

Technology for the challenges of tomorrow's smart cities





Broadband internet, connectivity, data security, personalized interfaces, interactive advertising





Materials
Thermal systems
Energy efficiency

Sensor systems and integration

Data transmission and processing

Renewable energy and energy storage Simulation, modelling.

Simulation, modelling, and software



Renewable energy

Production, urban energy storage systems, heat networks



Smart grids

Grid management, network connectivity (renewables, homes, neighborhoods), energy storage



User experience

Environmental monitoring, real-time information for users, personalized route management, lighting, geolocation, personal safety



Transportation

Electric vehicles, charging stations, emissions reduction and treatment, public transportation, safety and reliability



CEA Tech can help the following businesses:

- Construction companies
- Equipment manufacturers
- Digital technology companies
- Transportation equipment and infrastructure manufacturers

Here are some of the ways CEA Tech can support your development:





Energy production and recovery (solar, biomass, batteries, fuel cells)

Energy transportation, stationary storage, backup generators, integration of renewables into the grid, waste-to-energy

Energy-systems management

Battery-management systems for vehicles and stationary storage

Construction

Energy efficiency, occupant comfort, system control and supervision (energy, lighting, safety/security), automation

HMI (virtual and augmented reality, touch screens)

Interactive advertising, geolocation, interactive tourism (museums), driver assistance, control panels, switches

Big data

Personalized services via social networks, the internet, or the grid; epidemic prevention; consumption forecasts

Heterogeneous sensor systems and management

Environmental monitoring, software for remote sensor network management, reducing energy consumption and use of backup energy sources

Interactive simulation

Traffic control, crowd control and safety

Communicating systems

Secure mobile communication; machine-to-machine, vehicle-to-vehicle, and network-to-vehicle communication

Materials

Building insulation, surface coatings (roads, glass surfaces), insulation for electrical systems

Thermal systems

Heat-network modelling, heat recovery and recycling, cooling

Displays and lighting

Optimized, integrated LED components for urban applications, buildings, and transportation; OLED displays

Vision systems (IR, THz, more)

Leak detection, user safety, energy-system troubleshooting

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