

Summary of the online stakeholder event on
Shared micro depot for urban
pickup and delivery

S.M.U.D.



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© Gateways, shared micro-depot, size 4

Wednesday

2 DEC

10⁰⁰-12⁰⁰ CET
online event

AGENDA

Shared micro depots for urban pickup and delivery (S.M.U.D.)



© Gateways, version xs – triple meet

10⁰⁰

Welcome - Natasja van den Berg (Tertium)
Project Shared micro depots for urban pickup and delivery
Kerstin Dobers (Fraunhofer IML)

10²⁰

Definition of shared micro depot and its possible gains
Leonardo Rosenberg (Technion)
Shared micro depots - from idea to implementation
Daniela Kirsch (Fraunhofer IML)
Toolbox for shared micro depots - Eglantina Dani (CIMNE)

10⁵⁰

S.M.U.D. Pilot city Helmond - Sonja van Uden (Brainport Smart District)
Shared micro depots – experience of a bike courier
Harry Morskate (Tour de Ville)
Testbed in Helsinki - Pete Pättiniemi (Forum Virium Helsinki)
Shared micro depots – experience of an LSP - Petri Sinkko (DB Schenker)
Design for shared micro depots - Marten Wassmann (Gateways)

The event is followed by an informal virtual coffee.

S.M.U.D.

The project „Shared micro depot for urban pickup and delivery” S.M.U.D.



We all know that urban space is limited and continually diminishes. In addition, the urban traffic situation is tight and air quality needs to be improved in many cities across Europe. In 2020 we could also observe that e-commerce together with the parcel sector is still growing decisively, partly pushed by the pandemic situation. Shared micro depots provide a collaborative environment that supports cities and businesses in taking a step forward toward achieving eco-efficient and city-friendly urban logistics.

In this one-year project, eight project partners from Finland, the Netherlands, Germany, Spain and Israel – representing cities, business and research – further examined and discussed this concept of a shared micro depot for urban pickup and delivery. We had two main goals in this project: First, to implement two testbeds in the partner cities, i.e. one in Helmond focussing mainly on the stakeholder involvement and the other in Helsinki that opened its services in June this year. The other objective was to elaborate and provide support to cities during the implementation process that covers an implementation roadmap describing the various steps needed and lessons learned so far, an assessment framework to analyse the impact of a shared micro depot with view to environmental, social and economic aspects. We also have adjusted a location planning tool for the needs of micro depots and applied it in Munich. We have outlined business models for shared micro depots focussing on the last mile pickup and delivery as well as possible auxiliary services to be combined with this new infrastructure. Another key topic we worked on is the design of a shared micro depot meeting the operational requirements of the users (LSPs and consignees) as well as the depot fits in seamlessly with the surrounding and the city. Finally, we have elaborated an implementation toolbox for shared micro depots offering selected modules for implementation support.

One-year project duration is challenging and even more challenging during a pandemic situation we faced this year. Nevertheless, we are confident that we contributed to a **more intelligent use of urban space** by implementing shared micro depots, **raise efficiency of goods delivery** in the short run as well as to **improve liveability and the urban environment**. By means of the testbeds as well as this event we have managed to **raise awareness** for shared micro depots.

The online stakeholder event on Shared micro depot for urban pickup and delivery



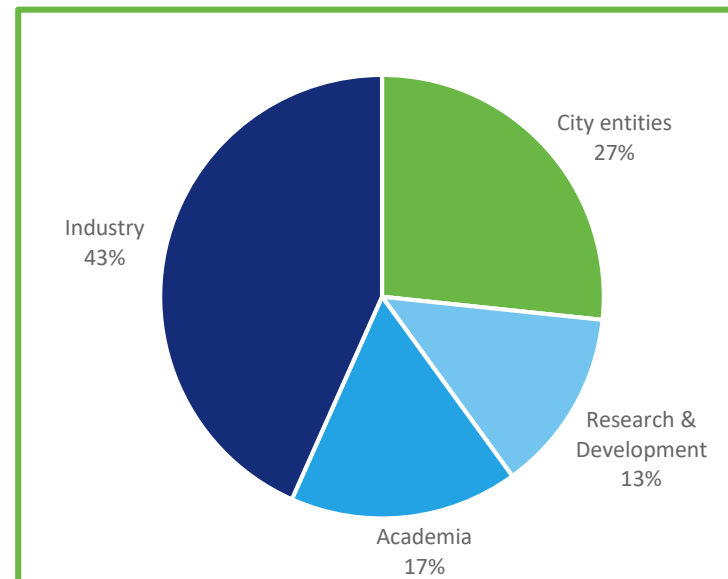
The objective of the event was to understand the existing challenges, questions and concerns that stakeholders face when implementing a shared micro depot or even that may prevent cities to start the implementation process or that may prevent logistics service providers to participate in a shared micro depot.

The **event underlined the need for supporting the dialogue** between cities, logistics service providers and other industry partners relevant for last mile delivery and pickup solutions. More than 100 stakeholders registered to the event, covering 70 different organization. The participants came from 16 different countries all over Europe.

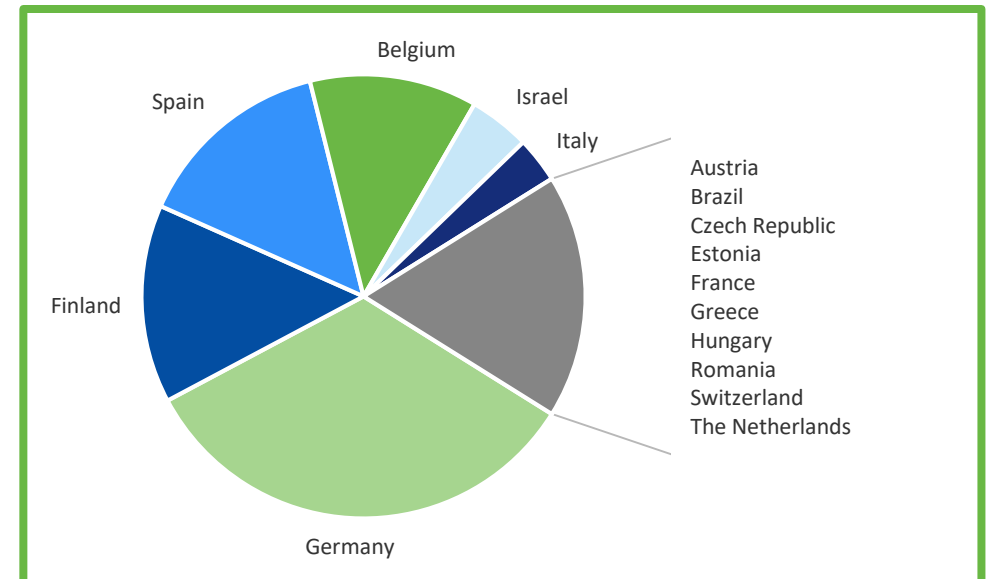
Overall 90 persons registered being not directly involved in the project.
70% represent city entities and industry.

24 city entities and in total 39 industry representatives, thereof 12 logistics service providers (LSPs) registered, which we consider as great success for supporting the dialogue between stakeholders as well as raising awareness on alternative urban mobility.

External stakeholders from different sectors



Registration of participants from all over Europe



The online stakeholder event on Shared micro depot for urban pickup and delivery



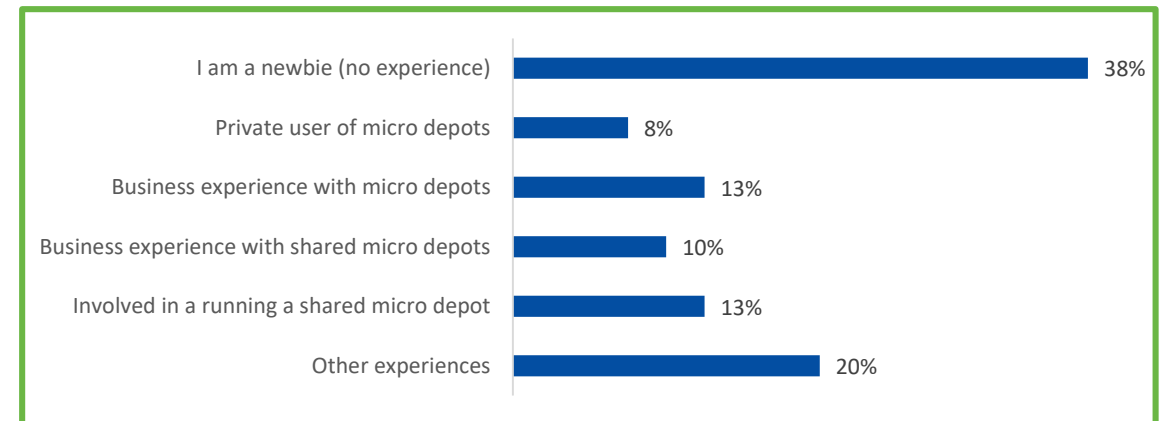
Around 80 to 90 participants shared their views and questions during the two hours online event. Next to some presentations from project partners, we prepared four polls.

The first poll addressed the experiences of the participants with micro depots or even shared micro depots. 38% of the participants (excluding the project partners) do not have any experiences at all. 8% have used micro depots only as a private user, but all other participants had experience to some extent. From the event organizer's point of view, this mixture is great: "newbies" get insight in this alternative last mile concept and we could raise awareness for S.M.U.D.s. At the same time, we could rely on the various experiences brought in from across Europe.

Those participants who outlined experiences with (shared) micro depots, further specified their involvement as follows:

- 3 white label micro-depots plus one starting in 2021 - Germany
- 1 depot using cargo bikes - Belgium (Brussels)
- 6 depots or cycle-logistics hubs - Spain (Barcelona)
- 8 cycle-depots – Czech Republic (Prague)
- 1 depot in cooperation with a logistics company – Germany (Aachen)
- 3 depots - Netherlands
- 1 depot – Italy (Vicenza)
- 1 depot starting in 2021 – Germany (Dortmund)
- Several (shared) micro depots – across Europe
- 2 depots – Austria (Vienna)
- Several depots – UK (e.g. London)

Poll: What experiences do you have with (shared) micro depots?



Scope of shared micro depots for urban pickup and delivery

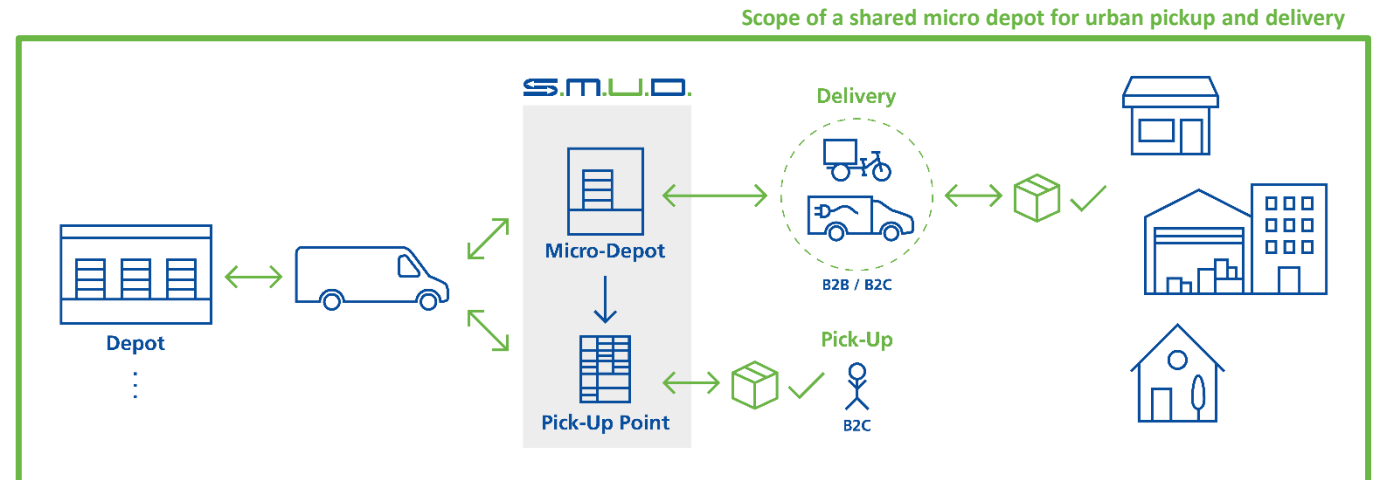
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Concepts for shared micro depots encompass the last-mile processes starting at the depot(s) of the participating logistics service providers, via the micro-depot and pick-up point and ending at the (private or commercial) consignee. As such, both transport and micro depot processes are within the system boundaries.

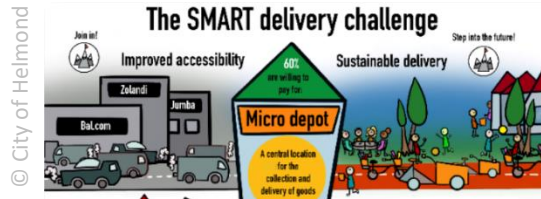
The **micro depot** represents a logistics facility in or close by an urban area in which a company has a place to (un)load, sort, store and deliver shipments to their customers and may offer a pick-up point. It is a place for transshipment and intermediate buffering of goods and supplement to the existing logistic network. Typical locations are close to office or residential areas as well as mobility hubs such as bus stops or train stations.

Within a **shared micro depot**, at least two companies are sharing a single location. Main operation focuses on logistics operations. However, companies with a different operational background are welcome to join. **Auxiliary businesses** may address other services such as shared vehicles, groceries, laundry, tool rental or reverse logistics.

Gains of a S.M.U.D. cover cost reduction, improved customer services, less city traffic including less congestions, emissions and noise. In addition, companies joining a S.M.U.D. show their involvement in strategically **designing the cities of the future**.



Shared micro depots - 4 Phases from idea to implementation



1

Initiation

Starting with an idea and identification of relevant stakeholders to operate a shared micro depot

»Preparation of permission may be time consuming (e.g. up to one year).«

FRAUNHOFER IML

2

Conception

Design and planning of all relevant aspects for implementing the shared micro depot

»If design starts as soon as location is defined, the depot can be adapted ideally to the city scape.«

FRAUNHOFER IML

3

Implementation

Start of business operation and transfer to standard operation

»Consider to start with a pilot operation to test impact and readjust the concept.«

FRAUNHOFER IML

4

Assessment

Evaluation and improvement of the shared micro depot

»Involve relevant stakeholders early and communicate transparently as it is key for later success of the S.M.U.D.«

FRAUNHOFER IML

Toolbox for shared micro depots

The aim of the toolbox for shared micro depots is to provide possible solutions and concepts that have been analysed and elaborated within the different tasks of the S.M.U.D. project. These solutions have been evaluated for the testbeds of Helsinki and Helmond, but they can apply to other cities as well.


The tool is divided into **four different modules** that cover the descriptions of

1. Context Area
2. Location planning
3. Design
4. Business models

The different types of micro depots that have been implemented in the European cities and that will be proposed as solutions of the toolbox are

1. Cargo bikes
2. Micro Urban Consolidation Centres (mUCC)
3. Smart points
4. Micro Urban Consolidation Centre (mUCC) + Smart Point

The toolbox is available online via <https://smud-toolbox.typeform.com/to/uhwXg84j>.



Welcome to the S.M.U.D. toolbox!

The toolbox combines modules of recommended concepts, solutions and best practices for last mile solutions analysed and elaborated during the S.M.U.D. project and offered as solutions for the users of this tool.

Start press Enter

Pilot city Helmond



The S.M.U.D. pilot in the city of Helmond (Brainport Smart District) focussed on the acceptance of the use of a shared location for last mile delivery.

»A depot in itself is not new in the Netherlands, but a shared micro depot is.« BRAINPORT SMART DISTRICT

Citizens involvement was organised by means of a questionnaire. A key results of this is, that **60% of participants are willing to pay extra** for a S.M.U.D. location if this means **improved accessibility to the district** and a **sustainable way of delivery**. Business partner were involved through (online) workshops.

Two main challenges identified

1

How to change behaviour and expectations of citizens so that they accept pick-up instead of home delivery?

2

How to convince companies to let go of some of their efficiency and company gain over the bigger public interest, i.e. better for us and the climate?



»It's all about collaboration!« TOUR DE VILLE

- Stakeholders and their support base
- Sharing the hub as a level playing field
- Sharing the desire to make it work
- Handing over the last mile of the delivery
- Arranging responsibility



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Pilot city Helsinki

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A second testbed of S.M.U.D. is situated in the city centre of Helsinki, realised by a wooden cottage (rented show room for the testbed) accessibly with door code 24/7. Inside the user finds a parcel locker and an information screen. Two logistics service providers located two additional containers next to the wooden cottage, that offer space for their cargo bikes as well as buffering parcels to be delivered by the cargo bikes. The next step is running test deliveries using robots.

»The hard part of micro depots is sharing the operation.« FORUM VIRIUM HELSINKI

Experiences by DB Schenker CargoBikes

- Location of City-Hub is essential: provision of access and truck parking; be safe and secure
- Consideration of CargoBike's capacity: shipment profile; consideration of limited shipment size
- Efficiency increase in most dense areas
- Weather and winter conditions require good equipment/clothes and changing rooms

»Last mile will be more important: time is money and consumers buy service.
However, majority of shipments has to be delivered with van or truck.« DB SCHENKER



Design for shared micro depots

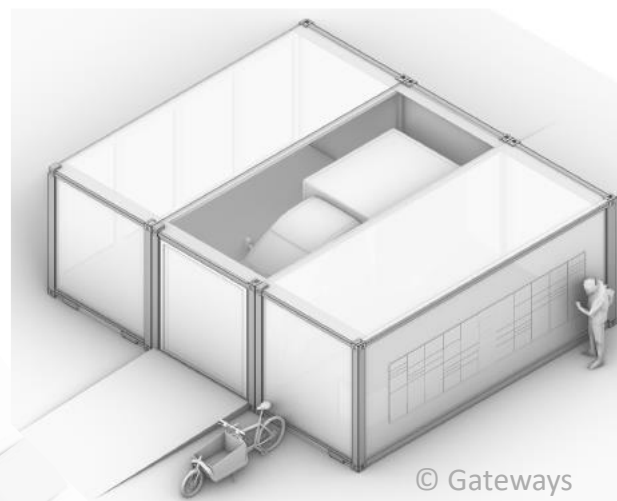
The shared micro depots in the city are not just a solution for the last mile delivery. Current solutions are focussed on solving a functional problem. Next to that, current solutions are often placed without direct connection to centres of activity or daily routines, on less visible locations, in remote parts of the public realm.

The shared micro depot may well have a more central position in cities and therefore should be treated as such: as a fully functional and quality piece of urban furniture. Identity and architecture will thus play a more prominent role.

The shared micro depot could also be an opportunity to add a quality feature to the urban fabric. It may have an identity comparable to a pavilion, a kiosk, or a piece of urban furniture. It also offers the possibility to incorporate additional public functions into the shared micro depot.

»Why should we share?

Apart from being a centre of logistics and mobility, a shared micro depot can also be a centre of community.« GATEWAYS

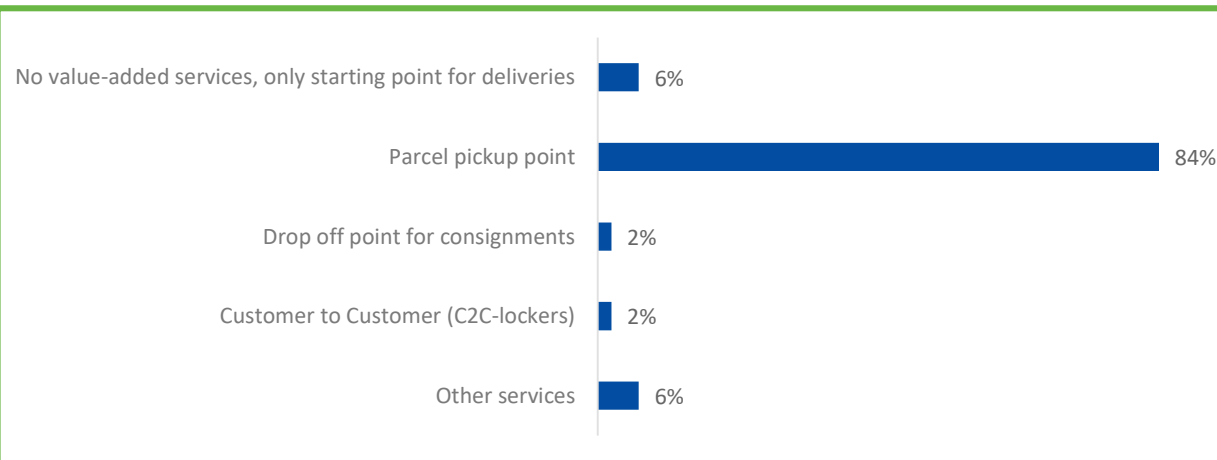


Spotlights of the chat and discussions

»Due to higher flexibility of the cargo bikes (e.g. more frequent return to depot and better routing through narrow streets), we expect that a van can be replaced by one cargo bike in the Brainport Smart District.« **TOUR DE VILLE**

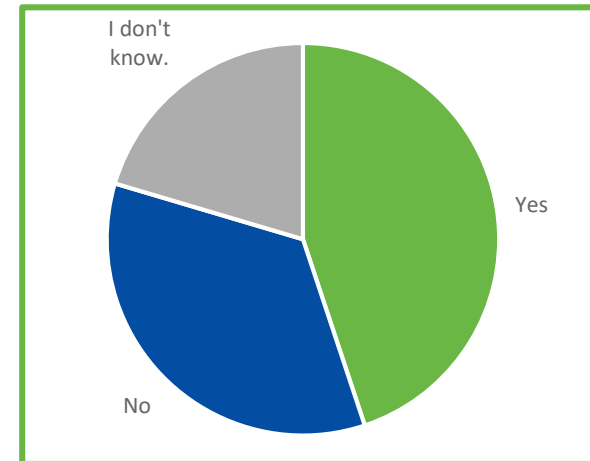
»Advantage of sharing is using the space more efficiently and reduce kilometres driven. It's a benefit for the citizens!« **CITY OF HELMOND**

Poll: What services would you expect in a S.M.U.D. in your city?



The toolbox provides general information on implementing a S.M.U.D. Country-specific solutions are highly dependent on local regulations, norms and culture.

Poll: Should it be considered a "right" for citizens to receive home delivery?



The stakeholder event facilitated additional meetings with logistics service providers for further discussions on business models and auxiliary services.



Spotlights of the chat and discussions



One main barrier of shared micro depots is the question of how to solve the way that also the revenue is shared. Municipalities may push the acceptance of sharing operations by different regulations (e.g. access to the delivery area for involved companies and their vehicles).

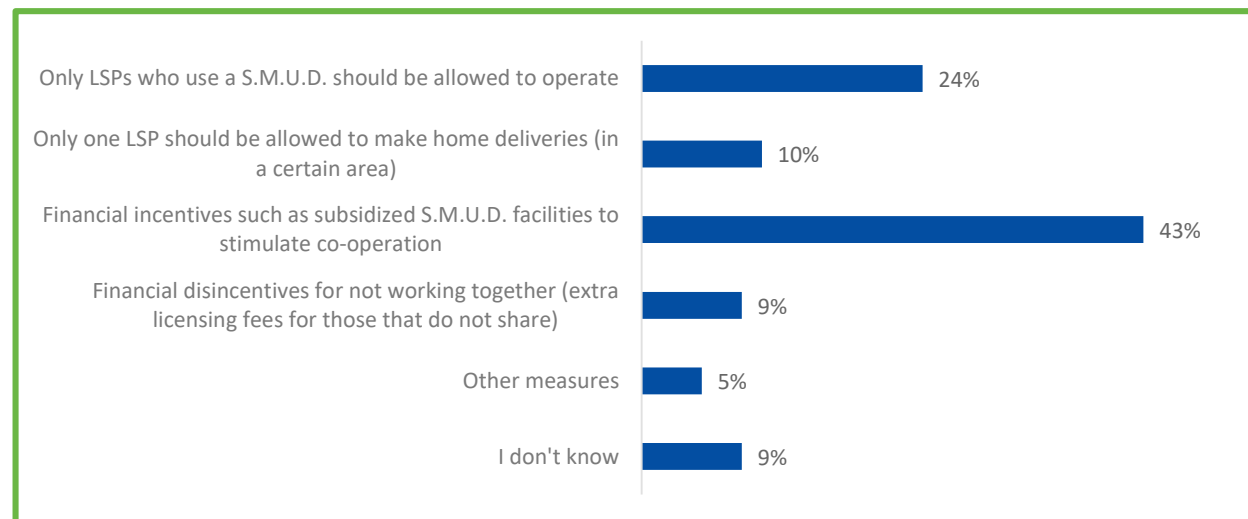
A dialogue between the operator of the depot and insurance companies is needed to solve the question of how to manage especially insurance and risk of theft across multiple users.

Another crucial issue is, that the »white label operator« offering the delivery service on the last mile for all other logistics service providers needs to take over the responsibility for good performance for the customer.

»Sharing micro depots will answer the strict rules and requirements of urban design and offers even room for art work.« **STADTWERKE MÜNCHEN**

»Sharing data within the testbed was not a problem.«
FORUM VIRIUM HELSINKI

Poll: How do you think logistics service providers (LSPs) should be encouraged to work together?



Some take-aways

»The internationality of this stakeholder event was fabulous.« [STADTWERKE MÜNCHEN/MVG](#)

»The event allowed for us as partners, to learn more in detail about certain tasks in which we were not involved. Moreover, the participation of the local LSPs allowed us to better understand their point of view and to get a better understanding of how shared micro depots impact their business models. This is something that can and will be taken into account for future projects as well as eventual spin offs. Finally, the participation of different city representatives, various consultants as well as other LSPs, and their contribution to the event, not only helped with the dissemination of the S.M.U.D. concept but also helped the project partners understand what these stakeholders thought of S.M.U.D. And, of course it introduced the concept of shared micro depots to these stakeholders.« [CIMNE](#)

»The discussions outlined, that sharing a micro depot is still a challenging task. Solutions on legal, insurance and revenue issues need to be developed for individual cases and local settings.« [HELMOND](#)

»During the stakeholder event, it showed that there is much interest in (shared) micro depots from cities and potential operators. It is important to have more exchange of concepts, methods and experiences in order to bring the idea of shared micro depots to a wider usage.« [FRAUNHOFER IML](#)

» I was impressed both by the number and identity of the participants. I see from their interest, and especially the size of the interest, that shared micro depots have the potential of meeting a real need in European cities.« [TECHNION](#)

»The aim of finding a solution where citizens, cities and LSP's benefit from by implementing a shared micro depot seems to be logical. Yet, to implement this, many stakeholders need to be involved and solutions will not be found easily for all parties. The needed changes will have long chains of decision taking and many parties need to break out of habits or change systems. During the event all 80 participants were of the opinion that change is necessary, doable and that we are heading in the right direction. That was very hopeful.« [GATEWAYS](#)

»We may have maximum five shared micro depots in the city of Helsinki operated with the help of mixed fleet of cargo bikes, robots and drones.« [HELSINKI](#)



A warm **Thank you!** to all involved in the preparation of and participating in the online event on shared micro depots for urban pickup and delivery.

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Fraunhofer IML, Dortmund (Germany)
15.12.2020



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01.01.2020 31.12.2020

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