

## CASE STUDY

### Linking spatial-temporal datasets (PhD, University of Warwick, 2016-2020)



#### The Challenge

The volume of spatio-temporal datasets is becoming problematic for data scientists - they're too large to process on a single computer and cost too much to process using cloud resources such as Amazon Web Services. The aim of the PhD was to develop new ways of linking data to support the development, operation and maintenance of transport systems. TRL are part-funding this PhD at University of Warwick Computer Science Department.

them faster to process whilst minimising the error introduced in later analysis. The aim is for this method to be scalable to very larger datasets, reducing the storage and processing requirements for analysis. The PhD is due for completion in late 2020.

#### Our Approach

As part of this work a new method, k-Dimensional Spatio-Temporal Reduction (kD-STR), has been developed for reducing the volume of spatio-temporal datasets to make