Travel behaviour in public transport networks after the COVID-19 pandemic

Problem description
Around the world, the COVID-19 pandemic has affected the day-to-day lives of almost everybody. Amongst other changes, people’s public transport usage and perceptions regarding it has been affected significantly. Apart from ongoing, semi-mandatory changes (due to ongoing governmental restrictions) such behavioural shifts could persist in the near as well as long terms.

For example, there may be an increase in aversion to crowding in public transport vehicles. Travellers may be willing to pay more for class differentiation or accept greater waiting times to avoid crowds and maintain a greater personal space than before.

The extent to which individuals’ travel behaviour is affected and the persistence of such change depends on psychological factors (e.g., perceptions regarding extent of virus spread, anxiety due to perceived vulnerability), socio-economic factors (e.g., alternate travel modes available, flexibility to make changes), and behaviour prior to the pandemic.

Assignment
• Assess the type and extent of travel behaviour changes after the government imposed restrictions due to the pandemic
• Analyse who will (and/or is able to) change their perceptions and behaviour regarding public transport systems in the post-pandemic world with a focus on psychological factors.
• Stated preference experiments will be carried out to understand the relationship between (intended) behaviour and psychological factors.
• Any other openly available data (e.g., hospitalization rates from RIVM) may also be used

Candidate
• Should have taken the Statistical Analysis of Choice Behaviour (SEN1221) course or have experience with choice analysis and experiment design otherwise

Information
Transport & Planning department
Contact: Oded Cats o.cats@tudelft.nl; Sanmay Shelat S.Selat@tudelft.nl.