

# **Objectives of the measure**

#### At measure level:

- Piloting digitalized PT-stop
- Developing and piloting climate-resilience measures (greening/ shading/ un-sealing) for PT-stops
- Accelerating climate-resilience measures (greening/ shading/ un-sealing) for PT-infrastructure
- Develop a building standard for accessible, comfortable, multifunctional und climate resilient light rail platforms.

#### Contributing to city level objectives of:

- Improving public spaces considering, climate adoption strategies
- Improving PT-offer and services to promote modal-shift

# **Description of the measure**

#### Situation before:

The city of Mannheim and rnv aim to make access to public transport as attractive and easy as possible. Stops and stations must therefore be easy to reach, safe, clean and offer a pleasant quality of stay. Apart from regular PT stop refurbishment and the ongoing process of upgrading all PT stops to ensure barrier-free access for people in wheelchairs, with wheeled walkers, strollers and any other people with reduced mobility, rnv has only very limited additional resources to further advance its PT-stops beyond legal and practical necessity. Therefore, Mannheim would like to find innovative ways to address user needs at PT stops which also consider practical constraints.

#### General description:

The aim of this measure is to draft, discuss and pilot additional components/ elements at PT stops to improve the overall attractivity and functionality. rnv intends to realize two different sub-measures focusing on different topics each.

#### • Sub-measures descriptions:

- **MAN\_04\_01:** This sub measure will focus on bringing additional digital services to the stops.
- **MAN\_04\_02:** This sub-measure will focus on climate-change related adaption of PT stops and PT infrastructure, such as the greening and shading to reduce direct sunlight and heat in the summer, or the un-sealing of formerly paved areas to cope with heavy rainfall.
- **MAN\_04\_03:** This sub-measure will focus on the development of a comprehensive platform building standards for all of rnv's future construction projects to fasten planning and construction processes while ensuring best practices regarding accessibility, comfortability, and multifunctionality to be carried on.

#### Measure outputs:

This measure will deliver:

- concept for digitalized PT-stop
- Piloting of digitalized PT-stop
- concept for greening/ shading/ un-sealing measures of PT-stops and PT-infrastructure
- Implementation of greening/ shading/ un-sealing measures of PT-stops and PT-infrastructure
- Development of a platform building standard.
- Interaction with other city measures: UPPER and non-UPPER measures This measure is related to the UPPER measure aimed at
  - MAN\_01: Mobility needs

# Target groups and/or geographical impact areas

- Target groups:
  - PT-users
  - residents/ citizens/ public
  - Special user groups
- Geographic impact area:

The measure will have a direct effect on Mannheim and the improved PT stop. Beyond that, the results and insights gained as well as the concept prepared will benefit the service region of rnv, covering the metropolitan area of Rhein-Neckar with the three cities of Ludwigshafen, Mannheim, and Heidelberg

### **Stakeholders**

The following stakeholders will be required for the implementation of this measure.

- Rhein-Neckar-Verkehr GmbH (rnv) Passenger Information Departement: project lead on MAN\_04\_01
- Infrastructure Planning Department: project lead on MAN\_04\_02 and MAN\_04\_03
- City of Mannheim: strategic planning and setting of frameworks for PT infrastructure development & authorizing body
- MKB GmbH: contracting body for infrastructure projects on publicly owned properties in Mannheim

## **U-tools support**

The implementation of this measure will not be supported by any IT tool of the UPPER toolkit

## Link to other UPPER measures

This measure is similar to UPPER measures implemented in other cities, especially:

- VAL\_08: To design and develop an innovative, inclusive and convenient stop for buses [PULL]
- LIS\_06: To improve comfort, convenience and safety of PT interfaces [PULL]

# Process of implementation of the measure

Stages	Description	Intermediate milestones
Design	<ul> <li>Develop concept for digitalized PT- stop</li> <li>Develop concept for greening/ shading/ un-sealing measures of PT- stops and PT-infrastructure</li> <li>Develop platform building standard</li> </ul>	<ul> <li>concept for digitalized PT-stop finalized</li> <li>concept for greening/ shading/ un-sealing measures of PT-stops and PT-infrastructure finalized</li> <li>first complete draft of platform building standard prepared</li> </ul>
Preparation	<ul> <li>Identify pilot sites</li> <li>Market research and procurement of relevant materials, suppliers, and services</li> <li>Discussion and review with internal stakeholders and experts</li> </ul>	<ul> <li>Pilot site for digitalized PT-stop identified</li> <li>Pilot site(s) for greening/ shading/ un-sealing measures identified</li> <li>Reviewed version of platform building standard prepared</li> </ul>
Implementation	<ul> <li>Implementation of pilot site digitalized PT-stop</li> <li>Implementation of site(s) for greening/ shading/ un-sealing measures</li> <li>Finalisation and implementation of platform building standard</li> </ul>	<ul> <li>digitalized PT-stop operational on pilot site</li> <li>greening/ shading/ un-sealing measures implemented on pilot site(s)</li> <li>platform building standard is implemented in internal planning processes and external stakeholders</li> </ul>

# Sub-measures and preliminary indicators

Measure	Sub-measure (if applicable)	Impact indicators
MAN_04	MAN_04_01	Number of additional services provided at pilot digitalized PT stop
MAN_04	MAN_04_02	Number of climate-resilience measures implemented at PT-stops and PT-infrastructure