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NEW YARIS HYBRID

**FIRST
DRIVE**

FIRST VERDICT

Toyota's Fiesta rival hits
105mpg – without
a plug socket



“The electrified Yaris emits just 86g/km on the tougher WLTP test regime, giving it fuel economy of around 105mpg”



- New hybrid engine and battery tech capitalise on electrification trend
- Fresh platform brings big improvements on the road for Toyota's hatch



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ME FOR many people, the Toyota Yaris is a supermini that's guilty of being a bit too anonymous for its own good. Never as affordable as a Vauxhall Corsa or a Ford Fiesta, frequently behind on in-car tech compared with a Volkswagen Polo, and almost always dowdy-looking beside a Peugeot 208 or a Renault Clio.

And yet the Yaris is the fifth best-selling supermini across Europe and an enormously important car for Toyota, because it accounts for almost one in four of the cars the company sells in the region. So the stakes are high for the new, fourth-generation Yaris, and we've had our first chance to drive it on public roads.

Despite previous sales of more than four million units, this could be the first Yaris that ends up on many supermini buyers' shortlists because, of course, it's a hybrid. While there will be a 1.5-litre manual petrol version (and the UK may, in time, also get a 1.0-litre model), the majority of British Yaris sales will be electrified. More than ever, this could be one of those moments where customer trends move towards a model.

The outgoing Yaris had a hybrid version, of course, but the new model looks set to make a much stronger case for itself through an all-new platform, a fresh look, a state-of-the-art powertrain with a different type of battery, and several class firsts on safety kit.

Let's start with the platform. This Yaris sits on the Toyota New Global Architecture, the same core chassis component that has already impressed us in the C-HR and Corolla. In the case of the Yaris, it uses what Toyota calls GA-B, the new, downsized version of the platform. But the benefits TNGA offers this car over its predecessor are considerable. It has 37 per cent more torsional rigidity, which benefits handling and gave Toyota's engineers extra scope to cut down noise.

Up front, there are MacPherson struts, mounted at a new angle that is designed to reduce the amount of vibration and noise transferred up through the chassis. At the rear, there's a torsion beam that is 80 per cent stiffer than the old car's – and this, Toyota claims, has allowed the engineers to soften the springs and improve the ride without losing body control.

This Yaris also bucks industry trends by being slightly smaller than the car it replaces. It's 3,940mm long, so is less than the magic four-metre mark, but its wheelbase has been extended by 50mm, to 2,560mm. It's a little wider and lower,

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giving it a more dramatic look, but we'll let you form your own views on the styling.

Under the bonnet is an all-new version of Toyota's hybrid powertrain. There's a 1.5-litre naturally aspirated three-cylinder engine, backed up by a fresh development of the Power Control Unit that has evolved in countless Toyota hybrids for more than two decades. It can adjust the mix between electric power and petrol power more than 10,000 times every second.

Crucially, the battery tech moves from nickel hydride to lithium-ion, delivering punchy electric torque and recouping more energy during braking. This extra potential is the key, engineers claim, to reducing the 'rubber-band' rev rises that occur when the driver quickly applies more throttle.

On paper at least, the Yaris's numbers make impressive reading. Total system power is 114bhp – enough for a sensible 0-62mph time of 10.3 seconds. And the preliminary efficiency figures are pretty dazzling, when you consider that this is not a hybrid that requires any plug connection.

The electrified Yaris emits just 86g/km on the tougher WLTP test regime (64g/km using the correlated NEDC cycle), giving it fuel economy of around 105mpg. And Toyota says that in urban driving situations, the lithium-ion battery pack's improved performance should allow you to spend as much as four fifths of your time on electric power, without using any petrol.

On the road, the first thing that strikes you isn't the powertrain but the chassis, because as with the larger TNGA models above it, the Yaris's base is an excellent one. Body roll and head toss are well contained, and while the torsion-beam rear can leave the car a little

Essentials

Toyota Yaris Hybrid

Price:	£18,500 (est)
Engine:	1.5-litre 3cyl petrol-electric hybrid
System power:	114bhp
Transmission:	CVT auto, front-wheel drive
0-62mph:	10.3 seconds
Top speed:	105mph (est)
Economy:	105mpg (est, WLTP)
CO ₂ :	86g/km (est, WLTP)

ONSALE Summer



DRIVETRAIN Front wheels are driven through a CVT transmission. This has been recalibrated to minimise the 'rubber-band' rev rises that were common with earlier CVT systems



STYLING Supermini's fresh new look brings LED daytime running lights built into the headlamp housing. There are LED tail-lights at the back of the fourth-generation Yaris, too

ON THE ROAD

Switch to TNGA platform means the Mk4 Yaris handles well and is refined, while the fresh hybrid powertrain smoothly blends petrol and electric power

DRIVEN Behind wheel of all-new Yaris

New chassis and revamped hybrid powertrain aim to put Toyota's Mk4 supermini at the top of the class

susceptible to lateral jolts – from drain covers at the side of the road for example – they're rarely a problem. The overall set-up strikes an appealing balance between composure and comfort.

The steering has precious little feel, but it's a quick enough configuration for the Yaris to feel responsive, especially around town. The turning circle is among the smallest in the class, Toyota claims, and this is certainly a car that feels adept at nipping through gaps in the traffic.

The powertrain plays its part in this, too, because it is noticeably more comfortable with life than the Mk3 Yaris's system. That extra grunt from the electric side of the partnership means that the engine is much less likely to cut in after a few seconds, and you'll find yourself far more able to keep up with traffic on minimal petrol power.

Did we stretch to 80 per cent of the time on electricity? Hardly. But even a couple of hours behind the wheel is enough for you to begin to learn the system's character and

DRIVING POSITION

You sit lower in the new Yaris because the hip point of the driver's seat has been lowered by 21mm compared with the Mk3 model





INSTRUMENTS Digital readouts are backed up with a head-up display so you don't have to take your eyes off the road so frequently

CONTROLS Heating and ventilation switches have a simple design, but the climate-control system is backed up by a digital display to show settings

INFOTAINMENT Apple CarPlay and Android Auto connectivity is standard, and they work better than the Toyota operating system



modulate your right foot to get the blend of performance and efficiency that suits you.

Stamp on the right-hand pedal and, yes, you will hear a drone as the engine kicks in and tries its hardest to keep up with your request for maximum acceleration. But a sensible approach delivers an experience not dissimilar to a conventional automatic gearbox – and all the while, the transitions between electric and combined power are supremely smooth. Even on a motorway, the Yaris does a solid job of cutting out the engine wherever possible, at up to 70mph.

If anything, it's on fast but twisty roads where hybrid systems reach their limit. No matter how good they are, they're still one step short of a regular motor and, in particular, a manual gearbox when it comes to offering involvement. There are no steering wheel paddles or false ratios to play with, because the system's not designed for that sort of driving. So while you can enjoy crisp turn-in and flat cornering, you still won't really feel part of the action.

This trait is made more frustrating because it emerges just as the chassis feels ready for some fun. Never mind the utterly bonkers GR Yaris; we reckon that even a 180bhp

turbocharged petrol version with a six-speed gearbox would be a hoot. Either way, factor in city driving, that new-found motorway prowess and general cruising, and you're left with one of the more refined superminis. Even when the engine kicks in, the hybrid system means that it's more of a distant, slightly grumbly drone than anything else.

If the hybrid powertrain is something of a triumph, the cabin could still be the car's weak point. There's enough space for two adults up front, but taller grown-ups won't be happy in the back seats; or at least, not as content as they would be in the latest Clio. And the 281-litre boot space looks respectable, before the Renault's cavernous 380-litre capacity is taken into account.

In-car tech isn't quite the nightmare it once was, but only because Toyota is finally offering both Apple CarPlay and Android Auto. Selecting either of these phone-based systems lets you avoid Toyota's interface, which is still clunky and hampered by comically old-looking graphics. But, at least the head-up display on our test car worked well, showing all relevant information clearly while minimising the amount of time you need to look away from the road. The

“The hybrid powertrain is something of a triumph”



LENGTH New Yaris is shorter than the previous model, but the wheelbase has been extended to improve cabin space





Q&A
LUC NUYTS
Toyota Europe Yaris project leader

Q How have you made such big gains with this Yaris's chassis compared with the Mk3?

A The answer is simple: TNGA. That technology gives us more rigidity and a different layout – different pick-up points for the suspension, and so forth – that all help to increase the rigidity. And we've also put in extra reinforcement in a few key areas, such as a strut brace across the engine bay and a solid rail across the dashboard. These are things that we knew we wanted to do but they could only happen with a brand-new platform, like this one.

Q It's unusual to see a car getting smaller for a new generation.

A Yes, but the key is the shorter overhangs on the new Yaris – so we've extended the wheelbase. There's also a lower driver's seat for a greater feeling of involvement, and we've got much more scope for adjustment in the steering wheel, as well as a better angle.

Q You've worked on the project from the European side – and the car is built in France. How much input did Europe really have?

A A substantial amount. We've been testing prototypes here extensively, not just at the Nordschleife but also across mountain roads and in city centres, in Europe. We were particularly involved in the fine-tuning of areas like the steering.

standard dash below it is plain in design, and there is no fully digital display to match the likes of the Polo.

While our early car wasn't entirely representative inside, from what we've seen so far, the Yaris will be up with the class best on build quality, but maybe half a step behind the leaders on materials and flair. Expect lots of high-grade grey plastic, with the odd fabric flourish to soften the mood.

Specs have yet to be finalised, but we know every Yaris will get lots of safety kit. Even the basic version will have adaptive cruise control that can operate at motorway speeds or in stop-start traffic, plus lane-trace assist and emergency steering assist. There's also a feature that will watch for pedestrians crossing streets that you're turning into, and halt the car if it feels a collision is likely.

The tech that matters, it seems, is under the skin. Much like its predecessors, this is a car that focuses on nailing the basics more than cockpit trinkets. And in that respect, it is the most convincing and relevant small Toyota for many a year. All that's left now is to see where UK prices sit in the market when the car goes on sale here in the autumn.



Yaris drives well on country roads; boot offers 281 litres of room



Auto Express Verdict

MUCH as with its predecessors, the new Yaris is a car that focuses on efficiency and ease of ownership more than cabin trinkets. But these qualities have rarely been more relevant than now, and the fact that the Mk4 behaves so well on the road brings it right into the reckoning. It's already safe to say that this is the most complete small Toyota for quite some time; and that we're keen to see how UK specs and prices stack up.





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TOYOTA