

**File name:** spotlight\_on\_germany\_\_nathan\_wright\_\_\_invest\_ni (720p).mp4

**Moderator questions in Bold**, Respondents in Regular text.

**KEY: Unable to decipher** = (inaudible + timecode), **Phonetic spelling** (ph) + timecode), **Missed word** = (mw + timecode), **Talking over each other** = (talking over each other + timecode).

**Moderator: My name's Nathan Hodge. I'm the head of Wrightbus International. I'm in charge of the business development growth strategy for Wrightbus in markets outside of the United Kingdom and Ireland. Responsible for the operation and manage at Wrightbus PT Limited and APAC, and I've also coordination and management of a manufacturing facility in Malaysia doing aftersales and support. I manage over 3000 buses each day in Hong Kong and Singapore. I'm going to talk today about a bit of an overview of Wrightbus and what we're doing in the German market, and how Invest NI are supporting our group strategy and moving forward. In terms of Wrightbus, we have been in operation for over 75 years and been pioneers of innovative and new technologies in the UK and Irish market. Dealing with the movement from to low emission diesel, to hybrid, to zero-emission vehicles including hydrogen electric. (mw 01.11) also for new the new bus for London, the iconic Routemaster also known as the Boris bus. In terms of business we've also got a strong export, as I said with over 3000 buses in operation daily in Hong Kong and Singapore with other buses in operation in New Zealand and the US and then Latin America. We also have a manufacturing facility in Malaysia which has been in operation since 2015. In 2018 we relocated to a new facility also in Ballymena very close to our original facility. This is somewhere we've got lots of scope to continue to develop and grow our business and to effectively meet the demands of the future zero-emission bus growth expectations. The business has been under the ownership of Jo Bamford and we launched the world's first hydrogen first double deck bus in 2020.**

**And currently, we're at the period, the business is in a period of growth and expansion. We currently have 70 to 80 people employed in the UK and 130 employed internationally. We're expecting for the end of 2022 to have over 1100 people employed in the business. Our current growth for vehicles has doubled from 2021 to 2022. In 21 70% of the buses we manufactured were diesel but in 2022 70% of the buses will be zero-emission. And we expect that trend to continue over the next three to five years but also the actual volume of vehicles to continue to expand. We also continually investing and we've got four elevated new products coming to the market next year. As I mentioned before we're manufacturing based in the United Kingdom. Our chassis manufacturing after skills and the main bus facility are all catered on one site. But we've also got lots of space to grow. We're also the only European bus manufacturer with a dedicated on-site hydrogen delivery and hydrogen equipment support supply on-site permanently. We also have a very strong relationship with Queens University Belfast which has now operated for nearly 30 years. It was initially a consultancy partnership project but in 2017 we actually formed a research facility also known W-Tech. This is now the revamped, the rebranded the Bamford Technology centre. And this is an area of excellence. We have students and we have professors from all round the world who have come and worked in this and its become a real centre for public service vehicle**

development and sector and knowledge. In terms of our product offerings, we have obviously single decking and double-deck vehicles. But for the European market obviously, we've had a strong ambition to grow in this sector. And we can see that a single deck hydrogen bus could be, and single deck eclectic buses, could be where the growth opportunities come for Wrightbus. So, this is something that we've developed and now can offer to the market.

In terms of hydrogen fuel cell and battery electric vehicles, the technology and development from Wrightbus has been significant. We incorporate hydrogen fuel cell in all of our hydrogen buses. We use the same electric traction system in both our battery-electric vehicles and our hydrogen fuel cell vehicles. For people who are not, they're not aware, one of the big differences between hydrogen fuel cell vehicles and battery electric vehicles is the refuelling time. An average length of time for a battery-electric vehicle is around one and a half to two and half hours depending on the type of charging technology, but the hydrogen vehicle can be refuelled in as little as eight minutes. In terms of Wrightbus, and in terms of the hydrogen sector, an area where we think is, where the growth is going to come for Wrightbus in Europe. We currently have over 91 hydrogen buses in service. We are the leading hydrogen bus manufacturer in the UK and Ireland and we are currently second, we have the second-largest number of hydrogen buses in operation in all of Europe. So, Wrightbus can offer an end-to-end solution. We can do infrastructure and planning through rise hydrogen. But we can also prove insulation and fuel delivery. We have finance offering through Fuse Finance (ph 05.33) and we can obviously provide buses through Wrightbus and after-sales through our Uptime365. All these integrated offerings is something we are now bringing to the European market and predominantly to the German market where we can see a significant upscale and demand for hydrogen technology. For us, we are looking at clear exporting into Europe, into Germany. Germany has a very clear definitive path with a hydrogen strategy. You can see in the map shown below this is the current plan for hydrogen fuel stations and hydrogen pipe lines. There's a clear strategy built up, not just for buses and urban ability (ph 06.11) but for hydrogen fuel cell trucks and also looking at how they can, through green (ph 06.18) hydrogen, help to improve the emission offsets for manufacturing, for concrete and also steel production. So, a very clear definitive pathway in Germany, and a very clear definitive capital planning procedures put in place. For us, we are now looking at how we can become tech from being a very well defined UK and Ireland manufacture into Germany.

So, we're availing of the support of Invest NI. To look at how we can go into more depth and more detail in these opportunities. Without necessarily having to invest in significant amounts of capital over the last twelve months. And Invest NI have been able to support us both through the tendering process where they've been able to actually support us with some of their thoughts and some of their views with their local knowledge, we've been very very supported very very lucky to have somebody in Invest NI who is actually located in, well was actually the hydrogen sector of Europe in and around the Cologne region is actually where the most amount of hydrogen buses are kept and planned to be kept in all of Europe for the foreseeable future. There will actually be more hydrogen buses by the end of 2023 in the Cologne region, in the city of Cologne, than there will be in the entirety of the UK and Ireland, and France. So, we've been very very fortunate that we've

been able to leverage some of that key local insight and knowledge. And also through Invest NI we've been able to open up other parts of Germany to look at without having to be able to be there. You know, obviously challenging the last eighteen months has been travelling with the Covid pandemic, it's been hard to plan consistently. So, Invest NI have supported us with the task programme to look at the different opportunities or potential partnership that we can be availing of to open up regions outside of Cologne. And that's something we think has been very very beneficial to us to get an oversight of potential partners in a very quick and efficient manner.

For us, we see significant long-term potential in Germany. There's a very clear capital planning path for bringing hydrogen production in Germany, there's a very path to bring down the cost of hydrogen in Germany. But I think we're well-positioned to satisfy that demand as it moves forward and the growth continues. But in order for us to have got there, we have had to avail a lot of support for Invest NI as I said previously. That has been absolutely beneficial to us, in the initial formative periods. Obviously, just getting that knowledge straight away, there's obviously a significant amount of dialects in Germany, significant regional differences, and the ability for Invest Northern Ireland to provide some of that information to us in an efficient and clear manner has really built up our knowledge of the market in a manner which wouldn't have been possible if we had done this directly ourselves. And that's something that I think that we, we have found really really beneficial and something that's been very important for us. And for us, you know, we believe all companies that are sitting there considering export should try and unveil Invest NI and the UK Department of International Trade. If you're not working with these types of departments when you're looking, or these companies when you're looking at export then you're potentially trying to export with one hand tied behind your back. You're potentially not availing of all the opportunities or offerings that are on the market. You know, for us I worked with TIT and Invest Northern Ireland and a number of different markets and they really can provide a lot of efficient and effective local knowledge in a very quick and elegant manner. And, you know, for me they're a key partner for any business looking to export and somebody that, you know, has been key throughout our journey in Germany so far. Now we can see the tender-sphere in Germany increasing significantly. Currently, there's active tenders for over 230 hydrogen buses in Germany and we think we're well positioned to capitalise in that. But in order for us to get to this point where we're now in a position where we can look at commercial opportunities we obviously had to go through the initial basic work and Invest Northern Ireland have really helped us with that over the last eighteen months. And that's something we're truly grateful for. I'm happy to take any questions at the end of the Q and A. Captions by www.takenote.co