

Islabikes' new testing lab shifts productivity into next gear

The productivity of an innovative bike manufacturer in Shropshire has gone up a gear after support from Made Smarter West Midlands allowed it to develop a new testing lab.

Founded in 2005, Islabikes is well known for producing quality and lightweight children's bikes when no others were available, and more recently, electric bikes for adults, and modified bikes for people with dwarfism.

No other bike-makers were directly competing in Islabikes' markets until the 2010s, which meant it had carved out a highly successful niche in the cycling world.

However, after the only testing facility in the UK closed in December 2020, Islabikes was then hampered by having to send new bikes to Germany for testing which was not only expensive but delayed the creation of new products.

Through Made Smarter West Midlands, Islabikes was able to access grant funding which went towards the creation of an in-house testing lab at its Ludlow base so Islabikes could test the safety of its bikes themselves. Tim Goodall, Managing Director at Islabikes, said: "Our new in-house lab is paying for itself five times over with the time and money we are now saving.

"We would not have been able to build it without the support we received from Made Smarter, so we're very grateful to the team."

The Challenge

All bicycles sold in the UK must conform to designated industry standards in durability. While it's not a legal requirement to test a product before it goes on sale, it must be able to pass various tests.

The only way of knowing whether they can pass in advance is to test them beforehand.

For a while, Islabikes was content with sending their new products to a testing facility in Warrington, Cheshire, as it was not too far away from their base in Ludlow. But when the facility closed down, there were no other centres in the UK that allowed other manufacturers to use them. It meant the nearest facility was in Germany.

This greatly increased Islabikes' costs, wait time for new products, and its carbon footprint. Tim said: "It was incredibly frustrating that Germany was the nearest place for us to send our new bikes – nowhere else in the UK offered their facilities for testing.

"We knew an obvious next step would be to have our own testing facility like other manufacturers have, but we didn't have the capital to make it a reality."

Made Smarter contacted Islabikes in the scheme's early stages, and Tim thought the potential £20,000 of funding could enable the business to build the new lab.

Support was also given for the development of a digital 'twin' model which could simulate parts of bike frames and create a predictive model for when bike failures would occur.

"We got in touch straight away," Tim added. "Made Smarter replied quickly and we arranged a meeting with the team."

Barry Jones, Digital Transformation Specialist at Made Smarter West Midlands, added: "Islabikes had spotted an obvious bottleneck in their production development cycle – sending their bikes to Germany for testing instead of testing them in-house.

"The main role for us was to reassure Islabikes was making the right decision, and to guide the business through the application process so the lab could actually get off the ground."

The Solution

The Made Smarter team with support from WMG, University of Warwick, which is one of Made Smarter's strategic partners, visited Islabikes to discuss its issues and help them move forward.

After analysing the positive impact having an in-house lab would have on the business, Made Smarter helped the team at Islabikes apply for a match-funded grant of £20,000 to go towards the costs.

Tim added: "Barry and the team took us through the application process step by step, and the whole process was very smooth. "Both he and WMG showed us clearly that the in-house lab was the right business decision for us, so we felt very confident in applying for the grant and making that investment."

Jack Davis of WMG added: "Identifying bottlenecks and removing them is important to improve the productivity of any business.

"It was clear that the creation of an in-house testing lab was the solution to Islabikes' issues, so we encouraged them to apply for a grant."

The Benefits

Once the grant had been processed, Islabikes' lab was built and operational in April 2022 – and it has already saved them significant time and money.

The testing process which used to take up to two weeks now takes less than 24 hours, allowing Islabikes to significantly boost its product development lead time.

It is also allowing Islabikes to be a bit more experimental with its product design, safe in the knowledge that new products can be tested far more easily.

"Developing new products has now become a lot less stressful," Tim added.

"We can develop a new product, test it quickly, and refine it if we need to before testing again. And ongoing surveillance testing is now much more accessible.

"Instead of stopping a test once it reaches the minimum requirements, we can test bikes to destruction to fully understand their limits. At a third-party test lab this was expensive as one frame can be on a test rig for several days – the costs added up fast!

"The cycling market has dipped somewhat since the boom of the pandemic, but the new lab has meant we have been able to focus on perfecting our bikes for our market ahead of a potential upturn."

The Future

Islabikes is in a strong position to take advantage of any increased demand for bike sales, and is hopeful of possibly expanding the team in the future if that success materialises.

Tim added: "Although we are currently focusing on using our lab in-house, in future we'd love to offer testing to other UK bicycle businesses.

"Just having the lab here is making business so much simpler than before, and we're confident it will stand us in good stead for the future."

Rachel Laver, chief executive of the Marches Local Enterprise Partnership, said: "The Made Smarter scheme – which has been supported and promoted across the region by the Marches LEP and our unrivalled business support arm the Marches Growth Hub – has been a big success in helping develop innovation at a wide range of businesses.

"We are delighted to see the impact that the grant funding has made for Islabikes in developing the in-house lab and allowing the company to bring its development times down and also take more control of its testing processes.

"The Marches Growth Hub continues to be integral in bringing together information about a wide range of business support in one central location, ensuring that businesses throughout Herefordshire, Shropshire and Telford & Wrekin have the best opportunity to access funding."



Martyn Mangan (left), Digital Transformation Specialist at Made Smarter West Midlands, with Tim Goodall, Managing Director at Islabikes, inspecting a bike frame in Islabikes' new testing lab.