

Intervention	Context	Input	Output	Outcomes	Impact
<p>1. Consolidate data sources</p>	<p>The objective of this intervention is to open up access to existing digital data sets and develop additional capability and service efficiencies.</p> <p>The Council uses a number of systems, provided and hosted by external suppliers, to manage and collate parking related data.</p> <p>Key existing datasets comprise:</p> <ol style="list-style-type: none"> 1. Chip side (Enforcement data) 2. Mipermitt (Income & usage through mobile app, season tickets and permits) 3. Parkfolio (Income & usage through ticket machine data on and off street) 4. Raven Meadows multi storey (Income & real time usage data) 5. P&R data via Arriva (Income & usage, ticket machine data) 6. Confirm (parking metadata eg geolocation, times of operation, tariff and occupancy) 7. Parkmap (TRO records system detailing restricted/unrestricted parking, CPZs etc) <p>These datasets are managed by external suppliers with licences held by the council in order to view standard reports and export data. Access to the 6 datasets is currently available via 4 members of staff who have each have access to some but not all of the datasets. Each dataset is held in a standalone system that is able to report within its own system environment but is unable to communicate with any of the other systems. Each system is capable, to varying degrees, of exporting raw data on a request basis but this and the following analysis and reporting is resource intensive and time consuming. It is currently impossible to consolidate the data from these systems in such a way as to see a realtime picture of parking behaviour across the county.</p>	<p>1 IT technician to configure 1 server (already purchased) to host the consolidated data (or to develop Sharepoint site)</p> <p>1 IT technician to develop the export APIs (if direct export from data systems not possible)</p> <p>1 Project Manager to oversee the project</p> <p>1 Project Officer to co-ordinate and support project delivery, including developing the specification of the data catalogue and systems for automating the cleansing of data. The Project Officer will also train the admin officer who will undertake the future monitoring of the completed system.</p> <p>1 Admin Officer (from Public Protection department) to monitor the completed system</p>	<p>Establish a 'Data Lake' of parking related activity data hosted on an internal server (or a Sharepoint site). Initially include data from ticket machine sales, online and app sales, permit purchases, enforcement activity, park and ride sales and planned maintenance works.</p> <p>The system will include :</p> <ul style="list-style-type: none"> * a data export and standards specification * a scheduled weekly export (via API if direct export from data systems not possible) from the 5 datasets onto the server. * extraction of TRO information and meta data from 2 datasets onto the server. * a data retention schedule 	<p>Robust process to combine high value parking and traffic datasets into a central 'Data Lake' which will support the DfT vision for more widespread open data and data sharing.</p> <p>Ability to extend to incorporate add other datasets in the future.</p>	<p>By putting in place data standards and consolidated our data into one 'Data Lake' we will have the ability to efficiently report across a number of data systems in a variety of ways for different purposes and audiences, including the DfT.</p> <p>This will support the council to improve transport operations and to highlight potential inefficiencies (see sub-project 1.2).</p> <p>The system will have future further scope to develop to include data from other departments and partners e.g. cycling, weather, town centre footfall, air pollution, visitor numbers. This additional data will help us to monitor the impact of our parking strategy on related strategic outcomes such as behaviour change (encouraging visitors to utilise the P&R and making our tourist towns easier and more attractive to access) reducing traffic flow in our market towns and reducing air pollution at bottle neck points.</p>
<p>2. Automated reporting</p>	<p>The objective of this intervention is to improve and automate our capability to analyse historic parking occupancy and compliance data hence further develop our policy and strategy options.</p> <p>Shropshire Council operates Civil enforcement area number 232 (ONS code 00GG) and in accordance with Section 55 of the Road Traffic Regulation Act 1984 is required to keep an account of their income and expenditure in respect of parking places and designated parking places for which it is responsible. At the end of each financial year any deficit in the account is required to be made good out of general funds and any surplus shall be applied for specified purposes and carried forward until applied to carrying it out.</p> <p>Currently £25,000 revenue funding is provided to the Public Protection department to produce reports, including the Parking Annual Report, summarising service statistics, enforcement statistics and financial information. Numerous data requests are made across council departments and our external park and ride provider for data that is analysed using a mixture of the separate data system reporting tools and Excel and then written in formal reports produced in Word before being manually uploaded to our website (internal/external). The production of these reports, and any bespoke request reports, is resource intensive due to the nature of the how the data is stored (see 1.1) and the manual nature of the analysis and reporting.</p>	<p>PowerBI Premium licence to develop and share internally and externally interactive reports.</p> <p>PowerBI training (3 days for the Project Officer)</p> <p>1 PowerBI trained staff member (the Project Officer) to develop Power BI reports, document the report process and train staff in Highways, Public Enforcement and Finance Teams in how to use and interrogate the final reports.</p> <p>1 staff member from the web team to build an internal sharepoint and an external web page to host the PowerBI reports.</p>	<p>The interactive reports will enable staff and the public to view parking related statistics at a town or car park level. With data extracted on a weekly basis reports will be virtually real time.</p> <p>Once built, the reports will automatically update and analyse data from across all sources in the 'Data Lake' (see 1.1).</p>	<p>Using Microsoft PowerBI to interrogate the 'Data Lake' (see 1.1) we will build a series of standard reports that are refreshed automatically without the need for repeated analysis and report writing. This will include the Parking Annual Report and monthly financial reports. The reports are interactive to allow the consumer to undertake further analysis (within the remit of the report).</p> <p>External as well as internal reports which will support the DfT vision of open data and data sharing as well as encouraging innovation in the private sector supply chain.</p> <p>These will support the council to improve transport operations and to highlight potential inefficiencies (see sub-project 1.2).</p>	<p>Utilising the 'Data Lake' we can combine data sets into standard reports. These reports will allow us to easily provide information required under our duties and to monitor the effectiveness of our parking strategy.</p> <p>We have the ability to publish data often requested under FOI requests making the information more open and reducing officer time to respond.</p>
<p>3. Visitor Information</p>	<p>The objective of this intervention is to develop available parking data to contribute to our mobility agenda.</p> <p>Currently a visitor to (or indeed a resident of) Shropshire would need to review a number of web sources in order to plan a journey to or within the county:</p> <ul style="list-style-type: none"> * Council car parking sites and related information (Council hosted) * Park and ride sites and related information (Council hosted) * Bus routes and related information (Partner hosted) * Roadworks.org (External hosted) <p>It is not currently possible for a visitor to have one overarching view of local transport options and information.</p>	<p>1 staff member from the web team to develop a website designed for all devices and ensure accessibility and branding compliance.</p> <p>Support from:</p> <ul style="list-style-type: none"> 1 staff member to support with GIS data from the GIS Team 1 staff member to support with data from Gazetteer and Network Management (Street Works Team). <p>1 project manager to oversee the project</p> <p>1 project officer to co-ordinate and support the delivery of the project, for example to collect and collate inventory information regarding parking assets.</p>	<p>A website designed for all devices and that will provide a single source of information to inform the visitor:</p> <ul style="list-style-type: none"> * Geolocation of car park/P&R/bus stops * Hours of operation * Frequency of operation (P&R/bus) * Tariffs & concessions * Duration of stay (car parking) * Geolocation of ticketing machines * Geolocation of disabled bays * Number of bays (by car/disabled/motorcycle/coach etc) bays * Option to sign up to push/email notifications (eg car park closures due to flooding/events) * Link to online/app car parking (MIPERMIT) and bus ticket purchasing websites * Key events calendar with geolocator * Feed from traffic social media accounts (flooding, car park closures) <p>Town centre loading bays and preferred routes. Could apply to coaches as well</p>	<p>Providing improved service journey planning service to visitors, specifically including those with disabilities.</p> <p>Ability to extend the service to assist with the promotion of events.</p>	<p>Provide an improved customer experience related to parking Supporting the local visitor economy</p>