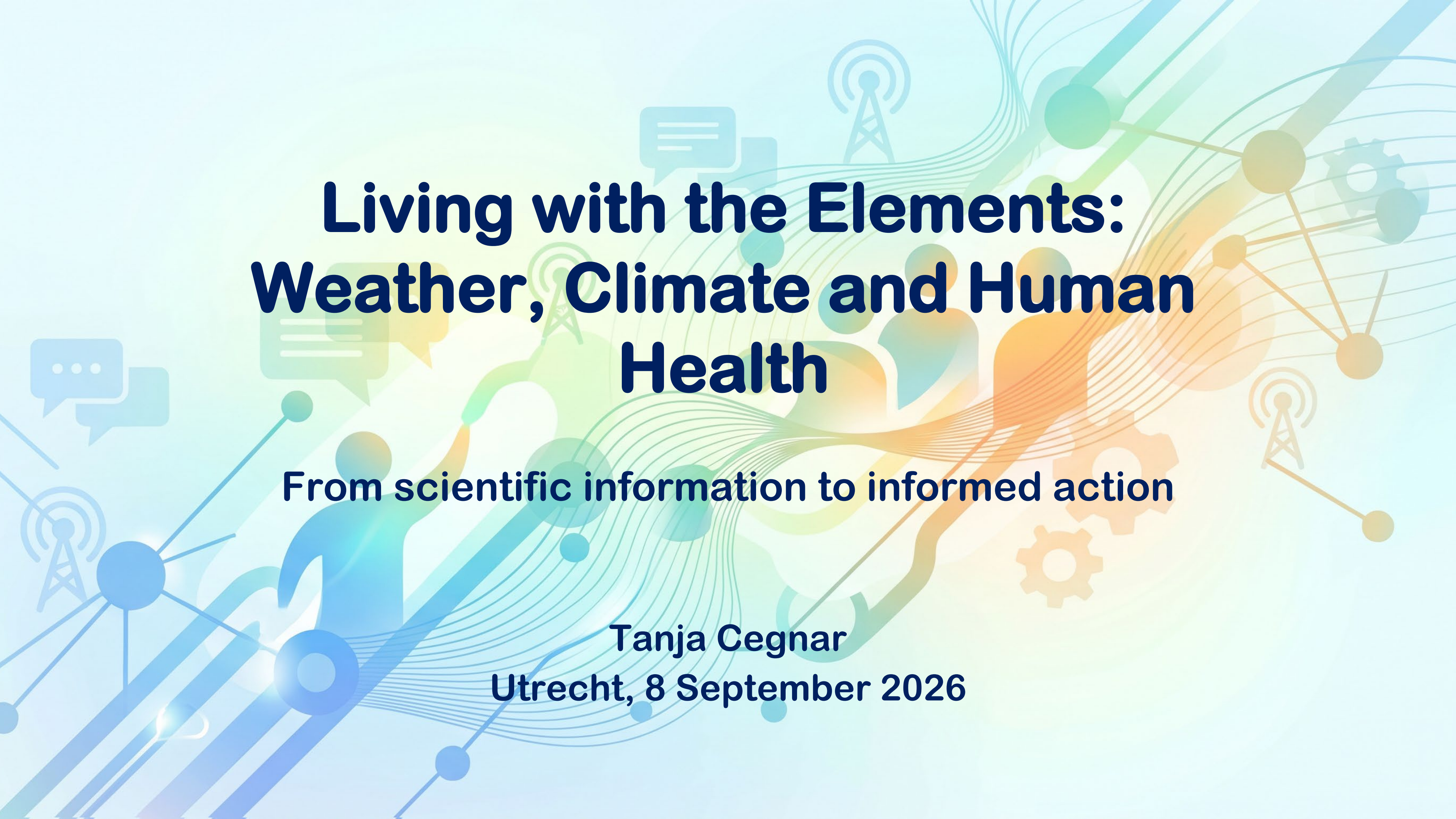




Living with the Elements: Weather, Climate and Human Health

From scientific information to informed action

**Tanja Cegnar
Utrecht, 8 September 2026**

Weather and climate information can help us:

- Understand health risks
- Anticipate hazardous conditions
- Protect vulnerable people
- Adapt everyday activities
- Support public-health decisions

But information only helps when people can understand and use it

Health impacts are connected to:

- Heat and cold
- Rapid weather changes
- Air pollution
- Pollen and allergies
- UV radiation
- Climate-sensitive diseases
- Urban environments
- Heat-related productivity loss

Different risks require different information — and different actions

Why communication matters

Effective communication helps to:

- Translate science into practical information
- Support protective behaviour
- Reach diverse audiences
- Strengthen preparedness
- Enable timely decisions
- Build resilience

Not just to communicate risk — but to enable action

From product to service

A useful health-weather product should answer:

What is happening?



What does it mean for health?



Who is most at risk?



What can I do?



When should I act?

Think beyond the product: design the service around the decision

Communication gaps

We often have:

- More data
- Better forecasts
- More sophisticated indices
- Improved modelling

But this does not automatically mean:

- Better understanding
- Greater trust
- Appropriate behaviour
- Better health outcomes

The missing link can be communication.

Co-design with the users

Start with the user

Provider + User + Science + Communication

Ask:

- Who will use the information?
- What decision do they need to make?
- When do they need it?
- What level of detail is useful?
- Which channel will reach them?
- What action should the information support?

Co-design from the beginning — not communication as an afterthought

One risk, different audiences

The same event can require different messages

- **Public health** ➡ preparedness & vulnerable populations
- **Health professionals** ➡ patient advice & clinical awareness
- **Employers** ➡ workplace protection & adaptation
- **Tourists** ➡ simple, timely protective advice
- **General public** ➡ clear risks + practical actions

One hazard. Different needs.

Communication in Biometeorology

Good communication requires:

Clear information ➡ understandable language

Relevant information ➡ tailored to user needs

Timely information ➡ available when decisions are made

Trusted information ➡ credible sources & consistent messages

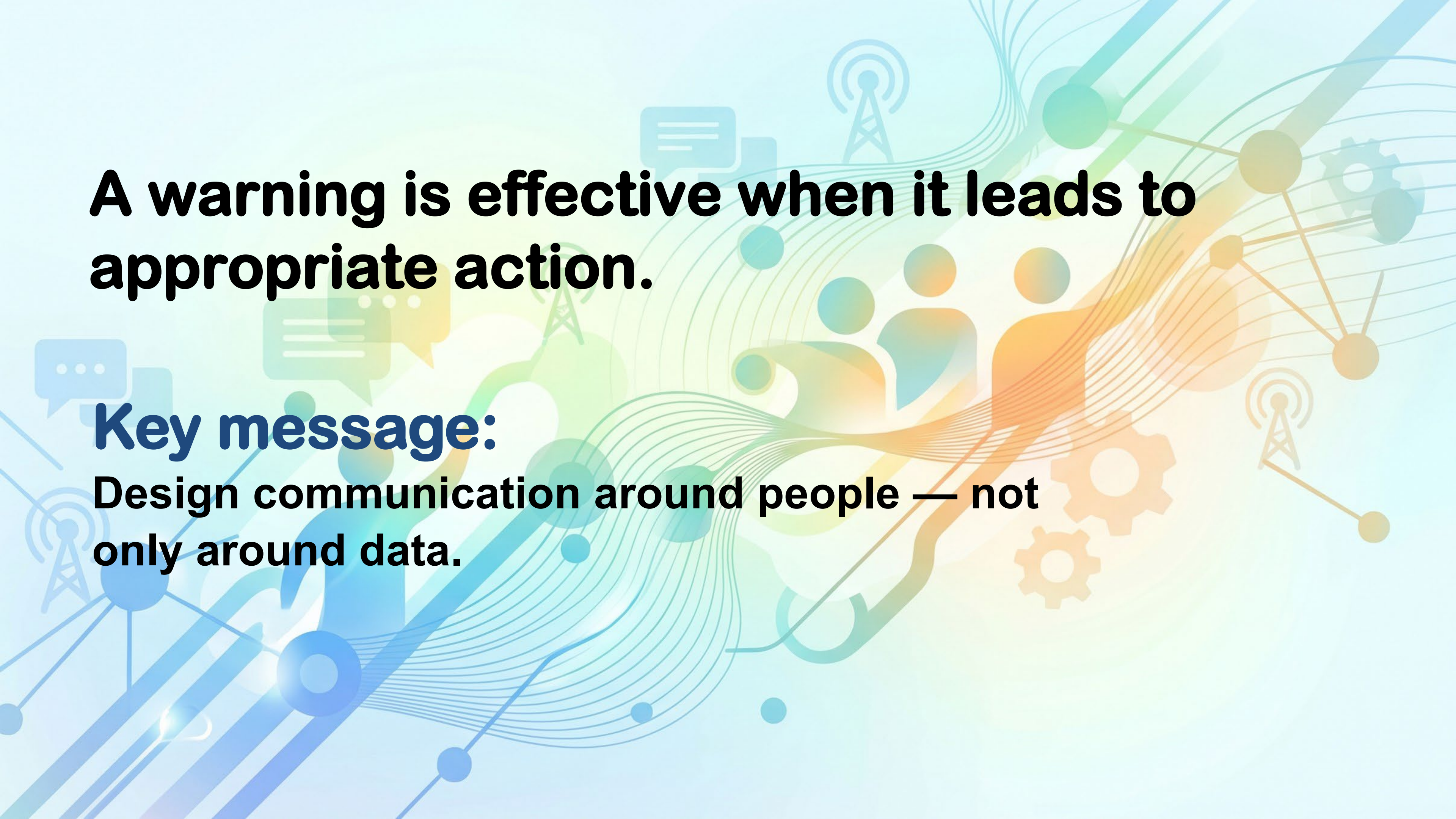
Actionable information ➡ clear behavioural guidance

Data Needs and Long-Term Planning

Better decisions require better evidence

- Comprehensive biometeorological datasets
- Health and environmental data
- Accessible and open data
- FAIR data principles
- Common standards and indices
- Long-term monitoring

From today's observations to tomorrow's climate resilience

The background is a light blue gradient with various abstract icons and lines. There are several speech bubbles in blue and green, some with three dots inside. There are also icons of radio towers, gears, and a network of nodes connected by lines. The overall theme is communication and technology.

A warning is effective when it leads to appropriate action.

Key message:

Design communication around people — not only around data.

From products to services, a change in perspective

Product-oriented

“What information can we provide?”



Service-oriented

“What decision does the user need to make?”



User-centred

“How can we support that decision?”

Collaboration is essential

No single discipline can address climate and health risks alone.

Meteorology
+
Biometeorology
+
Public health
+
Research
+
Communication
+
Urban planning
+
Policy
+
Users

Together we can turn knowledge into resilience

Key messages

- **Good science and good data are necessary — but not sufficient**
- **Effective communication is part of adaptation**
- **Products should be co-designed with their users**
- **Information should lead to informed action**

Join us at the EMS workshop, 10 September 2026, Utrecht



Living with the Elements: Weather, Climate, and Human Health

Rebuilding trust in science with AI

European Meteorological Society Annual Meeting
8 September 2026



earth info hub

Brigitte Perrin
Founder, Earth Info Hub

The problem is no
longer information
scarcity — it is noise

Scientists retain public trust

- **78%** of people worldwide perceive scientists as highly competent and qualified to conduct high-impact research. (*Nature Human Behaviour 2025*)
- Trust in news has fallen to **37 %**, its lowest level since measurements began in 2015. (*Reuters Institute Digital News Report 2026*)
- **72%** of researchers believe that the information environment will deteriorate (*IPIE Global Information Environment Expert Survey 2025*)

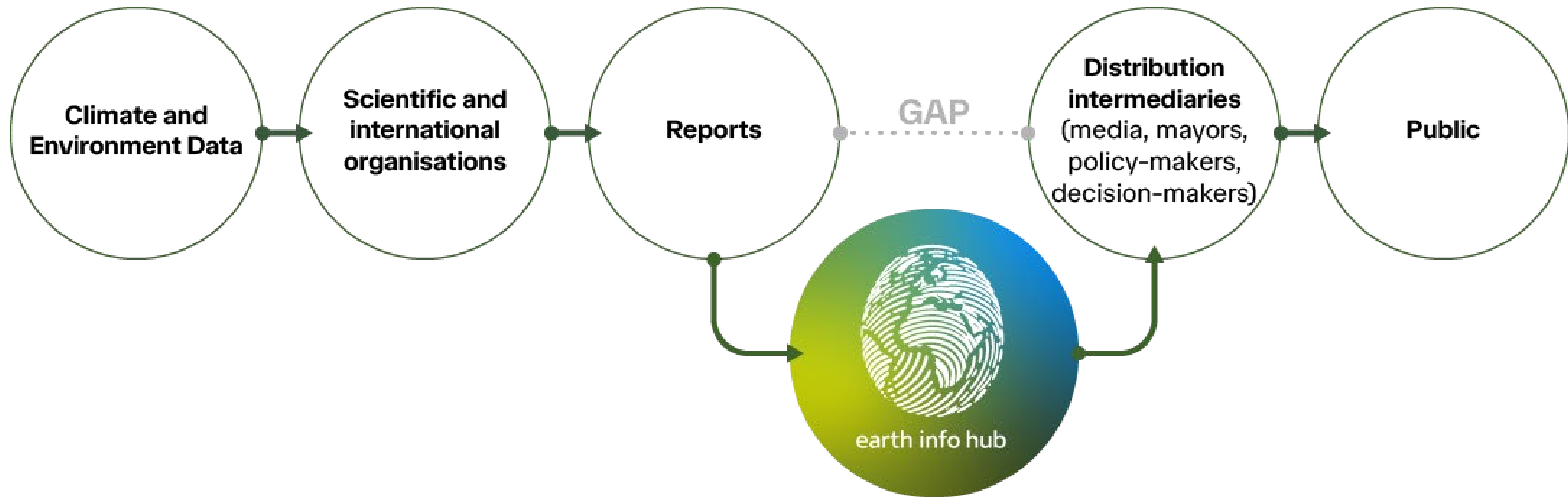
The Earth Info Hub:

**Artificial
Intelligence**



**Human
Intelligence**

The GAP we are filling



What sits behind the AI — and what doesn't

- A selected corpus of **authoritative reports** covering climate and the environment
 - **Publicly available** documents only
 - No individual research papers, raw data or media articles — for now
- > Sources are **already processed outputs** of research and data produced by trusted organisations.

Scientists need to be in the loop

Earth Info Hub Scientific Advisory Group (SAG):

- Help define what constitutes an **authoritative source**
- Identify **gaps, overlaps and scientific boundaries**
- Challenge our methodology and help us identify where AI could get it wrong
- Contribute in your **individual expert capacity**

Why this matters

- Faster access to **authoritative scientific information**
- Better **understanding and decision-making**
- Greater resilience to **mis- and disinformation**
- A stronger connection between **scientists, institutions and users**

Keep in touch.



Brigitte Perrin



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