Amsterdam Economic Board

Amsterdam Smart City

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# Introduction to Amsterdam Smart City & Amsterdam Intelligence (AI) Ecosystems

## Hessen Smart Region Community Event

Amsterdam Smart City is an open innovation platform that brings together public authorities, companies, knowledge institutions, and civil society to shape the city of the future.

# Background & History

- Started in 2009: European subsidy
- Small scale energy-saving pilots with citizens & businesses
- Public-private approach; program structured in 4 year cycles

More information:
https://www.amsterdameconomicboard.com/app/uploads/2016/02/Smart-Stories.pdf

# Multistakeholder collaboration

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## Societal partners

Kennisland

NEMO

waag
technology & society

PAKHUIS
DE ZWIJGER*

marineterrein
amsterdam

## Corporate partners

alliander

eurofiber

havas lemz

BTG TGG

JOHAN CRUIJFF
ARENA

Port of
Amsterdam

ARCADIS | OVER MORGEN

Deloitte.

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## Public partners

Gemeente
Amsterdam

gemeente
Haarlemmermeer

Gemeente Almere

NH Provincie
Noord-Holland

VRA Vervoerregio
Amsterdam

## Knowledge partners

cenex
nederland

Royal
HaskoningDHV
Enhancing Society Together

drift
for transition

Flatland

Hogeschool van Amsterdam

METABOLIC

AMS
AMSTERDAM INSTITUTE FOR
ADVANCED METROPOLITAN SOLUTIONS

hieroo. amsterdam

REBEL

Energy
from fossils to clean, creating sustainable energy options for all

Responsible Digitalization
from closed to open, using tech for social value

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# Challenge-Driven Innovation

Circular Economy
from single use to restorative and regenerative use of resources

Mobility
from crowded and polluting to smart and sustainable mobility solutions

# ASC role in accelerating societal transitions

- **Multi-stakeholder collaboration:** bring parties together & initiate action
- **Starting points:** societal transitions & challenges from partners
- **Co-creation process:** partners share, collaborate and build upon each other
- **Small core team:** connects, facilitates and inspires
- **Disseminator:** lessons learned, toolkits, do's/don'ts

# City of Amsterdam Policies

**Agenda Digital City**

Sets a vision for becoming a a free, inclusive and creative digital city. Agenda outlines various actions, research and experiments that the municipality is carries out together with Amsterdam residents, experts and other cities.

**Agenda AI: Amsterdam Intelligence**

The City of Amsterdam wants to be a pioneering force in promoting the development and deployment of artificial intelligence at a local level. The aim is to improve the lives of Amsterdam's residents by limiting the negative effects and enhancing the positive effects of AI.

More info:
- https://www.amsterdam.nl/innovation/digitalisation-technology/
- https://openresearch.amsterdam/en/page/70918/artificial-intelligence

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Ambition 1
A free digital city
—
Ambition 2
An inclusive digital city
—
Ambition 3
A creative digital city

City of Amsterdam

Agenda AI: Amsterdam Intelligence

# Object Detection Kit
## Amsterdam Intelligence (AI) Team

Developed to detect issues in public space using computer vision.

The system is capable of recording and analyzing real-time street level imagery with the aim of faster identification and responding to the issues in the urban environment. Aimed at detecting different types of trash on the street, broken traffic poles or bicycle wreckage and graffiti that needs to be removed.

More info:
- https://amsterdamintelligence.com/resources/urban-object-detection-kit-a-system-for-collection-and-analysis-of-street-level-imagery
- https://www.youtube.com/watch?v=BnJ-BJ1aZ6Q

# Algorithm Register

## City of Amsterdam, City of Helsinki, Saidot

Amsterdam and Helsinki collaborated to launch the world's first Algorithm Register providing an overview of the artificial intelligence systems and algorithms used in their cities.

Through the register, citizens can can get an overview of the cities' algorithmic systems and give feedback, thereby helping build more human-centered algorithms.

A national open-source algorithm register is now under development in the Netherlands.

More info:
- https://algoritmeregister.amsterdam.nl/en/ai-register/
- https://amsterdamintelligence.com/posts/interview-with-linda-van-de-fliert-about-the-algorithm-register

# The Fairness Handbook

## Amsterdam Intelligence (AI) Team

Practical set of instruments for assessing the fairness of a model and minimizing algorithmic harms that affect citizens.

Provides an introduction to algorithmic fairness and bias for everyone whose work involves data and/or algorithms. Explains how biases and other problems in the model development cycle can cause several forms of harms that consequently impact individuals or disadvantaged groups in society.

More info:
https://amsterdamintelligence.com/resources/the-fairness-handbook
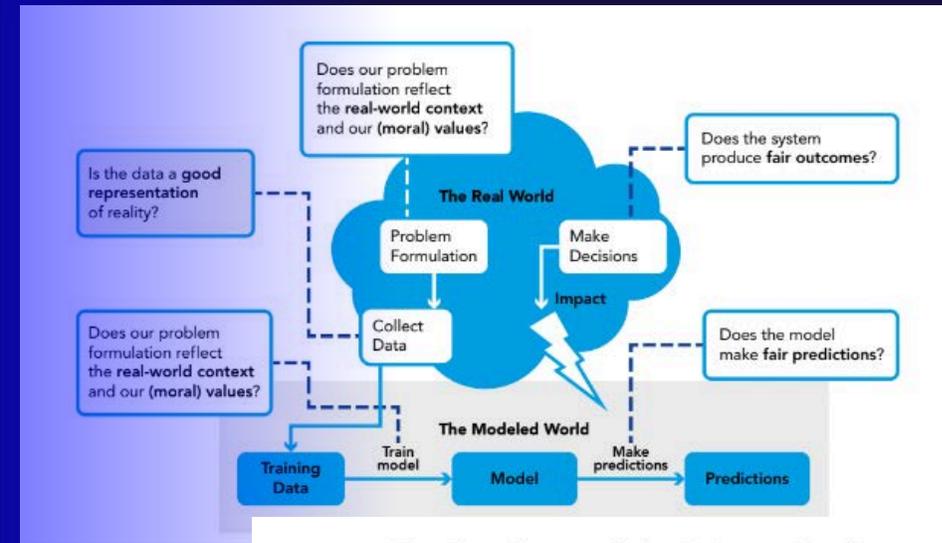
# AI4Cities

EU-funded PCP project involving cities of Amsterdam, Copenhagen, Helsinki, Paris Region, Stavanger, Talinn

Three-year project which implemented a pre-commercial procurement (PCP) approach, investing €4.6 million in AI solutions for climate neutrality with focus on energy and mobility.

From an initial 100 applications seven market players were selected to test their solutions.

More info:  https://ai4cities.eu

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FROM 100 INNOVATIONS

# Amsterdam Energy ArenA

## Johan Cruijff Arena, Eaton, BAM, The Mobility House, Amsterdam's Climate and Energy Fund, Interreg

Europe's largest energy storage system using second-life and new electric vehicle batteries in a commercial building.

The storage system with a capacity of 3 MW means that the energy produced by the 4,200 solar panels on the roof of the ArenA can be stored and used optimally.

The energy storage provides back-up power, reducing the use of diesel generators, and provides relief to the energy grid by flattening the peaks that occur during concerts.

More info:
https://www.youtube.com/watch?v=BnJ-BJ1aZ6Q
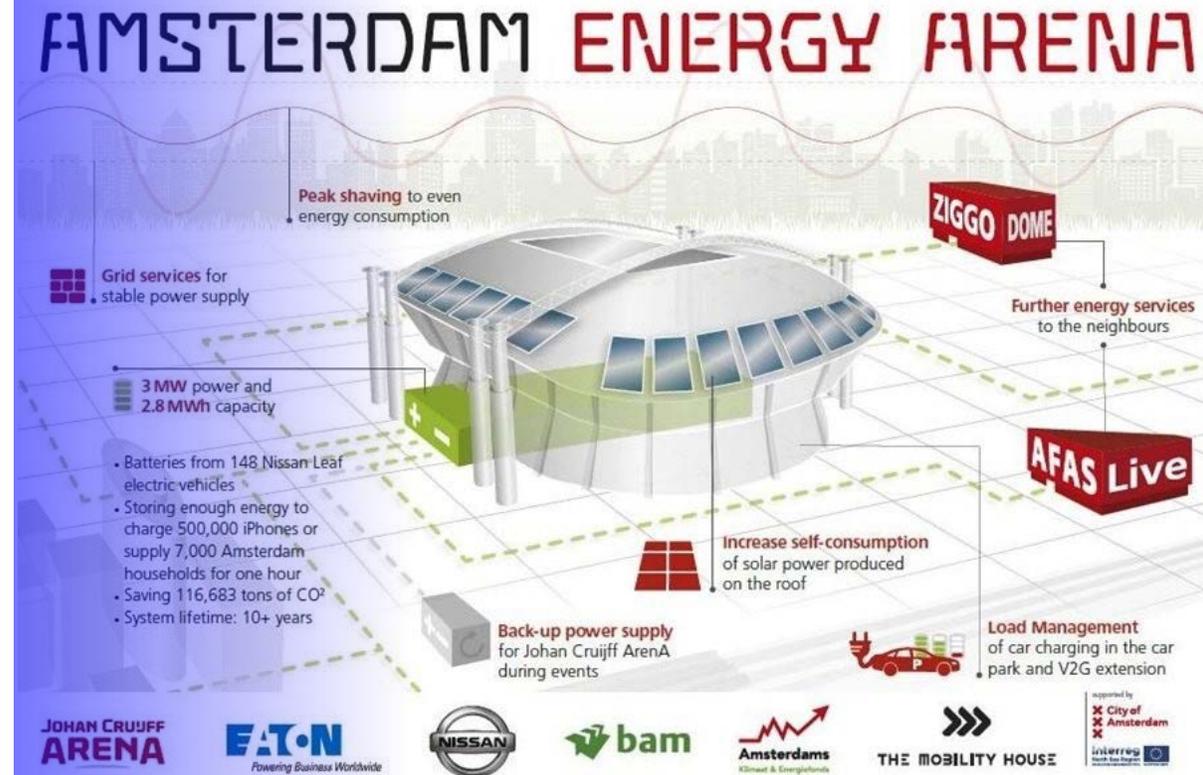
# Marineterrein Amsterdam Living Lab

## Bureau Marineterrein, Amsterdam Metropolitan Solutions (AMS) Institute, Amsterdam Smart City

Former navy terrain converted to innovation district and testing ground where government authorities, companies, knowledge institutions and civil society organizations carry out urban innovation experiments.
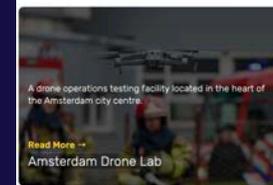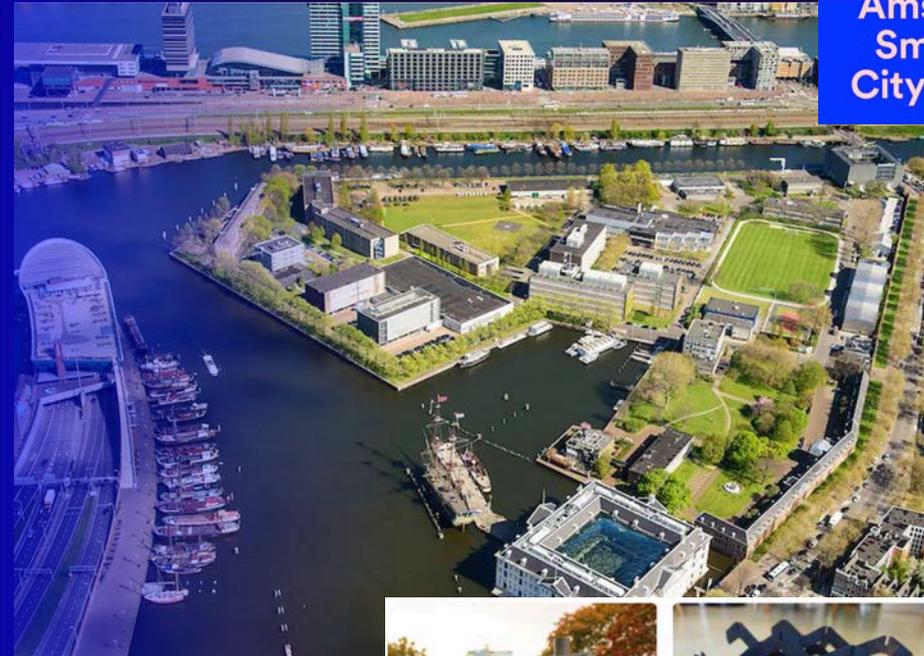
The Roboat started off as a 4 year MIT funded research project. It offers autonomy systems for inland waterways. It make vessels fully autonomous, assists crew with navigation, remote monitor fleet, and playback data.

More info:
* https://amsterdamsmartcity.com/updates/project/marineterrein-amsterdam-living-lab-1
* https://www.ams-institute.org/urban-challenges/smart-

# Thank you!
# Want to join the movement?
# www.amsterdamsmartcity.com

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