

CLEPA Innovation Awards 2018

Innovation in the Automotive Supply Industry



Connectivity
& Automation



Cooperation



Environment



Safety

What is CLEPA?

CLEPA - the European Association of Automotive Suppliers - brings together over **120 global suppliers** of **car parts, systems** and **modules** and more than **20 national trade associations** and European **sector associations**.

What does CLEPA do?

CLEPA is the voice of the EU automotive supplier industry, linking the sector to policy makers.



What is the importance of the European supplier industry?

EU suppliers are **world leaders** in automotive technology for **safe, sustainable** and **smart mobility**.



+3000

CLEPA represents more than 3000 SMEs



56%

of the total turnover of the Global Supplier Top 100* is generated by 38 CLEPA members



21

CLEPA corporate members are based in 21 different countries



+ 5.000.000
direct jobs



+ €75 billion
trade of parts between Europe and the world



Annual investment of
+ €20 billion
in R&D each year



+ 75%
of vehicle value is produced by suppliers



+ €600 billion
turnover each year



around 3.000
patents are filed by the automotive industry each year

Foreword



The CLEPA Innovation Awards celebrate **outstanding achievements** in the European automotive supply industry in the fields of **Environment, Safety, Connectivity and Automation** and **Cooperation**.

Innovation is key to shaping the mobility of the future, and the main trends of digitalisation and sustainability are transforming the automotive industry as well as the vehicle population on the roads. The automotive parts suppliers are active right at the forefront of developments.

CLEPA (the European Association of Automotive Suppliers) represents over 3000 companies supplying state-of-the art technology solutions, as well as more than 20 national trade associations and European sector associations. The industry invests over 20 billion euro year on year in research & development to make road transport cleaner, safer and more efficient, as well as connected, cooperative, automated and thus more 'smart'.

With a record 63 applications received, we are proud to present to you in this third-edition booklet the winners and finalists of the 2018 Awards. Selected by a distinguished jury of international experts, these innovations scored highest marks in terms of ambition, market relevance, impact and quality of their innovation.

For the first time, a special prize was awarded in each category to **SMEs**, acknowledging the important contribution of small and mid-sized companies to the industry's resourcefulness, ingenuity and competitiveness.

I'd like to thank our Innovation Awards partner Deloitte, our Dutch member RAI which supported the Awards Gala, the members of the jury, and all entrants for taking part in this journey. We hope to receive even more applications next year!

Kind regards,

Sigrid de Vries
Secretary-General
CLEPA



Connectivity & Automation



TOMTOM 

Website:

[automotive.tomtom.com](https://www.automotive.tomtom.com)

EV Service

Brings EV driver's peace of mind to the next level



Electric vehicles (EVs) are becoming more popular, but range anxiety is still the main barrier for people considering buying an EV. Range anxiety is the fear of not being able to reach the destination on the current charge. This anxiety is caused by underdeveloped charging infrastructure and relatively long EV charging times compared to re-fueling internal combustion engines.

To combat range anxiety, we launched the **TomTom EV Service**, available in Europe and North America. This service provides EV drivers with real-time charging station availability information, including essential information such as opening hours, payment methods, plug types and more. The real-time information is sourced from market leaders in EV charging locations, and then intelligently fused with the TomTom Map and updated throughout the journey. With the TomTom EV Service, drivers can plan a journey in the most convenient way, making ownership of EVs even more attractive.



veoneer

Website:

www.veoneer.com

LIV 2.0

The Context-Aware Research Platform



LIV 2.0 is Veoneer's AI-equipped research platform that understands and responds to context. Created to address the under-utilization of active safety systems by drivers, LIV 2.0 can distinguish between risks the driver has and has not attended to, making it possible to adjust warnings and minimize annoyance alerts.

The innovation of the LIV 2.0 system provides the integration necessary of external and internal sensing so that driver and vehicle can understand each other. As what the other can and cannot do makes more sense, it is possible to launch and refine new safety systems and automation in a way that increases user acceptance to the technology.

The LIV 2.0 is also by itself a starting point for other innovations, as its inception provides a platform for new ways of thinking about driver-vehicle interaction and occupant-vehicle interaction.

Technologies developed in the LIV 2.0 are expected to launch in the near future.



Connectivity
& Automation



mySpin for 2-Wheeler

Easy Integration of Smartphones in
Motorcycle Infotainment Systems



BOSCH

Invented for life

Website:

www.bosch-softtec.com



A study from 2017* shows that 80% of the riders want to use their smartphones while riding without endangering anybody. This shows, how relevant a smartphone integration solution for two-wheelers is!

mySPIN allows riders to use apps safely during their ride. This convenient solution enables apps and connected services to be displayed on the two-wheeler's display and lets the rider control them by using rotary controllers and buttons on the handlebars.

It is also the basis for more information such as the topography of the upcoming route, hazard warnings, traffic, speed limits, weather conditions or POI.

mySPIN lays the foundation for establishing a new digital exchange between motorcycle, driver and car manufacturer (e.g. information on the technical condition of their vehicle or on driving performance).

The product has been launched in 2017 on the BRP Can-Am Spyder.

**SMEs
Winner**

**Connectivity
& Automation**



Presence Management Platform

The Global Platform for Digital Visibility
& Smart Mobility



Website:

www.navads.eu



Navads developed a world-leading location data management solution to improve the digital visibility of business locations in all relevant digital platforms. As Navads' wants to achieve 100% accuracy in data, we plan to drive the data safety industry of the autonomous vehicle making the user experience much more relevant for the aftermarket as well.

With our mapmaker DNA, Navads is at the forefront of smart mobility and connected driving. Our integrated relationships with publishers, assure the solution catered to our once 'futuristic' demand-driven economy with the trends of autonomous driving, voice and proximity search.

Our platform is future-proofed, and our developments have furthered data standards that will be part of connected driving, such as storefront recognition, indoor mapping, richer attributes, service areas and entry-points.

With the rise of voice search for maps, apps and screenless search combined with the decline of search via store locators and websites, this will be a vital innovation for the aftermarket auto industry, so that they will be visible to the connected driver.

WINNER

Cooperation

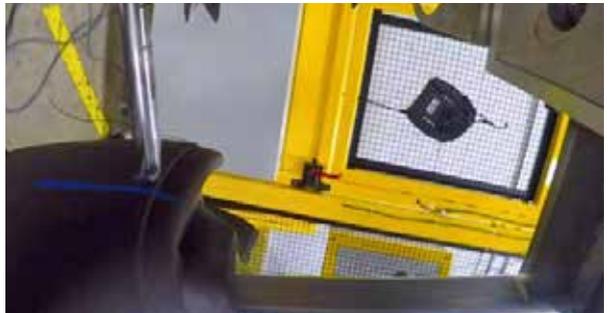


Real-Time Scanning for Stitching Automotive Interiors



Website:

www.intevaproducts.com



Inteva Products' Real-Time Scanning for Stitching Automotive Interiors enables "live" scanning, and immediate execution, of dimensional adjustments to the program path as an instrument panel is being robotically stitched by programmed equipment. Real-Time Interior Systems Scanning marries the cutting-edge advances in the use of lasers in automotive manufacturing with Inteva's unique robotic stitching technologies.

This innovation takes a process that is already advanced (the robotic stitching vs. traditional cut-and-sew processes, of instrument panels and door trim), to an entirely new level in quality, efficiency and cycle-time excellence. The Real-Time Interior Systems Scanning process allows for scanning and subsequent path corrections to take place during stitching, eliminating the need for pre-scanning. This advancement reduces the average cycle time of a stitched surface by approximately 20-30%.

There are currently five cells performing this process at two Inteva manufacturing facilities.

2nd
PRIZE

Cooperation



Website:

www.magna.com

Carbon Fiber Subframe

Bringing Carbon Fiber Composites into Vehicle Structure



In pursuit of lower vehicle weight to reduce emissions and improve fuel efficiency, Magna International, in cooperation with Ford Motor Company, developed a prototype carbon fiber composite subframe which reduces mass by 34 percent compared to a stamped steel equivalent.

By replacing 45 steel parts with two molded and six metallic parts, the subframe achieves a dramatic 82 percent component reduction.

The subframe is the result of a research and development project between Magna's Body Exteriors & Structures Group and Ford Motor Company to research mass-reduction benefits and technical challenges of using carbon fiber-reinforced composites in chassis applications.

The design has passed all performance requirements based on computer-aided engineering (CAE) analyses. Prototype subframes have been delivered to Ford and are undergoing component and vehicle-level testing.



Cooperation

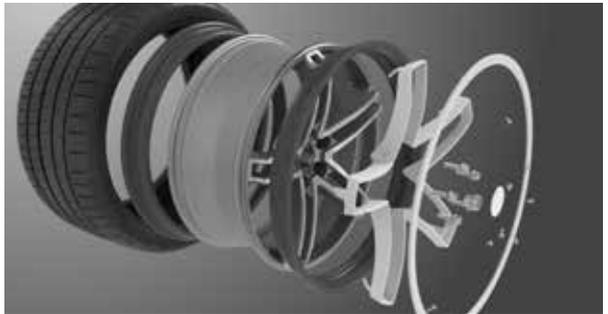


Website:

www.maxionwheels.com

ACORUS

A Reinvention of the Wheel



Built to withstand the toughest road conditions, the ACORUS Flexible Wheel keeps drivers and passengers safe by absorbing and dramatically reducing impact and vibrations from potholes or road hazards.

In addition to improving ride comfort and lowering road-noise levels, ACORUS eliminates costly tire and wheel damage. And with fewer damaged tires going to the landfill, ACORUS is reducing the environmental impact.

The patented new technology, which is compatible with all passenger tires on the market, also minimizes the barrier to autonomous driving as a mechanical solution for potholes – you can drive right through it, rather than navigate around it.



ACORUS was developed in a collaboration between Michelin and Maxion Wheels.

<https://www.michelin.com/eng/media-room/press-and-news/michelin-news/Innovation/MICHELIN-ACORUS-technology-it-bends-but-it-won-t-break>

**SMEs
Winner**

Cooperation



Consortium for a Formula E Racing Team

Belgian Consortium (Voxdale-Umicore)
joins hands with Mahindra Racing to
optimize vehicle performance

voxdale 

Website:

www.voxdale.be



The consortium is undertaking a technology development program to develop a smart battery which enables mission critical systems in the Formula E car. The consortium will also offer inputs in aerodynamics, thermal management, and structural integrity. The results of this work will be seen in the Season 5 car.

The 12V smart battery and insights in aerodynamics and materials will allow Mahindra Racing to compete at the highest level in the championship. Our contribution is not just to improve the battery but also running hundreds of simulations of aero, heat, and stress to optimize the performance of the whole race car. Winning or losing a race is a matter of milliseconds. Details like weight reduction, dissipating heat efficiently, and drag force reduction will make for a winning season.

WINNER

Environment



[INWIN](#) [TANKTRONIC](#)

Website:

www.Plasticomnium.com

Tanktronic

Plug-in Hybrid Fuel System Performance: Simplified Through Intelligence



Tanktronic is an intelligent fuel system tailored for plug-in hybrid vehicles. The fuel system allows more features such as, at a lower cost, allowing the larger adoption of next generation fuel system technology which is inherently greener than today's systems.

Tanktronic takes fuel system control to the next level - from conventional mechanical solutions to a truly mechatronic system. New intelligent components enable Plastic Omnium to lower cost and reduce complexity while adding new features such as emissions control and leak detection to be offered to all markets. Thanks to a smart valve, a level sensor, a pressure and temperature sensor, and some innovative software we can provide solutions for refuelling performance, leak detection and purge performance optimization. At the same time we remove nearly 500grams of mass from the fuel system compared to the current solutions on the market.

In brief, Tanktronic brings a step change to traditional fuel systems offering a true controlled system. Things like refuelling performance can be tuned extremely quickly and risks of system damage due to over-filling of the tank can be greatly reduced by intelligence in the software, knowing how many times an operator tries to add fuel.

Using a pressure and temperature sensor combined with 7 years of research on fuel vapour behaviour in a sealed fuel tank we can offer a leak detection system with no moving parts.

Tanktronic is in the final stages of validation and is ready for customer implementation on programs as early as 2020. Plastic Omnium currently has 3 customer evaluations ongoing.

2nd
PRIZE

Environment



faurecia

Website:

www.faurecia.com

EHRS

Recovers exhaust waste heat
for a Cleaner Mobility



Faurecia Exhaust Heat Recovery System (EHRS) is an integrated heat exchanger and by-pass valve that recovers the waste heat from the exhaust gas to heat the coolant, in order to warm up the passenger cabin, the engine block or the engine or transmission oil.

EHRS brings benefits to all type of Powertrains, and are particularly enhanced when used with Hybrids, with fuel economy measured up to 7% on FTP Cold UDDS (ambient temperature at -7°C). In addition, during winter time it reduces by 300 seconds the time needed to warm up the cabin, from -20°C to a comfort temperature of 25°C.

Faurecia has been able to achieve with the new generation of EHRS a weight reduction of 50% for the same level of performance. Its compactness allows integration close-coupled and saves space for after-treatment systems.

Faurecia Compact EHRS is already equipping Hyundai in South Korea since 2016 and will be in mass production in North America in 2020.



Environment

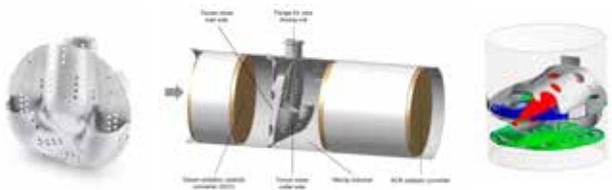


Website:

www.eberspaecher.com

Tunnel Mixer

For sustainable clean diesel systems



Diesel technology plays a pivotal role in virtually every part of the world, moving people and goods across countries and continents. Diesels are powerful, making it fun to drive and they are more efficient than conventional gasoline engines. The challenge is diesel emissions; specifically NO_x, a by-product of the diesel engine, one of the most pervasive pollutants. Eberspaecher, a global leader in aftertreatment, combats the diesel emissions, delivering reliable NO_x abatement, and facilitating clean diesel technology with its new, compact Tunnel Mixer.

Operationally, Eberspaecher's Tunnel Mixer uses a dual swirl concept that enables near zero deposits and ultra high conversion efficiencies in increasingly compact spaces, regardless of injector style. The innovative, new mixer design is effective over a broad range of operating conditions and may be readily adapted for use by all vehicles from passenger cars through the industry's heaviest trucks.

Available for use NOW, Eberspaecher's Tunnel Mixer provides robust, reliable mixing for clean diesel powertrains in every market around the world.

WINNER

Safety



Advanced rider assistance systems

Increasing safety and comfort for motorcycles



BOSCH

Invented for life

Website:

www.bosch-mobility-solutions.com



Bosch's advanced rider assistance systems are radar-based assistance systems for motorcycles comprising adaptive cruise control (ACC), forward collision warning and blind spot detection. They increase safety while enhancing enjoyment, and make life easier for riders at the same time. These electronic assistants are always vigilant, and respond in emergencies more quickly than people can. According to Bosch accident research estimates, radar-based assistance systems could prevent one in seven motorcycle accidents.

Advanced rider assistance systems utilize proven radar technologies from passenger cars to interpret surround sensing signals, taking account of the motorcycle's lean angle (single-track vehicle).

The motorcycle manufacturers Ducati and KTM will install rider assistance systems in production models as soon as 2020.



Safety

veoneer

Website:

www.veoneer.com

LIV 2.0

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3rd
PRIZE

Safety



Latest Camera Generation MFC 500

**Giving the on-board computer bigger eyes.
Merging the worlds of computer vision
& surround view.**



Cameras play a key role in the realization of modern driver assistance systems and are an integral part of the sensors for automated driving. Advances in camera development create important prerequisites for safe, comfortable, and accident-free driving.

Continental has designed this latest camera generation to specifically meet the growing range of demands on the 'watchful eye' of the car. The outstanding features of the new camera generation are excellent night vision characteristics and its high image resolution, which now ranges from one to eight megapixels. The aperture angle has also been increased up to 125 degrees, enabling cross-traffic objects to be detected even earlier as well as traffic light recognition 1st in row. Road Database and eHorizon are an integral part as well.

In addition, the latest camera generation recognizes poses and gestures of vulnerable road users and reacts accordingly for increased safety and enables augmented reality features in full color by merging the worlds of computer vision & surround view into one single camera which is unique. SOP of the latest camera generation is 2020.

Continental 
The Future in Motion

Website:

www.continental-corporation.com

**SMEs
Winner**

Safety



Quiet Vehicle Sounder (QVS)

Making silent vehicles safer



Website:

www.brigade-electronics.com



Brigade's Quiet Vehicle Sounder (QVS) provides a gentle warning sound to vulnerable road users (VRU) who do not hear silent electric and hybrid vehicles approaching. Quiet vehicles are only audible once they have built up speed, wind and road noise to generate enough sound that they can be heard. The solution is to add the noise of a combustion engine back in or choose noise reduction over safety.

The multi-frequency sounder integrates patented bbs-tek® technology. This gives greater directional information to the ear allowing the VRU to instantly locate where the sound is coming from and to take evasive action. The sound dissipates quickly and is only heard in the hazard zone reducing noise nuisance. The pitch and volume increase with speed to mimic an internal combustion engine and the sound cuts out above a given speed threshold when it is no longer necessary, again reducing unnecessary noise.

The Quiet Vehicle Sounder will be available from January 2019.

Special thanks to our international expert jury:

CONNECTIVITY & AUTOMATION

Arjen Bongard
Automotive IT

Magnus Granström
Chalmers

COOPERATION

Margriet van Schijndel-de Nooij
EARPA- Association of Automotive R&D organisations

Chris Mason
FISITA

ENVIRONMENT

Greg Archer
Transport & Environment

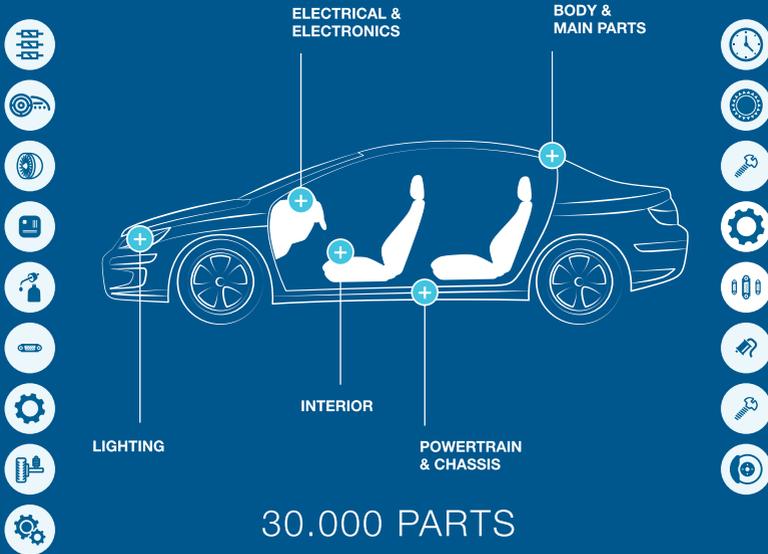
Zizi Samaras
Thessaloniki University

SAFETY

Antonio Avenoso
ETSC- European Transport Safety Council

Michiel van Ratingen
Euro NCAP

Laurianne Krid
FIA Region I



30.000 PARTS

An average car is made of 30.000 parts
and CLEPA members cover all of them

CLEPA

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