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SMART CITY CHALLENGE 2025

City Challenge

Max 3 pages

send to smartcity@taltech.ee by Sept 30, 2025

Challenge Title – (max 5 words, no acronyms) Designing Adaptive SUMPs for Urban Districts

City/county and country: Hundipea Development Area, Tallinn, Estonia

Main contact from your city/county – name, organization, job title, e-mail, phone

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1. What is the future urban challenge that would need a solution to?

- **Please describe the challenge of your city / county neighboring a city?**

Sustainable Urban Mobility Plans (SUMPs) are normally prepared for the whole city (e.g., EU cities with a population above 50,000) (European Commission, 2025), yet, they do not address the realities of smaller, high-growth areas such as new districts, campuses, or waterfront redevelopments. These are exactly the places where people make most of their daily trips — living, studying, working, and spending leisure time.

Hundipea is Tallinn's largest upcoming residential and mixed-use waterfront development. Thousands of residents and workplaces will move here in the coming years. If its mobility system is designed well from the start, people will naturally choose walking, cycling, shared mobility, and public transport. In other words, it will be a destination point and easily accessible place.

The risks are already visible:

- Poorly planned pedestrian streets and public areas inhibit people with mobility impairments to freely and independently move in the city
- Congestion on access roads to the city center and harbor;
- Public transport routes that are not serving the area smoothly;
- Cycling and walking links that break at key junctions;
- Micromobility and shared services operating without integration;
- Planning processes are being too rigid and slow for a fast-developing district.

The result could be inefficiency, lower accessibility, and a missed chance to make sustainable travel the selfevident.

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- Which category your challenge is primarily in: safe city, happy city, and climate resilient city?

Happy and safe city – improving everyday mobility and quality of life (including safety); **Climate-resilient city** – reducing emissions, promoting low-carbon transport.

- Why is it important for your city to solve it? How big priority it is for you and why?

District-level mobility improvements directly affect the daily routines of residents, workers and students, making sustainable travel the easy and natural choice. As a result, this can lead to faster, more significant behavioral shifts than city-wide measures alone. Well-designed unit-level systems reduce car dominance, free up space for green and social uses and improve general livability. Successful pilots and resulting solutions can be scaled across multiple districts and cities, multiplying their impact.

- Is this a unique challenge/problem of your city, why or is this by your knowledge a challenge/problem that many cities have – which kind of other cities?

The challenge is widely shared. New urban districts across Europe — from e.g. Nordhavn in Copenhagen to Kalasatama in Helsinki — face similar risks of car dependence if mobility planning is not designed in parallel to area development. Hundipea serves Tallinn the chance to join this group of testbeds and contribute lessons on district-level SUMPs.

2. Innovation.

- How have you solved that issue so far? Why aren't the present solutions good enough? Are there legal obstacles, which ones?
- Additional bus services and cycle paths elsewhere in Tallinn, but no district-level integration;
- Stand-alone scooter and bike services that remain uncoordinated;
- City-wide SUMPs that are slow, static, and not suited to fast-growing new areas;
- Barriers around data-sharing between public and private operators
- Poor street planning details, which may seem trivial (high curbs, too short traffic light cycles, uneven sidewalk surfaces, etc.) but limit and dictate the movement of people with mobility disabilities, families with small children, and the elderly in the city.

As a result, the potential for residents and employees to shift mobility habits has not been unlocked. Why we need a new solution:

- Mobility data is fragmented and hard to use for planning a single district;
- SUMPs are updated too slowly by cities, to keep pace with development;
- New services cannot be added seamlessly without common standards.

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- What should be the main features, characteristics of the future solution to be potentially best for that challenge or problem?

There is a need for

1. **designing a systematic process** (both technical and governance where focus is set on collaboration and co-creation) allowing to best integrate transit, micromobility, walking cycling and land use data, etc, to plan mobility in unit level, while also seeing the connections with other units and city districts.
2. **Automated plan generation** integrating the best SUMP standards and practices, while also being tailored to district contexts, supporting quick adaptation. It should also consist best practices on: *Participatory tools* to capture preferences of residents and workers; *Behavioral nudging systems* (incentives, gamification, rewards) to make low-carbon modes more attractive.
3. **Continuous monitoring** (KPI-s) to capture whether behavior change is happening on the ground – providing also direct inputs for monitoring reports and allows to design further steps in mobility planning and adaptation.

Hundipea demonstrates how Sustainable Urban Mobility Plan (SUMP) works when designed for a district and city context from day one.

4. Expected impact of your pilot solution.

- What is the expected impact to **your city environment** you expect to see if the challenge gets solved?
  - Reduced car traffic on the harbor–city center corridor;
  - Lower emissions and noise;
  - More public space for greenery, cycling, and social life instead of cars
  - People with mobility disabilities are ensured better mobility throughout the area.
- What is the expected impact to **your citizens** you expect to see if the challenge gets solved?
  - Walking, cycling, and shared mobility become the easiest and most natural choice;
  - Safer, more reliable everyday journeys for residents and visitors;
  - A stronger sense of quality of life in the new district;
  - A clear, transparent process where residents see how mobility planning shapes their area.
- What is the expected impact to your city governance you expect to see if the challenge gets solved?
  - A practical tool for data-driven, adaptive planning;
  - Stronger cooperation between the city, developers and mobility providers;
  - A semi-automated SUMP model that can be reused for other districts in Tallinn and abroad.

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5. Piloting

- Why would you be interested to become a piloting partner of a proposed solution to the challenge you are describing here?
  - Hundipea is a large, high-profile development with thousands of new daily trips to be shaped;
  - Infrastructure is still flexible enough to adapt before car dependency sets in;
  - Residents will arrive gradually, offering the chance to test, learn and scale solutions in real time;
  - The City of Tallinn and development partners are already experienced in EU smart city projects and open to piloting.

Describe shortly your capability to participate.

- Readiness to coordinate developments across city departments (transport, planning, IT, regulation);
- Data from existing mobility services can be integrated into the pilot;
- Partnerships with universities, startups and private developers are in place;
- The ability to engage residents from the start of the district's life cycle.

Piloting at the unit level allows cities to unlock the greatest potential for changing mobility behavior, validate innovative planning tools and scale successful approaches across broader urban systems.