

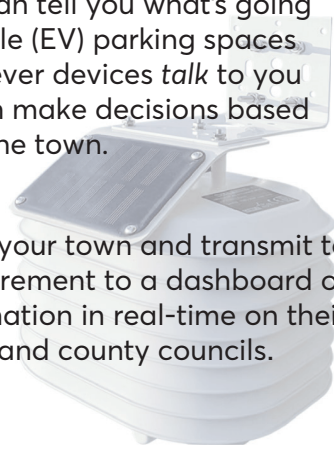
Powys SMART Towns

Internet of Things for Towns



What is the Internet of Things (IoT)?


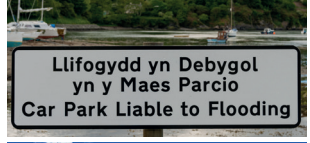



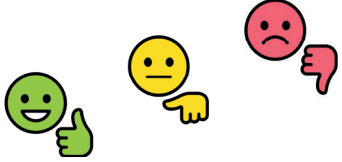
Small, battery powered, electronic IoT devices can tell you what's going on in your town, in real-time. From electric vehicle (EV) parking spaces, to air quality and even flood warnings, these clever devices *talk* to you via phone apps and dashboards so that you can make decisions based on the actual activity and measurements from the town.



How Does It Work?

IoT devices measure various aspects relating to your town and transmit to a local *gateway* using the *LoraWAN* system. The gateway sends the measurement to a dashboard on the Internet from where town councils and businesses can see the information in real-time on their phones or computers. The gateways are sponsored by Welsh Government and county councils.

Examples

Parking	The sensors are fixed to parking bays. They allow public reporting of vacant EV charging and disabled bays as well as live monitoring for enforcement where necessary.	
Flood Prevention	Sensors monitor local river levels and are used to provide early warnings of potential flooding, allowing more time to prepare and prevent damage.	
Air Quality	Clean air is vital to healthy living. Businesses benefit from clear-headed, happy shoppers. These sensors show trends and pollution levels in real time, which enables informed decisions.	
Bin Monitoring	Overflowing bins are unsightly and attract vermin. Level sensors send out alerts when bins are getting full to allow better refuse management and cleaner streets.	
Anti-Social Behaviour (ASB)	Solutions to help manage ASB are being developed. They can alert of noisy behaviour and illegal gatherings. This enables the police to better respond to events in towns.	
Happiness monitoring	Simple buttons placed in public buildings and at shop exits allow customers to vote on good service or otherwise. This helps organisations improve their customer service.	

How To Benefit From IoT

There are many different types of IoT sensors that can help solve the real-world problems in your town.

The best approach is to engage with the businesses and their community to compile a list of problems that would be helpful to solve. Then engage with an IoT practitioner to assist with the technical challenges and solutions.

How To Get It

The selection of sensors and a gateway placement will require some specialist help. This help is available via local council and support organisations.

In the first instance please contact the Focus Newtown Enterprise Hub via their website **focusenterprisehubs.wales** or phone **01686 806349**