Tailored to Customer Need: Ford Reveals New Electrified Vehicle Line-Up at ‘Go Electric’ Experience in Amsterdam

- Ford outlines electrification strategy for Europe under Ford Hybrid banner; announces 16 electrified models at special “GoElectric” experience in Amsterdam, Netherlands
- All-new Ford Kuga SUV is first Ford to feature mild-, full- and plug-in hybrid powertrains. Kuga Plug-In Hybrid makes global debut with more than 50 km (31 miles) electric range
- All-new Ford Explorer Plug-In Hybrid seven-seat SUV unveiled; delivers 450PS, 840 Nm of torque, and 40 km (25 miles) electric driving range
- New Tourneo Custom Plug-In Hybrid eight-seat people-mover targets a zero-emission driving range of up to 50 km (31 miles), for cleaner towns and cities
- New Fiesta EcoBoost Hybrid and Focus EcoBoost Hybrid use advanced mild-hybrid technology to boost power, responsiveness and fuel-efficiency for popular family cars
- Mustang-inspired all-electric performance SUV arriving in 2020 with 600 km (370 mile) WLTP range. New all-electric Transit announced and anticipated to launch in 2021
- Innovative Transit Smart Energy Concept is helping Ford find new ways to extend battery-electric driving range for electrified vehicles

AMSTERDAM, Netherlands, April 2, 2019 – An advanced line-up of Ford electrified vehicles marks a new milestone for Ford and its customers, the company today announced at a special “Go Electric” experience in Amsterdam, Netherlands.

A new range of models under the FordHybrid banner features sophisticated mild-, full- and plug-in hybrid powertrains to enhance fuel-efficiency and driving experiences for customers in Europe. Ford today announced 16 electrified models that will deliver the company’s brand values of trust, affordability and fun-to-drive for passenger car and commercial vehicle customers.

Ford unveiled at “Go Electric” the Kuga Plug-In Hybrid variant of the company’s all-new mid-size SUV – Ford’s most electrified vehicle ever and the first Ford to offer mild-hybrid, full-hybrid and plug-in hybrid, powertrains.

The all-new Explorer Plug-In Hybrid seven-seat SUV and the new TourneoCustom Plug-In Hybrid eight-seat people-mover today made their global debuts – each offering pure-electric driving capability alongside the driving range and freedom offered by a traditional combustion engine.

Ford also revealed the new Fiesta EcoBoost Hybrid and FocusEcoBoost Hybrid models that feature sophisticated mild-hybrid technology for reduced CO₂ emissions, optimised fuel-efficiency, and a more responsive and rewarding driving experience.

In addition, Ford announced that a new all-electric Transit will join the company’s line-up of electrified commercial vehicles in 2021. Designed to deliver pure-electric propulsion, the new van will contribute to cleaner, quieter towns and cities, and reduced running costs for business and operators.

“Forward-looking, technologically advanced and using a wide range of electrified solutions to suit the different needs of different consumers, our new Ford Hybrid vehicles will make electrification relevant and affordable for more drivers than ever before,” said Stuart Rowley, president, Ford of Europe. “The models introduced today are just the start of our plans to develop a comprehensive line-up of smart vehicles for a smart world. From Fiesta to Transit, every new vehicle that we introduce will feature an electrified version that best suits the needs and pockets of our customers across Europe.”
Ford Hybrid vehicles already offered or confirmed for introduction in Europe include:

- Mondeo Hybrid four-door and wagon – featuring self-charging, full-hybrid, petrol-electric powertrain technology that offers a compelling alternative to diesel. The Mondeo Hybrid wagon was shown today for the first time as a sporty new ST-Line variant
- Transit EcoBlue Hybrid and Transit Custom EcoBlue Hybrid – using mild-hybrid technology to reduce running costs for van owners and operators
- Tourneo Custom EcoBlue Hybrid – featuring mild-hybrid technology that enhances fuel-efficiency for eight/nine-seater people-mover customers
- Transit Custom Plug-In Hybrid – equipped with an advanced electric powertrain using Ford's 1.0-litre EcoBoost engine as a range extender. The vehicle is currently being trialled to better understand the benefits for the environment and for customers in London, U.K., with further trials soon to begin in Valencia, Spain, and Cologne, Germany

Ford's Mustang-inspired all-electric performance SUV will arrive in 2020, with a pure-electric driving range of 600 km (more than 370 miles) calculated using the World Harmonised Light Vehicle Test Procedure (WLTP), and fast-charging capability.*

A one-of-a-kind Ford Transit Smart Energy Concept 10-seater minibus is helping the company explore solutions for further optimising the energy-efficiency and driving range of electrified vehicles.

Electrifying the future

Ford is committed to being a leader in providing customers with a broad choice of electrified vehicles with easy access to charging, and supporting them with enhanced connectivity and related mobility services.

Earlier this year, Ford announced that every one of the company’s nameplates launched from the all-new Focus onwards will include an electrified option. This includes new nameplates and new versions of existing vehicles. Either one of, or a combination of, mild-hybrid, full-hybrid, plug-in hybrid or full battery electric options will be offered, delivering one of the most encompassing line-ups of electrified options for European customers of any manufacturer.

Ford Hybrid and all-electric models utilise a range of powertrain technologies and technical solutions to tailor performance and capability to surpass customer expectations and reflect diverse operating scenarios for different vehicles.

For example, electric torque assistance from a Belt Integrated Starter/Generator will enhance the dynamic petrol engine driving experience for Fiesta and Focus EcoBoost Hybrid family cars by enabling greater power, responsiveness and fuel-efficiency. For EcoBlue Hybrid models including Transit Custom and Tourneo Custom, the technology is employed solely to further improve the fuel-efficiency of diesel powertrains.

Both the new Kuga Plug-In Hybrid and Explorer Plug-In Hybrid SUVs combine combustion engine, mains-chargeable battery and electric motor for greater fuel-efficiency and zero-emissions driving capability. Kuga deploys a power-split hybrid transmission that blends both power sources for optimised fuel-savings, where-as Explorer uses a parallel-hybrid architecture that can combine the full power of engine and electric motor for maximum towing capacity.

The series-hybrid configuration of the Transit Custom Plug-In Hybrid and Tourneo Custom Plug-In Hybrid further adapts the mains-chargeable battery and electric motor configuration to suit the application – using a fuel-efficient petrol engine solely to recharge the battery, with no physical connection the wheels.

And the self-charging full-hybrid technology employed by the Mondeo Hybrid is capable of pure electric driving for refinement particularly in city and stop-start driving scenarios. The powertrain eliminates both range anxiety and the need for customers to use an external power source to charge the battery.
Ford's future all-electric vehicles will deliver next-generation connectivity for over-the-air updates, and the company is in the advanced stages of setting up charging solutions for its electric-vehicle customers. Ford is a founder member of the IONITY consortium that aims to build 400 fast-charging stations in key European locations by 2020, with a charging capacity of 350 kW. This enables a significant reduction to charging times compared to existing systems.

Ford will also partner with NewMotion to provide a one-stop-shop for charging, using NewMotion's charging network, which covers more than 100,000 charging points in 28 countries across Europe. In addition, Ford has commissioned its own smart wall-box solution and will partner with major energy companies to give customers access to specialist electric-vehicle tariffs and installation services.

"There is no ‘one-size-fits-all’ solution when it comes to electrification – every customer’s circumstances are different," said Joerg Beyer, executive director, Engineering, Ford of Europe. "Ford's nuanced powertrain strategy is designed to help our customers find the right solution to make their electrified vehicle experience easier and more enjoyable."

**Kuga’s comprehensive hybrid line-up**

The all-new Ford Kuga is the first Ford passenger car to be offered with plug-in hybrid, mild-hybrid and full-hybrid powertrains.

Available from launch later this year, the all-new Kuga Plug-In Hybrid offers the driving range and freedom offered by a traditional combustion engine alongside the efficiency and refinement of an electric powertrain. Combining a 2.5-litre petrol engine, electric motor and generator, and 14.4 kWh lithium-ion battery to deliver 225 PS, Kuga Plug-In Hybrid delivers a pure-electric driving range in excess of 50 km (31 miles) and anticipated 1.2l/100km fuel efficiency and 29g/km CO$_2$ emissions.

The stylish and distinctive all-new Kuga Titanium, sporty Kuga ST-Line and upscale Kuga Vignale range debuts sleek new exterior design, more interior space and advanced technologies. Adaptive Cruise Control with Stop & Go, Speed Sign Recognition and Lane-Centring technologies will help drivers negotiate stop-start and highway traffic with greater confidence. Active Park Assist 2 enables fully automated parking manoeuvres simply by holding down a button.

**Pure-electric, pure luxury, Explorer Plug-In Hybrid**

The all-new Ford Explorer Plug-In Hybrid will be offered in two distinctive, high-specification variants – the sporty, Ford Performance-inspired Explorer ST-Line and the luxurious Explorer Platinum. Powered by a combination of Ford’s 3.0-litre EcoBoost V6 petrol engine, electric motor and generator, the Explorer Plug-In Hybrid delivers 450 PS and 840 Nm of torque. The SUV will also offer 40 km (25 miles) zero-emissions, pure-electric city driving range, alongside anticipated 3.4 l/100 km fuel efficiency and 78g/km CO$_2$ emissions.

The exceptionally spacious, luxurious, comfort-focussed Explorer Plug-In Hybrid offers advanced features including a 10.1-inch central portrait-mounted touchscreen and 12.3-inch digital instrument cluster display, and family-friendly versatile seating for up to seven.

Standard Ford Intelligent All-Wheel drive technology, Drive Modes and Ford’s 10-speed automatic transmission optimise performance in scenarios from urban to off-road driving.

**Tourneo Plug-In Hybrid contributes to cleaner cities**

The eight-seat Tourneo Custom Plug-In Hybrid – designed to contribute to reduced local emissions and enable operation in growing number of ultra-low-emission vehicle zones being introduced across Europe – will be available to European customers from late 2019.
The Tourneo Custom Plug-In Hybrid’s front wheels are driven exclusively by an electric motor/generator, powered by a 13.6 kWh lithium-ion battery pack, with Ford’s multi-award-winning 1.0-litre EcoBoost petrol engine acting as a range extender. The advanced hybrid powertrain targets a zero-emission driving range of up to 50 km (31 miles) or 500 km (310 miles) using the range extender, alongside anticipated 3.3 l/100 km fuel efficiency and 75 g/km CO\textsubscript{2} emissions.

Comfort is optimised using Tourneo Custom's unique-to-segment ability to arrange the two rear rows in conference format for outstanding access and enhanced interaction between passengers – or in two rows of three seats facing forward.

**Transit goes all-electric**

Anticipated for volume launch in 2021, the new all-electric Ford Transit van is designed to address the needs of businesses for a practical and versatile load-carrier with zero-emission driving capability for urban applications. The all-electric Transit will be available in multiple body styles, delivering full Transit capability and durability.

**Fiesta and Focus EcoBoost Hybrid: Lower emissions, higher power**

The Fiesta EcoBoost Hybrid and Focus EcoBoost Hybrid will feature a sophisticated mild-hybrid architecture tailored to enhance fuel-efficiency while complementing Ford’s fun to drive experience with more powerful and responsive performance.

A belt-driven integrated starter/generator (BISG) replaces the standard alternator, enabling recovery and storage of energy usually lost during braking and coasting to charge a 48-volt lithium-ion air-cooled battery pack.

The BISG also acts as a motor, seamlessly integrating with the low-friction, three-cylinder 1.0-litre EcoBoost combustion engine and using the stored energy to provide torque assistance during normal driving and acceleration, as well as running the vehicle’s electrical ancillaries.

The intelligent, self-regulating mild-hybrid system continuously monitors how the vehicle is being used to determine when and how intensively to charge the battery for optimal benefit, and when to utilise the stored battery charge using one of two strategies:

- Torque substitution, which deploys the electric motor functionality of the BISG to provide up to 50 Nm of torque – reducing the amount of work required from the petrol engine to maximise fuel savings and contribute to targeted 112 g/km CO\textsubscript{2} emissions and 4.9 l/100 km fuel-efficiency for Fiesta, and targeted 106 g/km CO\textsubscript{2} emissions and 4.7 l/100 km fuel-efficiency for Focus
- Torque supplementation, which deploys the electric motor functionality of the BISG to increase the total torque available from the powertrain by up to 20 Nm above the level available from the petrol engine alone at full load – for optimised performance

The electric torque assistance helps deliver punchier, more responsive performance, particularly at lower engine speeds, for a more flexible and connected driving experience. The BISG has also enabled Ford engineers to lower the 1.0-litre EcoBoost engine’s compression ratio and add a larger turbocharger for more power, by mitigating turbo-lag using torque supplementation that also rotates the engine faster for maintained turbocharger boost response.

“Our 1.0-litre EcoBoost engine has already proven that fuel-efficiency and performance can go hand-in-hand. Our EcoBoost Hybrid technology takes that to the next level,” said Roelant de Waard, vice president, Marketing, Sales & Service, Ford of Europe. “We believe customers are going to love the smooth and urgent power delivery of our EcoBoost Hybrid powertrains just as much as they’ll enjoy less-frequent trips to the fuel pumps.”

Able to restart the engine in approximately 300 milliseconds – about the same as the blink of an eye – the BISG also enables the Fiesta and Focus EcoBoost Hybrids’ Auto Start-Stop technology to operate in a wider range of scenarios for
even greater fuel savings, including when coasting to a stop below 15 km/h (10 mph) and even when the vehicle is in gear with the clutch pedal depressed.

Ford EcoBlue Hybrid technology will similarly combine electric torque assistance with Ford’s 2.0-litre EcoBlue diesel engine to deliver anticipated 132 g/km CO\textsubscript{2} emissions and 5.0l/100km fuel-efficiency for the Ford Kuga EcoBlue Hybrid from later this year.

**Smart Energy Concept looks to the future**

Ford also today revealed the new Transit Smart Energy Concept – a one-of-a-kind 10-seater minibus that is helping the company explore solutions for maximising the energy efficiency and driving range of future electrified vehicles.

Delivering 150km (93 miles) driving range from a 4-hour charge, and developed by engineers at Ford’s Merkenich Technical Center, Germany, the concept uses a Ford Transit chassis fitted with the same battery-electric drivetrain technology as the StreetScooter WORK XL, supported by energy-saving and energy-generating innovations including:

- An innovative heat pump system that utilises waste heat from the drivetrain components, the outside air and the air within the cabin to reduce heating system energy usage by up to 65 per cent, resulting in a range extension of 20 per cent
- A power sliding door that opens halfway to reduce heat loss and can be activated by the passenger using a smart device. The heating, ventilation and air-conditioning blower is automatically deactivated when the door is open
- Heated business-class passenger seats and surfaces that enable passengers to control their local temperature, reducing the energy required for the large cabin
- Six roof-mounted solar panels that charge a 12-volt battery for powering seat heating, cabin lighting and on-board electrical systems including wireless charging for passenger mobile devices
- A polycarbonate divider between the passenger door and seating area that further reduces heat loss as passengers enter and exit, and protects passengers from external elements
- Ventilated double-glazed windows that reduce cold contact surfaces and insulate against heat loss
- Mood lighting that adjusts according to cabin temperature – red for warmth and blue for cooling – subliminally influencing passengers’ perception of cabin temperature
- An insulated rear floor and roof that further reduce cabin heat loss

Future iterations of the concept are planned to enable the driver to control heating and cooling of individual seats – and deactivation of unoccupied seats. Automatic passenger detection inspired by existing airbag deployment technologies will also feature.

Ford anticipates beginning road-trials with the Transit Smart Energy Concept later this year, after completing wind-tunnel tests.

“By developing this concept we’ve found a number of clever ways to save energy that could help further improve the electrified vehicle experience for customers in the future,” said Kilian Vas, project leader, Vehicle Architecture, Ford of Europe.

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- Mondeo Hybrid Wagon CO\textsubscript{2} emissions from 101 g/km, fuel-efficiency from 4.4 l/100 km
- Transit EcoBlue Hybrid anticipated CO\textsubscript{2} emissions from 144 g/km, fuel-efficiency from 7.6 l/100 km
- Transit Custom EcoBlue Hybrid anticipated CO\textsubscript{2} emissions from 139 g/km, fuel-efficiency from 6.7l/100km
- Tourneo Custom EcoBlue Hybrid anticipated CO\textsubscript{2} emissions from 137 g/km, fuel-efficiency from 7.0l/100km
- Transit Custom Plug-In Hybrid anticipated CO\textsubscript{2} emissions from 75 g/km, fuel-efficiency from 3.3l/100km

*Officially homologated fuel-efficiency and CO\textsubscript{2} emission figures will be published closer to on-sale date*
The declared fuel/energy consumptions, CO₂ emissions and electric range are measured according to the technical requirements and specifications of the European Regulations (EC) 715/2007 and (EC) 692/2008 as last amended. Fuel consumption and CO₂ emissions are specified for a vehicle variant and not for a single car. The applied standard test procedure enables comparison between different vehicle types and different manufacturers. In addition to the fuel-efficiency of a car, driving behaviour as well as other non-technical factors play a role in determining a car's fuel/energy consumption, CO₂ emissions and electric range. CO₂ is the main greenhouse gas responsible for global warming.

Since 1 September 2017, certain new vehicles are being type-approved using the World Harmonised Light Vehicle Test Procedure (WLTP) according to (EU) 2017/1151 as last amended, which is a new, more realistic test procedure for measuring fuel consumption and CO₂ emissions. Since 1 September 2018 the WLTP has begun replacing the New European Drive Cycle (NEDC), which is the outgoing test procedure. During NEDC Phase-out, WLTP fuel consumption and CO₂ emissions are being correlated back to NEDC. There will be some variance to the previous fuel economy and emissions as some elements of the tests have altered i.e., the same car might have different fuel consumption and CO₂ emissions.