





Company in numbers



more than **1 mld zł**
net income



capitalization of
circa 5.1 mld zł



we operate on
4 436,2 km
water network



we operate on
4 341,5 km
Sewage network



2 421
employees



We have over **20** vessels of various sizes
(including dredgers, tugs, scarves, etc.)

In 2020 r.:

we have over **45** specialist
vehicles incl. for monitoring of
Water and sewage network



we treated
125 mld
liters of water



we treated
171,5 mld
liters of sewage

**Sewage
Network**

**Water
Network**



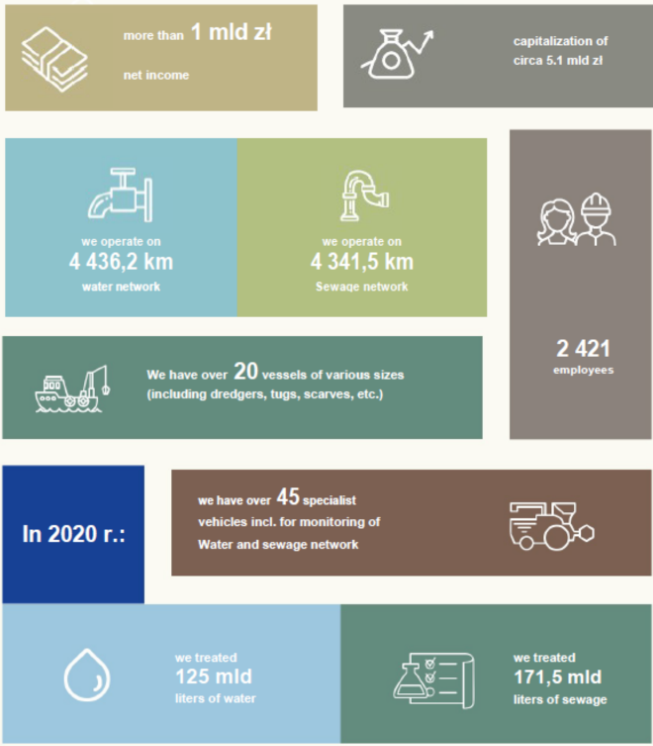
Water Network

Strefy zasilania w wodę / Water supply zones





Company in numbers





Sewage Network

Strefy odbioru ścieków / Sewage collection zones



Sewage Network





Sewage Network

1

2

3

4



Sewage Network

1 City growth

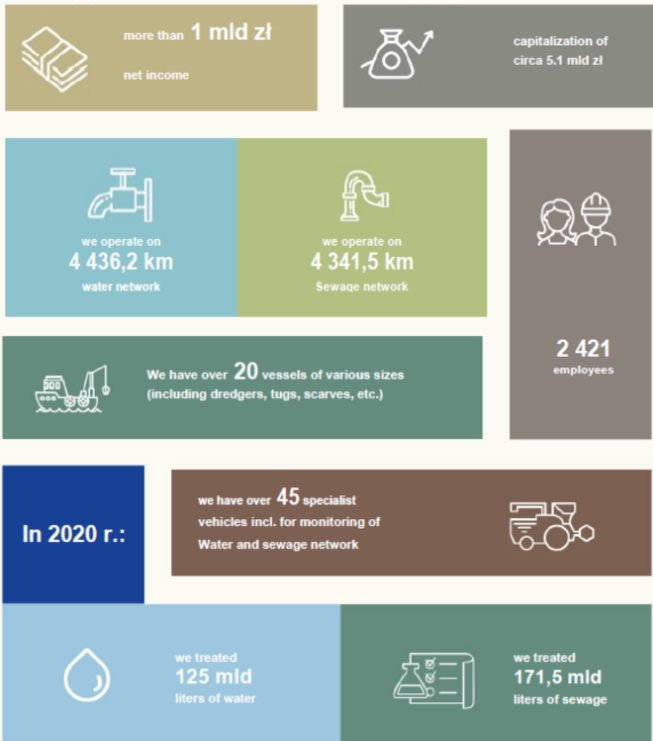
2 Flooding

3 CSO

4 Unification and
Centralization



Company in numbers







Possibilities



CSO, floodings, city growth and unification and centralization

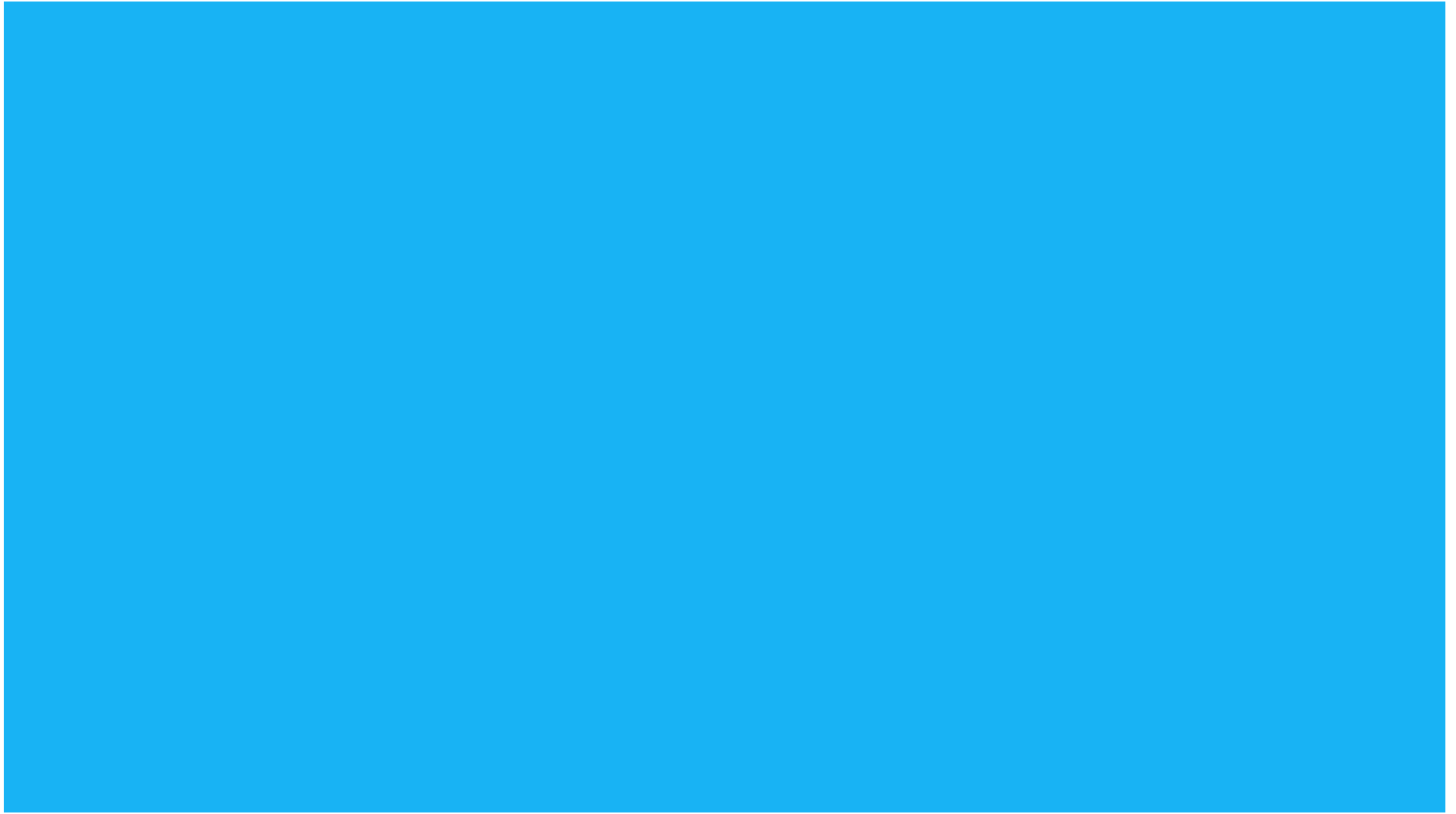


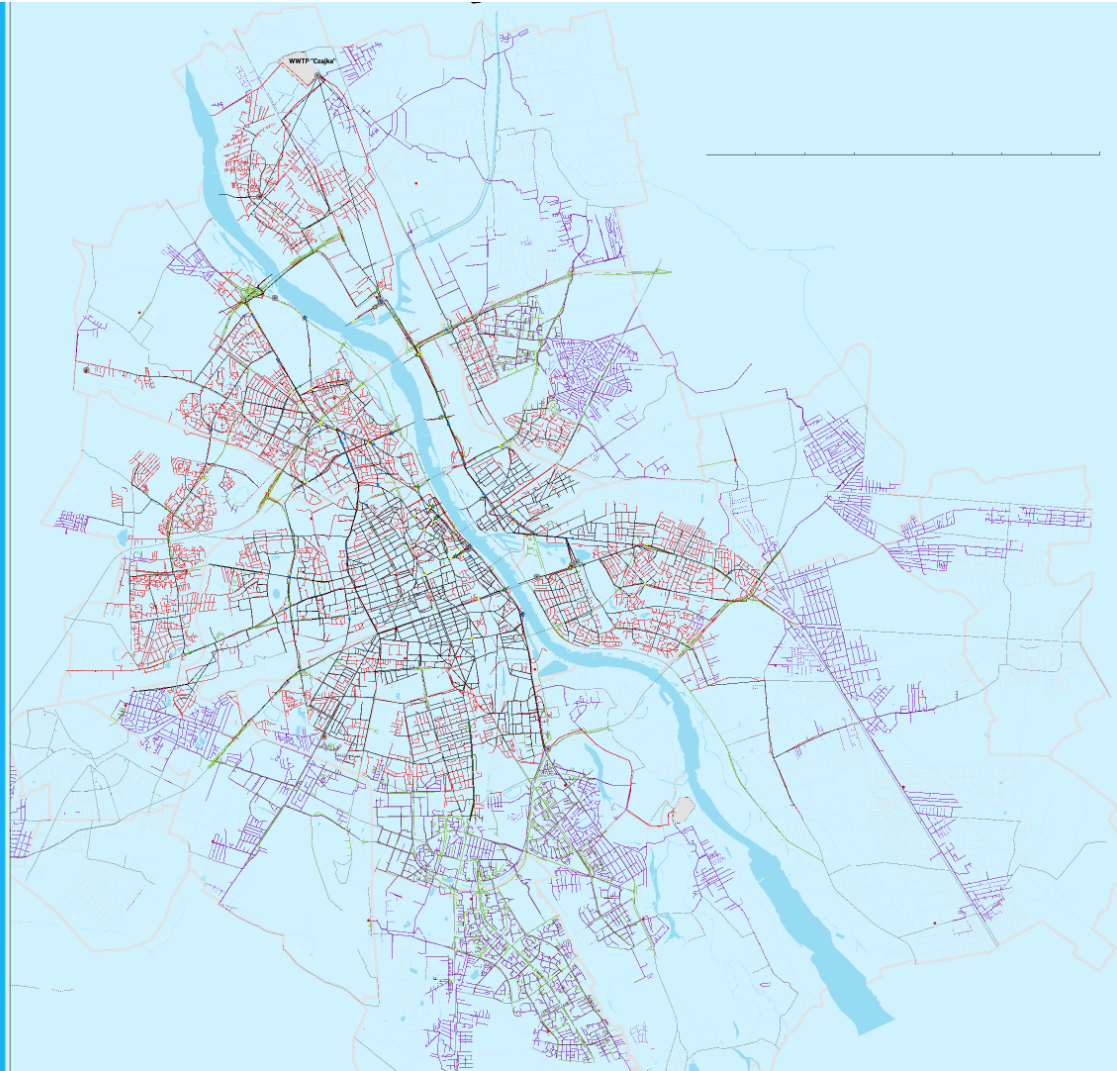
Possibilities

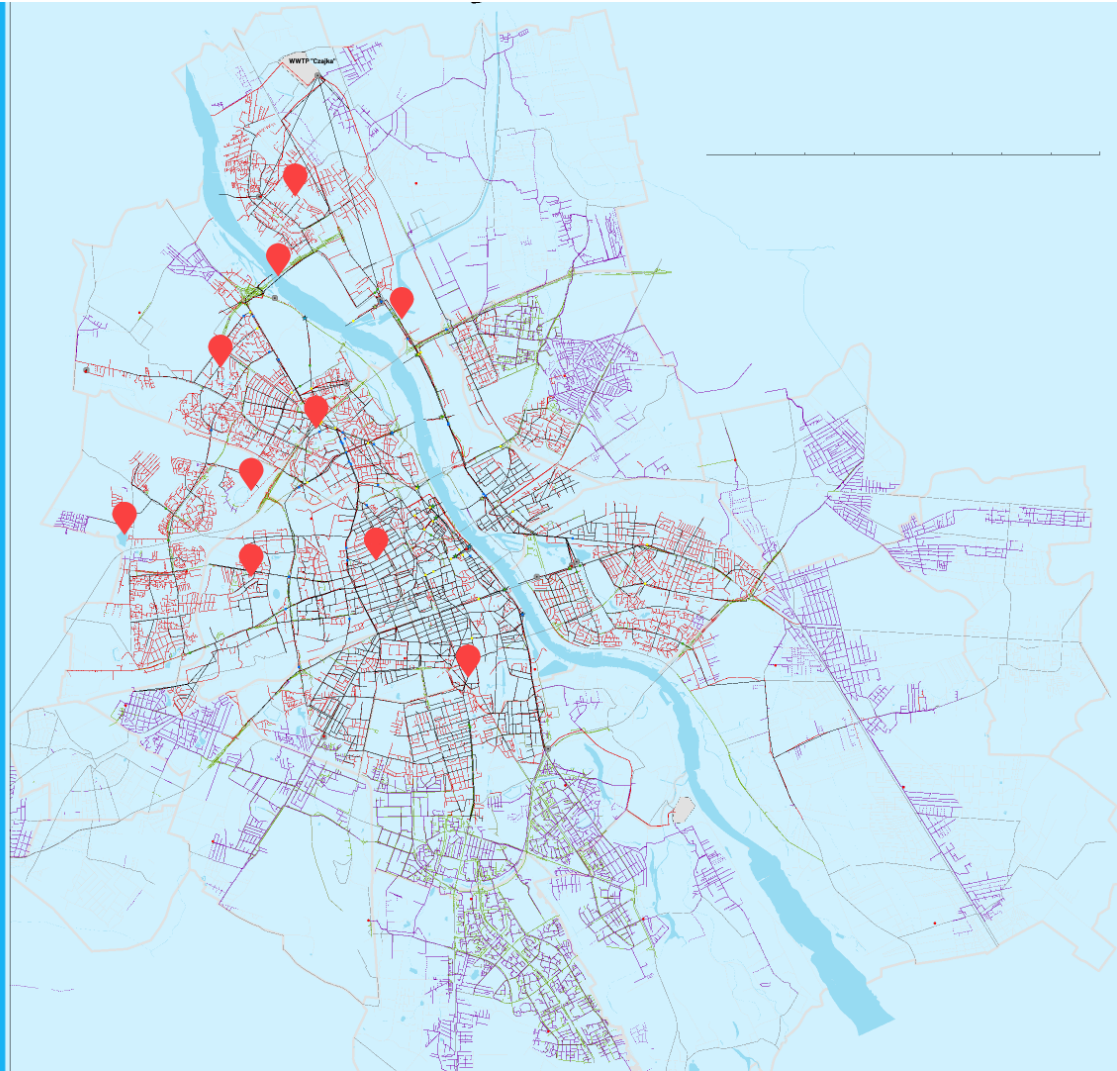


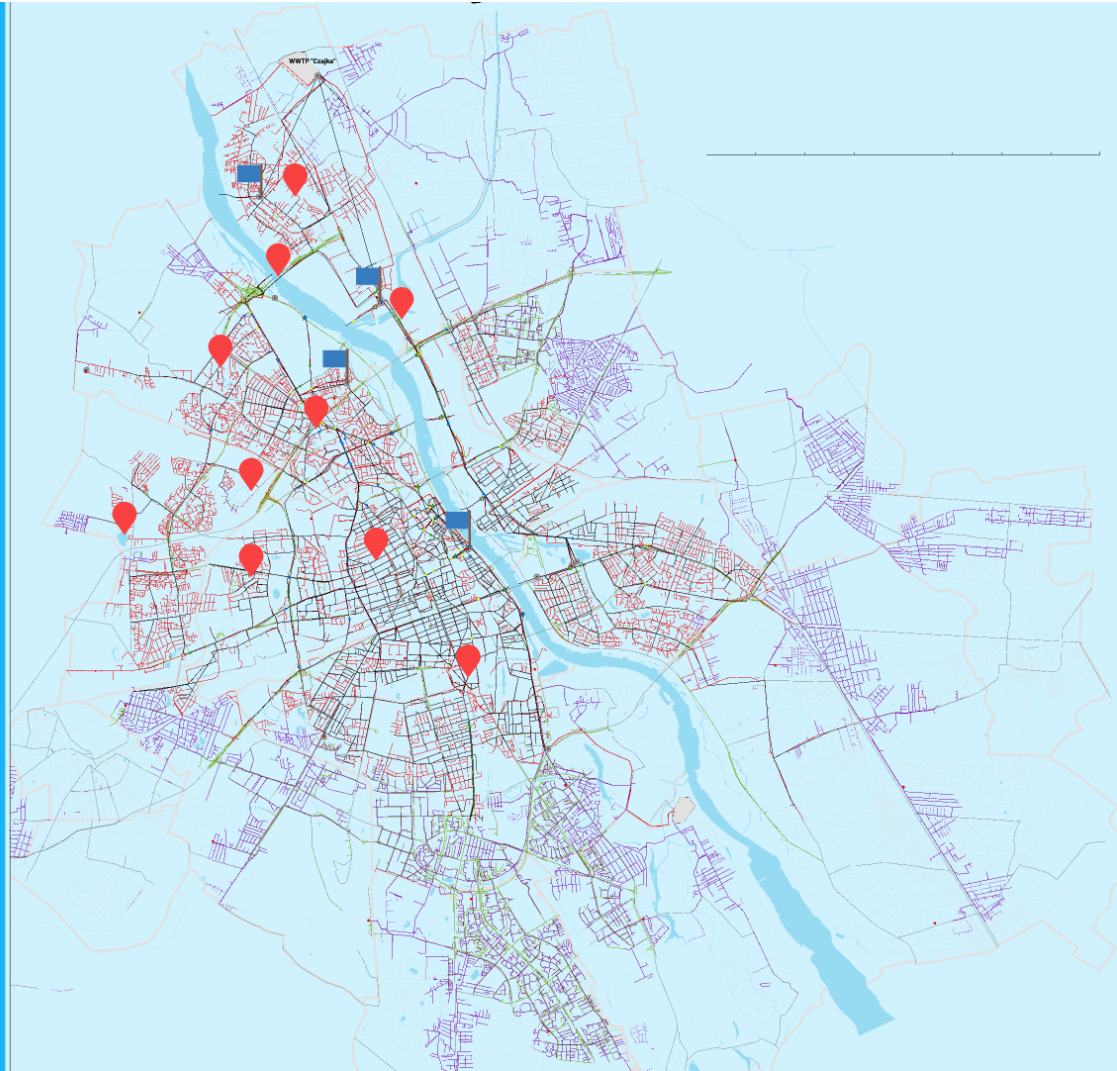
CSO, floodings, city growth and unification and centralization

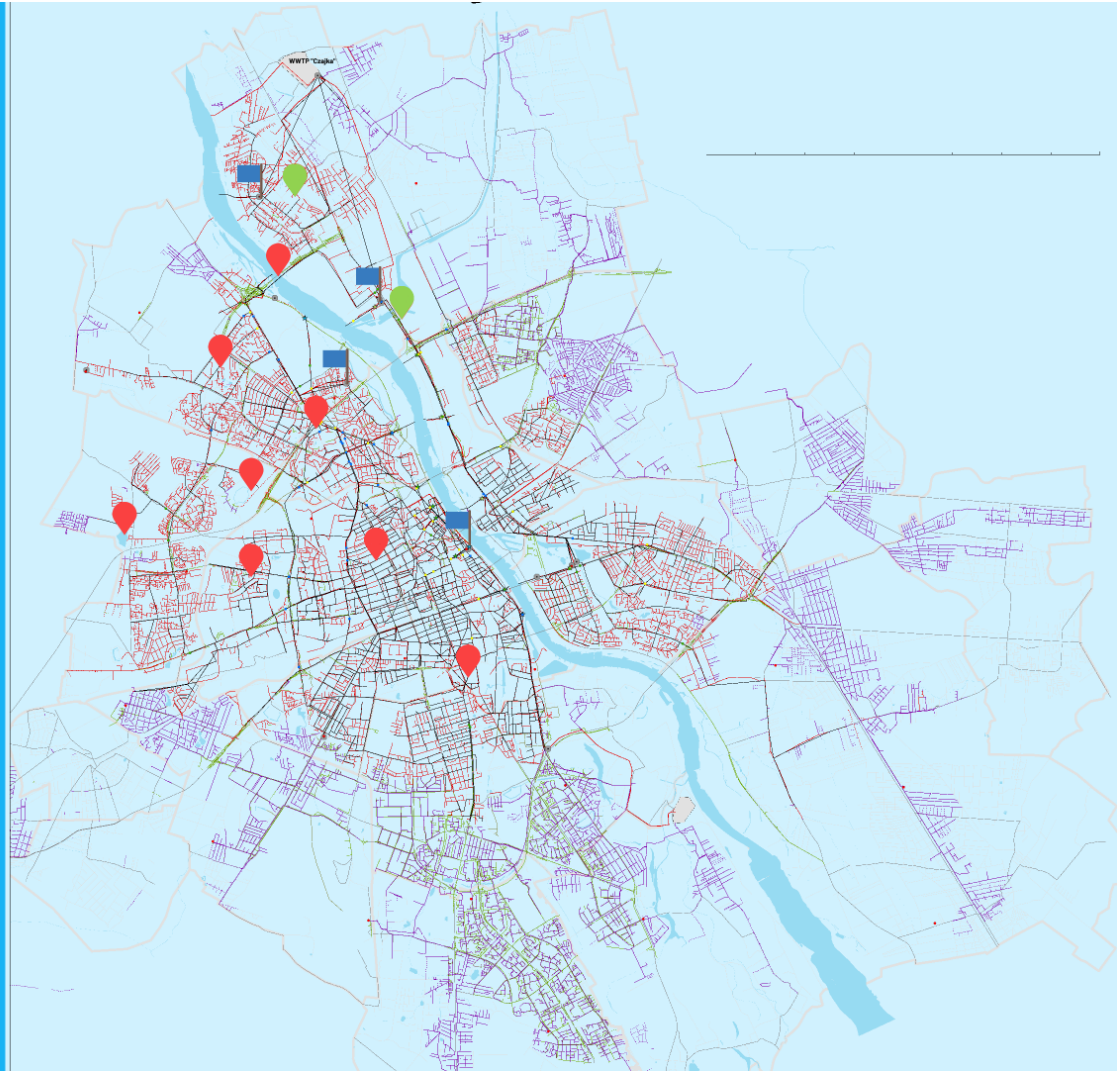
Setting up a model

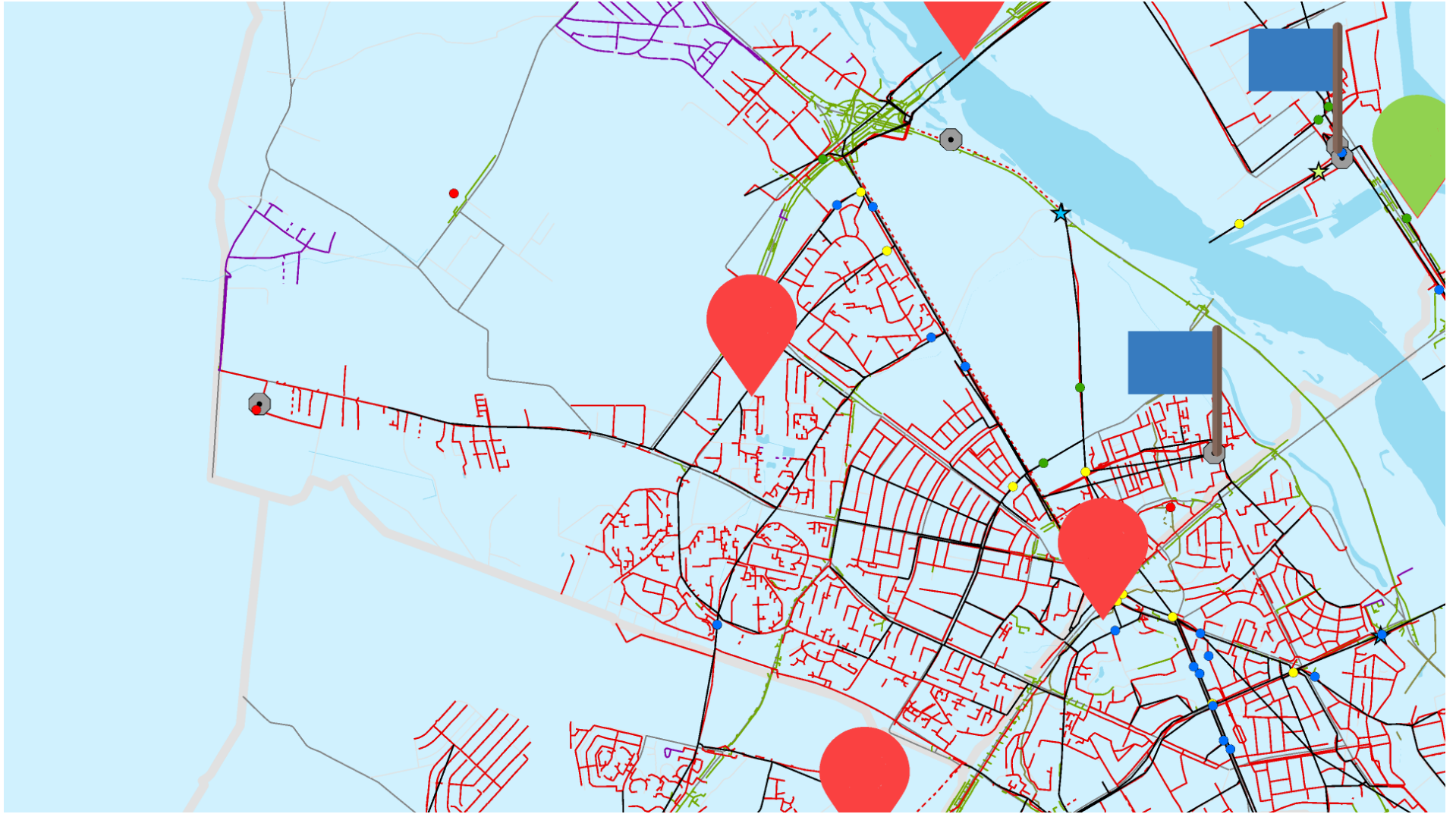


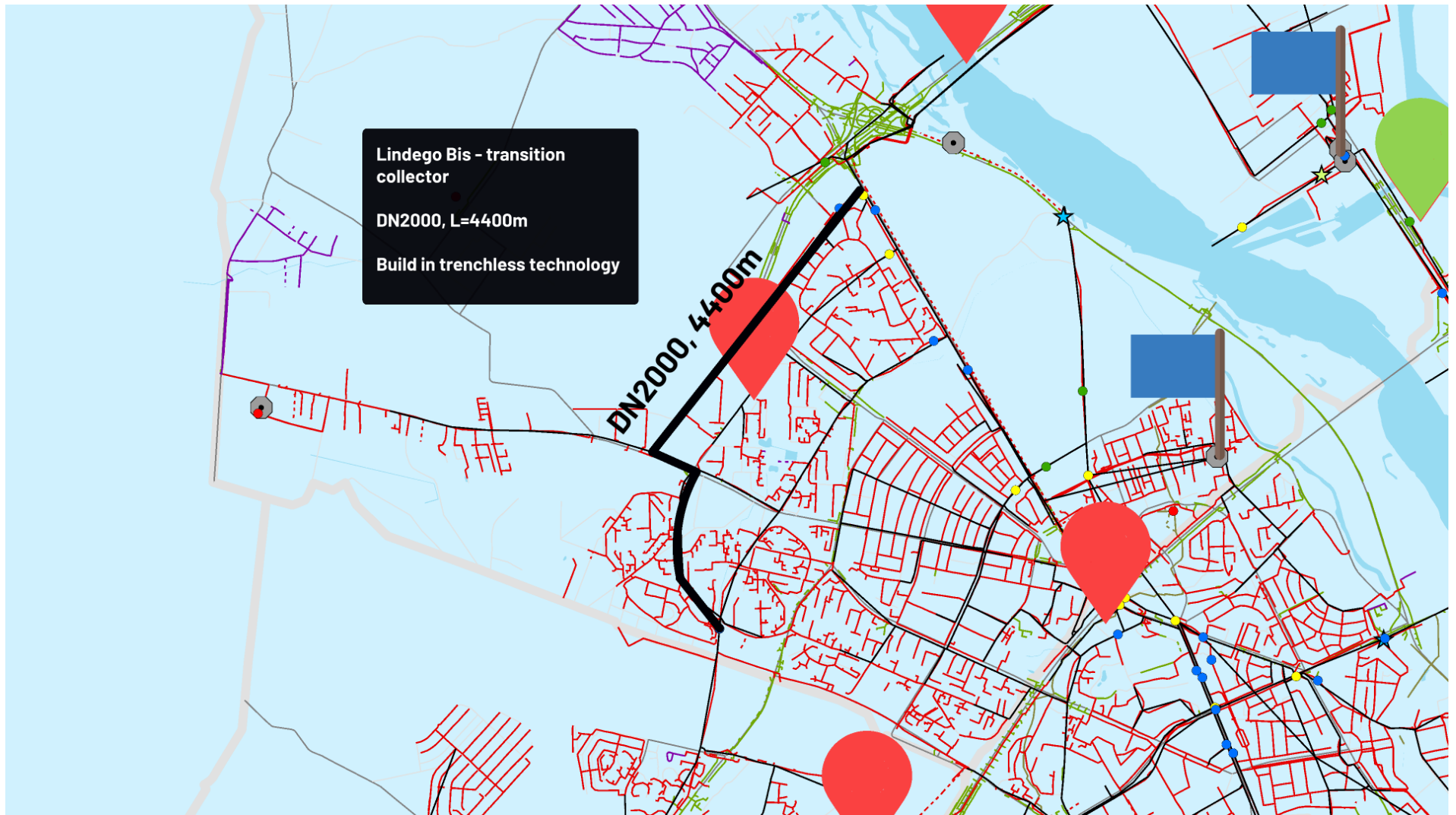


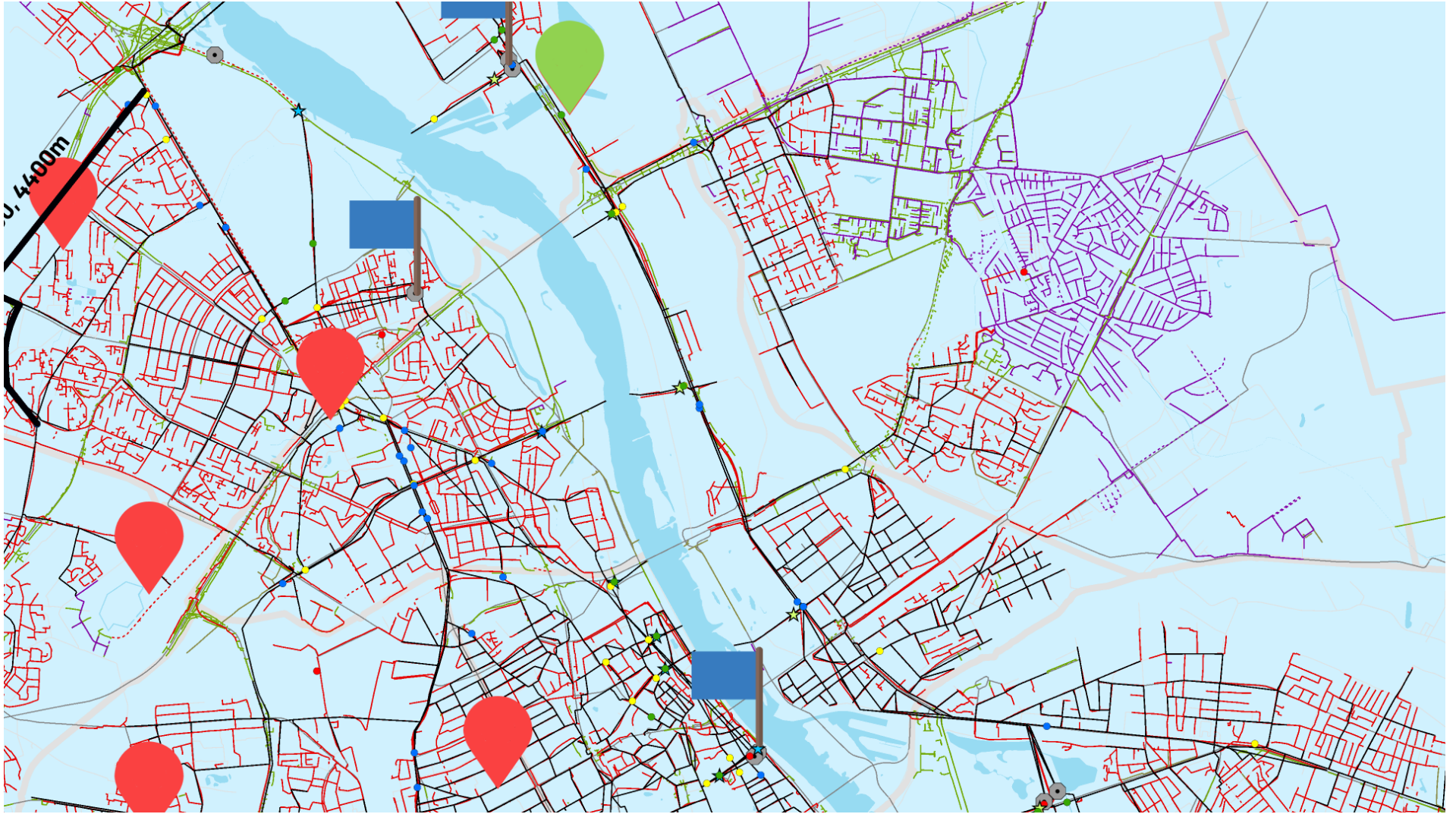


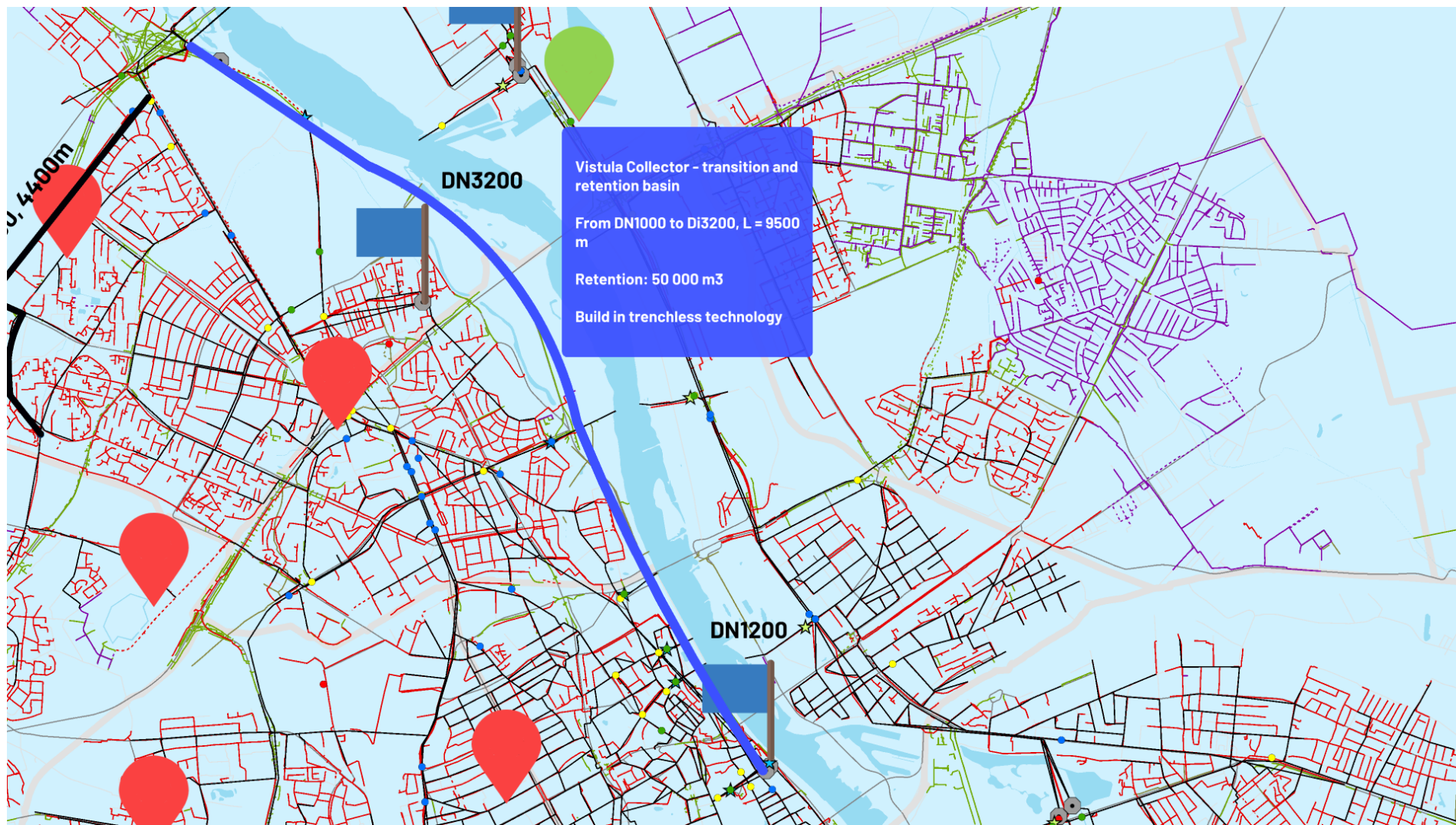


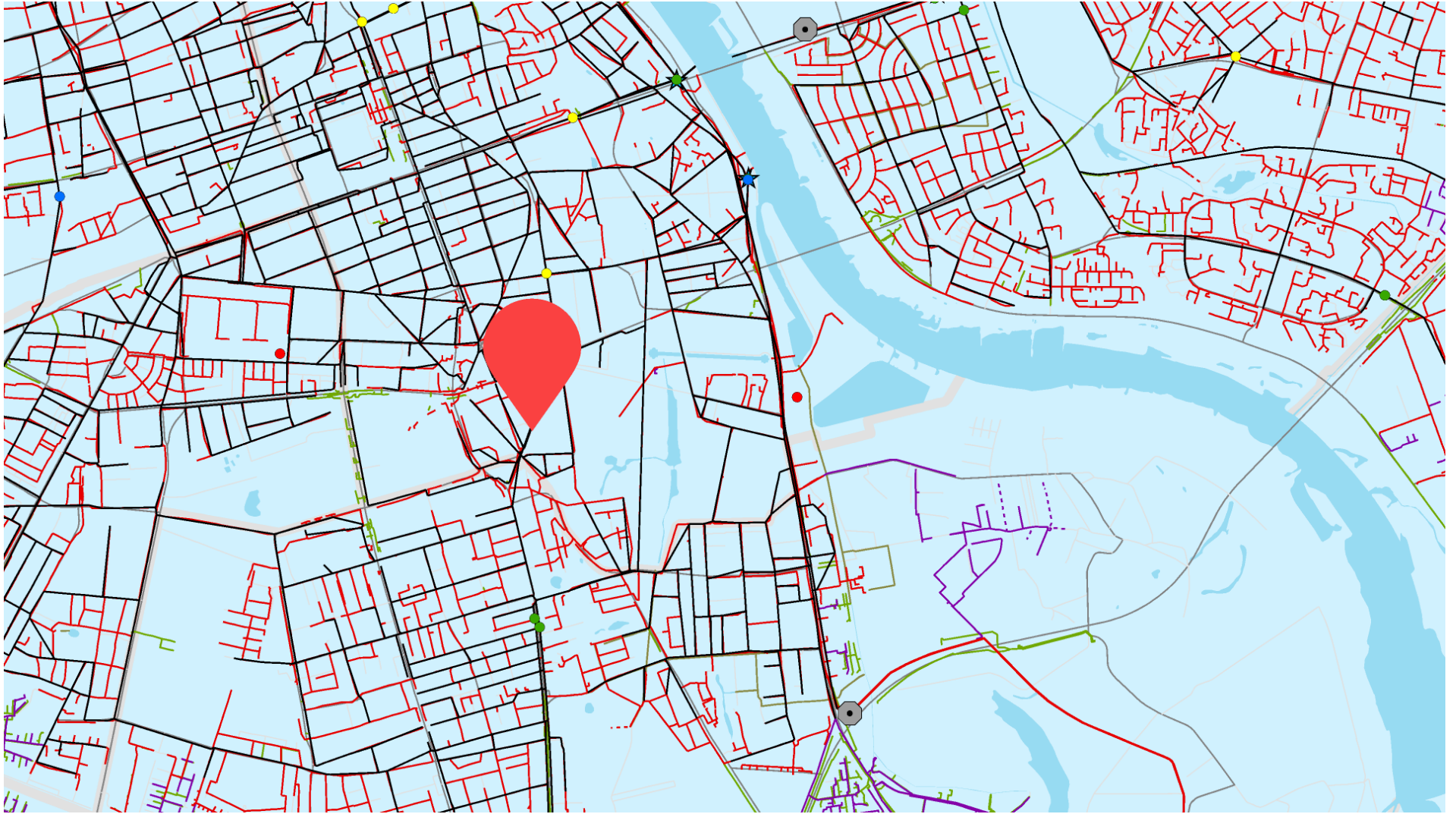


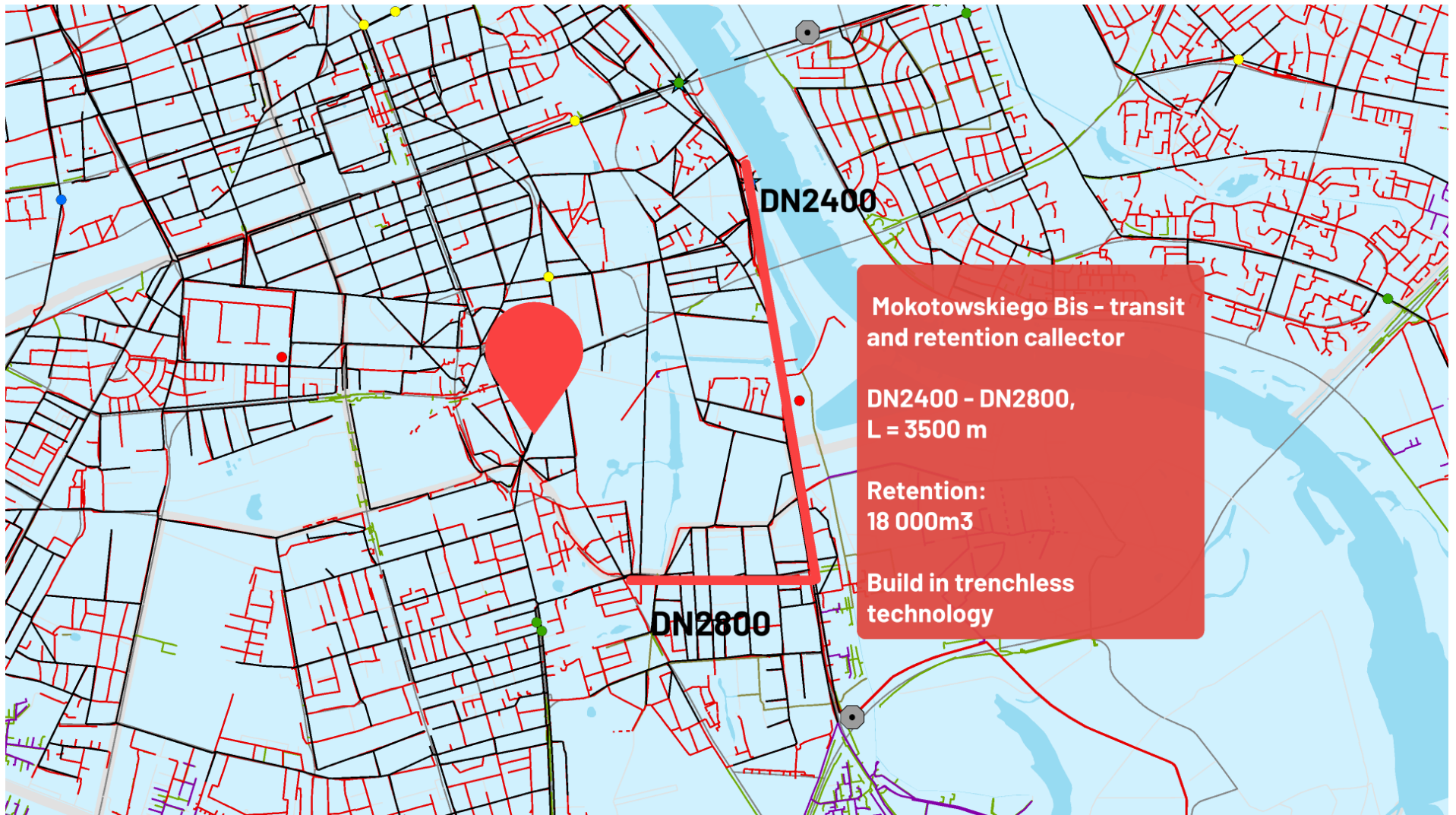


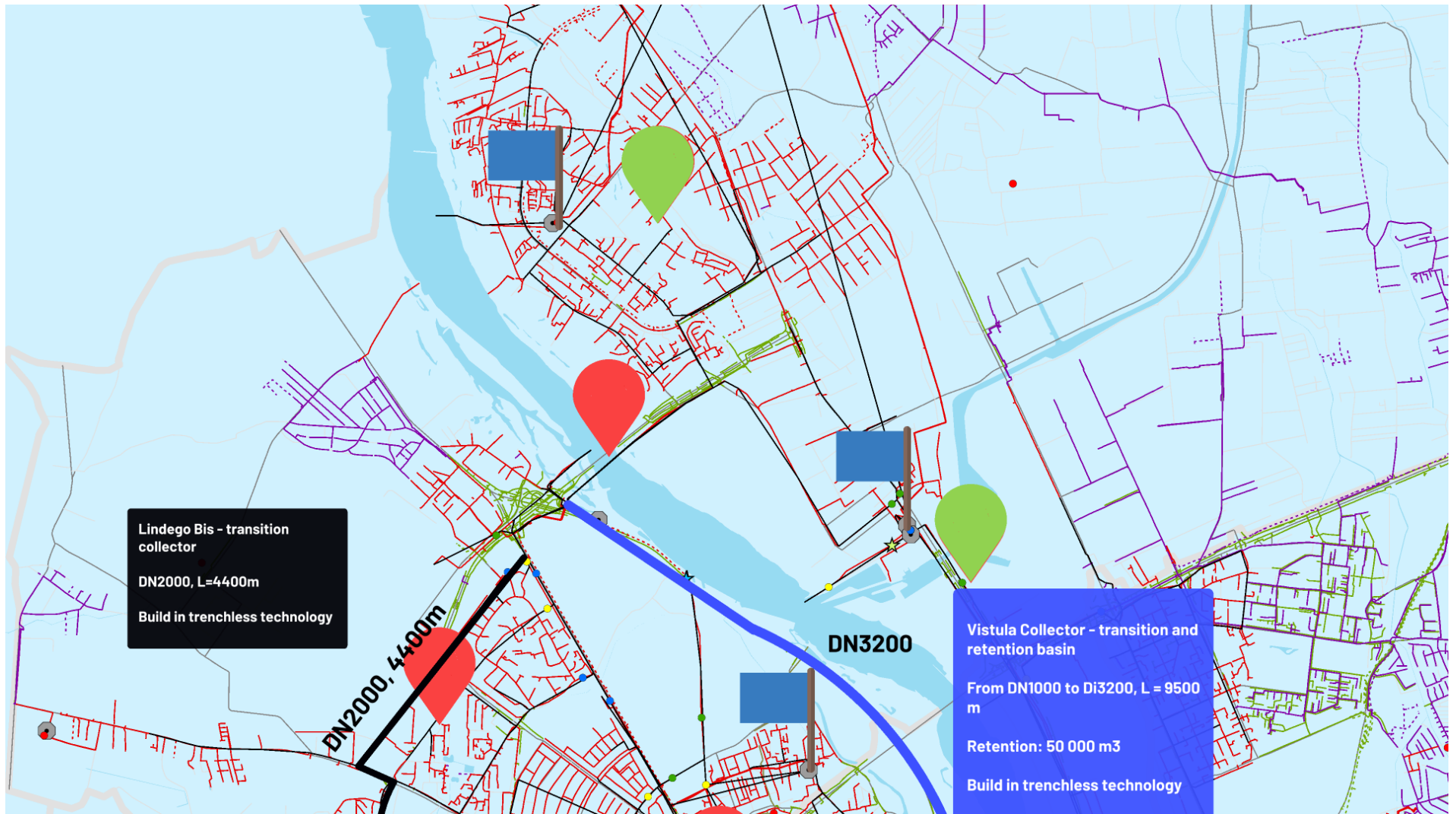


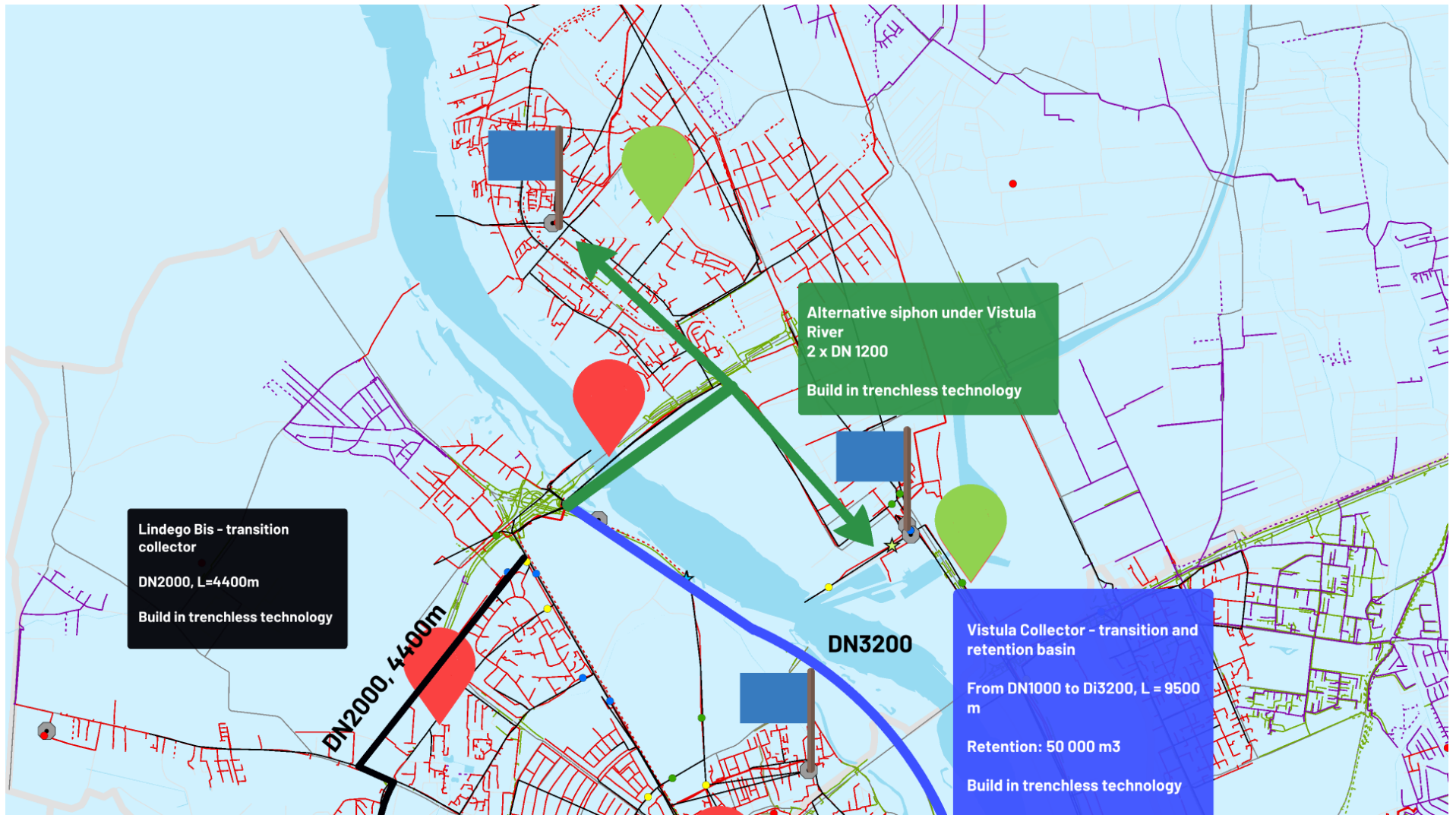




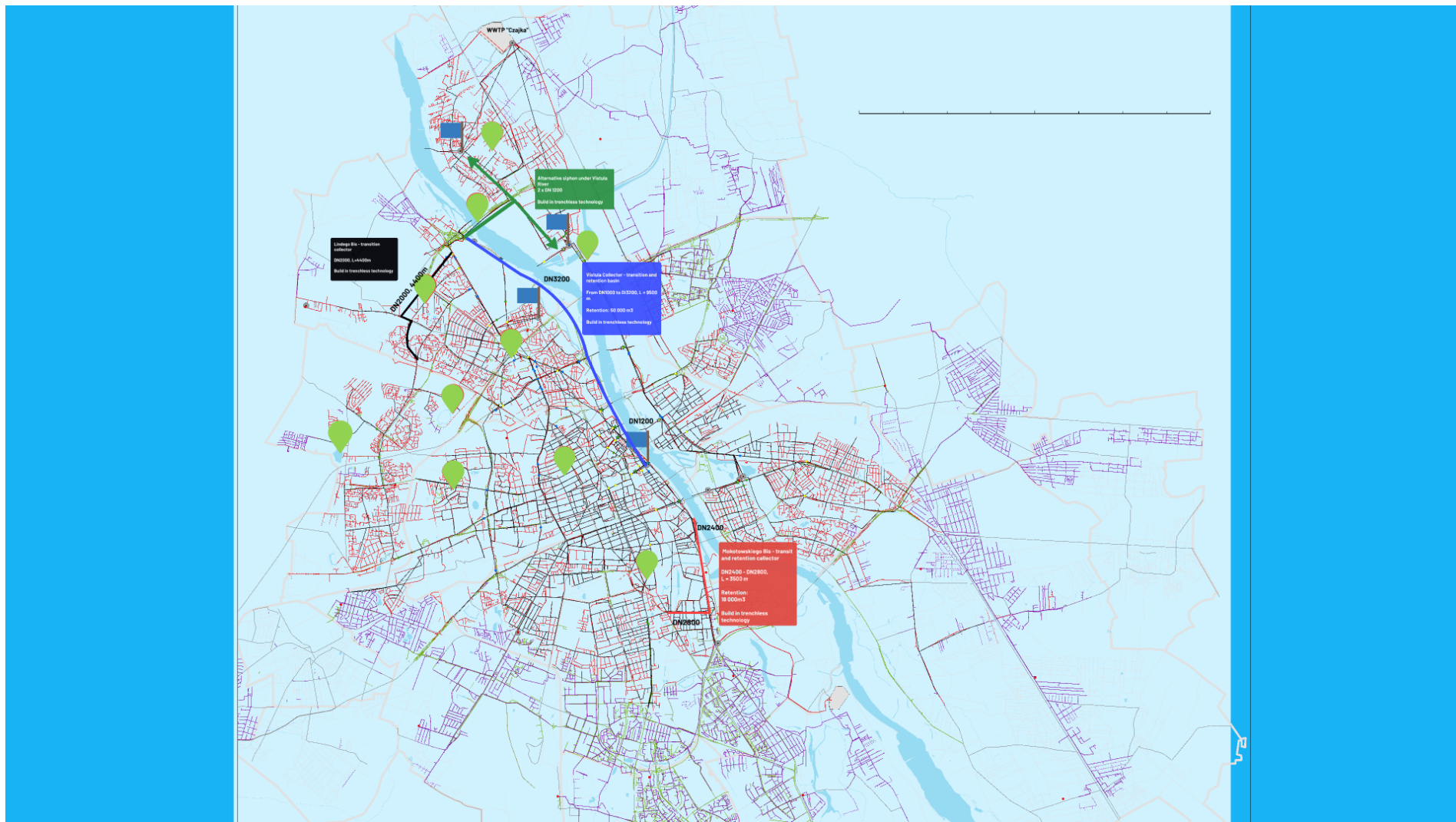




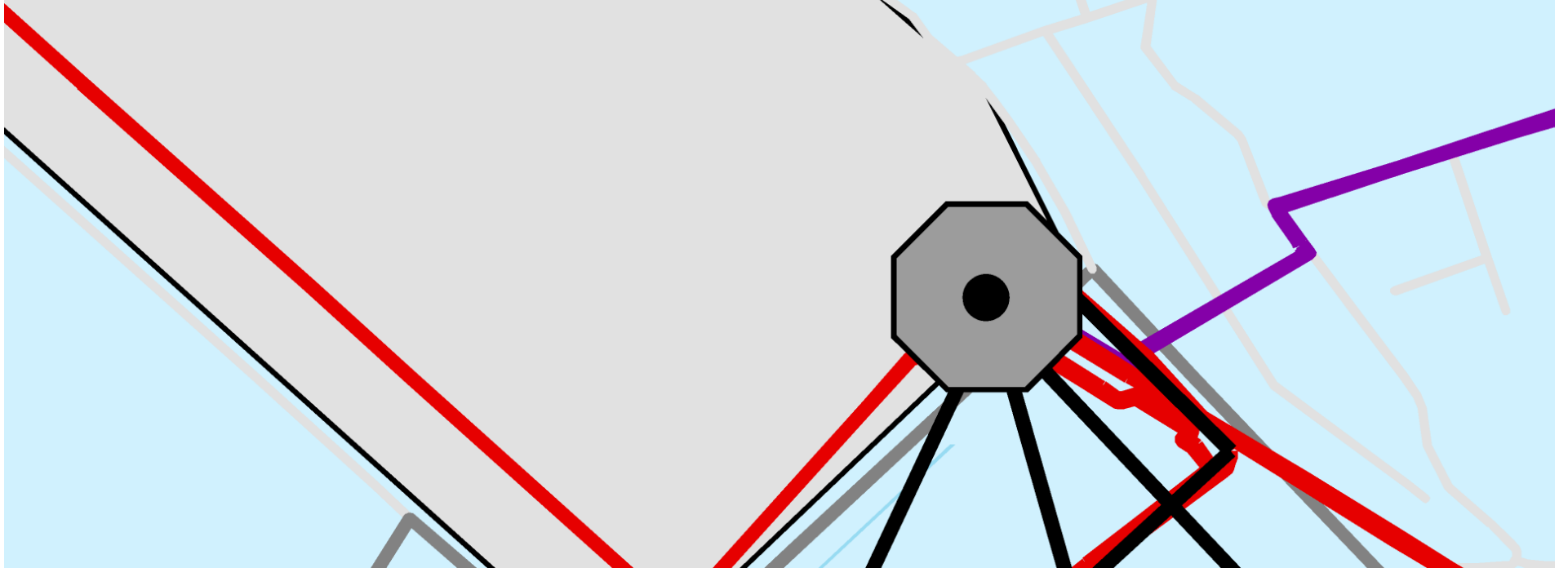


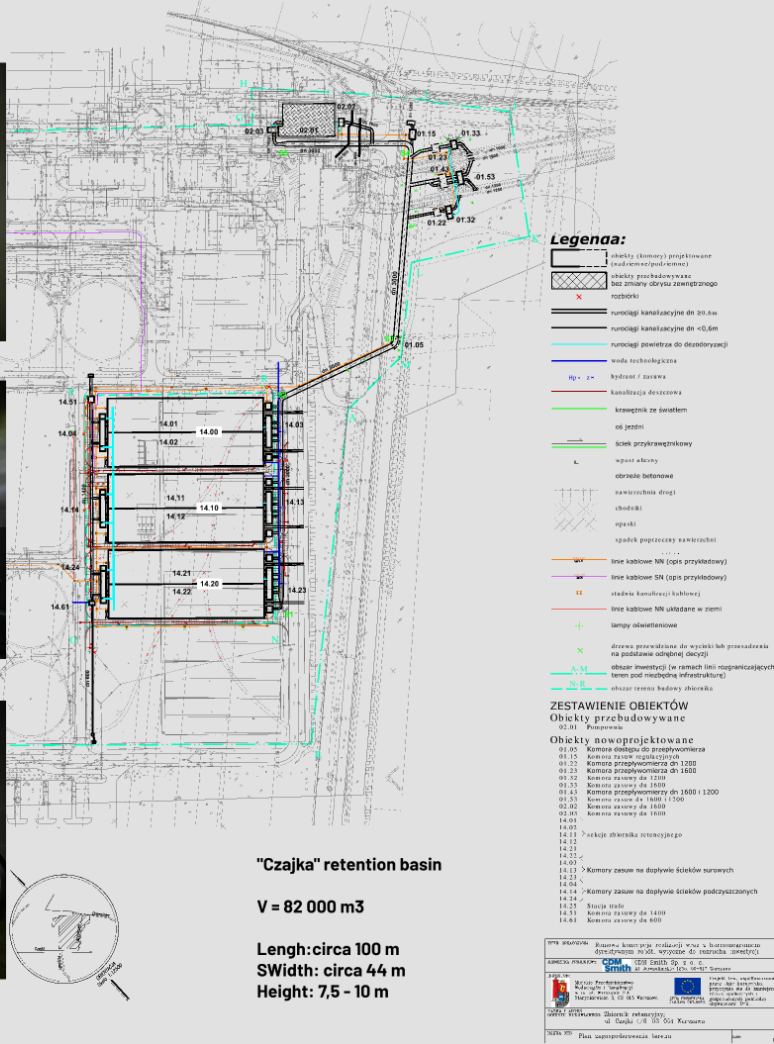


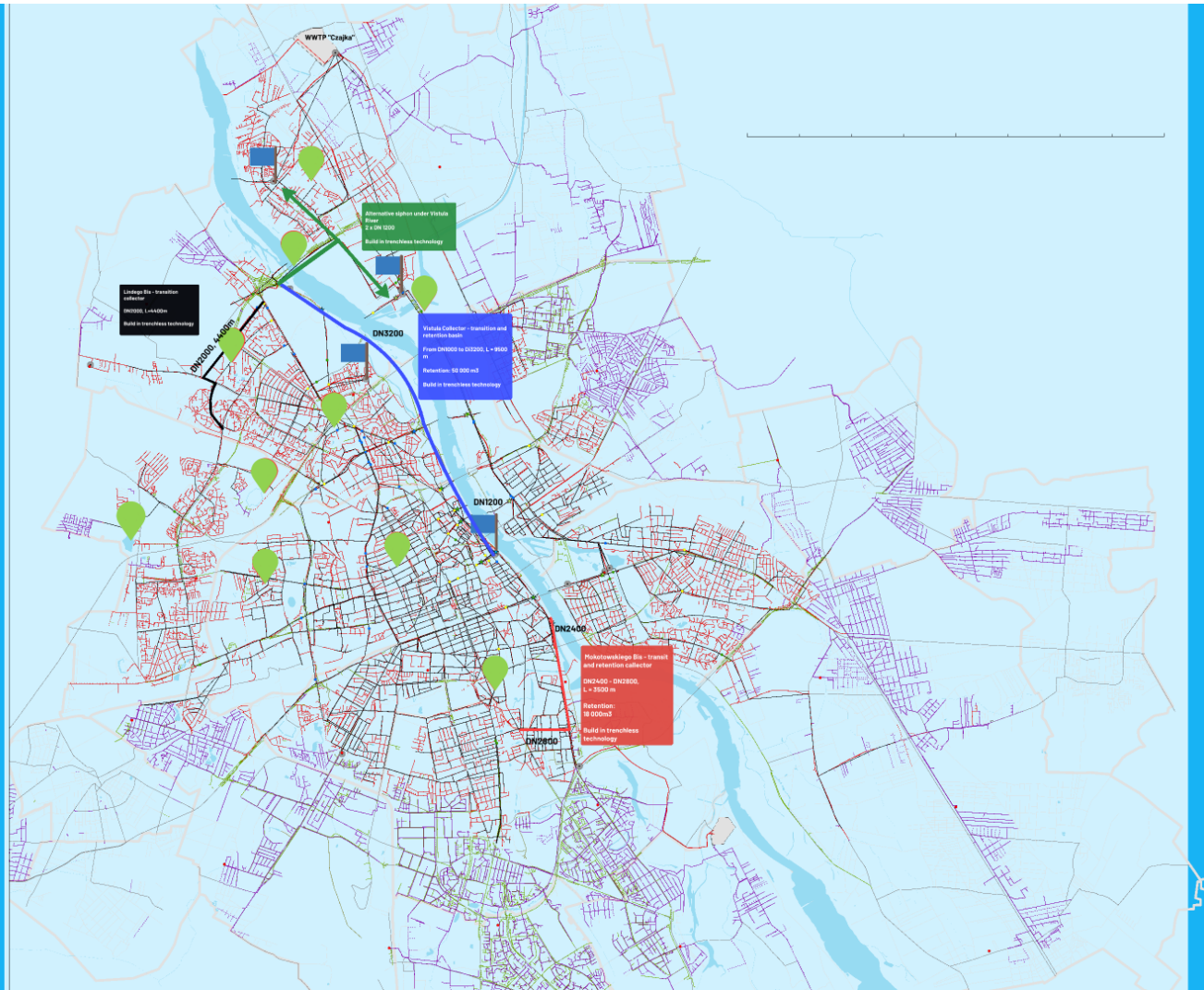


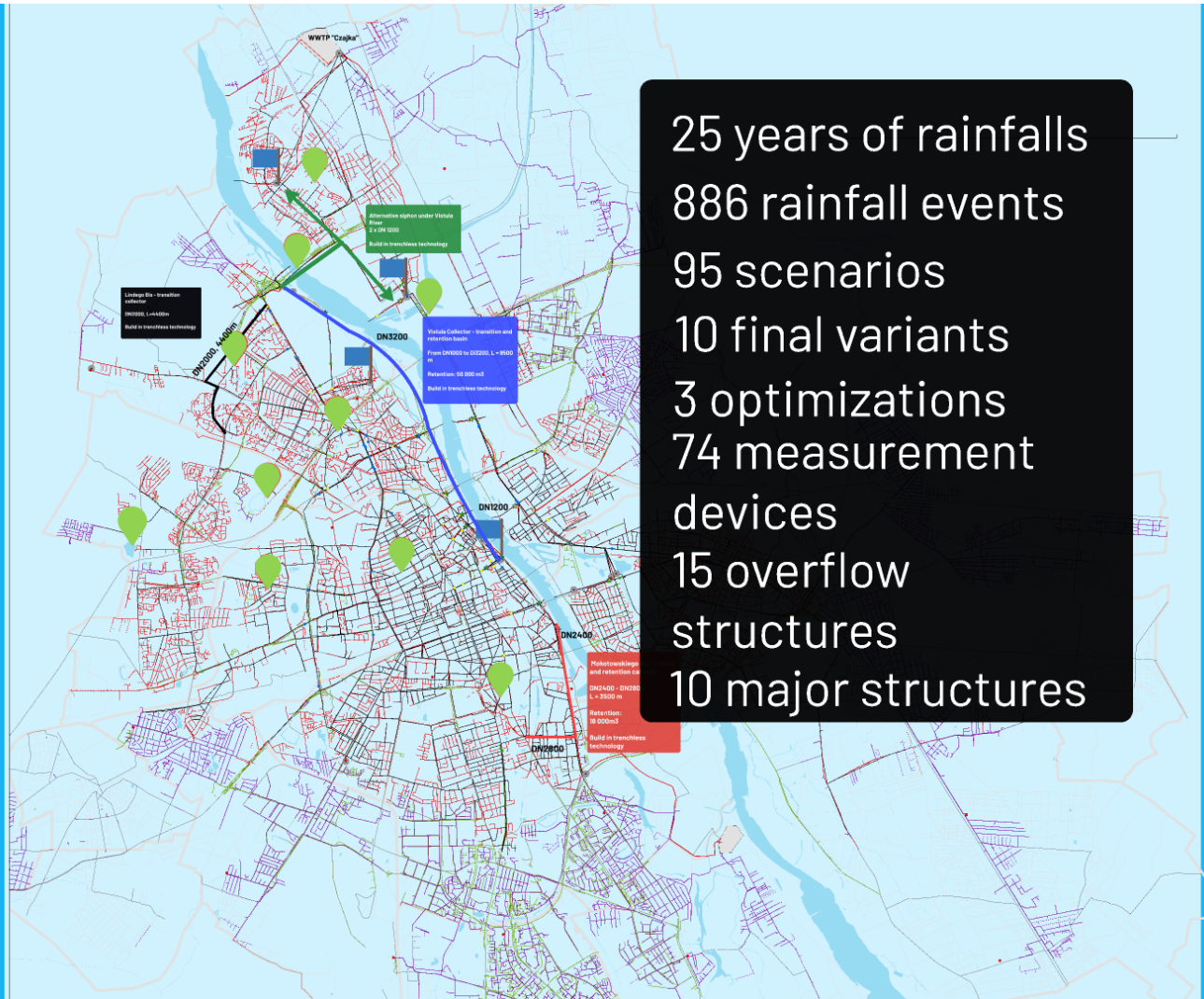


WWTP "Czajka"











Possibilities



CSO, floodings, city growth and unification and centralization

Setting up a model

Possibilities

1

2

3

4



CSO, floodings, city growth and unification and centralization

Setting up a model

Possibilities

1 **Less than 10
CSO**

2

3

4



CSO, floodings, city growth and
unification and centralization

Setting up a model

Possibilities

1 **Less than 10
CSO**

2 **More than 30%
reduction in CSO
volume**

3

4



CSO, floodings, city growth and
unification and centralization

Setting up a model

Possibilities

1 **Less than 10
CSO**

2 **More than 30%
reduction in CSO
volume**

3 **No flooding**

4



CSO, floodings, city growth and
unification and centralization

Setting up a model

Possibilities

1 **Less than 10
CSO**

2 **More than 30%
reduction in CSO
volume**

3 **No flooding**

4 **Unification and
Centralization (RTC
class system)**



CSO, floodings, city growth and
unification and centralization

Setting up a model

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RTC



CSO, floodings, city growth and
unification and centralization

Setting up a model

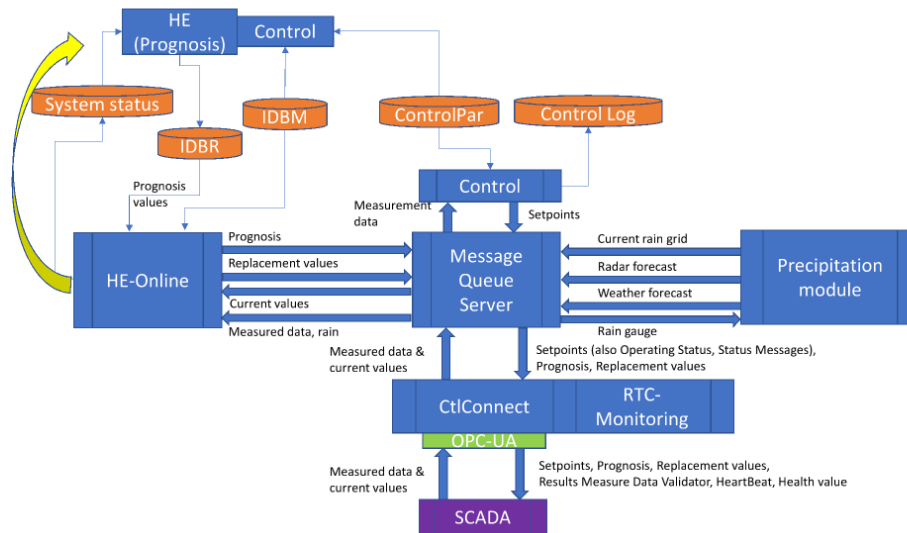


RTC Sytem

RTC Sytem

Modules:

- Control;
- On-line simulation;
- Off-line simulation;
- Weather forecast;
- Self-learning;



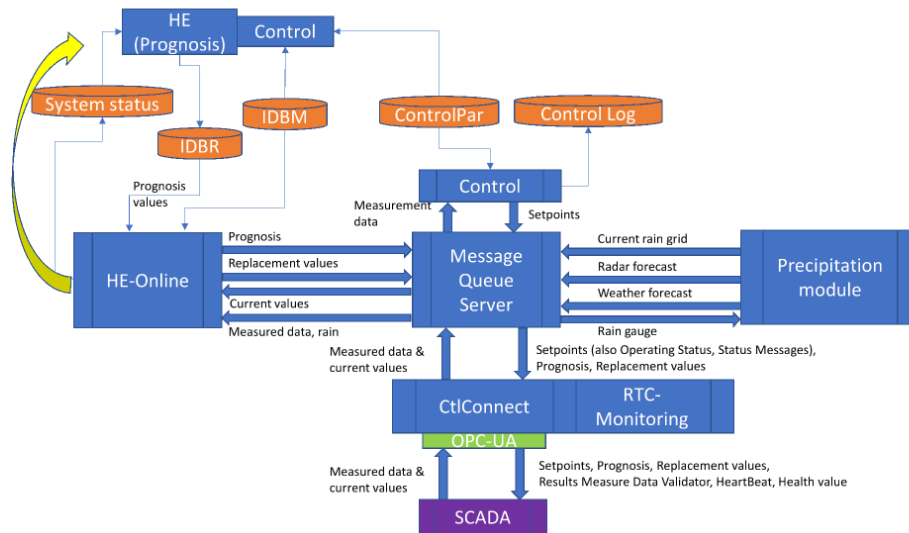
RTC Sytem

Modules:

- Control;
- On-line simulation;
- Off-line simulation;
- Weather forecast;
- Self-learning;

Basic components:

- 25 rain gauges;
- Disdrometer;
- more than 50 other measurement devices (flow and level meters on the sewer network);
- 4 major pumping stations;
- 120+ minor pumping stations;
- 2 server rooms;
- Control room.



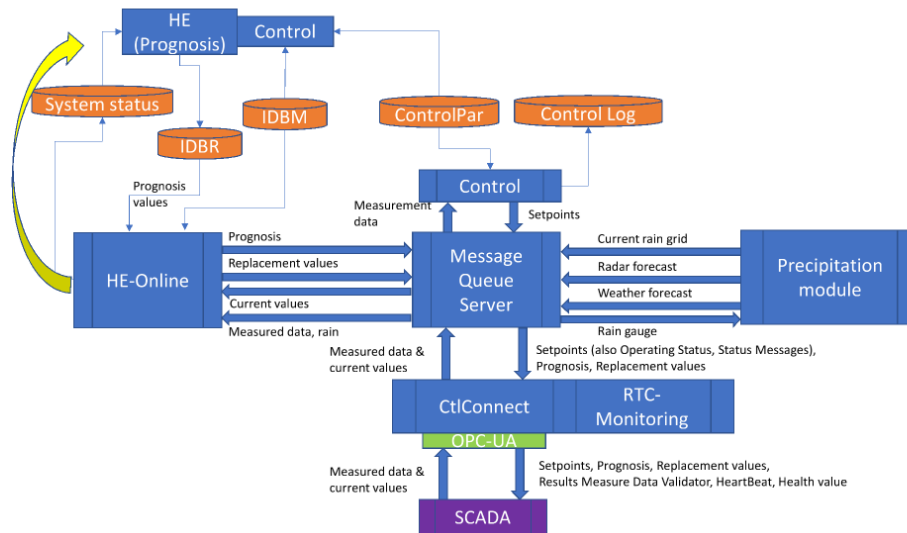
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Partners:



Possibilities

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2 **More than 30%
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3 **No flooding**

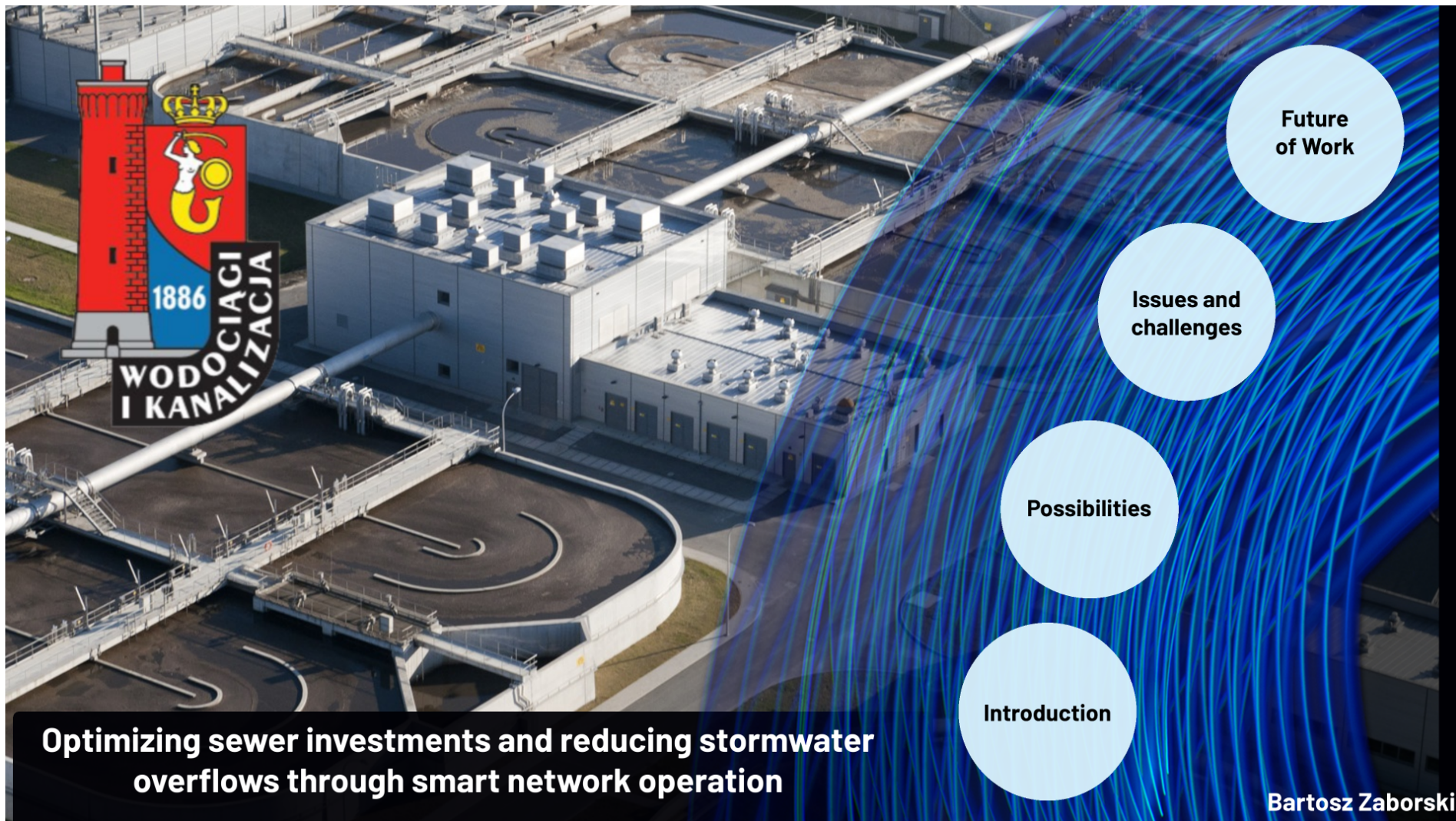
4 **Unification and
Centralization (RTC
class system)**

RTC



CSO, floodings, city growth and
unification and centralization

Setting up a model





Issues and challenges



Major

Issues and challenges

Data management

Climate change

Rapid city expansion

States of emergency

Interdependence

**Vast measurement
network**



Issues and challenges



Minor

Issues and challenges

Lack of Partners

Infrastructure

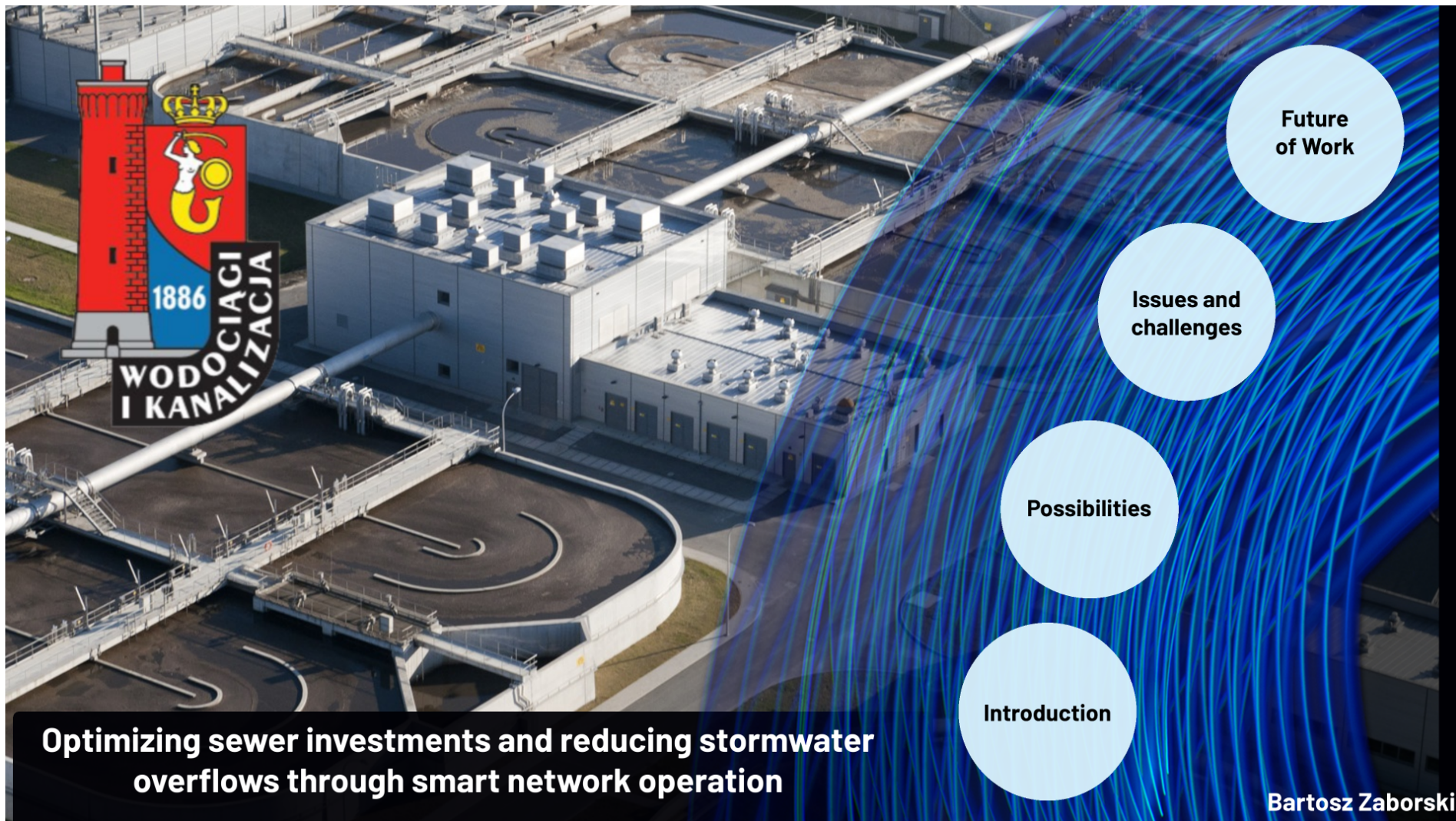
Up to date models

Language

Time



Issues and challenges





Future of Work



Future of Work

**Quality modeling for RTC
(Umprella Project)**



Future of Work

**Quality modeling for RTC
(Umprella Project)**

AI implementation for RTC



Future of Work

**Quality modeling for RTC
(Umprella Project)**

AI implementation for RTC

**Full-scale implementations
of smart networks**

