Thu, 2 November 2023
Weekly Newsletter

DVN-I
Automotive Interior

NEWSLETTER #185

Editorial

Dow Material Science For Mobility

Dow is a provider of materials science solutions for plastics, which are an important base material for car interiors. DVN Interior recently met with their mobility science team, and in this week's exclusive interview they talk with us about how evolving requirements and regulations drive the development of new materials to make cars safer and more sustainable; durable; comfortable, and adaptable. Applications abound: in soft skins, trim, headliners, flooring, seating, armrests, headrests, lighting and displays…really, everywhere inside the car.

The Nissan 20-23 concept was released digitally, and this week your Coffee Corner offers a perspective on the design process, and how a development team can maintain the contracted-with-leadership design theme across all the project hurdles.

Don’t forget to make your plans for next year’s DVN Interior Workshop at Köln on 23-24 April, which will deal comprehensively with the Interior of the future. Find more information about that event **here**.

Sincerely yours,

Philippe Aumont
DVN-Interior General Editor

In Depth Interior Technology

DVN-Interior Interview: Dow Mobility Science

THE DOW 'INSPIRATIONSTUDIO' IN BELGIUM—A SHOWROOM FOR CUSTOMER INTERACTIONS, WHERE DESIGNERS AND ENGINEERS TOUCH AND FEEL SAMPLES AND MAKE A FIRST SELECTION OF POTENTIAL APPLICATIONS (DVN IMAGE)

DVN Interior: What can you tell us about Dow?

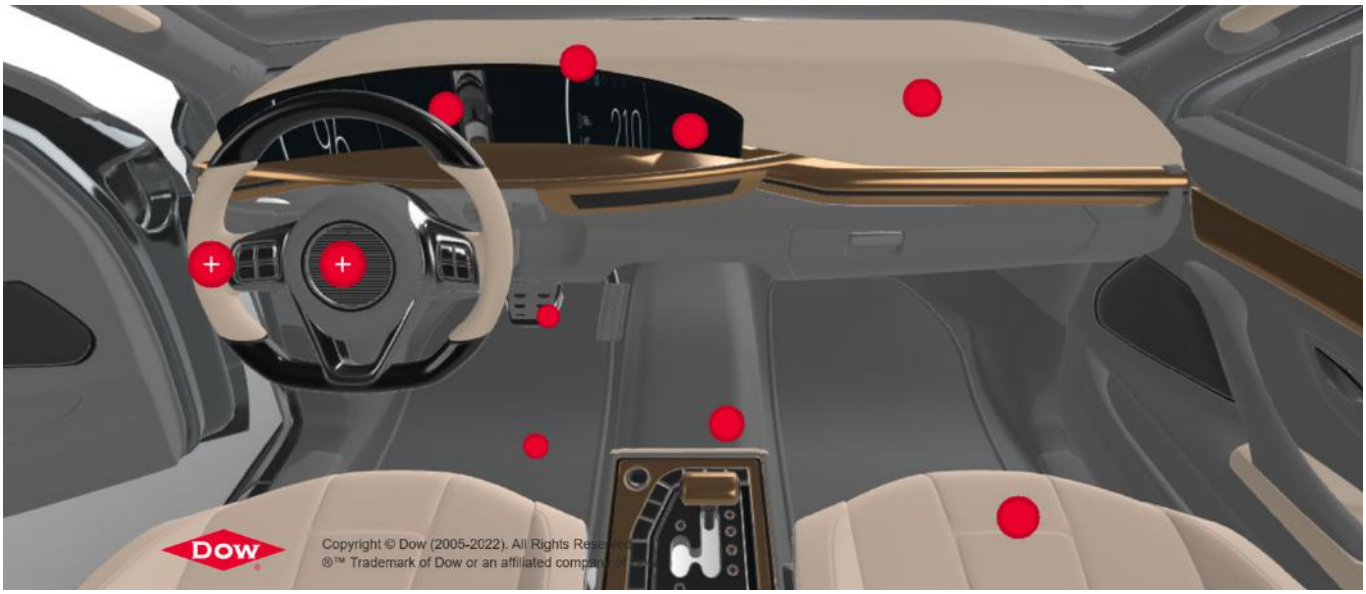
Dow Team: Dow is a global provider of materials science solutions from plastics and industrial intermediates to coatings and silicones with the ambition to become the most innovative, customer centric, inclusive, and sustainable materials science company in the world. Dow builds on over a hundred years of transport experience and expertise in application development. Whether it is solutions for electric or autonomous vehicles, or want to reduce NVH, we customize solutions to drive enhanced safety, performance, reliability, and sustainability. MobilityScience was created to provide automakers and suppliers with a seamless and collaborative global partner for materials innovation through access to world-class technical capabilities and a broad portfolio of materials science solutions for the industry.

DOW TEAM, L-R: **GREGORY FILOU**, E-MOBILITY MARKETING MANAGER E-MOBILITY · **BEATRIZ SANABRIA**, TECHNICAL SERVICE & DEVELOPMENT SCIENTIST · **PHILIPPE AUMONT** (DVN INTERIOR GENERAL EDITOR) · **MEHTAP KAPLAN**, MARKETING MANAGER · **FRANÇOIS DE BUYL**, SCIENTIST · **ISABELLE VANDERSTICHELEN**, COMMUNICATIONS LEADER · **LUC DUSART**, E-MOBILITY MARKETING MANAGER

DVN-I: What are your perspectives are on the future of mobility? What are the major trends, and how will they affect the cars of the future?

Dow: This type of transformation is a generational opportunity. It has probably not happened in the last 100 years at this magnitude since the introduction of the internal combustion engine.

Vehicles need to be sustainable, comfortable, safer, more connected, autonomous, electric, and profitable. New materials are needed to meet performance requirements and increasingly stringent global sustainability regulations, as well as consumers' expectations.



DVN-I: What are your main automotive application, particularly the interior ones?

Dow: In automotive interiors, our customizable MobilityScience solutions prioritize driver demands like sustainability, safety, durability, and comfort and feel for every aesthetic. Our material solutions are applied in soft skins, trim, headliners, flooring, seating (including armrest/headrest) to tailor-made NVH systems, or lighting and displays.

A few of our recent innovation examples for automotive interior:

- Specflex CIR uses a circular feedstock sourced from recycled raw materials of the mobility sector to enable a wide range of flexible foam solutions for comfort and acoustic purposes.

- LuxSense is our silicone-based luxury synthetic leather, meeting transport seat and interior specifications with unique features of soft touch feeling and odorless.
- Our Engage polyolefin elastomer range is our lightweighting solution to replace metal components with plastic.
- Betafoam provide an innovative alternative to traditional sound damping technologies across the mobility space. And our Acousticryl technology is used by tier-1s in their liquid applied sound damping (LASD) formulations.
- From Dowsil optical encapsulants and adhesives to Silastic moldable silicones, optical engineers have the choice for designing any lighting and display devices according to recent auto interior comfort and aesthetic trends.

Our solutions for EVs encompass everything from optimizing battery performance and thermal management, to enhancing safety systems and reducing vehicle weight.

DVN-I: What are your main innovative directions?

Dow: Material science is needed to meet the needs for sustainable, safer, and more connected vehicles. Electrification is driving our innovations in three major directions:

- Miniaturization of automotive electronics: with the trend to design individual components that are more compact, smaller, and lighter, we need to continuously develop materials to enable ease of bonding and assembly in a very efficient way.
- Systems integration and multi-functionality: with the ever-increasing number of sensors, cameras and displays in ADAS, substrates including metals, plastics, or ceramics, need to be integrated with more efficient adhesive solutions with fast dispensing in very small quantities. In most cases, thermal interface and electrically conductive materials are also required for proper management of heat transfer and electromagnetic shielding to ensure each component of integrated systems will operate properly. From an optical materials perspective, the integration of displays into interior lighting elements also requires a variety of innovative optical materials. The integration of these systems into smart surfaces on the instruments, doors panels, and seating drive the need for innovative materials both physically and chemically compatible with each other.
- Sustainability: today's innovation cannot hide the ultimate need to develop new materials solutions that meet the requirements of the transition to circular economy by having an impact on all stages of the circularity journey. This means either to reduce and prevent some materials use, or extend lifetime, or recycle and reuse, or manage end of life. In addition to fulfilling automaker requirements such as low VOCs, best-in-class processing, and more; we have various sustainable solutions in addition to the CTQ factors (critical to quality) such as circularity, recycled content, or being bio-based.

DVN-I: The European Commission recently issued vehicle end-of-life directives; what is Dow's role in enabling circularity?

Dow: We strongly believe it's the way forward for the automotive industry to incorporate more circular materials. We are developing what we call advanced recycling, where we give the molecule a second life without compromising the performance. This mass balance approach traces the flow of sustainable raw materials on verifiable bookkeeping, and we are proud to say that various Dow assets have received ISCC PLUS certification. We are applying this process for seats with polyurethane, and it works for any parts after the end of life of that part.

Circularity also requires a full ecosystem approach to be part of the discussions early from the design phase to the manufacturing phase, up to the use phase. Within this new ecosystem, we are not experts in everything, therefore we need to partner to collect waste, dismantle it, and build a new ecosystem.

Another good example of this ecosystem approach is our collaboration with Bridgestone, to get a self-sealing tire with an interior silicone elastomer layer which can be efficiently separated from the tire at end-of-life, enabling both the tire rubber tread and silicone elastomer to be recycled as individual materials within their respective stream.

We are leveraging our experience in the packaging industry, where we created with several players of the ecosystem, the Alliance for End Plastic Waste (AEPW). This alliance aims to develop, and scale sustainable solutions to minimize and manage plastic waste by fostering collaboration, innovation, and investment. The AEPW seeks to create a circular economy for plastic packaging, ensuring that they are responsibly used, reused, and recycled.

DVN-I: What can Dow offer beyond the automotive market?

Dow: Dow is involved in BTR—Bus, Truck, Railway—and even aeronautics, where requirements are very different. However, we leverage our experience from one market to others. For example, we developed specific Dowsil silicone-based materials for aeronautic applications with enhanced durability and resistance to vibration, heat, and UV, and we transferred this knowledge back to automotive. A similar approach has been taken for the railway sector with our Acousticryl acrylic binders for liquid applied sound damping formulations that provide acoustic control and flame retardancy.

DVN Interior: Do you have a specific strategy or products for China?

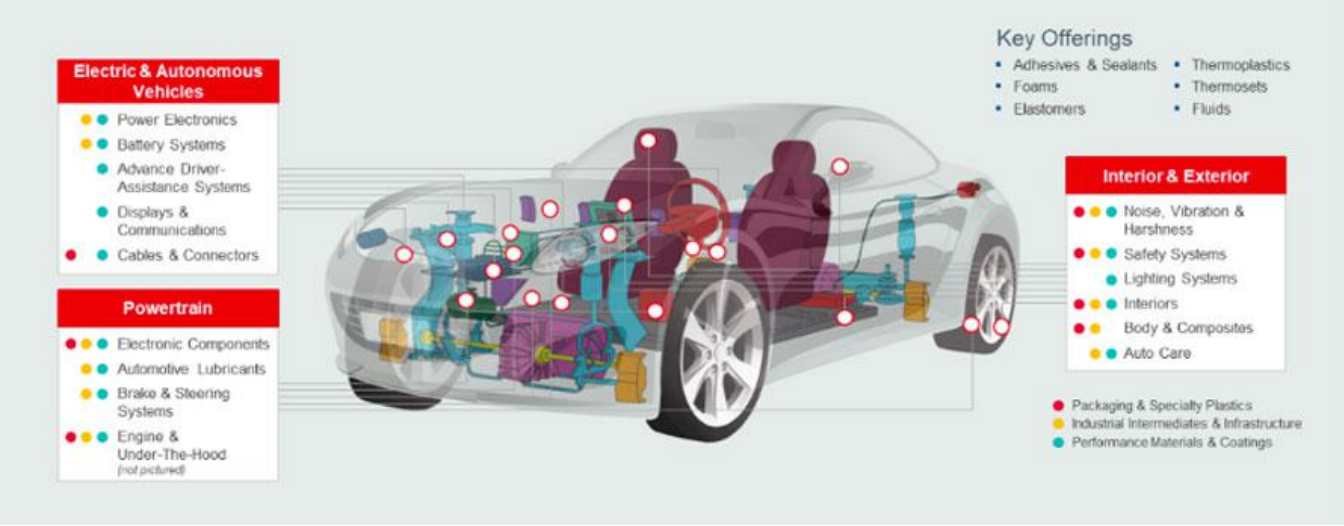
Dow: Dow is a global company; we have global presence with production sites and R&D support, and China is a very important region. It is a key market specifically if we consider EVs. But we don't treat China differently. China is a growth engine for automotive and operate truly under a 'think global but act local' model. We fully embrace a local-for-locals strategy.

DVN-I: What are your R&D and technical capabilities to support innovation in the mobility and transport industry?

DOW SILICONES' BUSINESS & TECHNOLOGY CENTER AT SENEFFE, BELGIUM

Dow: Dow R&D expertise uncovers a variety of applications, with materials characterization and testing capabilities spread across multiple centers located worldwide. For instance, here in Seneffe, Belgium, most laboratories located in the Business and Technology Center (BTC) building are dedicated to a specific industry or market segment, e.g., building and infrastructure; home and personal care; consumers and electronics; mobility and transport; paints and coatings, and so on.

In the mobility and transport application labs, we continuously develop testing capabilities to better understand how our materials behave in real operating conditions, and how they need to be handled for production of parts and components on our customers manufacturing assets.



[Visit Dow Mobility website for more information]

Interior News

Harman Picks GRAS Microphones to Enhance In-Vehicle Audio

INTERIOR NEWS

HARMANN IMAGE

The GRAS 46BL-1 microphone has been chosen by Harman for its new measurement arrays for calibrating vehicle sound systems.

GRAS Sound & Vibration's 46BL-1 microphones, each a compact 1-cm item, will be arranged sixwise to cover the sound field at different head positions of the driver. Due to its small size; high sensitivity, and low noise floor, the 46BL-1 is proficient at in-cabin testing and measurement, and fulfills the Audio Engineering Society's (AES) recommendations for infotainment system evaluation.

A typical Harman automotive sound system has 10 to 30 speakers; Harman chose the GRAS 46BL-1 as it was the only microphone that could match the need for a low noise floor. Greg Sikora's acoustic systems senior director and head of the automotive acoustic systems engineering department says, "For us it is important to use microphones that meet our strict requirements. After all, this will be the equipment that lays the foundation for our work. The only limitations should be the environmental noise floor, not the microphone noise floor. The GRAS ¼-inch microphone is basically plug-and-play, and it lets us retain backward compatibility of our current system while lowering the noise floor".

Antolin Headliner Substrate Made from Waste

INTERIOR NEWS

ANTOLIN IMAGE

Antolin has presented the first headliner substrate produced by thermoforming a PU foam with materials made from urban & postconsumer plastic waste and end of life tires. The aim is to reduce waste and energy consumption during manufacturing and to meet the demand for eco-friendly interiors.

The headliner part looks like a standard headliner and performs exactly the same. This accomplishment has been possible thanks to a material's manufacturing process developed by partner BASF (with chemical recycling) which Antolin has validated and introduced in a fully electric European premium car that has just been launched to the market. Approximately 50 per cent of the headliner weight is recycled. In this project, 100 per cent of the textile; 70 per cent of the core foam, and 70 per cent of the plastic sunroof reinforcement frame have been obtained from residues that couldn't be recycled in any other way.

Mechanical recycling is a process to reintegrate plastic products into the production cycle. This is a mature technology that has found many applications and is well integrated in the industrial processes. This type of recycling is currently being used with thermoplastic structures, but not with thermoset materials.

The process is named Novaform; it allows to process a wide quality range of recycled plastic sources. It has also introduced in serial production in Europe a method to recycle the thermoset runoffs and technical scrap from headliners and transform them into construction boards. The product, branded Coretech, is capable of transforming a composite thermoset product into a board with outstanding insulation and endurance properties.

Antolin Overhead Systems advanced engineering director Enrique Fernandez says, "This project is a step towards a more sustainable car interior trim and a huge leap for the wet-PU technology that has demonstrated to be the most competitive in terms of cost and quality, fulfilling at the same time the most demanding specifications from our clients".

This eco-headliner was the winner at the 2023 Gasgoo awards ceremony held in Shanghai two weeks ago, in the Low-Carbon Materials category.

LG's 57-Inch Display, Multilayer OLED Technology

INTERIOR NEWS

LG IMAGE

LG has showed, in a concept car, technologies the company wants to offer to the auto market. Among them is a display with P-OLED, a double-layer OLED with *two* organic light-emitting layers. This technology is said to have greater brightness and durability compared to single-layer OLED displays.

Compared to the first generation, LG has reduced power consumption by about 40 per cent. With a combination of tandem OLED and plastic substrate, the P-OLED reduces energy requirements and weight at the same time. Also developed for vehicle interiors is the Advanced Thin OLED (ATO). It offers a slim design and is 20 per cent thinner than conventional OLED displays.

The largest LCD presented by LG measures 57 inches and spreads across the entire dashboard from the left to the right pillar. The 12.3-inch 3D LCD cluster provides the driver with real-time information from the road with 3D images by tracking the driver's eye movements.

Also installed in the concept car is a technology developed by LG Display called Switchable Privacy Mode. By controlling the viewing angle, the driver is supposed to concentrate on the front view and not be distracted by the side view of the passenger display. This technology is like the privacy function on a laptop.

Desay SV-Qualcomm Cockpit Domain Controller Platform

INTERIOR NEWS

DESAY SV IMAGE

Desay SV has officially unveiled a high-performance cockpit domain controller platform, the G9SH. It is built on Qualcomm's fourth-generation Snapdragon 8255 cockpit platform, with its high computing power, scalability, and diverse ecosystem integration. It provides automotive solutions that combine high performance and cost efficiency, delivering an immersive and personalized travel experience to end-users.

The G9SH platform caters to the cabin development needs of various vehicle classes in the era of software-defined vehicles. It features high performance, low power consumption, integration of multiple sensors, and extensive network connectivity, ensuring strong adaptability. It can allow automakers to create intricate and secure cockpit features that can be continuously updated and evolved according to passengers' preferences.

Currently, Desay SV and Qualcomm's third-generation intelligent cockpit domain controller platform has already realized large-scale production, and the fourth-generation intelligent cockpit, another product of their collaboration, has secured multiple project orders within the automotive industry and is poised for mass production.

Compared to the previous G9PH, the G9SH maintains high performance while offering lower cost, compact design, simplified wiring, and high integration. This approach accelerates the penetration of domain controllers into vehicles of all classes, providing global customers with secure, comfortable, and efficient mobility solutions and services.

Desay SV's core business focuses on efficient integration of the three major areas of smart cabin, smart drive, and smart service. Desay SV, headquartered in Huizhou, China, is named from **S**iemens **V**DO.

Textiles with Lighting and Smart Functions

INTERIOR NEWS

MUNDA IMAGE

"Since Infineon integrated an MP3 player into clothing in 2002, a great deal has happened in the functionalization of textiles," says Richard Müller, head of development at Ettlin AG in Ettlingen, Germany. Ettlin says they have already implemented smart-textile show car projects with major car manufacturers from Germany and Asia.

"Textiles have always been the interface between man and machine in the car, so it's only natural that they also take on smart functions," explains Müller. He sees growing interest in smart textiles among developers, designers, and constructors of car manufacturers.

Four years ago, Munda was launched as a JV that develops and manufactures textile lighting systems for automotive interiors. The concept is a combination of textiles and woven light guides for lighting, information, and optical effects. This technology was developed by JV partners Aunde and Mentor. Mentor is known in the automotive industry as a specialist for LED-based lighting systems in interiors, for example in armrests; consoles, and instrument panels. Aunde's part is the textile competence; they also make car seats and other interior modules, and are one of the 100 largest suppliers in the world.

What interests customers in Munda's offering is the integration of flexible light guides into fabric structures. This is made possible by polymer optical fibers made of PMMA bonded to LED modules and woven into light-conducting fiber mats.

The fibers can be connected to multiple light sources to create running lights and color scenarios. Another special feature is that the light can emerge from the side of the fiber, which also opens up new application possibilities. If translucent textiles are used as cover material, 'disappearing' or 'dead-front' effects can be achieved. The decor, symbols, or text created by light are then only visible when the light is switched on; otherwise, only the unlit textile is visible.

The implementation of illuminated or sensor integrated textiles requires little installation space and it brings light and smart functions into interior areas that would be almost impossible with other technologies; for example, crash-relevant (and soft) interior components such as headrests. This pleases the designer and purchaser, because no complex and expensive injection moulding tools are required. This makes the process suitable especially for smaller series or special models.

Lear: Financial Outlook and Product News

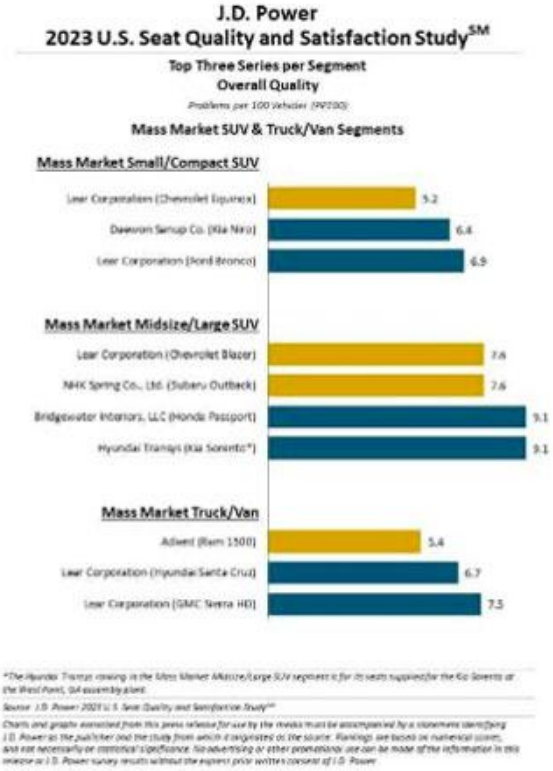
INTERIOR NEWS

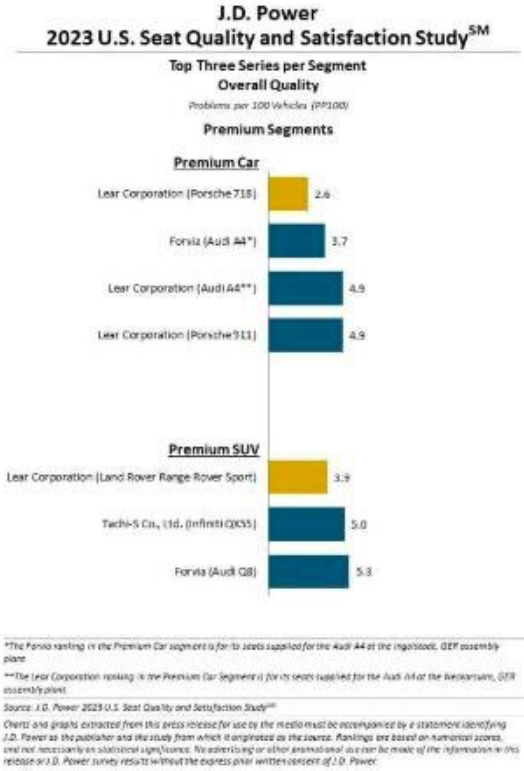
JEEP GRAND WAGONER (STELLANTIS IMAGE)

Lear, a leader in seating and E-systems, reported last week positive results for Q3-2023 and increased their full-year 2023 financial outlook.

President and CEO Ray Scott says, "Lear's positive momentum continued in the third quarter with our fifth consecutive quarter of improved year-over-year results. Our strategy to streamline our product portfolio and improve our financial performance in E-Systems is on track".

Lear received more than twice as many J.D. Power 2023 U.S. Seat Quality and Satisfaction Study awards as any other seat supplier, with four best-in-segment awards and nine total awards.





They are named as a 2023 PACE award finalist for ReNewKnit, a premium fully-recyclable suedelike seating surface material. Composed of 100-per-cent recycled plastic bottles, ReNewKnit fibers are spun from polyester yarn and finished with a foam-free, recycled fleece backing that further reduces water and energy consumption in the manufacturing process. ReNewKnit will be manufactured at company facilities in the United Kingdom and Poland.

They also got their first General Motors seat ventilation program, to accelerate growth in thermal comfort systems, and finalized the launch of complete seats for Stellantis for the Jeep Wagoneer and Grand Wagoneer premium SUVs.

The Design Lounge

Nissan 20-23

THE DESIGN LOUNGE

COFFEE CORNER
DVN
Interior

By Athanassios Tubidis

Every design theme is called a theme because, at first, it is still at a theme stage. This is when it barely looks promising, next to other sketches on the wall, that don't quite succeed to express something new, interesting, compelling, to-the-point, peculiar, crazy, magic, mesmerizing, strong, identitary, and about another thousand adjectives, frequently used to underline uniqueness, by the design directors, or all other decision makers that don't usually hold a pencil and a sharpener. This is also the moment when the character of a sketch at its first improvised interpretation, is based on very little - close to none - technical, marketing, and financial support. Those are being defined simultaneously by the adjacent departments, that I believe, share similar type of motivations and mood towards the upcoming project. In other words, in the design department at this stage, there is nothing objective to compare to and before data of any type arrives, the ballgame is all about (first) emotions. It is also known as the stage of exaggeration. Experience has taught that each time you express something unique and original, the only comparison is its own self; and how do you achieve that: by augmenting the doses of the design recipe. 'Cheating' is a more academic term for this. What is 'a lot' becomes much-more and what is not enough, often disappears, as to better reveal the real hulk behind the specific car character. When this exercise is repeated in a game of one strong personality against another, the goal is clear: the winner will be the one that will first 'fracture' the director's retina once the theme is projected on the big screen.

This is also the moment known for larger-than-life proportions. Big wheels vs small greenhouses have been the trend for many decades, inspired by pure automotiveness, but there is much more. Flattened ¾ opposite panels to the benefit of shorter front overhang perception, inclined opposite A-pillar for a slimmer silhouette read, augmented lateral deltas on wheel housings for a steadier posture on front and rear ⅞ views, 'stepping' wheels on tip-up views for a better stance, lowered and 'faster' roof core-lines, uplifted belt line sections with sharp reflections and defused shadows, etc. The list of visual ingredients goes on and it is updated by the minute as designers test the limits of their skill against the decisive factor that, in this week's

upcoming review, will be (again) evermore subjective and unconventional, in times even controversial. Competition drove standards to such high level that it is hard to describe in words. Even highly skilled execs, stake holders and decision makers approve on the simple mention: ‘love it!’. If that is not the case and because the word designer defines a gifted corporate individual with a sense of getting-the-vibe-before-anyone-else, the sketch usually is not on display.

Concluding the brief description of the design competition conundrum, as soon as the theme is chosen unilaterally, then gets diluted (again) and that is the phase where all lines are verified against what is supposed to be a set-in-stone technical package (that to my knowledge it always proved to be, to everyone’s pleasure, less rigid than initially announced). The whole design struggle is how much of the first theme sketch, which is the equivalent to a visual contract with the leadership, could the designer maintain until its final version. And that, is what makes or breaks ‘the common dream’.

The Question is how you keep ‘proof’ the assets and features of the initial proposal, just so the originality of the overall theme is not compromised. Often, the more the sketch is exaggerated, the more its character is difficult to keep and interpret. Generally, it is difficult to translate in reality a ⅔ body panel with 30” wheel housing and ⅓ greenhouse. Even if such metric were interpreted literally to a generous sports car or big SUV technical package, it would still be challenging. However, when exaggerated features are applied to a humble entry-level segment (e.g., A-segment berline) package, they all get so cramped together within its tiny silhouette that instantly overlap. We would almost need to reinterpret car-body design language as what or where starts and ends the door panel with respect to the front and rear wheel housings, the wheel housings with respect to the front and the rear overhangs, hood and bonnet with headlamp projectors, taillights with wheel housing and spoiler, side air intake and C-pilar. Where is the rear window?

As impossible as it seems, sometimes magic happens out of a combination of pure design skill and happy surfacing coincidences. In this week’s CoffeeCorner it is called Nissan 20-23 and we are really looking forward to see it in real!

See recent DVN Interior news about this concept

News Mobility

SenseAuto's AGI Mobility Technology

NEWS MOBILITY

SENSE AUTO IMAGE

Microsoft cofounder Bill Gates said this year, about artificial general intelligence: “AGI doesn’t exist yet—there is a robust debate going on in the computing industry about how to create it, and whether it can even be created at all". That's not stopping suppliers from from saying they've got it and they're using it to reshape the future of mobility by facilitating end-to-end approaches that integrate detection, tracking and planning with unprecedented accuracy. The idea is that such integrated approaches can achieve high levels of performance by drawing connections between different interrelated functions, with the potential to facilitate autonomous driving systems capable of handling complex scenarios with high accuracy by taking a more unified approach.

Extending the idea, AGI also redefines the smart cabin experience. Through multimodal perception including multi-round conversations and visual signals, the intelligent cabin empowered by AGI could comprehend users’ emotions, enabling deep communication and emotional resonance. With AGI, you could create a human-vehicle co-driving system that offers real-time, humanlike, personalized interactions between users and vehicles.

Automakers used to compete largely on their engineering capabilities. While these qualities still matter, the new battlefield today is the customer experience. Consumers demand an engaging, personalized assistance comparable to technologies like intelligent home devices. AGI, so goes the theory, is key to meet these growing expectations.

SenseAuto strives to provide AGI technology for the smart auto era. To improve safety for the drivers and passengers, SenseAuto has introduced some of their latest solutions; for instance, the Health Management app to detect multiple health indicators such as the heart beat and respiratory rate to monitor the driver’s health condition.

The Child Presence Detection feature detects the presence of a child and automatically turns on the intelligent child-care mode for companionship. The Travel Assistant feature generates itineraries for the users in seconds and adjust the recommendations based on their feedback. It also seamlessly integrates with various apps to make hotel and ticket bookings.

AI Paves the Way for Safer Roads

NEWS MOBILITY

IBM-IX IMAGE

AI algorithms have enabled features such as collision detection, lane departure warnings, adaptive cruise control, pedestrian detection, and driver monitoring. These driver assistants help detect potential hazards and mitigate risks, thereby reducing the likelihood of accidents and improving overall road safety for both drivers and pedestrians. AI enables real-time data analysis from various sources such as sensors, cameras, and connected vehicles to detect patterns. Through this, vehicles can identify potential risks and provide actionable insights to improve safety. For example, AI can analyze data to detect driver fatigue, distraction, inebriation, or aggressive behavior, alerting drivers or taking corrective measures.

Self-driving cars will rely on AI algorithms to perceive the surrounding environment, make decisions, and navigate safely. By minimizing human error, autonomous vehicles have the potential to significantly reduce accidents caused by human factors. AI-powered predictive analytics algorithms also monitor vehicle performance, detect anomalies, and predict potential failures or maintenance needs. This proactive approach allows manufacturers, transport-as-a-service (TaaS) fleet owners, and private vehicle owners to address maintenance issues before they become critical.

Meanwhile, vehicle simulations and testing platforms that use AI to generate scenarios based on real data or simulate real responses allow manufacturers to evaluate vehicle safety in a virtual environment before physical prototypes are built. These simulations enable extensive testing scenarios, assessing the safety performance of vehicles in various conditions and scenarios. This helps identify potential safety issues and refine designs, reducing the risks associated with real-world testing.

Collaboration between manufacturers, regulatory bodies, and research institutions is vital to enable the sharing and analysis of data and identify changes to road layouts and construction that can improve the safety and efficiency of road networks. Many of these companies are working with AI facilitates to help identify trends and changes that can be made.

General News

Covestro Polycarbonate Recycling Plant Opens in China

GENERAL NEWS

SUCHETA GOVIL, COO (THIRD FROM LEFT); LILY WANG, HEAD OF THE ENGINEERING PLASTICS BUSINESS UNIT (FOURTH FROM LEFT), AND DR NICOLAS STOECKEL, HEAD OF ENGINEERING PLASTIC OPERATIONS (FAR RIGHT), CELEBRATE THE STARTUP OF THE NEW PLANT. (COVESTRO IMAGE)

Covestro has begun operations at their mechanical recycling (MCR) compounding line for polycarbonates, at their facility in Shanghai, China. Earlier this year, the company unveiled a polycarbonate made of 90 per cent recycled content.

MCR is the process of recovering plastic waste by mechanical processes such as sorting, washing, drying, grinding, re-granulating, and compounding. MCR does not change the chemical structure of the material, which permitsr repeated recycling and reuse of polymeric materials, creating a closed loop.

Set to produce more than 25,000 tons a year of premium-quality polycarbonates and blends containing mechanically recycled materials, the line is a response to the growing demand for postconsumer-recycled (PCR) plastics, particularly in applications within the automotive sector.

The company also transformed an existing compounding line at their Map Ta Phut site in Thailand for mechanically-recycled polycarbonate. This is intended to support a goal of supplying over 60,000 tons of recycled-content polycarbonates annually in the Asia-Pacific region by 2026. The company's program to enhance polycarbonate production capacity and capabilities across the Asia-Pacific region also includes the addition of new production lines at sites in Shanghai and Guangzhou in China as well as in Greater Noida, India. The combined capacity now exceeds 100,000 metric tons annually.

Covestro COO Sucheta Govil says, "The launch of our MCR production line marks another significant stride in our journey toward achieving a circular economy and operational climate neutrality by 2035".

Continental's Automotive Struggles

GENERAL NEWS

CONTINENTAL IMAGE

This past August, Manager Magazin reported on how automotive supplier Continental is to be repositioned. Now, the business magazine writes that the motto is "Get out of the car".

Continental's automotive boss Philipp von Hirschheydt gave a dramatic speech: "We have to become a viable company again, to be able to finance and to pay our growth and our salaries ourselves. About €3bn in cash has been burned by the auto division in three and a half years. In the first half of 2023, Continental was the only major supplier with a negative margin".

The catastrophic figures and news have driven the group's top management to radical plans, according to Manager Magazin. Supervisory Board Chairman Wolfgang Reitzle and CEO Nikolai Setzer want to reorganize the entire Group. The idea is gaining traction that Continental should return to what they were 40 years ago: tires and rubber—and as little as possible an automotive supplier.

Discussions are ongoing for as many business activities as possible to be sold or brought together with partners; for example, the user experience; cockpit screen, and autonomous mobility units.

At the end of it all, the group's leaders hope, there will be a new Continental—leaner, more efficient, and more profitable.