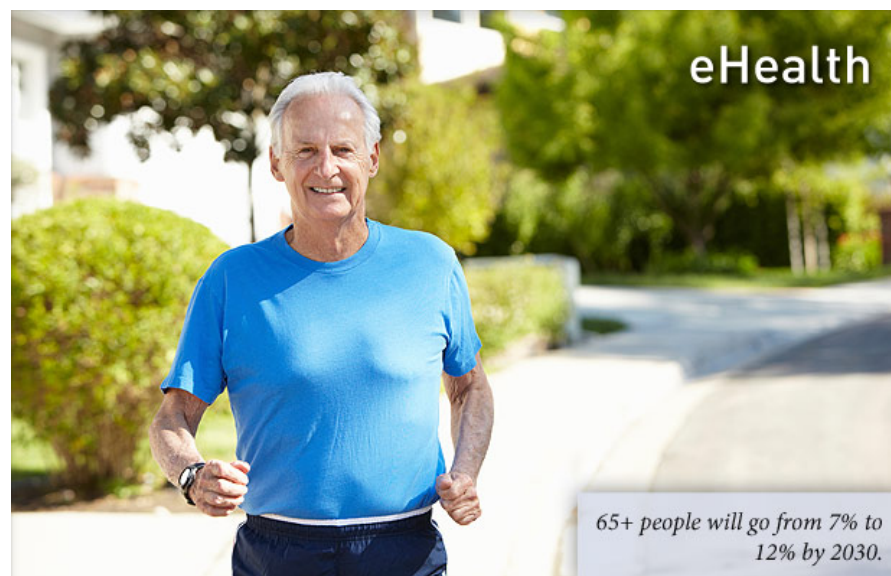


50 Sensor Applications for a Smarter World



Brochure	Interactive	Infographic

Smart Cities

- Smart Parking**
Monitoring of parking spaces availability in the city.
- Structural health**
Monitoring of vibrations and material conditions in buildings, bridges and historical monuments.
- Noise Urban Maps**
Sound monitoring in bar areas and centric zones in real time.
- Smartphone Detection**
Detect iPhone and Android devices and in general any device which works with WiFi or Bluetooth interfaces.
- Eletromagnetic Field Levels**
Measurement of the energy radiated by cell stations and and WiFi routers.
- Traffic Congestion**
Monitoring of vehicles and pedestrian levels to optimize driving and walking routes.
- Smart Lighting**
Intelligent and weather adaptive lighting in street lights.
- Waste Management**
Detection of rubbish levels in containers to optimize the trash collection routes.
- Smart Roads**
Intelligent Highways with warning messages and diversions according to climate conditions and unexpected events like accidents or traffic jams.



[+ See Related Articles](#)



[Back to top](#)

Smart Environment

- Forest Fire Detection**
Monitoring of combustion gases and preemptive fire conditions to define alert zones.
- Air Pollution**
Control of CO2 emissions of factories, pollution emitted by cars and toxic gases generated in farms.
- Snow Level Monitoring**
Snow level measurement to know in real time the quality of ski tracks and allow security corps avalanche prevention.
- Landslide and Avalanche Prevention**
Monitoring of soil moisture, vibrations and earth density to detect dangerous patterns in land conditions.
- Earthquake Early Detection**
Distributed control in specific places of tremors.





Back to top

Smart Water

- 15
- Potable water monitoring

Monitor the quality of tap water in cities.
- 16
- Chemical leakage detection in rivers

Detect leakages and wastes of factories in rivers.
- 17
- Swimming pool remote measurement

Control remotely the swimming pool conditions.
- 18
- Pollution levels in the sea

Control realtime leakages and wastes in the sea.
- 19
- Water Leakages

Detection of liquid presence outside tanks and pressure variations along pipes.
- 20
- River Floods

Monitoring of water level variations in rivers, dams and reservoirs.



Back to top

Smart Metering

- 21
- Smart Grid

Energy consumption monitoring and management.
- 22
- Tank level

Monitoring of water, oil and gas levels in storage tanks and cisterns.
- 23
- Photovoltaic Installations

Monitoring and optimization of performance in solar energy plants.
- 24
- Water Flow

Measurement of water pressure in water transportation systems.
- 25
- Silos Stock Calculation

Measurement of emptiness level and weight of the goods.



Back to top

Security & Emergencies

- 26
- Perimeter Access Control

Access control to restricted areas and detection of people in non-authorized areas.
- 27
- Liquid Presence

Liquid detection in data centers, warehouses and sensitive building grounds to prevent break downs and corrosion.
- 28
- Radiation Levels

Distributed measurement of radiation levels in nuclear power stations surroundings to generate leakage alerts.
- 29
- Explosive and Hazardous Gases

Detection of gas levels and leakages in industrial environments, surroundings of chemical factories and inside mines.



Back to top

Retail

- 30 **Supply Chain Control**
Monitoring of storage conditions along the supply chain and product tracking for traceability purposes.
- 31 **NFC Payment**
Payment processing based in location or activity duration for public transport, gyms, theme parks, etc.
- 32 **Intelligent Shopping Applications**
Getting advices in the point of sale according to customer habits, preferences, presence of allergic components for them or expiring dates.
- 33 **Smart Product Management**
Control of rotation of products in shelves and warehouses to automate restocking processes.



[+ See Related Articles](#)



[Back to top](#)

Logistics

- 34 **Quality of Shipment Conditions**
Monitoring of vibrations, strokes, container openings or cold chain maintenance for insurance purposes.
- 35 **Item Location**
Search of individual items in big surfaces like warehouses or harbours.
- 36 **Storage Incompatibility Detection**
Warning emission on containers storing inflammable goods closed to others containing explosive material.
- 37 **Fleet Tracking**
Control of routes followed for delicate goods like medical drugs, jewels or dangerous merchandises.

[+ See Related Articles](#)



[Back to top](#)

Industrial Control

- 38 **M2M Applications**
Machine auto-diagnosis and assets control.
- 39 **Indoor Air Quality**
Monitoring of toxic gas and oxygen levels inside chemical plants to ensure workers and goods safety.
- 40 **Temperature Monitoring**
Control of temperature inside industrial and medical fridges with sensitive merchandise.
- 41 **Ozone Presence**
Monitoring of ozone levels during the drying meat process in food factories.
- 42 **Indoor Location**
Asset indoor location by using active (ZigBee) and passive tags (RFID/NFC).
- 43 **Vehicle Auto-diagnosis**
Information collection from CanBus to send real time alarms to emergencies or provide advice to drivers.

[+ See Related Articles](#)



[Back to top](#)

Smart Agriculture

- 44 **Wine Quality Enhancing**
Monitoring soil moisture and trunk diameter in vineyards to control the amount of sugar in grapes and grapevine health.
- 45 **Green Houses**
Control micro-climate conditions to maximize the production of fruits and vegetables and its quality.
- 46 **Golf Courses**
Selective irrigation in dry zones to reduce the water resources required in the green.
- 47 **Meteorological Station Network**
Study of weather conditions in fields to forecast ice formation, rain, drought, snow or wind changes.
- 48 **Compost**
Control of humidity and temperature levels in alfalfa, hay, straw, etc. to prevent fungus and other microbial contaminants.



[+ See Related Articles](#)



[Back to top](#)

Smart Animal Farming

- 49
- Hydroponics
- Control the exact conditions of plants grown in water to get the highest efficiency crops.
- 50
- Offspring Care
- Control of growing conditions of the offspring in animal farms to ensure its survival and health.
- 51
- Animal Tracking
- Location and identification of animals grazing in open pastures or location in big stables.
- 52
- Toxic Gas Levels
- Study of ventilation and air quality in farms and detection of harmful gases from excrements.

+ See Related Articles



Back to top

Domotic & Home Automation

- 53
- Energy and Water Use
- Energy and water supply consumption monitoring to obtain advice on how to save cost and resources.
- 54
- Remote Control Appliances
- Switching on and off remotely appliances to avoid accidents and save energy.
- 55
- Intrusion Detection Systems
- Detection of windows and doors openings and violations to prevent intruders.
- 56
- Art and Goods Preservation
- Monitoring of conditions inside museums and art warehouses.

+ See Related Articles



Back to top

eHealth

- 57
- Fall Detection
- Assistance for elderly or disabled people living independent.
- 58
- Medical Fridges
- Control of conditions inside freezers storing vaccines, medicines and organic elements.
- 59
- Sportsmen Care
- Vital signs monitoring in high performance centers and fields.
- 60
- Patients Surveillance
- Monitoring of conditions of patients inside hospitals and in old people's home.
- 61
- Ultraviolet Radiation
- Measurement of UV sun rays to warn people not to be exposed in certain hours.

+ See Related Articles



Back to top

Products	Resources	Case Studies	Development	Events	Libelium World	Company	Contact
Waspnote	Applications		Developers		News	Customers	
Plug & Sense!	Case Studies		Waspnote		Articles	Awards	
Meshlium	White Papers		Plug & Sense!		Videos	Founding Team	
The IoT Marketplace			Meshlium		Media impact	Join Us	
Cooking Hacks					Upcoming events		
Training Courses							
Services							

Subscribe to our newsletter

Subscribe

☐ I have read and I accept the [privacy policy](#)