

# New Tracks into Rail for Argenta and Cyth at BCIMO

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West Midlands software developer **Argenta** and partner, Cyth Systems, choose the **Black Country Innovative Manufacturing Organisation (BCIMO)** to test their innovative new product for enhancing rail freight safety, with grant support from Innovate UK Business Growth.

Argenta was originally launched in 2003 by Jeff Woodhams, an expert in designing, developing and delivering computer-based solutions to improve complex processes within organisations. Joined six years later by his son, Chris, who has a background in developing software in the aerospace industry and is now Managing Director, the company has continued to go from strength to strength, working with a broad range of clients, including in both the automotive and aerospace sectors.

Working in partnership with Oxford-based automation, measurement and control systems specialist, **Cyth Systems**, the company is now looking to diversify into the rail sector and to launch its first product. The technology could potentially have a wide variety of applications to be explored in the future, but is initially being developed with the aim of reducing accidents encountered by freight rolling stock.

Unlike passenger trains, which are configured and utilised such that constant monitoring, both in-vehicle and remotely, can be undertaken, including in transit, the ability to do so in freight is less straightforward. Testing has to be done when stationary, via standalone equipment powered off-vehicle, or equipment which utilises a pre-charged battery pack and so has a limited time before re-charging or replacing.

Argenta and Cyth's technology, however, provides a self-generating, wireless power unit with further storage capacity, which can be installed on freight rolling stock where and when needed, alongside software to monitor systems and thus highlight problems. These, in turn, can be addressed in situ if possible, or vehicles taken in for maintenance before any further issues arise, such as a fault which may go on to cause an accident.

Experience from across the transportation sector shows that whilst most personal injuries and fatalities caused by mechanical and technological fault occur on passenger vehicles, there remains potential in non-passenger settings with regard to crew. There is also, personal safety aside, the broader impact, for example of damaged infrastructure, the time and cost incurred by disruption and repair, and even legal implications. Furthermore, there is also the likelihood of damage to confidence and reputation.

As such, gathering data on, mapping, reducing and ideally preventing issues arising is the ideal, and so the partners' proposition for freight has the potential to impact significantly on what is often an overlooked niche within the rail sector.

Their initial £15,000 grant funding, secured through [Innovate UK Business Growth](#) (formally Innovate UK Edge) and designed to enable innovative businesses to access facilities and expertise provided by Catapult centres and Research & Technology Organisations (RTOs). As the leading regional centre and RTO within the rail sector, and with facilities offering the distance and speed required, Argenta and Cyth chose BCIMO to acquire data to support product development, and spent a day in Dudley using the [Very Light Rail National Innovation Centre's Rail Development & Test Site](#) at the end of February.

At the time, BCIMO was also hosting an ongoing test for the [Harry Needle Railroad Company](#) and [Advanced Hydrogen Technologies Group](#) (AHT) – an innovative SME-led project within Cohort 1 of the [Clean Futures Accelerator](#) programme – and were delighted when they offered to work with Argenta on their test. In practice, this included installation of the technology on the HNRC locomotive being used to test the AHT technology, so that both products could be operated simultaneously, and data captured as the rolling stock utilised the track.

Following completion of the track test, Argenta and Cyth are now analysing the data, and then will move to the next phase of the project which encompasses designing a range of concepts for the prototype. With this planned over the coming months, they are also reflecting on the option to apply for the second year of the Clean Futures Accelerator, applications for which open shortly on 30th April. It will also be launched by BCIMO at their forthcoming exclusive Demonstration Day event for the first cohort on the same day.

Winning SMEs on the Clean Futures Accelerator receive £50,000 to fund the demonstration of their innovation to key rail industry stakeholders and prospective investors, alongside a comprehensive package of technical and commercial support from BCIMO, and access to a range of on-site facilities within the centre.

Looking to the future, Chris and the collaborative team at Argenta and Cyth are really focusing on the scope and quality of the services they offer to their existing clients, and opportunities to work with new clients across all sectors as the business grows. But this new collaborative project and future such innovations and opportunities are also at the heart of their ambitions going forward, and so there are exciting times ahead.

Chris Woodhams, Managing Director at Argenta, said: "For our project we needed to acquire data from a train whilst travelling at reasonable speed and for these requirements, the BCIMO facilities were perfect. The people that we worked with were knowledgeable and really supportive in getting our project activity completed.

"We wouldn't hesitate to recommend them to others or come back in the future when requirements arise."

For more information on Argenta, please visit the [Argenta website](#).

For more information on BCIMO or the Clean Futures programme please visit the [BCIMO website](#) or [Contact Us](#) to make an enquiry.

