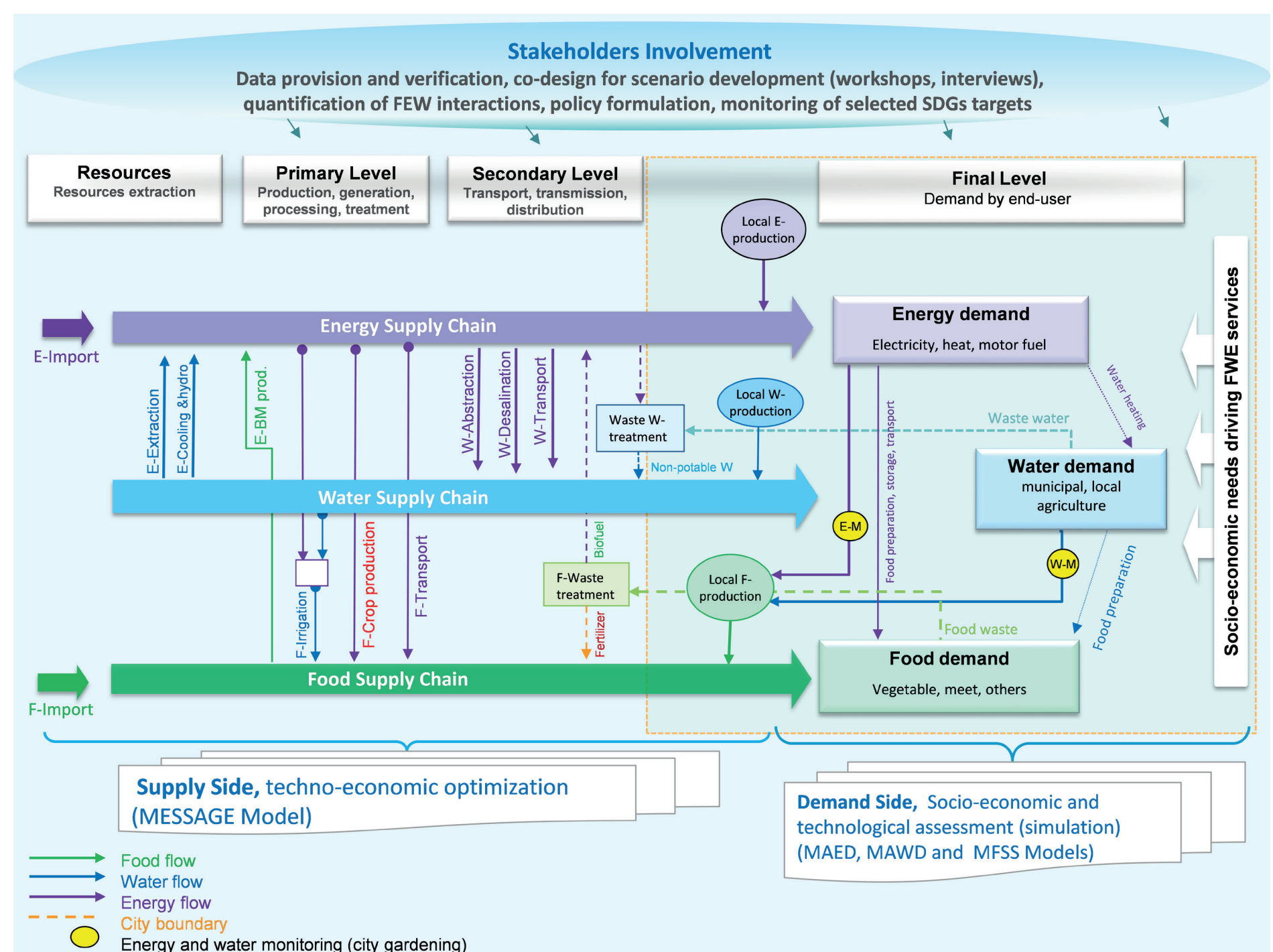


SUNEX

SUNEX provides an integrated modelling framework of advanced tools to model and assess the Food-Water-Energy (FWE) systems' demand and supply sides, capture their interdependencies and maximize synergies through a nexus view that endorses efficient solutions for energy, water and food supply for urban regions. The approach will be applied in four case study cities Berlin, Bristol, Doha and Vienna reflecting different socio-economic and climate characteristics, different consumption patterns and different local and remote FWE resource shares. A monitoring and control sensor network will be tested to improve water and energy savings for local food production. The results will feed into FWE-supply guidelines ensuring replication to support the transition towards higher urban resilience.



Berlin



Bristol



Doha



Vienna

Aim/objective

SUNEX aims to support the decision-making process in formulating sustainable urban FWE strategies in respect to Cities' different consumption patterns and limited resources on the way to achieve sustainable urban transformation.

Approaches/methods

SUNEX modelling framework to analyze and improve energy, water and food demand and supply systems in cities. A monitoring and control sensor network will be applied on test sites to improve water and energy savings in local food production.

Expected results and impacts

Referring to selected SDGs the model results will feed into policy guidelines for sustainable FWE-supply strategies to ensure replication of the SUNEX approach in supporting the transition towards higher urban resilience.

SUNEX (Sustainable Urban FWE Nexus) – Formulating sustainable urban FWE strategy by optimizing the synergies between food, water and energy systems

Duration: 2018–2021

Internet: www.jpi-urbaneurope.eu/project/sunex/

Contact: Dr. Wolfgang Loibl and Dr. Ali Hainoun, AIT

E-mail: wolfgang.loibl@ait.ac.at, ali.hainoun@ait.ac.at

Budget: 1.476.383 €

Partners: AIT Austrian Institute of Technology, Leibniz Centre for Agricultural Landscape Research (ZALF), University of the West of England, Bristol Water, Qatar Environment and Energy Research Institute, Qatar Ministry for Municipality and Environment, ROC Connect

Involved cities

- Berlin
- Bristol
- Doha
- Vienna

Sustainable Urbanisation Global Initiative (SUGI)/Food-Water-Energy Nexus

The Sustainable Urbanisation Global Initiative (SUGI)/Food-Water-Energy Nexus is a call jointly established by the Belmont Forum and the Joint Programming Initiative Urban Europe. The cooperation was established in order to bring together research and expertise across the globe to find innovative new solutions to the Food-Water-Energy Nexus challenge.

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