

PUBLIC ENGLISH READING TRANSLATION

Memorandum to the PULSE-TWIN portfolio holder

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Grey redactions and omitted passages in the source were applied by the Municipality of Heerlen. This reading translation does not reconstruct redacted information.

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Municipality of Heerlen

Memorandum to the Mayor and Aldermen

Date of Executive Board meeting: 3 June 2025

Document number: 396938

Author: [redacted]

Domain/Team: Society Domain - Safety and Neighbourhoods Team

Official commissioning party: [redacted]

Purpose of the memorandum: To inform

Copy to: none stated

Attachment(s): 1

Subject: Award of EUI funding for PULSE-TWIN

Introduction

At the beginning of 2024, the European Urban Initiative (EUI) launched the funding call "Technology in Cities". The purpose of the scheme is to test innovative solutions based on new technologies in everyday situations and in the real world, in order to improve services provided by local authorities to residents or to make better use of the capacity required for those services. In coordination with the participating partners, the Municipality of Heerlen submitted an application for the PULSE-TWIN project in October 2024. In April 2025, the funding was awarded subject to conditions.

There were 110 applications from 23 EU countries. Heerlen is among the 20 projects ultimately selected and will receive the highest possible level of funding. What makes the project unique is that no city in the EU yet has a "Social Digital Twin". Physical digital twins do exist, but the Social Digital Twin is new.

Background

The innovation envisaged through PULSE-TWIN is intended to contribute to addressing challenges concerning liveability and safety and to strengthen the existing work in these areas. The reasons for applying to EUI with the PULSE-TWIN project arose from several circumstances:

- Heerlen faces a major challenge in relation to safety and liveability. We have been working for many years to improve safety and want to be at the forefront of innovative approaches to safety and liveability.
- The capacity of the police and our own deployment of municipal enforcement officers, Prevention with Authority, the Social Safety Approach, cameras, the Intervention Team and street coaches is, and will remain, scarce.

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Financial resources will likewise be limited in the coming years. We must therefore find ways to deploy these resources as efficiently and effectively as possible.

- The 2025 budget identifies nine strategic priorities for the organisation in carrying out its duties. Robotisation, AI/ChatGPT and digitalisation are three of these, and the application was also prepared with that perspective in mind. Partnership on these subjects is essential, and relevant knowledge and expertise can be found among partners in the immediate area, including the police innovation laboratory, Maastricht University and Brightlands.

Objective

The PULSE-TWIN project focuses on developing a digital twin of an urban environment in order to monitor and predict social safety. The twin uses real-time data and artificial intelligence (AI), drawing on figures, confidential and public data, practical knowledge held by professionals and residents' experiences. In principle, this makes it possible to simulate scenarios, support decisions using the available data, rapidly assist professionals' thinking, perform analyses and present them in text or visually.

If the project has a positive outcome, this smart technology should enable us to take proactive measures relating to safety, liveability and everything that contributes to them. Throughout the project, we will also seek to understand how the use of AI as a tool should be regulated from the perspective of ethics and privacy. The project is based on four pillars.

1. Establishment of the Public Smart Safety Center/Campus (PSSC).

Different disciplines from the partner organisations will be represented in such a centre. Smart systems and technological applications will be developed there to support the approach to neighbourhood liveability and safety. The intended founders of the PSSC are the police, Maastricht University, Brightlands Campus, the Municipality of Heerlen and TNO.

2. Residents participate.

People in the neighbourhood can use Heerlen's Heitje system to report how they experience their area. This provides an up-to-date picture of liveability. They can also take part in activities, whether digital, physical or a combination of both, including virtual reality, in return for Heitjes.

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Innovative game applications will also be used to involve young people more closely in their living environment and neighbourhood safety. This information is essential for creating a good social representation of their neighbourhood.

3. A digital neighbourhood.

A Social Digital Twin will be created: a digital tool that uses data and experiences to help make neighbourhoods safer and more pleasant. Work will begin in the three focus neighbourhoods in Heerlen-Noord. The system:

- provides advice about plans and changes;
- can predict what will happen as a result of particular decisions;
- visualises the living environment and indicates the neighbourhood's "temperature" or atmosphere.

4. A smart AI assistant.

An AI assistant can help policymakers, administrators and community workers think through complex situations in a neighbourhood or policy choices, support decision-making, or take over employees' drafting work. The assistant uses a large amount of data, shows what does and does not work and saves those involved time.

Budget

The amount awarded to all project partners together is [redacted] euros for a period of three years. Cofinancing amounts to approximately [redacted] and must be provided jointly by all partners. In practice, partners provide that cofinancing through regular working hours that neighbourhood workers or policymakers would already spend on their work in those areas, by making buildings available or through their work on the Social Safety Approach and Neighbourhood Management. This also applies to the Municipality of Heerlen. It entails no financial risk and therefore has no impact on the budget.

Process and conditions

The intended start date is 1 October 2025. A process has already begun in preparation for that date, under which EUI lead experts critically assess the proposed operation of the project and its partners before it starts. On the basis of the submitted records, EUI asks questions which we answer in consultation with the partners. EUI also requests contracts between the Municipality of Heerlen and the project partners showing that they have genuinely committed to participation. Ultimately, EUI carries out a form of risk analysis to assess whether the amount to be funded is expected to be spent in accordance with the application.

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The project runs until 31 March 2029.

Partners and partner cities

Potential partners were consulted while the application was being developed and submitted. The participating organisations are ultimately the National Police, Brightlands Institute for Smart Society/Maastricht University, Buurteams Heerlen, JENS, the Foundation for Safe Design and Management, and Brightlands Smart Services Campus. The partner cities, or transfer cities, are Genk, Sant Boi de Llobregat in Spain and Piraeus in Greece. They will test certain project elements on a more limited scale in their own cities.

Communication

Following final coordination with the partners, a joint press release will shortly be issued containing information about the project's purpose and the EU funding award.

Yours faithfully,

The Mayor
R. Wever

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Explanation of the grounds for withholding information

This document contains sections that have been made unreadable. This information has been withheld under the Dutch Open Government Act (Wet open overheid, Woo). The letter shown next to a redaction corresponds to the applicable ground listed below.

G - Section 5.1(2)(b)

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J - Section 5.1(2)(e)

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