

Discussion Notes of the MCDDM Advisory Board Meeting 1 – 07/09/2021

Is there a risk that there are some technologies out there that currently exist similar to the demonstrator being developed? It would not be useful to reinvent the wheel, and engaging industry will be key to ensuring the technologies are novel and useful.

Up to this point we have been working on reviewing literature and coming up with a concept design, which means partner input has not yet been gathered. We now have the concept shown today and welcome feedback; a summary document is also in work which will be presented to all MCDDM industry partner companies to provide comment.

Including hardware or software from commercial providers may be challenging however, firstly due to integrating the technologies of multiple companies, and secondly the research teams would need access to every detail of code running the equipment, which is often not feasible with commercial systems.

Clarity on the benefit of the activities would be useful, particularly to ensure relevance to industry; defining the problem, actions, solutions and outcomes of research being done would help this.

We will take this on board and ensure that MCDDM work can be framed in this way going forwards. The application and outcome of our work to industry is very important to MCDDM activities so we will prioritise this in future work.

Short projects, particularly KPI reviews of technology are very useful and more could be made of these.

This is great to hear and we do intend to increase the number of these projects delivered significantly next year – we are aiming for 30 short projects with SMEs in Year 2. As discussed in the presentation, we would be grateful for board members to spread the word about these projects, particularly to SMEs in their supply chain or partner pools.

How do you get people to actually apply training in the real world? A particular focus area of interest would be training courses for designers and managers to interpret and apply metrology appropriately.

Learning alone is good but it is important to integrate real-world experience through e.g. EngD qualifications where hands-on experience is expected alongside research and learning in the field. Some courses delivered by Coventry University do require the completion of a small practical assignment after the course before a certificate will be awarded. This can be used to evidence experience in a portfolio setting.

Graduate Apprentices and Apprentice Centres are lacking in Metrology courses, we wonder if the MCDDM could push this?

We agree there are challenges in UK industry-led training, especially when comparing against other EU countries with excellent manufacturing education records. We would be happy to engage in this work and support pushing appropriate Metrology learning more into engineering apprenticeships.

Is the centre intended to be a University-led novel product development centre? The presentations given show different strands of work being undertaken.

The centre acts across three core activities and is intended to deliver on all three. Each university delivers on all activities but has a focus on leading one of the three activities in particular. We see the priorities of technology development, real-world implementation and training of personnel as related challenges key to the progression and adoption of Metrology for Industry 4.0.

As we are Universities we cannot produce commercial equipment but can work on the early stages of technology development and pipeline, with a view to collaborating with industry partners such as yourselves to develop further and spin out mature technologies to market.

COVID-19 Impact on Activities

We have noted that engagement with industry has been limited in the past year, a thread throughout feedback from our Advisory Board. While we have attempted to respond actively to ongoing restrictions and provide digital and remote events, we appreciate that there is huge benefit to be gained from in-person meetings, discussions, workshops and kit demonstrations.

This was an original aim of the Centre which we have been limited on due to Government and University regulations in Year 1 however we are intending for it to be a key focus of Year 2. We would like to encourage industrial partners to showcase equipment, use our facilities for meetings and events, particularly at our conference in May.

If we (MCDDM) were to organise an in-person event in the coming months, would we actually have significant attendee signups? Events even now and into late 2021 are still being postponed or cancelled due to safety concerns or low attendee numbers.

AMRC have in-person tours and events running with decent attendee numbers. Key to ensuring this is being extremely clear on the goals and objectives of the events are and advertising that specifically towards those you want to attend. MTC deliver regular 20-30 minute "floor walks" touring the equipment and labs, a similar thing could be organised for UK Metrology.

An earlier comment was made around activities which can be financially justified to budget holders by industrial partners. Could we (MCDDM) ask for feedback on what is justifiable to your budget holders of the activities we do, and should therefore be prioritised?

This question would be better addressed at the next Advisory Board meeting when activities in-person have been resumed and we are able to deliver the real-world activities and events originally envisaged for the MCDDM.

Next meeting:

- Chair of the Advisory Board – Toby Maw, MTC
- Meetings will go forward 6-monthly
- Next meeting will be held in-person (a hybrid approach preferred by Board members)

Actions for MCDDM teams:

- Complete and distribute demonstrator summary document for comment by industrial partners
- Organise in-person open days/events for demonstrations and lab tours
- Increase the delivery of KPI reviews and other short projects for SMEs
- Revisit the discussion re: subscriptions at next meeting when in-person activities have resumed