaptation economy)

→ Potential for numerous (global) business models





# Network Climate Adaptation & Companies NRW

- Central point of contact, especially for SMEs
- **Goal:** Increased awareness, networking, support to:
  - Operational climate adaptation
  - Development of sustainable products, technologies or services for climate adaptation (climate adaptation economy)



Netzwerk Klimaanpassung  
& Unternehmen.NRW



# Planned: ResilienceExpo

- Regular series of trade fair-like events every 2 years
- International character:
  - Visibility of the transformation of the region
  - Development of sales markets for regional enterprises
- Objectives:
  - Demonstrating solutions for climate adaptation
  - Creation of a networking venue on the topic of climate adaptation
  - Establishment of the Rhenish mining area as a pioneering region for the climate adaptation economy





# Stakeholders –Public Authorities

- 5 Governmental districts (Regierungsbezirke)
- 54 Counties (Kreise) and district-free cities (kreisfreie Städte)
- 396 Municipalities (Kommunen)

→ 18 million inhabitants

→ most populous federal state - over 20 % of the population of Germany

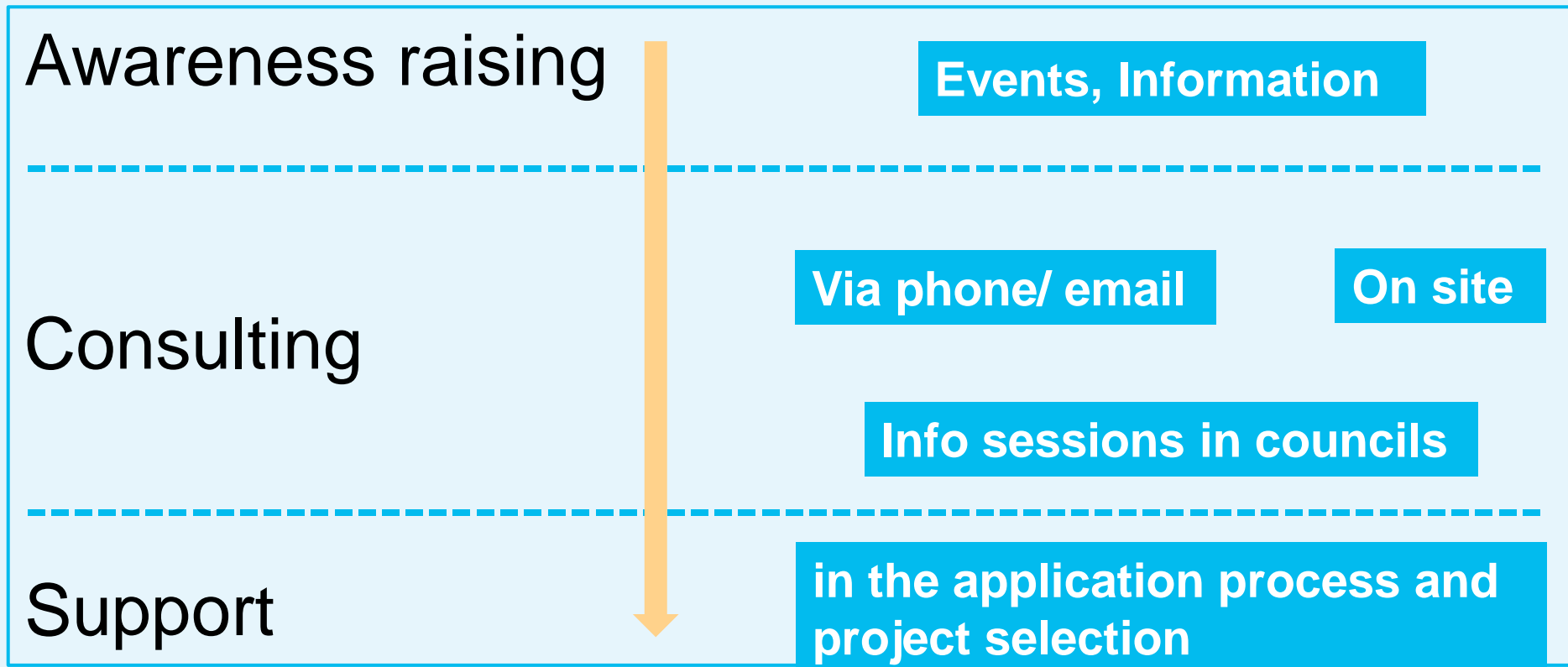


# Municipalities

- GIS-based Information System on Climate Effects and Adaptation
- Current and future funding programs
- ECA: „European Climate Adaptation Award“
- Municipal Consultancy for Climate Adaptation
- ...



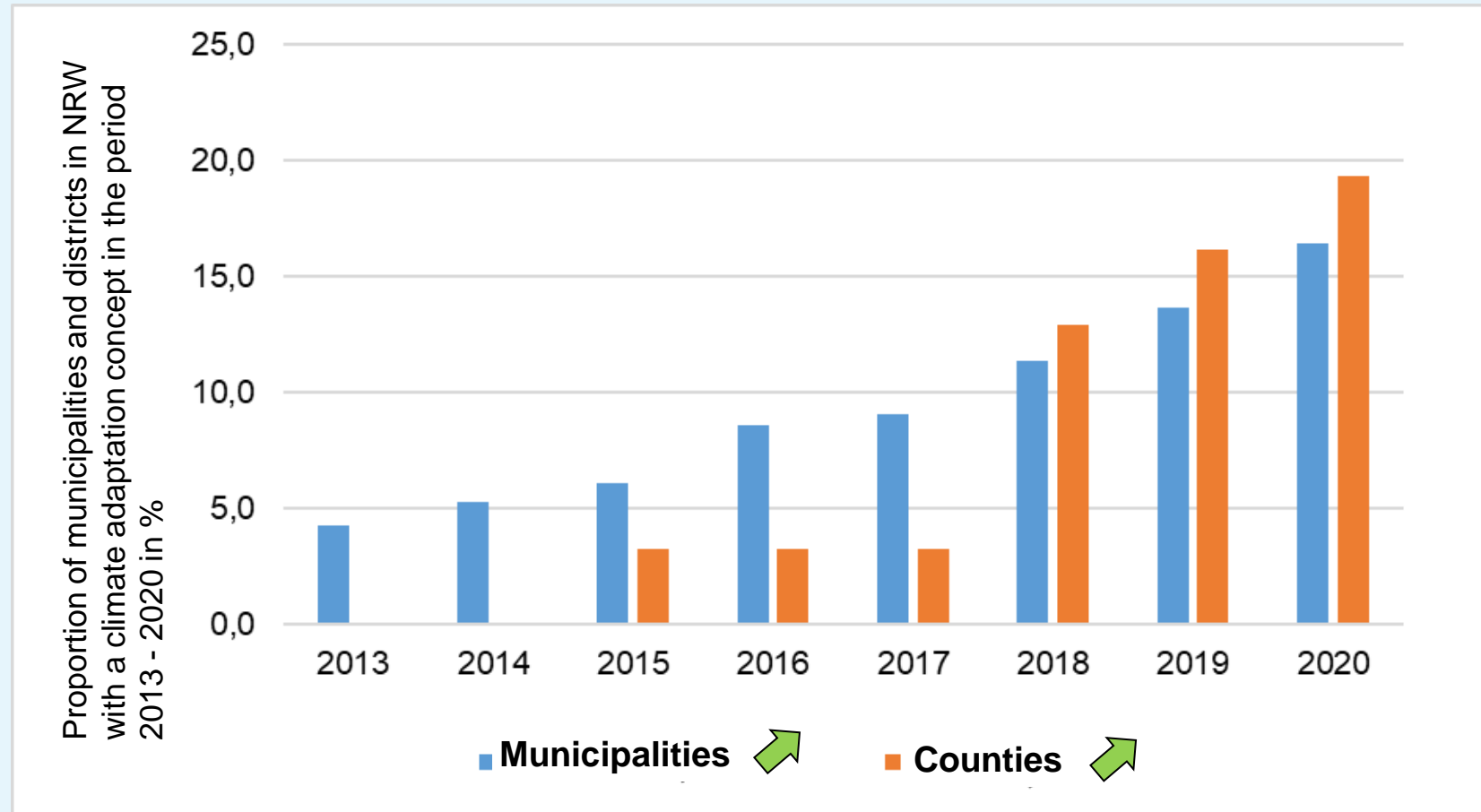
# Municipal Consultancy for Climate Adaptation







# Municipal climate adaptation concepts





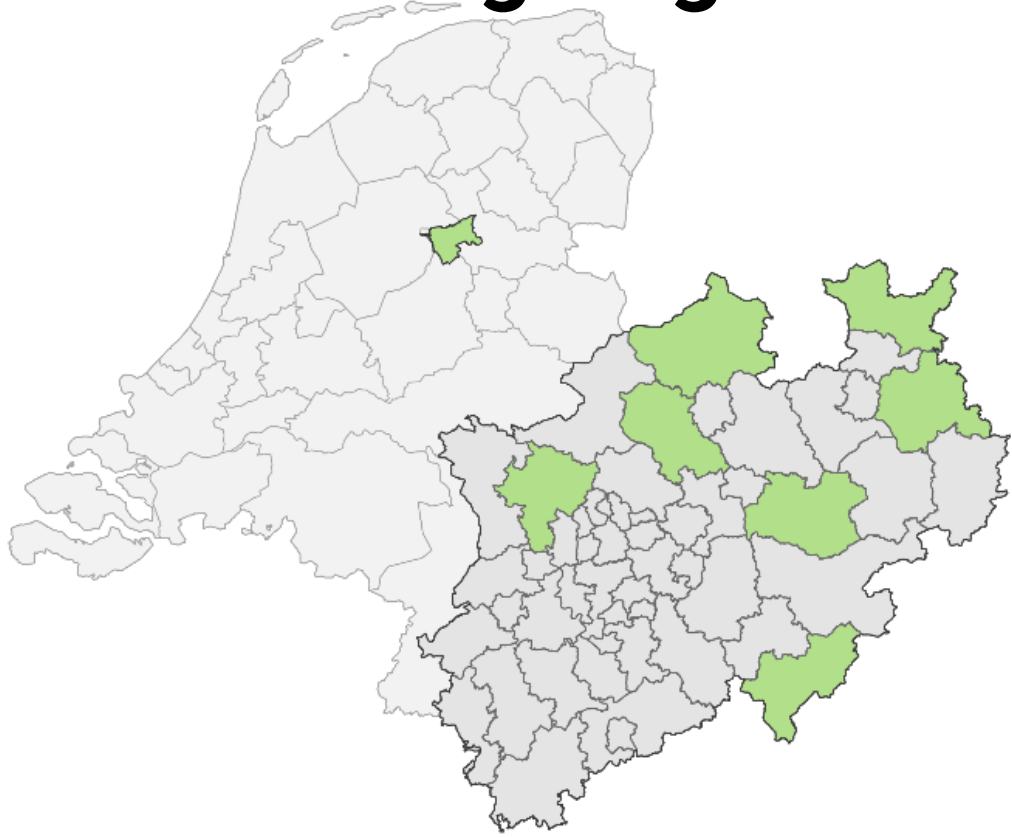
An aerial photograph of a residential neighborhood. The scene is dominated by a dense grid of houses with red and brown roofs. A multi-lane highway runs diagonally from the top left towards the center. To the left of the highway, there are large green agricultural fields. The overall lighting is bright, suggesting a clear day.

# EFFICIENT

NRW WIRD KLIMAROBUST



# Evolving Regions



The project LIFE Roll-outClimAdapt is funded by the EU's LIFE environmental programme and co-financed by MULNV NRW.



Project duration: 01/07/19 – 31/03/23

## Partner regions

- District of Wesel
- District of Siegen-Wittgenstein
- District of Minden-Lübbecke
- District of Lippe
- Gemeente Zwartewaterland and Kampen, NL
- District of Steinfurt
- District of Soest
- District of Coesfeld

## Partner institutions

- TU Dortmund University, Social Research Centre
- TU Dortmund University, Institute for Spatial Planning
- German Institute of Urban Affairs (difu)
- PROGNOS AG
- BEW Bildungszentrum
- University of Twente
- ZDF Digital

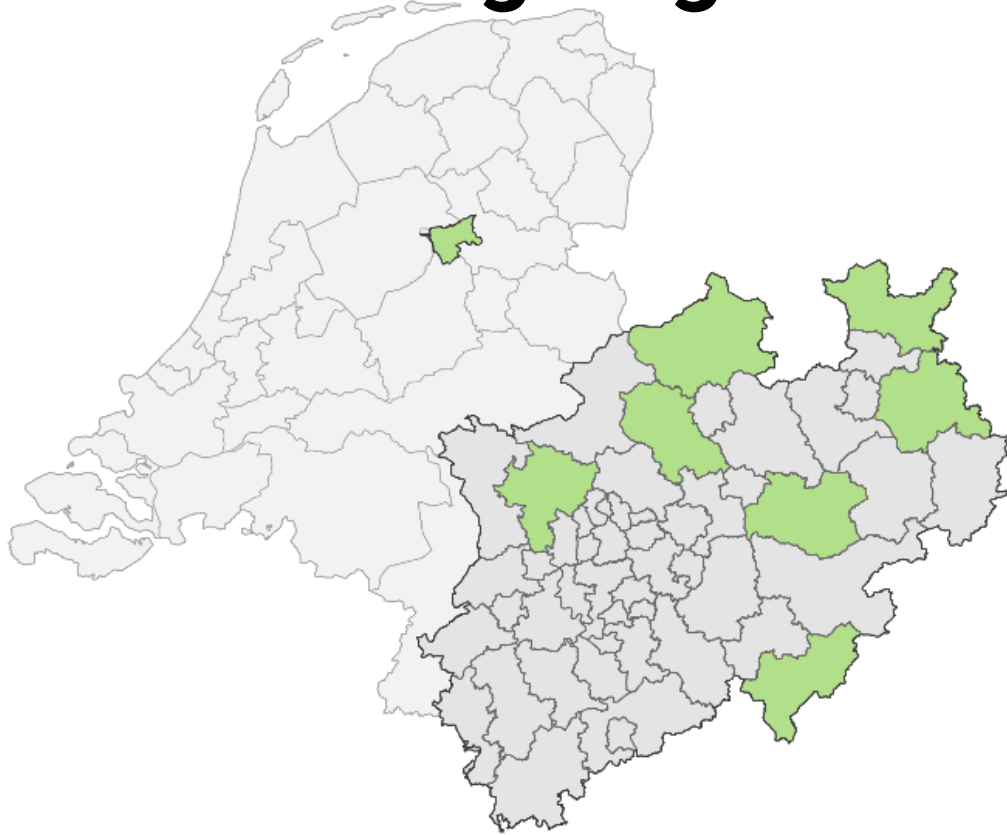
NRW- Environment Minister Ursula Heinen-Esser:

**„Evolving Regions is the flagship for climate change adaptation in rural areas for NRW“**





# Evolving Regions



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University of Twente  
ZDF Digital

**BEW**  
Das Bildungszentrum  
für die Vor- und  
Entsorgungswirtschaft

**KREIS COESFELD**

**lifu**  
Deutsches Institut  
für Urbanistik

**gemeente  
Zwartewaterland**

**IRPUD**

**Kampen**

**KREIS  
SOEST**

**KREIS  
LIPPE**  
Miteinander. Zukunft. Leben.

**Miblenkreis  
MINDEN-LÜBBECKE**

**STADT MOERS**

**prognos**

**Echt vielfältig.**  
Siegen-Wittgenstein

**KREIS STEINFURT**  
**energieland 2050 e.v.**  
Wir denken das  
am Kreis Steinfurt

**tu technische universität  
dortmund**

**sfs**

**UNIVERSITY  
OF TWENTE.**

**ZDF Digital**



[www.evolvingregions.com](http://www.evolvingregions.com)



@EvolvingRegions

# Evolving Regions: overarching aims

Evolving Regions has three specific aims:

1

## SELF-EMPOWERMENT:

The participating regions will become climate resilient by establishing further cooperation, further climate knowledge, new dialogue formats and network structures in order to develop themselves as a region in the future.

2

## INTEGRATION INTO PLANNING PROCESSES:

The overarching theme of climate adaptation will be integrated into local and regional planning processes.

3

## KNOWLEDGE EXCHANGE AND ROLLOUT:

The Evolving Regions project will make available the roadmap procedure, which has been further developed in the regions, with maps on climate impacts, dialogue formats, exemplary strategies and bundles of measures, as well as monitoring concepts for other regions and potential service providers of the climate adaptation economy.



## European Missions

### Adaptation to Climate Change



Support at least 150 European regions and communities to become climate resilient by 2030

# The Evolving Roadmapping Approach

## POLITICAL ANCHORING



### CLARIFYING THE MANDATE

Formulation of the region's goals taking into account the initial situation



### SCOPING

Examination of the initial regional situation and definition of focal points for processing



### FORECASTING

Addressing the expected future and developing a shared vision



### BACKCASTING

Concrete planning of the desired future



### ROADMAP PREPARATION

Preparation of the roadmap as an integrated planning document

## STORYTELLING

## INTEGRATION IN EVERYDAY TASKS

## MONITORING



# The Evolving Roadmapping Approach

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## STORYTELLING

## INTEGRATION IN EVERYDAY TASKS

## MONITORING

Co-productive development of measures

Based on:

- Expertise of the stakeholders
- Jointly defined vision for the region
- Results of the climate impact analysis



Joint process management by moderation and regional partners

# Key factors of the approach

- Involvement of relevant administrative levels and cross-sectoral approach.
- Actors contribute their knowledge, competences and resources to a joint process, joint products and coordinated implementation planning; subsequent efforts and costs are shared.
- Cooperation of actors on an equal basis; joint and parallel analysis and reflection of the challenges.
- Needs, interests, guiding principles, goals and expectations of all regional actors are taken into account.
- Improved cooperation experiences as well as network and collaboration structures in the region.

# Current status of the regional processes

Wesel, Steinfurt, Soest, Siegen-Wittgenstein: completed



Exchange NL + ER  
NRW: completed



Coesfeld, Minden-Lübbecke: last process steps  
Lippe: will be completed in autumn





# Thematic fields worked on in the regions

Region	Themenfelder		
Wesel	<p data-bbox="657 354 1123 578">Adaptation in Landscape areas</p> <ul data-bbox="657 625 1098 1239" style="list-style-type: none"> <li data-bbox="657 625 1039 763">• Sustainable land use</li> <li data-bbox="657 811 1098 949">• Forest management</li> <li data-bbox="657 996 1031 1063">• Agriculture</li> <li data-bbox="657 1110 1098 1239">• Water management</li> </ul>	<p data-bbox="1251 354 1717 506">Adaptation in Urban areas</p> <ul data-bbox="1251 554 1717 1239" style="list-style-type: none"> <li data-bbox="1251 554 1717 692">• Resilient cities + villages</li> <li data-bbox="1251 739 1684 878">• Settlement development</li> <li data-bbox="1251 925 1684 1239">• Resilient buildings and spatial planning</li> </ul>	<p data-bbox="1829 354 2331 435">Specific Topics</p>
Steinfurt			<ul data-bbox="1829 492 2280 635" style="list-style-type: none"> <li data-bbox="1829 492 2280 635">• Healthy living conditions</li> </ul>
Siegen-Wittgenstein			<ul data-bbox="1829 692 2109 749" style="list-style-type: none"> <li data-bbox="1829 692 2109 749">• Tourism</li> </ul>
Soest			<ul data-bbox="1829 821 2219 878" style="list-style-type: none"> <li data-bbox="1829 821 2219 878">• Biodiversity</li> </ul>
Minden-Lübbecke			<ul data-bbox="1829 935 2423 1063" style="list-style-type: none"> <li data-bbox="1829 935 2423 1063">• Education for climate adaptation</li> </ul>
Coesfeld			<ul data-bbox="1829 1106 2270 1235" style="list-style-type: none"> <li data-bbox="1829 1106 2270 1235">• Disaster management</li> </ul>
Lippe			<ul data-bbox="1829 1292 2280 1349" style="list-style-type: none"> <li data-bbox="1829 1292 2280 1349">• Just resilience</li> </ul>

# Structure of transfer and mainstreaming activities

## Regional processes



Capacity building in the regions

Consolidation in the regions and permanent staff for climate adaptation

Consultants training and Learning labs

(Inter-)national knowledge exchange



**Thank you very much  
for your attention!**

Contact:

Ministry for Environment NRW: [viktor.haase@mulnv.nrw.de](mailto:viktor.haase@mulnv.nrw.de)

TU Dortmund/Evolving Regions: [juergen.schultze@tu-dortmund.de](mailto:juergen.schultze@tu-dortmund.de)





**EUROPEAN UNION**

**EU MISSIONS**

**ADAPTATION TO CLIMATE CHANGE**



## **Czechia – Josef Jarý**

Environmental Partnership Association, Nadace Partnerství

## **Germany – Viktor Haase**

Head of Department Ministry for Environment, Agriculture, Conservation and Consumer Protection in North Rhine-Westphalia

&

## **Jürgen Schultze**

TU Dortmund University

## **Hungary – Zsuzsanna Hercig**

Life Logos 4 Waters Project Regional Coordinator, Coordination Office for Municipalities, Ministry of Interior

## **Belgium – Bart Somers**

Vice-Minister President of the Flemish Government and Minister of Internal Affairs, Integration and Living Together in Diversity



# Local climate adaptation by NWRMs - The LIFE-MICACC project





# MAIN CHALLENGES (IN HUNGARY AND IN THE REGION)



- The average temperature is rising
- More heat wave days
- Extreme weather events more often
- Summer precipitation decreases (drought risk)
- Winter precipitation increases (flood risk)



What about water balance?



Does water means risk/danger?

OR

Water is a real value, a treasure to be preserved.





# MAIN FOCUSES OF THE PROJECT



## MUNICIPALITIES

Climate change is a global challenge, however the most effective way is to act locally.

- ❑ Municipalities have first-hand experiences at the settlements → feel the consequences, see the damages of climate change
- ❑ They know the potential resources → involvement of unused areas, other local opportunities
- ❑ They know the local stakeholders → can involve and mobilize them
- ❑ They form local strategies and plans → have the potential power to integrate CCA approach into these documents

**Municipalities are key actors in coordinating CCA locally.**

## NWRMs

Climate change happens more often and in a not predictable way. Balance water surplus and water scarcity.

Solutions that are:

- low cost, relatively cheap
- small-scale
- design and implement quickly
- close-to-nature (not concrete)
- reuse abandoned areas for water retention
- ecological aspects, biodiversity are taken into account
- win-win: good for flora&fauna, and for humans
- sustainable for the long run
- innovative

**NWRMs must have a place besides the traditional water management (grey) solutions.**

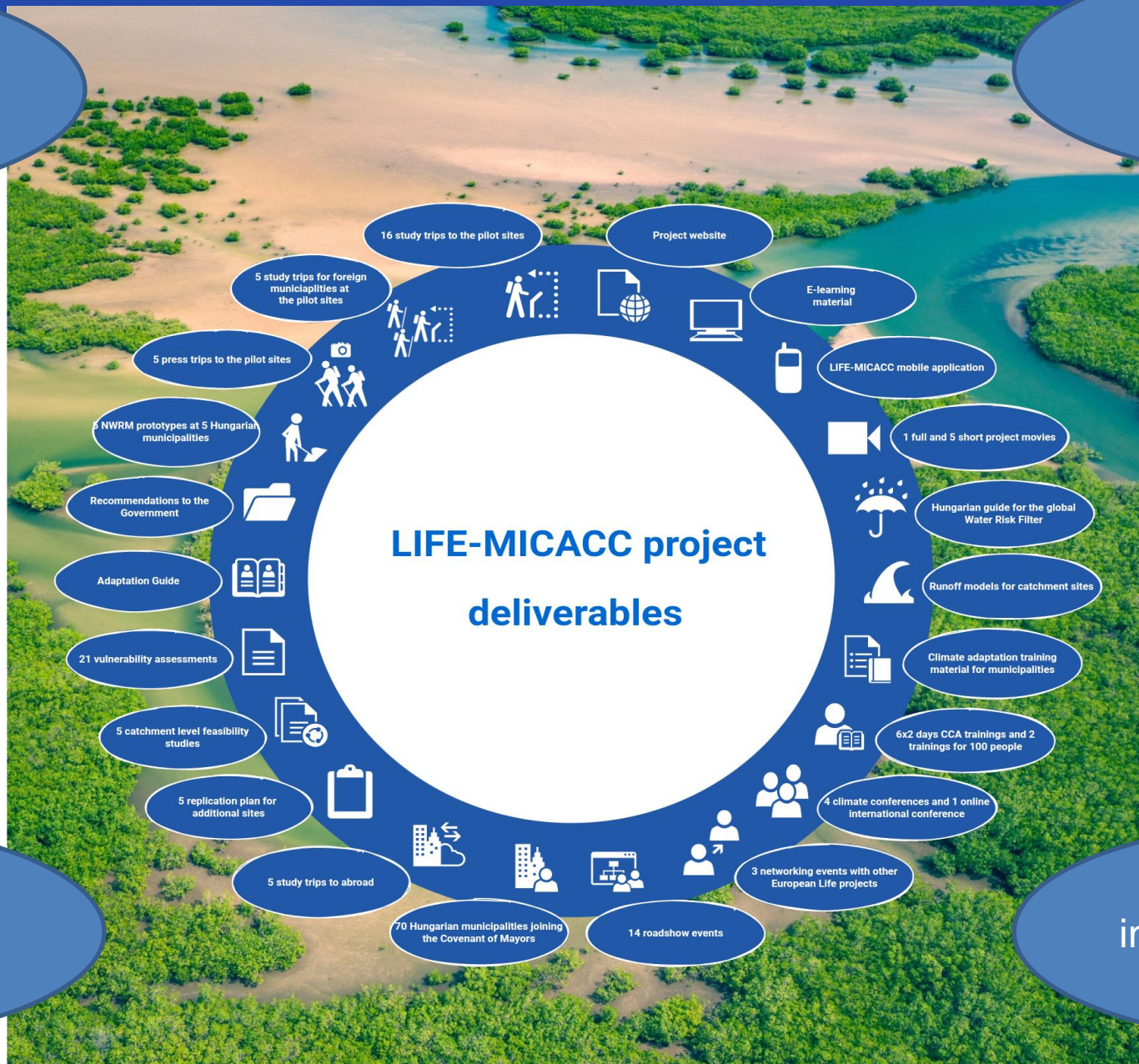
# THE 5 PILOT SITES– 5 MODEL SOLUTIONS





The term „NWRM” sounds more familiar than before.

More and more municipalities are interested in similar projects.



Water retention built into the national OPs as required element.

There is higher interest and openness among experts.



# LIFE LOGOS 4 WATERS PROJECT

Disseminate  
the use of Natural  
Water Retention  
Measures  
(NWRMs)

Support climate  
governance on local  
and regional level

Catchment level  
cooperation  
between  
municipalities and  
stakeholders

Education of  
stakeholders  
in key NWRM  
affected sectors

Nationwide  
citizen education  
and information  
sharing



**LOGOS**  
**4 WATERS**

**THANK YOU FOR THE ATTENTION!**

**Zsuzsanna HERCIG**

**LIFE-MICACC project manager,  
LIFE LOGOS 4 WATERS regional coordinator  
Ministry of Interior of Hungary**

**+36 30/566-8746**

**[life@bm.gov.hu](mailto:life@bm.gov.hu)**

**<http://nwrn.bm.hu/>**

**<https://lifelogos4waters.bm.hu/en/home/>**



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**EU MISSIONS**

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# Break & Networking

**We will be back at 16:00**



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EU MISSIONS

ADAPTATION TO CLIMATE CHANGE



# Panel discussion: What does the Mission need to take from these experiences?

Moderator: John Bell – Director DG RTD



**EUROPEAN UNION**



**Connie Hedegaard**  
Chair of the Mission Board

**Normunds Popen**  
Directorate-General for Regional and Urban Policy

**Hanna Zdanowska**  
Mayor of Łódź, Member of the Green Deal Going Local Working Group

**Frank McGovern**  
JPI Climate





EUROPEAN UNION



# Closing remarks

Clara de la Torre  
Mission Manager



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Please join us for the  
Cocktail in the Atrium