# PAWA – Pilot Arno Water Accounts

Training session on SEEA-W
System of Environmental-Economic Accounting for Water

## SEEA-W framework, water policy and the EU approach

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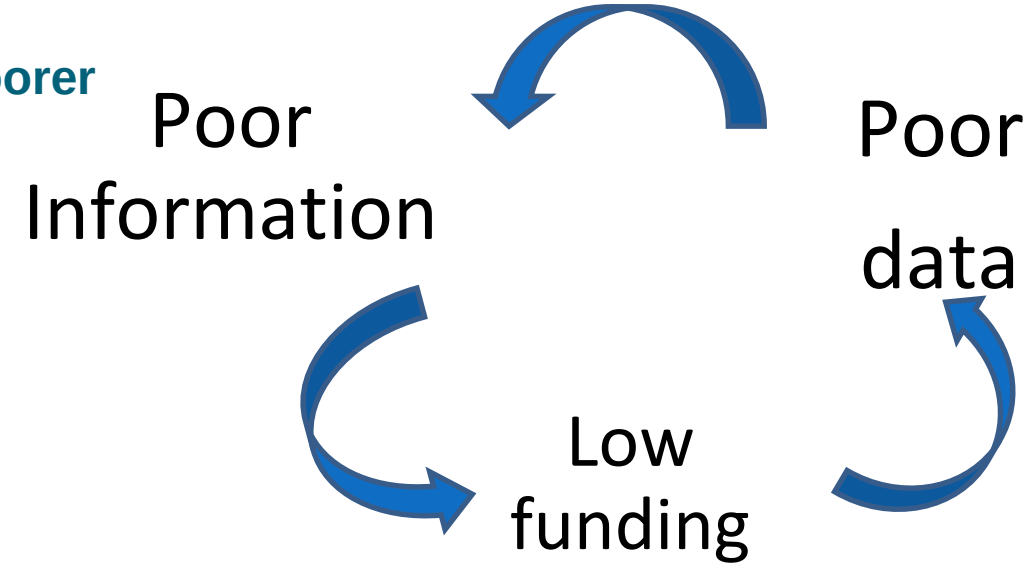
# Water management and information

**Water management is in a vicious cycle: there is insufficient data, which is translated into poor information. In turn this results in low funding for data production, having as consequence even poorer data.**



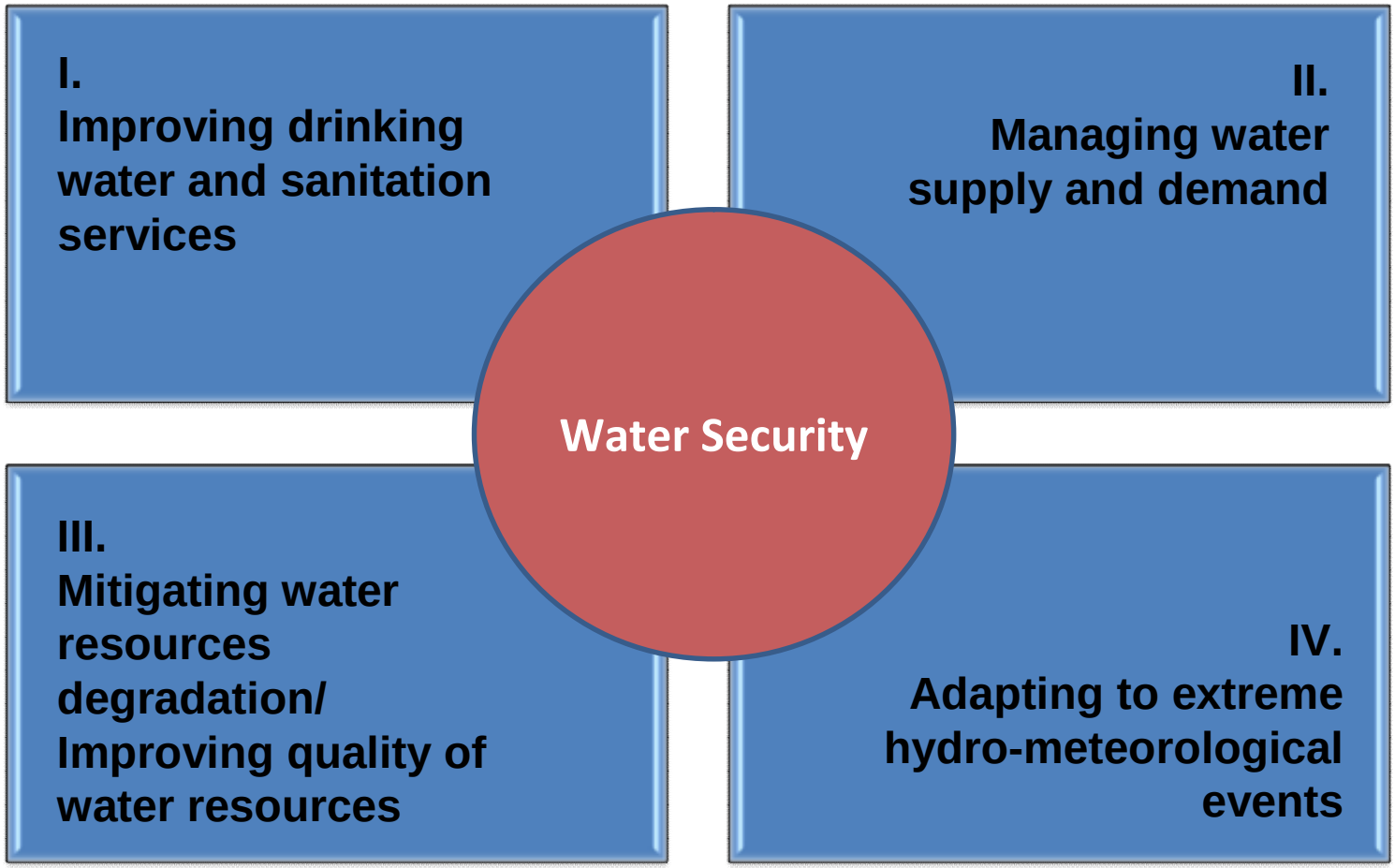

**This vicious cycle needs to be transformed into a virtuous cycle in which data is transformed into valuable information generating an incentive for producing better data, which in turns results in more and better data. How do we achieve this?**

# UN efforts towards harmonised information

- **1947, Creation of UN Statistic Division**
- **1953, System of National Accounts –SNA adopted: framework to connect data with policy.**
- **1993, Handbook on environmental accounting adopted in response to Rio (1992)**
- **2007: System of Environmental-Economic Accounting for Water (SEEA-Water)**
- **2010: International Recommendations for Water Statistics were adopted**
- **2012: SEEA-Water adopted as international statictics standard**

The SEEA-Water and the IRWS provide the framework for developing indicators that are comprehensive, consistent, and comparable through time and space.

## Water policy objectives can be grouped in the following four quadrants:




**SEEA-Water and IRWS provide the concepts and methods for measuring progress towards the attainment of the objectives in each of the four quadrants, as well as higher level indicators linking water security with human well being.**

# The four quadrants in plain English:

**Water Security**

**I.**
**Nature provides water, but not the pipes**

**II.**
**Water is enough, if it is well managed**

**III.**
**Water cleanses, but cannot absorb all our wastes**

**IV.**
**Too much, too little, better be prepared**

**Sustainable development requires good water and sanitation services for all, sharing water to maximize benefits, making sure we don't exceed water's carrying capacity, and getting ready for wet and dry years. The four quadrants are interconnected.**

## Key information required:

**I.**
**Improving drinking water and sanitation services**

- Number of people with access to improved water and sanitation (MDG, from JMP)
- Tariffs, taxes and transfers
- All costs associated to the provision of the services
- Investments in infrastructure and value of infrastructure
- Volume of water abstracted, distributed and lost (unaccounted for water)

Key indicators for this quadrant can be derived from the standardized information collected according to SEEA-Water and IRWS concepts and definitions. The indicators can therefore be consistent and comparable over time and space.

## Key information required:

**II.**
**Managing water supply and demand**

- Renewable inland water resources
- Water abstracted/consumed/returned by economic activities (including households).
- Water productivity by economic activity
- Trade off when allocating water
- Investments in hydraulic infrastructure and value of existing infrastructure

**Key indicators for this quadrant can be derived from the standardized information collected according to SEEA-Water and IRWS concepts and definitions. The indicators can therefore be consistent and comparable over time and space.**

## Key information required:

**III. Mitigating water resources degradation/ Improving quality of water resources**

- Waterborne pollutants emitted by economic activity
- Pollutants removed as a result of treatment
- Water quality assessments in watercourses
- Regulatory services provided by ecosystems in terms of assimilation of waterborne pollution (water purification and disease control)
- Measures of the health of the water ecosystems

**Key indicators for this quadrant can be derived from the standardized information collected according to SEEA-Water and IRWS concepts and definitions. The indicators can therefore be consistent and comparable across time and space**

## Key information required:

**IV. Adapting to extreme hydro-meteorological events**

- Water stocks and variations through time (surface and groundwater).
- Investments for the storage and control of water
- Disturbance prevention
- Regulatory services provided by the ecosystems in terms of water flows

**Key indicators for this quadrant can be derived from the standardized information collected according to SEEA-Water and IRWS concepts and definitions. The indicators can therefore be consistent and comparable across time and space**

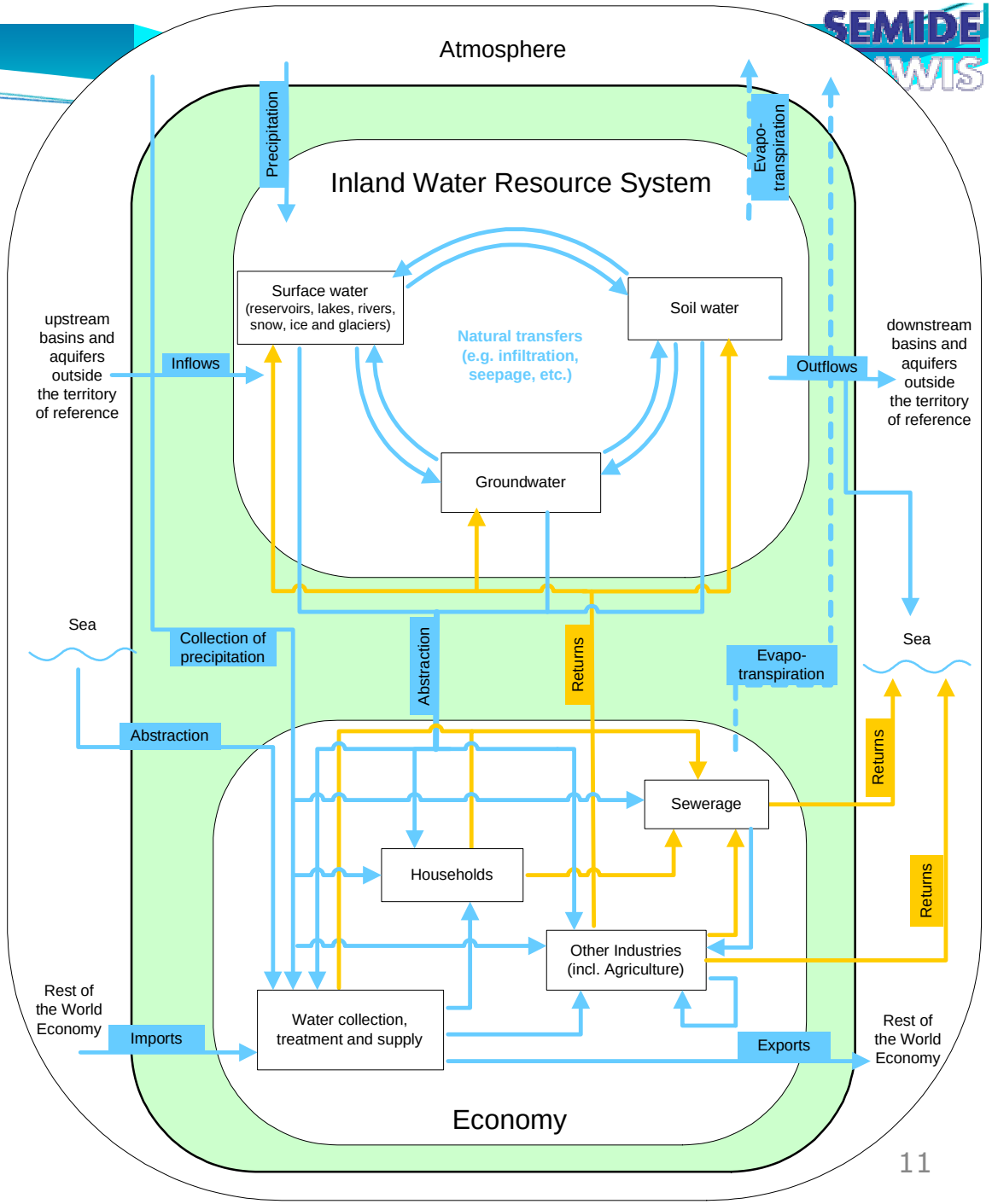
# IRWM and its links to SEEAW

*IWRM calls for sustainable management of water resources to ensure that there is enough water for the future generations and that the water meets high quality standards*
*For policy making and planning taking an IWRM approach requires that policies and priorities take water resources implications into account including the two-way relationship between macro-economic policies and water development, management and use*

- Allocating water resources efficiently
- Improving water efficiency
- Understanding the impacts of water management on all users
- Getting the most value for money from investment in infrastructure
- Linking water availability and use
- Providing a standardized information system which harmonizes information from different sources, is accepted by the stakeholders and is used for the derivation of indicators

# SEEAW

- **Provides comprehensive, consistent and comparable policy relevant information**
- **Covers the full water cycle**
- **Stocks and flows**
- **linking water information with economic information**
- **Built on existing capacity and stakeholder owned information**



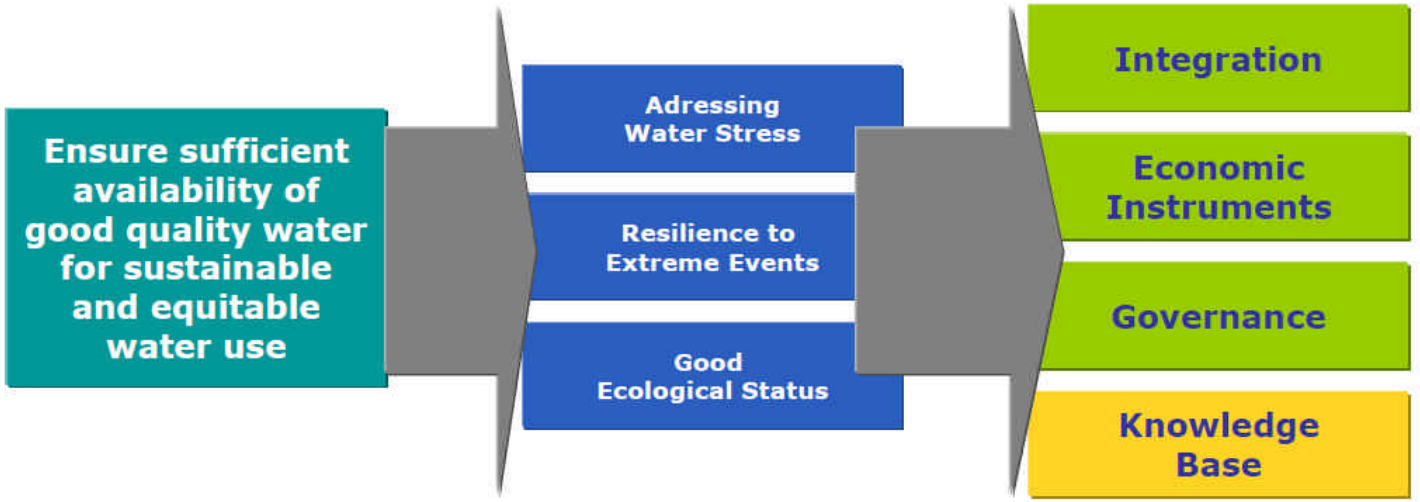
# 12 Standard Tables of SEEA-Water

1. Physical supply
2. Physical use
3. Gross and net emissions (of pollution)
4. Emissions (of pollution) by Sewerage Industry (ISIC 37)
5. Hybrid (Monetary and Physical) supply
6. Hybrid use
7. Hybrid supply and use
8. Hybrid water supply and sewerage for own use
9. Government accounts for water related collective consumption services (Monetary)
10. National expenditure for waste management (Monetary)
11. Financial accounts for waste water management (Monetary)
12. Asset account (Physical)

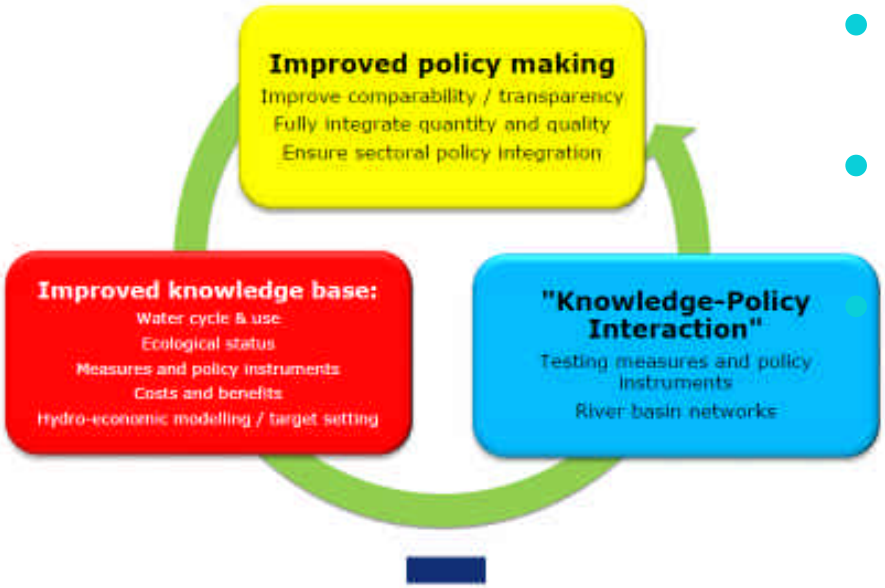
Plus 12 Supplementary tables

# EU approach

## Blueprint Objectives



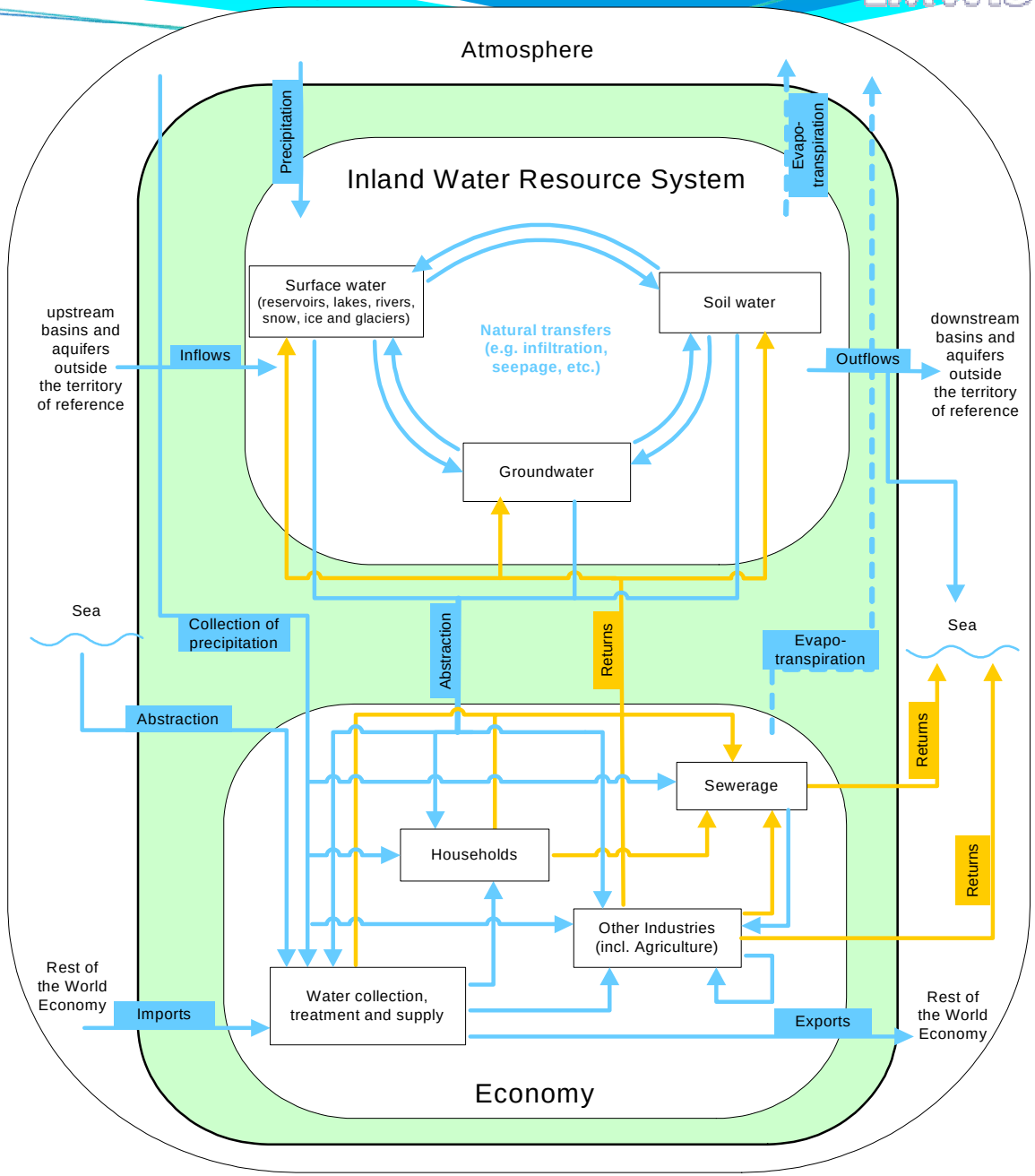

## Knowledge-Policy Interface




- EU Water balances as indicator for water scarcity
- Based on UN-SEEA-W methodology (2007)
- Shift from **Year / Country** to **Month / sub-basin**

# EU focus for SEEA-W implementation

- Physical flow accounts: flows **between the environment and the economy** (e.g. water abstractions / returns);
- **Environmental assets**: that can be expressed in monetary and physical units, depending on the category
- No economic exchanges between uses



# Thank you for your kind attention!

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