CEDR
Conférence Européenne des Directeurs des Routes
Conference of European Directors of Roads

SAFEPATH
SAFE caPAciTy Highways

SAFEPATH - SAFE caPAcity Highways

CEDR Call 2019(2) Safe Smart Highways

Background

National Road Authorities (NRA) are facing many challenges with growing congestion and the need to increase highway capacity, balanced with highway safety improvements and better-quality information to meet the needs of drivers, all within wider issues including environmental improvements. This is with a backdrop of political, financial and operational opportunities and constraints in a world where technology is constantly changing.

Our experience recognises these, and other factors faced by NRAs, and that they differ from country to country. A more agile approach needs to be adopted to the research such that the specific needs and wants of individual countries are captured. We will encapsulate these variables, based on PESTLE (Political, Economic, Social, Technological, Legal and Environmental) themes within the guidance to allow recommendations to be tailored to individual's needs and circumstances.

Industry, academia, and road operators have been developing and evaluating smart highways as they have evolved over many years. Some nations, such as the Netherlands and UK, have more mature solutions and as a result a huge knowledge resource. This is of obvious interest to those who are seeking to understand and develop solutions to meet their own highway requirements, but we must not ignore many other, some niche, measures other countries have implemented.

Aim and Objectives

The aim of the SAFE caPAciTy Highways (SAFEPATH) project is to provide NRAs with accessible information and methodologies that will support the selection of appropriate measures to safely increase highway capacity. The project will run for two years, from May 2021 until May 2023.

The over-arching objectives of the project are:

- Deliver guidance of real, practical use to NRAs
- Provide consistent methodologies and analysis approach for ease of use and application
- Evidence-based approach to qualify project deliverables
- Demonstrate that the project outcomes are useable and sustainable for up to 5 years

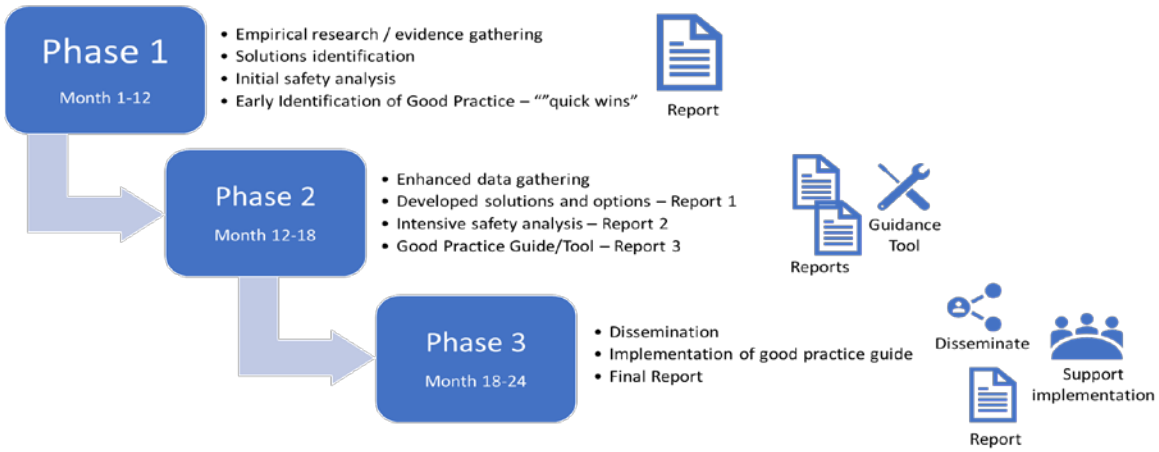
Value in delivery

The project will be delivered by following key principles upholding these objectives through:

- A systems engineering approach, recognising the wide range and complexity of factors which influence highway capacity and road safety
- Setting a firm foundation for the project through clear problem definition and demarcation, including measures and key performance indicators
- A well-defined stakeholder engagement plan and actor analysis outlining Who? When? What? And Why? to ensure sustained involvement, interest and ultimately a clear route for guidance dissemination and use

- Development of a web-based research database of measures and solutions including current practice and safety reports which will provide a project and onward sustainable resource for others
- A defined approach to assess current safety analysis methods, by road operators and wider industry, providing greater consistency for understanding and application
- Gathering solutions and lessons learned to inform and support real world applications to underpin and for use within the delivered guidance

Project Phases



Expected outcomes and benefits to CEDR and others

The European Commission found that European transport is costing society over 1 trillion euros per year. This includes air pollution, carbon emissions, congestion, accidents, and other external costs. Congestion alone has been shown to cost more than 250 billion euros per year to the EU economy. Given the size of these figures the SAFEPATH project will be able to contribute large economic benefits from only relatively small improvements in highway capacity and road safety.

The SAFEPATH project partners are focused on producing tangible outputs that will be immediately used by NRAs. Primarily this will be the Good Practice Guide and supporting databases of literature and other evidence resources.

Both national and transnational agencies will be able to make use of the project outputs, as the guide will support users to select measures most appropriate for their circumstances.

Delivery

The project started in May 2021 and due to complete in April 2023.

The Team

AECOM is leading a collaboration of experts from across Europe including Royal HaskoningDHV, Eindhoven University of Technology, White Willow as well as linking up with ANAS, Italy's national road operator and ika, an automotive safety specialist. Each bring key specialist and real-world knowledge and experience to play an important role in delivering a successful project.