Gear hubs (IGH) need higher precision manufacturing processes, cost more and may not be robust and durable for heavy-duty usage.

“Many of our riders are using their bikes all day, every day for many years, often carrying very heavy loads. What generally doesn’t need attention are the frames, forks and carriers. The primary source of failure is with rotational components under load: hubs, drivetrain and bottom brackets. Basically, anything with a bearing. The Buffalo uses a mixture of sealed bearings (bottom bracket) and serviceable bearings in the hubs.

“Sealed bearings can be a double-edged sword in that unless they are perfect seals (which they often aren’t) they can often retain water and contamination that inevitably works its way in over time. We have found that in many cases a shielded bearing that can keep out most of the contamination but allows water to drain out works well. In some cases, we have upgraded the bearings, either in quantity of balls used or in the hardness of the bearing races.”

As well as providing bikes, World Bicycle Relief works to improve the infrastructure. They train mechanics and, where the available spare parts are inadequate, they seek to improve distribution and access through their network of trained mechanics and a growing network of local shops.

**ISLABIKES**

It is perhaps too much to ask for a bicycle to last forever, but it does seem possible for bikes to be designed with repair and refurbishment in mind, so that bicycles can last for decades and their use can be far more sustainable than it is currently.

Four years ago Islabikes had just this possibility in mind when it set out on its Imagine Project. The project’s plan is to make a bicycle that can be manufactured in the UK, ridden to school and back for 50 years by as many children as possible and, at the end of the bike’s life, separated into usable materials. You can read more on the Cycling UK website: cyclinguk.org/article/islabikes-imagine-project-childrens-bikes-built-last.

Islabikes’ MD, Tim Goodall, told me that even the company’s ‘ordinary’ bikes were enjoying a long use-life. “When 15-plus years is considered long lasting, our bikes are long lasting,” he said. “I put it that way because 15 years is and was considered long lasting for children’s bikes. We’re in our 17th year now and many of our first bikes are still going strong, and many will likely be around in another 17 years if they are maintained. However, we still look for ways to make the bikes more durable without compromising performance, because 15 years is still nano seconds when we’re...