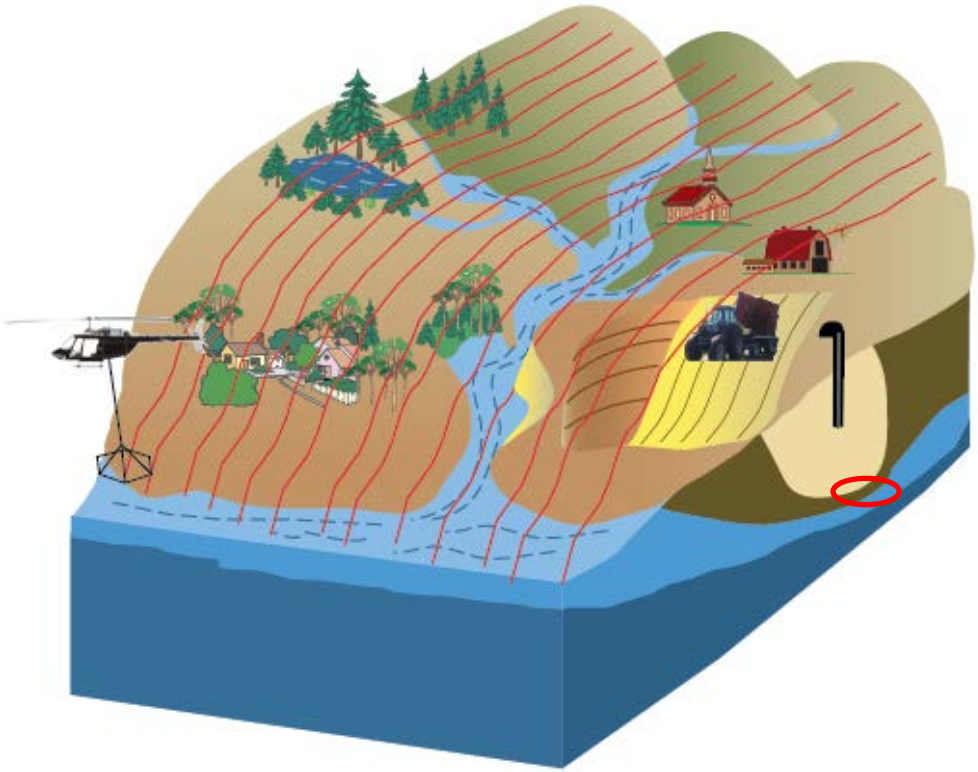
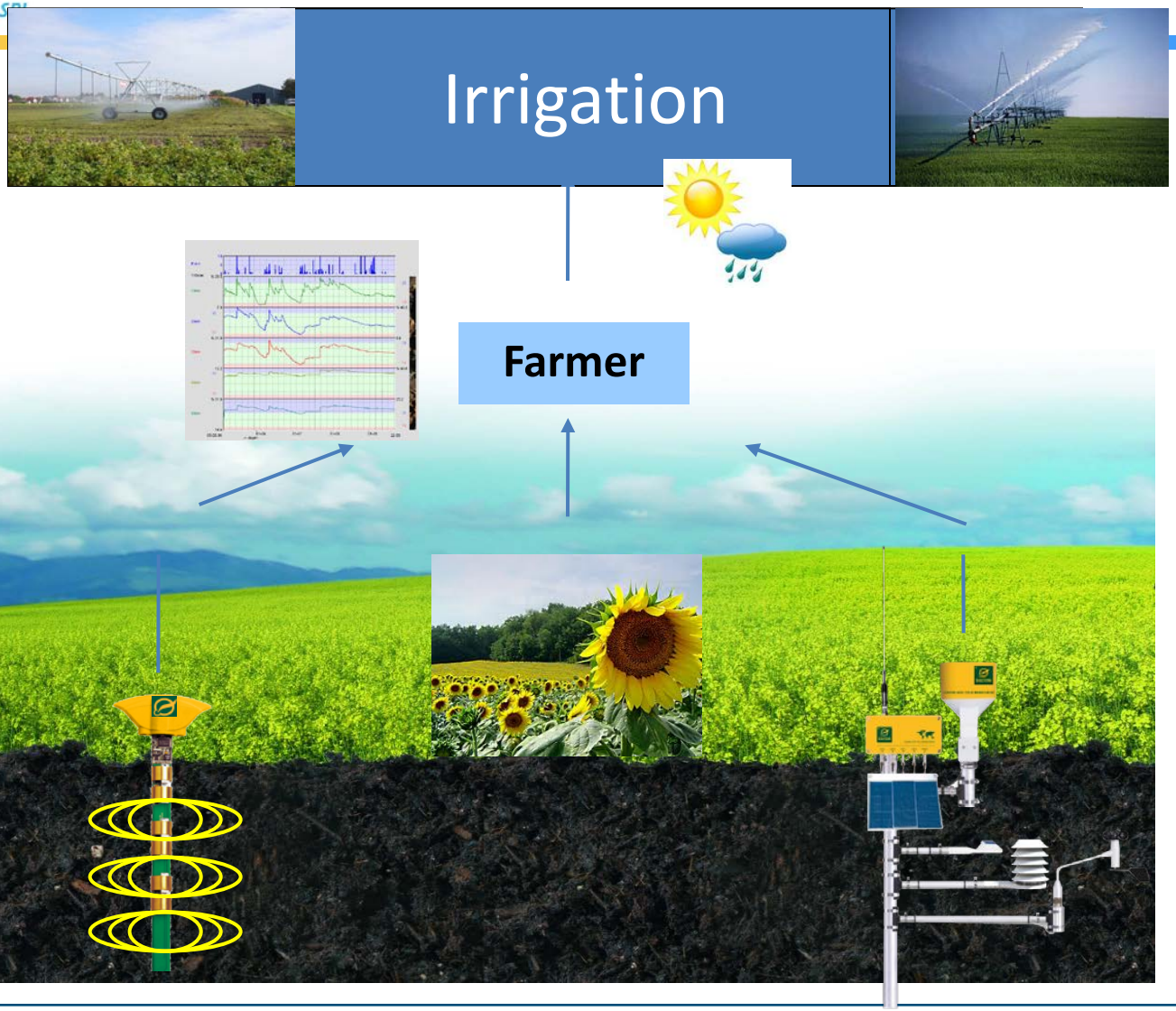
DROUGHT-R&SPI

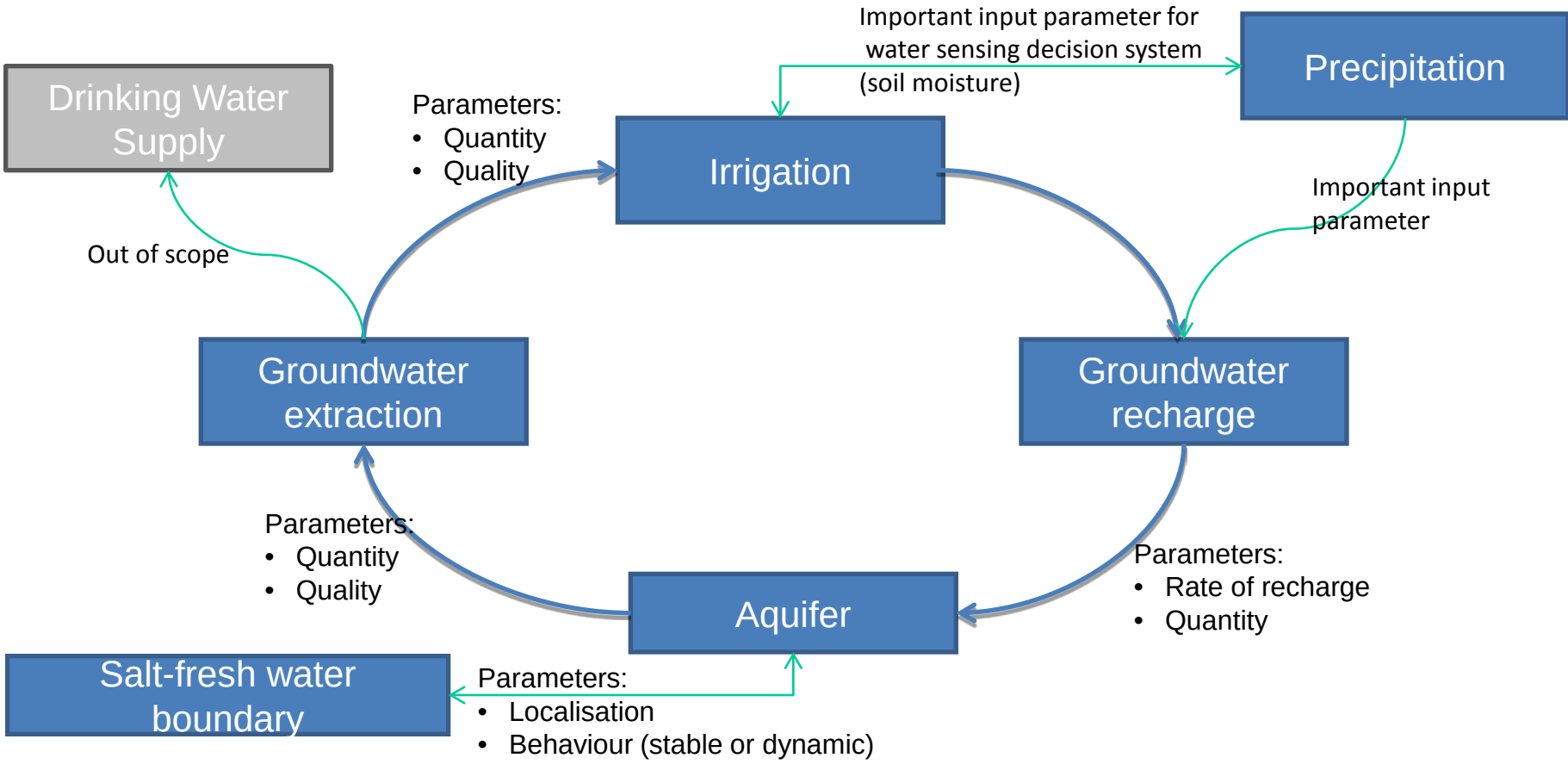
Promilleafgiftsfonden for landbrug

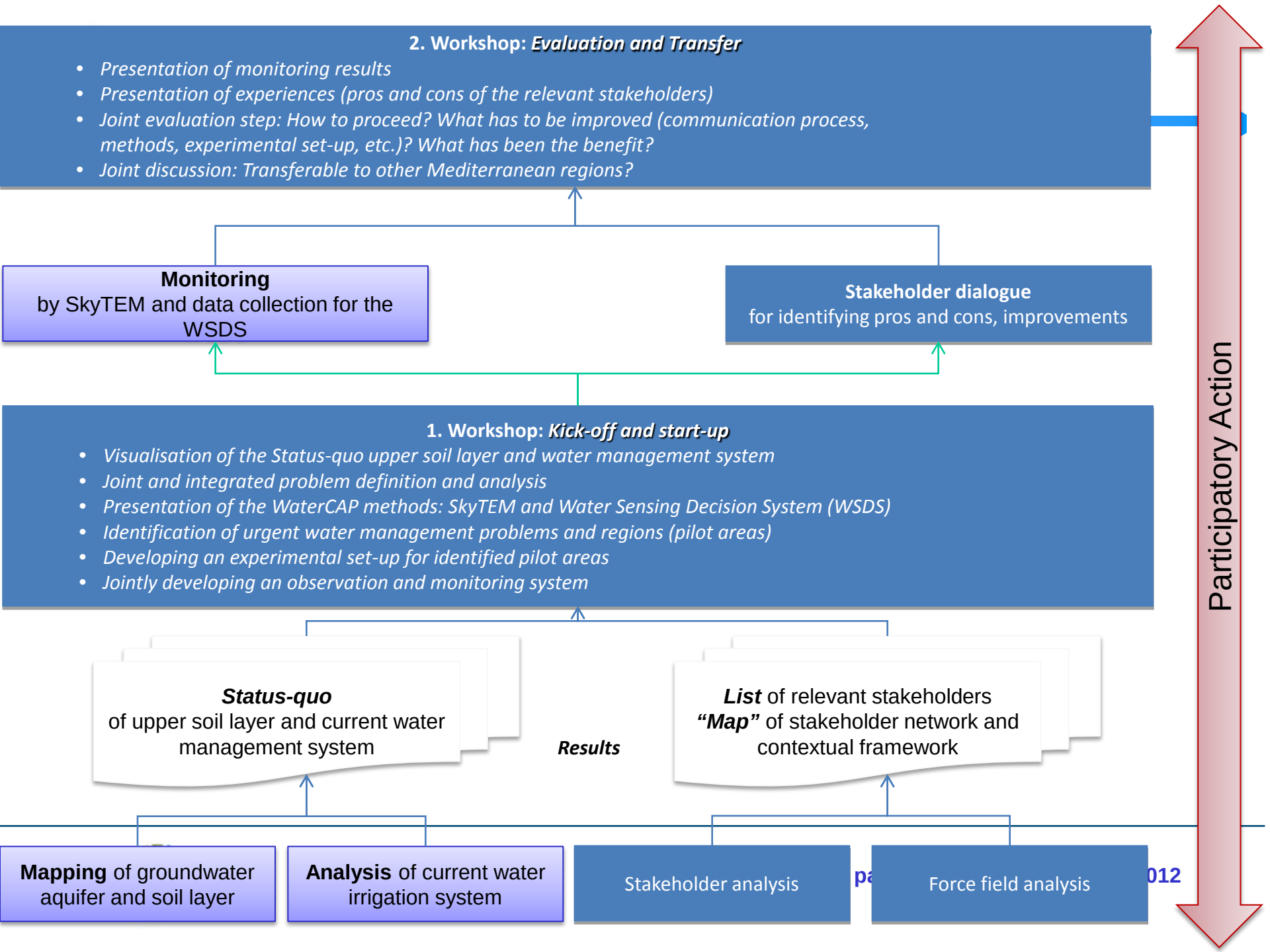
WaterCAP



DROUGHT-R&SPI




Drinking Water Supply
Parameters:
• Quantity
• Quality
Irrigation
Important input parameter for water sensing decision system (soil moisture)
Precipitation
Important input parameter
Out of scope
Groundwater extraction
Groundwater recharge
Parameters:
• Quantity
• Quality
Parameters:
• Rate of recharge
• Quantity
Aquifer
Salt-fresh water boundary
Parameters:
• Localisation
• Behaviour (stable or dynamic)


2. Workshop: Evaluation and Transfer
• Presentation of monitoring results
• Presentation of experiences (pros and cons of the relevant stakeholders)
• Joint evaluation step: How to proceed? What has to be improved (communication process, methods, experimental set-up, etc.)? What has been the benefit?
• Joint discussion: Transferable to other Mediterranean regions?
Monitoring
by SkyTEM and data collection for the WSDS
Stakeholder dialogue
for identifying pros and cons, improvements
1. Workshop: Kick-off and start-up
• Visualisation of the Status-quo upper soil layer and water management system
• Joint and integrated problem definition and analysis
• Presentation of the WaterCAP methods: SkyTEM and Water Sensing Decision System (WSDS)
• Identification of urgent water management problems and regions (pilot areas)
• Developing an experimental set-up for identified pilot areas
• Jointly developing an observation and monitoring system
Status-quo
of upper soil layer and current water management system
Results
List of relevant stakeholders
"Map" of stakeholder network and contextual framework
Mapping of groundwater aquifer and soil layer
Analysis of current water irrigation system
Stakeholder analysis
Force field analysis
Participatory Action

- List of reference

- See also the WaterCAP wow stories and policy briefs.

- www.watercap.eu

Ideas and thoughts behind the slides

Picture 1: shows an allmost replicate of the case study River basin that EU DDF proposed. This picture has been chosen as the starting point of the slide since we want to show that the SkyTEM mapping is on a regional scale and hence relevant for all sectors (agriculture, industry, nature etc.) that are reflected in the picture.

Picture 2: The SkyTEM system is introduced by means of a helicopter with a frame beneath hovering over the landscape (Tried to incorporate the wow-efffect of having an helicopter-borne mapping system). The SkyTEM system should be presentated as non-technical as possible. I propose that we simply call the system a big sensor capable of mapping the geological setting in the underground (i.e. clay and sand layers).

Picture 3-12: All the images shows how the SkyTEM system can fly in the area giving a geological model on a regional scale. Here it should be highligthed that the system also provides a detailed geological model on a local scale as well. One could spice it up by mentioning some interesting facts of the SkyTEM system ie. that the average flightspeed is 100 km/per hour and the system can map 3000 line km in one and a half week which corespond to the distance between Nicosia and Bruxelles.

Additionally, it should be highligthed that the regional scale geological model can be used as input for a hydrological model whereas one can make model simulations predicting;

- The effect of future climate changes
- The effect of different drought scenarios
- Better water management since we have a new knowledge about availability of groundwater and where the water resources are vulnerable.
- Make strategic (economic) choices between users based on the above mentioned factors.

Picture 13: ***Addition of a borehole***

- Pinpoints the use of the derived geological models since the regional scale model can be used for deciding the location of water extraction bores and better water management in general. Maybe this picture could be removed.

Picture 14: ***Red circle highlighting the freshwater-saltwater interface***.

- Pinpoints that one would be able to get a detailed mapping of the saltwater –freshwater interface. In the mediterranien saltwater intrusion of freshwater aquifers is a major concern.