ITS Estonia + ITS Finland
Joint Offering Challenge Workshop
CHALLENGE PROFILES

LEARN ABOUT AND PICK YOUR PRIORITY JOINT OFFERING CHALLENGE

ITS Estonia and ITS Finland will host a fast-paced, problem-solving workshop workshop on September 24-25 in Tallinn where multidisciplinary teams co-create innovative joint offerings and business models to real-world transport & mobility challenges with real clients and owner's representatives.

ITS Estonia and Finland have sourced five exciting and actionable mobility and transport sector challenges - project cases that your company will partner with other Estonia and Finnish companies to join existing solutions and services, ultimately offering end-to-end value chains.

This document summarises the Joint Offering Challenges, their context, and the unique problems they seek to solve. You will use this document to indicate the highest priority Joint Offering Challenge that you seek to support.

You're Next Steps

REVIEW

Please read through each Joint Offering Challenge profile thoroughly to best understand the problems being addressed and the market opportunity for your company.

CONSIDER

After reviewing the Joint Offering Challenge profiles, prioritise the Challenges that you think your company can present a compelling Joint Offering with a unique value proposition.

RANK

indicate your highest priority Challenge on Question 8 of the Company Intake Form.

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CHALLENGE 1
Smooth and predictable cross-border freight

CLIENT DETAILS

OWNER: Tietoevry Create
TYPE: Private for-profit/Corporation
LOCATION: Northern Europe (Cross-Border)

SOLUTION TYPE

- ✔ Digital/software
- ✘ ~~Physical/hardware~~
- ✘ ~~Integrated infrastructure~~
- ✘ ~~To be determined~~

DESCRIPTION

As digitalisation and optimisation of freight operations are extremely relevant in all industries, Tietoevry Create seeks to jointly enable cross-border freight optimisation cross Northern Europe through improved data sharing & digitised and automated processes between manufacturers, logistic operators and governmental operators (e.g., Customs, etc.).

Similar discussions are ongoing in the manufacturing industry among suppliers and manufacturers, but Tietoevry Create aims to unlock a far broader value chain that includes logistics. Data sharing could, for example, help predictability and optimisation of logistic routes, manufacturing timelines, shipments etc. Moreover, to enable discussions and co-operation between stakeholders, it would be beneficial to understand what kind of data and co-operation would benefit different organizations and their business.

KEY OUTCOMES

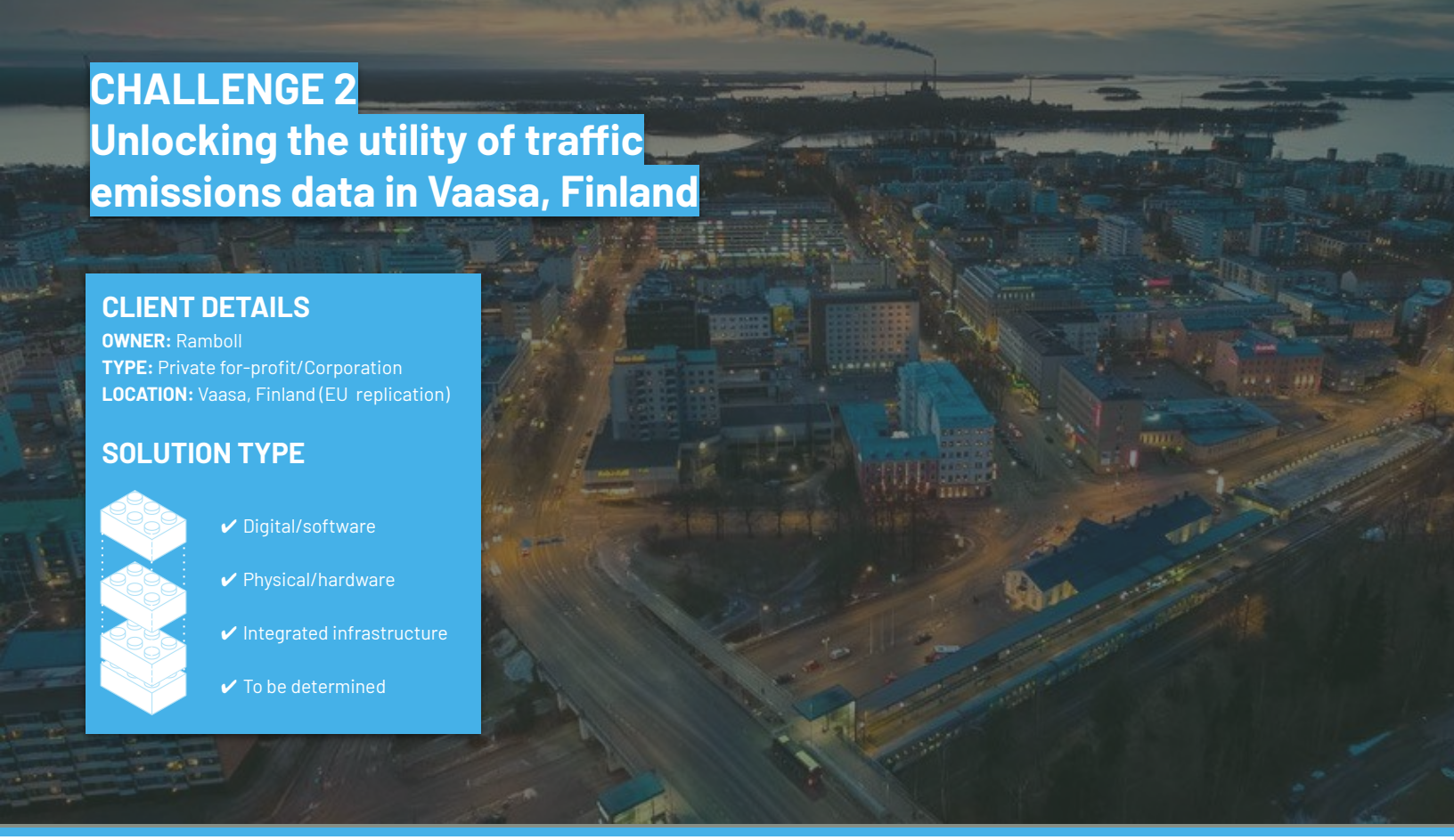
Key outcomes include 1) Clarifying the validity & potential of the challenge, 2) Clear use cases for data sharing, 3) Engagement strategy to start conversation and create a bridge between different stakeholders, and 4) Modeling potential feedback also from logistics to manufacturing industry.

CORE PROBLEMS

How might improved data sharing through whole manufacturing industry value chain (logistics, suppliers, manufacturers, governmental operators etc.) benefit different stakeholders across borders? What kind of data would be valuable for different stakeholders and businesses? What kind of possibilities there could be e.g. optimization of processes, predictability concerning cross-border logistics? Optional technical view: How might data sharing be established?

BARRIERS

Data sharing and data spaces require and similarly enables co-operation. It is critical to evaluate and understand the stakeholders players with whom to collaborate and engage.



CHALLENGE 2
Unlocking the utility of traffic emissions data in Vaasa, Finland

CLIENT DETAILS

OWNER: Ramboll
TYPE: Private for-profit/Corporation
LOCATION: Vaasa, Finland (EU replication)

SOLUTION TYPE

- ✔ Digital/software
- ✔ Physical/hardware
- ✔ Integrated infrastructure
- ✔ To be determined

DESCRIPTION

Reaching climate-neutrality in cities requires multiple actions, from low-emission energy for transport and low and zero emission vehicles as well as integrating digital mobility solutions, pricing, and promoting of multimodality into the system. The challenge for cities is to understand to what measures should they invest in and if the investments lead to the emission targets.

The City of Vaasa has developed a Traffic Emission Dashboard that combines strategic transport modelling with real-time traffic data for monitoring traffic-based emissions and variables affecting it in relation to the emission targets. It enables strategic level planning, where the comparison of different traffic and land use scenarios is possible with the help of scenario analysis. This Challenge aims to find new business around traffic emissions data, to further develop the Traffic Emission Dashboard in the City of Vaasa, and to scale the offering to other countries and cities as a joint offering.

KEY OUTCOMES

Ramboll seeks to turn real-time traffic data and strategic transport modelling into actionable, trusted decisions that reduce emissions. They also seek to achieve additional value on top of the existing Traffic Emission Dashboard solution in the City of Vaasa, solution deployability to cities, data and modelling quality, environmental impacts, ROI.

CORE PROBLEMS

1) Overcome the struggle to measure and attribute the impact of policies, 2) Solve replicability and portability of these solutions to other European cities with different data maturity, infrastructure, and policy contexts, 3) Harmonize heterogeneous data sources and align with EU standards/EMDS, 4) Advance emissions modelling by incorporating non-exhaust emissions, 5) Address privacy, ethics, and security while enabling data-sharing with private operators.

BARRIERS

Data availability and reliability, cybersecurity and data privacy issues, a lot of various solutions already available to tackle traffic emissions so how to differentiate and to prove direct ROI for clients.

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CHALLENGE 3
Future proofing Dubai's Al Maktoum Airport Expansion

CLIENT DETAILS

OWNER: Business Finland
TYPE: Public agency/Governmental entity
LOCATION: Dubai, UAE

SOLUTION TYPE

- ✔ Digital/software
- ✔ Physical/hardware
- ✔ Integrated infrastructure
- ✘ ~~To be determined~~

DESCRIPTION

The end customer is looking to build and future-proof world's largest airport using latest proven and emerging technologies. The vision is to make the Al Maktoum Airport the best and most advanced airport in the world, while managing between 400 gates and 5 runways. The airport will also serve as the center of the new green-field city development in Dubai South. An airport project at such scale will have numerous unique challenges and customer is looking for out-of-the-box, innovative and futuristic solutions.

KEY OUTCOMES

The client seeks to provide a smooth, agile and futuristic system for people and goods moving in and around the airport. Priority outcomes centers on 1) Developing innovative and unique solutions to the airport's unique problem, 2) Turn-key solutions that can be presented to a system integrator, EPC or an end customer, 3) Future proofing aligning with the 10-15 year construction period, 4) Scalability, starting with a small POC, then scale according to the stages of construction.

CORE PROBLEMS

The client seeks to solve for landside airport access that doesn't cause massive traffic jams, optimising movement of people and goods within such a massive airport. The client also seeks to ensure internal operations are optimised and cost effective (e.g. moving luggage, catering, goods on vehicles with different speed limits etc) as well as finding better ways to provide visibility for decision-making.

BARRIERS

The main barriers are international competition, small scale of companies in the offering, and the need for a local presence in the UAE.

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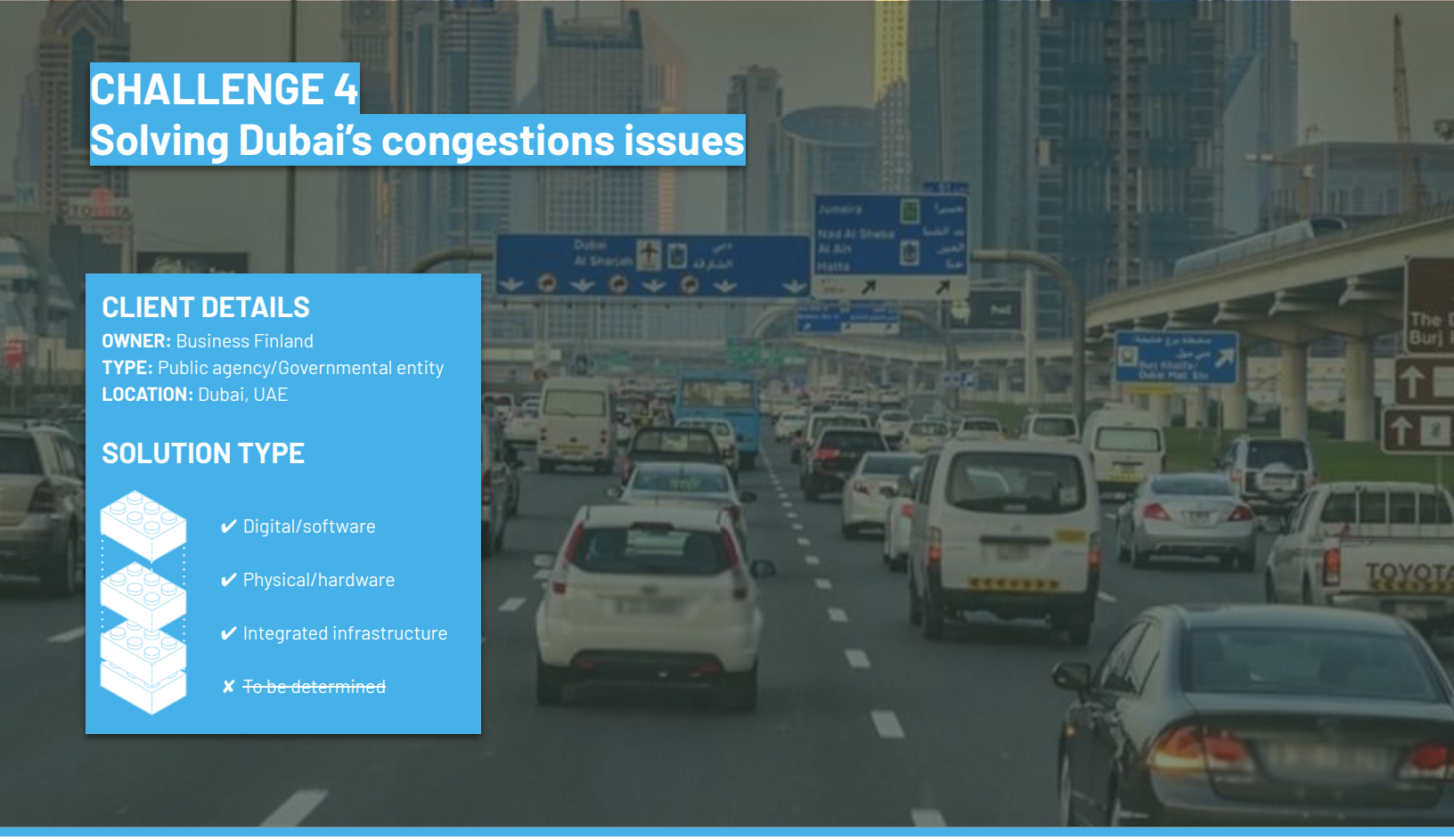

CHALLENGE 4
Solving Dubai's congestions issues

CLIENT DETAILS

OWNER: Business Finland
TYPE: Public agency/Governmental entity
LOCATION: Dubai, UAE

SOLUTION TYPE

- ✔ Digital/software
- ✔ Physical/hardware
- ✔ Integrated infrastructure
- ✘ ~~To be determined~~

DESCRIPTION

Traffic in Dubai is reaching a critical mass, Infrastructure alone isn't enough. While road projects, tolls, and metro expansions help, behavioral shifts, technology-enabled traffic management, and demand-side solutions are equally critical. Local governmental stakeholders are looking for innovative solutions to help ease the congestion on Dubai roads.

KEY OUTCOMES

The client seeks to improve the experience navigating Dubai, reducing congestion, but also elevating the journey experience. The client seeks a smooth, agile and futuristic traffic and mobility system for people and goods connecting across the city. Priority outcomes centers on 1) Developing innovative and unique solutions to the city's unique congestion and growth challenges, 2) Turn-key solutions that can be presented to a system integrator, EPC or an end customer, 3) Future proofing aligning with the 10-15 year construction period, 4) Scalability, starting with a small POC, then scaling as growth progresses.

CORE PROBLEMS

1) Traffic friction in Dubai is intensifying: With upward trends in vehicle ownership, population, and cross-emirate travel, congestion is not localized—it's systemic. 2) Human and economic tolls are mounting: Time lost, stress, and cost to the economy demand urgent, multi-pronged policy responses. 3) Public sentiment underscores urgency: When over nine in ten commuters publicly report worsening congestion, political and social license to act is strong.

BARRIERS

The main barriers are international competition, small scale of companies in the offering, and the need for a local presence in the UAE.

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CHALLENGE 5
Smart hubs on Rail Baltica infrastructure masts

CLIENT DETAILS

OWNER: Rail Baltic Estonia
TYPE: Public agency/Governmental entity
LOCATION: Estonian mainline of Rail Baltic

SOLUTION TYPE

- ✔ Digital/software
- ✔ Physical/hardware
- ✔ Integrated infrastructure
- ✘ ~~To be determined~~

DESCRIPTION

Rail Baltic seeks to combine essential railway communication systems with new opportunities for data-driven intelligent transport services (ITS) and commercial use. As part of Rail Baltica's construction in Estonia, three parallel cable ducts will be built from Tallinn to the Latvian border (Ikla). Two ducts are dedicated to the railway's core command, control, and safety systems (CCS), while the third duct (with 7 sub-channels) is reserved for potential commercial use. In addition, around 70 masts will be installed along the railway corridor to support railway communication and signalling.

The project investigates how these masts and ducts could serve as "smart hubs" — providing space for mobile base stations, data collection sensors, and other digital infrastructure. This creates opportunities to partner with the private sector to lower operating costs and generate additional revenue streams, while simultaneously contributing to Estonia's broader digitalisation and smart mobility goals.

KEY OUTCOMES

Success is measured not only by cost savings for Rail Baltica, but also by the ability to generate sustainable revenues, accelerate digitalisation, and deliver wider societal and environmental benefits. Outcomes include 1) Dual-use infrastructure model, 2) Public-private cooperation, 3) Enhanced digital connectivity, 4) Revenue generation, 5) Support for smart mobility and sustainability goals, and 6) Regional economic impact

CORE PROBLEMS

The key challenge is how to transform essential railway infrastructure into multi-purpose smart hubs, while using PPP approaches to lower CAPEX and OPEX, attract private sector involvement, and accelerate the roll-out of digital , green and smart mobility services.

BARRIERS

The main barriers are regulatory safety rules, market uncertainty, and the need to design a workable PPP model that aligns public and private incentives while ensuring interoperability across borders.

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