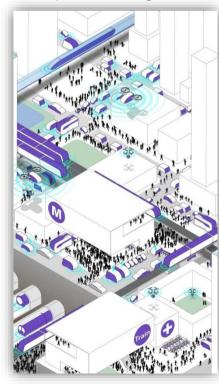
2035 Future Mobility Scenarios – What do we see?



Change will happen predominantly in urban areas, where pollution, congestion, lack of space and broad income-spread, cause high mobility challenges!

Based on today's mobility mix and overarching themes, we identified five different types of urban areas.

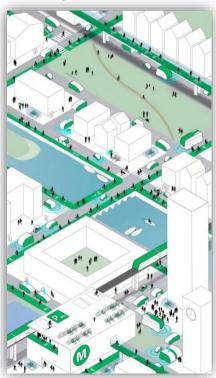
Mass Transit "Best in class" mass transport offering



Individual Transport Enhanced driving and riding experience



Low Speed Human machine mixing mobility habitat



Diverse Hyper-seamless mobility



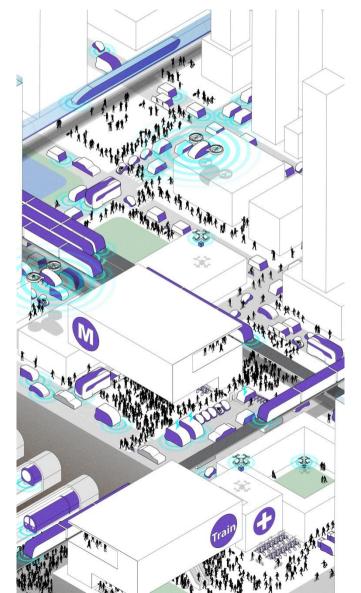
Underdeveloped

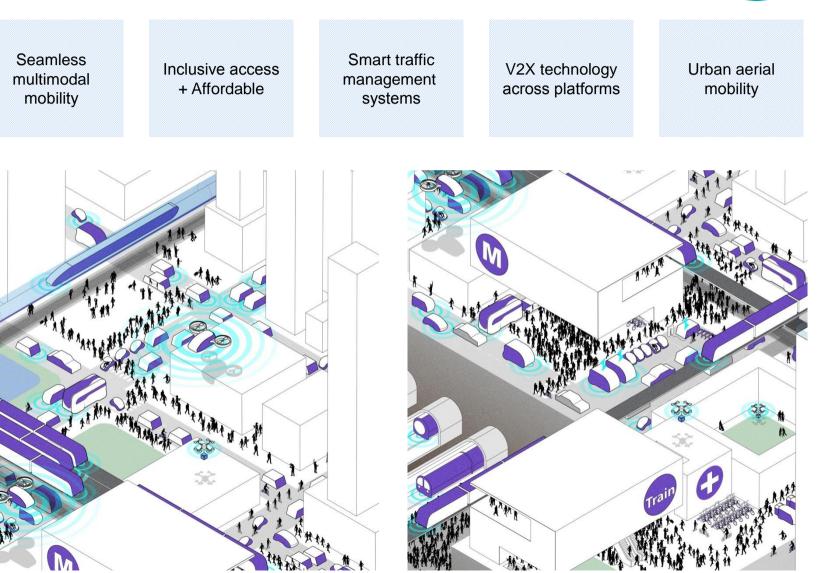
Affordable & accessible mobility



Mass Transit Urban Area Themes

Hong Kong - Tokyo - Singapore





covestro

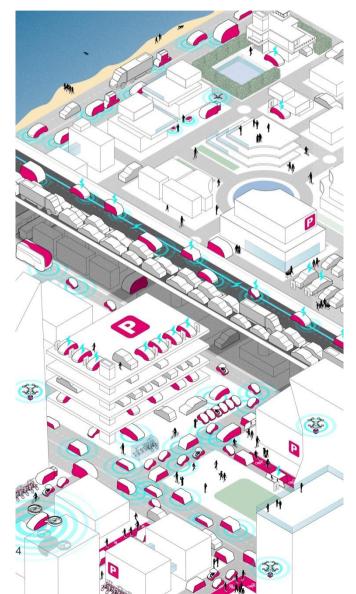
Mass Transit Urban Area Overview

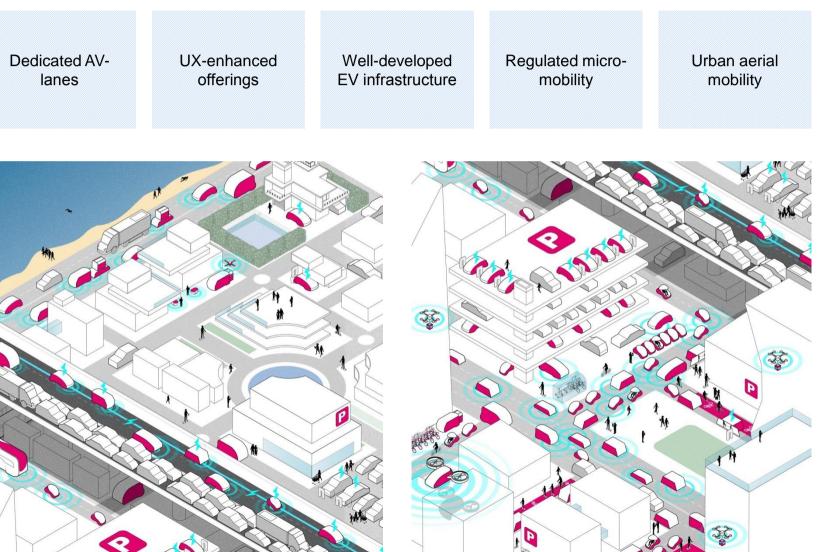
Theme of 2035: "Best in class" mass transport offering

- Mass transportation remains the dominant offering. Quality of travel will be improved with upgraded trains and services.
- Shared mobility and autonomous driving will supplement existing mass transportation to guarantee a seamless journey.
- 5G, Big Data, IoT and AI will improve transportation travel speed and reliability. Such technology will also improve the transportation dispatch system by reducing transport delays and in-station waiting time.

Individual Transport Urban Area Themes

Los Angeles - Birmingham - Dubai





covestro

Individual Transport Urban Area Overview

X

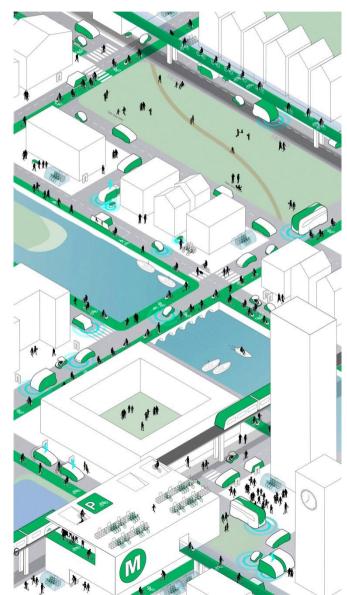
6

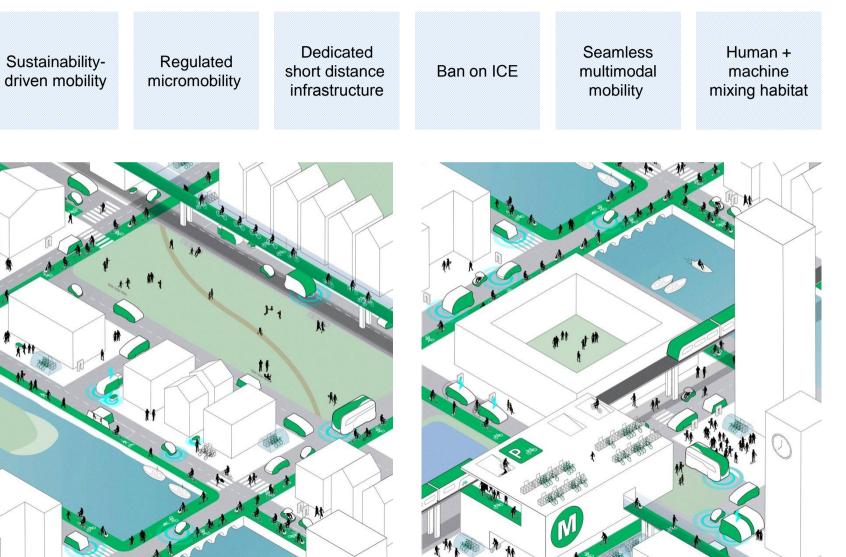
Theme of 2035: Enhanced driving and riding experience

- Strict government policy and commitment to sustainability will encourage greener travel and increase clean energy vehicle usage.
- Autonomous driving and AI technology will increase drivers' freedom and diversify in-car activities. 5G, Big Data, IoT and AI will increase car utilization rates, and reduce the number of cars on the road and thereby reduce congestion.
- New micromobility offerings will be available as an alternative solution in downtown areas.
- Ownership is a culture, but shift to electric vehicles will reduce air pollution and environmental noise from road traffic.

Low Speed Urban Area Themes

Amsterdam – Paris - Copenhagen





covestro

Low Speed Urban Area Overview

Theme of 2035: Human machine mixing mobility habitat

N

M

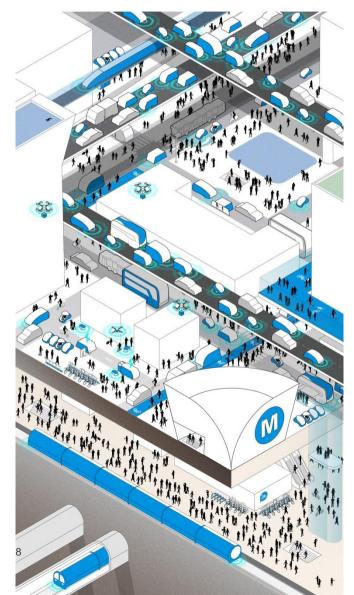
Infrastructure and technology will be built to balance the co-existence of humans and machines in the mobility environment where seamlessness is an option.

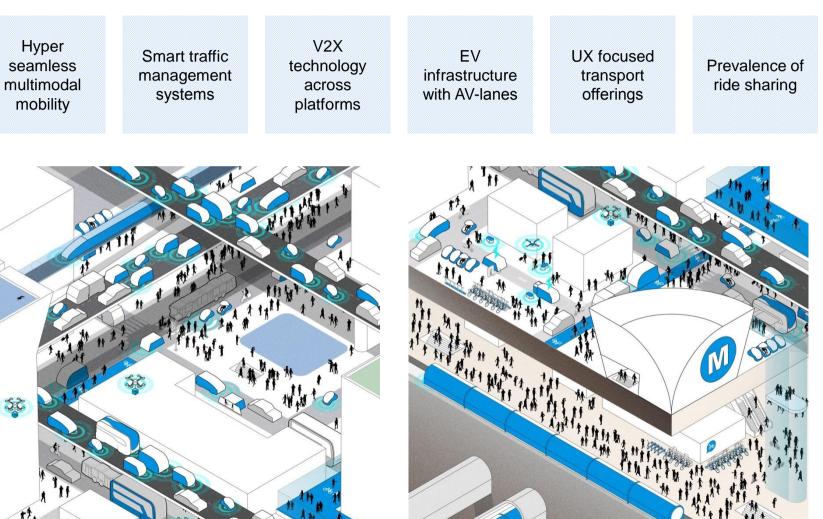
大户

- Automated vehicle technology will expand mobility offerings, making them more inclusive and less costly (especially for logistics).
- 5G, Big Data, IoT and AI will make cycling a better and safer experience for all road users by enabling efficient communication between cyclists and other mobility offerings.
- Al-related technologies will create virtual concierge services to assist vulnerable citizens in their mobility journey (in-vehicle, payment, at-terminal, etc.).

Diverse Urban Area Themes

Shanghai – Berlin - New York







Diverse Urban Areas Overview

Theme of 2035: Hyper-seamless mobility

- 5G, AI, Big Data and IoT will significantly support the development of hyper-seamless multi-modal mobility where transport and infrastructure systems will be constantly communicating with each other.
- Shared mobility will be the norm and solidly part of the seamless mobility offering.

Rest 7

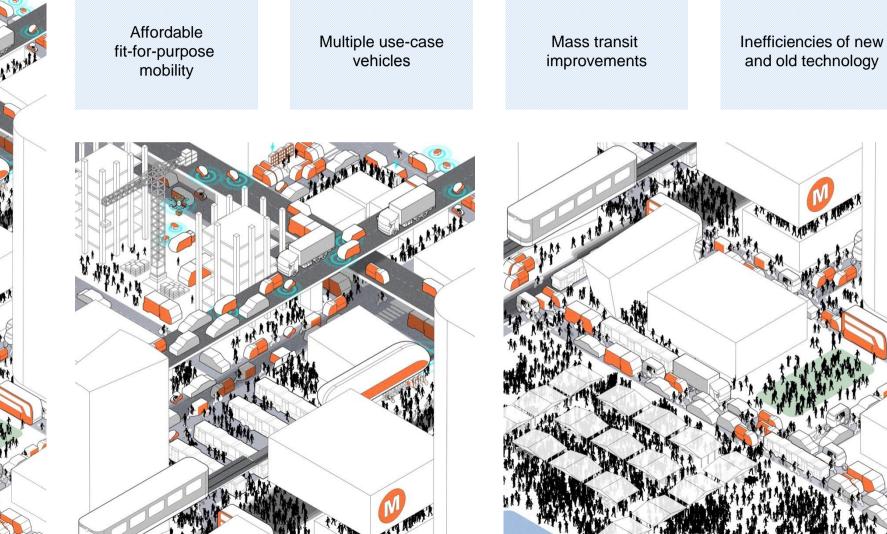
- Private ownership of vehicles will be governmentally controlled, improving traffic congestion and reducing noise and air pollution.
- Mobility as a Service (MaaS) will result in travelers expecting efficiency, choice and affordability.



Underdeveloped Urban Area Themes

Bangalore – Delhi - Johannesburg







Underdeveloped Urban Area Overview

Theme of 2035: Affordable & accessible mobility

 Fourth Industrial Revolution (4IR) technologies will help governments and private institutions provide more affordable transport solutions. AN STAR. SA.

S. 1

No.

Thill

10

6.

- MAN

M

- Due to the complexity of mobility needs in nderdeveloped areas, the mobility system will still have its inefficiencies and the push for more sustainable mobility solutions will be heavily reliant on government support.
- 2-3 wheelers will remain heavily present as an effective means to navigate the busy streets.
- Underdeveloped areas are at a cross-roads into improved future or chaotic status quo.



Want to know more about the future of mobility? Contact our experts!

Jane Kwok (APAC)

Jane.Kwok@covestro.com

Dirk Kurzidim (Europe) Dirk.Kurzidim@covestro.com

Varun Malpani (Americas)

Varun.Malpani@covestro.com



Forward-looking statements

This presentation may contain forward-looking statements based on current assumptions and forecasts made by Covestro AG.

Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. These factors include those discussed in Covestro's public reports, which are available on the Covestro website at <u>www.covestro.com</u>.

The company assumes no liability whatsoever to update these forward-looking statements or to adjust them to future events or developments.