

Footfall¹ Monitoring

PILOT TO TEST TECHNOLOGY IN A TOWN AND SEASIDE ENVIRONMENT

About LIKE!

Local governments, citizens, universities and SMEs have joined forces to co-create smarter, more efficient and more innovative services through 9 transnational pilot projects covering 3 core themes:



Stakeholders are keen to explore the impact that technology can have on better understanding how many people visit two areas of Felixstowe town, the seafront and the retail street (UK). Geographically the two locations are adjacent to each other but separated by a cliff which is accessed via a steep hill. Events are held on both sides of the cliff. Stakeholders want to understand how visitors access and use the different parts of the town during event-days as well as 'normal days'. To investigate this, Suffolk County Council used innovative tools to monitor visitor flows.

¹ Footfall definition: the number of people entering an area in a given time.

Relations to Workpackages

This pilot focusses on creating digital DNA for neighbourhoods by using innovative tools and techniques to incorporate information and data. This will be used to inform the development of the Felixstowe area and services to help understanding local issues and inform solutions.

Local partners

Kevin Wegg

Project Manager
Suffolk County Council
Kevin.wegg@suffolk.gov.uk

Helen Greengrass

Felixstowe Change Director
East Suffolk Council and Felixstowe Forward
helen.greengrass@eastssuffolk.gov.uk

Digital Catapult

Things connected programme directors
www.digicatapult.org.uk

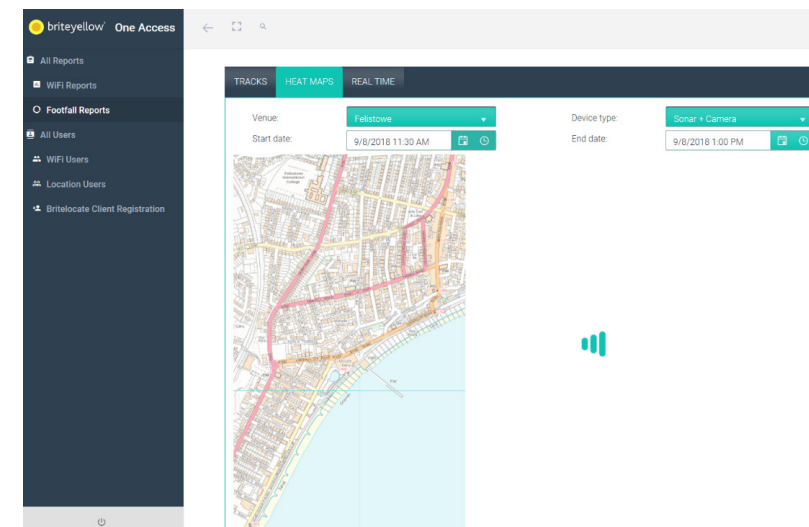
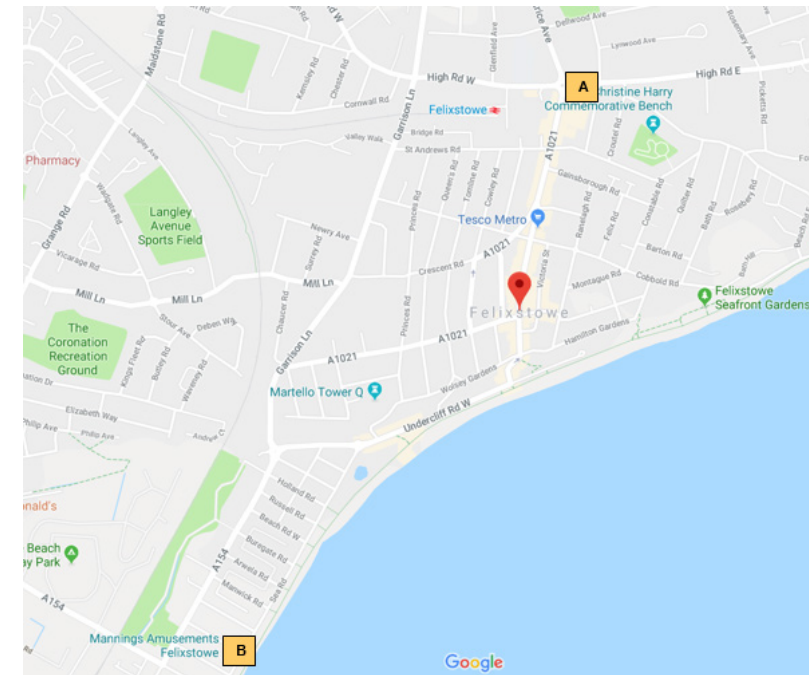
This Case Study Paper is produced by Lesley Hood

The Project

One of the challenges Felixstowe is facing is understanding accurate numbers of visitors to the town. Also, Felixstowe wants to get insight in the footfall on the seafront promenade and in the town centre, where the retail opportunities are, to understand how or if people are moving between the two spaces.

To do so, this pilot uses two LoRaWAN antennae mounted on two buildings (marked as A and B on the map) one on the promenade and one in the High Street. Also seven wifi sonars and cameras attached to streetlights are monitoring the footfall down the main High Street and along the promenade between the two antennae. The monitors and cameras work to count people and show how many people are in an area at any given time. This data is represented on a dashboard which can give real time and past information to compare number and the flow of citizens.

Due to the issues of getting the sensors and cameras all working at the same time, there was only comprehensive data from all the cameras and sensors between 8th September and 30th September 2018. Some of the cameras and sensors were working intermittently throughout the pilot period so there is data, but it is not complete for the whole area.





Results

The reports were able to confirm that there are peaks in certain areas of the town at 10am and 1pm., which will help to inform event holders and town planning for the future. The cameras showed when there were quieter days which appeared to be random and this concurred with retailers' observations that these quieter days appeared to have no correlation to anything tangible such as weather patterns or pay day, which was an interesting observation.

There were some sensors working on one of the event days (Art on the Prom 2nd September 2018) which showed that there was spikes of activity between the two areas at 1pm, 4pm and 7pm (Bent Hill road) this suggested that people did move between the two monitored areas on an event day via Bent Hill as this was the most logical route between a promenade event and parking. This is very useful data and will help inform the event organisers for next year.

The results allowed some understanding of the amount of people who were visiting Felixstowe on a normal day and an event day and what the peak times and numbers were. This information will help to inform future events, such as where to locate emergency services, information stands and additional facilities.

Working with the Digital Catapult and Briteyellow

The Digital Catapult is the UK's leading advanced digital technology innovation centre, driving early adoption of digital technologies to make UK businesses more competitive and productive to grow the country's economy¹. The Digital Catapult run a 'Things Connected' programme which enables local authorities to take part in digital innovation pilots with SME's. They receive LoRaWAN antennae, training days, and links with SME's where they detail their challenges. The local authorities also participate in a 'dragon den' style day where they judge presentations pitched by SME's to resolve their challenge culminating in the council working with the successful SME to deliver the proposed digital solution.

Briteyellow is a technology company who provides interactive and wireless communication solutions and was the successful idea pitchers for the Felixstowe footfall challenge. They have worked with Suffolk County Council (SCC), Felixstowe Forward and East Suffolk to deliver the solution which included mounting footfall monitors and cameras and developing a digital dashboard.



The Challenges

Challenges facing the roll-out and deployment of the project included:

- Mounting of the monitors and cameras
- Tight time-scales
- Connectivity
- Beach and town location and inclusion of a cliff meant that signal lines were disrupted from the antennae and the monitors
- Supplier issues, one supplier
- Additional costs incurred which were not foreseen
- Hanging flower baskets for the summer which meant moving some of the equipment to ensure there was still good visibility for the monitors and cameras

Many of the same project challenges were seen across the other 4 councils taking part in the Digital Catapult programme. The location of the two LoRaWAN antennae, monitors and cameras as well as beachside location and cliff edge posed the most issues with connectivity and mounting of the monitors and cameras.

Unfortunately, the project was not running during the main events that Felixstowe Forward had wanted to capture data on: the book festival and carnival. However, once all the cameras and monitors were working, we were able to get useful data. This meant looking at different events to get the information sought for the project on how many people were visiting the town on.

Next Steps and future plans

As the monitors are currently linked to the power sources used for the Christmas lights, the monitors will have to be removed for the Christmas period. This will end the current pilot in mid-November 2018.

Future plans include:

- Provide reliable footfall evidence for future funding opportunities
- Inform strategic initiatives such as feasibility of a Business Improvement District, Leisure Strategy.
- Inform how digital technology could be used for marketing and promotional activities in the town centre retailers and event organisers.
- Longer term – develop a Felixstowe app providing visitors offers, parking information, local guides, retailer and loyalty discounts.

SCC will also use the information to develop and inform their digital innovation and transformation strategy and consider how the LoRaWAN network can help to reduce the council's costs and help to support their residents, communities and priorities by using the technology in other areas such as social care; transport, etc.

Presentations

- The project has been presented at the Digital Catapult (London) 'Things Connected Showcase' to 24 SME's and organisations and 18 local authorities.
- The project has been presented at the SCC Transformation management event to 80 senior Managers, Assistant Directors, Directors, councillors and cabinet members for SCC.