

TRAINING & SKILLS Academia



UIC has attracted educational institutions from 11 countries to its Alliance of Universities for High Speed Rail.

Making the case for high speed rail

A UIC-led partnership of academic institutions from 11 countries has begun a series of research projects aimed at examining the benefits of investing in railways. **Benjámín Zelki** reports.

Can academics and railway professionals work together across borders to create a stronger case for rail investment? This premise is at the heart of the International Union of Railways' nascent Alliance of Universities for High Speed Rail, which held its first meeting in Hangzhou on November 26 last year.

UIC first announced plans for creating such a partnership of academic institutions at its 2015 World Congress on High Speed Rail in Tokyo. Three years of planning then followed, before the structure and operating model for the alliance was confirmed at the next congress in Ankara in May 2018.

Among the objectives of the alliance is to promote railway education and the attractiveness of careers in rail, recruiting outstanding talent to the high speed rail sector, while also helping academic institutions to improve the quality of their teaching in specialist disciplines.

The partnership intends to address a number of research fields, including assessing the economics of high speed rail compared to other modes; studying marginal costs and the value of time; and examining possible future innovations including automation and alternative traction options.

Since 2015, UIC has attracted 26 higher education institutions from 11

countries to join the alliance. Members include the University of Birmingham, the University of Illinois at Urbana Champaign, Universidad Politécnica de Madrid, Imperial College London, Federico II University in Napoli, Moscow State University of Railway Engineering and Tokyo University of Technology, many of which have previously co-operated on joint research in the rail sector.

First research project

The inaugural meeting in Hangzhou was chaired by the alliance Chairman Prof Bin Ning, President of Beijing Jiaotong University, who gave an introductory address setting out the goals of the alliance. This was followed by confirmation of the partnership's first research project. Lasting three years, this will examine the question of Productivity and High Speed Rail.

The benchmarking study will analyse strengths and weaknesses of high speed rail and compare it with other transport modes and wider societal

The alliance will assess the costs and benefits of high speed rail through a series of workstreams led by the different member universities.

factors; the study is to be led by Prof Jianhong Wu from Beijing Jiaotong University's School of Economics & Management.

Prof Andrea Giuricin of Bicocca University of Milano, who is also a Strategic Advisor to high speed operator Italo-NTV, reports that the study team's first task will be to gain appropriate data for the research. The economic data currently available for high speed railways differs markedly between countries, and an early objective will be to understand what should be included for a valid econometric analysis. One such issue is track access charging, for example, as this is much lower in China than in Europe.

If standardised and high quality data can be created, Giuricin says the alliance will then be able to complete the benchmarking study, which is intended to form the basis for future work examining affordability, pricing and marginal costs.

The alliance has held subsequent meetings to prepare the launch of these programmes. In Paris on March 11 the members accepted a proposal from Federico II university to evaluate the socio-economic aspects of high speed rail. Meanwhile, Krakow Technical University has been chosen to lead the workstream researching cost efficiency. In order to secure economies of scale for their work, the members of the alliance are now considering whether to apply to join the EU's Horizon 2020 research programme. ■

