HelsingBotica

A pre-study on data sharing for improved micromobility and delivery robots

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DRIVE SWEDEN

Background

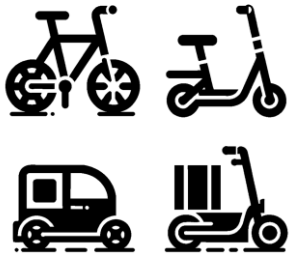
Facilitate the use of micromobility vehicles

1. Increase knowledge about bike/walk paths by collecting and process images
2. Find ways to utilize electric autonomous delivery robots, today

Results and learnings

UNIVRSES

Images of bike and walk paths



- Validated obstacles known from car roads (e.g. potholes)
- Models need to be trained for a variety of angles (vehicle-dependent)
- For GDPR reasons, use dedicated cameras on data-collecting vehicles

Results and learnings

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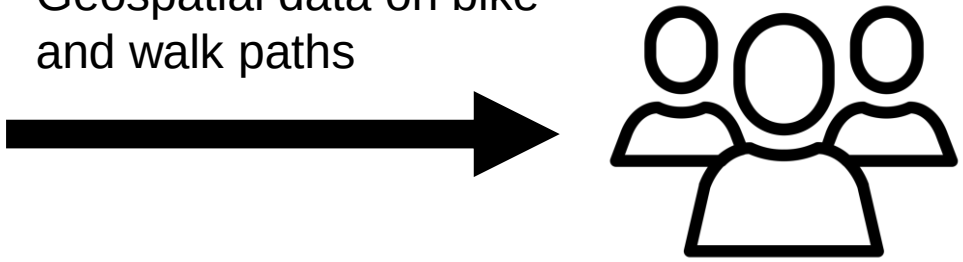
Geospatial data on bike and walk paths



- Project found several ways to publish static data (NVDB, OpenStreetMap)
- Project found no established way of publishing (semi-)dynamic data
- Established contact to new standardization effort on this type of data

Results and learnings

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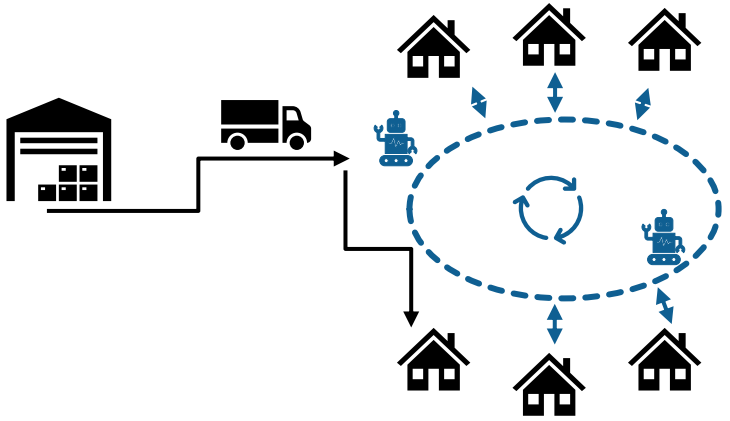
Municipal policies for
Delivery robots

HUGO

- Developed policy for delivery robots (geofencing, speed and schedule)
- Helsingborg expressed policy in MDS (Mobility Data Specification)
- Hugo Delivery adjusted their platform to act on MDS

Results and learnings

Pilot Suggestion:
Community Robots



- Pilot delivery robots as mobile delivery lockers in suburban areas
- Reduce van traffic and emissions in residential areas
- Increase transport efficiency for parcel delivery companies

Next step

- Consortium for community robots' pilot
- Research on how to leverage such robots
- Scale up collection and publication of bike and walk path data

Partners

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