

Updated edition ●

VAMOS VISIONS

In today's rapidly evolving world, where urbanization, technological advancements, and sustainability are at the forefront of our collective consciousness, the way we move ourselves is profoundly transforming. At the VAMOS ecosystem, our members join forces to co-innovate and implement practical solutions for moving people and things with better experience and efficiency. This work is part of a series that communicates our vision of how autonomous mobility and smart spaces can help us achieve such a goal in 2030.

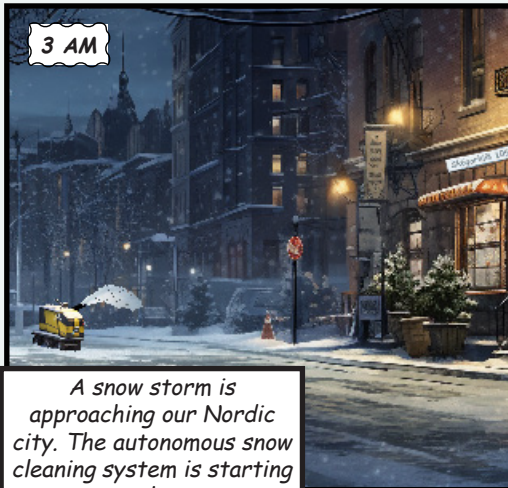
Cities will grow bigger and be affected by extreme weather conditions due to the acceleration in the global population and climate change in 2030. This time, we present three vision stories narrating the daily lives of people in cities worldwide, specifically in the Nordics, North America, and Asia. By utilizing different autonomous fleets and smart infrastructure to tackle such future challenges, cities will function more efficiently while ensuring better safety and convenience for our lives.

In this updated edition, we outline how the companies in VAMOS ecosystem can significantly contribute to the future narrative with their expertise.



AUTONOMOUS INFRASTRUCTURE IN THE NORDICS

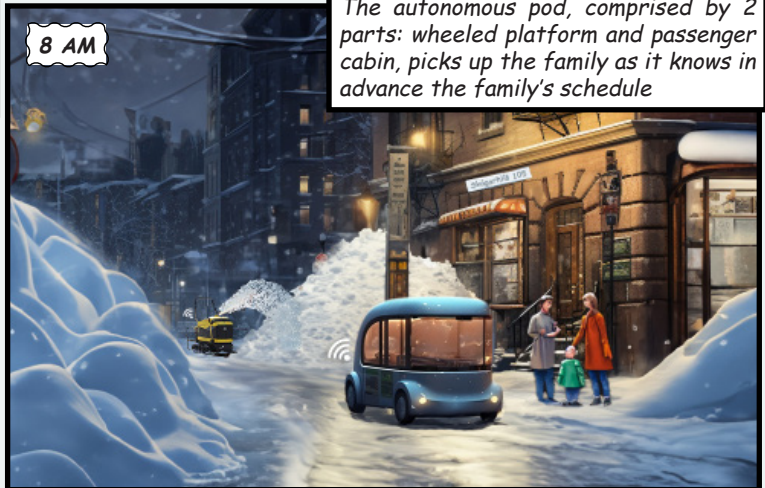
Efficiency



A snow storm is approaching our Nordic city. The autonomous snow cleaning system is starting to roam the street.



The road remains usable despite the snow storm, thanks to the proactive autonomous snow cleaning system



The autonomous pod, comprised by 2 parts: wheeled platform and passenger cabin, picks up the family as it knows in advance the family's schedule



The marshalling system ensures a smooth and safe traffic flow. The autonomous pod drops off the kid here at school.



The autonomous pod continues its journey and drops off the parents at a metro station



The wheeled platform is now equipped with a cargo space. The same autonomous pod continues to perform other functions such as delivery.

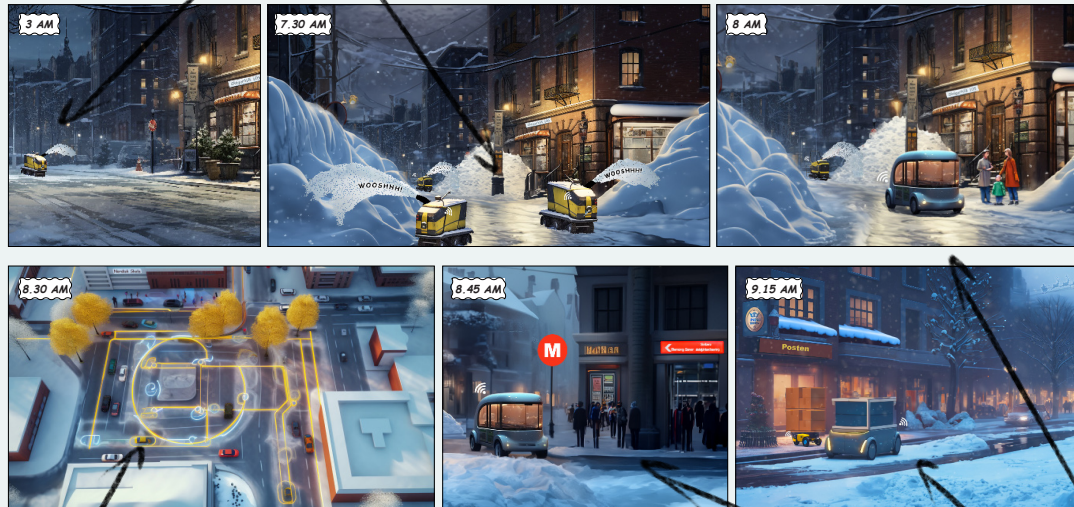
HOW CAN VAMOS ENABLE TO THE AUTONOMOUS INFRASTRUCTURE IN THE NORDICS?



GIM Robotics provides the navigation tech stack for the snow blowers



VTT & Lapland University of Applied Sciences pursue research with others to enable the advancement of autonomous mobility solutions



part of Hexagon

Immersal conducts visual mapping of the city to enable autonomous mobility

A weather or micro-weather service for road company enables provide real time information and prediction



Unikie provides the marshalling system that controls the autonomous vehicles and machines to avoid collision between them and also with human



Murata supplies acceleration sensors for all autonomous machines and vehicles



Remoted conducts the remote operation of the autonomous fleet

Safety

PREVENTIVE SYSTEM FOR EXTREME NATURAL EVENTS

Above a downtown in California, an autonomous drone fleet is monitoring the environment in the forest fire season



Extreme fire broke out and spreads towards the city due to extreme dry weather. The autonomous drone fleet locates the focal points of fire.



The autonomous firefighting forwarder works autonomously with the autonomous drone fleet to tackle the fire and support the firefighters



The autonomous platform fills the forwarder's replacement tank with the help of the autonomous drone fleet to locate the closest water source



The fire has been stopped. The autonomous drone fleet continues to monitor the situation.



The fire-proof extinguisher robots tackle the fire in the front line. Hence, this reduces the risk for firefighters.



HOW CAN VAMOS ENABLE THE PREVENTIVE SYSTEM FOR EXTREME NATURAL EVENTS?

collaborate

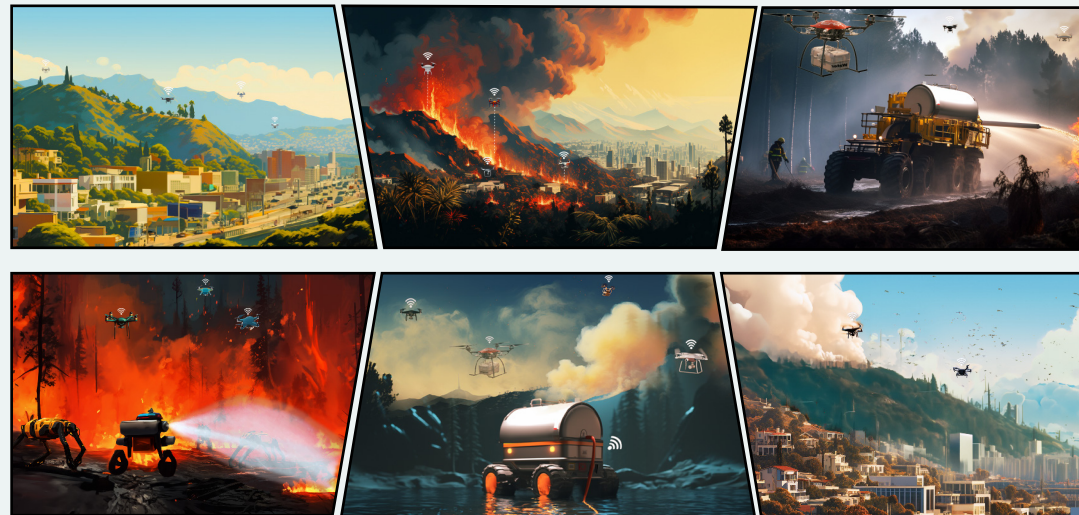
An AI-service company provides computer vision solutions to accurately detect early sign forest fire



Deal Comp supplies the on-board hardware that holds the computational power of the autonomous fleet

collaborate

An autonomous drone company supplies the drones capable of real-time monitoring



An autonomous OEM provides heavy industrial machines such as the autonomous firefighting platforms and robots



National Land Survey of Finland provides accurate mapping of the area that allows remote navigation of the autonomous fleet



Nordic Inertial develops the navigation algorithm that allows the autonomous fleet to accurately navigate in GNSS-shadowed area like forest

PREDICTIVE AUTONOMOUS DELIVERY FLEET

Convenience



In an Asian megacity, much of the deliveries are done with autonomous fleets



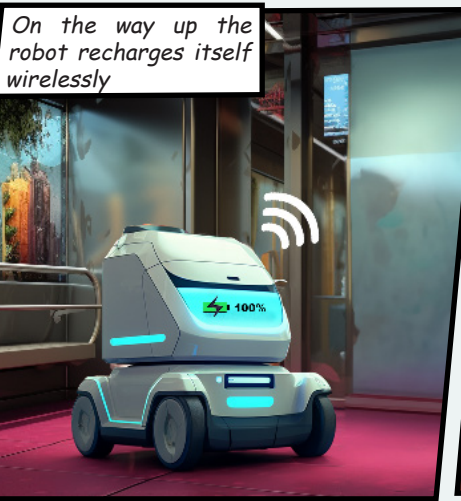
Ms. Hoa is checking her delivery schedule created by AI-delivery service based on her consumption behaviour



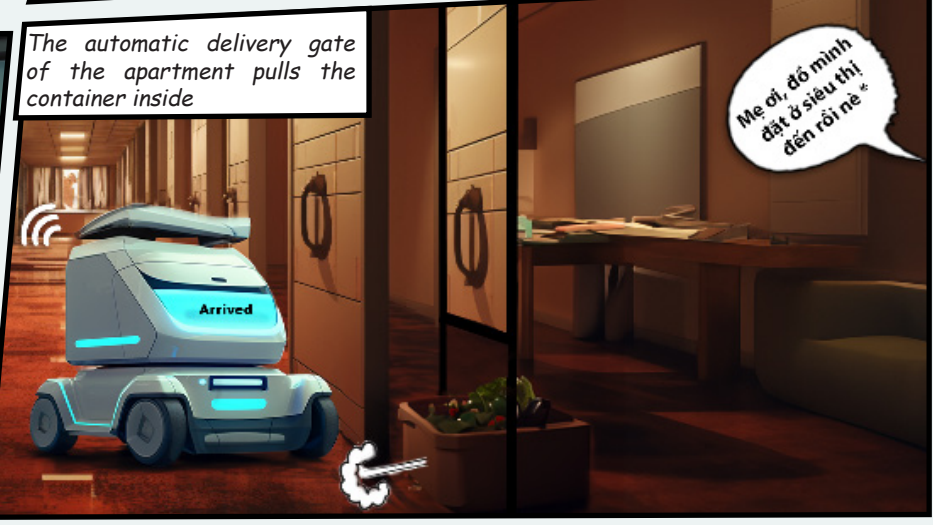
The autonomous delivery robot picks up her order and starts heading towards her apartment



The robot communicates with the access management of the building to enter and order the elevator



On the way up the robot recharges itself wirelessly



The automatic delivery gate of the apartment pulls the container inside

Mẹ ơi, đồ mình đặt ở siêu thị đến rồi nè *

*English translation: "Mom, our grocery has arrived"

HOW CAN VAMOS ENABLE THE PREDICTIVE AUTONOMOUS DELIVERY FLEET IN FUTURE MEGACITIES?

ceterio

Ceterio supplies and maintains the autonomous delivery robot fleet



LINK Design develops the service and business model as well as the application for the end users.

An elevator company supplies elevator and its API that allows smooth flow of people and autonomous machines



An smart building company operates and maintains a seamless connection and integrated communication between smart/autonomous machines and the building

ABLOY

Abloy provides the access management solutions that allow seamless connection between autonomous fleet and future smart building



KEMPOWER



PLUGIT

Kempower and Plugit provide wireless charging solutions integrated with the building

Are you interested in the future of autonomous mobility in smart spaces?
Keep an eye on our channels. More stories are coming.



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www vamorecosystem.fi



VAMOS Ecosystem for Autonomous Mobility in Smart Spaces

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