

Digital City Rotterdam



Gemeente Rotterdam



DigitaleStad

Webinar on
Urban Data Platforms -
using data in cities for the
green transition

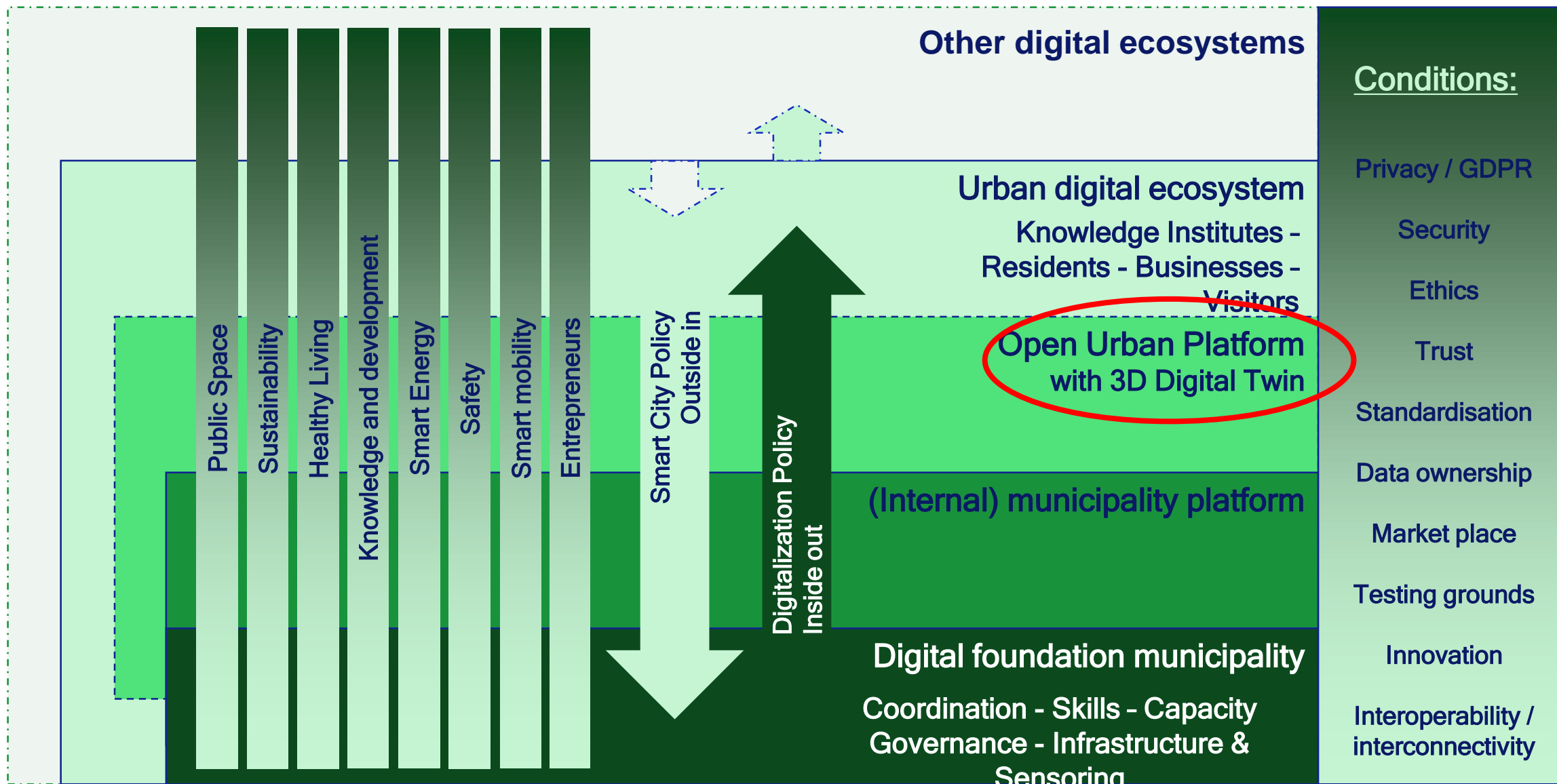
How we work on trust

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Urban digital ecosystem Rotterdam



For a succesful and thriving urban digital ecosystem we believe trust between all participants in each other and in the underlying digital infrastructure is essential.

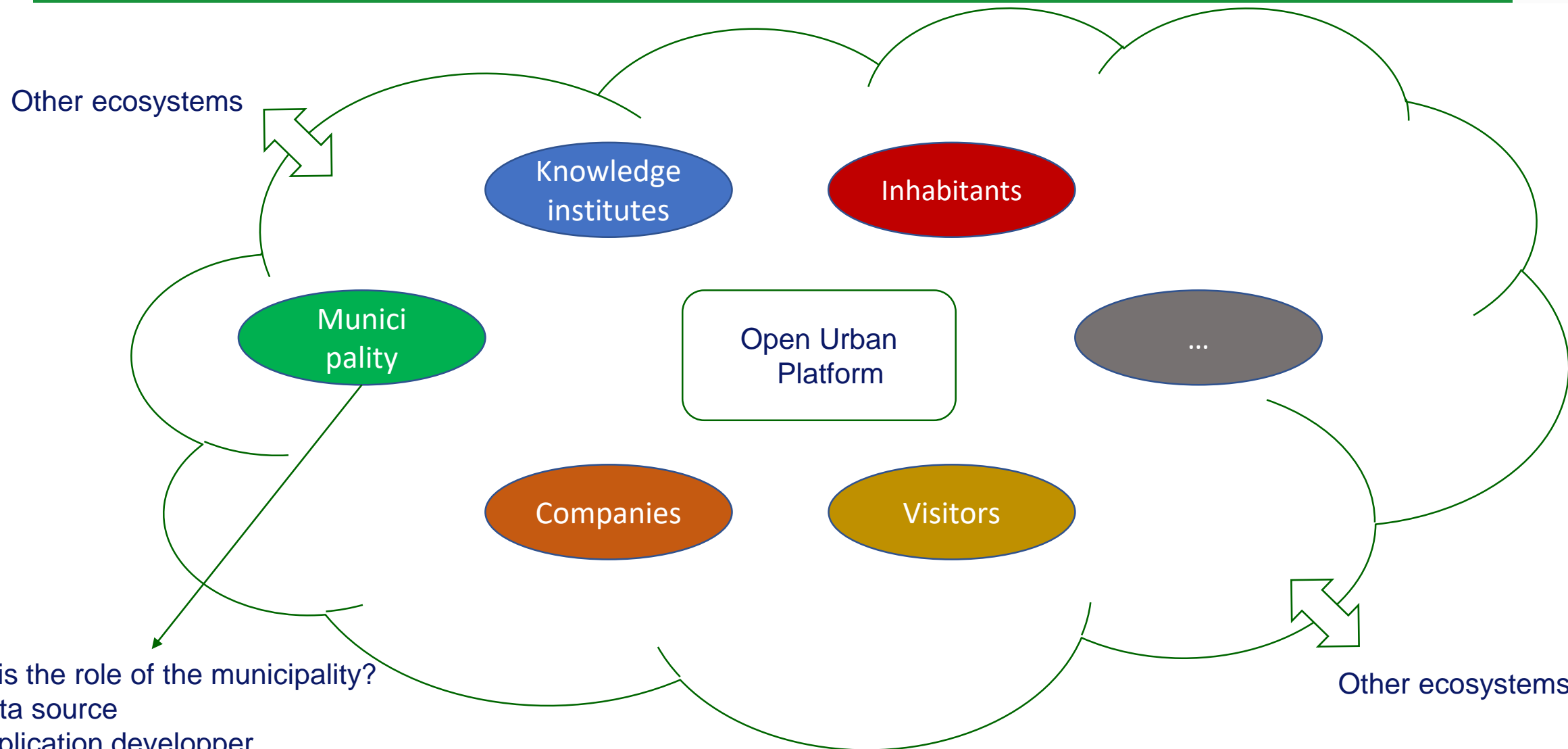
We also believe that a urban platform (with digital twin) is an essential part of this digital infrastructure.

Main research question: How to create trust amongst all participants in the urban (digital) ecosystem as a whole and in the urban platform within, and what role does the municipality have in creating trust and the development of an urban platform?

Participants: every one with an interest in Rotterdam (inhabitants, companies, research institutes, governments, visitors ...)

Digital ecosystem Rotterdam: 'loosely' interconnected digital network of participants with as main common subject the city of Rotterdam

Participants: users, application developers, data sources, ...



What is the role of the municipality?

- Data source
- Application developer
- User
- And...

- Data sources
- Applications and services
- Urban platform
 - Security and privacy
 - Management and maintenance
 - Rules of the game
- What role(s) of the municipality will contribute the most to trust amongst participants and at the same time give optimal space for commercial exploitation?

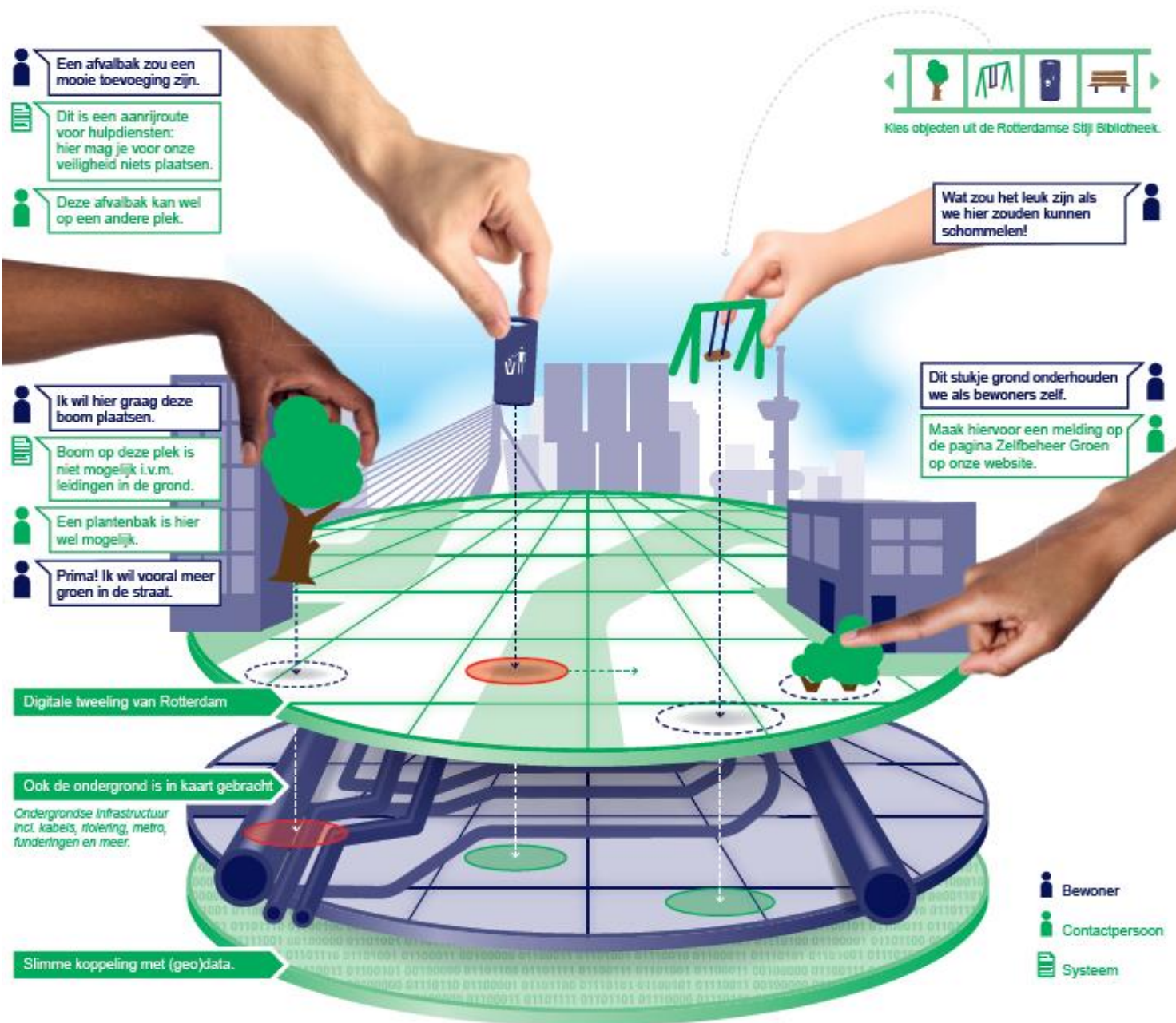
Defined roles within the ecosystem

- Data sources
- Application developers
- Users
- Customers
- Platform:
 - Development: booster, interconnector, (risk-)investor, owner, exploiter
 - Operational: owner, exploiter(s), gatekeeper
- Main tension: maximal commercial exploitation versus public interest
 - Governance structure developed in co creation with the market



- Research institutes: involvement in numerous research questions, development of the platform (i.e. development UP, governance, customer value, 3D, AR/VR, smart new data sources)
 - building structural network
- Companies (platform): development and exploitation (and governance) in co-creation with the market
 - market consultation, competitive dialog procurement, pre investment municipality
- Companies (developpers): development several applications, 'call to action'
- Companies (data sources): creating new (smart) data sources, 'call to action'
- Citizens: several meetings with 'interested *digizens*'
 - in this stage connected via application development (i.e. UX time- and place independent participation), in next development stage connected through UX
- Other governments: regional cooperation South Holland, G4, VNG, EU, ...

Applications: Time- and place independent participation



Eenvoudig verschillende ontwerpen delen en beoordelen	Direct inzicht in kosten en budget
<p>Ontwerp 1 Voorstel van buurtbewoners en de gemeente.</p> <p>😊 1640 😞 12</p>	€ 15k
<p>Ontwerp 2 Voorstel van buurtbewoners en wijkteam.</p> <p>😊 1360 😞 3</p>	€ 20k
<p>Ontwerp 3 Voorstel van de gemeente Rotterdam.</p> <p>😊 140 😞 79</p>	€ 10k

Voordelen van co-creatie en participatie in een digitale werkelijkheid		
QR	VR	AR
Er zijn meerdere deel en preview mogelijkheden.		
Bewoners kunnen online brainstormen over de inrichting van hun omgeving.		Gemeente en bewoners kunnen makkelijk ruimtelijke ideeën uitwisselen en kennis delen.

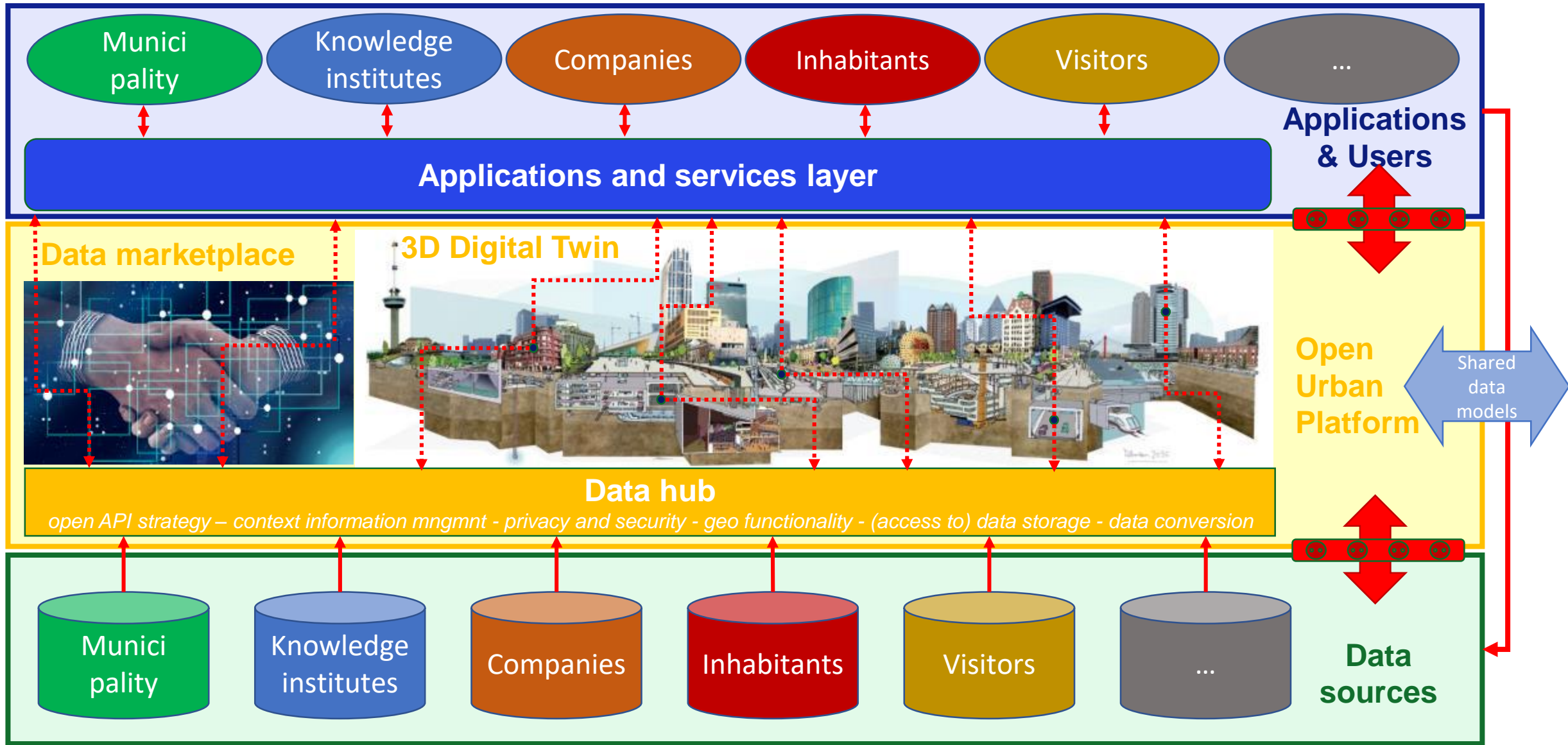
In een minimaal aantal stappen snel van idee naar uitvoering	
<p>1. Digitaal concept plan Plannen zijn sneller te beoordelen door zowel de bewoners als de gemeente.</p>	
<p>2. Toetsing en accordering Snel duidelijkheid over subsidievoorwaarden en benodigde vergunningen.</p>	
<p>3. Uitvoering Snel bij uitvoering door gebruik van één systeem door alle betrokkenen.</p>	

Thank you for your attention!



Digital City - Urban Digital Ecosystem & Open Urban Platform

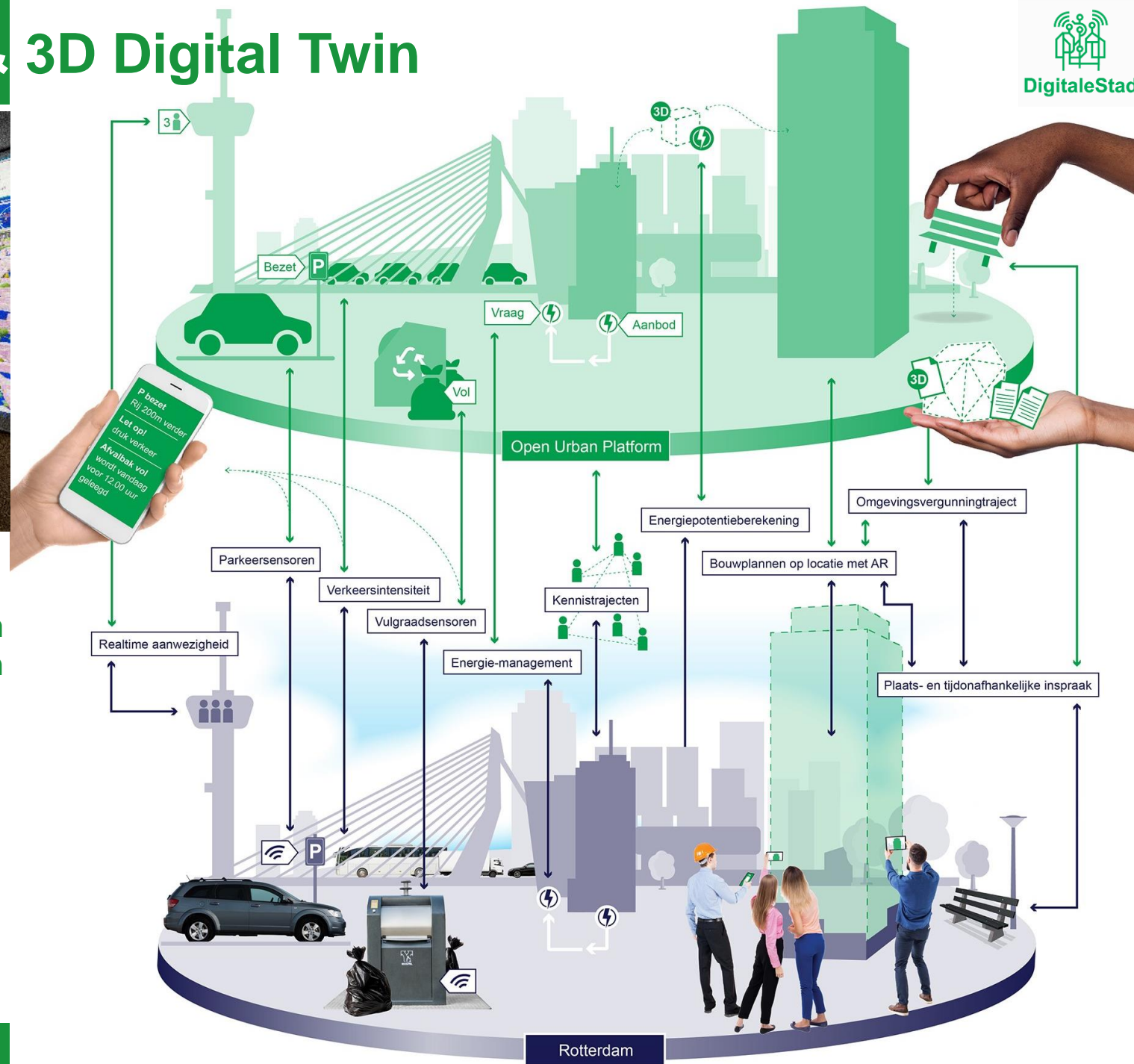
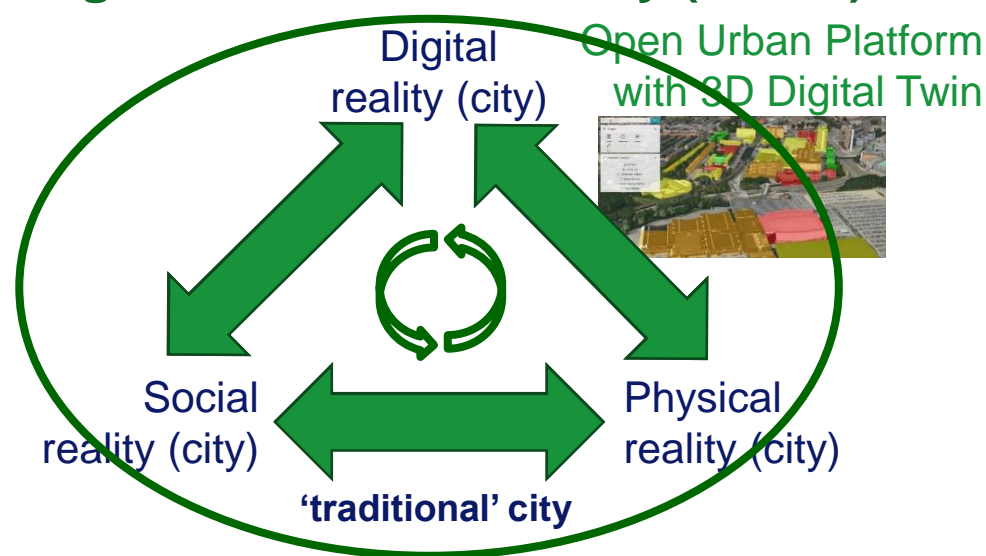
Urban digital ecosystem Rotterdam



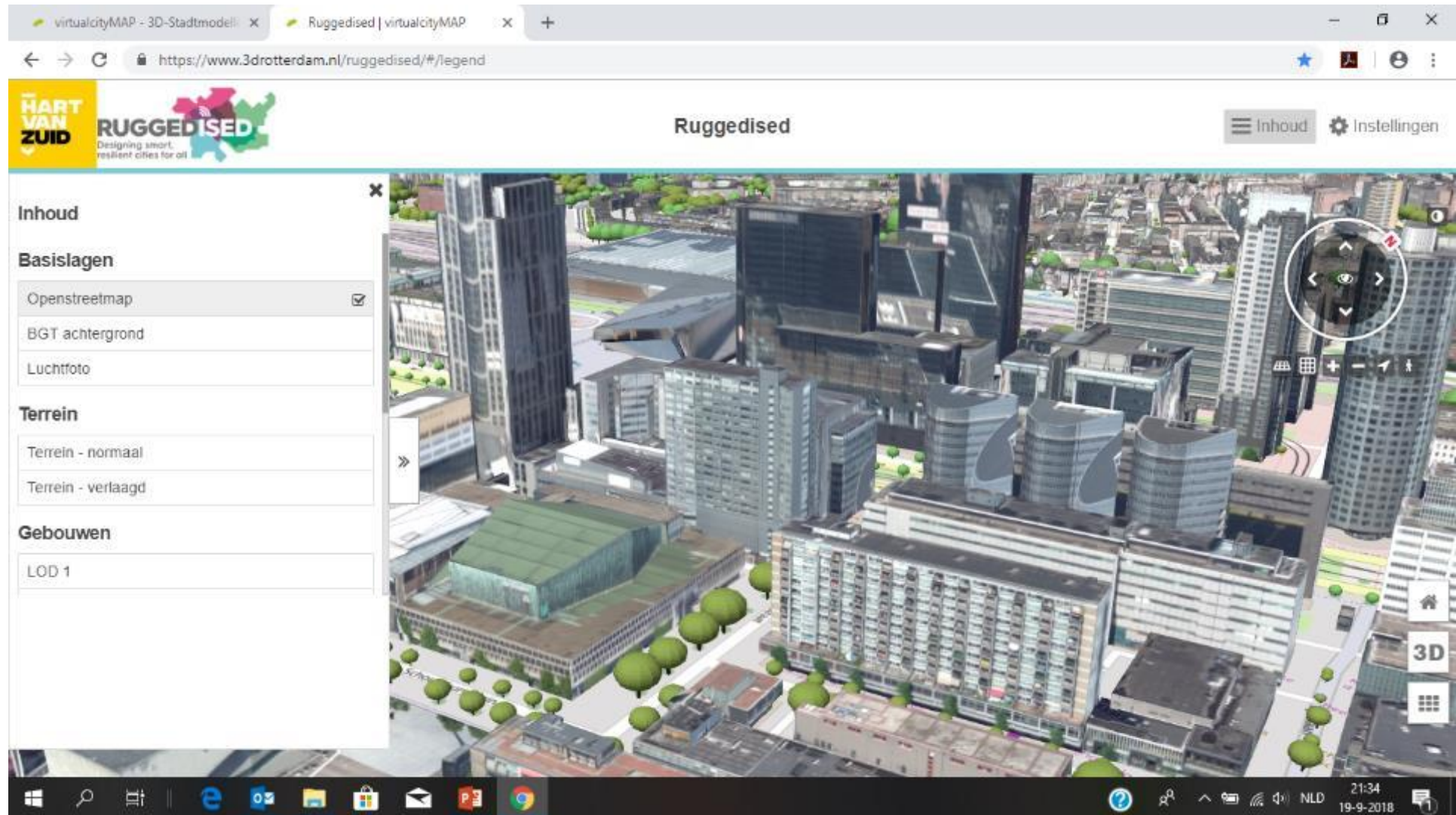
Open Urban Platform & 3D Digital Twin



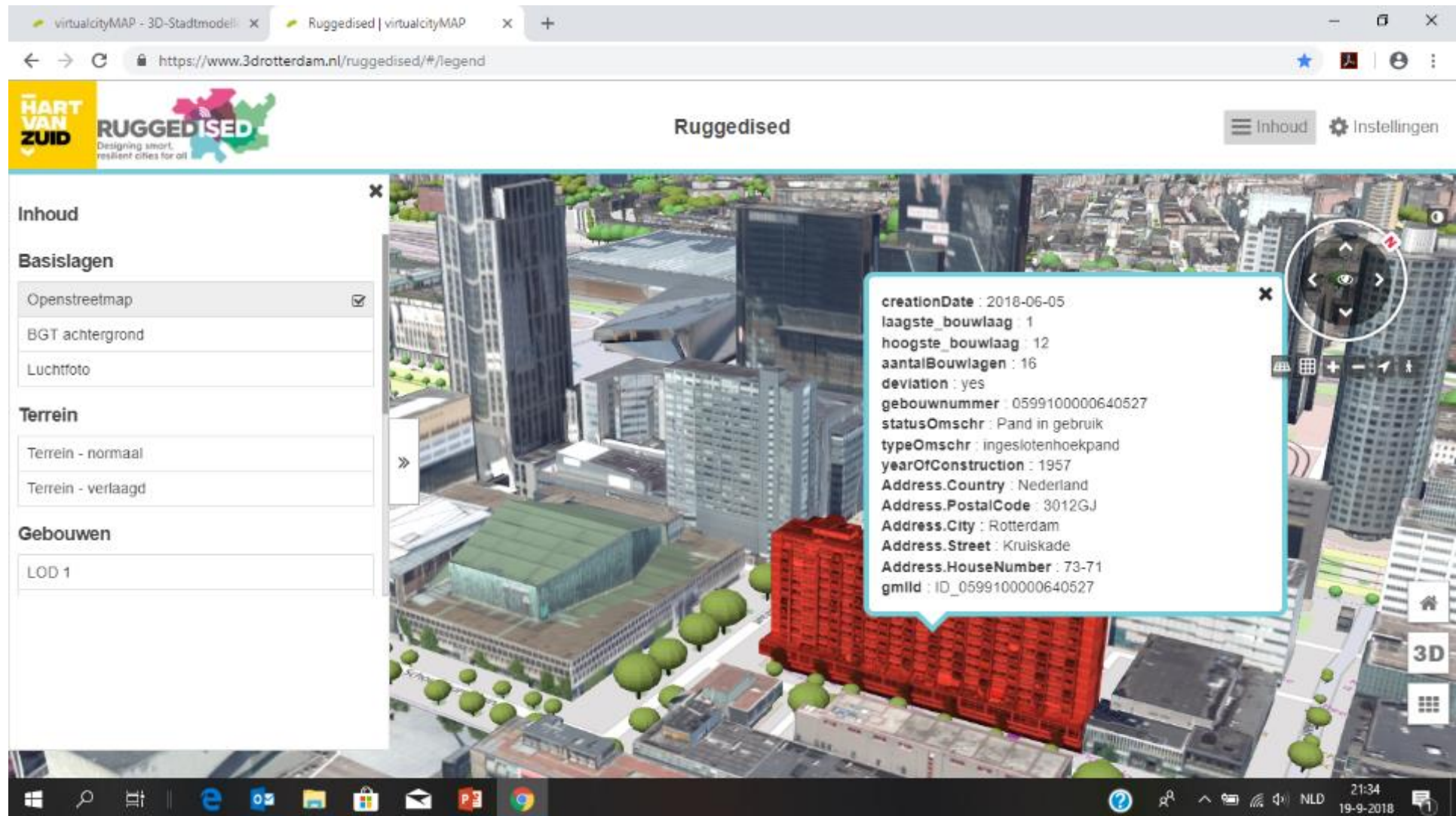
Digital Urban Community (>2023)



A 'smart' 3D model of the city ...



A 'smart' 3D model of the city ...



The screenshot shows a web browser window with the URL <https://www.3drotterdam.nl/ruggedised/#/legend>. The interface includes a sidebar with the following sections:

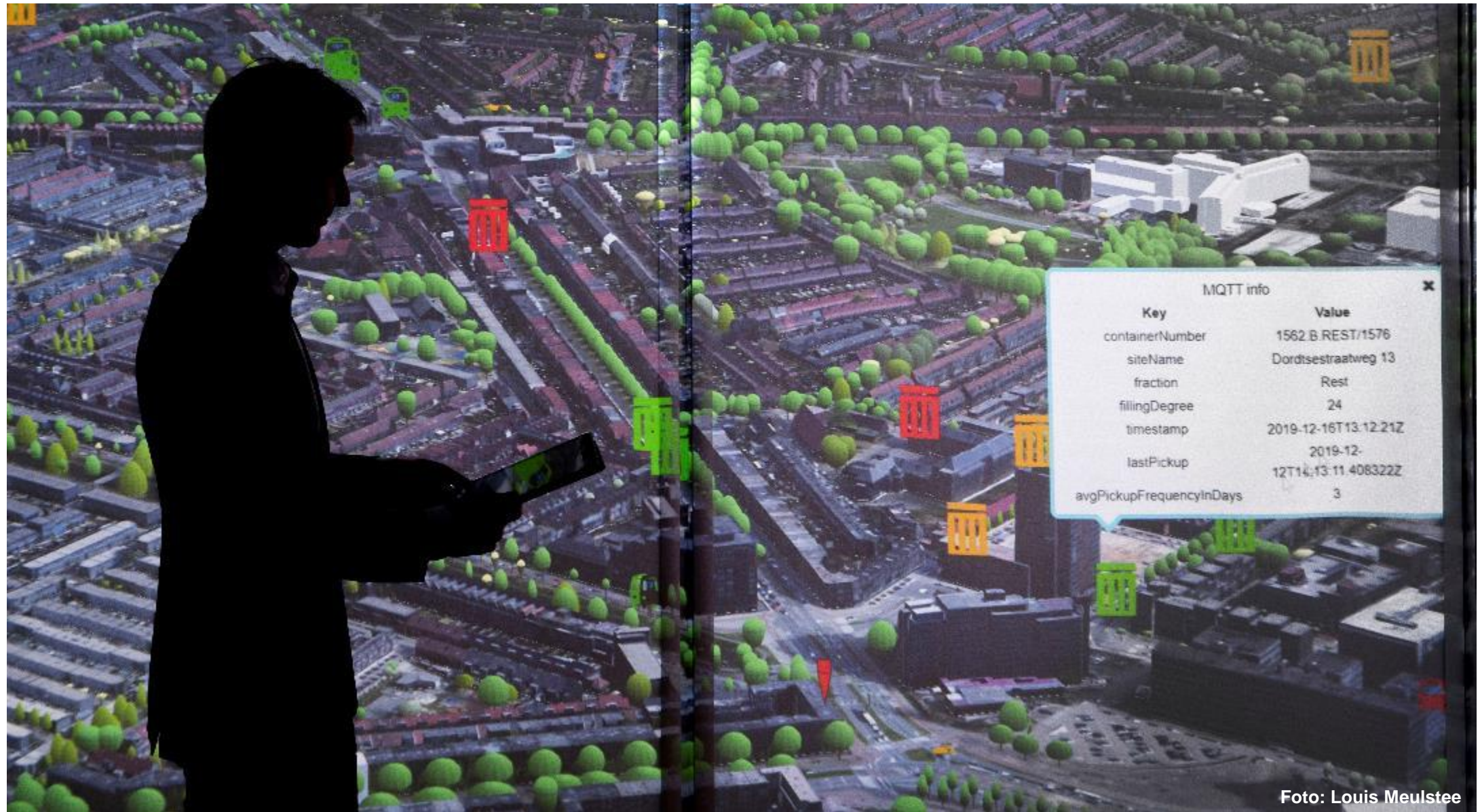
- Inhoud**
- Basislagen**
 - Openstreetmap ☒
 - BGT achtergrond
 - Luchtfoto
- Terrein**
 - Terrein - normaal
 - Terrein - verlaagd
- Gebouwen**
 - LOD 1

The main view displays a 3D city model of Rotterdam. A red building is highlighted, and a data popup is visible with the following information:

- creationDate : 2018-06-05
- laagste_bouwlaag : 1
- hoogste_bouwlaag : 12
- aantalBouwlagen : 16
- deviation : yes
- gebouwnummer : 0599100000640527
- statusOmschr : Pand in gebruik
- typeOmschr : Ingeslotenhoekpand
- yearOfConstruction : 1957
- Address.Country : Nederland
- Address.PostalCode : 3012GJ
- Address.City : Rotterdam
- Address.Street : Kruiskade
- Address.HouseNumber : 73-71
- gmId : ID_0599100000640527

The interface also features a top navigation bar with 'Inhoud' and 'Instellingen' buttons, and a bottom taskbar with various application icons.

... combined with realtime data ...



... forms a 3D Digital Twin of the city!

Describes the current physical reality of a city, based on realtime data (= digital 'copy' of the physical city)

