

Public transport access to services

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An inability to access services can have negative health and economic effects by increasing social isolation and limiting job prospects. The `propeR` tool uses multimodal (private and public) transport networks to help others analyse accessibility.

Team members

- Michael Hodge
- Ioannis Tsalamanis
- Jasmine Latham
- Phil Stubbings

The need

The Welsh Government (WG) need a new accessibility and travel time tool that will be beneficial for a number of ongoing projects and programmes, including: * the Welsh Index of Multiple Deprivation (WIMD), * access to services domain 2019, * The Valleys Taskforce programme, * Cadw website and mobile app, * Transport policy unit, * South Wales Metro programme

Impact

The tool will allow WG to use its outputs for multiple projects and programmes. WIMD measurements will immediately benefit from more frequent calculations and real-time monitoring. The code and tool will be published as soon as possible as they are based on open-source tools and data.

Data science

The tool is based on open-source tools and data. We gathered public transport (bus, rail) information and transformed it to General Transit Feed Specification

(GTFS) format. The tool is built in R and Shiny and makes extensive use of OpenTripPlanner.

Stakeholders

We are working with the Welsh Government.

Code and outputs

- GitHub repository

Delivery

- **May 2018** Scoping workshop with Welsh Government and Sustainable Development Goals (SDG) team
- **June 2018** Obtain public transport (bus, rail) data, transform it to required format and validate
- **July 2018** Build interactive tool based on R and Shiny to calculate isochrones, choropleths and extract data
- **August** Handover the code to WG for assessing the functionality, outputs and methods used
- **Future** Implement additional functionalities based on WG's feedback
- **Future** Handover final tool, publish the tool and write a technical article or blog

Further information

Please contact datasciencecampus@ons.gov.uk for more information.

Updates

- No updates yet.