

Plastic Circular Solutions in Car Industry

MOCOM Compounds GmbH & Co.KG

Bernd Sparenberg

Vice President – Global Sales, Marketing & Development

"PLASTIC CIRCULAR ECONOMY - value chain activities"

14th CRO/SLO conference (online)

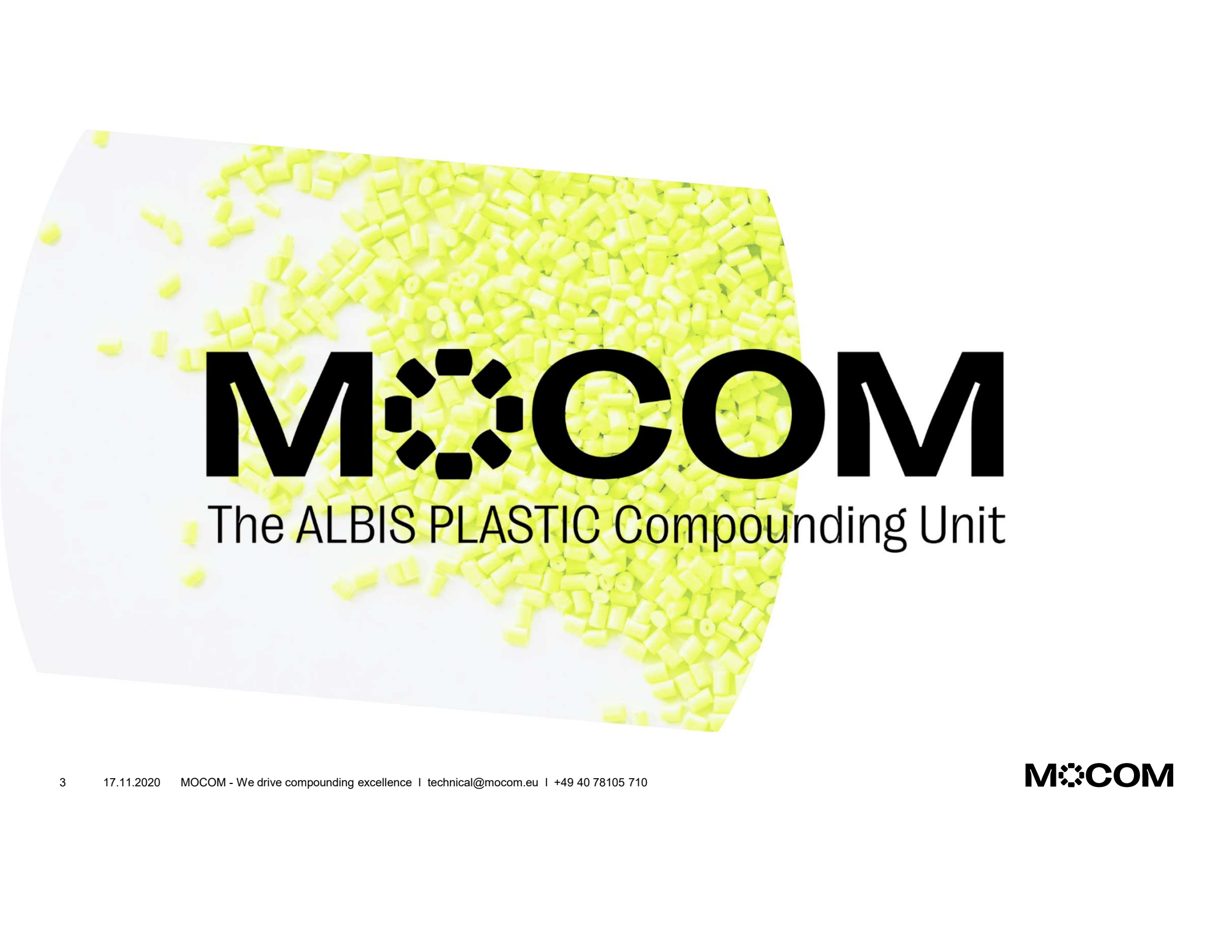
November 17th, 2020



The logo for MOCOM, featuring the word "MOCOM" in a bold, white, sans-serif font. The letter "O" is replaced by a stylized icon consisting of a circle with a cross inside, resembling a molecular structure or a chemical symbol. The background is a solid purple color with a large, dark purple, rounded rectangular shape on the left side.

MOCOM

**We drive
compounding
excellence**



MOCOM

The ALBIS PLASTIC Compounding Unit

Our Founding

1.7.2020
Registration
ALBIS Distribution

Albis Plastic

ALBIS Distribution

Albis Plastic

MOCOM Compounds

12.10.2020
Registration
MOCOM Compounds

Facts & Figures



50
years' compounding
experience & know-how



> 5,000
customers
incl. ALBIS Distribution



70
people in
sales & development



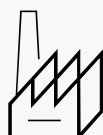
> 4,000
products,
global specifications



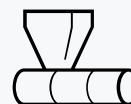
> 1,000
development
requests p.a.



> 11,000
production
orders p.a.



5
productions sites
DE, CN, US

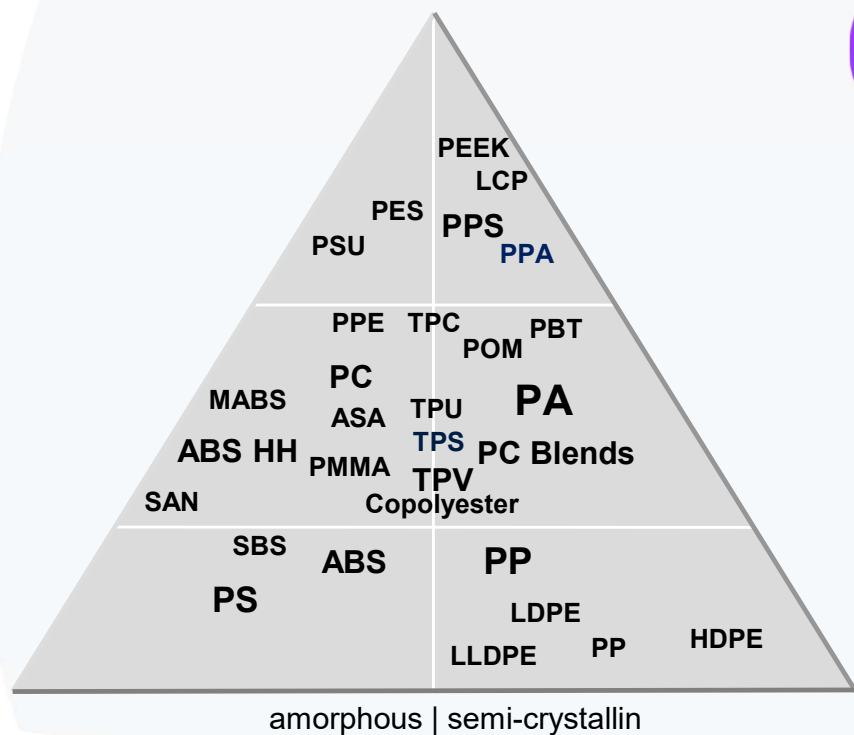


63
compounding-lines
ZSK25 – ZSK80



Certificates
IATF 16 949:2016
ISO 50001:2011
ISO 13485:2016
EcoVadis

Product Portfolio



SPECIALTIES

- ❖ Alcom[®]
- ❖ Alcom[®] MED
- ❖ Alcom[®] 3D
- ❖ Tedur[®]
- ❖ Cellidor[®]
- ❖ Alcolor[®]
- ❖ Alperform[®]

ADVANCED PRODUCTS

- ❖ Altech[®]
- ❖ Altech NXT PP[®]
- ❖ Alfater XL[®]
- ❖ Shelfplus[®] O₂

RECYCLING

- ❖ Altech[®] ECO
- ❖ Altech[®] IQ
- ❖ Alfater XL[®] ECO

MOCOM

Near-to-Prime® Linear Recycling

Altech ECO – Near-To-Prime® Recycling

❖ Altech® ECO

ALTECH – PA6/66, PP, ABS, PC, PC-Blends

- Prime polymer, filler, additive, color customized
- Ultimate performance/ quality/ portfolio

ALTECH ECO – PA6/66, PP, PC

- Post-Industrial Recycling (PIR) polymer, filler, additive, colors
- ECO = Near-to-Prime® performance/ quality, matching demanding specifications

ALTECH IQ – PA6/66, PP, ABS, PC-Blends

- PIR/PCR-polymer/ regrind, filler, additive, black
- IQ = Industrial Quality, less demanding, cost-critical

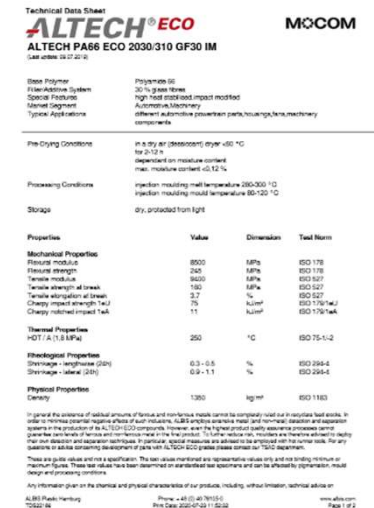
WIPELAST – PP/EPDM

WIPAFLEX – PP/PE/EPDM



Altech® ECO

Utilising recycle to provide excellent cost/ performance ratio to reach demanding Auto and E&E specifications



Altech ECO – Near-To-Prime® Recycling

Altech® ECO

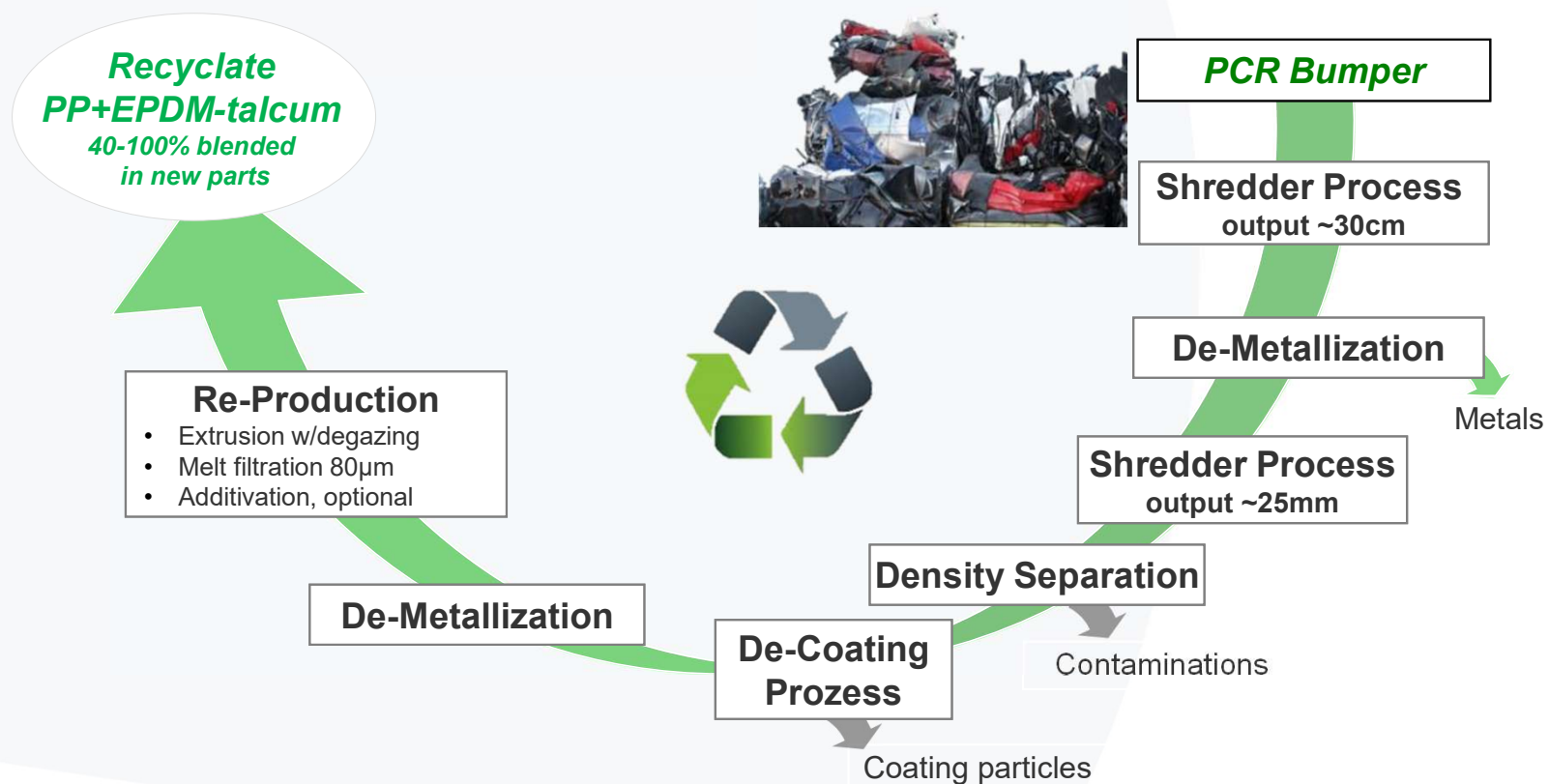
- BMW
 - ALTECH PA6 ECO 7010/100 (PA6 rCF10)
 - Material Solution
 - Light-weight (Density 1,17 g/cm³)
 - High heat deflection temperature + good impact resistance
 - Top surface quality/ appearance
 - Cost reduction based on volume/part- price
 - Lower carbon-footprint
- ➔ **12kg CO2 savings per 1kg compound**



MOCOM

RaaS®
Circular Recycling

Bumper to Bumper – Circular Recycling



Bumper to Bumper – Circular Recycling



- OEMs (various)
 - **PP/EPDM TV10-20**
 - Material Solution
 - Sufficient mechanical performance & constant quality
 - No influence on painting process
 - Lower cost solution vs. prime compounds
 - Sustainable material based on PCR/PIR feedstock
 - Lower carbon-footprint
- ➔ **9kg CO2 savings per 1kg compound**



Circular – Bumper to Bumper Recycling



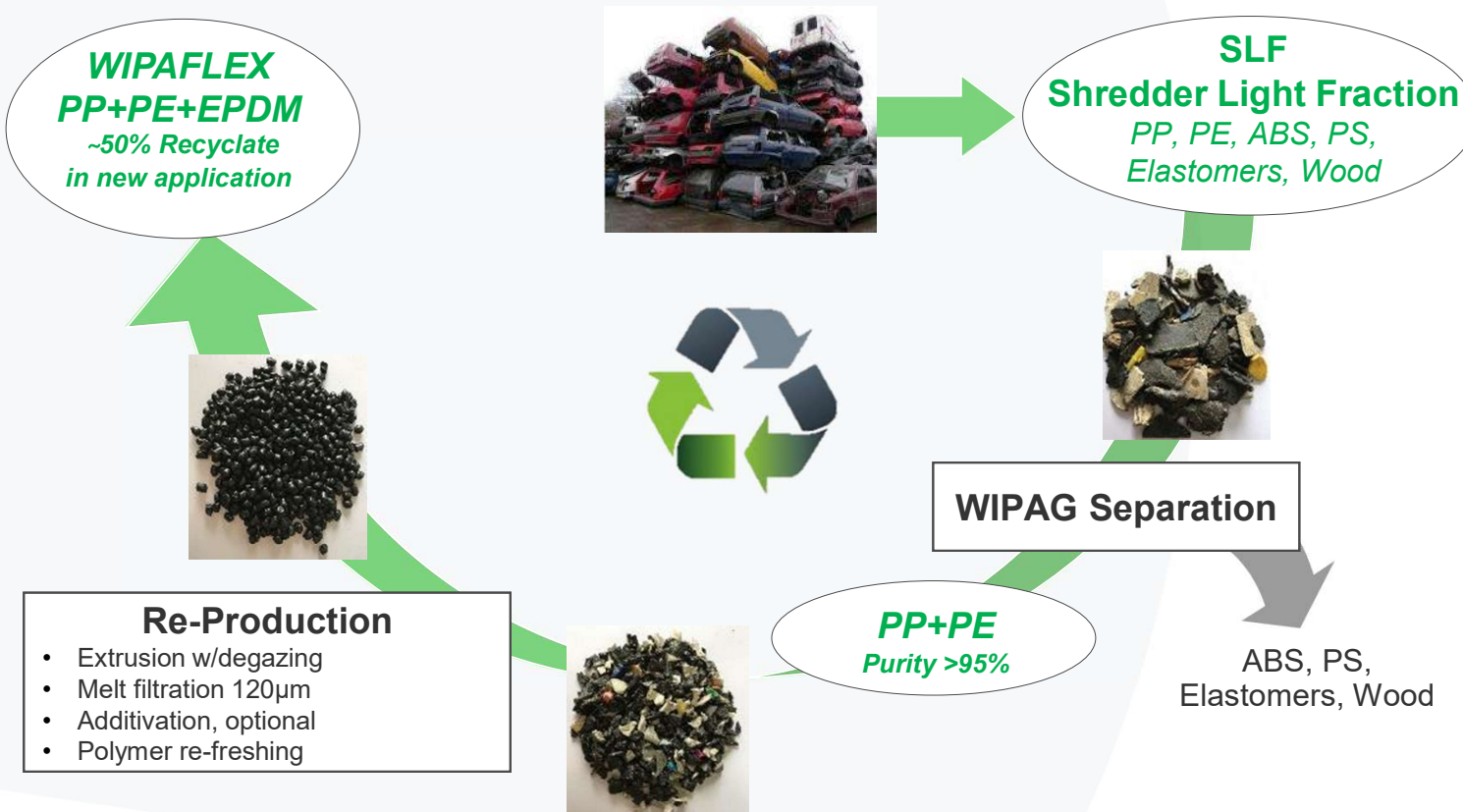
Properties	Test Method	Units	PP+EPDM TV20 prime	PP+EPDM TV20 recycling
Color	Color Metric	cm ³ /10min	black	black
MVR (230C/2,16kg)	ISO 1133	%	13	14
Ash Content	ISO 3451-1	MPa	20	20
Tensile Modulus	ISO 527	MPa	1450	1600
Tensile Strength	ISO 527	MPa	15	16
Tensile Strength @Break	ISO 527	MPa	12	13
Elongation @Break	ISO 527	%	50	40
Charpy Impact	ISO 179	kJ/m ²	NB	NB
Charpy Notched Impact	ISO 179	kJ/m ²	53	48



➔ **100% recyclate shows almost prime-like performance**

SLF to Wheel-Arch-Liner – Circular Recycling

♻️ RaaS®



SLF to Wheel-Arch-Liner – Circular Recycling



- Volkswagen
- **PP/PE/EPDM TV10**
- Material Solution
 - Sufficient mechanical performance & constant quality
 - Cost effective solution vs. prime compounds
 - Sustainable material (End of Life/ PCR recycling)
 - Lower carbon-footprint
- ➔ **9kg CO2 savings per 1kg compound**



Circular – Recycling-as-a-Service



- What does it mean, Recycling-as-a-Service RaaS® ?
- Customers having systematic material waste streams want to avoid disposal fees and capture feedstock value
- WIPAG/ MOCOM can offer modular recovery/ recycling steps to upgrade materials for re-use back in same application



input	material	1 Logistic Service	2 Shredding & De-Metallization	3 Density Separation	4 Paint Removal	5 Composite Separation	6 Electrostatic Separation	7 Repelletization	8 Compounding	9 Melt-Filtration	10 Drying	11 Homogenization	12 Packaging	13 Testing	14 Logistic Service	closed loop
Bumper post-industrial	PP+EPDM talcum	x	x		x			x	x	x	x		x	x	x	new Bumper

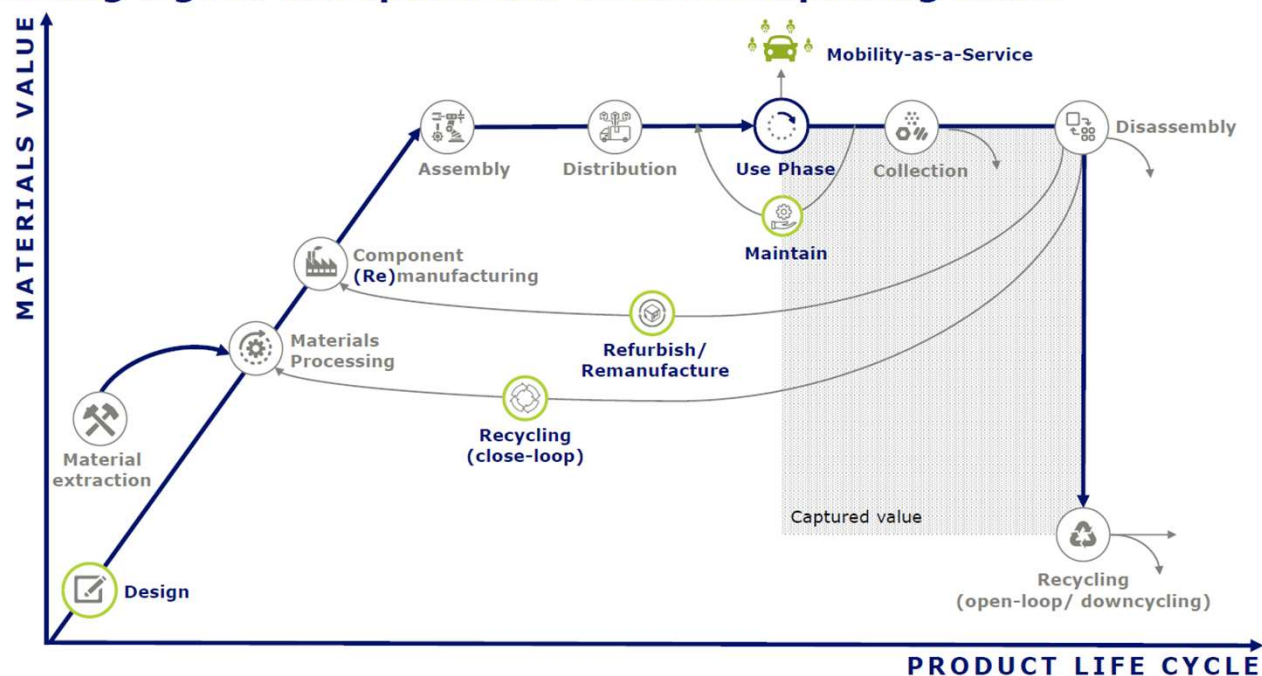
➔ Challenge us with your ideas, let's go circular!

Circular Car Initiative

- Pan-European program to discover recycling opportunities end-of-(car)life



Creating a good disruption will be about capturing value



Source: The Circular Car Initiative

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#MOCOM Compounds



MOCOM

We drive
compounding
excellence

Mit MOCOM beginnt eine neue Ära. Eine neue Marke mit starker Herkunft. Als ehemaliger Compoundeur der ALBIS PLASTIC erschaffen wir eine Vielfalt thermoplastischer Polymere für kundenspezifische Materialanforderungen.
www.mocom.eu

DISCLAIMER

Note:

Any information given on the chemical and physical characteristics of our products, including technical advice on applications whether verbally, in writing or by testing the product, is given to the best of our knowledge. However, this information is given without obligation and does not exempt the buyer from carrying out own investigations and tests in order to ascertain the product's specific suitability for the purpose intended. The buyer is solely responsible for the application, utilization and processing of the products, and must observe the laws and government regulations and the consequential rights of any third party. At all times our Conditions of Sale apply. Our product lists include dangerous goods. The correct marking of such goods is described in the respective data sheets.