



Science and
Technology
Facilities Council



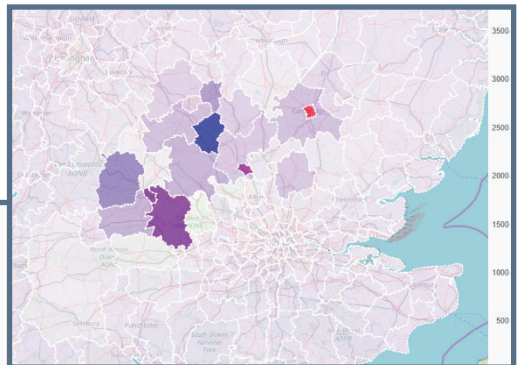
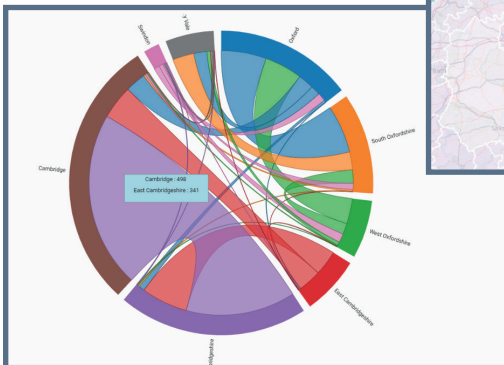
DAFNI

Combining access to quality data with state-of-the-art compute for infrastructure research.



About DAFNI

DAFNI (Data and Analytics Facility for National Infrastructure) is an £8M investment to develop a national platform for UK infrastructure research. It combines access to quality data with state-of-the-art compute to help unravel and analyse complex systems. Using a flexible and scalable hybrid cloud environment, DAFNI supports academic research using big data analytics, simulation, modelling, and advanced visualisation techniques. Its partners include UK universities, government departments and industry.



Examples of high-quality visualisations produced using the DAFNI platform.



Impact studies

One of the models hosted by DAFNI is a population forecast model which predicts how investment into infrastructure could affect internal migration across a region. The DAFNI platform allows users to access the model remotely using a web-based user interface, including tools for manipulating scenarios and producing high-quality visualisations. Model run time has been cut by around two thirds.

Another example is the Station Demand Model which aims to predict where new railway stations should be located to best serve both businesses and communities. It forecasts demand for new stations and predicts the net impact of a new station on rail use. Again the professional web interface makes predictions accessible to all those in the transport industry.

(DAFNI version 1.0)

27

dedicated servers

150TB

high performance storage

1.8PB

backup/archive storage

10

Nvidia V100 GPUs

567

*Individual datasets
and increasing.*



DAFNI is hosted by STFC's Scientific Computing Department on behalf of the EPSRC-funded UK Collaboratorium for Research in Infrastructure and Cities (UKCRIC).

