

Capacity management

We have extensive experience in the field of operational research. Our team can assess and test the various components essential for running a robust and successful train service. This includes the harnessing and optimisation of the required performance characteristics of signalling, traincrew, track and rolling stock in the delivery of that service. We can also evaluate and develop station facilities to avoid passenger overcrowding at stations.

The issue

Maximising existing infrastructure potential in terms of capacity to accommodate ever increasing demands dictated by the timetable when investment to enhance the network is at a premium.



Our capability

We are well versed in the modern methods of operational planning using state of the art simulation software in order to maximise service delivery and track capacity. This allows many scenarios to be tested in a relatively short period of time and is therefore accessible for short term planning.

With a combination of this software and our comprehensive knowledge of current railway operating practices and principles, we are able to construct an existing or proposed track layout and its associated signalling. We can then overlay this with a detailed or outline timetable in order to measure the potential capacity of the infrastructure with the train service specification.

Our ultimate aim is to optimise the usage of the infrastructure available with the demand forecasted by the timetable requirements. Where actual capacity is limited, we have the experience to offer a complete tailored package of solutions in order to enhance this optimisation process. Initially this can be by revising timetables, or flexing train paths. If the solution is still not apparent, our team will look at enhancements to infrastructure in order to reach the capacity required.

Following this process we can cost and analyse each option in order to check the extra capacity gained is not detrimental to another level of performance. This work can provide the basis for business case development.

