OVERVIEW

Melbourne’s tram system consists of 24 routes, stretching 250 kilometers with 1669 tram stops. Development of future easy access tram stop platforms is moving towards modular design with hollow and permeable features. Monash University and industrial partners are researching to develop reinforced recycled plastic modular platform elements. Suitable options for material manufacturing from recycled materials to construct prototype which will be trial assembled and load tested at Monash Institute of Railway Technology (IRT) laboratories to prove the design concept.

RESEARCH PROGRAMS

The successful reinforced recycled plastic modular tram stop platform will be developed through detailed structural analysis, material developments/improvements, laboratory testing and industrial engagements to ensure it’s performance is fit-for-purpose. Research programs include three key phases: concept design, materials development and prototyping.

This project is an interdisciplinary collaboration between Monash University researchers from the Faculty of Engineering, Faculty of Arts, Monash University Accident Research Centre and Monash Art, Design and Architecture with Monash Institute of Railway Technology.

BENEFITS

The project outcome will be to deliver a circular economy framework involving a complete supply chain of recycled materials. The partnership between the Monash Institute of Railway Technology and local industry partners from supply to end use will deliver innovative commercial and environmental impacts.