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Managing Director IS -
practice, Belgium



- Founder and Managing Director of the program management office "IS-practice". IS-practice is based in Belgium and delivers project management and high-level advice for major projects within the international and national public sector in the field of the Digital Society.
- More than 25 years of experience in communication, IT, consultancy and project management and with IS-practice an international network of expertise in Digital Government, Cyber security, Smart Cities and smart information and visualisation systems.
- Master in Communication Sciences (University of Leuven).

Introduction session



Digital Urban European Twins

or how to model sustainable cities



Digital Urban European Twins



DIGITAAL
VLAANDEREN



Vlaamse
overheid

Combining 2D/3D terrain data, IoT, predictive data models and visualizations: key for understanding future impact...



DIGITAL LOCAL TWINS bring entrepreneurial thinking, agile processes and open innovation to Government decision making



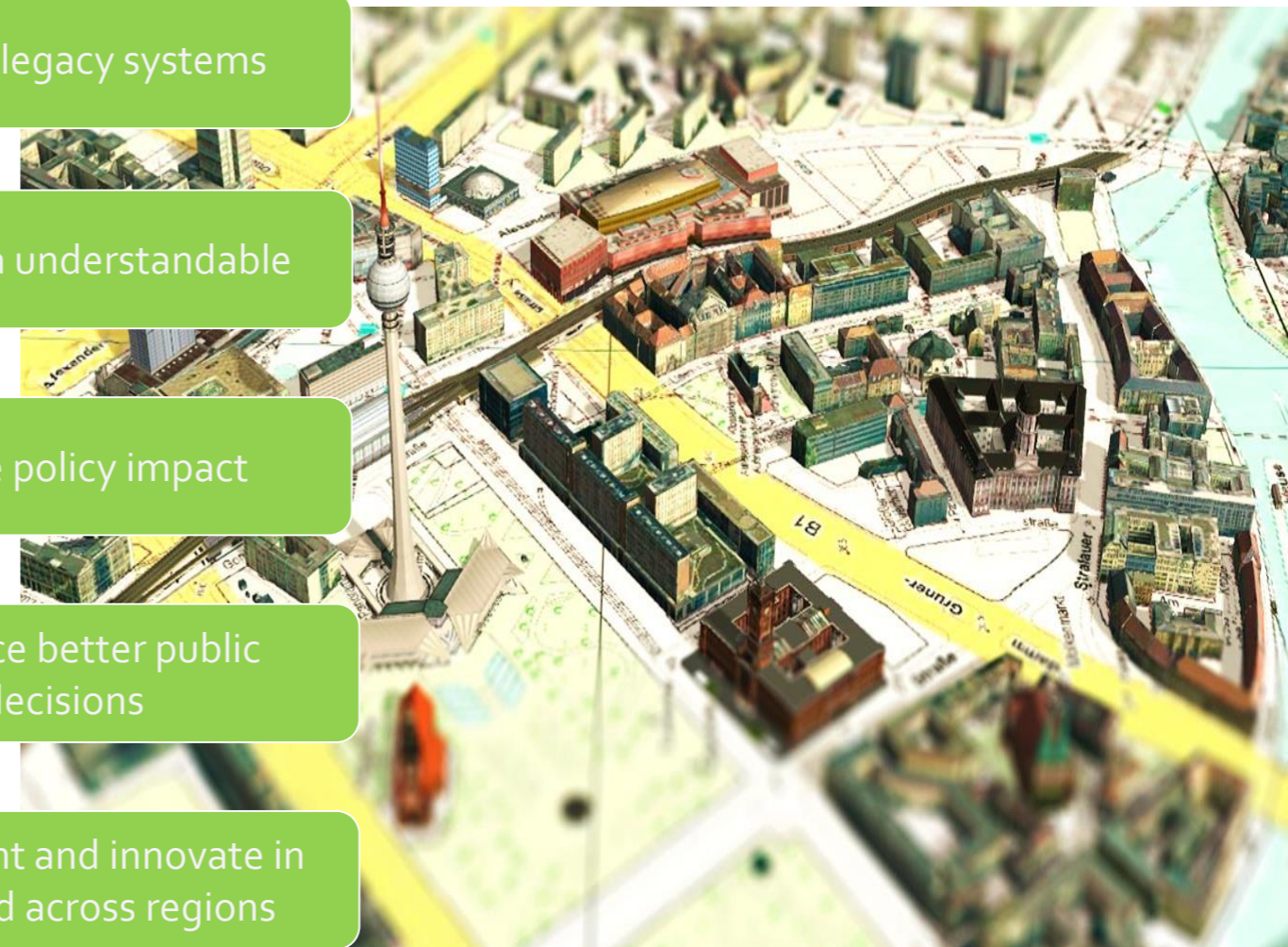
Connect legacy systems

Make data understandable

Explore policy impact

Influence better public decisions

Experiment and innovate in cities and across regions





Demonstration

Athens (Greece)
Flanders - Ghent
(Belgium)
Pilsen (Czechia)







DUET - Athens

3D-simulation - road closure, 100%, 2 directions



Traffic - P4A - DELTA

-  Strong decrease
-  Weak decrease
-  Weak increase
-  Strong increase



3D







DUET - Athens

3D-simulation - road closure 100%, 2 directions







Air quality TNO - NO₂ - Delta

-  Strong decrease
-  Weak decrease
-  Weak increase
-  Strong increase



DUET - Athens

3D-simulation - road closure 100%, 2 directions

-  Strong decrease
-  Weak decrease
-  Weak increase
-  Strong increase

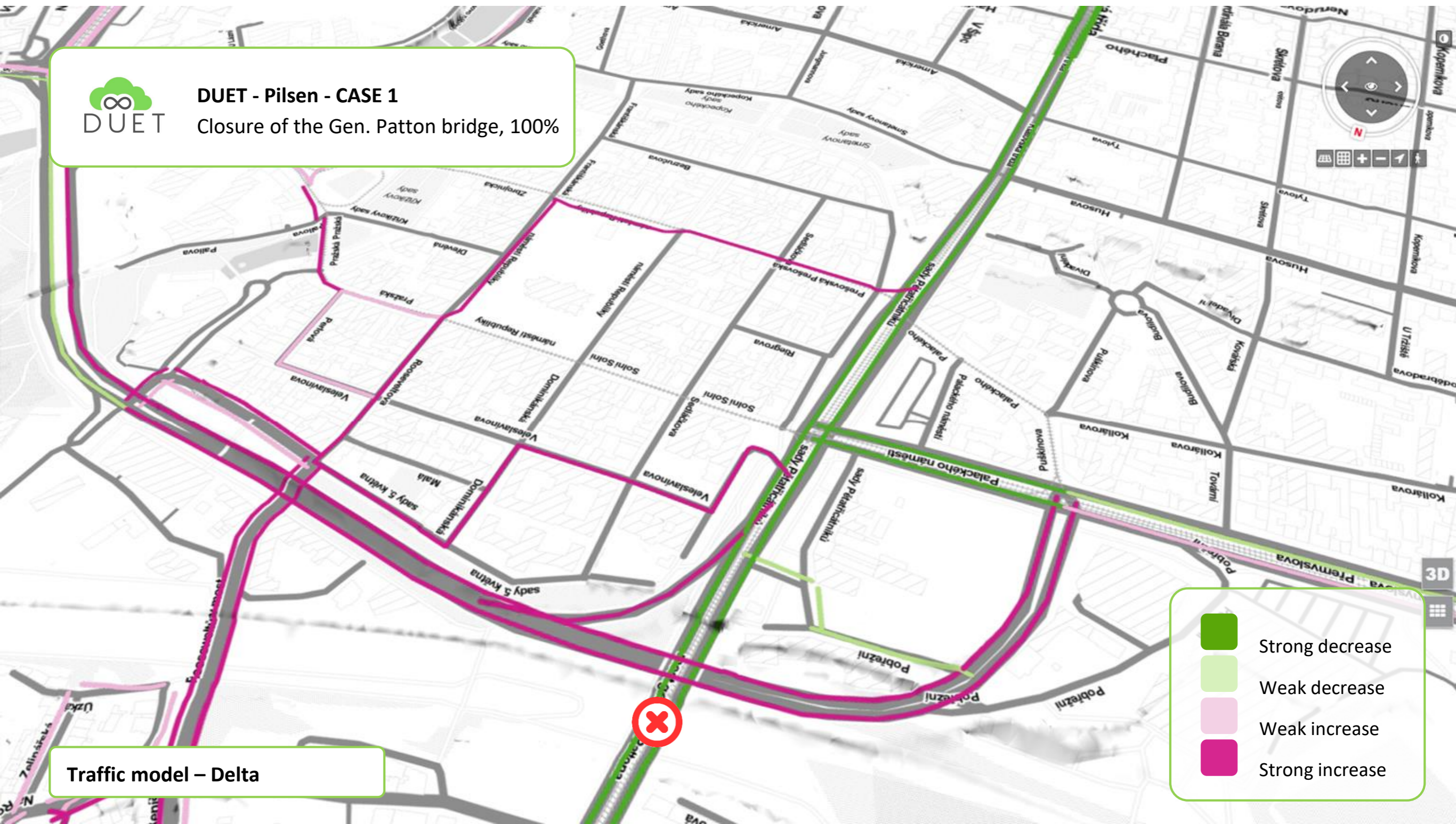
Air Quality TNO - NO₂ - delta









DUET - Pilsen - CASE 1

Closure of the Gen. Patton bridge, 100%



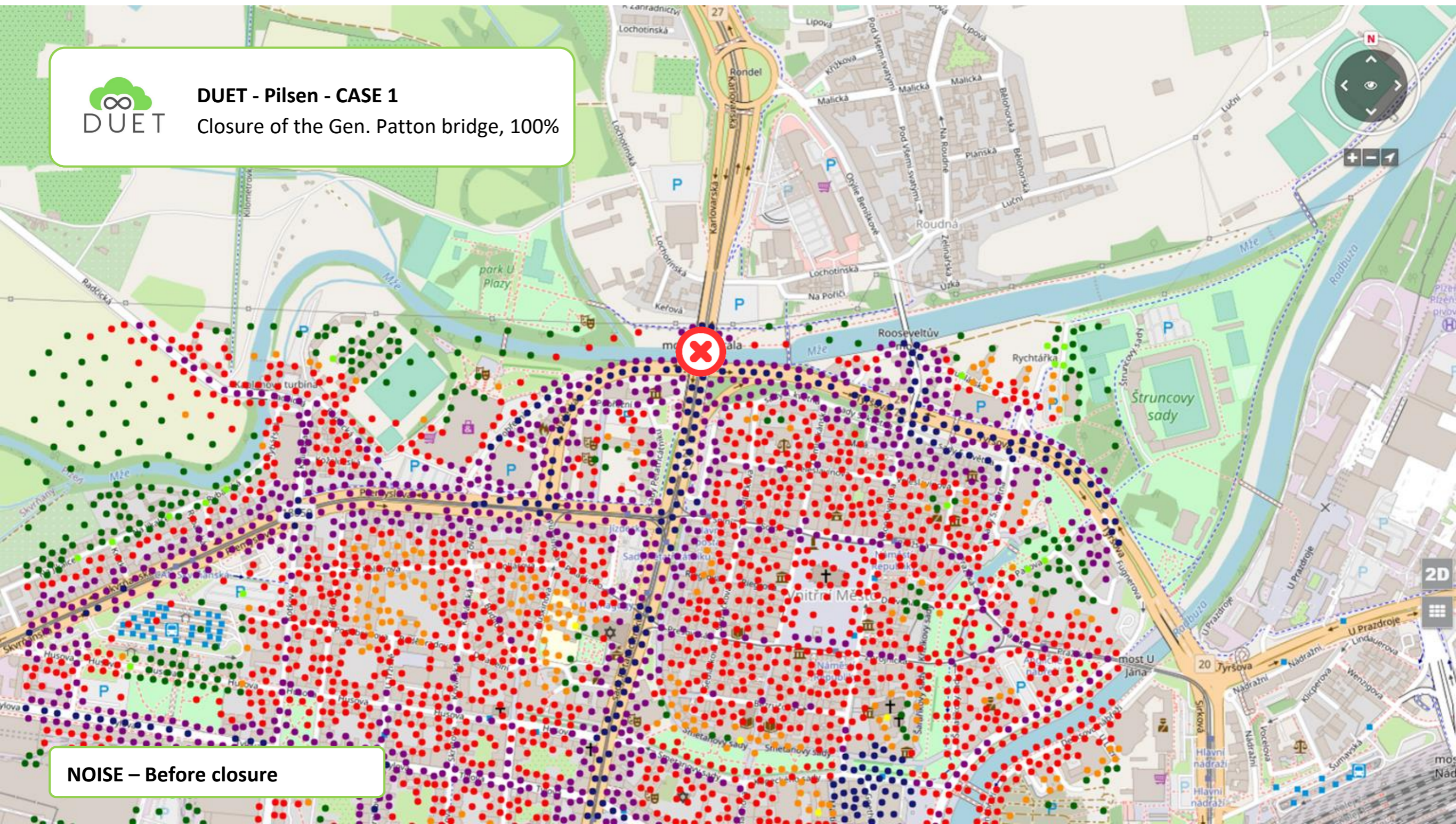
-  Strong decrease
-  Weak decrease
-  Weak increase
-  Strong increase

Traffic model – Delta



DUET - Pilsen - CASE 1

Closure of the Gen. Patton bridge, 100%

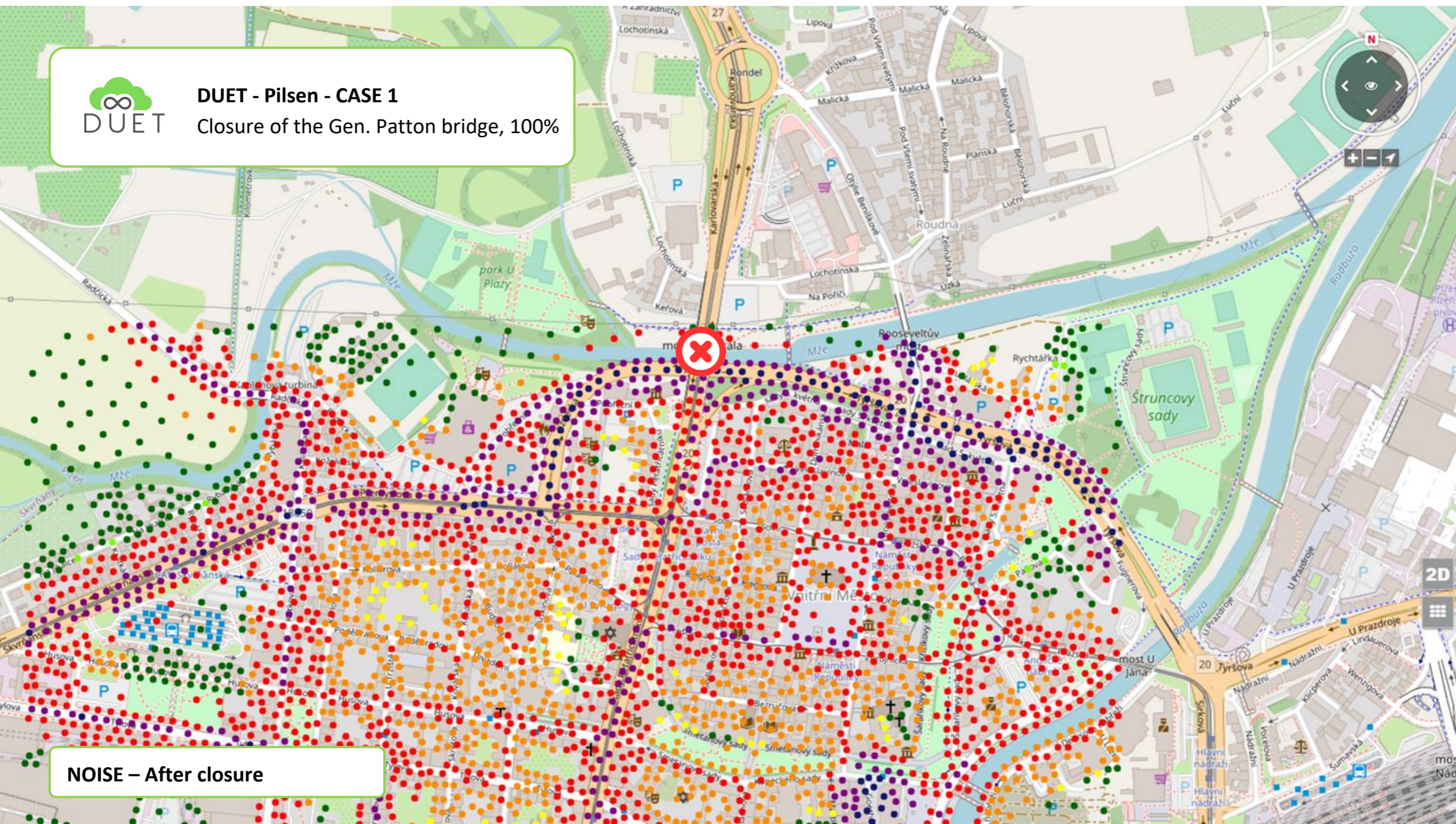


NOISE – Before closure



DUET - Pilsen - CASE 1

Closure of the Gen. Patton bridge, 100%



NOISE – After closure



DUET - Flanders, Ghent

3D-simulation - closure St.-Joris bridge, 100%
2 directions







Noise TNO model - After closure



DUET - Flanders, Ghent

3D-simulation - closure St.-Joris bridge,
100%, 2 directions

-  Strong decrease
-  Weak decrease
-  Weak increase
-  Strong increase



AIR QUALITY PM2.5 - delta





DUET - Flanders, Ghent

3D-simulation - closure St.-Joris bridge,
100%, 2 directions

- Strong decrease
- Weak decrease
- Weak increase
- Strong increase



AIR QUALITY PM10 - delta





DUET - Flanders, Ghent

3D-simulation - closure St.-Joris bridge, 100%
2 directions



Air quality VITO - NO₂ - DELTA



DUET

Products and available
cases

DUET Products

The image displays a composite of three website components. At the top is a navigation bar with links: Map, Data Catalog, Dashboard, Cases, Users, My Account, Logout. Below this is a secondary navigation bar with icons for Data, Comments, Change, Search, Content, Help, and Settings. The main content area is divided into three sections:

- Left Section:** A banner for 'DIGITAL URBAN EUROPEAN TWIN' with the tagline 'Change the way you see your city'. Below it is a 'Join DUET Cases' section featuring a grid of 12 project cards. Each card includes a thumbnail image, a title, a brief description, and a 'Read More >' link. The projects include:
 - Ghent – Citizens evaluate impact of closing a bridge for traffic
 - Pilsen – Solar equipment in the city park
 - Pilsen – Roosevelt Bridge Closure
 - Ghent – traffic model demo, closure of a bridge
 - Urbanage test case – Find shadow rich locations in the city of Ghent
 - Athens Green Squares and planning
 - Athens – Creation of a pedestrian and cycling route in Stadiou street
 - Athens – Citizens feedback on green routing
 - Athens Dashboard – traffic load on Stadiou street
 - Construction of a New Western Ring in Pilsen
 - Americá Street Closure
 - Athens green and shady places
- Center Section:** A large 3D perspective view of a city model with red-roofed buildings and a street labeled 'Sint-Pietersplein'. A '3D' label is visible in the bottom right corner of the model.
- Right Section:** A landing page for 'DUET Digital Twins' with the headline 'Decide better.' and a 'View Demo' button. It features a 'SMARTCITY' award logo and a small 3D model on a screen.

The DUET 3D MAP viewer

The DUET website with project information, reports, ...
<https://www.digitalurbantwins.com/>

The DUET Landing pages
 Entrance to the Digital Twin
www.citytwin.eu



Architecture

Scalable and open

