



## **INTERNATIONAL MOTOR SHOW GENEVA 2009**

**March 3<sup>rd</sup> and 4<sup>th</sup> 2009 : Press days**  
**March 5<sup>th</sup> until 15<sup>th</sup> 2009 : Public days**

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### ***RELATIONS PRESSE***

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## I - The Group

The French HEULIEZ Group is specialized in turnkey development and production of niche vehicles, derivatives and Body In White modules and has a rich history in product technology. With more than 470,000 retractable hardtops produced since 2000, over 88,500 Opel Tigra TwinTop' assembled and more than 750 patents filed, HEULIEZ Group is the leading manufacturer and developer of this technology. Founded in 1920 and based in Cerizay, France, HEULIEZ counts more than 1,000 employees in France, Spain and the Slovak Republic. HEULIEZ has commercial representation in Germany, Korea, Japan and China.

These are the three entities HEULIEZ is composed of :

- **HEULIEZ ELECTRIC** This company will build electric vehicles under the HEULIEZ brand for the global market. The company will also engage in international programs with global players to develop cutting-edge electric vehicle technology and vehicles.
- **HEULIEZ ENGINEERING AND DESIGN** This company will build on the design experience of the R&D centre HEULIEZ to create a global leader in design and development for the automotive and aeronautic industry.
- **HEULIEZ MANUFACTURING** This company will focus on utilising the manufacturing facilities in France, Spain and Slovakia to build cars and automotive parts for the global market. Diversification in various fields like aeronautics, railway, heavy goods vehicles, will continue. The company will also promote HEULIEZ patents in retractable hard top technology.

## II - HEULIEZ, the Electric Vehicle automaker

### **HEULIEZ: a long history in the field of electric vehicle production.**

As early as 1983, HEULIEZ was producing EV prototypes in particular for urban buses and Citella for PSA. Starting in 1993, HEULIEZ started the series production of 100% electric vehicles with the Peugeot 106 Electric, Citroën AX & Saxo Electrique. Over 6400 units were produced on an EV dedicated assembly line in Cerizay. **HEULIEZ is the world leader for the production of 100% electric cars.**

Additionally, HEULIEZ participated in research development of new EV technologies with the programs Liselec (EVs in self-service car rental) and Vedelic (EVs with lithium-carbon battery).

In 2003, HEULIEZ joined with Dassault to create SVE (Société de Véhicules Electriques) in order to develop a new generation of environmentally friendly electric passenger cars. The two partners brought their own complementary know-how to the product development, including energy management (drive train control & on board energy optimization), vehicle development and production. Several series of CLEANOVA prototypes were built during this collaboration. These prototypes demonstrated technological breakthroughs compared to current EV's, especially in terms of range, battery charge times, driving performance and comfort.

This then led to fabrication of 40 EV prototypes, produced by HEULIEZ, which are currently being tested throughout France in the government supported program VAL-VNX (label PREDIT<sup>(1)</sup>).

**With this experience, HEULIEZ now ranks as a leading manufacturer in the Electric Vehicle industry.** HEULIEZ' area of expertise is equipping existing chassis of current passenger cars with an EV power train, but HEULIEZ also masters the development of dedicated EV designs with specific systems including dedicated electric drive trains and bodies.

(1) PREDIT : Programme national de Recherche et D'Innovation dans les Transports terrestres.

## **HEULIEZ launches its own brand of electric vehicles with the Friendly: 100% electric, patented and ready to export**

This vehicle emphasises the respect of the environment and of course its occupants. Simply stated it is "eco friendly" and "user friendly" all in one.

**The Friendly** will be produced by HEULIEZ in Cerizay, France, using its modern assembly lines. The plan is to market the vehicle starting in April 2010 with a yearly production goal of 10 000 units. This initial production will cater for the EV requirements of regional/municipal governments and rental car fleets before upping the production volume in order to target the general public. The HEULIEZ **Friendly** displayed has been realised with the financial support of the French regional government Poitou-Charentes



## **HEULIEZ: First car manufacturer to use the Michelin Active Wheel.**

**MICHELIN** has chosen **HEULIEZ** for the development and realisation of the first electric series car using Michelin's new Active Wheel technology. It is the **Will** that is to first employ this ground-braking technology. 10 demonstrators will be up and running within the next months; this is being made possible through the support of Oséo. The production of 10 functionable demonstrators is making progress.

Starting in late 2009, the **Will** is to be produced on the HEULIEZ assembly lines in Cerizay with a production goal of 5000 units the first year then ramping up steadily over the following 5 years.

This launch marks an important breakthrough for the automobile industry: the **Will** is the first car in history to be built without a centralised drive-train. As with the HEULIEZ **Friendly**, the **Will** is to be initially marketed to regional and municipal governments as well as to rental car fleets and professionals before being sold to the public.

The vehicle to be discovered on HEULIEZ stand has been developed in close collaboration with **MICHELIN** and **ORANGE**.

## **HEULIEZ demonstrates once more its innovative energy with the Pelican, a 100 % electric commercial vehicle**

This utilitarian tricycle developed by **ECO&MOBILITE** is produced integrally by HEULIEZ. The **Pelican** is already homologated on French streets and aggregated by the ADEME (the French agency for environment and energy management). Its range of 35 km and maximum loading weight of 200 kg are largely enough to assure park and garden maintenance, small litter collection, transport of minor amounts of material. In the standard the **Pelican** is equipped with a front tilting container, but according to the customers' wishes it can be replaced by a platform, a box or a tank. 450 **Pelicans** are produced until the end of this year, starting from next year the annual production will reach 1500 units.

### III - HEULIEZ, Partner to the automotive industry

To meet the increasing demands of its customers, OEMs and suppliers, HEULIEZ has focused on the strategic choice of acquiring an overall competence in the field of automotive BIW (Body-In-White) for small and medium series.

HEULIEZ is known as a reliable partner able to serve and help car manufacturers and equipment suppliers throughout the world in every step of an automobile project :

- Styling and concept studies (design studies, modelling, and realisation of concept cars),
- Engineering and product development (CAD design, CAE simulations, prototyping, testing, and homologation),
- Industrialisation,
- Stamping of body parts for medium and large series,
- Production of painted and all-equipped BIW modules or sub-assemblies,
- Welding of sub-assemblies and complete car bodies for small and medium series,
- Anti-corrosion treatment (E-coat), painting of body parts and complete car bodies in small and medium series,
- Final assembly of BIW modules and complete vehicles for small and medium series.

#### HEULIEZ produces the “mindset” of the company SPIRT AVERT AG

HEULIEZ goes on with its strategy for the electric car market: the french car manufacturer finished lately the realization of the prototype of the Swiss company SPIRT AVERT AG. The design of the **mindset** comes from the former head of design at Volkswagen brand group, Murat Günak, today CEO of mindset ag.

Murat Günak who also was head of design of PSA, then at Mercedes and Volkswagen, started 2007 the creation of its own electric car. Presented as a project in the beginning of the year 2008, this small coupe with 2+2 seats and high wheels and is an innovative car which technique and aesthetic differs in a clear-cut way from classic vehicles. The **mindset** is the first European electric high performance vehicle but still, it is adapted for a daily use. Right from the start it has been conceived and developed as an electric vehicle. The prototype, produced by HEULIEZ, drove for the first time at a presentation on the 12 November 2008 in Bonn (Germany) in front of representants of the European electricity industry.

### **HEULIEZ assembles first GTF car**

HEULIEZ is proud to display on its stand, the first vehicle from GTF Innovations, called "la petite voiture qui roule sous les étoiles", a small car you'd wish to drive at a starlit night. An open air design with a new and modern approach for a leisure vehicle.

An open air design with a new and modern approach for a leisure vehicle. Its generous layout accommodates 4 adults comfortably.

This leisure vehicle inspires robustness while keeping elegant lines and beauty with its exceptional high quality "Amber Macaroon" colour scheme. The Instrument panel's aluminium ringed white dials complete the look of this innovative design.

GTF Innovations carefully chose HEULIEZ for the assembly of this vehicle. For GTF Innovations, HEULIEZ capacity to adapt to small and medium production volumes, whilst guaranteeing quality and traceability was of great importance to them, given today's modern automobile industry.

The founding team of GTF innovations (Created in 2004) is composed of 3 associates all with the same passion for the car world and a common vision for their future car. This encounter has thus resulted in the creation of this new brand and car. This project, that will answer the requirement for a casual leisure vehicle, has been supported from the beginning by the Group Piroux Industrie.

### **Development of a tactile anti-pinch protection system with partner Sealynx**

Sealynx Automotive, specialist for rubber seals for the automobile industry, has developed a revolutionary new active safety system which is fully integrated into the function.

This innovative system, called Safelynx, enables us to take up the challenge of automobile manufacturers who are continuously developing more and more motorised opening parts (sliding doors, rear tailgates, boots, windows and convertible tops) for which the question of safety has to be addressed.

The OPEL Tigra Twin Top prototype displayed at the last Geneva Motor Show is a perfect demonstration of what Safelynx can provide as advantages for the customer, such as: a retractable roof with its fully secured critical zones (scissor or guillotine effect). In this way, an impulse triggered remote control could replace the fixed remote control which needs to be pressed and held down, considerably improving the comfort and ease of use. Imagine this! : A cabriolet whose roof can also be closed by a rain detector! No more worries in summer.

Safelynx is unique because, compared with other existing systems which have their limits in critical zones; it secures the full perimeter with very high sensitivity.

### **HEULIEZ contract with Chinese automobile manufacturer CHERY**

HEULIEZ signed a contract July 9th 2007 with the number one independent Chinese automobile manufacturer CHERY AUTOMOBILE for the development and production of a retractable hard top module planned to equip CHERY's first Coupe-Cabriolet.

HEULIEZ is currently developing the new roof system for CHERY as well as working on the integration of the new system to the current vehicle platform. The engineering work is being done in France while the production of the roof and deck lid module will be implemented at a new HEULIEZ location in China starting in 2009. The vehicle will be marketed throughout the world.

This first contract signed with a Chinese manufacturer is a step further in the company's international development strategy, which HEULIEZ has been pursuing since the year 2000 .

With this contract, HEULIEZ confirms its position as a key global player for Retractable Hard Top systems.

### **HEULIEZ and ASC form global strategic alliance for open-air roof systems :**

The HEULIEZ Group and ASC Incorporated have a strategic alliance by which each company will expand its global reach by representing, in its own home market, certain open-air technologies of the other.

In Europe, HEULIEZ with more than 400 000 units produced, is the leader for RHTs in Europe, and has registered more than 750 patents and innovations worldwide. In North America, ASC has achieved a leadership position in soft-top technology, with more than 150 patents and innovations, and more than 1 million convertibles produced.

In particular, the alliance will allow ASC to represent HEULIEZ's retractable hard top (RHT) technology in North America and HEULIEZ to represent ASC's soft-top convertible technology in Europe.

This alliance allows each company to expand globally at a minimum cost and at the same time leveraging the expertise of the other where needed.

## IV - Innovation and technology

### Styling, Advance Engineering, Product development and Prototyping

HEULIEZ has a high level Research & Development pole specialised in the design and development of “niche” vehicles and large series, as well as concept car and prototype realisation.

With over 210 employees, this technological pole can provide the complete development of a vehicle from concept and style definition up to the industrialization.

HEULIEZ therefore offers to all car manufacturers and their system suppliers a unique set of skills and technical means that are ISO 9 001, ISO 14 001 & ISO/TS 16 949 certified.

### HEULIEZ Retractable Hard Top Patents

The leading position of HEULIEZ in the strongly expanding sector of Retractable Hard Tops is confirmed by:

- The remarkable success of the **PEUGEOT 206 CC** with more than 370,000 RHT modules produced at HEULIEZ since 2000,
- The collaboration with the German carmaker **OPEL** for the turnkey development and serial production of the **OPEL Tigra TwinTop**,
- The realization of a large number of concept cars equipped with innovative RHT concepts, as for example the HEULIEZ "**Macarena**" and HEULIEZ "**EDELWEISS**",
- And the filing of more than 250 “Retractable Hard Top” patents in France and **750 in the whole world !**

These RHT concepts are filed under the brand name “RETRACTOP” registered by HEULIEZ. HEULIEZ has filed the majority of these “RETRACTOP” patents in the countries of the major carmakers. The patents respect the most demanding requirements:

- Respecting the vehicle design without any compromises,
- Adapting to various car types: 2 seat-roadster, front or rear engine vehicle, Coupe Cabriolet with 4 or 5 real seats for adults, SUV 4WD, minivan, etc.
- Obtaining a trunk volume of up to 300 litres in cabriolet position,
- Guarantee of an optimised interior habitability,
- Managing air flows in the passenger compartment,

Respecting the continuously increasing safety requirements, more particularly in terms of crash tests and roll over protection.

In addition to its know-how in the development and production of these kinds of vehicles, HEULIEZ is also able to offer the option of non-exclusive license agreements allowing the carmakers to use one or several of these patents for a specific car project.

The HEULIEZ "Advance Engineering" Team continues its efforts in terms of research and development. The team is already in the tryout phase of a new concept which will mark an important step in the evolution of convertible vehicles.

### **Stamping and welding of sub-assemblies.**

HEULIEZ has added an industrial dimension to its traditional business as an automobile body manufacturer by developing a strong "stamping and welding" activity.

In addition to all major single parts including skin panels necessary for the manufacturing of the **OPEL Tigra TwinTop** complete vehicle, HEULIEZ carries out stamping and assembly of BIW parts and sub-assemblies in medium and large series for most European car manufacturers (CITROËN, FORD, RENAULT, PEUGEOT, RENAULT VI), and System Suppliers (JOHNSON CONTROLS, ARVIN EXHAUST, ACI, etc.) such as:

- Rear bench structure module **RANGE ROVER**
- Rear bench structure module **RENAULT MODUS**
- Front end **RENAULT V.I. Midliner** truck cab
- Front seat structures **FORD FOCUS (I & II), FIESTA, C-MAX**

### **Car Manufacturing**

HEULIEZ is part of the small circle of car manufacturers.

HEULIEZ has more than 130,000 m<sup>2</sup> of covered production area on a 70-hectare industrial park and is equipped with all the necessary production means for car manufacturing i.e.:

- 8 press lines and 1 blank cutting line
- Robotized bodyshop
- 1 E-coat line
- 2 paintshops
- Final assembly lines.

With an annual capacity of 50,000 vehicles and a production volume ranging from a few units to 200 vehicles per day, HEULIEZ is a specialist in the production of “niche” or derivate vehicles, meeting strict quality standards (ISO/TS 16 949).

As such, HEULIEZ is the ideal contract manufacturing partner for small or medium series vehicles.

The turnkey production of the **OPEL Tigra TwinTop** is the perfect and concrete illustration of the competences of HEULIEZ in this field of activity.

### **BIW-modules manufacturing**

Based on its know-how and expertise in the assembly of complete vehicles, HEULIEZ is strongly developing its capacities for the engineering and manufacturing of Body-In-White “Plug & Play” modules and sub-assemblies.

This activity includes the following services:

- Stamping of body parts
- Welding and hemming of body sub-assemblies
- Preparation of mechanisms
- E-coat
- Painting in a new fully automatic dedicated paint shop
- Final assembly of the modules
- 100% geometrical and functional testing
- Shipping

Typical body modules and systems are:

- Closures (doors, tailgates, bonnets)
- Engine cradles, rear axles
- Seat structures
- Equipped roof modules
- RHT roof & deck lid modules.