

Developing a web-based climate adaptation knowledge platform as an integrative part of an evolving national knowledge infrastructure in the Netherlands

Kim van Nieuwaal – Climate Adaptation Services foundation (CAS)

International Symposium commemorating the 5th anniversary of
The Center for Climate Change Adaptation (CCCA)

Tokyo - December 14th, 2023

Five years of inspiring collaboration



International networking on CAPs



AP-PLAT
Asia-Pacific Climate Change Adaptation Information Platform

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CLIMATE CHANGE

Climate change is an undeniable phenomenon. The latest scientific findings highlight the impacts of anthropogenic activities on the climate in the past and future; additionally, the findings indicate that global temperatures are increasing faster than expected, which is why carbon neutrality should be achieved as soon as possible.

weADAPT

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Stepping-Up Knowledge Exchange between Climate Adaptation Knowledge Platforms (KE4CAP)

Submitted by Julia Barrott | published 11th Dec 2015 | last updated 24th Feb 2022

CLIMATE ADAPTATION PLATFORMS HELP PEOPLE TO:

Formulate and implement effective actions

[Bekijken op YouTube](#)

[An overview of the KE4CAP project. Video by Ramona Madina, sononamedialab.com](#)

Theme Content

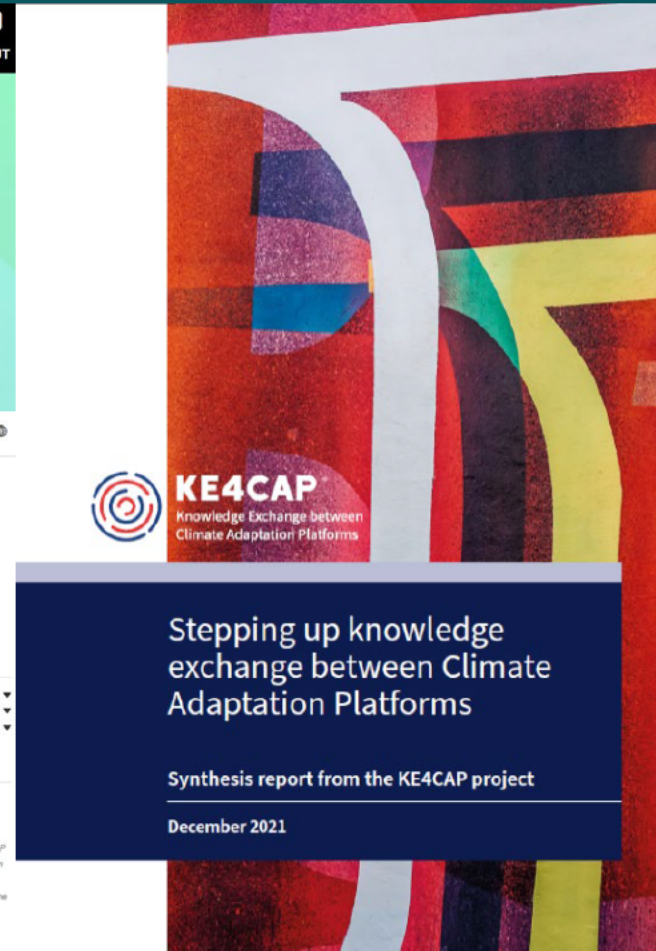
- KE4CAP Project Outputs
- Climate Adaptation Platforms
- KE4CAP Synthesis Report

Network

Climate Change Adaptation Knowledge Platforms Community of Practice

This Network, managed by the KE4CAP project, provides a space for adaptation knowledge platform operators and managers to connect and learn from one another.

[Explore Network](#)



KE4CAP
Knowledge Exchange between Climate Adaptation Platforms

Stepping up knowledge exchange between Climate Adaptation Platforms

Synthesis report from the KE4CAP project

December 2021

The Ke4CAP project is supported by:



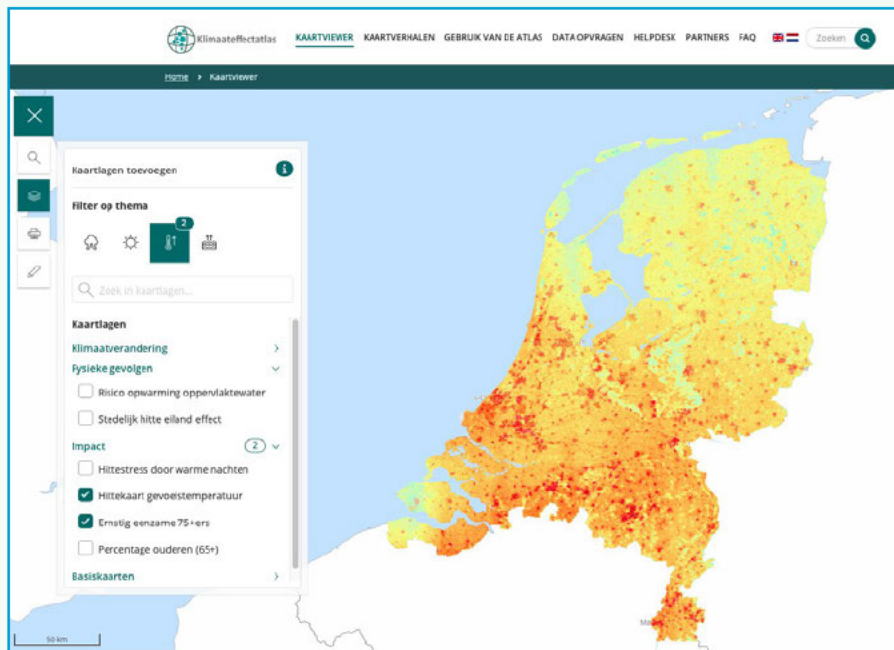
About Climate Adaptation Services (CAS)

- *The* independent and trusted knowledge broker in The Netherlands for climate adaptation
- Established from the national research programme 'Knowledge for Climate' (2008 – 2014, 90 mln euro)
- We focus on developing climate services together with users and knowledge institutes, nationally, but also increasingly internationally
- Among the tools we manage are the web-based national climate adaptation platform and the climate impact atlas



Two connected platforms in The Netherlands

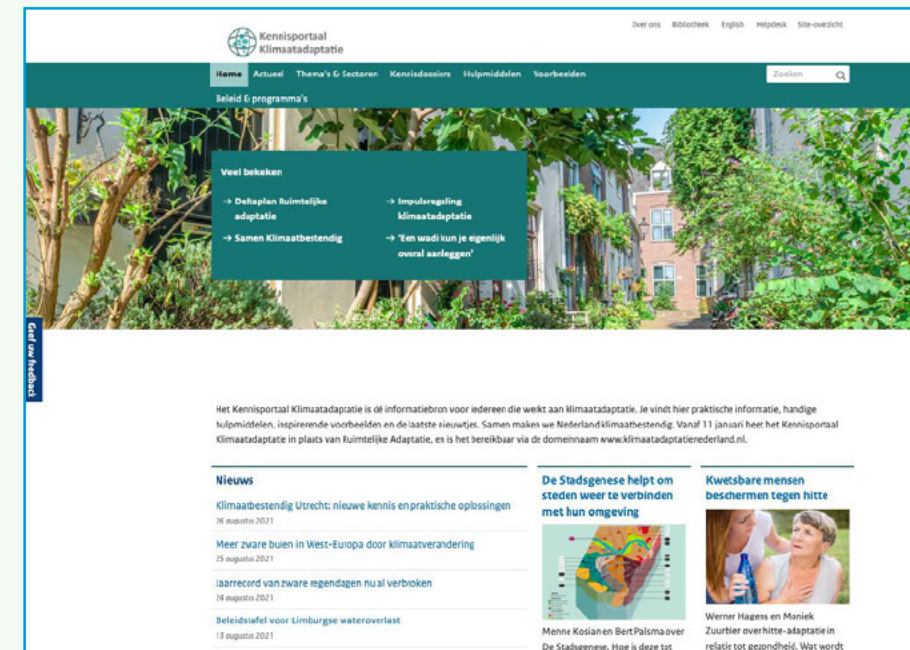
Climate Impact Atlas



www.climateimpactatlas.com

> 300 visitors / day

Knowledge Portal



www.spatialadaptation.com

> 1400 visitors / day

Developing climate services interfaces: some lessons learnt

1. Users often don't know what they want to know (needs change over time)
2. Create common understanding and a common language
3. Co-creation requires multiple cycles of trial and error
4. Generic climate variables need to be tailored to user-defined specific indicators
5. Framing is important: communicate risks but also solutions and inspirational stories
6. Adaptation is fuzzy and messy and does not follow the traditional unidirectional pathway
7. Keep it simple and visual

Main message of the presentation

Web-based climate adaptation **platforms** are pivotal for the advancement of climate adaptation knowledge **infrastructure**, hence of climate **action**.



Dimensions of knowledge infrastructure, enabling continuity and change

- Artifacts containing data (e.g. digital storage devices, books, inscriptions)
- ‘Living’ entities (i.e. people and organisations)
- Processing technologies and structures (e.g. computers, data connections)
- Cultural habits, traditions and heritage
- Networks
- Physical environment (both natural and built)
- Common sense
- Policy

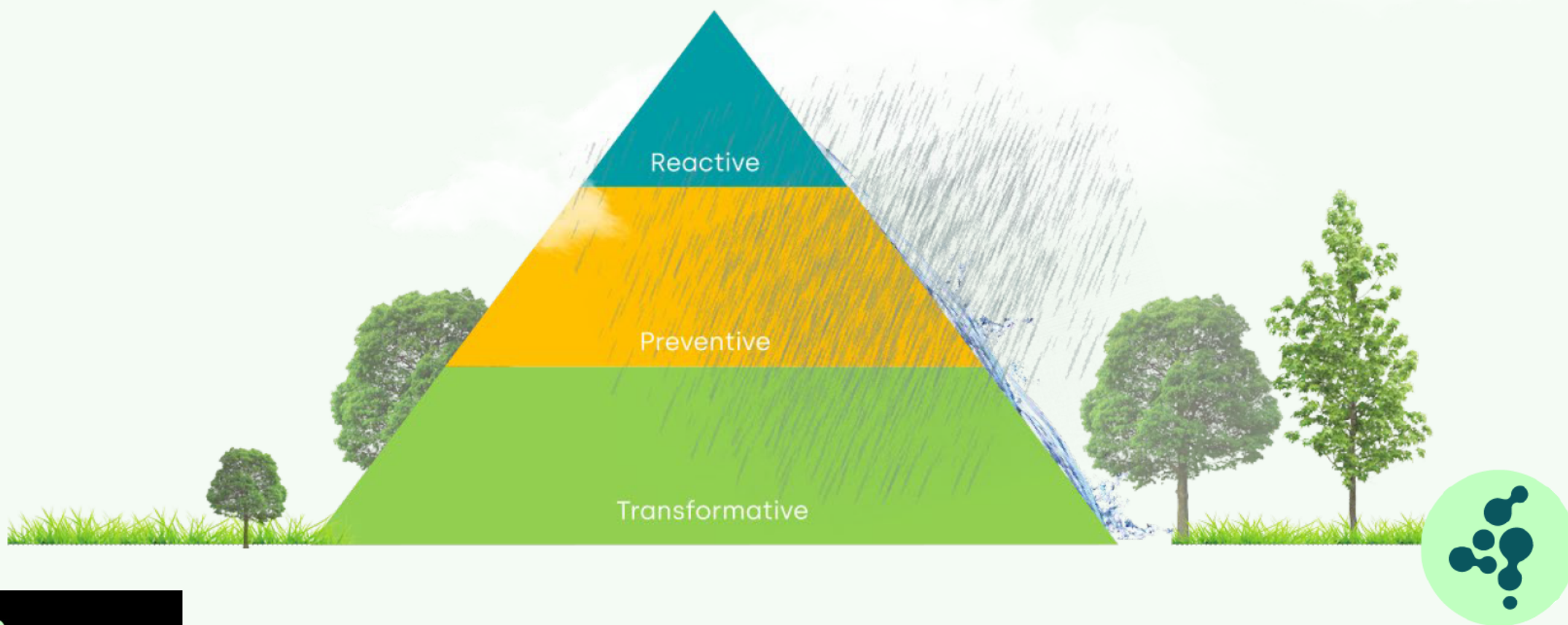
Enabling innovation: Monitoring Lab Climate Adaptation

- Safe space for forerunners to pioneer (room for failure)
- New projects, funded by the pioneers
- Mutual learning (preventing reinventing the wheel)
- Informing development of National Monitoring (and v.v.)
- Aimed at developing precompetitive knowledge infrastructure
- Facilitation by independent broker (i.e. CAS)
- Disseminating intermediate results

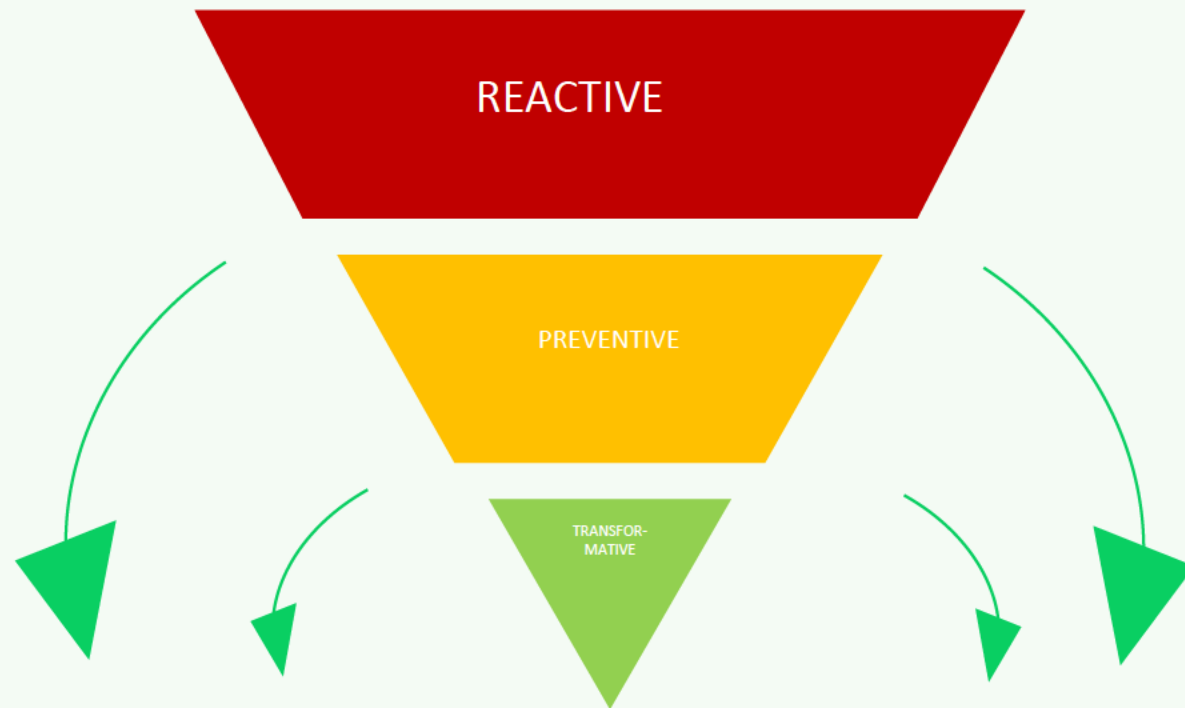
Monitoring Lab Climate Adaptation: first main results

- Distinguish upfront which type of monitoring applies:
 - Type 1: Are we doing what we have said we would be doing?
 - Type 2: What actual results are we witnessing in practice?
 - Type 3: Are we on course?
- The ‘on course’ question is an eye-opener, provoking the question ‘what goal should we set sail on?’

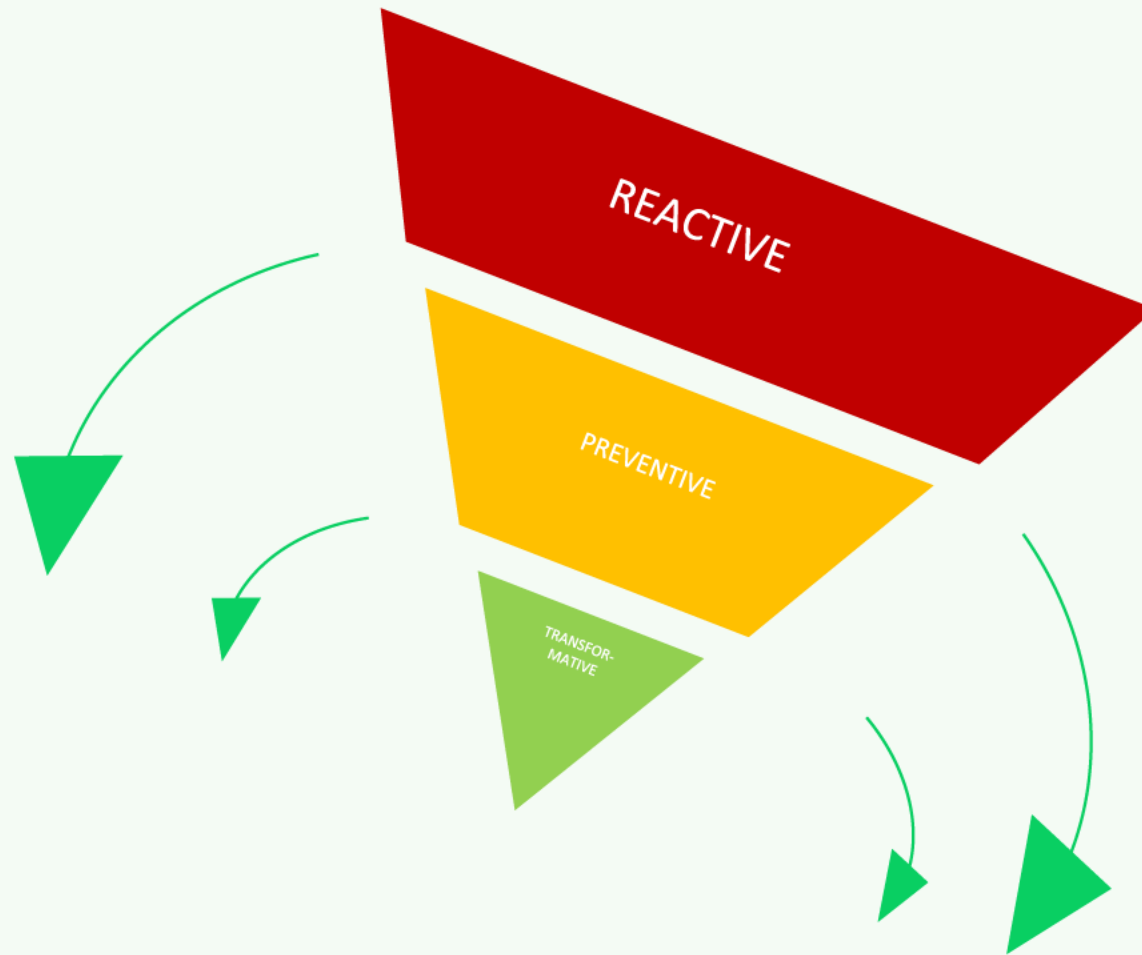
Developed within the Monitoring Lab: The Adaptation Pyramid concept



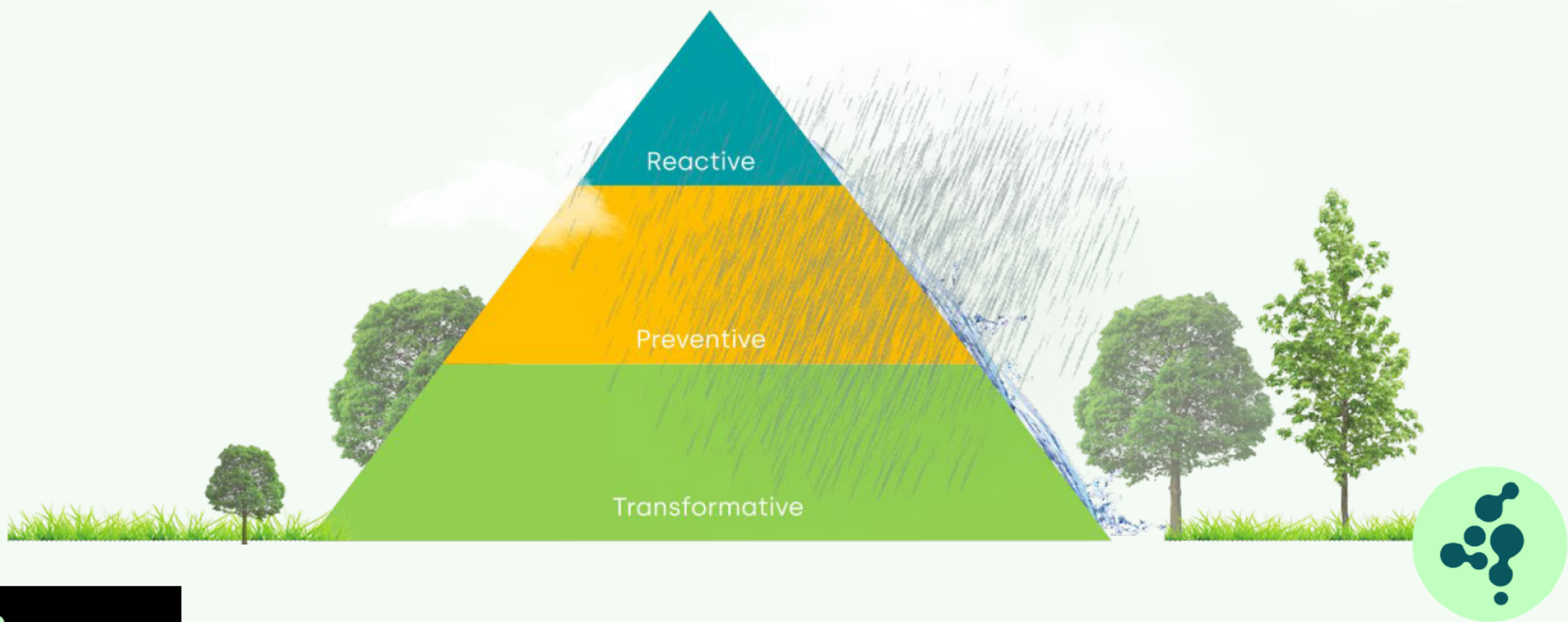
When the basis of the system is weak or vulnerable...



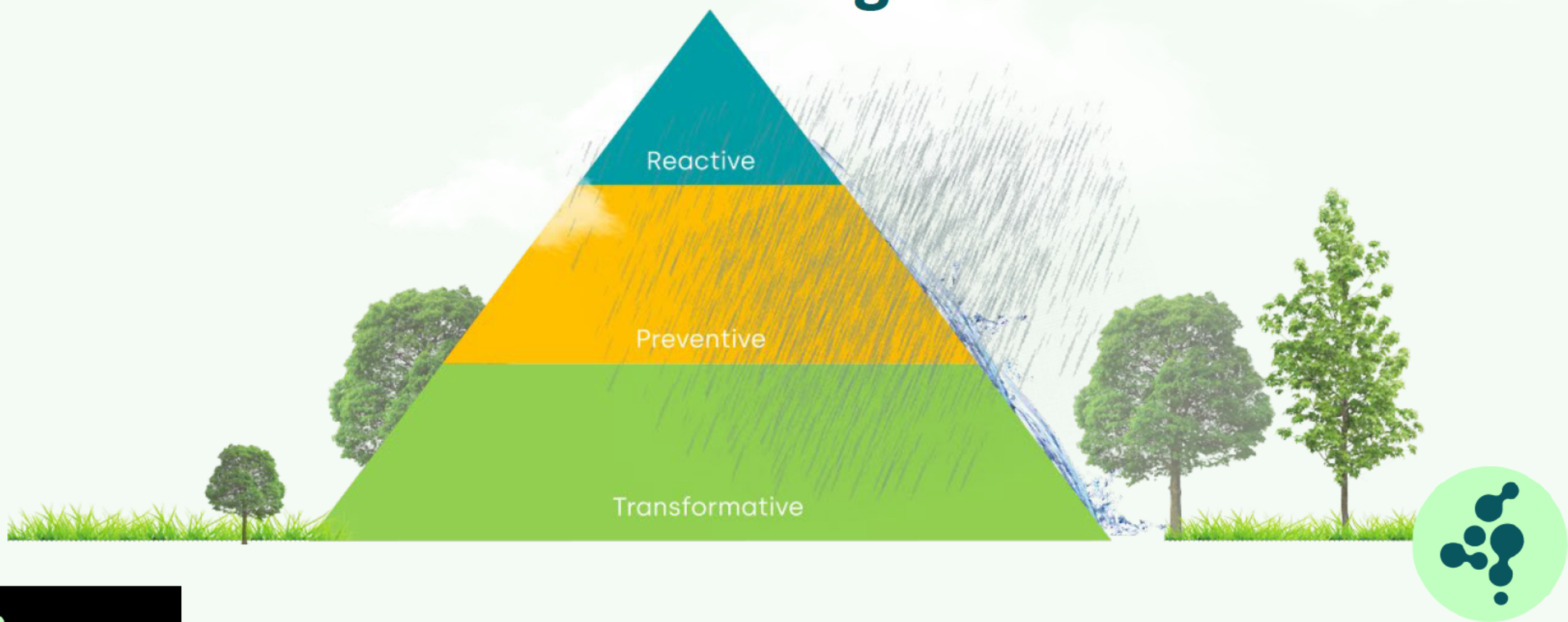
... the system may collapse



The Adaptation Pyramid appears to be appealing for defining goals and setting course in The Netherlands



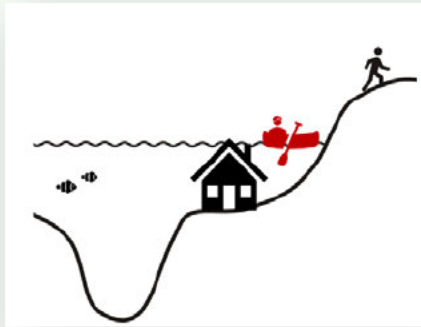
The Adaptation Pyramid appears to be appealing for defining goals and setting course in The Netherlands and the monitoring thereof



Different types of adaptation interventions

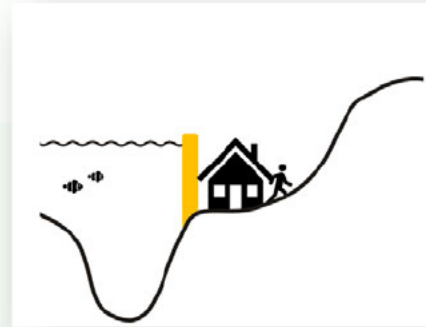
REACTIVE ADAPTATION

FLOODING



Placing sandbags
Flood early warning

PREVENTIVE ADAPTATION



The construction of flood engineering works

TRANSFORMATIVE ADAPTATION



Mangrove forest restoration

Sponge cities (urban green)

HEAT



Improved medical services
Accident & Emergency (A&E) capacity during a heatwave

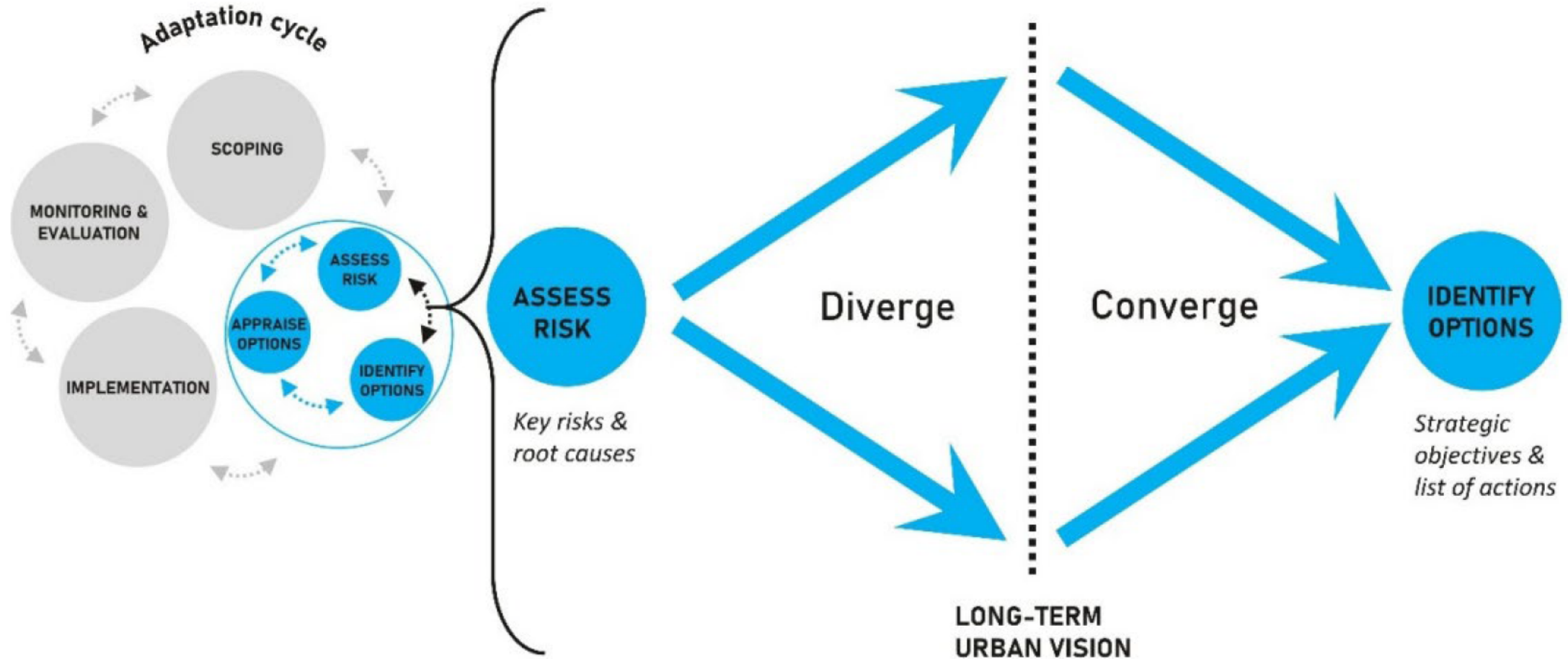


Installing air-conditioning units in public buildings and public transport



Implementing urban green infrastructure and building codes that require cool roofs, thereby mitigating urban heat islands while at the same time reducing the demand for energy and cooling bills

Adaptation cycle, divergence, and convergence



Make it a positive story



Risk Avoidance



“We want to prevent damage and climate risks to society”

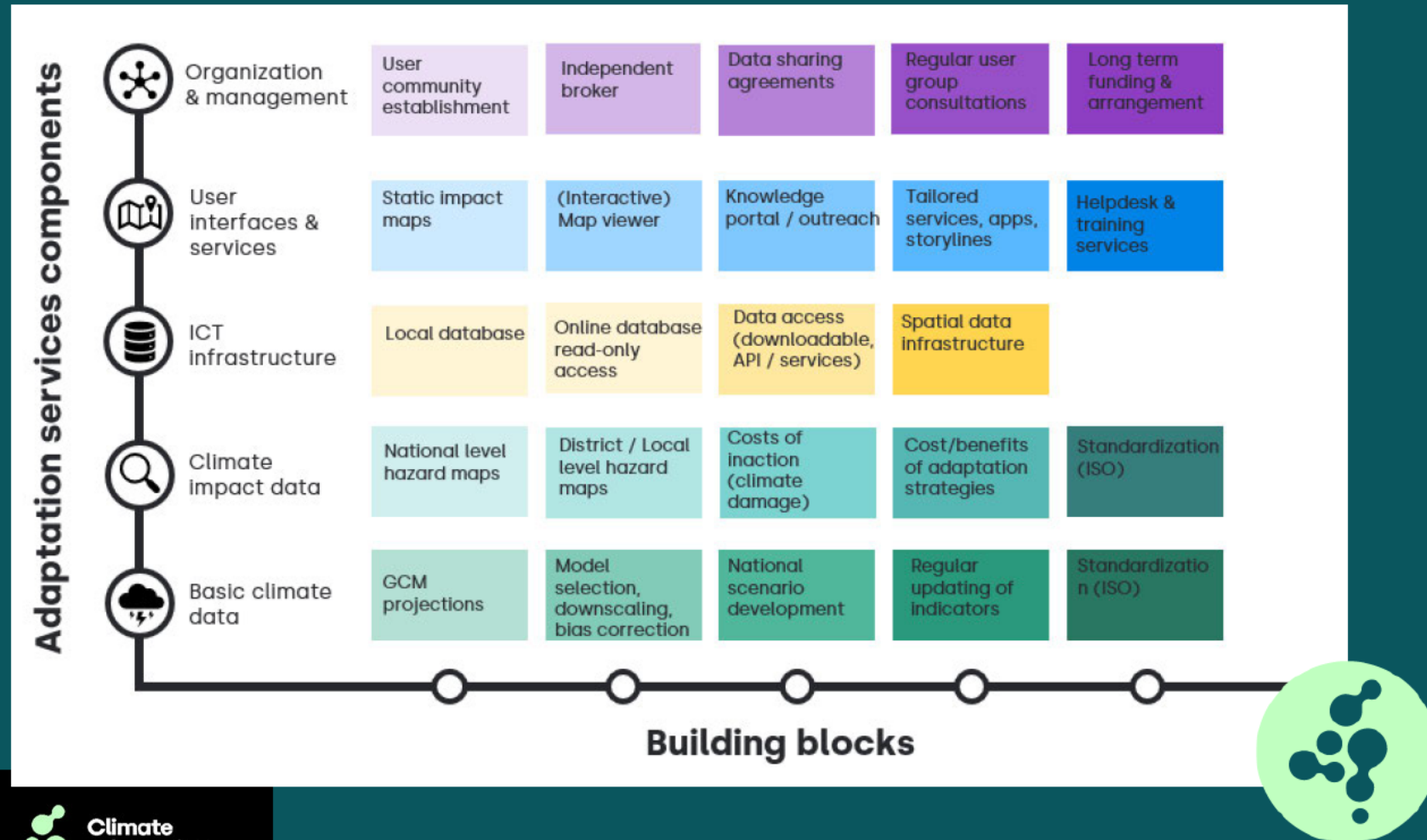


Opportunity

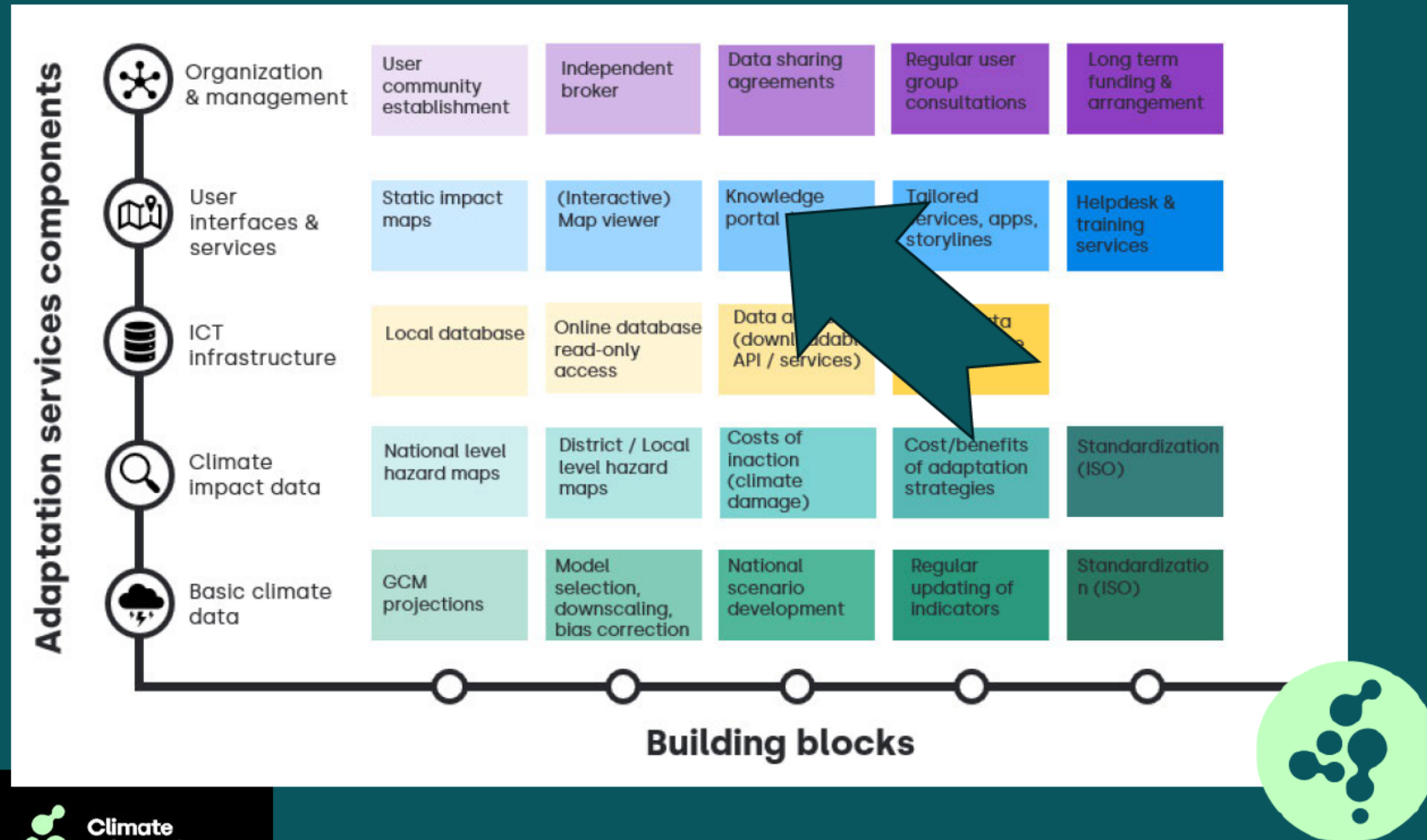


“We want resilient, sustainable, healthy and innovative cities”

Under construction: development of a road map for climate adaptation services



Under construction: development of a road map for climate adaptation services





Thank you for your attention!