#### Q. How significant is laser processing in the overall structure of TWI?

Since the 1960s laser processing has been part of the portfolio of processes at TWI. Laser material processing has been key to inclusion, how is TWI addressing this? the business, especially in the areas of joining, cutting, surface When I joined TWI in 2007, I was very happy to see that the engineering and additive manufacturing. In addition to metals, laser workplace was such a multi-cultural environment and I believe that processing includes polymers, dissimilar materials, composites and diversity and inclusion are very positive aspects of working here. ceramics. Now with multiple fibre, direct diode and CO<sub>2</sub> lasers in a TWI launched an initiative called the Tipper Group (named after range of wavelengths and beam qualities, the goal is to have statefemale engineer Constance Tipper) which seeks to attract, recruit of-the-art facilities in a flexible set-up to work on a diverse range and promote people regardless of age, gender, ethnic group or of projects and applications. Laser processes account for over belief. Today there are many more female engineers than when I £4 million of revenue annually, and 35 staff are involved in delivering started, and I have progressed from a laser engineer to a section this. As well as welding process development, our team covers leader. everything from fixture design through validation and testing. At our Catcliffe (Rotherham) site, the team specialises in laser additive processes with wire and powder.

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Laser material processing has been key to the business

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#### Q. What is your experience of online events?

During the COVID-19 pandemic, online events have been the only way to continue to exchange knowledge and keep in touch with our industrial network. Circumstances have caused a mindset change and there are some benefits (efficient use of time, no travel costs, international presence, access to recorded resources after the event) that perhaps will mean that many future events will become hybrid events. However, there has been a huge loss in the social interactions that we have realised are so important and have been taken for granted until now.

In terms of webinars, TWI started using this format some years before the pandemic. Now, we can have upwards of 300 people attending our open events, though some smaller events are more like 50 people where we focus on one organisation.

#### Q. How are you coping with the pandemic? Has working from home suited you?

Personally, COVID-19 has made me appreciate the normal things we used to do. I certainly missed the social interaction with colleagues, clients and friends. Work is more flexible now and we can mix time in the office in meetings or on remote sites, with other times working from home. I think the experience has made us all more agile, and we now know that we don't always have to be in the office to get things done. One thing that is harder is the management of teams. We introduced shift working and social distancing and managed to keep our laboratories running throughout. I don't think there has been

# LASERS ARE A LOT MORE THAN WELDING AT TWI

AN INTERVIEW WITH PAOLA DE BONO SECTION MANAGER. LASER & SHEET PROCESSES. TWI

#### Q. Can you give us an overview of TWI?

**TWI as Professional** Institution, The Welding Institute, dates back to 1923 and, with the later establishment of the **British Welding Research** Association (BWRA) in 1946, provides the basis of the company group as it is today.

This year TWI is celebrating 75 years as a **Research & Technology Organisation**, with headquarters in Granta Park, Cambridge and **Industrial Members** all over the world.

TWI employs over 800 staff and turnover is over £70 million, with offices and technology centres in Rotherham, Middlesbrough, Port Talbot and Aberdeen.

The organisation offers multidisciplinary expertise and impartial advice. The core of the business is the provision of engineering and manufacturing solutions for structures. In addition to the wellestablished joining technologies, TWI covers surface engineering,

inspection and whole-life integrity management.

The group is supported by 13 international offices which allow for local presence in global projects. Work carried out includes providing information, technology transfer, consultancy, research and training. The availability of a multidisciplinary team enables a unique service to be provided to industrial manufacturing organisations.

#### **INTERVIEW**

a significant effect on our output though inevitably some projects have not been able to run at the predicted speed.

## Q. AILU is seeking to improve diversity and

#### **Q.** Anything new and exciting in the pipeline vou can talk about?

At TWI, our laser section serves a wide range of industrial sectors. Electrification is a growing area (we covered it in the TWI/AILU workshop that I chaired last year) and this is not only automotive, but covers off-road vehicles, rail, aerospace and shipping as well. We are currently working on many aspects of battery technology, including safe handling of high voltage cell module assemblies, checking, welding and testing – using the know-how we have built up in this area. Recently we have been working with BMW and Ford to advance their electrification agendas - for people who are interested, some more information can be found on our website. There is a lot of in-house experience in fixture design and prototyping.

#### Q. What is the best thing about AILU for you?

TWI has had a long, lasting and strong relationship with AILU, including past presidents and members of the steering committee. I feel it is a great platform for the community to network both in the UK and internationally. It is exciting to meet new people, listen to

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### It is great to be an active part of an enthusiastic team

presentations and attend conferences. Since 2020. I have been a member of the Steering Committee and it is great to be an active part of an enthusiastic team, and be able to make my own individual contribution. Also, being a part of the planning and delivery of ILAS and one of the webinars has been a very enjoyable experience. I highly recommend it!

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