



URBANSEED

COMPUTER-ASSISTED SUSTAINABLE URBAN PLANNING



Urbanseed is an approach, a method and a sustainable urban planning digital tool at the same time. It applies a human-centric approach to urban planning with a focus on quality of life, a controlled general economy and safeguarding natural resources.

Based on analyses and summaries of urban development processes including aspects related to housing, economic activity and public facilities, the software programme has been designed as a decision-support tool for managing urban developments, rationalising how space is occupied, and for drafting specifications for urban studies.

This interactive tool defines and calibrates (in a given area) mixed urban usage including homes, economic activities and public facilities.

INNOVATIONS

- The first computer-assisted sustainable urban planning tool takes a **resolutely systemic approach**.
- The tool examines three aspects of sustainable development:
 - **Economy and finance** (operating costs and investment costs, tax revenues, revenues generated by facilities, etc.)
 - **Social** (types of housing, integration of social housing, etc.)
 - **Environnemental** (natural spaces, biodiversity, etc.)

KEY DATA

- After configuring the software to take into account differing regional contexts, the main data entered into the model includes:
 - The size of the area
 - Choice and differing degrees of urban density
- The results provided by the model include:
 - The nature and quantity of different planning sources, housing and economic activity
 - The nature and quantity of resulting public facilities, schools, middle schools, high schools, sporting facilities, etc.
 - Evaluation of the planning assessment
 - Evaluation of the tax revenues of operations compared to the costs of managing facilities.

STAKEHOLDERS

- Urbanseed is intended for all local authorities in charge of drawing up development strategies, defining programmes, and designing, realizing and managing urban issues.
- The main stakeholders are local authorities, public and private developers, public land agencies, large consortia providing urban services, industrial land owners owning waste ground, and large land owners.

IMPLEMENTATION

► Urbanseed is considered as an applied research programme and, as such, is exempt from the Code of Public Contracts as set out in Chapter II, Section 1, article 14, paragraph 3°.

► **Conditions:**

- The contracting authority does not have exclusive ownership of the results and
- The contracting authority must not entirely fund the service

► **Main implementation steps:**

1. Urbanseed configuration/Regional specificities
2. Planning and taxation test; financial resources
3. Planning edition

► **Average duration:** Seven months



The main obstacle for developing housing faced by local authorities is linked to building and managing the required public facilities.

The Urbanseed interactive tool - thanks to its economic and financial approach - identifies the conditions required to fund and manage the required public facilities.

Urbanseed, thanks to its systemic approach, integrates social, economic, commercial and urban constraints. Urban modelling resides on the notion of urban centrality, functional diversity, and mobility.



RESULTS

/// Courbevoie Urban Project Partnership

With Partenaires Architectes, in the framework of an Urban Partnership Project, defining an urban regeneration programme of 300 000 m² in the vicinity of the future Gare du Grand Paris Express in Courbevoie Becon. Interactively using Urbanseed to calibrate the first phase of the development in terms of planning homes and offices, and the resulting public facilities necessary in the first phase.

/// Urban test in the Marne la Vallée region

Over an area measuring 12,000 hectares, including:

- 30% of level 2 urban density
- 50% of level 3 urban density
- 20% of level 5 urban density

The urban density level is related to the jobs.

In 2013, the region had 320,000 inhabitants and 150,000 jobs. In an area of the same size with the same distribution of urban density, the model provided a result of 355,265 habitants and 166,382 jobs i.e. a little denser than in reality.

The consortium composed of SUDS, Partenaires Architectes, Complexio, Simaris and FPE is a partner of the Ecocité du Grand Roissy, designed by EPA Plaine de France.

Its sustainable urban planning and regional sustainability tool corresponds to the strategic vision of stakeholders i.e. promoting balanced development in Grand Roissy.

FINANCIAL ASPECT OF THE OPERATION

KEY DATA

- Average cost of simple service: €70 K
- €20 K Urbanseed configuration
- €20 K testing and tax
- €30 K planning edition

/// Based on a self-financing model for all the partners.

