Metropolis – digital Urban Infrastructure Management Platform

Active planning, implementation and monitoring of intelligent services in the city

Support for the management of modern cities is the ISO 37120 standard. This standard defines 17 quality of life areas in cities and agglomerations based on 100 clearly defined coefficients.

Metropolis Platform:

it integrates urban services and technologies into one central system

improves the coordination of the work of municipal services

enables active public participation in the provision and reception of information

Metropolis
by *asseco*

The challenges of the modern city are:

- increasing number of people migrating to cities, requirements for improving the quality of life of the society;
- management of growing urban traffic;
- guaranteed high level of safety;
- integration of and access to existing public information systems.

Being smart means improving the quality of life from year to year in all seemingly independent areas. The true intelligence of the city is sustainable development in all areas over the years.

The Metropolis system allows:

- integrating complex processes of city management through a modern, modular management panel combining the existing field systems with modern sensors built on the basis of IoT class devices;
- implementing, in a coordinated manner, modern tools supporting urban safety, public transport, lighting, parking lots, modern mobility services, ecology and the environment, including air and water quality control;
- collecting and analyzing large sets of data provided by any urban domain systems and modern urban sensors (Big Data);
- making information available to residents and external entities, enabling them to offer further innovative services for residents (Open City Data, Open API).

Benefits of Metropolis implementation – for the city and residents:

- optimization of city management costs through automation of activities (e.g. energy consumption, maintenance of multiple, separate systems, etc.);
- easier cooperation and coordination of investments between city units thanks to a single central system, enabling a strategic global approach to all activities for the development of the agglomeration;
- increasing the attractiveness of a well-managed city for investors;
- safer streets and neighborhoods through active monitoring and improvement of compliance;
- involvement and useful knowledge to optimize urban activities;
- improving the quality of life of residents in terms of safety, ecology, public transport and many other aspects of the city's life.

Main features and properties of Metropolis:

- intuitive and easy to use;
- mobile access to the platform;
- security of the data collected;
- automation and coordination of activities;
- rich functionality;
- analysis and exchange of information;
- possibility of working in a private and public cloud;
- low entry costs and easy expansion of functionality within the offered functional packages.

Basic solutions of the Metropolis platform:

TOURISM AND CULTURE
central application for the city (management of distributed beacons, statistics, gameplay scenarios, etc.) and a standard tourist mobile application for a resident or a tourist

MOBILITY AND SAFETY
system for monitoring the availability of parking spaces, events in bus bays and stops and a mobile application (navigation to vacant places, handling of citizens' applications)

ECOLOGY
environmental monitoring system, measurements of parameters: PM2.5, PM10, NO2, SO2 O3, noise, temperature, pressure, sunlight, wind, humidity, precipitation level, etc., which are available in the mobile application for the resident
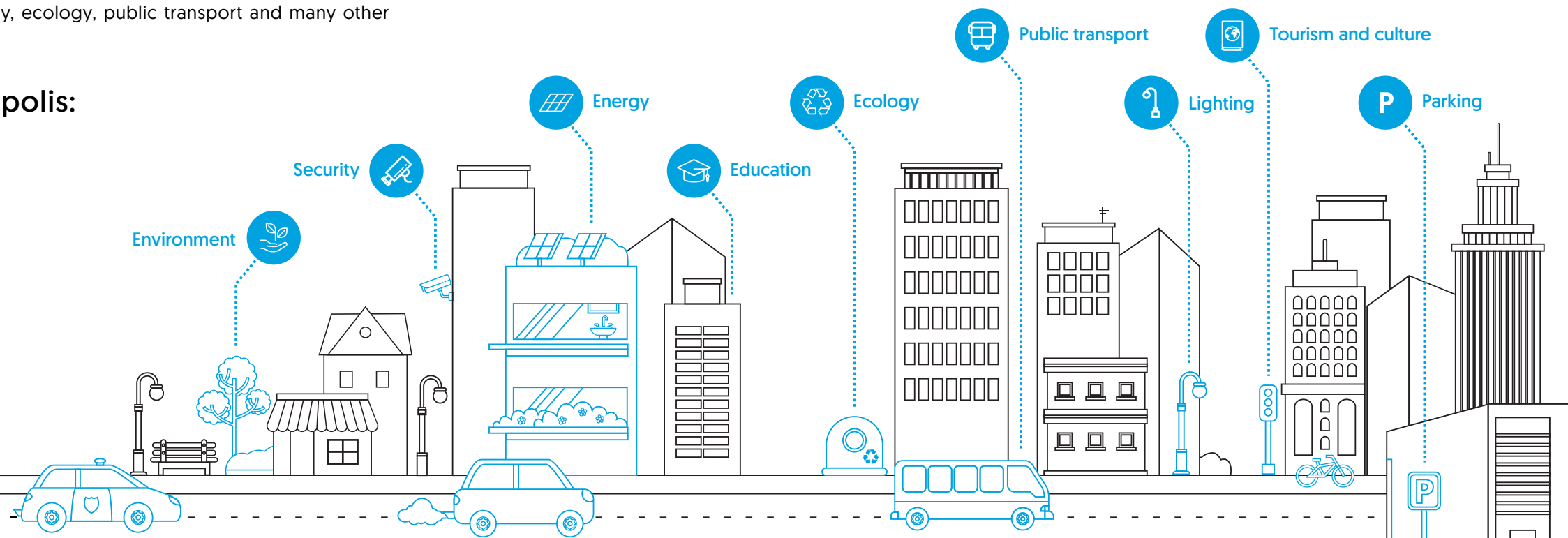
LIGHTING
management of street and park LED lighting with the use of both wireless transmission (GSM/LTE/Lora/ZIGBEE etc.) and with the use of wired technology (including PLC)

PUBLIC TRANSPORT
transport infrastructure management (ITSM), dynamic passenger information (SDIP), automatic toll collection integrated with the city card system (AFC), EMV micropayments in the MTT and KnownFare models

Public transport

Tourism and culture

Energy

Ecology

Lighting

Parking

Security

Education

Environment

Smart City
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