AETHER

/ The Opportunities and Challenges of Designing Autonomous Vehicles

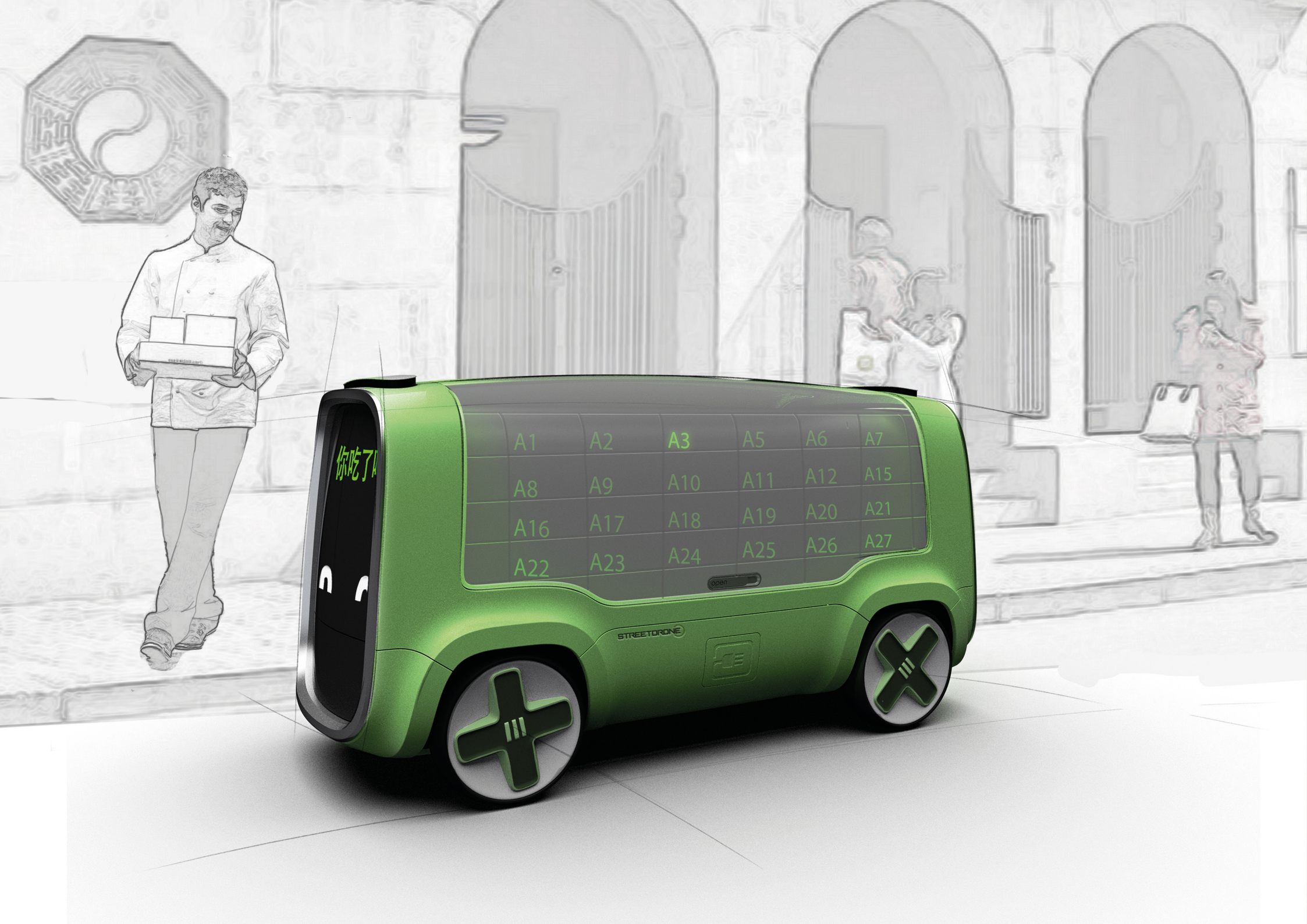
“It’s been a long and tiring week, you’ve had your favourite meal with a glass of red wine and settled down to watch a film with a loved one, and dosed off to sleep” - now imagine waking up to the sound of waves crashing on the beach or to the scent of mountain air, an autonomous leisure vehicle could take you there as you relax and sleep in safety and comfort.

SNOOZE
SNOOZE

/ Other opportunities

This is just one example from a huge variety of opportunities that autonomous vehicles could bring, other opportunities include logistics, commercial, agriculture, mining and daily commutes.

There will also be a multitude of unforeseen opportunities as autonomous vehicles will enable our lives to become more mobile, because you can get on with your life as you travel.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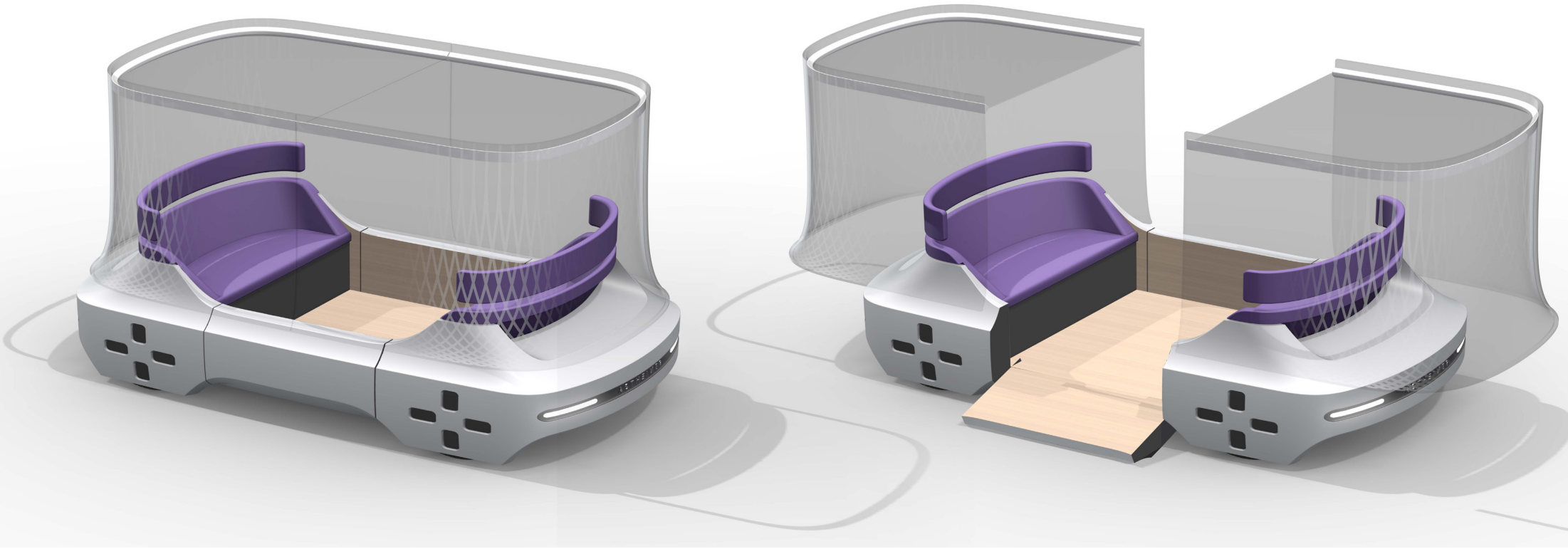

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/ There is a lot of uncertainty surrounding autonomy

How do we identify the opportunities and overcome the challenges, and most importantly WHY should we invest time, money and a huge amount of manpower into the research to make autonomy work, is this really what we want and need?

“technology should be used like medicine – where it is needed”

There is a lot of uncertainty surrounding autonomy, how long will it take to develop a sure proof technology? How will the autonomous cars interact with normal cars? Could the vehicles get hacked? How do we deal with car sickness? And how will people feel about having limited control over the vehicle, there is the fundamental issue of trust that we will have to get over, and get used to.

What is certain is that the automotive industry is facing its biggest crossroads in the last 100 years, and is in the midst of a perfect storm of change caused by a number of factors: a trend towards urbanisation, inner city pollution, congestion, parking restrictions, urban redevelopment and legislation restrictions, and this is backed by changing consumer preferences as they become environmentally more aware, and have less of an apetite to own vehicles. There is also a maturation of technologies to enable autonomy, although there is still a way to go before the technology, infrastructure and legislation are at an implementation level.

/ There is a lot of uncertainty surrounding autonomy

The Automobile has brought incredible change for the good to our society, with the increased capability of mobility. This increase in mobility has been a direct catalyst for social mobility.

Autonomous vehicles will allow the luxury of personal mobility, but can integrate much better with public transport systems, and have the capability to resolve the pain points on our current transport system, reducing congestion, pollution and parking through shared ownership. I believe if autonomy is embraced and integrated where needed, it can stimulate another mobility revolution, and in turn another social mobility revolution.

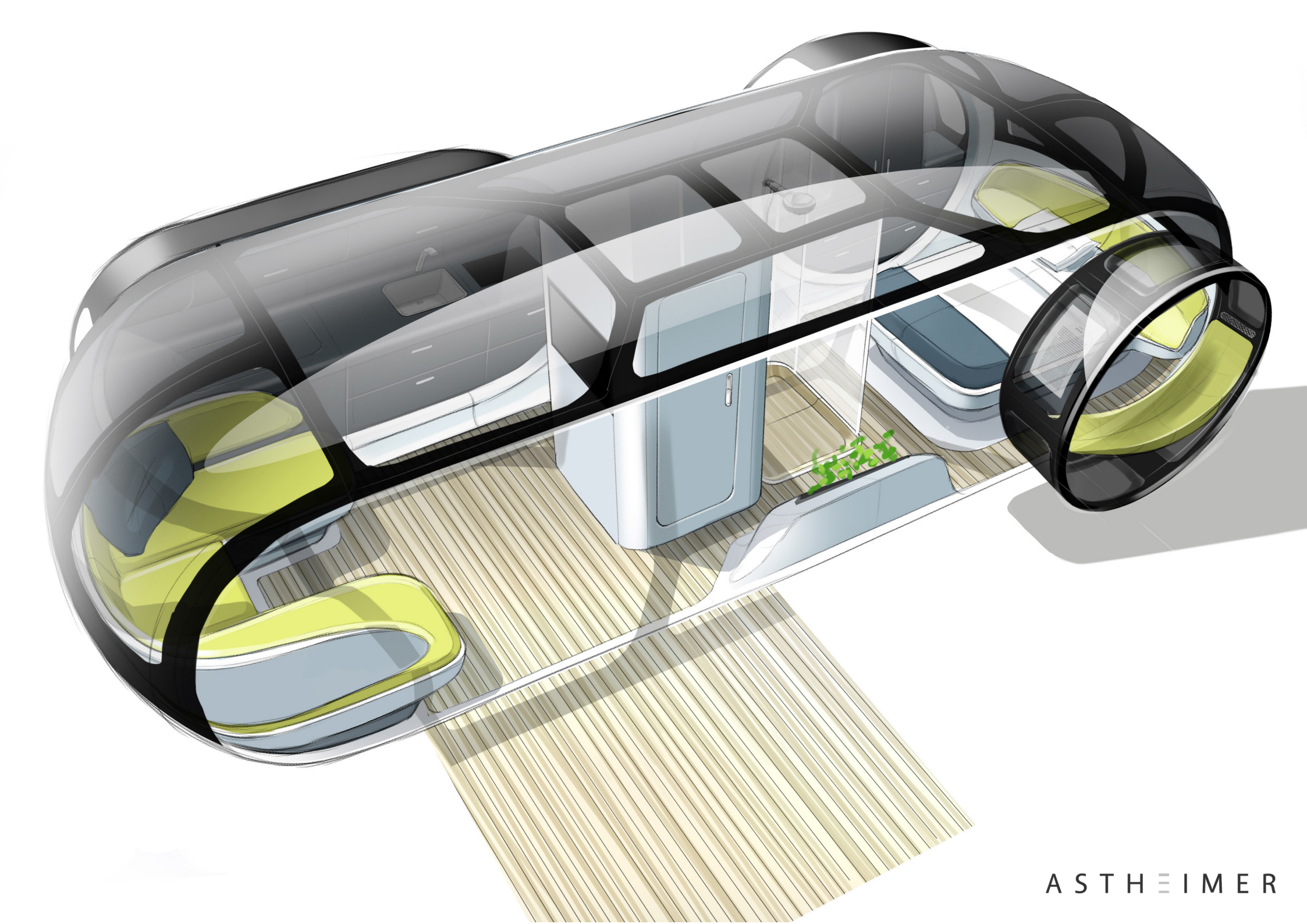
To determine what the opportunities could be, the designer needs to work in a cross functional team to understand the social, economic, political and technological factors that will create the future context for these vehicles. The designer must then work within this future context, to conceptualise and develop experiences in a human centric design process, and then it is up to the skills of the designer to conceptualise and execute the products of the future that are relevant, unique and desirable, in terms of costs, aesthetics, functions and ergonomics to ensure the successful adoption of these products.

At Astheimer design we have, and are working on a number of different solutions of autonomous vehicles, for different use cases, in the leisure industry, for logistics and for executive travel.

/ Collaboration and Imagination

Although the full implementation of autonomous vehicles is still at least a decade away, there needs to be cross disciplinary collaboration between technologists, designers and engineers, legislators, urban and financial planners to look into the different possible future scenarios, to be able to plan out a roadmap of autonomous implementation.

We need to push the boundaries of our imagination to create a better transport system, which will improve our lives, resolve some of the mounting issues we are now facing and open up the multiple unseen opportunities that autonomy could bring.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