**jaguar reveals the I-PACE Concept:**

**the electric performance suv**

**Key Facts**

* The I-PACE Concept previews Jaguar’s first-ever electric vehicle
* The production version will be revealed in late 2017 and will hit the road in 2018
* I-PACE Concept is an electric performance SUV with a bold, cab-forward design that combines a supercar silhouette with sports car performance and five-seater SUV versatility
* With a predicted range of more than 500km on the NEDC cycle (more than 220 miles EPA), drivers with the average daily commute will only need to recharge the vehicle once a week
* A new electric vehicle architecture enabled Jaguar’s designers and engineers to tear up the rule book on usability
* Occupies less road space than conventional mid-size SUVs yet offers more room for passengers and luggage than models in the segment above
* Optimised aerodynamics deliver a low drag coefficient of just 0.29 and inspired new design features that embody the vehicle’s power and performance
* The interior has cutting-edge technology and premium materials, showcasing Jaguar’s vision for electric luxury while preserving beautiful detailing and British craftsmanship
* Lightweight slimline seats and a ‘Sports Command’ driving position provide a sports car-like sense of connection with the road
* Electric motors at the front and rear axles generate a combined output of 400PS and 700Nm of instant torque, delivering sports car acceleration and the all-weather, all-surface benefits of all-wheel drive
* The low centre of gravity combined with sophisticated double wishbone front and Integral Link rear suspension delivers Jaguar ride and handling with outstanding refinement
* Blend of touchscreens, capacitive switches and tactile analogue controls helps drivers to manage in-car information more intuitively

*“The I-PACE Concept is a radical departure for electric vehicles. It represents the next generation of battery electric vehicle design. It’s a dramatic, future-facing design – the product of authentic Jaguar DNA matched with beautiful, premium details and British craftsmanship.*

*“This isn’t just a concept. It is a preview of a five-seat production car that will be on the road in 2018. This will be Jaguar’s first-ever battery-powered electric vehicle and opens a new chapter in the history of our legendary brand.”*

**Ian Callum, Director of Design, Jaguar**

**tearing up the rule book**

The Jaguar I-PACE Concept is one of the most visually arresting concepts ever produced by Jaguar. Taking full advantage of the packaging freedom offered by electrification, the design and engineering teams took the opportunity to rethink the vehicle’s overall proportions.

The result is an exceptional vehicle that combines an advanced cab-forward design inspired by the  
C-X75 supercar with the smooth silhouette of a coupe – in a five-seater SUV. The I-PACE Concept embodies the technological advances under its skin – and the Jaguar design team’s belief that consumers are ready for bolder electric vehicle designs.

*“The opportunities offered by an electric powertrain are huge. Electric vehicles offer designers much greater freedom, and it is an opportunity we must grasp. This is why the I-PACE Concept is developed on a new architecture which has been designed to optimise electric vehicle performance, aerodynamics and interior space.*

*“With the I-PACE Concept, the revolution is in the profile, not the design language. The​ profile is possible because this car is electric. It’s not just that we wanted to create something that was very different from anything else we do: we wanted the design to celebrate the new battery electric technology.*

*“I was determined from the very beginning of this project to create a design which reflected this change in the mechanics of the car. This is what led to the sporty cab-forward profile rather than a car with a bonnet and an engine.”*

**Ian Callum, Director of Design, Jaguar**

A vehicle with proportions this dynamic is only possible with a design that consciously exploits every millimetre given by Jaguar’s state-of-the-art electric drive system. Leveraging the technological possibilities of electric driving, the I-PACE Concept introduces big design changes and finds fresh expression for Jaguar’s premium, personal touches and British craftsmanship.

Without an internal combustion engine and transmission tunnel to package, the I-PACE Concept’s design brings the cabin forward, extends the wheelbase and shortens the overhangs. This enables the silhouette to become more aerodynamic and the haunches to develop more powerful proportions. It also enlarges the interior space and improves vehicle dynamics and visibility.

As a result, the I-PACE Concept’s profile has more in common with the C-X75 mid-engine supercar than conventional SUVs. Evidence is clear in the cab-forward proportions, the dynamic heart line, the curve of the front fenders, the powerful proportions of the rear haunches and the large, purposeful wheels. And yet the I-PACE Concept’s overall footprint is as compact as conventional mid-sized SUVs’. The long, 2,990mm wheelbase creates a voluminous interior with a level of rear knee room usually only found in full-size SUVs and luxury saloons.

**Side view**  
With its streamlined profile, sweeping lines, large wheels and muscular rear haunches, the I-PACE Concept represents a new generation of electric vehicles. Bringing together hallmarks of the Jaguar brand with new lines, made possible by the I-PACE Concept’s state-of-the-art electric powertrain, creates a dynamic aesthetic that expresses its performance, innovation and style.

The long wheelbase and short overhangs enable a coupe-like roofline. The cabin sits low between sweeping fenders, creating a sense of movement and giving the body a fast, tapering waistline. The dynamic window lines further enhance the sports car looks. The cab-forward design is accentuated by the windscreen’s fast angle and heavily curved glass, flowing down into a low bonnet that adds to the sense of supercar style.

The muscular wheel arches are sculpted around breathtaking 23-inch Nighthawk wheels in Technical Grey with Gloss Black inserts and a beautiful diamond-turned finish, which broadcast the I-PACE Concept’s sense of purpose. Their dynamic intent is enhanced by bespoke 265/35/R23 tyres with a unique tread pattern. The powerful rear haunches add to the muscular stance, further enhancing its sports car-like poise.

Close work between the Design and Aerodynamics teams not only achieved a low drag coefficient for a vehicle of this class of 0.29 Cd, it also inspired a technological edge to the Concept’s styling. Flush door handles reduce drag by only sliding out when activated. Aerodynamically optimised side skirts also blend form and function by channelling air more efficiently around the wheels.

**Front view**  
The I-PACE Concept exudes muscular performance. The low bonnet, flanked by curving wheel arches, combines sports car aesthetics with an SUV’s presence. A broad, distinctive grille with a hexagonal grid in gloss black retains a key element of Jaguar design DNA while also providing aerodynamic benefits.

Airflow also passes through the C-X75-derived bonnet scoop, helping to reduce drag. Slimline full LED headlights with Jaguar’s signature Double-J daytime running light motif further emphasise the vehicle’s clean lines.

**Rear view**   
The sharp styling of the I-PACE Concept’s rear provides a clear indication of the vehicle’s dynamic potential and efficiency. A slender composite spoiler enhances the vehicle’s sporting character as well as reducing lift at higher speeds without generating drag.

The fast-angled slope of the rear window is aerodynamic and uses an advanced hydrophobic glass coating to eliminate the visual clutter of a rear wiper. The line contrasts with the vehicle’s squared-off end and extended rear three-quarter that project power and improve efficiency.

Relentless design optimisation ensures that form and function work together beautifully. The bold styling not only accentuates the vehicle’s short rear overhang and prominent wheels, it also encourages air to cling longer to the vehicle, stabilising airflow at speed.

Ingenious rear vents not only provide a clever visual replacement for tailpipes, they also channel turbulent air from the rear wheel arches into the vehicle’s wake. The I-PACE Concept’s rear diffuser also contributes to the car’s aerodynamic efficiency while also enhancing the vehicle’s low-slung stance.

The LED tail lamps, while similar to those on other Jaguar models, square off the roundel graphic for an edgier and more technical look. A broad, high-mounted LED stop lamp is integrated invisibly beneath the spoiler, visible only when the driver brakes.

**INTERIOR DESIGN**

The five-seater I-PACE Concept is a clear statement of Jaguar’s plans for the production model with future-focused design pervading the open, spacious interior. It also showcases the blend of cutting-edge technologies and traditional materials that characterise Jaguar’s vision for electric luxury.

The I-PACE Concept also demonstrates just how much interior space Jaguar’s cab-forward design and electric powertrain creates.

*“Our brief was to create a spacious performance SUV that could comfortably carry five people. Otherwise we had a clean sheet of paper. To deliver this, we embraced the freedom that electrification offers designers.*

*“The electric powertrain and the cab-forward layout positions the driver further forward, increasing the space for row-two occupants. This also allows the 530-litre luggage compartment volume without compromising the dramatic silhouette.”*

**Ian Callum, Director of Design, Jaguar**

The driver focus that typifies Jaguar cockpits is complemented by intuitive interface designs and advanced materials that demonstrate Jaguar craftsmanship in innovative new ways.

The driver and passengers sit lower than in conventional SUVs. The I-PACE Concept’s slimline seats position the hips lower in relation to the heels. This ‘Sports Command’ driving position provides a sports car’s sense of connection with the road.

The I-PACE Concept’s cab-forward position, low bonnet and short overhangs provide the driver with an exceptional view of the road and the vehicle’s surroundings. A little like the Jaguar E-Type, the front wings beautifully frame the road ahead, enabling drivers to select the line through corners with confidence.

The interior’s breadth and feeling of spaciousness is clear from the moment the door opens. Entering the I-PACE Concept, the driver can view the entire width of the flat floor through a cantilevered centre console, providing an immediate sense of the space the vehicle’s innovative design has created.

The instrument panel is positioned low and its simple horizontal lines and minimalist switchgear help further emphasise the interior’s size. The centre console cossets the driver, with two ‘looping’ metal struts beautifully framing the access to a stowage area under the control panel – a motif that will recur in other future Jaguars.

These struts also enable a tactile replacement to the traditional gear shifter. Buttons integrated into the strut enable the driver to reach down and select forward, neutral, park or reverse intuitively with a simple press of the thumb.

Throughout the I-PACE Concept’s interior Jaguar’s careful selection of high quality, natural materials and its high standards of craftsmanship bring a pervasive sense of luxury and sustainability. The interior’s finishes create rich textural contrasts. Windsor leather covers the front of the seats, laser-cut with Jaguar’s signature lozenge motif, sewn with contrasting twin-needle stitching and edged with coloured carbon fibre trim. The seat backs are finished in Moonstone Alcantara.

The doors offer similarly tonal layering of aluminium, Alcantara and dark, unvarnished open pore walnut veneers. Fine details such as the audio speaker grilles are integrated into the door handle finishers and feature a jewel-like, 3D relief that also references Jaguar’s lozenge motif.

A full-length panoramic glass roof extends the sweeping angle of the windscreen and floods the  
I-PACE Concept’s interior with natural light. The glass integrates seamlessly into the interior thanks to a lozenge-patterned ceramic print that unites the roof with other interior surface finishes. At night, an array of LEDs embedded in the roof illuminate the patterned glass to create a stunning visual effect.

**Beautiful details**

The I-PACE Concept is very much a drivers’ car but the interior has been painstakingly crafted to ensure that all occupants share the sense of being in something special – that’s what being inside a Jaguar is all about. Luxurious, contemporary materials, perfectly executed surfaces and exquisite finishes are found throughout. Here are just some of them:

* Touchscreen interfaces and tactile rotary controllers with a distinctive knurled metal finish reflect the vehicle’s blend of cutting-edge technologies and traditional craftsmanship. The rotary controllers feature precision-milled aluminium encasing unique high-definition circular displays with variable haptics to help the driver differentiate between modes
* Laser-etched detailing on the instrument panel’s burl wood surface reads: “Lovingly crafted by Jaguar. Est. Coventry 1935”. The beautifully-crafted GPS coordinates locate Jaguar’s design studio – birthplace of the I-PACE Concept.
* Jaguar’s signature lozenge pattern has been applied onto the seat cushions using an innovative laser-cutting process. The same effect can be found on the pedals and the centre console’s surround.
* Labels with Jaguar paw prints are stitched into the seams of the seats for a playful accent and symbolise the warmth and wit unique to the Jaguar brand.
* Jaguar’s signature lozenge pattern is photo-etched onto the Meridian audio system speaker grilles integrated into the doors.

**versatility and every day usability**

Jaguar’s brief for the I-PACE Concept was to create a performance SUV that is spacious, sporty and useable. The cab-forward layout creates unprecedented interior space that is far larger than is possible in vehicles powered by internal combustion.

With no engine bay and a battery pack that sits flat between the axles, the cab-forward design’s long wheelbase and short overhangs enable a footprint of 4,680mm x 1,890mm and a long wheelbase of 2,990mm.

As a result, the I-PACE Concept occupies less road space than a conventional mid-size SUV while offering more rear passenger space than some full-size SUVs and luxury saloons. The I-PACE Concept’s second-row knee room of more than 70mm assures first class comfort for rear seat passengers.

*"This is an uncompromised electric vehicle designed from a clean sheet of paper: we developed a new architecture and selected only the best technology available. The I-PACE Concept fully exploits the potential EVs can offer in space utilisation, driving pleasure and performance."*

**Dr Wolfgang Ziebart, Technical Design Director, Jaguar Land Rover**

With no transmission tunnel to accommodate, Jaguar designers used the free space to create an innovative 8-litre stowage area within the centre console. With the traditional gear shifter also absent, the I-PACE Concept instead has smart storage space for phones, keys and other small items.

Even with the I-PACE Concept’s raked rear glass, its 530-litre luggage compartment volume comfortably exceeds the space offered by traditional SUVs. The front luggage compartment under the hood offers an additional 28-litres.

**the digital car**

The I-PACE Concept introduces Jaguar’s new intuitive ‘flightdeck’ approach for the controls interface. The design philosophy emphasises controls that fall ergonomically to hand and technology that promotes driver engagement.

The I-PACE Concept’s floating centre console is a key element in advances in Jaguar’s cockpit ergonomics, utility and performance. The console rises to connect with the dashboard and ensconce the driver, and provides a level of mechanical connection with the vehicle by positioning gearshift functions on its metal struts.

Information is shared with the driver with elegant simplicity. Graphic elements of the human machine interface (HMI) have an editorial, monochromatic feel with a warmer, more human focus, mirroring current technology trends. Lighter font weights and the sparing use of colour allows on-screen information to breathe, improving communication and reducing the driver’s information workload.

Touchscreens, intuitive rotary dials and multi-function buttons offer the perfect balance of tactile analogue controls and interactive digital interfaces, ensuring the driver’s eyes need only follow the road, not their fingers.

The primary interface is a 12-inch TFT touchscreen blended seamlessly into the surface of the instrument panel.

A separate, 5.5-inch secondary touchscreen is paired with two laser etched aluminium rotaries that encase vibrant HD circular displays. This allows occupants to configure infotainment and climate whilst keeping full screen information on the 12-inch display above.

The I-PACE Concept also features a configurable 12-inch HD virtual instrument cluster and a full-colour head-up display, ensuring that the driver is always presented with the information they need when and where they need it.

The I-PACE Concept also introduces a new three-spoke steering wheel with multi-function capacitive switches. These remain invisible until illuminated, improving aesthetics and putting more functionality at the driver’s fingertips. To make them more tactile, they also feature a ‘micro-click’ haptic when pressed.

Like the state-of-the-art InControl Touch Pro infotainment system offered in the current range of Jaguar vehicles, the I-PACE Concept’s system is designed in-house around a powerful quad-core processor, a high-speed solid-state drive and the unequalled bandwidth of the ultra-fast Ethernet network – nothing else can transfer more data more quickly. Combined, they deliver exceptional performance, responsiveness and functionality.

**Apps and connectivity**

Just like the state-of-the-art infotainment systems in Jaguar’s production cars, the I-PACE Concept features a Wi-Fi hotspot to enable occupants in every seat to stay connected and stream music, video and other data to their devices.

And, just like the production cars, I-PACE Concept also enables occupants to use apps on their iOS and Android smartphones through the vehicle’s main touchscreen using InControl Apps. The range of apps, optimised for in-vehicle use to reduce driver distraction, is growing all the time and now includes a unique Spotify app which is the first to offer recommended playlists on the Spotify homescreen. Users can get personalised ‘Just for You’ playlists which contain recommended tracks, meaning less time is spent scrolling though menus searching for music.

**performance and dynamics**

The I-PACE Concept delivers the driver-focused performance and response Jaguar is renowned for. To deliver this, it has electric motors at the front and rear axles. Together these deliver 400PS and 700Nm of instant torque.

Electric all-wheel drive delivers all-surface, all-weather driveability. Response is immediate and the system provides exceptional control over the front and rear torque distribution, responding immediately to driver inputs, road conditions and vehicle characteristics.

*"Electric motors provide immediate response with no lag, no gearshifts and no interruptions. Their superior torque delivery compared to internal combustion engines transforms the driving experience.*

*With 700Nm and the traction benefits of all-wheel drive, the I-PACE Concept accelerates from  
0-60mph in around four seconds."*

**Ian Hoban, Vehicle Line Director, Jaguar Land Rover**

The I-PACE Concept’s dynamics and responsiveness are further improved by the battery’s ideal position beneath the floor and between the axles, which lowers the centre of gravity and reduces yaw inertia.

Jaguar Land Rover engineers designed and developed the synchronous, permanent magnet electric motors in-house to achieve the most compact design, greatest efficiency and maximum power density. They have an outer diameter of just 234mm and are only 500mm long.

Rather than the conventional, offset configuration which places the transmission in front of the motor, the I-PACE concept features a more space-efficient concentric layout, which contributes directly to the excellent ground clearance and spacious interior.

Electrification also enables greater comfort: by selecting a higher level of regenerative braking in stop-and-go traffic, for instance, the driver can drive with a single pedal, with no need to apply the brakes to halt the car.

To ensure drivers can enjoy and safely exploit the I-PACE Concept’s performance in even the worst conditions, the inherent benefits of all-wheel drive are enhanced with Jaguar’s unique state-of-the-art traction technologies, including All Surface Progress Control (ASPC) and Adaptive Surface Response (AdSR).

**Chassis design**

The Jaguar F-PACE set the class benchmark for its unrivalled balance of ride, handling and refinement and the I-PACE Concept will do the same. The sophisticated suspension design, the benefits of a low centre of gravity and incorporating all of the lessons learnt developing the F-TYPE and F-PACE will set the I-PACE Concept apart from all other electric vehicles.

The front suspension system is the same double-wishbone configuration proven in the F-TYPE and  
F-PACE because there is no better system.

*"When you get behind the wheel, the driving experience reflects the I-PACE Concept's dynamic design. It's a true Jaguar and we will prove that a zero emission vehicle can be a true driver's car."*

*"We proved with the F-PACE that a performance crossover can deliver the agility, connected feel and ride quality you'd expect from a Jaguar. Now we're going to do the same with the I-PACE Concept: this will be the first electric vehicle developed for enthusiasts who love driving."*

**Mike Cross, Chief Engineer of Vehicle Integrity, Jaguar Land Rover**

The high camber stiffness afforded by the lightweight aluminium double wishbone design is fundamental to agility and responsiveness – lateral forces at the tyres’ contact patches build very quickly, and the steering responds immediately and precisely to the driver’s every input.

And because of the superior roll camber gain characteristics inherent in the double wishbone system, the tyres’ contact patches are better maintained throughout the suspension’s full range of movement, helping to optimising traction under all conditions.

**Integral Link: tuned to perfection**

Integral Link, proven in the XE and XF saloons and now the F-PACE, was the natural choice for the  
I-PACE Concept’s rear suspension. Its sophistication eclipses all other multilink rear suspension designs to offer an unrivalled balance of ride, handling and refinement. Integral Link enables chassis engineers to tune longitudinal and lateral stiffness independently. This means freedom to fully optimise comfort and dynamics attributes without the one compromising the other.

As a result, the bushes which manage longitudinal forces can be made softer and therefore the ride is smoother and impact absorption quieter. The bushes which manage lateral forces can be made stiffer for more precise handling and even greater responsiveness.

The Integral Link suspension is also extremely space-efficient. Combined with the compact rear electric motor, this contributes to the large luggage compartment volume and excellent ground clearance.

**electrification and zero emissions**

For most customers, the I-PACE Concept will be the first electric car they have owned. Research and innovations by the engineering and design teams have simplified the ownership experience and lowered the barriers to adoption. The electric motors, battery pack and management systems give the best possible performance and a useful range for most daily journeys.

The I-PACE Concept’s range is more than 500km on the European NEDC combined cycle and more than 220 miles on the US EPA cycle. With an average daily commute of 40-50km, most customers will need to charge the car just once a week. The battery can be charged at public charging stations, a dedicated wall box at home, or simply using conventional domestic power sockets.

Charging is easy and quick, with 80 per cent charge achieved in 90 minutes and 100 per cent in just over two hours using 50kW DC charging.

*“Electric vehicles are inevitable – Jaguar will make them desirable. Zero emission cars are here to stay and the I-PACE Concept is at the cutting edge of the electric vehicle revolution.*

*“As the charging infrastructure continues to develop globally – and with enough range to mean most people would only need to charge once a week – cars like the I-PACE Concept will make drivers appreciate that an EV can be rewarding and practical enough to drive every day.”*

**Ian Hoban, Vehicle Line Director, Jaguar Land Rover**

Energy storage in the I-PACE Concept is a liquid-cooled 90kWh lithium-ion battery pack, designed and developed in-house. The battery’s housing is lightweight aluminium and forms an integral part of the I-PACE Concept’s body structure.

The battery uses pouch cells selected for their energy density, superior thermal performance due to lower internal resistance, and because of the design freedom they afford. And, unlike some competing cell formats, they also offer excellent future development potential, especially in terms of energy density – this will enable greater range for a given size of battery, or will deliver similar range to today but from a smaller, lighter pack.

The pack is liquid-cooled using a dedicated two-mode cooling circuit. In moderate ambient temperatures the battery improves efficiency by relying only on a radiator to remove the heat generated by the cells. At higher temperatures a chiller linked to the vehicle’s main air conditioning system provides greater cooling capacity to keep the battery in optimum condition.

Energy efficiency is further enhanced by integrating a state-of-the-art heat pump into the climate control system. The heat pump is far more efficient than conventional electric heaters because it uses energy from the outside air to heat the cabin rather than relying solely on drawing current from the battery. As a result it can increase the I-PACE Concept’s range by up to 50km, even in freezing winter conditions when most needed.

**technology transfer: formula E**

Jaguar has a proud heritage of motorsport success, winning the Le Mans 24 Hours sports car endurance race a remarkable seven times. Through competition, Jaguar has pioneered and evolved new technologies, from disc brakes to aerodynamic features.

The Formula E Championship now offers a proving ground for electric racing and performance engineering. The series takes place on street circuits in the world’s biggest cities using standardised chassis and battery systems but allowing teams to compete with their own electric motors, control units and transmissions.

The championship will accelerate the development of future electric powertrains. Jaguar engineers will ensure those advances feed directly into its road car programmes.

*“It is my belief that over the next five years we will see more changes in the automotive world than in the last three decades. The future is about being more connected and more sustainable; electrification and lightweight technologies are becoming more important than ever as urbanisation continues to increase.*

*“Formula E has recognised and reacted to these trends and the championship's exciting and pioneering approach is the perfect fit for our brand.”*

**Nick Rogers, Group Engineering Director, Jaguar Land Rover**

**TECHNICAL DATA**

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|  | **Jaguar I-PACE Concept** |
| **ELECTRIC MOTORS** |  |
| Configuration | Permanent magnet electric motor; synchronous  Single-speed epicyclic transmission; concentric with motor |
| Power | 200PS |
| Torque | 350Nm |
| Total system output | 400PS/ 700Nm |
| **DRIVETRAIN** | Motor and transmission integrated into front and rear axles;  Electric all-wheel drive |
| **BATTERY** |  |
| Configuration | 90kWh Li-ion; liquid-cooled; pouch cells |
| Number of modules | 36 |
| **CHASSIS** |  |
| Front suspension | Double wishbone |
| Rear suspension | Integral Link |
| Front tyres | 265/35/R23 |
| Rear tyres | 265/35/R23 |
| Steering | Rack-and-pinion; electromechanical |
| **DIMENSIONS** |  |
| Length | 4,680mm |
| Width | 1,890mm |
| Height | 1,560mm |
| Wheelbase | 2,990mm |
| Luggage compartment volume | 530-litres plus 28-litres (front) |
| Drag coefficient | 0.29 |
| **PERFORMANCE AND RANGE** |  |
| 0-60mph | around 4 seconds |
| Top speed | TBC |
| Range (NEDC) | in excess of 500km |
| Range (EPA) | in excess of 220miles |

All figures manufacturer’s estimates and subject to confirmation. Correct at time of going to press