

Indicator implementation and mapping the selected indicators with the international reporting streams, policies and assessments

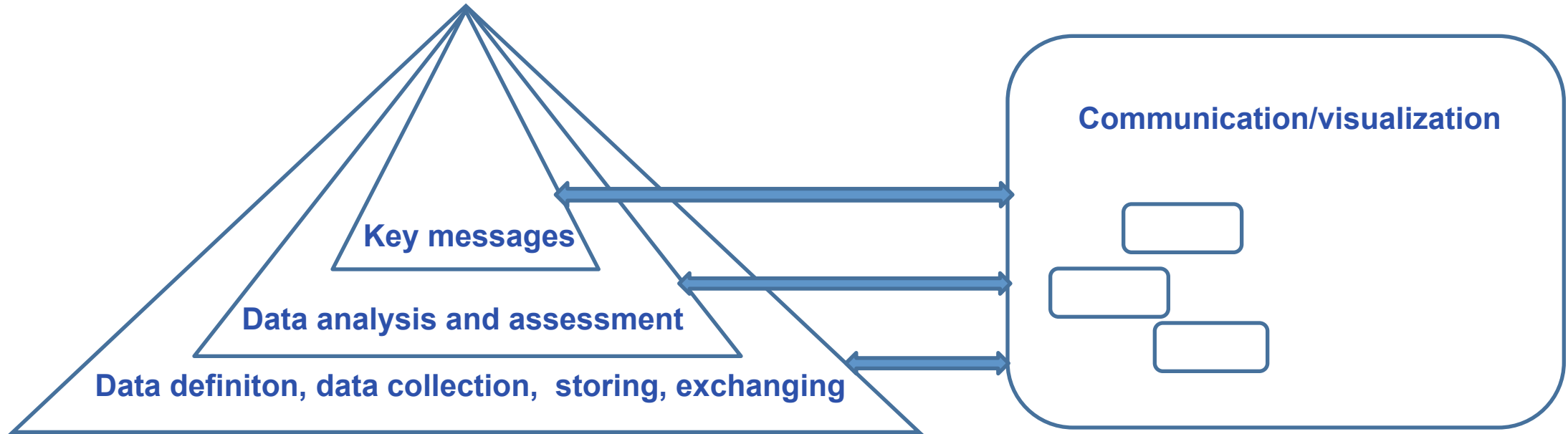


Environmental indicators:

1. Environmental areas: water, marine, air, land and soil, waste, energy, industrial pollution, climate
2. Inform us about environment and “how well we are doing”: policy, expert/technical, scientific level
3. Clearly defined, based on data, with policy relevance, communicated
4. Reporting and sharing information
5. Existing international “reporting” streams



Reporting/sharing:



International reporting streams

- UNECE indicators
- Conventions (Black Sea, transboundary water courses ..)
- Sustainable development goals (SDGs)
- UN Green growth and UN Resource efficiency concept
- EEA indicators

...are using indicators as a common working background, for common understanding, for communication, for policy formation and **for assessment of „how well we are doing“**



Environmental indicators – EEA

- Why we use indicators? “To answer key policy questions and support all phases of environmental policy making, from designing policy frameworks to setting **policy targets**, and from policy monitoring and evaluation to communicating to policy-makers and the public”.
- The indicators are classified as follows:

Descriptive indicators (Type A) responding to the question: *What’s happening?*

Performance indicators (Type B): *Does it matter? Are we reaching targets?*

Efficiency indicators (Type C): *Are we improving?*

Policy effectiveness indicators (Type D): *Are the measures working?*

Total welfare indicators (Type E): *Are we, on the whole, better off?*



Environmental indicators in the area of water:

Water quality: chemical, physical, ecological, bacteriological ...

–Water quantity: in each compartment of hydrological cycle (precipitation, rivers, groundwater, soil water, ETP)

–Water use efficiency: by sectors, by regions, by inhabitants...

–Emission to water...

– other: floods, droughts...



List of selected UNECE water quantity indicators

- C1 - Renewable freshwater resources
- C2 - Freshwater abstraction
- C3 - Total water use
- C4 - Household water use per capita
- C5 - Water supply industry and population connected to water supply industry



List of selected UNECE water quality indicators

- C10 - Biochemical oxygen demand (BOD) and concentration of ammonium in rivers
- C11 - Nutrients in freshwater



Mapping (relating) UNECE indicators with SDGs



SUSTAINABLE DEVELOPMENT GOALS



Mapping (relating) UNECE indicators with SDGs

Main link to [SDG 6 - Clean Water and Sanitation](#).

- **Target 6.1: By 2030, achieve universal and equitable access to safe and affordable drinking water for all.**

→ Relative UNECE indicators **C4** and **C5**, with a focus on indicator components:

“Population connected to water supply industry [volume of water per cap]”

“Population not connected to water supply industry (self supply) [volume of water per cap]”

“Population connected to water supply industry [in share %]”

- **Target 6.3: By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.**

→ Relative UNECE indicators **C10** and **C11**:

“ Biochemical oxygen demand (BOD) and concentration of ammonium in rivers “

„Nutrients in freshwater”



Mapping (relating) UNECE indicators with SDGs

Main link to [SDG 6 - Clean Water and Sanitation](#).

- **Target 6.4: By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.**

→ Relative UNECE indicators **C1**, **C2** and **C3**, with a focus on indicator components:

“Water Exploitation Index (WEI) [in %]”

“Losses of water during transport [in million m³]”

“Total freshwater use per unit of GDP [in million m³ per \$ PPP per year]”



Mapping UNECE indicators with UN Green Growth

UNEP's [Green Economy Report 2011](#) suggested the following water quantity indicators to be tracked:

- **The number of people without access to reliable supplies of clean water**
 - Relative UNECE indicators **C4** and **C5** (component: “Population not connected to water supply industry (self supply) [in million cap]”)
- **The volume of water available per person in a region**
 - Relative UNECE indicator **C1** (after dividing renewable freshwater resources with population)
- **The efficiency of water supply in the urban sector and water use**
 - Relative UNECE indicator **C3** (after breaking down total use and economic production to sectors)
- **The efficiency of water use in the agricultural and industrial sectors**
 - Relative UNECE indicator **C3** (after breaking down total use and economic production to sectors)
- **The water use and water related impacts of countries**
 - Relative UNECE indicators **C2**, **C3** (components: “Total freshwater use per unit of GDP [in million m³ per \$ PPP per year]”), “Water Exploitation Index (WEI) [in %]”)



Mapping UNECE indicators with Green Growth

UNEP's [Green Economy Report 2011](#) suggested the following water quality indicators to be tracked:

- **Monitoring water quality**
- **Tackling global water pollution**
- **Mainstreaming freshwater ecosystem health**
 - Relative UNECE indicators **C10** and **C11**



Relating UNECE indicators with UN Resource Efficiency

The screenshot shows the UN Environment website's 'Resource efficiency' page. At the top, there is a navigation bar with links for 'Regions', 'About Us', 'Work With Us', and 'Languages'. The UN Environment logo is on the left, and a search bar is on the right. Below the navigation, the main heading is 'Resource efficiency' with the subtext 'We work to accelerate the transition to resource-efficient and sustainable economies.' A green button with a play icon and the text 'LEARN MORE ABOUT RESOURCE EFFICIENCY' is positioned below the subtext. The background image shows a worker in an orange safety vest and white hard hat installing solar panels on a roof. Below the main content area, there are two sections: 'THE CHALLENGE' with the text 'We must decouple economic development from environmental degradation while ensuring that the' and 'THE WORK' with a circular diagram showing a cycle of people and resources. Social media icons for Facebook, Twitter, LinkedIn, and Email are in the bottom right corner.

<http://www.unenvironment.org/explore-topics/resource-efficiency>

European Environment Agency
European Topic Centre on Inland,
Coastal and Marine Waters



Relating UNECE indicators with Resource Efficiency

The UN agenda on [Resource efficiency](#) mainly focuses on producing more with less, while minimising the risks to the environment.

For resource efficiency in the context of Water, the related UNECE water indicators are **C10** and **C11** (water quality) and **C1**, **C2**, **C3**- especially indicator components:

- Water Exploitation Index (WEI) [in %]
- Losses of water during transport [in million m³]
- Total freshwater use per unit of GDP [in million m³ per \$ PPP per year]

Water is at focus in the following areas:

Sustainable consumption and production: the use of services and related products, which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product

Responsible industry: responsible industrial practices include tourism, eco-innovation, eco-labelling and consumer information

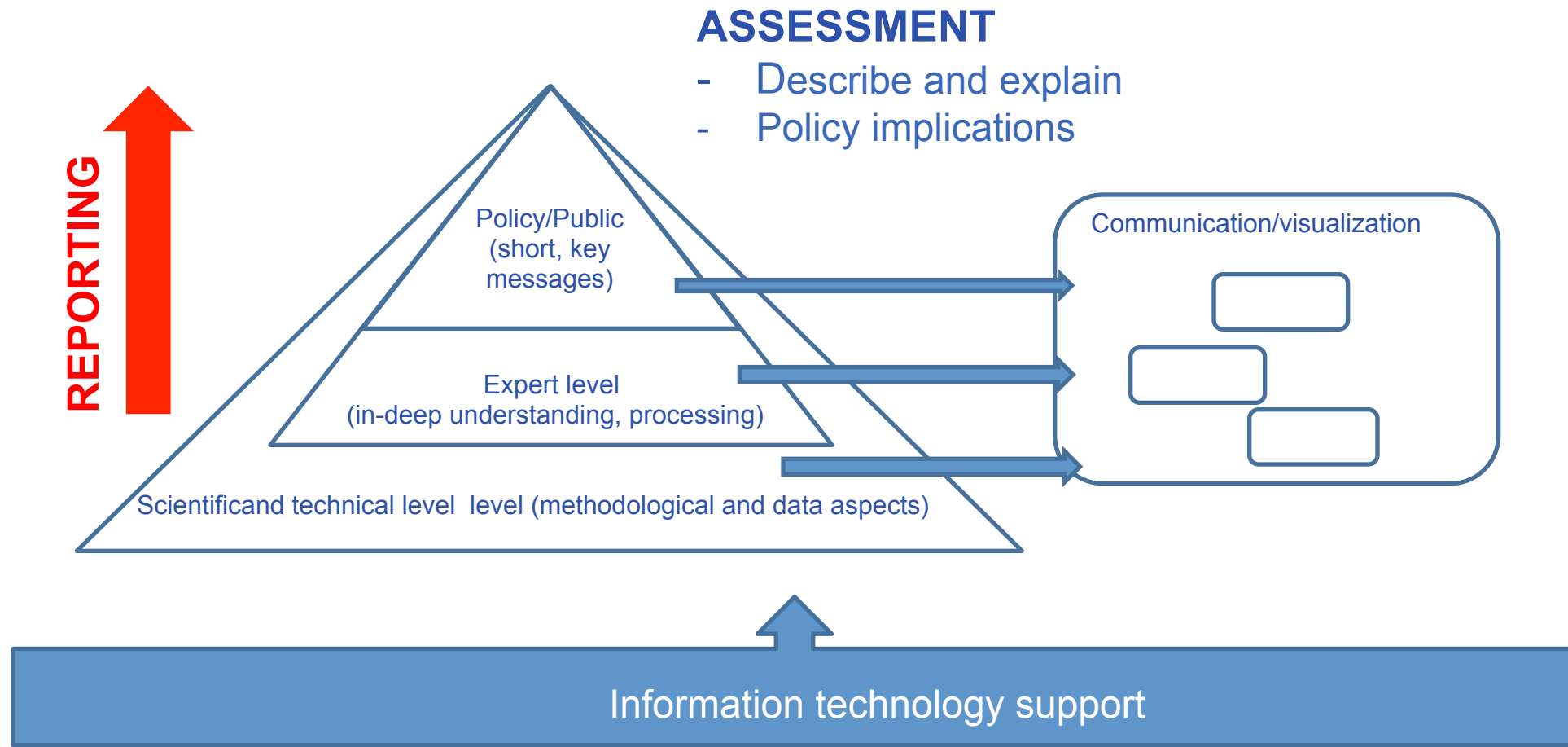
The Life Cycle Initiative: offering technical and policy advice, capacity development and knowledge

We focus on buildings and infrastructure, transport, air pollution, waste and water management, biodiversity and ecosystems.

Cities: support cities across the world in addressing environmental impacts and integrating the environment into cities' long-term strategic planning (buildings and infrastructure, transport, air pollution, waste and water management, biodiversity and ecosystems); to develop and implement policies which support low-carbon, resource efficient and green growth as well as policies on mitigation and adaptation to climate change.



Indicator implementation



Indicator implementation – processing steps

- Data collection and storage
- Data extraction and selection
- Data analysis
 - Methods for spatial and temporal analysis
 - Visualisation: Graphs, maps, tables
- Assessment
 - Describe and explain/Policy implications

