



**Data-driven and Dynamic  
Space and Assets for  
Physical Internet-led Urban  
Logistics and Planning**

# **T7.3 - DISCO Knowledge Hub Population Period 1**

**Rupprecht Consult**



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# Best Practices and Examples articles' Template

<b>Contributor</b>	
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<b>Title</b>	
Onboarding cities to the UFDS: DISCOLLECT Framework and case study	
<b>Photo(s) and/or figures</b>	
<p><b>Smart Data Platform (SDP) components</b></p> <p><b>1. SDP basic package</b></p> <ul style="list-style-type: none"> <li>UFDC connector connects to UFDC</li> <li>Dagster - HTTP rest middleware manages the queries</li> <li>Dagster - Database stores all data you offer to the UFDS - includes converter &amp; scraper capabilities</li> </ul> <p><b>2. SDP package + data conversion additions</b></p> <ul style="list-style-type: none"> <li>Dagster data model converter - for parking data - unstructured json to APDS json - converts data input to predefined structure of the UFDC parking data model</li> <li>Dagster Data scraper Scrape data from a (openly) available data set</li> </ul> <p><b>3. City components</b></p> <ul style="list-style-type: none"> <li>CITY OPEN DATA PORTAL Open data platform of a city that holds all relevant DISCO data</li> <li>API to open data portal The city connects their Open Data Portal to the Smart Data Platform through an API collector</li> </ul>	
<b>DISCOLLECT: Case study - implementing Ghent parking data in the data space</b>	
<p>City Policy Manager → Access rules (A1) → Ghent open data portal → Scrape rules into SDP (A2) → Smart Data Platform (A3) → UFDC → UFDC APPLICATION MIDDLEWARE → City Visualisation app PoC (WP3)</p>	
<b>Source</b>	<b>Photo title</b>
Imec	Smart Data Platform (SDP) components
<b>References</b>	
/	
<b>Text (250 - 300 words)</b>	
<p>DISCOLLECT saw the realisation of a Smart Data Platform (SDP) to onboard cities to the UFDS. The SDP consists of a data space connector, integrated in the database software Dagster. Besides being a data base, Dagster has several additional features to scrape, convert and store data according to a predefined data model. The <b>visual 1</b> shows a framework for 3 packages that are needed to onboard data from a city to the UFDS</p> <ol style="list-style-type: none"> <li><b>The basic SDP package</b> A data base that is connected to the UFDS where cities can onboard and offer structured data to the data</li> </ol>	



space

2. **The SDP expansion**

Additional Dagster components that help cities automatically scrape data from (e.g.) an open data portal and convert to the right standard, reducing manual work.

3. **City components**

components required by the city: an open data portal where data can be stored and an API connection to connect the open data portal connect to the SDP

This framework can be copied by cities to offer their data to the data space.

Visual 2 shows how this framework was applied to connect Ghent to the UFDS and offer parking data

1. Ghent offers parking data in their open data portal

2. The SDP scrapes the parking data to its database

3. The SDP converts the parking data to the right standard

4. The SDP connects to the UFDS and offers the parking data

5. Inlecom build a 2D visualiser app that visualised the parking data. The visualiser app is connected to the data space through a UFDS connector and a middleware component

6. The visualiser app can pull the data from the SDP and visualise its locations

**Author(s), organization and role**

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**Project and link to the website**

DISCO: <https://discoprojecteu.com/>