



# Solutions for Sustainable Cities

EPESUS Cities is an IT Platform for big data management and decision support for districts or cities to promote circular economy models.

 Decision support for urban sustainability issues

Models and analyses urban nexus (materials, energy and cost) based on urban metabolism concept



Reference: IABR-2014-PROJECT ATELIER ROTTERDAM animation by Submarine

- Analyses sustainability actions (e.g. nature based solutions and energy efficiency measures)
- Agent based modelling to assess social aspects of sustainability measures





Nature4Cities project will provide a knowledge diffusion and decision support web-platform for urban re-naturing through new collaborative models.

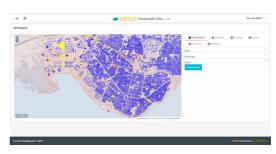




Ekobina project will deliver a building energy management platform as a mesh sensor network and control based decision making support tool with complex event processing.

• Supports Sustainable Energy and Climate Action Plans (SECAP) by GIS and LCA based simulations for building energy and greenhouse gas emissions

References: Muğla Province Karşıyaka Municipality (İzmir) Kartal Municipality (İstanbul)

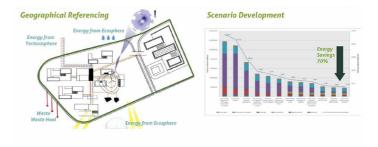


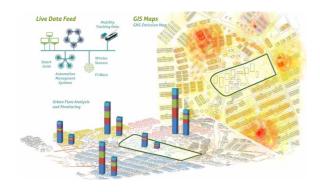
#### **FPFSUS Cities Structure**

#### Data collection



### Geo-referencing





Big data analytics for urban ecosystems and urban level presentation

#### **Decision Support Capabilities:**

- Performance analysis via benchmarking of improvement options
- $\bullet$  Scenario development for medium and long term sustainability solutions
- Integrated assessment of all urban flows via multi-objective optimization
- Detailed reporting and visualization with mobile access

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