



A Material Difference

**Fast Growing With  
Strong Margins**

# **E-Mobility & Sustainable Developments for Automotive Industry**

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# Global Trends Transforming The Automotive Industry

-  **Electrified**  
Electric drive
-  **Autonomous**  
Driving assistance & autonomous driving
-  **Connected**  
Communication between cars or with  
traffic management infrastructure
-  **Low emission materials**  
Innovating to zero and circular economy



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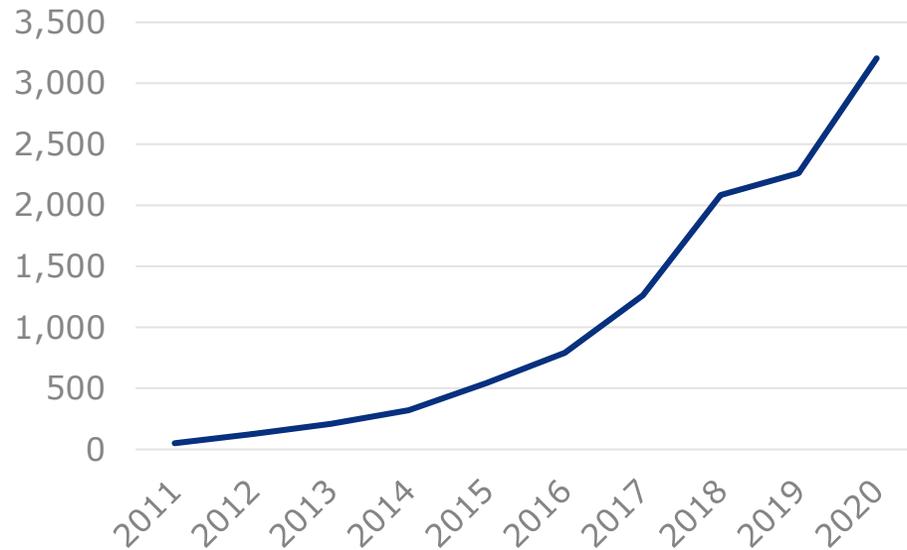
# E-Mobility

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Gearing Up For Growth

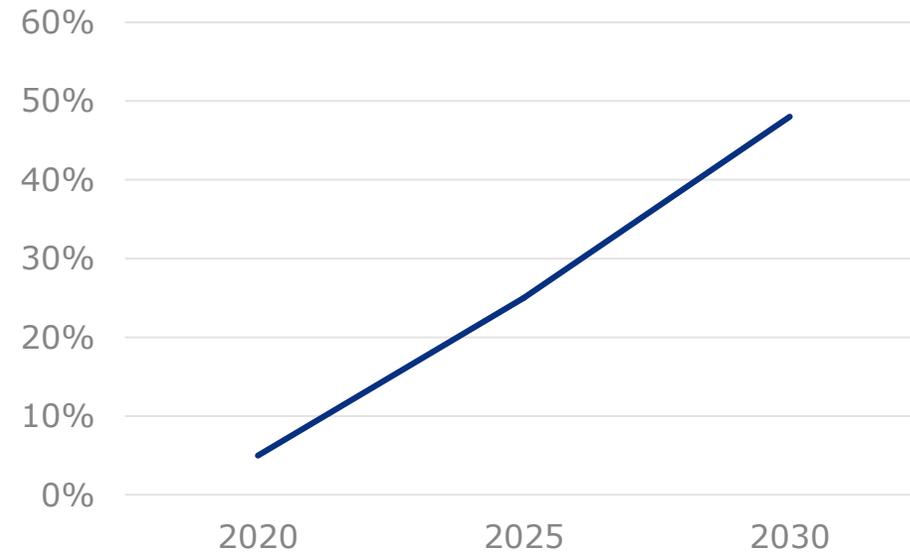
# Strong Growth In Electrical Vehicles Continues

**Global E-Vehicle Sales ('000s)**



Source: Electric Vehicle World Sales Database @ 2020

**E-Vehicle Share Of New Passenger Car Sales**



Source: Canalys @ Feb 2021

# E-Mobility, Many Opportunities For HEXPOL

HEXPOL's Main Applications Benefitting From E-Mobility (Hybrid & Fully Electric)		Plug-in Hybrid	Fully Electric
	 <b>Weatherstrip</b>	 <ul style="list-style-type: none"> <li>• Sealing passenger cabin unaffected</li> <li>• Increase demand for noise cancellation</li> <li>• Lightweight developments for weight reduction and range extension</li> </ul>	
	 <b>Suspension &amp; Dampening</b>	 <ul style="list-style-type: none"> <li>• Different load distribution (engine plus battery)</li> <li>• More air spring systems</li> <li>• Different requirements</li> </ul>	
	 <b>Hose</b>	 <ul style="list-style-type: none"> <li>• Higher temperature requirements</li> <li>• Need for High Performance elastomers</li> </ul>	 <ul style="list-style-type: none"> <li>• Only cooling hoses and AC (no Turbo, no fuel pipe)</li> <li>• Cooling might not need flexible hoses</li> </ul>
	 <b>Tire</b>	 <ul style="list-style-type: none"> <li>• Tires remain but need weight reduction</li> </ul>	 <ul style="list-style-type: none"> <li>• Different design</li> <li>• Different material requirements</li> </ul>
	 <b>Belt</b>	 <ul style="list-style-type: none"> <li>• Transmission of auxiliaries via ICE</li> </ul>	 <ul style="list-style-type: none"> <li>• E-drives won't need timing belts</li> <li>• Water &amp; AC Systems might be in line with E-drive</li> </ul>
	 <b>Wire &amp; Cable</b>		 <ul style="list-style-type: none"> <li>• More sensors – more cable</li> <li>• Charging cables</li> <li>• Different voltage</li> <li>• Charging cables for Power Charger</li> </ul>

# E-Mobility, Many Opportunities For HEXPOL

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**HEXPOL is well-positioned within weight reduction**

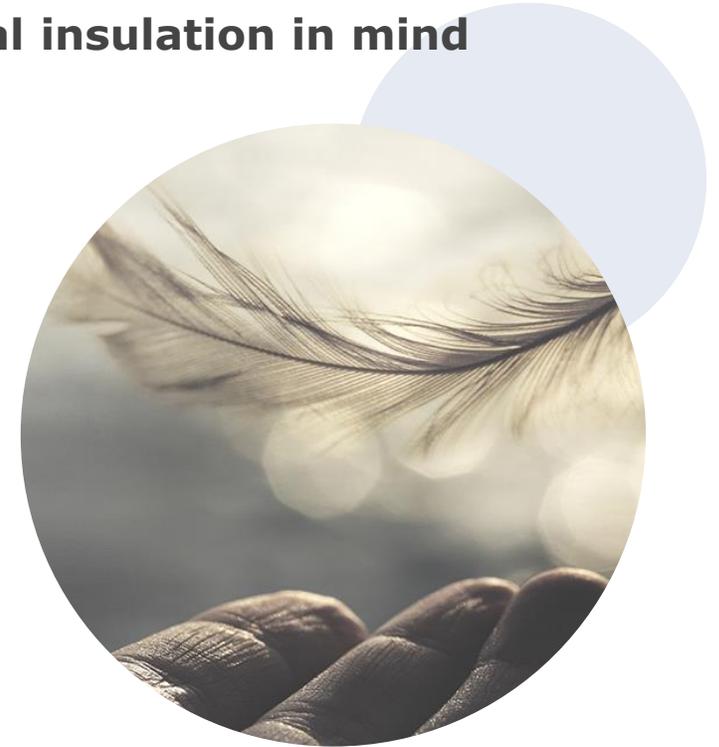
# Light, Smooth, Stiff And Insulating

The HEXLIGHT® range is designed with low density and electrical insulation in mind

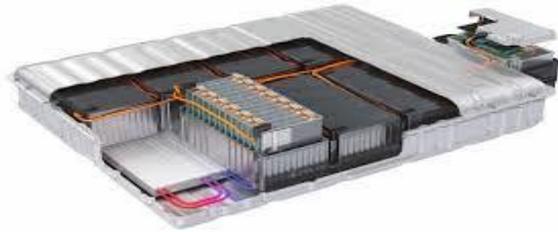
HEXLIGHT offers benefits to the automotive industry, for profiles, weather stripping, vibration and noise reduction. Thanks to its light weight it contributes to overall weight savings – a vital element in the design of all mobility and transport solutions.

Improve customer applications:

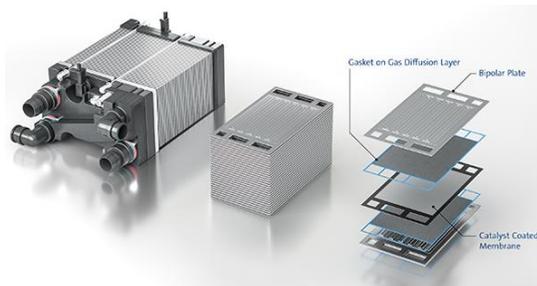
- Lightweight
- Low emissions
- None conductive



# Potential New Applications



- Sealing for battery housing
- Dampening mats for battery cells
- Cooling systems for battery pack



- Sealing for F-Cell housing
- Layer sealing



- Cable and connectors for supercharger
- Infrastructure cabling for charging stations





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## **Additional Sustainable Developments for Automotive Industry**

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# PVC Replacement

## High Flow TPE for instrument panels and trim applications

Development project based on customer demand

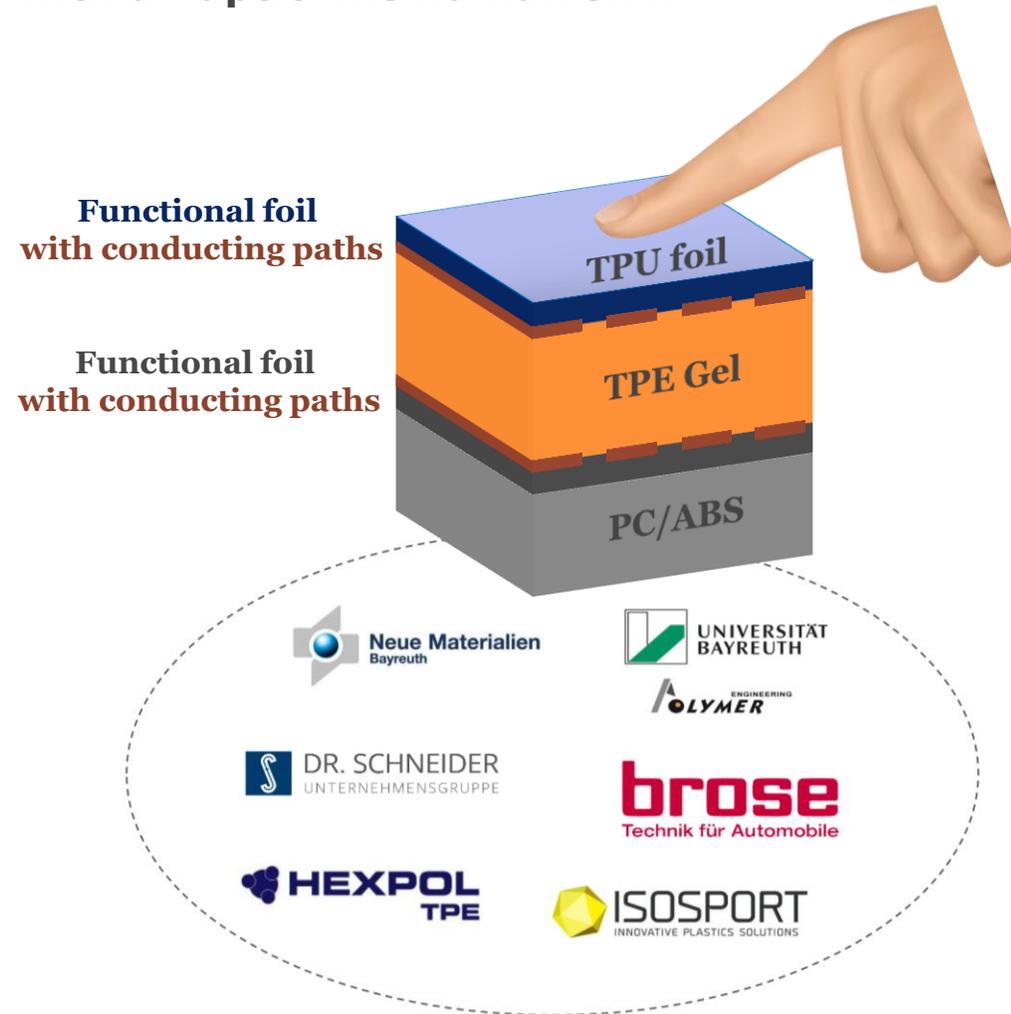
- Replacement of costly processing methods and non-recyclable materials: PVC slush molding, PU coatings and foil processes
- Higher sustainability due to recyclability and lower density
- Highly innovative enabler for industry changer



INTERIOR SOFT TRIM APPLICATIONS

# SenseSkin – Soft-touch With Functional Integration

Public founded R&D project for realization of control elements with a haptic like human skin



- Transparent TPU foil with local backlighting
- TPE Gel similar to human skin with automotive spec.
- Sustainable alternative for PUR foams with additional functional integration (e.g. electrical buttons & sliders)
- Realisation of fully automated injection moulding process

Center console demonstrator



# Accelerated Growth With E-Mobility

## HEXPOL & E-mobility conclusions

- Major growth in electric vehicles is expected
- HEXPOL is well-positioned in established and new applications
- Our long application experience and close relationships enables us to be ahead as the segment continues to transform





# Thank You



[investors.HEXPOL.com](https://investors.HEXPOL.com)