

Turning data into actionable insights

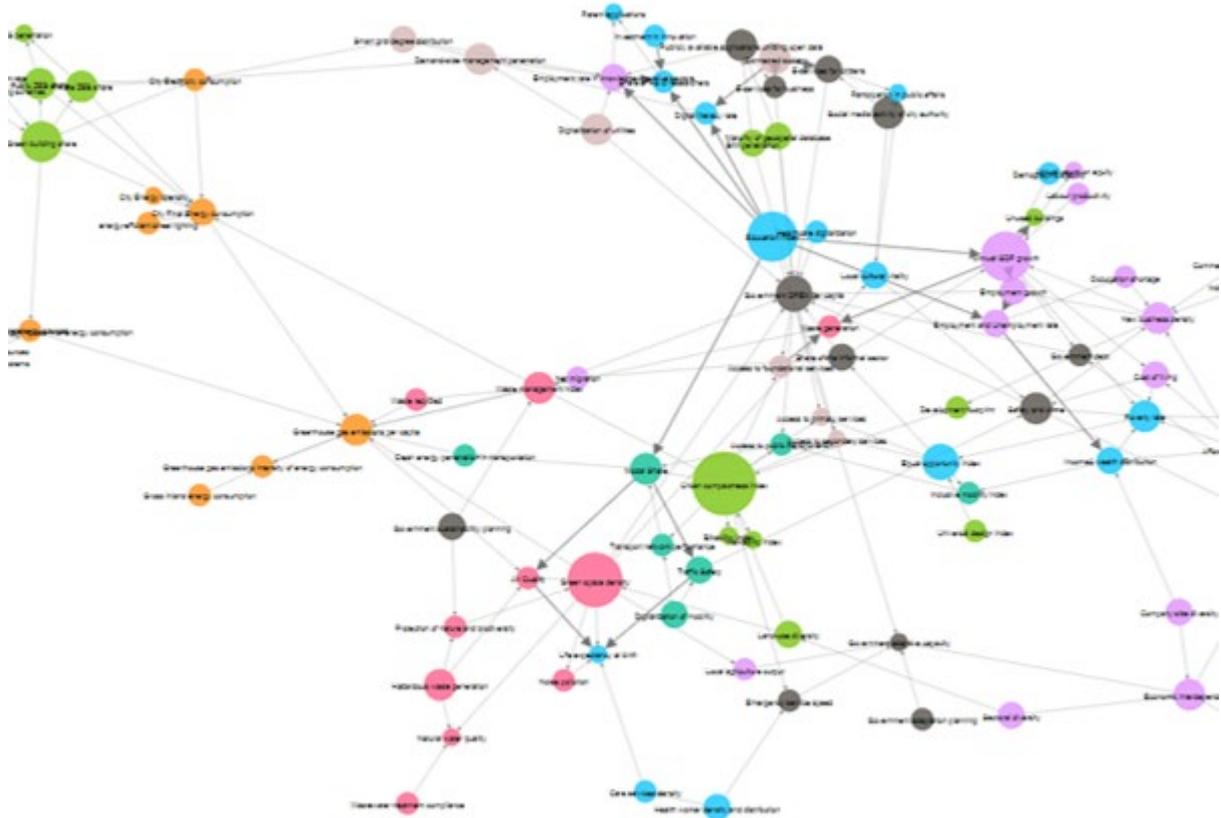
After two years of research and development, the SmartCEPS urban intelligence platform is close to launch! This post will give you a very first sneak peek on some of the major features of the project.



Our core idea was to create a data-driven, evidence-based decision-support system to help small and medium sized cities go beyond experience and intuition.

Consultants play a major role in this concept: professionals who subscribe for SmartCEPS, gain access to a cutting-edge software, a training, and an up-to-date pool of suppliers in the city digitalization market. Moreover, they join a collaborative network of much sought-after urb-tech experts.

The end-beneficiaries are of course the cities. Consulting services include developing a bespoke urban data platform, oversight and monitoring of data infrastructure, diagnosis of urban performance, prediction of cross-sectoral impacts of decisions, managing citizen participation, synthesising knowledge of city-related sectors, needs-based ICT investment and urb-tech market guidance.

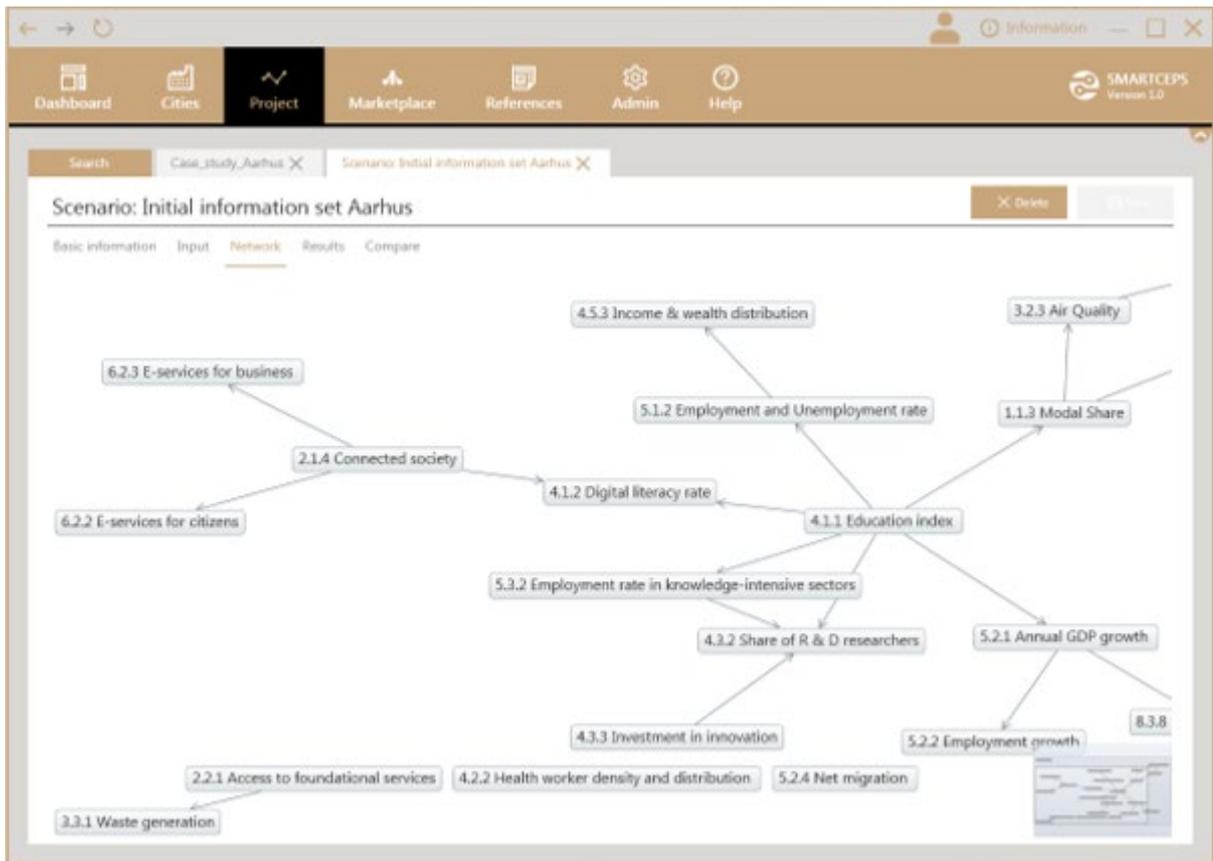


Snapshot of the full causal network of urban performance

The SmartCEPS data platform and analytic tools are designed to simplify the consultancy process from diagnosis to providing actionable insights.

The SmartCEPS system **does not rely on large databases**. Its Key Performance Indicators (KPIs) are connected and layered by complexity, and flexible for the integration of new information. With an iterative diagnostic process, baseline data is analysed to optimise the collection of more complex data, saving the city the need to build-up a costly data collecting infrastructure.

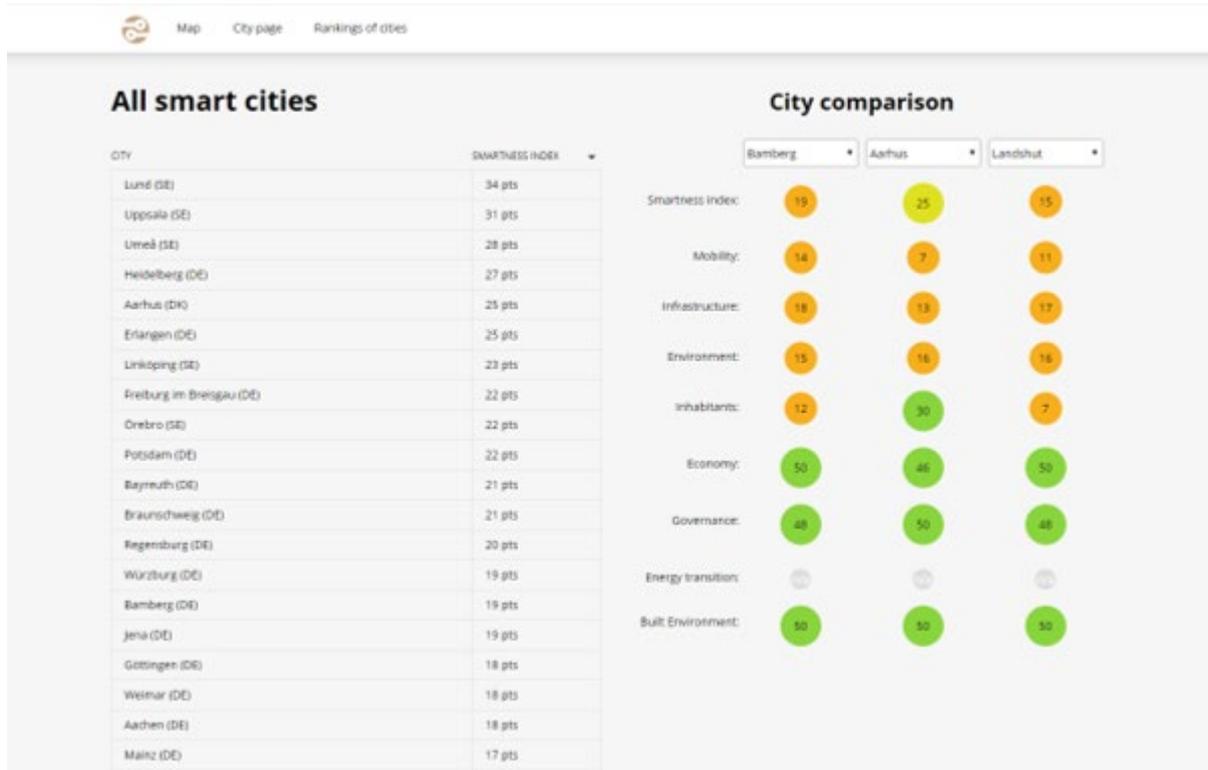
Urban **data is organised in a causal network of KPIs**, mathematically expressing synergies, trade-offs, conditional interactions among areas of performance. This allows more comprehensive diagnostics and the analytic comparison of interventions, various ICT solutions, their spill-over effects. Moreover, the KPI network provides basis for objective competition among suppliers, creating a more efficient market for urban ICT solutions.



Snapshot of the baseline causal network of urban performance in the app

Experts, citizens, and municipalities are given a **more accurate picture** of their and other cities in the urban network. This translates to an opportunity to more accurately set up custom benchmarks, identify untapped city relationships, peers to learn from, realistic competition, clustering and partnering opportunities.

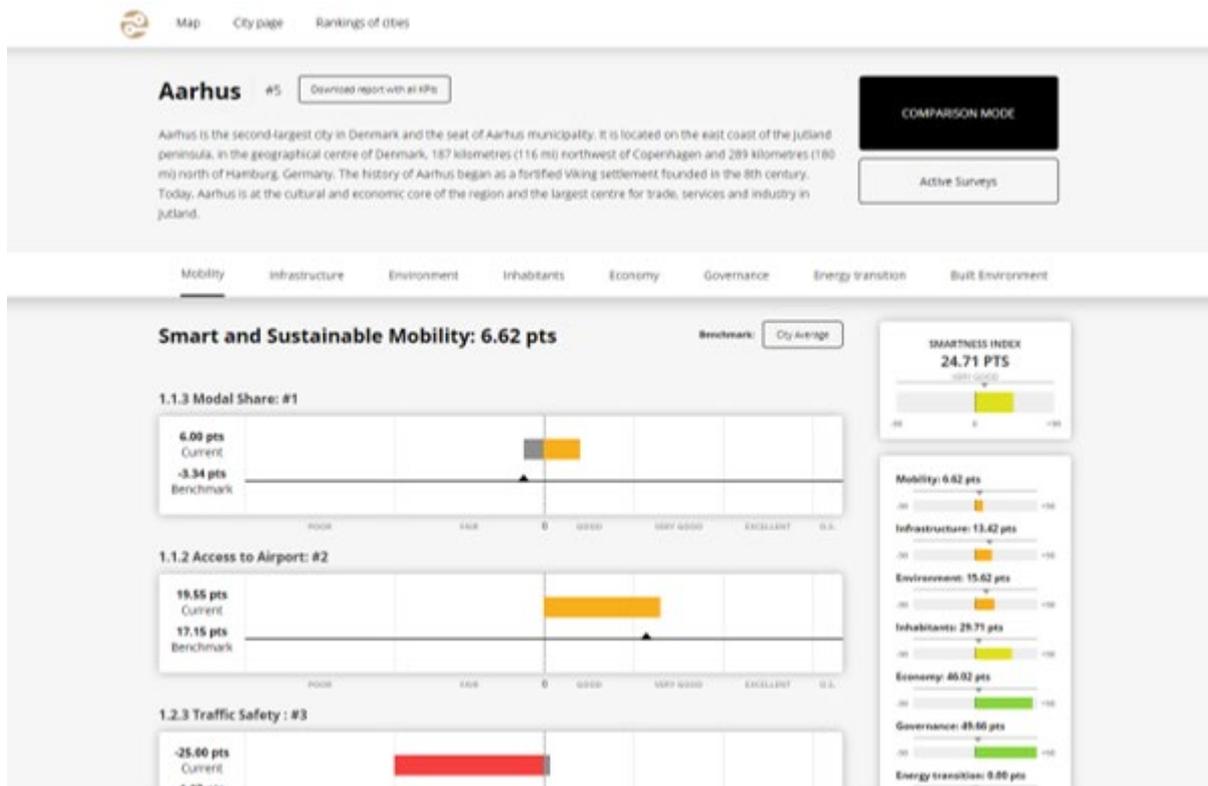
SmartCEPS offers a **customisable standard indicator system** that supports consultants finding unique solutions for unique cities. An automatic customisation protocol fine-tunes the KPI scoring for local peculiarities and rationalises comparison and benchmarking. A user-driven customisation protocol allows channelling participatory methods and expert judgement to set up local goals, priorities, and even ideas that feed into the analytic tools.



Ranking cities on the web

In practice, the SmartCEPS IT ecosystem consists of three components: the desktop app, the website and the developer packages.

Desktop application contains the data platform and virtual marketplace for consultants to use core functionalities in a user friendly way. The website serves both as interface between planning and citizens, and as a knowledge pool on urban technology. The developer packages is a sandbox for advanced users: a community-driven Python package containing in-development and existing functionalities.



City page on the web

Our trainings enable urban professionals to produce evidence based, customised action plans for local governments.

Professionals start with a three-day problem-based training lays the foundation of working with data, discovering and constructing insights, making valuable interpretations, and troubleshooting common problems in data analytics. Later, the core learning modules help them acquire the know-how of

- organizing, structuring, querying and visualizing urban data to communicate a narrative;
- collecting and managing data and quality assurance measures
- planning in a participatory way, with data model friendly-methods;
- using the causal network data model to diagnose urban problems;
- investigating intertwined impact chains;
- predicting impacts of different intervention scenarios.

Program participants learn how previous modules build up an integrated planning cycle and synthesise their knowledge by dissecting a virtual urban planning case of an actual city. Finally, the functionalities of the SmartCEPS app are introduced, and showcased how they complement the planning methodology.

We achieved not only our primary goals, but a lot more in the last 2 years, while we also realized that this level of urban analytics requires SmartCEPS to be highly adaptive, continuously curated by a network of professionals. If you want to join our circle of urban planning and development experts in a collaborative research effort to develop cutting-edge urban decision-support, don't hesitate: contact us!

In the upcoming months we are going to work on turning SmartCEPS to an open innovation network, stay tuned to meet SmartCEPS on the market!
