smart Fleet & Sustainability

Mercedes-Benz USA: July 2018

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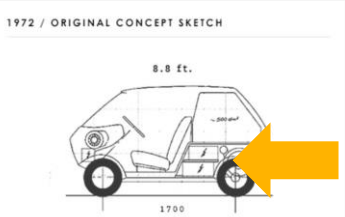
Company Information - smart Concept

- Swatch + Mercedes-Benz + Art = smart 1994
- Mobility concept, living electric & eco-friendly
- 100% recyclable body panels
- Sustainable production facility (Hambach, FR)
- Urban parking
- Mercedes-Benz USA, LLC headquarters in Atlanta, GA



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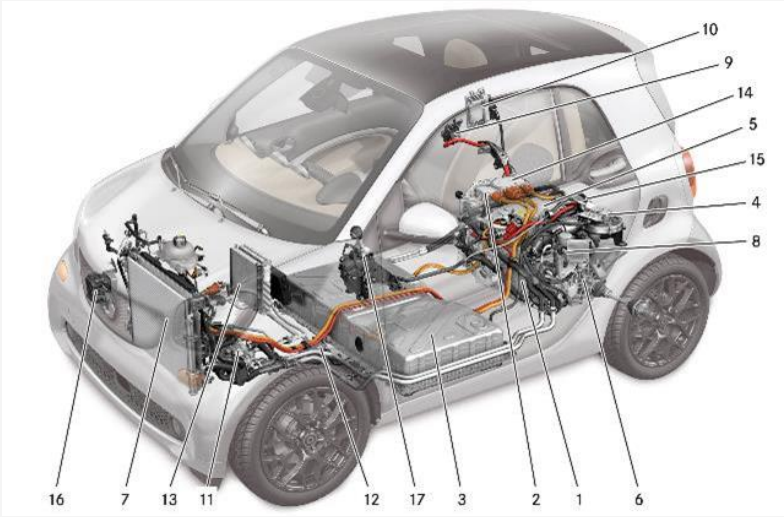
smart Environmental/Fleet Benefits

- **Low operating cost**
  - Once a year annual maintenance or 10k miles
  - Dent proof interchangeable panels
  - Low operating costs
  - Efficient parking

- **Possible Applications**
  - Estimator roles – Alone in the vehicle, drive ~50 miles/day
  - Security and parking enforcement (NYPD)
  - Local deliveries for small items (Marco's Pizza)

- **It's Unique Design is a Rolling billboard**



Electric drive components

1. Electric motor
2. High-voltage control unit box
3. HV battery
4. Electric vehicle drive motor fan
5. HV battery charger control unit (7kW charger)
6. Transmission
7. Cooling module
8. Brake booster vacuum pump
9. Charger feed-in socket
10. Electric drive control unit
11. HV battery heat exchanger (chiller)
12. HV battery heater
13. Interior HV PTC heater
14. Fuse box with 2 or 4 fuses
15. Electric refrigerant compressor
16. Electric vehicle sound generator
17. Electronic selector lever module

Increase Your Message

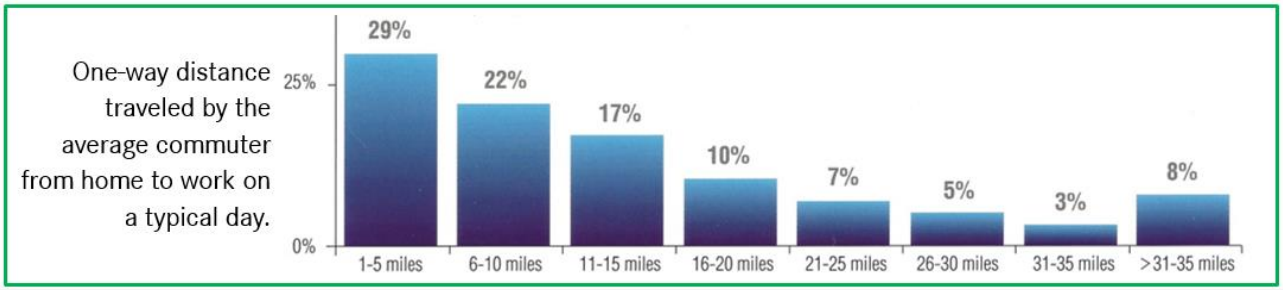
- Excellent for branding & advertising
- Removable body panels on the smart fortwo allow for easy customization, including custom paint and wraps through the local dealership
- Highest rated vehicle for usability by NYPD officers in 2016

‡ Why smart EQ fortwo?

- smart's small footprint makes it a breeze to park. Say goodbye to saying "nope, I'm not gonna fit" when parallel parking.
- The industry smallest 22.8 ft turning radius allows easy U-turns, maneuvering of parking lots, and refreshing freedom while driving.
- Vast majority of drivers commute with only one person – the driver. smart completely satisfies the needs for most commuters (could probably find some stats related to average occupancy, commute cargo, etc.)
- smart's available paint combinations put some color in a sea of white, greys, and blacks.
- The dent-resistant body panels make so you never have to worry about how close you park.
- Useful on-board computer shows you how efficiently you're driving and gives you an "ECO" score!

Benefits of Electric Vehicles:

- Electric vehicles are quieter.
- Quicker Off-The-Line than ICE vehicles for urban driving (due to the torque of the electric motor)
- Less expensive ‘fueling’ costs than ICE vehicles
- Electric Motors and regenerative brakes require less maintenance than ICE vehicles
- Ability to pre-heat / pre-cool the vehicle’s HVAC system
- Better for the environment and lower our dependence on fossil fuels.
- Drivers integrate charging opportunities into their daily routine
- The majority of drivers travel less than 30 miles a day.



76.3% of Americans commute alone! (https://www.usnews.com/opinion/economic-intelligence/articles/2017-09-18/what-new-census-data-reveal-about-american-commuting-patterns)

According to AAA, the average daily driving distance is 29.2 miles per day.

https://newsroom.aaa.com/2015/04/new-study-reveals-much-motorists-drive/

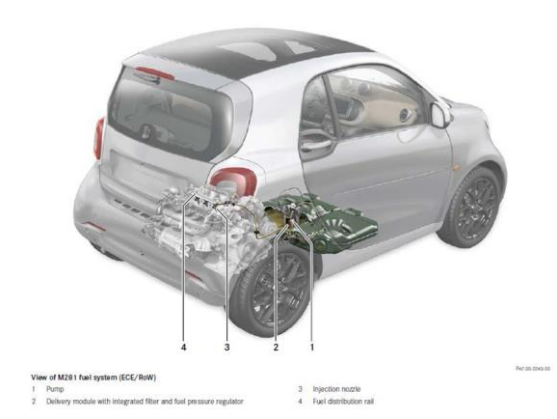
Environmental Awareness

The smart Eco-Balance Sheet

- Each component evaluated for environmental impact and recyclability
- Powder coating of tridion for zero solvent emissions and lower energy costs
- 98% recovered of surplus powder
- smartville energy conservation, renewable building materials
- Parts modules designed for future recycling efficiency
- 85% Total Component Recyclability
- EPA SmartWay Certified
- ULEV Vehicle Rating
- 2014 Green Car Award, http://www.aceee.org/press/2014/01/greenercarsorg-releases-2014-environ

US EPA Certified SmartWay®

Additional Product Details



View of M281 fuel system (ECE/RoW)
1 Pump
2 Delivery module with integrated filter and fuel pressure regulator
3 Injection nozzle
4 Fuel distribution rail

Purpose-built EV

- Battery replaces fuel tank
- Electric motor replaces gasoline engine
- Interior volume and measurements not affected!

Mercedes-Benz safety technology

- Race car inspired tridion safety cell surrounds occupants
- Electronic Stability Control, uphill assist & EBD
- ABS, Cornering Directional Control standard
- Eight Air Bags standard
- Solid IIHS and NHSTA ratings

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Battery Recycling

- Daimler subsidiary Mercedes-Benz Energy and enercity put mass storage unit from electromotive battery systems into operation
- 1800 of more than 3000 replacement battery parts already "in stock"
- Completion of the 17.4 MWh accumulator is planned for the start of 2018
- Efficient dual use of the battery systems improves the LCA and the life cycle costs of electric mobility
- Prequalification confirmed through regional transmission system operator TenneT

Hanover/Kamenz – The cooperation partners Daimler AG with its hundred-percent subsidiary Mercedes-Benz Energy GmbH and enercity (Stadtwerke Hannover AG) have put one of the biggest battery systems in Europe into operation following a construction phase of around one year. The innovative accumulator fulfils a special purpose: it is a "living replacement parts store" for electromobile battery systems. 1800 of a total of 3240 of the battery modules reserved for the third-generation smart electric drive vehicle fleet were pooled to form a stationary accumulator at the enercity site in Herrenhausen, and prequalified to provide primary control power (PCP) by the transmission system operator (TSO) responsible, TenneT. The system is thus already placing an output of 5 MW at the disposal of the electricity market. The completion of the entire system with a total storage capacity of 17.4 MWh is planned for the first quarter of 2018.

Daimler headed this direction at a rapid pace

Mercedes-Benz will electrify its entire car lineup by 2022

Posted Sep 11, 2017 by **Darrell Etherington** (@etherington)

Mercedes-Benz is the latest automaker to embrace electrification, announcing that it will be electrifying its entire vehicle lineup by 2022. Get used to it: Car makers are going to be making these announcements at an increasing clip, especially now that China, the most important car market in the world right now, has announced plans to eventually move to ban the sale of fossil fuel vehicles entirely.

Here's the deal: Mercedes-Benz chief Dieter Zetsche said that the car maker will offer either hybrid or fully electric versions of its vehicles by 2022, adding up to a total of a minimum of 50 new electric model options by that time. Smart, meanwhile, another Daimler-owned sub-brand, will go fully electric by 2020.

This puts Mercedes-Benz in good company with other higher-end car manufacturers, Volvo, which have committed to offering a fully electrified lineup by 2019, and

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OVERVIEW
Mercedes-Benz USA (MBUSA) is an automobile manufacturer that sells sedans, coupes, SUVs and wagons, convertibles and roadsters, hybrid and electric cars, and car accessories. Mercedes-Benz USA was founded by Carlos Martinez Uzán in 1883 and is headquartered in New Jersey, United States. It is a division of Daimler, an automobile company based in Baden-Württemberg, Germany.

LOCATION
Madrid, 29

CATEGORIES
Recreational Vehicles, Car Sharing, Automotive

FOUNDERS
Carlos Martinez Uzán

Mercedes to invest $1 billion to build electric SUVs, batteries in Alabama

John Voelcker 11 Comments Sep 21, 2017 Follow John

Mercedes-Benz Generation EQ concept, 2016 Paris auto show

Daimler, the parent company of Mercedes-Benz, announced that it will invest up to $1 billion to build electric SUVs and batteries in and around its assembly plant in Tuscaloosa, Alabama.

The plans, first reported reported Thursday in *The Wall Street Journal* (paywalled), represent a major expansion of electric-car manufacturing in the U.S.

So far, Ford, General Motors, and Nissan produce either battery-electric or plug-in hybrid vehicles at U.S. plants. (The plug-in Chrysler Pacifica Hybrid minivan is built in Canada.)

CHECK OUT: Mercedes-Benz electric cars to arrive sooner as urgency increases

A summary of the report by the Reuters news service notes the Daimler announcement followed one