

Stuttgart – With the purely electrically driven scooter, smart is presenting a further solution for intelligent urban mobility. The innovative two-wheel study translates consistently the characteristic advantages of the pioneering smart fortwo electric drive e-car into a two-wheeler: compact dimensions, agility, high safety standards and the driving fun typical of the smart brand, not least backed by an efficient and locally emission-free drivetrain. In addition to its innovative technical solutions, the new scooter convinces with its distinctive, state-of-the-art design and simple handling. One more advantage is the integration of smartphones: the further developed smart drive kit app has versatile functions such as those of a speedometer or range indicator. As a result, functionality, environmental sustainability and driving fun accompany the smart scooter. The smart two-wheeler will have its world premiere at the 2010 Paris Motor Show, giving visitors an outlook at future zero-emission products from the smart brand.

Dr. Annette Winkler, head of smart says “When our customers speak enthusiastically about their smart they describe the perfect city car that is manoeuvrable, flexible, safe, spacious and fast and offers lots of driving fun - on the road and when looking for a parking space. Lots of people are already looking forward to the zero-emission continuation of the “vision smart” with the smart electric drive, which will soon become a firm part of the cityscape. And now we are bringing all these features to two wheels with the scooter.”

The smart scooter, as practical as unconventional, is most at home in big cities, where it can be used in a variety of ways. In urban traffic, the electric scooter is an intelligent amendment or alternative to the car – with its superior manoeuvrability, exemplary comfort and pioneering safety features. The latter include an airbag, ABS anti-lock brake system and a Blind Spot Assist.

“With the scooter, we consistently continue our “vision smart”: even more driving fun in the city, even more adaptability to the respective living environment, even more flexibility - not least because it offers the possibility to be integrated in our car2go concept”, says Annette Winkler.

The single lane scooter will enable smart to tap new growth potential. Two-wheelers will enable the brand to reach also considerable younger people who do not yet have a car driving licence. In addition, the two-wheel vehicles that have been configured for an “e-drive” from the outset also have functional and environmental advantages they convince with in inner city traffic. All in all, the smart scooter offers also the ideal prerequisites for integration in individual urban mobility concepts such as car2go.

Annette Winkler: “The scooter shows what an integrated, open approach we have to the subject of ‘urban mobility’. This pragmatic approach, combined with smart’s typical fun factor, is what makes smart so special. We perceive mobility as a combination of responsibility and emotion – and our smart scooter accommodates this request in every respect.”

smart scooter – anything but conventional

The smart scooter makes a first impression with its independent, unconventional design based on a sophisticated ergonomic concept. It exudes pure *joie de vivre*, introducing a fresh and surprising element into urban traffic. The design of the electric scooter is characterised by its attractive, sporty proportions: the front looks sorted and compact when viewed from the side, while the rear wheel gives the appearance of being positioned a long way behind the seat area, emphasising the scooter’s forward thrust and agility. The dynamic, elegant appearance is underlined by its composition of complete surfaces and accentuated lines - designers talk of “iconic” design.

The cool appearance of the scooter is emphasised by affectionately crafted details that enhance its

high-value yet trendy effect – from delicate cockpit panelling to a flush-fitted rear light. At the same time, the concept offers practical solutions, extreme ease of handling and outstanding safety.

The electric scooter's supporting chassis structure is consciously modelled on the tridion safety cell of the smart fortwo. Its steel and aluminium frame is clad with fully interchangeable plastic bodypanels. This is another clear parallel to the successful two-seater. A further special feature of the scooter are the long, extensive and translucent elements on the edges of the foot protection (front panelling).

These illuminated side markers improve visibility from the side, and also serve as striking indicators. The smart scooter guarantees distinguished impact in terms of “see and be seen” by means of state-of-the-art LED technology. Both the front headlamp, backlight and brake light are equipped with it.

Visual similarity to its four-wheeled big brother

The smart scooter's white paintwork with green accents underlines its relationship to the smart fortwo electric drive. Also in terms of suitability for everyday use, the electric scooter clearly bears the genes of the two-seater car. For example, the frame of the smart scooter does not only house technical components such as the battery and power electronics, but also offers additional storage space, for example for helmets.

Dynamic driving fun – of course, emission-free

In addition to environmental sustainability, the smart scooter has a focus on driving fun: it is driven by a disc-shaped wheel hub motor in the rear wheel, which offers a powerful 4 kW despite its compact size. The brushless direct current hub drive transmits its power directly to the rear wheel, and is clean and maintenance-free. A further advantage: as the motor does not take up any space in the chassis, more stowage space is available there.

As full torque is available right from the start, speedy moving is possible. At traffic lights, smart scooter riders can easily outpace most cars. They also benefit from the scooter's modern chassis design: front and rear wheels are each mounted on an elegant single-sided swingarm. A 130/60 R13 tyre is fitted at the front, while its rear counterpart measures 140/65/R13.

The smart scooter has a top speed of 45 km/h. The traction current is supplied by a state-of-the-art, 48-volt lithium-ion battery pack. Thanks to the battery's capacity of 80 Ah, ranges of up to 100 kilometres are possible. The scooter can be charged at any standard household power socket, within three to five hours. The charging socket is stored at the front of the scooter underneath a hinged smart emblem, while the charger itself is integrated in the scooter.

The smart philosophy: stress-free and safe driving

Characteristic of smart vehicles is their distinctive functionality in conjunction with model high safety level. These two elements together make for stress-free and safe travel. The new smart scooter follows consistently this ideal: in doing so, it does not only meet all statutory requirements, but also sets new standards in its segment.

In contrast to conventional scooters, the smart scooter is equipped with ultra-modern safety features of a kind rarely seen even on modern motorcycles. These include an anti-lock braking system (ABS) specially adapted for a two-wheeler, an airbag integrated in the panelling beneath the handlebars, and Blind Spot Assist, which draws the rider's attention to vehicles following close behind him that are not visible in the “blind spot” of the rear-view mirrors – extremely useful when changing lanes, for

example. Like in the Mercedes-Benz E-Class, a triangular light is flashing in the rear-view mirror. So, common cause of accidents involving scooters is addressed.

Combined front/rear brake and ABS

To brake the smart scooter safely, just one touch suffices to retard both the front and rear wheel simultaneously. When the hydraulic disc brake at the front is actuated, an anti-lock braking system kicks in to ensure maximum braking effect even during emergency braking. The rear wheel is braked in parallel to the front wheel, though not mechanically but electrically.

This task is performed by the wheel hub motor in the rear wheel, which normally propels the scooter forwards. When the brakes are applied, the operating principle is reversed: the motor becomes a generator whose resistance provides the required braking effect. The resulting braking energy is converted into electrical energy and stored in the scooter's lithium-ion battery. The anyway high energy efficiency of the scooter is further enhanced by additional solar cells at the front. These solar collectors are used to support the charging of the state-of-the-art lithium-ion battery pack whenever the sun is shining, also when the scooter is moving.

Always new, always intelligent – smart

When it comes to comfort and convenience, the scooter is also a smart through and through. Its attractive, creative yet pragmatic solutions are fully in line with the smart brand principle “easy to use”. The smart scooter's intelligent and simple operating concept is particularly convincing. One example is the charging socket, which is integrated externally in the panelling at the front, and therefore extremely easy to access. Like the smart fortwo, the scooter also disposes of an intelligent storage system. Underneath the seat there is a lockable stowage space with enough room for both the driver's and the pillion rider's helmets. The scooter's lithium-ion batteries are placed space-efficient and well protected behind the panelling in the foot area. The resulting mass centring and low centre of gravity promote agility and stable roadholding.

The smart scooter also offers driving fun for two: that is enabled by a fold-out seat which looks elegant when in use, and which appears to “hover” over the rear wheel. The footrests for the pillion rider automatically move into position when the second seat is folded out. If, instead, the rider requires more storage space, the pillion seat can be replaced with a luggage rack.

Linked via smartphone

The smartphone plays a special role for the scooter, serving as the scooter's control and communication centre. Before starting the electric scooter, the rider simply places the smartphone in a specially-designed mount in the centre of the handlebars. So, it is fully linked with the smart scooter. At the same time, immobiliser and anti-theft protection are deactivated, allowing the electric scooter to be started.

The new, further developed smart drive kit app allows the rider to use online services when making stops on the road. During the journey, the smartphone serves as the scooter's needed speedometer. It also displays the range and battery charge level and acts as a navigation system. Should the rider ever forget where he parked his scooter, the “GPS Tracking” smartphone app can help him identify the position.

The handlebar heating can also be controlled remotely – a comfort feature especially ideal on cooler days.

