

## Our Expertise



We build innovative solutions based on our expertise in high tech areas:

- IoT / EDGE Intelligence
- Networks (4G, 5G, B5G, WiFi, LoRa), Core Cloud, Big Data
- AI / Trustworthy AI / Cybersecurity
- Visualization: web / mobile / XR



# INNOVATION FOR SUSTAINABILITY AND GROWTH

We develop the technology of tomorrow to improve our cities today

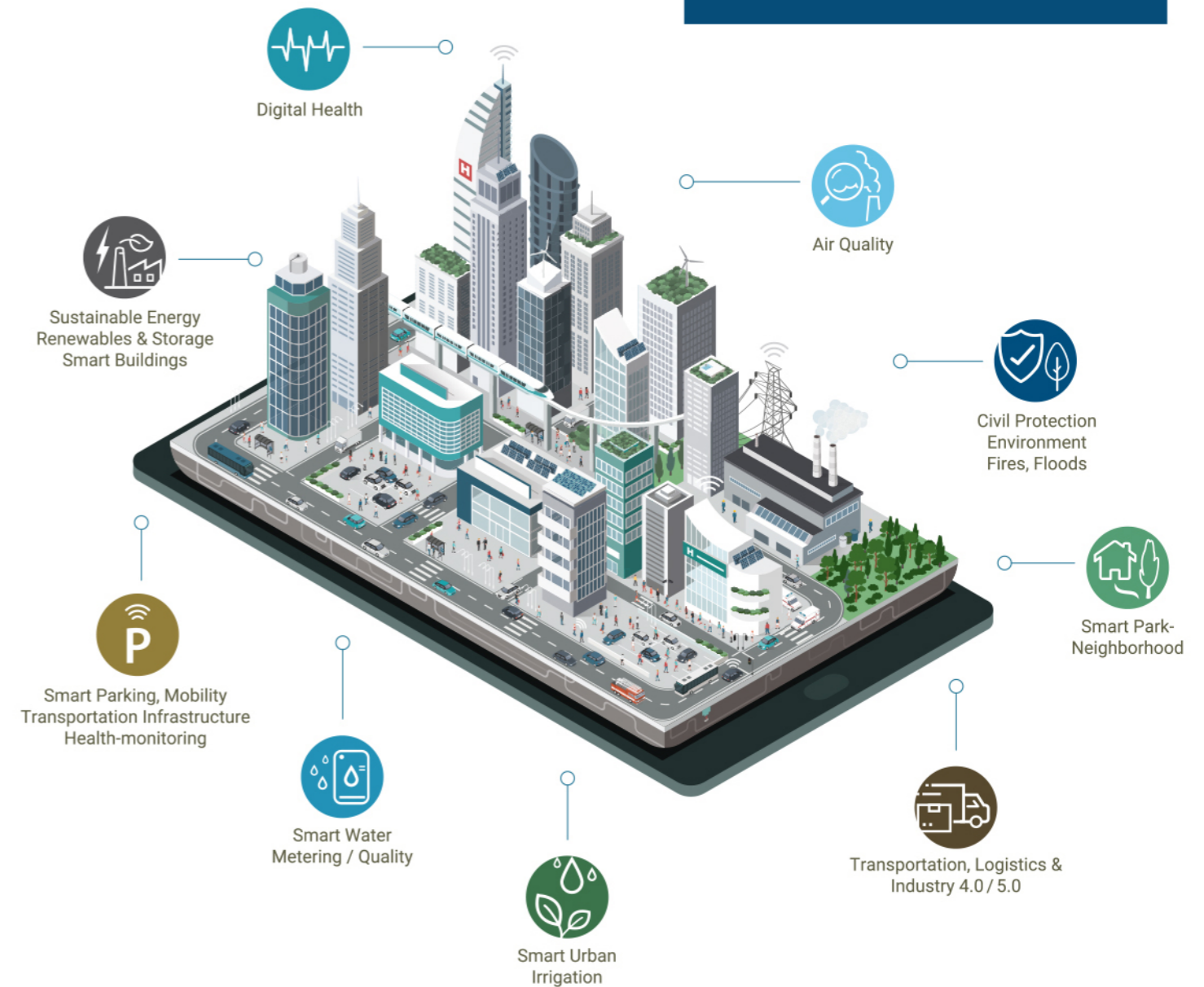
WINGS exploits advanced technologies to deliver digital solutions for air quality and natural environment protection (AIRWINGS), utilities (ARTEMIS), transportation infrastructures (WINGSPARK), aquaculture (AQUAWINGS), agriculture (AGNES), Industry 4.0/5.0 / Industrial IoT / logistics (WINGSChariot), health and wellness (STARLIT).

## Contact us

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About WINGS



# WINGS Solutions for Smart Cities

## Advanced technology for optimizing the **City Liveability**, **Environmental Sustainability** and **Growth**



### Smart Parking

WINGSPARK is a solution for managing land-based transportation infrastructures (roads, rails, etc.). WINGSPARK solution provides:

- Real-time monitoring of free/occupied parking spaces and insights
- Enhanced driver's experience through intuitive interfaces
- Navigation towards and within the parking facility
- Predictions, scheduling and booking capabilities, for parking at the destination now or in the future
- Elimination of unnecessary driving, reduction of fuel consumption and CO<sub>2</sub> emissions, through WINGSPARK intelligent algorithms leveraging on AI, and on experience from the field



### Smart Management of Transportation / Mobility / Venues

- Real time monitoring of transport infrastructure (streets, etc.)
- Smart mobility services and optimizations
- Management of venues: security, in-venue mobility, health
- Transportation infrastructure health-monitoring
- Crowd monitoring management



### Digital Solutions for Health & Wellness

STARLIT includes: (a) real time remote health monitoring and forecasting of future issues, and (b) quick, reliable notifications to users, family members and health care professionals in case of a possible health incident or a prediction of health emergency, leveraging 5G technology. Designed for people diagnosed with a critical disease still compatible with home care (e.g., some form of cardiovascular disease, hypertension, diabetes, Alzheimer, dementia etc.). Includes medical records accessible by the users, their relatives, doctors and paramedical "help at home" teams, providing real time insights personalized for each user. Modular platform addressing wellness and other key health areas, like migraines; extensible to further areas, currently investigated (e.g., depression)

### Air Quality Monitoring



AIRWINGS is the product for Air Quality Monitoring & Forecasting, designed to give real-time, accurate measurements and predictions on air pollution. Tracks harmful air components and send timely alerts to help protect the sensitive groups of population.

Measures: O<sub>3</sub>, CO, SO<sub>2</sub>, NO, NO<sub>2</sub>, PM1, PM2.5, PM10, noise, pressure, temperature and humidity. The dashboard depicts the total Air Quality Index and air quality forecasting for the next 1-2 days, alerting and health indications.



### Environment & Civil Protection

Delivers early warnings in the emergence of fires, based on advanced IoT (including cameras, sensors, drones), telecommunications technologies, and AI (artificial intelligence) powered algorithms. Sensing information (images and other) are processed, analyzed and evaluated using machine learning algorithms for detecting hazardous phenomena.

Using environmental sensors (level sensors camera etc.) and real time data analysis we also detect water floods and other critical condition. Alert to control centers and authorities are issued.



## IoT, 5G / LoRa, AI, AR/VR in Support of our Societies and Economies

### Smart Solutions for Buildings, Neighborhood and Parks

Solutions offering information for the environment (air quality, weather conditions), mobility, wellness, smart energy management and renewables, urban green management and irrigation.

Provides also early warnings and alerts.

These solutions bring together all stakeholders to co-create and implement community plans in a simple and coordinated manner.



### Smart Management of Utilities

ARTEMIS is the product for the management of energy, water, gas utility networks. Key characteristics are real time metering for consumption and quality capability of prediction of demand, early detection of incidents and disasters, infrastructure security & smart building and security. Also addresses the needs of smart waste management.



#### Artemis Energy

- Prediction of energy demand and demand response
- Smart energy grids
- Maximization of the use of renewable energy sources
- Energy consumption metering for public infrastructures ex. buildings and promoting energy saving practices and strategies
- Charging point management



#### Artemis Water

- Smart urban irrigation
- Irrigation for agriculture
- Water supply network consumption monitoring and water quality



**Other Areas** WINGS is a key partner in Govhack, the 1st Innovation Center that will develop the necessary infrastructure and know-how as well as an ecosystem to support innovation in developing applications for the Digital Transformation of Public Administration and Local Government, through the provision of specialized innovative services and products as well as the transfer of know-how and technology to public sector organizations and medium-sized enterprises (SMEs). WINGS is a key partner leveraging its expertise in diverse technology sectors (AI, big-data, IoT, 5G, agile), for supporting member companies and public administrations, to meet the challenges in this endeavor.