



Hello.

AUGMENTED INTELLIGENCE: AFFECTING EMOTIONS IN MOBILITY

IDEO



DANNY STILLION - IDEO PARTNER & EXECUTIVE DESIGN DIRECTOR
www.ideo.com/automobility

AFFECTIVA EMOTION AND AI EVENT
October, 2019



IDEO IS A GLOBAL DESIGN COMPANY. WE CREATE IMPACT THROUGH DESIGN.

EMPLOYEES

700+

LOCATIONS

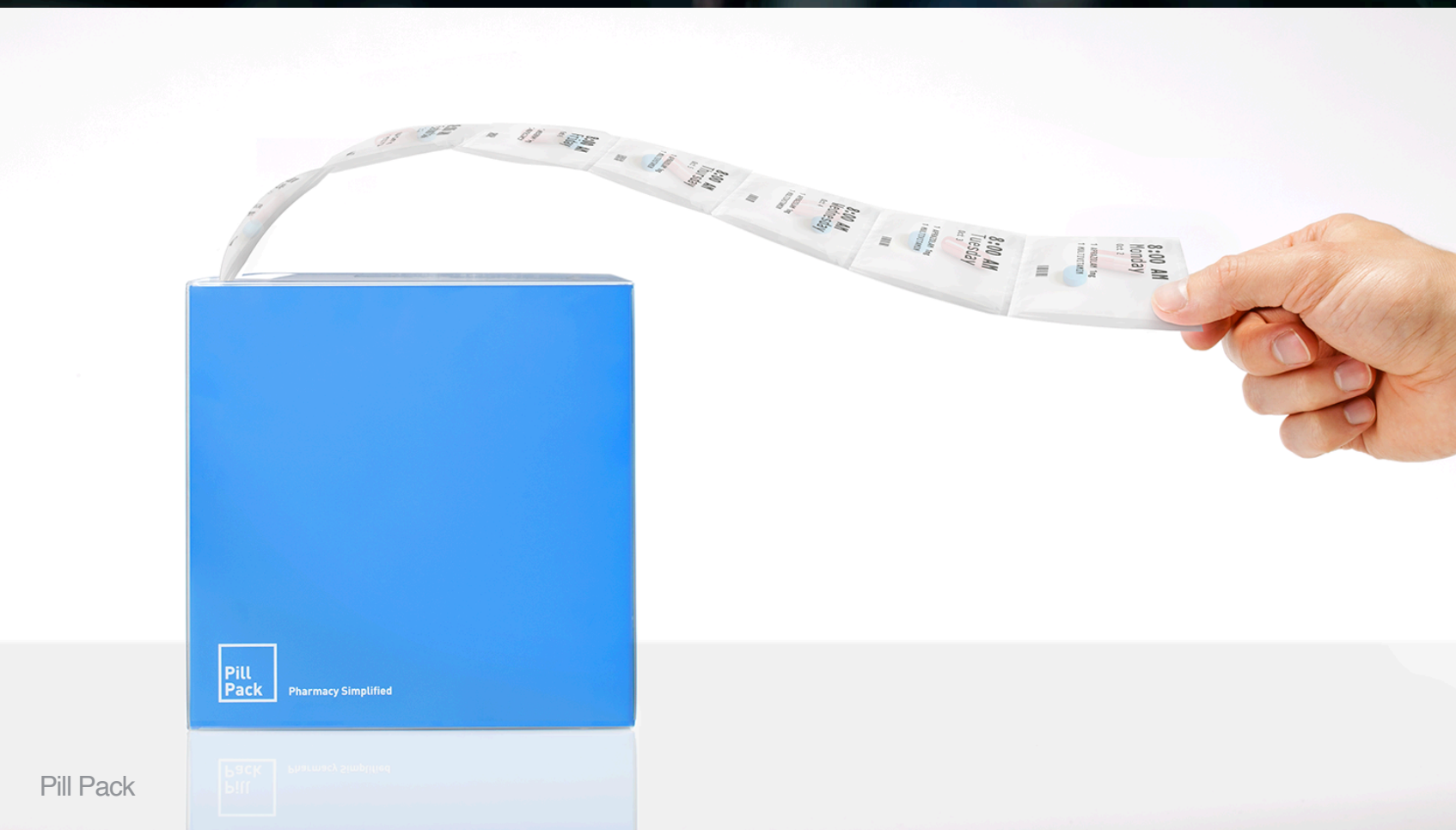
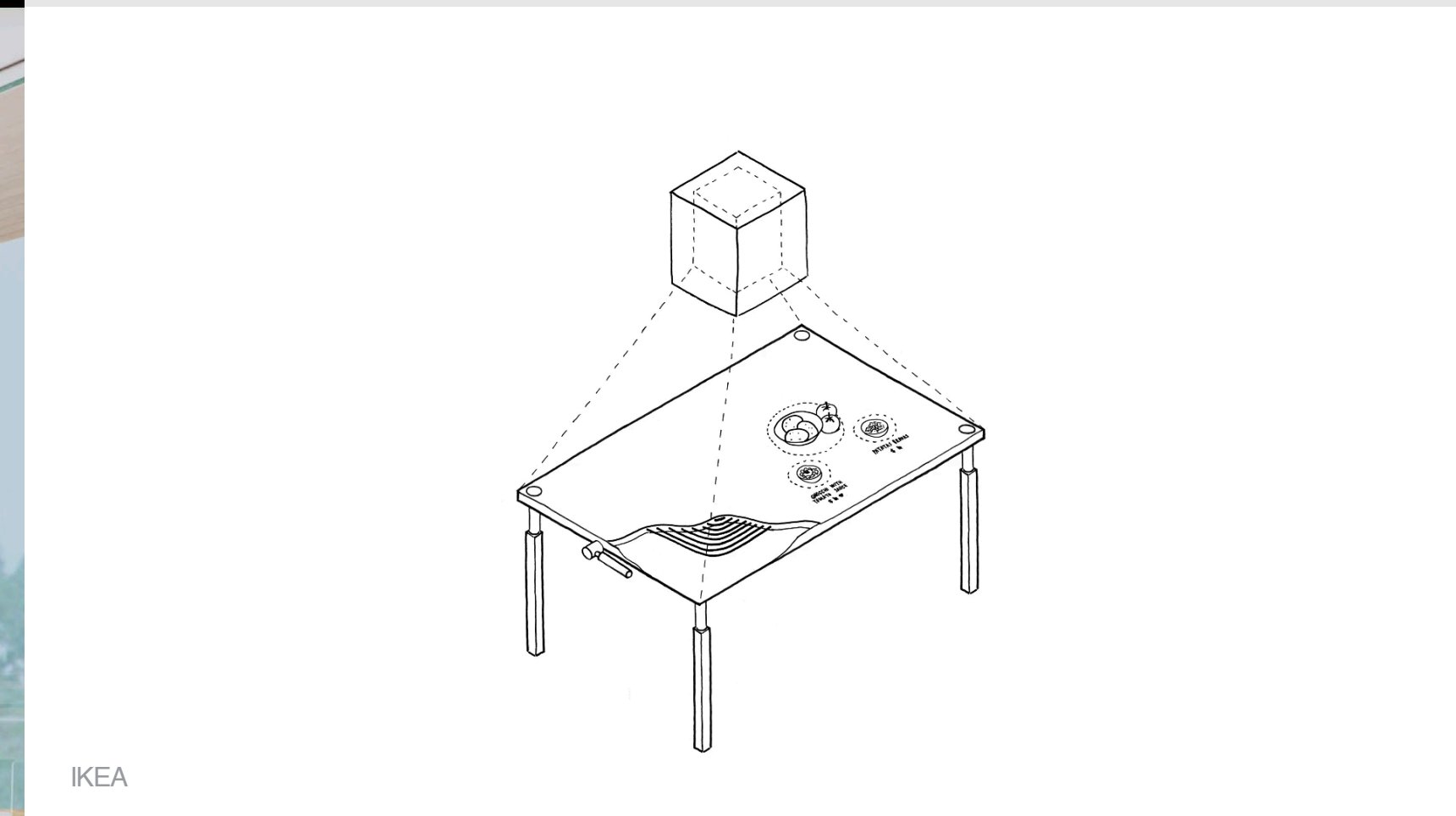
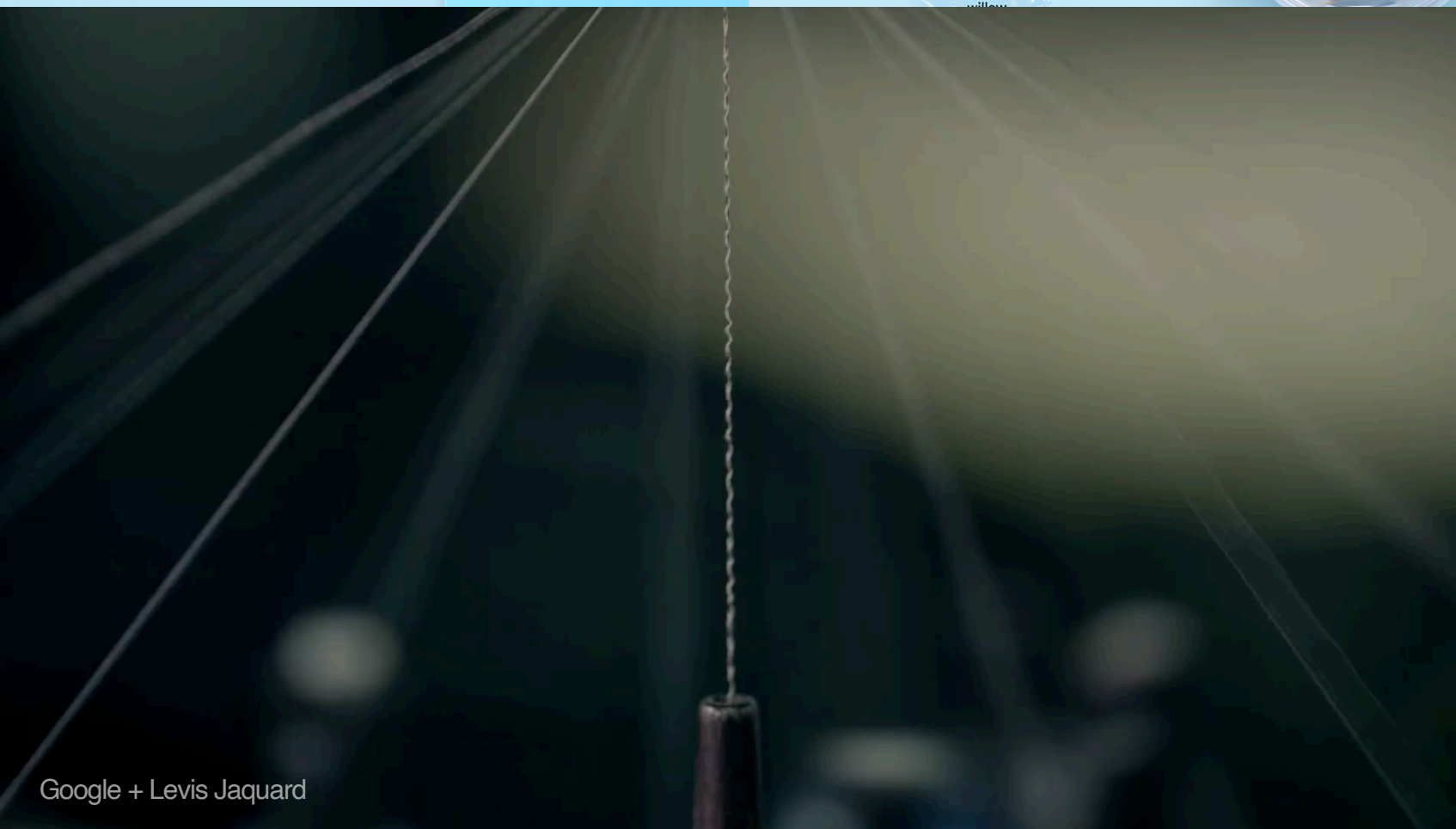
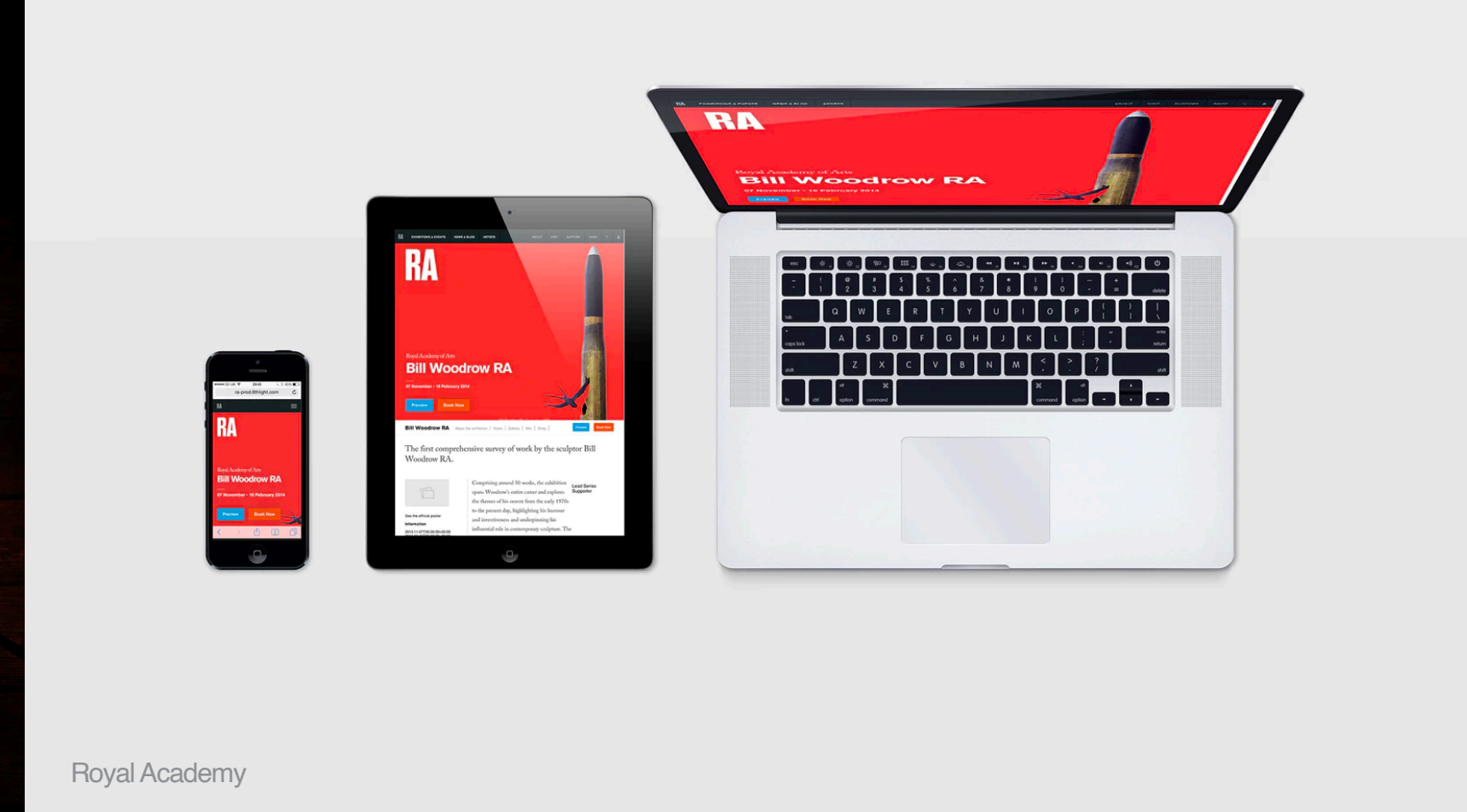
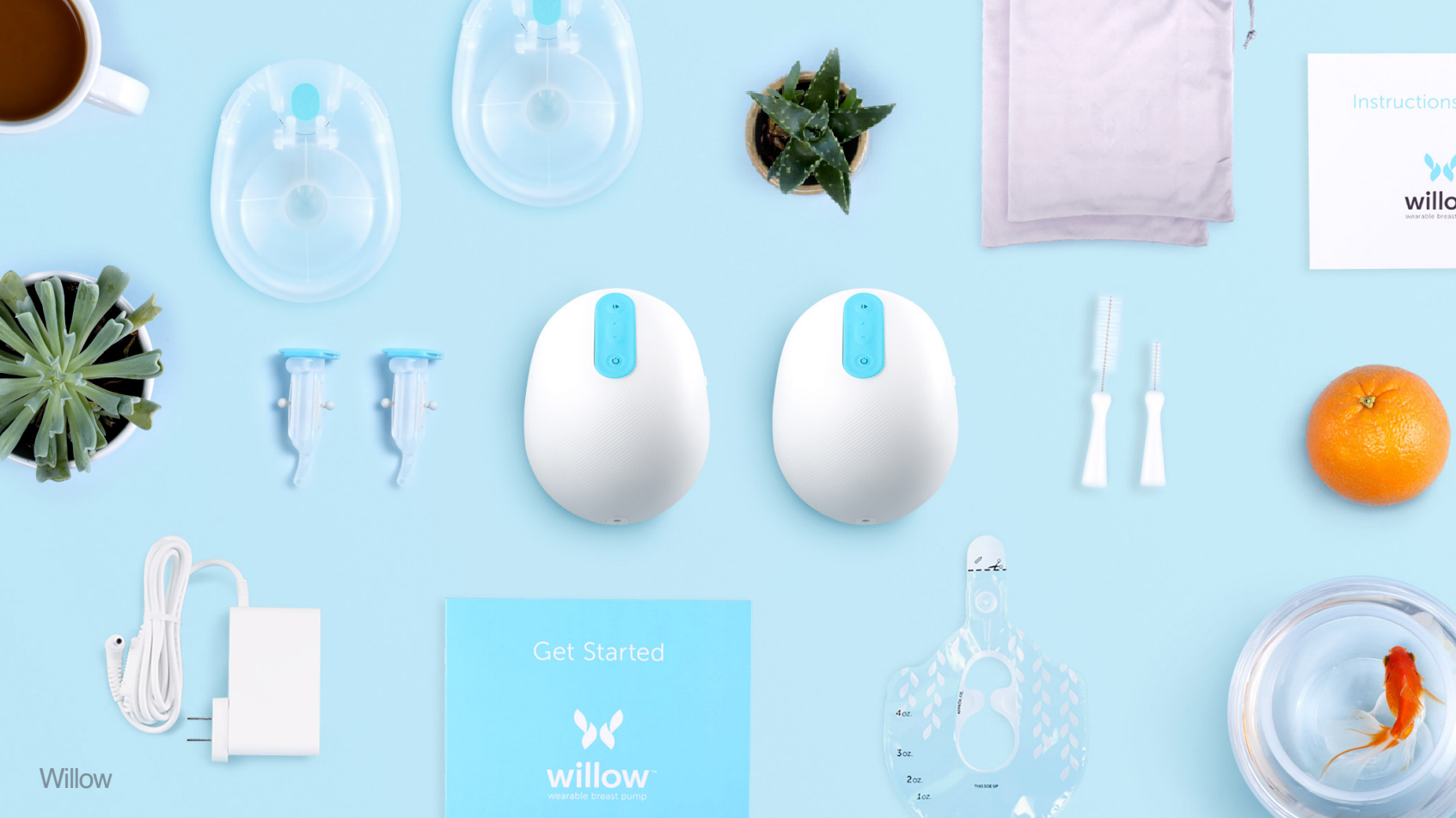
9

DESIGN CAPABILITIES

23+

ESTABLISHED

1991





IDEO Future of Automobility



BMW MMI



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Hyundai Health + Mobility



Air New Zealand SkyCouch



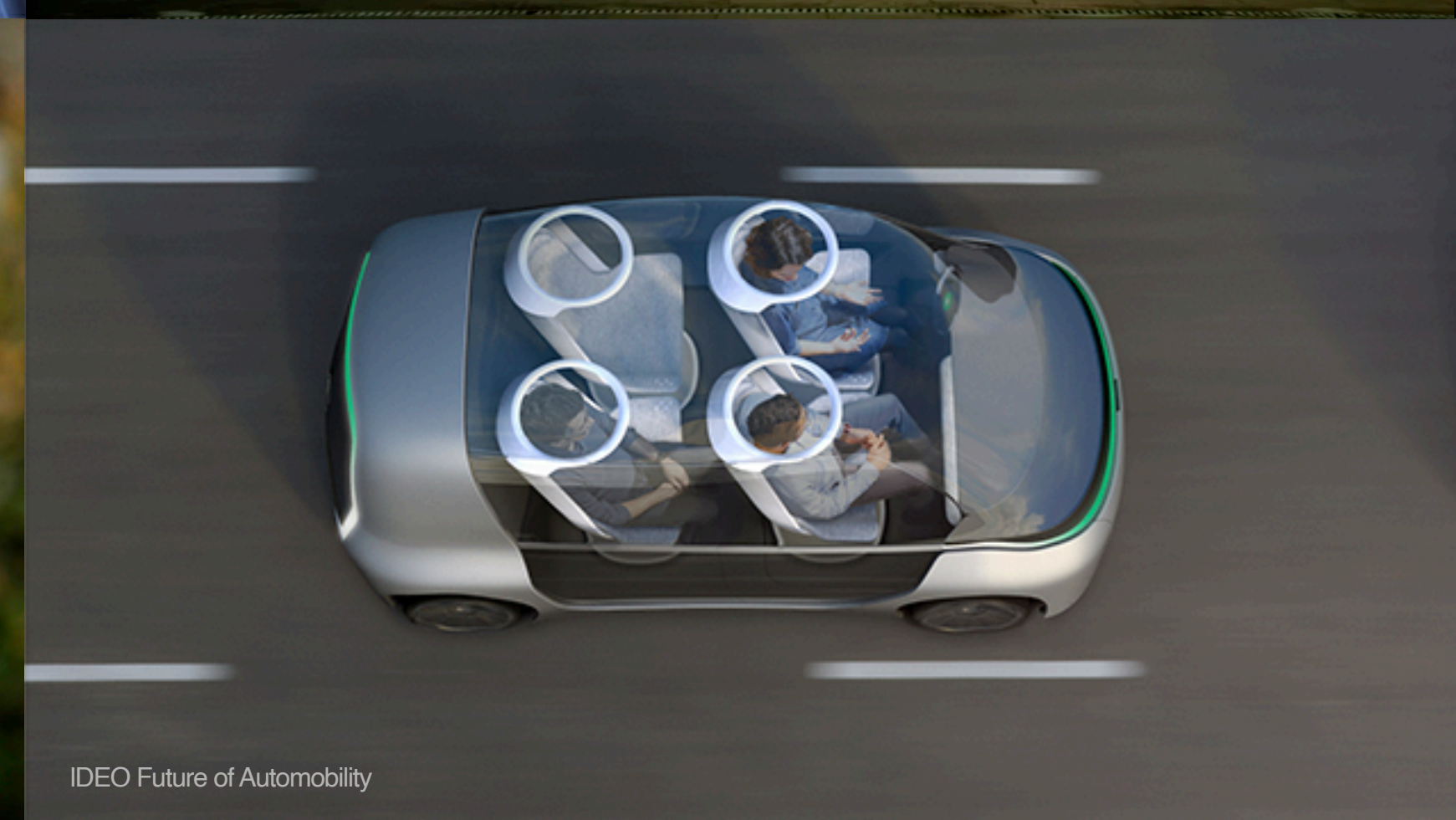
Lincoln Lighting



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MyFord Mobile



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WHAT WE BELIEVE ABOUT DATA AND AUGMENTED INTELLIGENCE.

Foundational beliefs that guide our exploration of human
centered design for augmented intelligence.

DATA IS NOT TRUTH.

All data is created by humans, and unpacking how humanity is present within and around data is essential to understand it and how it can best serve our needs.

DON'T PRESUME THE DESIRABILITY OF AI.

Just because AI can do something doesn't mean that it should.
Exploring how human needs intersect with agency when AI
augments human intelligence is an essential and never-ending
process towards achieving creative excellence.

RESPECT PRIVACY AND THE COLLECTIVE GOOD.

We should consider and design the governance of the use of data for new purposes and ensure that people understand how their data will be used.

UNINTENDED CONSEQUENCES OF AI ARE OPPORTUNITIES FOR DESIGN.

Just like all of our designs, we know that we're not going to get it right the first time. Use the unearthed unknowns and the newly discovered consequences as a starting point for iteration and opportunity.

HOW MIGHT WE USE AUGMENTED INTELLIGENCE TO AFFECT EMOTIONS ASSOCIATED WITH MOBILITY?

How do we want mobility to feel in the coming age of
automobility?

1 | LIBERATING

"I will build a motor car for the great multitude...so low in price that no man making a good salary will be unable to own one-and enjoy with his family the blessing of hours of pleasure in God's great open spaces."

- Henry Ford -





MOBILITY ASPIRATIONS: FREEDOM OF MOVEMENT | DISCOVERY | EXHILARATION | UPWARD MOBILITY



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Image: IDEO - Future of Automobility

AI AFFECTING EMOTIONS VIA: RECOVERY OF TIME | CONTINUOUS CONNECTIVITY | AUTONOMOUS SAFETY



Image: IDEO - Future of Automobility

AI AFFECTING EMOTIONS VIA: BRIDGING CONTEXTS & EXTENDING EXPERIENCES | SHARED MOBILITY EXPERIENCES



2 | POWERFUL > EMPOWERING

“Our goal was to be the first manufacturer ever to reach the magic 300-mile-per-hour mark. We have shown several times that we build the fastest cars in the world. In future we will focus on other areas.”

- Stephan Winkelmann, President of Bugatti -

A close-up, high-angle view of a Bugatti W16 engine. The engine is predominantly black with red accents on the valve covers. The valve covers feature the Bugatti logo and text: 'W16' and '1500' on the left, and '1500' and 'EB' on the right. The engine is set against a dark, textured background.

W16 8.0 LITER
1,500 HP
1,600 NM

Image: Bugatti W16 Engine

I.C.E. AGE MASTERY: ADVANCED METALLURGY | HEAT AND FRICTION MANAGEMENT | COMBUSTION EFFICIENCY | FLUID MANAGEMENT

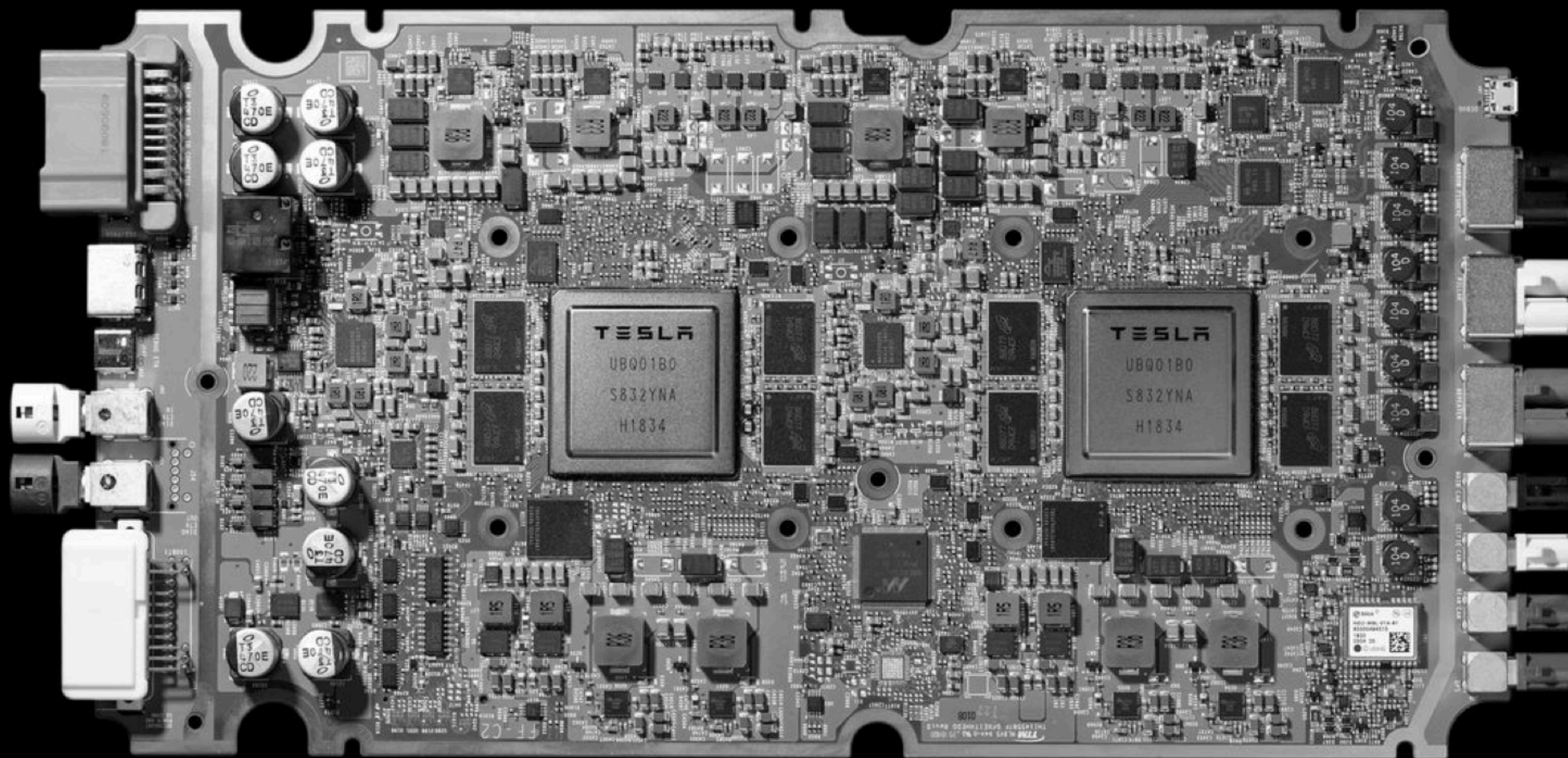


Image: Tesla Processor

AUTOMOBILITY ERA MASTERY: ADVANCED PROCESSING | VISION SYSTEMS | AI | MULTI-SENSOR ARRAYS | HIGH BANDWIDTH CONNECTIVITY



144 TERA
OPERATIONS
PER SECOND

AUTOMOBILITY ERA MASTERY: ADVANCED PROCESSING | VISION SYSTEMS | AI | MULTI-SENSOR ARRAYS | HIGH BANDWIDTH CONNECTIVITY



Image: IDEO - Future of Automobility

AI AFFECTING EMOTIONS VIA: LEVERAGING CONTEXT | SMART INFRASTRUCTURE | CONNECTED DATA SERVICES | OVER-THE-AIR UPDATING



Image: IDEO - Future of Automobility

AI AFFECTING EMOTIONS VIA: COACHING THROUGH NEXT GENERATION ADAS | OFFERING ANTICIPATORY ASSISTANCE

3 | DESIRABLE

“People like you or I know, we have an unshakable belief that cars are living entities...You can develop a relationship with a car. And that’s just what non-car people don’t get.”

- Jeremy Clarkson -

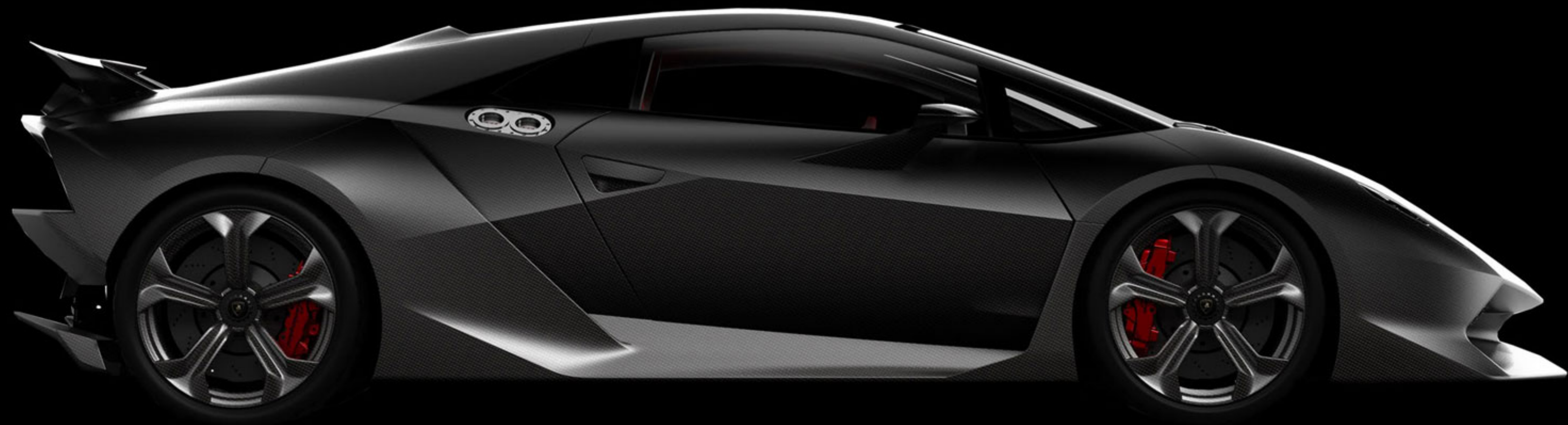


Image: Lamborghini Sesto Elemento

MOVING
SCULPTURE

SUB 3 SECOND
0-60 TIME

COMPELLING DRIVER'S
EXPERIENCE

OPTIMIZED
HANDLING

INNOVATIVE
MATERIALS

AERODYNAMIC
EFFICIENCY

INTERNAL COMBUSTION
ENGINE INNOVATION



Image: Tesla Model S

MOVING
SCULPTURE

SUB 3 SECOND
0-60 TIME

AUTOPILOT
FUNCTIONALITY

OVER-THE-AIR
UPDATES

INNOVATIVE
MATERIALS

AERODYNAMIC
EFFICIENCY

ELECTRIC BATTERY POWER
INNOVATION



Image: BMW X7

ERA OF TRANSITIONING ICONS: EXPANDING THE VISUAL IMPRESSION OF AN EXISTING BRAND'S ONCE FUNCTIONAL ELEMENTS



Image: Audi Q7

ERA OF TRANSITIONING ICONS: EXPANDING THE VISUAL IMPRESSION OF AN EXISTING BRAND'S ONCE FUNCTIONAL ELEMENTS



Image: Lexus RX

ERA OF TRANSITIONING ICONS: EXPANDING THE VISUAL IMPRESSION OF AN EXISTING BRAND'S ONCE FUNCTIONAL ELEMENTS



Image: Tesla Model S

ERA OF TRANSITIONING ICONS: DEFINING A NEW BRAND THROUGH NEW TECHNICAL REQUIREMENTS



Image: IDEO - Future of Automobility

AI AFFECTING EMOTION AND SHAPING FUTURE ICONS VIA: EASY INGRESS AND EGRESS | RIDER MATCHING TECHNOLOGY | BLOCKCHAIN PAYMENTS

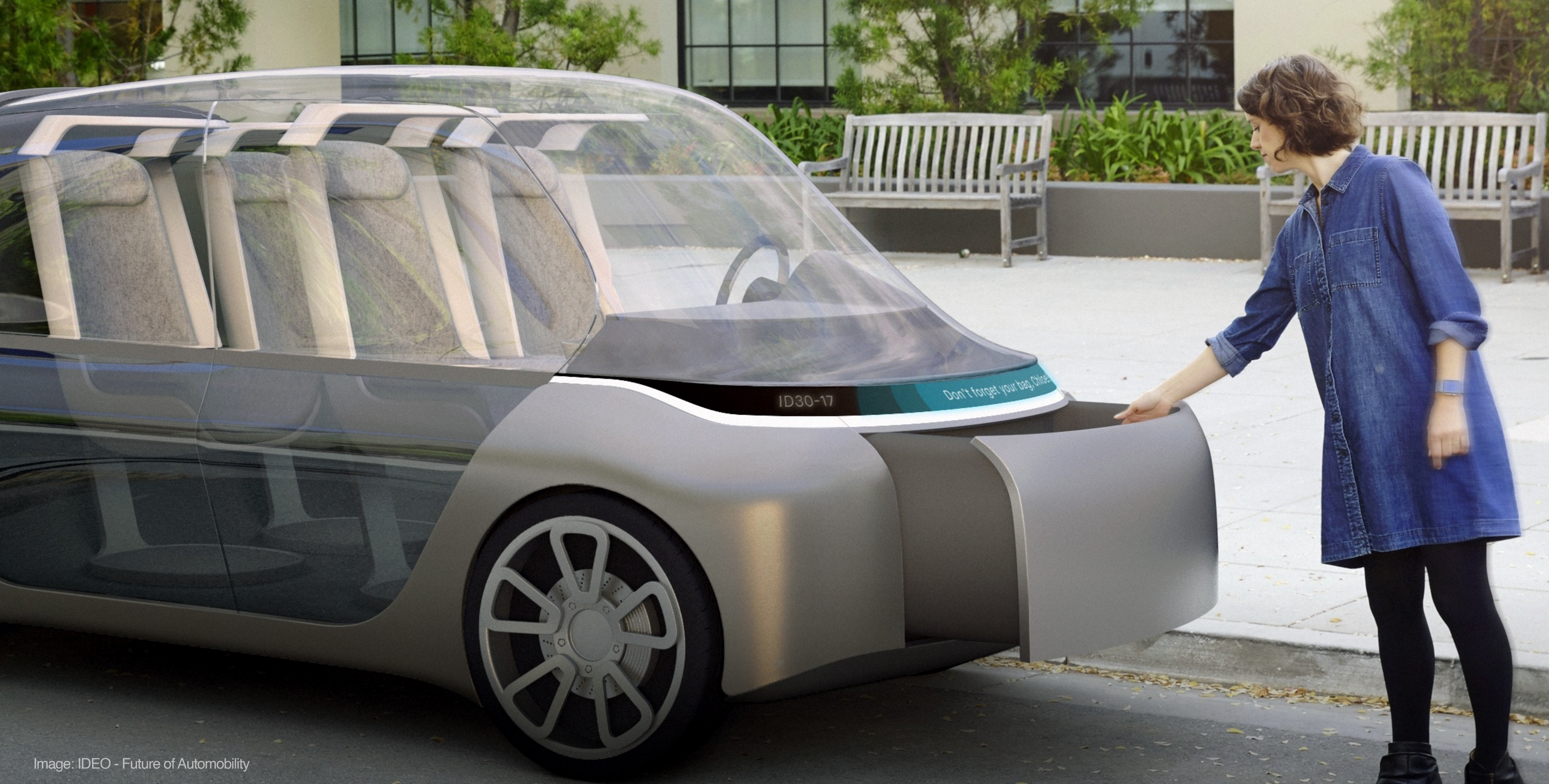


Image: IDEO - Future of Automobility

AI AFFECTING EMOTION AND SHAPING FUTURE ICONS VIA: COLLABORATIVE MOBILITY PLATFORMS | SECURED PRIVACY ZONES



Image: IDEO - Future of Automobility

AI AFFECTING EMOTION AND SHAPING FUTURE ICONS VIA: HOT AND COLD FOOD & PACKAGE STORAGE | VEHICLE SHARING & GIG ECONOMY APP

4 | DELIGHTFUL

“We at BMW do not build cars as consumer objects, just to drive from A to B. We build mobile works of art.”

- Chris Bangle -



Image: IDEO - Future of Automobility

AI AFFECTING EMOTIONS VIA: DEFINING A FRIENDLY AND FAMILIAR NEW NORMAL IN NEIGHBORHOODS | ROUTE OPTIMIZATION

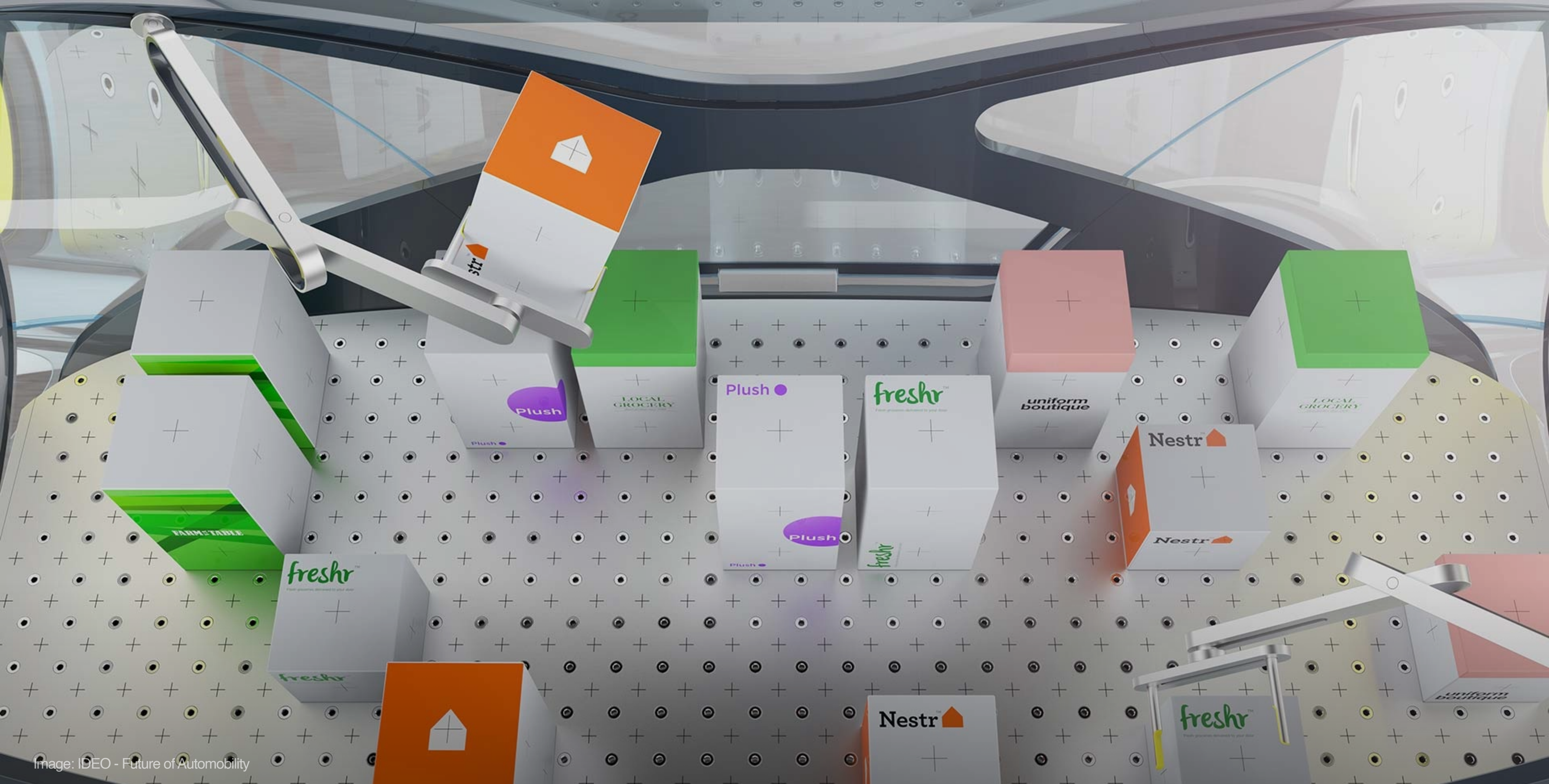


Image: IDEO - Future of Automobility

AI AFFECTING EMOTIONS VIA: DEFINING A FRIENDLY AND FAMILIAR NEW NORMAL IN NEIGHBORHOODS | ROUTE OPTIMIZATION

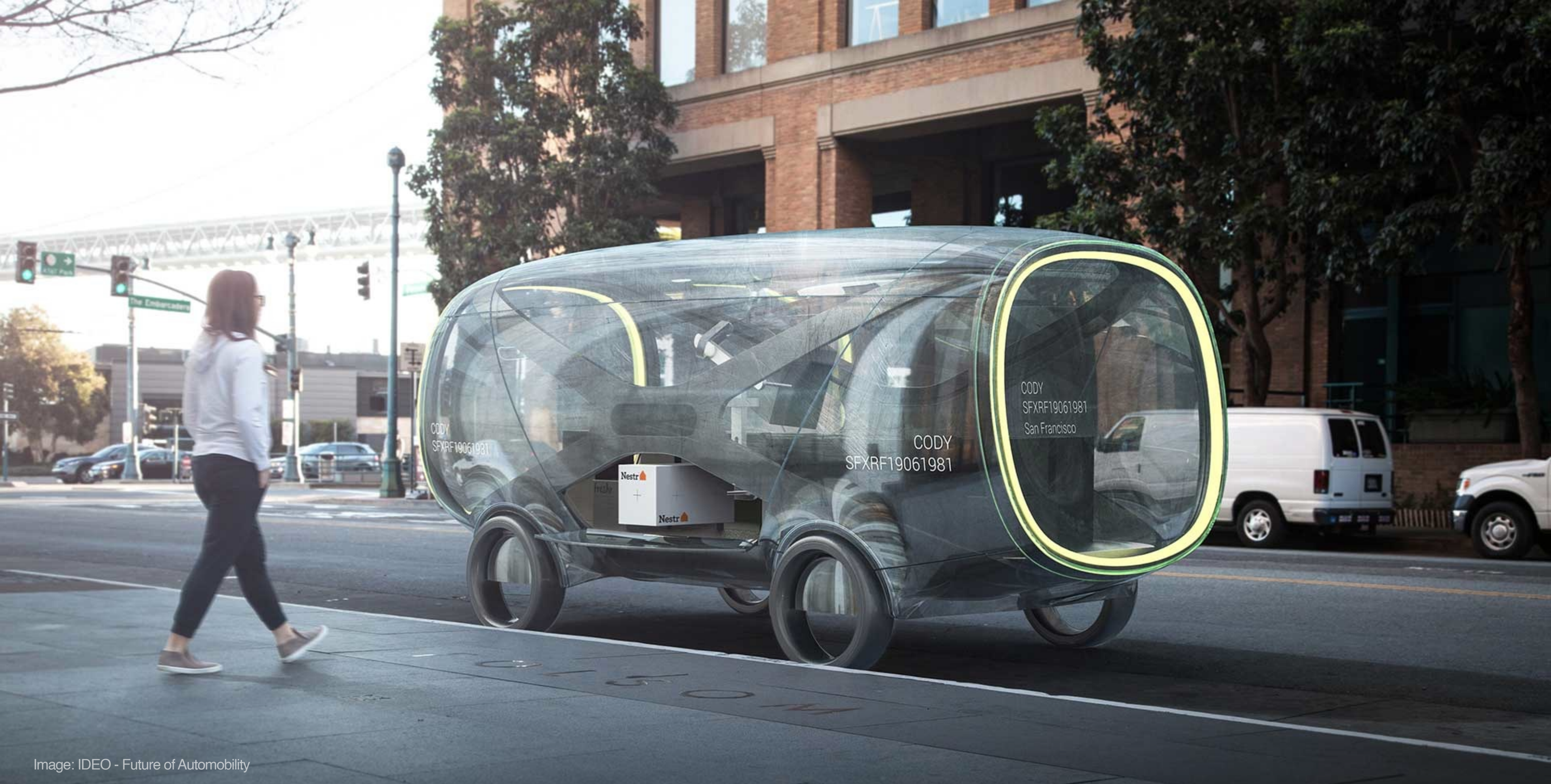


Image: IDEO - Future of Automobility

AI AFFECTING EMOTIONS VIA: DEFINING A FRIENDLY AND FAMILIAR NEW NORMAL IN NEIGHBORHOODS | ROUTE OPTIMIZATION

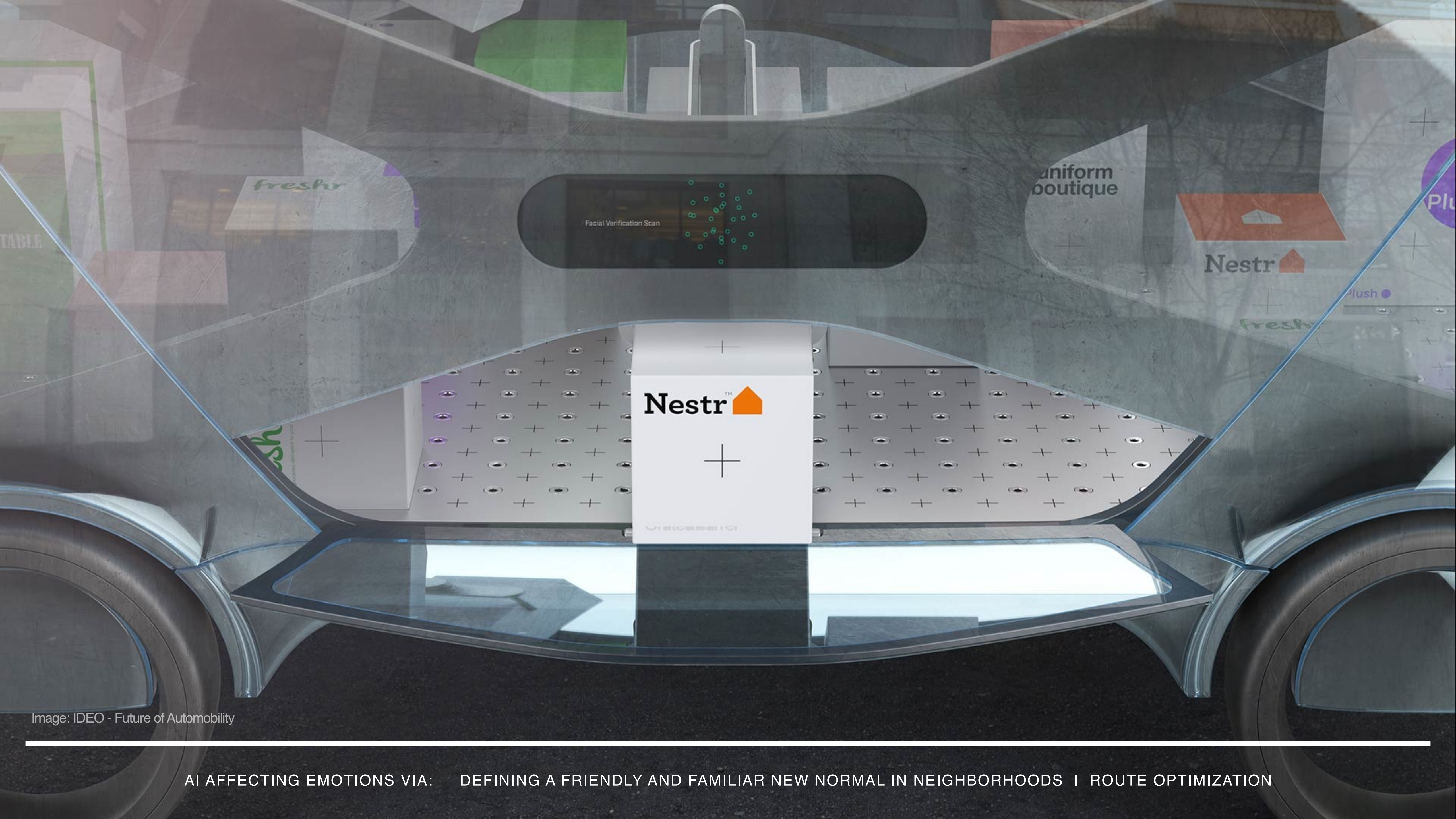


Image: IDEO - Future of Automobility

AI AFFECTING EMOTIONS VIA: DEFINING A FRIENDLY AND FAMILIAR NEW NORMAL IN NEIGHBORHOODS | ROUTE OPTIMIZATION

5 | ADAPTIVE

“Big data is the fuel of the connected vehicle.”

- Andreas Mai, Director, Smart Connected Vehicles, Cisco Systems, Inc -



Image: IDEO - Future of Automobility

AI AFFECTING EMOTIONS VIA: ENHANCED LIVABILITY OF CITIES | AUTONOMOUS VEHICLE FLEET OPTIMIZATION



Image: IDEO - Future of Automobility

AI AFFECTING EMOTIONS VIA: ENHANCED LIVABILITY OF CITIES | AUTONOMOUS VEHICLE FLEET OPTIMIZATION



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Image: IDEO - Future of Automobility

AI AFFECTING EMOTIONS VIA: ENHANCED LIVABILITY OF CITIES | AUTONOMOUS VEHICLE FLEET OPTIMIZATION



Image: IDEO - Future of Automobility

WorkOnWheels

01
WorkOnWheels

01
WorkOnWheels

AI AFFECTING EMOTIONS VIA: ENHANCED LIVABILITY OF CITIES | AUTONOMOUS VEHICLE FLEET OPTIMIZATION



LIBERATING
POWERFUL > EMPOWERING
DESIRABLE
DELIGHTFUL
ADAPTIVE

Image: IDEO - Future of Automobility

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THANK YOU.