



University of Loughborough

Data analysis and scenario modelling expertise to the University on timetabling, to develop a timetable and de-risk the decision making of a new build facility.

In 1909 a small Technical Institute in the centre of Loughborough was established for further education and offered courses in technical subjects, science and art. In April 1966 Loughborough was awarded its Charter, in recognition of the excellence achieved by Loughborough College of Advanced Technology and its predecessor colleges. It was renamed Loughborough University in 1996. In 2015 Loughborough opened a second campus on Queen Elizabeth Olympic Park in London.

In The Times and Sunday Times Good University Guide 2020, Loughborough maintained its top five ranking for a second successive year and remains the top university in the Midlands. Loughborough is now ranked ahead of two thirds of the 24 universities that comprise the Russell Group, placing it firmly among the UK's higher education elite.

The Challenge

Loughborough University began engagement with EventMAP in 2016 in anticipation of the university's new STEM facility being opened. Offering an exciting opportunity for innovative and flexible resource usage across disciplines. The university was seeking to reschedule most of its curriculum delivery, specifically laboratory classes, into refurbished and new space within the West Park Teaching hub. The faculties then under consideration for the move to the new facility were the Wolfson School of Mechanical, Electrical and Manufacturing Engineering, School of Aeronautical, Automotive, Chemical and Materials Engineering, School of Civil and Building Engineering, School of Sciences (Physics and Chemistry only), and School of Sports Exercise and Health Sciences.

The aims of the new STEM facility were to create a suite of state-of-the-art laboratories for teaching to enhance the Student Experience, and top-quality research laboratory space, as a showcase for visitors to encourage an improved engagement and create funding from external stakeholders.



The Solution

A joint team was established consisting of members of the Loughborough University central timetabling team and experienced timetabling and data analysts from EventMAP. The objective was to analyse how curriculum assignment within the new and existing spaces could be carried out strategically to maximise space usage and flexibility through innovative delivery of the curriculum. The end goal was to produce a working schedule which could be used for the 2017/2018 academic timetable.

The initial step was for the EventMAP team to analyse the existing timetable and related data in a way of understanding the School resource requirement. This included module and teaching activity data along with the potential allocation data collected directly from the Schools. In addition, detailed information was made available on the space profile for the existing and new build along with the associated space types to be catered for.

From a management perspective there was also a need to understand how integrated usage can be maximised to ensure available space is used in the best way possible. In allocating the existing timetable to the new space, consideration was given to the overall utilisation (frequency and occupancy), but also to identified staff flexibilities and factors influencing student experience. Metrics constructed from usage constraints were used to govern and report on these factors, utilising different

scenarios to model and determine which parameters should be considered. This allowed an understanding to be developed of what was possible in terms of the delivery within the new facility.

EventMAP employed a combination of knowledge, process discovery, data modelling, scheduling, scenario analysis and interactive reporting. The Data and parameters established were compiled into a bespoke data model that allowed the 'what-if' scenario generation process to be undertaken. Resultant solutions were presented to stakeholders for feedback and validation thus building confidence in the viability of the co-location of faculties and the new build itself.

The Results

Working in partnership with Loughborough University, the EventMAP team provided expert, structured advice on how best use can be made of the available resource and provided the modelling tools necessary to information executive decision making, as well as producing a working timetable incorporating the existing space with that of the new building. The resultant modelling of the supply and demand for the facility allowed the ratification of the proposed built environment and its capacity to hold the faculties proposed in the planning phase, and de-risk the delivery of the new build to house the current and future curriculum and growth of student numbers.



Resource Planning and Scenario Modelling

If you'd like to find out more about what EventMAP can do for you, if you'd like to request a demo, or to chat through your needs with one of our people, please get in touch – we'd be happy to help.

Click here to enter your contact details and we'll be in touch with you shortly.

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