

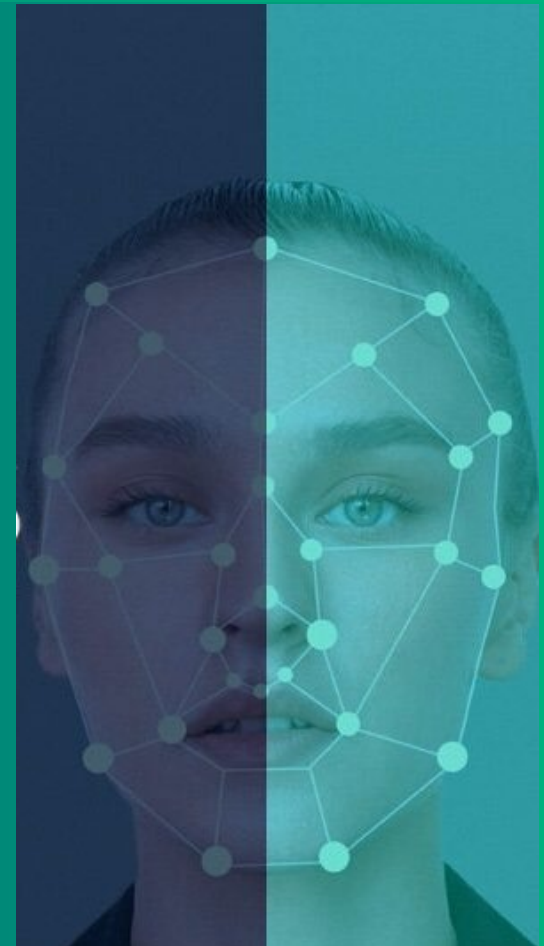


Intelligent. Integrated. Inside.



#InnovaPlásticos

The mobility of the future is already here



Javier Villacampa
*Group VP, Innovation
and Sustainability
de Antolín*

18/09/2024



Disclaimer

This presentation (the presentation) is confidential and has been produced by Grupo Antolin-Irausa, S.A.U. (Antolin) for information purposes only. The use and distribution of this information or of any other information provided by or on behalf of Antolin or its representatives is confidential, and its recipients undertake to respect this confidentiality, restricting its dissemination, copying and distribution to the scope of their respective organizations. The use, distribution, sale, modification, revision, publication in any media or completion of derivative works (where appropriate) of the brands, logos, information or any material or content in this presentation is not permitted without the express consent of Antolin. Antolin has prepared this presentation with due care and on the basis of the available information. However, it accepts no liability in relation to the content or interpretation of the information contained therein: Antolin accepts no responsibility for the accuracy or completeness of the information included in this document.

Our Company Today

GLOBAL & COMMITTED

AGENDA
2030



PRESENCE

Around

118

production plants
JIT centers

With

26

technical
commercial offices

Present in

25

countries

MARKET

About

600

models equipped
on the market

Supplying around

100

brands
worldwide

Present in

9 / 10

best-selling cars
in the world

PEOPLE

A team of around

22,000

professionals

Over

7%

professionals in
technological positions

37% Women

60% of the
Board of
Directors

OUR CONTRIBUTION

-37%

CO₂ Emissions
(scope 1&2 w.respect to 2019)

Towards 0 accidents
-7%

Frequency Index
vs. 2022

32€

Social contribution
by employee

Our Solutions - Product Systems

CONSOLIDATING OUR POSITION

BECOMING THE FULL-SERVICE SUPPLIER FOR OUR CUSTOMERS

Our strength is our **portfolio** of products & solutions



World's leading manufacturer of overhead solutions.

We work to **meet the future needs of customers** in terms of the sustainability, weight reduction, customization, and improved safety and acoustics of this product.



Experience & ability to integrate new technologies.

Increasing the added value of this business by leveraging the integration of lighting, electronics, and HMI is a strategic priority for the company.



Great growth potential from the center of the interior.

Integration to offer more complete solutions with greater added value while offering exclusive trim technologies & technological craftsmanship.



Maximum synergies and cost competitiveness.

Sunvisors, mechanisms, and trunk businesses. Moreover, all our **JIT centers** under the same unit to deliver projects that require logistics and final assembly at the customer's factories.

Our Solutions - Technology Solutions

BUILDING THE FUTURE

ATTRACTIVE HIGH GROWTH MARKET OPPORTUNITIES

Technology products **integration** to increase value-added

Expanding our capabilities in lighting, HMI, and electronic systems solutions as part of our strategy and thanks to the support of strategic partners such as Walter Pack and AED.

We offer to the customers an integrated and innovative range of customized solutions, providing a significant competitive advantage.



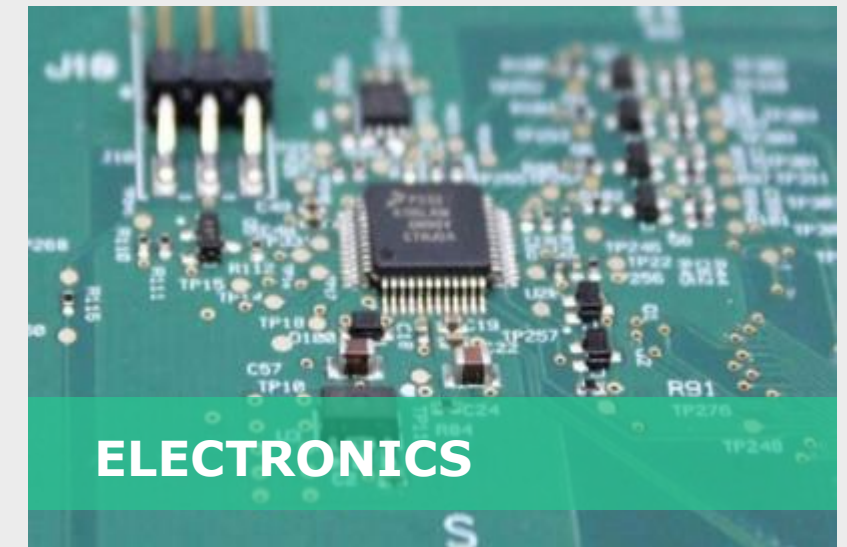
LIGHTING

- ▶ Lighting technology
- ▶ Deco
- ▶ Ambient lighting
- ▶ Exterior lighting



HMI

- ▶ Smart touch
- ▶ Display
- ▶ Deco
- ▶ Central control unit

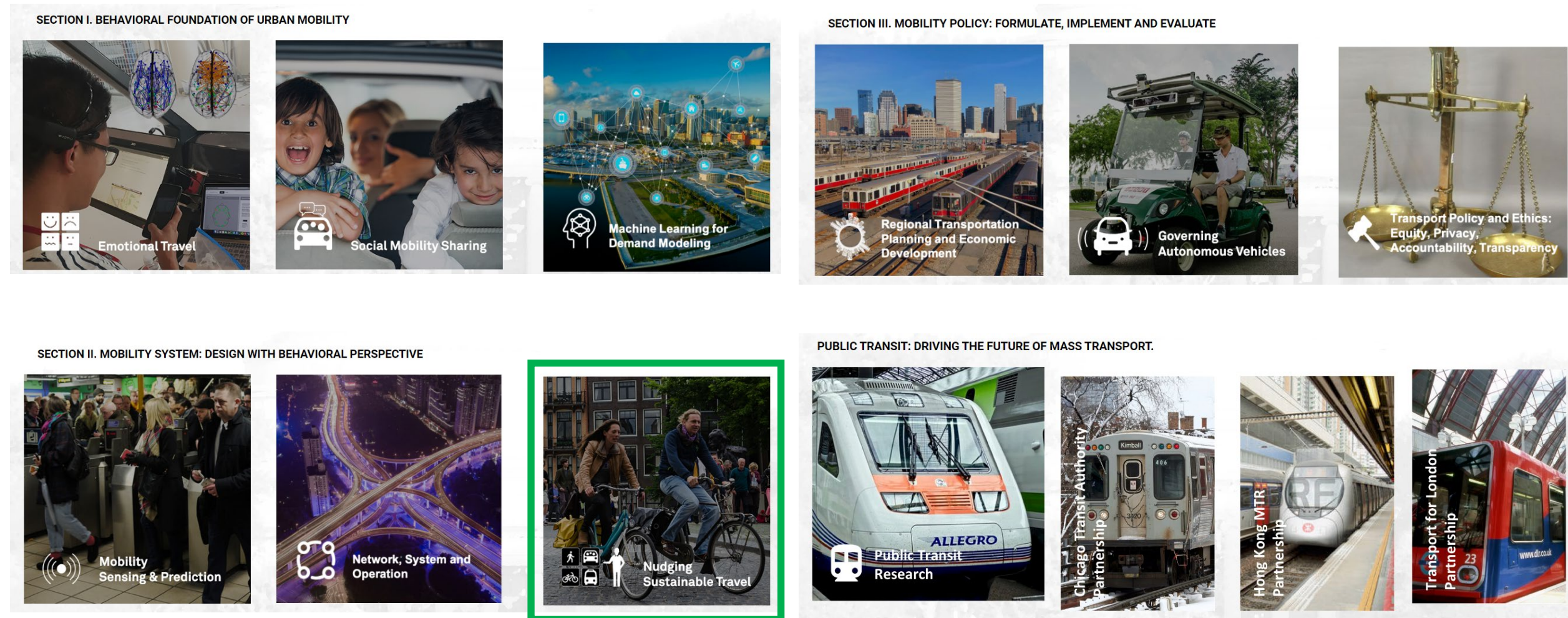


ELECTRONICS

- ▶ Wireless connectivity
- ▶ Actuators
- ▶ Access system
- ▶ ECUs

The mobility of the future, a complex challenge... the JTL Urban Mobility Lab at MIT gives us some clues

- “It fuse behavioral science and transportation technology shape travel behavior...design mobility systems... reform urban policies”



Welcome to the micro-mobility revolution! ... but don't panic ...

Antolin Proposals already IN THE MARKET

AMBITION CAME TO ACTION: HEADLINERS (HL)

VW T-Roc



First HL in market with **certificated materials** derived from **organic waste**.



Two success stories in the **market** with our **sustainable materials** proposals

Certified material on core layers and recycled PET fibers in the visible A face

HL's performance is kept unchanged from virgin construction

SUSTAINABILITY INCREASES MAINTAINING HEADLINERS' PERFORMANCE

Volvo C40 Recharge



First HL in market with more than **50%** sustainable content derived from **plastic waste and EOL tyres**.



Antolin Proposals already IN THE MARKET

AMBITION CAME TO ACTION: DOORS

Natural Fiber Backinjection

SUSTAINABLE & LIGHT



Value-added Products
Combined process technology using mat intermediates back injected with PP GF compounds

ADVANTAGE BENEFITS

Weight reduction
>20% on covered parts

Sustainable Material
Natural fiber

CHINA



VOLVO XC60



▶ Front and back view

GERMANY



BMW 6-series GT



▶ Front and back view

ITALIA



Alfa Romeo Stelvio



▶ Front and back view

Antolin Proposal already IN THE MARKET

AMBITION CAME TO ACTION: IPs & CENTRAL CONSOLES

Double SLUSH Skin

LIGHTWEIGHT TECHNOLOGY
PARTLY IN-HOUSE PRODUCED

ANTOLIN, UNIQUE SUPPLIER

Innovative bi-layer slush skin manufactured by a convectional/compact PVC layer (visual) and foamed PVC layer



PORSCHE MACAN EV



ADVANTAGE BENEFITS

Weight
reduction
advanced slush
process for a
covering with
soft touch

→ Eco-Design

- Identical design freedom as conventional PVC.
- Adhesion improvement between PUR foam and slush skin (60N vs 15N).
- Better performance for airbag deployment at low temperature.
- Ballooning effect reduction on airbag deployment.

→ Weight reduction

- Around 30% weight reduction due to foamed PVC layer.

→ Sustainable process

- About 10% energy efficiency in production process.

→ Iso-cost as conventional PVC

Antolin Proposals already IN THE MARKET

COMPONENTS & JITS: PLASTIC WINDOWS REGULATORS



WEIGHT REDUCTION
Same weight than Aluminium rails.

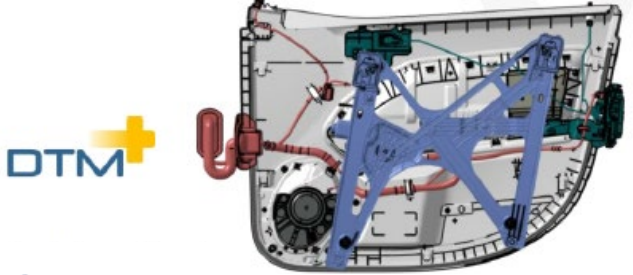
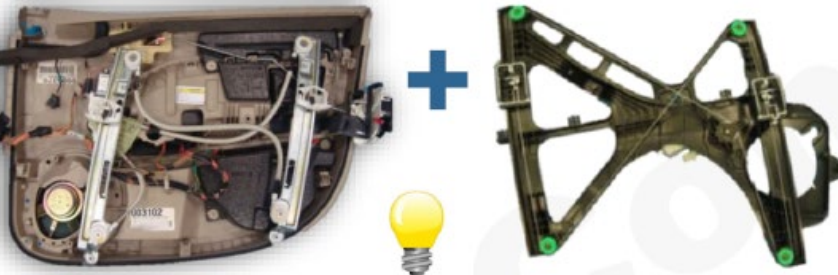
INTEGRATION
Rail brackets and motor bracket into the rail.

DOOR MODIFICATIONS
Non-additional modifications in the door are required.



COST REDUCTION
Cheaper than Steel rails.

RECYCLABILITY
Validated with recycled materials.



Antolin Proposals **READY TO MARKET**

AMBITION CAME TO ACTION: DOORS



Renault Space



Up to **-25% Weight reduction**

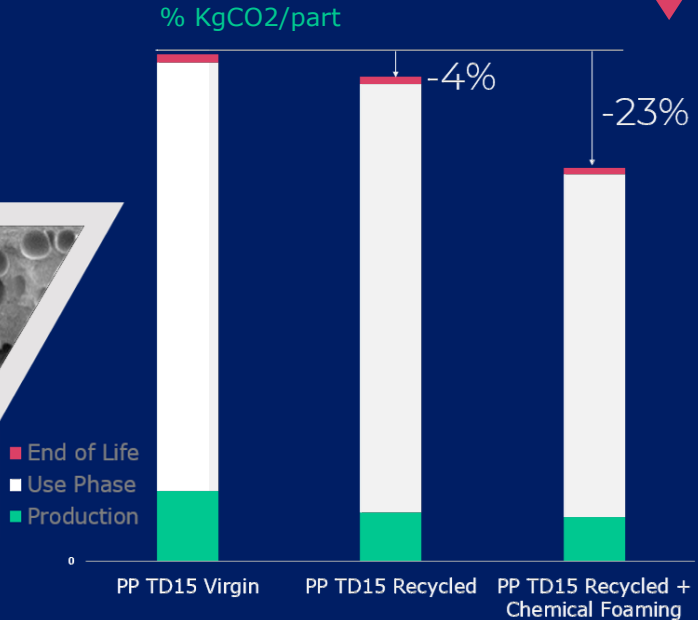
ADVANTAGE BENEFITS

Weight reduction
>15% on Carrier and Map pocket

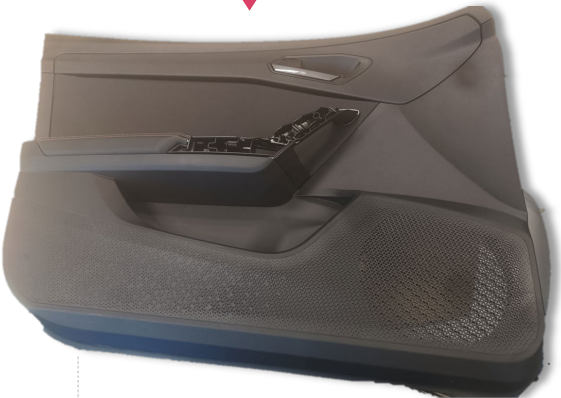
Weight reduction through **Chemical foaming** for high visible parts



Life Cycle Assessment
CRADLE to GRAVE



Seat Leon



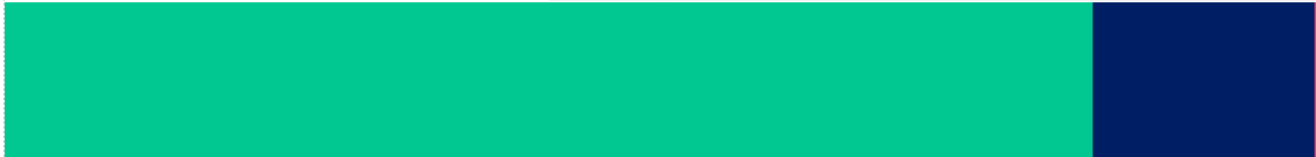
ADVANTAGE BENEFITS

Sustainable Material
CO² Footprint reduction

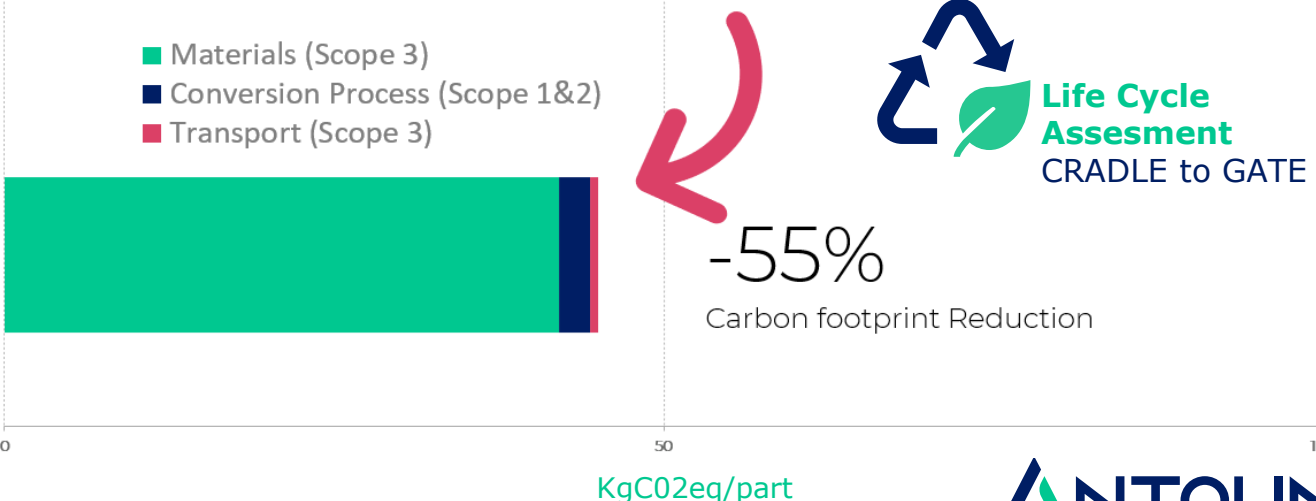
Sustainable Content

- **Eco-Covering**
 - Desserto PVC
 - SEQUAL Textile
- **Eco-Plastics (recycled)**
 - Post Industrial PP
 - Post Consumer PP
 - Post Consumer PC/ABS
- **Green Electricity**

Standard Door Panel



Sustainable Door panel



Antolin Proposals **READY TO MARKET**

AMBITION CAME TO ACTION: IPs & CENTRAL CONSOLES

Improving the content, weight and sustainability of our interior products for customization and upgrading opportunities in the cockpit.

Natural Fiber Polypropylene (NFPP)



ECO-DESIGN

Integration of functions:
airbag system

SUSTAINABLE MATERIALS

Compression molding with up to 50% natural fibers

Compatible with leather, PVC, PU & textile material

Complete validation plan finished

LIGHT WEIGHTING

-40%

weight reduction against a standard injection moulding carrier

Compatible with current assembly and covering process machinery

On going activities to remove back injection process and grammage reduction

ALTERNATIVE SUSTAINABLE PROCESSES

Laser Welding of Plastic Materials

CO₂ EMISSION REDUCTION

-45%

from Cradle to Grave (LCA)



Applied innovation **READY TO MARKET**

LASER DECORATION: DECORATIVE PARTS FOR ANTOLIN PRODUCTS



Antolin, **pioneer in applying the laser marking technology for decorative parts** in the Automotive industry: **LASER DECORATION**

Laser marking technology is a well-known and effective procedure for achieving permanent marking on many automotive thermoplastic parts.

** Technology ready to market to be applied to automotive interior decorative parts*

ADVANTAGE BENEFITS



New developments in laser-sensitive color pigments and additives, and new low-power near-infrared laser sources make possible to manufacture new recyclable cost-effective decorations.

Monocomponent make it **easier to directly recycle**

Easy customization of decorations without the need for new developments of fabrics or films

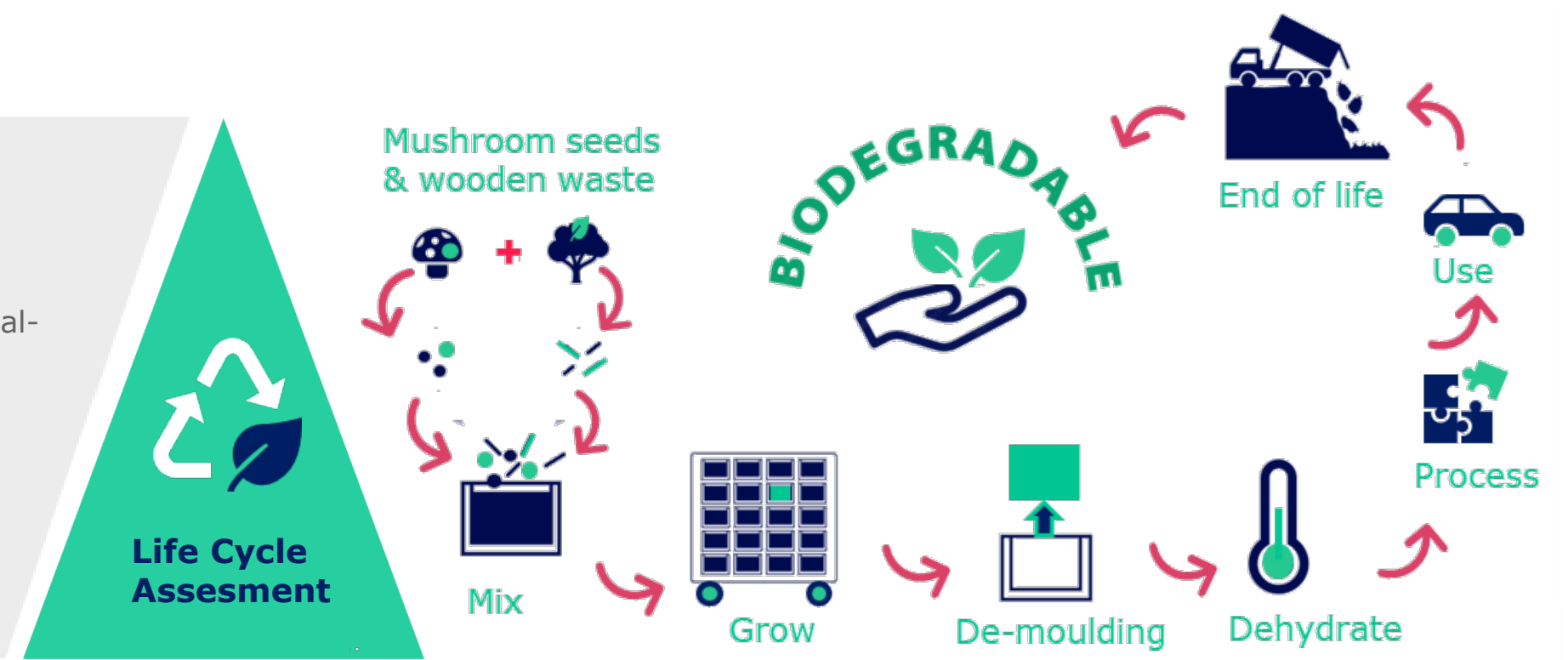
Recovery of the plastic for injection into a similar part, eliminating process steps and cost saving

Antolin Fundamental Innovation examples ... Disruptive and sustainable material

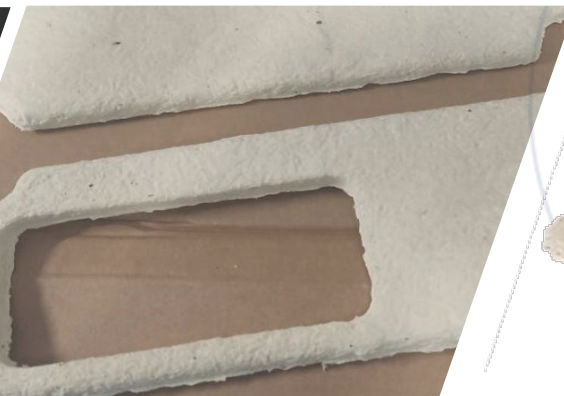
MYCELIUM, THE ALTERNATIVE TO TRADITIONAL AUTOMOTIVE MATERIALS

Mycelium is a bio growing organism that acts as a bonding element of local agricultural waste in particular environmental conditions and with a feeding element.

- ▶ Natural origin material
- ▶ Biodegradable
- ▶ Low carbon footprint
- ▶ Low density -earning importance in industry as a packaging material-
- ▶ Solid material
- ▶ Highly compressive material
- ▶ Stiffness comparable with hard woods
- ▶ Good capacity of keeping the shape of the mold
- ▶ Fireproof properties



2023
VIII PREMIOS
Expansión
TRANSFORMACIÓN HACIA UNA
ECONOMÍA SOSTENIBLE



SUNVISORS made with Mycelium

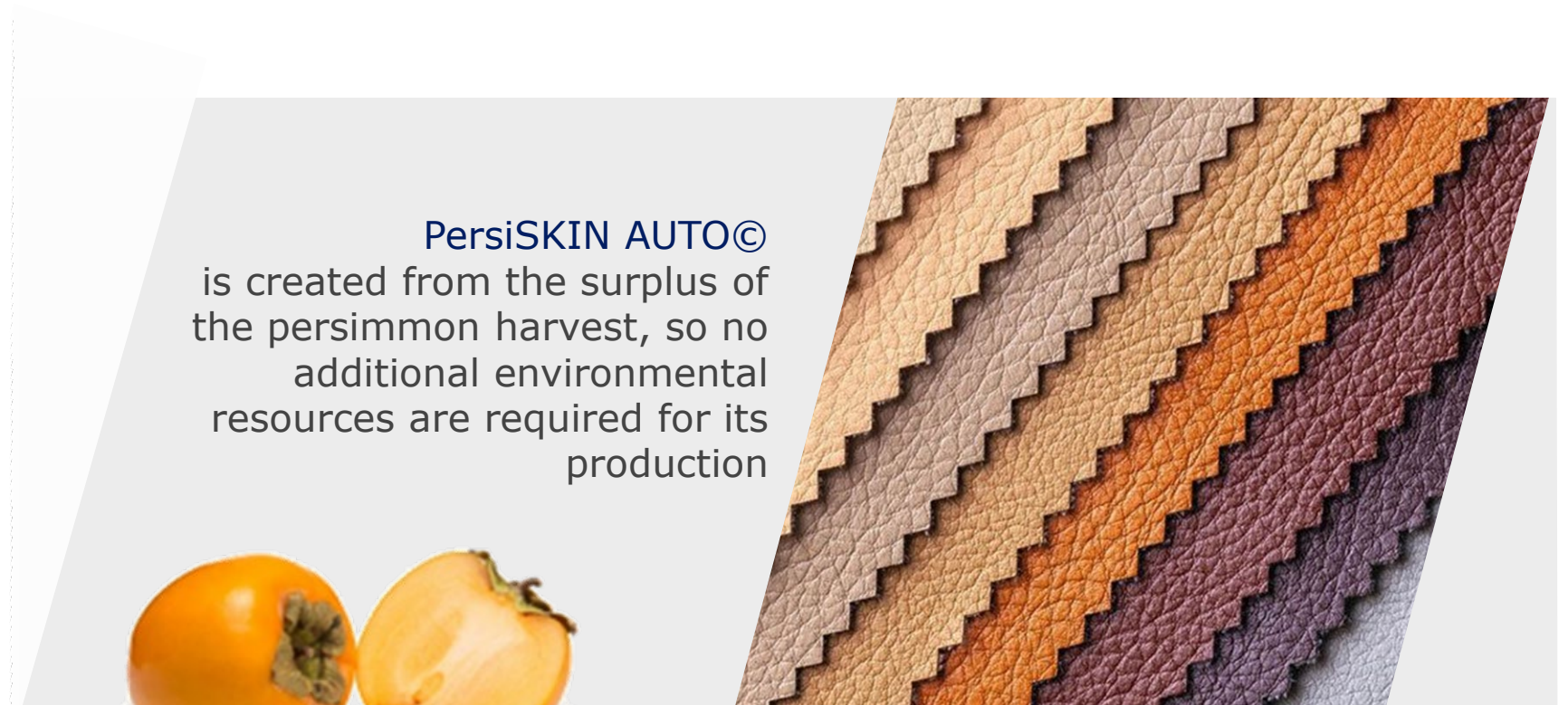
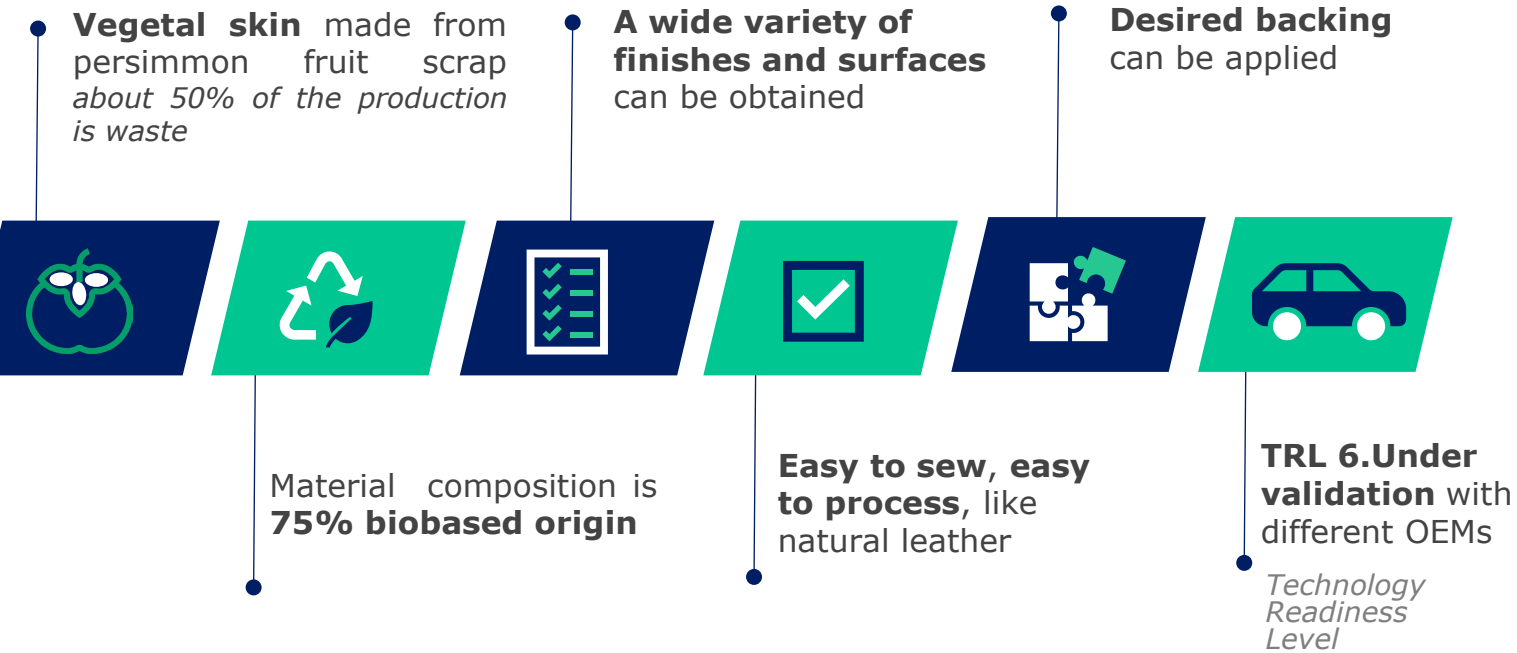
(2023) 8 edition- Expansion Awards for Transformation towards a sustainable economy

Antolin Fundamental Innovation examples ... Disruptive and sustainable material

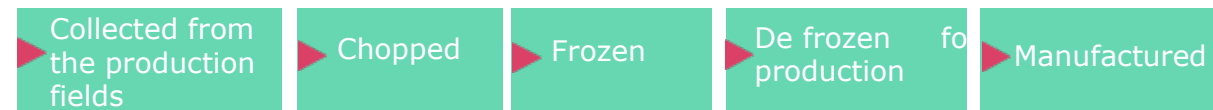
PERSISKIN AUTO AS ALTERNATIVE TO LEATHER, PVC OR TPO

Antolin develops of natural and sustainable cover with high environmental benefits

PersiSKIN AUTO© is an innovative, ethical, vegan, plant based, and sustainable vegetal skin focused on a circular economy representing an alternative to animal and artificial leather



Spain is the 1st producer and exporter of Persimmons in the world. Production is close to 500 million Kgs annually and nearly 250 million Kgs. are waste due to commercial and geopolitical factors



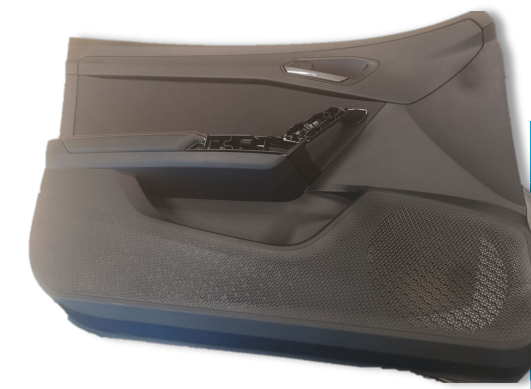
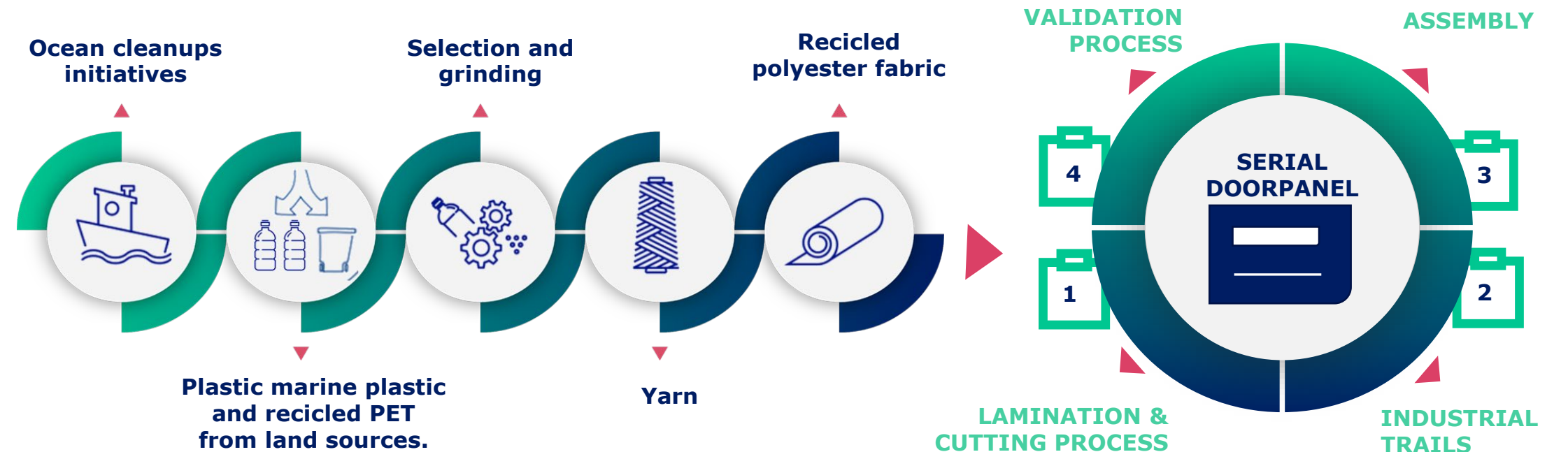
Antolin Fundamental Innovation examples ... Disruptive and sustainable material

CAR INTERIORS FOR A CLEAN OCEAN



Antolin successfully validates sustainable fabric with SEAQUAL® YARN for door panels

SEAQUAL® YARN, which is comprised of 10% upcycled marine plastic and 90% recycled PET from land sources. Antolin gives their customers the opportunity to choose comfortable and easy-care interiors, with almost identical in physical properties to virgin polyester, while helping to end plastic pollution.



(2023) 17 edition- Actualidad Económica CYL
Award to Most innovative product

SERIAL DOORPANEL

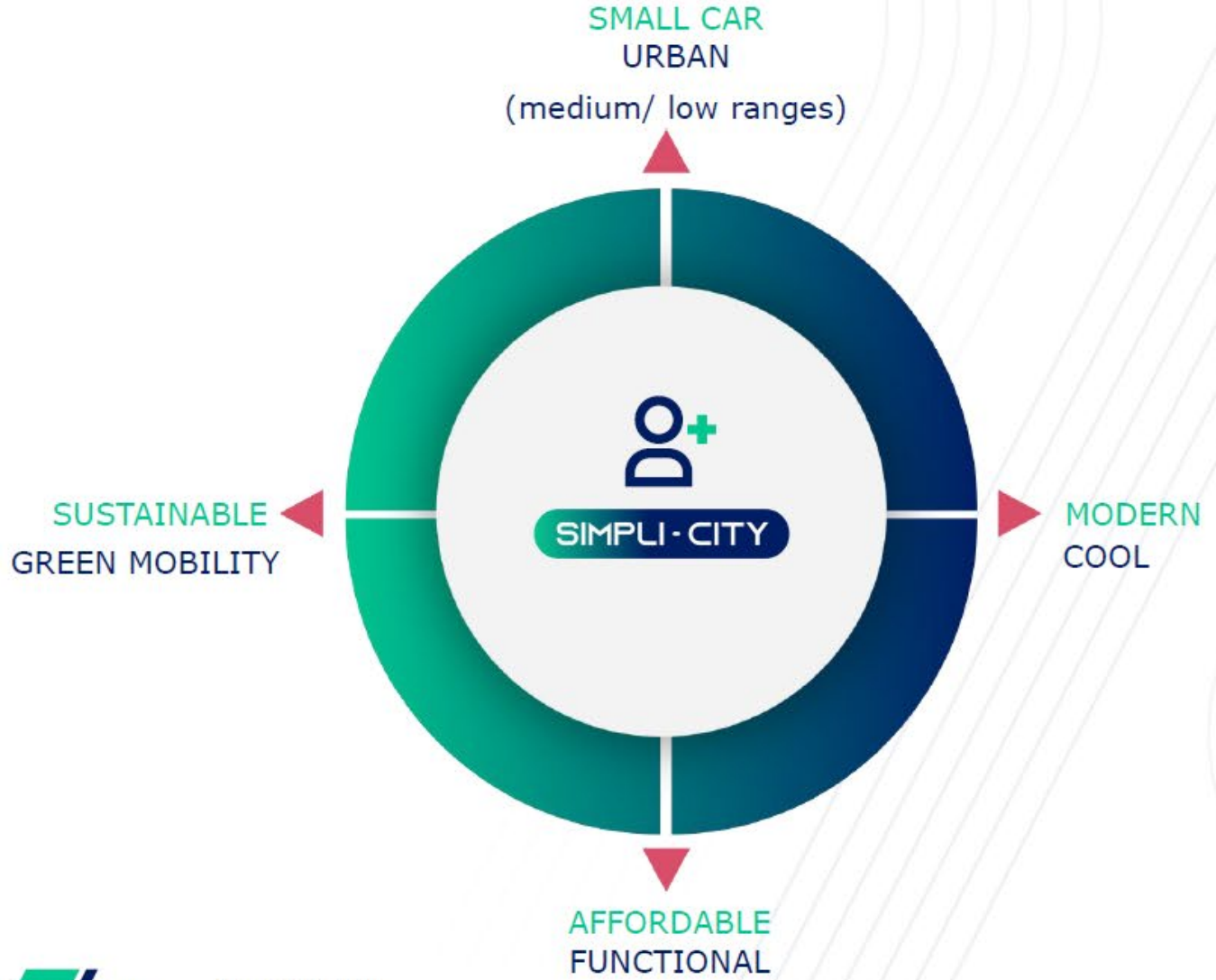
MADE WITH
SEAQUAL®
YARN

Antolin designs SIMPLI-CITY for new micro-mobility...

SIMPLI-CITY

under ICE perimeter

MAIN GOALS



Urban vehicles: The next big thing in urban mobility?

- **Smaller size**
- Urban vehicles are **less expensive** than standard EVs
- Consume **less space**
- Have more parking options
- Less pollution in the cities



And.. is here to stay

- Main Stakeholders:
- **City leaders**
 - **Micromobility service providers**
 - **Vehicle manufacturers:** The contribution of minimobility and urban vehicles to overall revenues may become more significant in the future as more cities begin to ban traditional cars in favor of smaller electric-mobility options.
 - **New players:** With a fast-growing market and limited technologic complexity, minimobility solutions may provide an entry opportunity for new players. **Why not ANTOLIN?**

2. Classified as Public Ref. mckinsey. [Minimobility: The next big thing in urban mobility? \(mckinsey.com\)](https://www.mckinsey.com/industries/automotive-and-transportation/articles/minimobility-the-next-big-thing-in-urban-mobility)

WWW.ANTOLIN.COM

ANTOLIN

Intelligent. Integrated. Inside.

[in](#) [▶](#) [X](#) [f](#)

jignaciovillacampa@antolin.com