EDWARD VONCKEN: RESPONDING TO THE NEEDS OF LARGE KEY SUPPLIERS WITH A NEW PARTNERSHIP MODEL

BIC INSTEAD OF BIG

Large OEMs want a limited number of large key suppliers with the stamina to take complete responsibility for the development and production of a particular module. Many suppliers are interested in securing that kind of role. For example KMWE – not alone, but by pulling together as many development and manufacturing activities as possible. Managing Director Edward Voncken prefers to enter into strategic partnerships – such as AddLab – which are soon to be housed on the Brainport Industries Campus (BIC).

BY MARTIN VAN ZAALEN

When Edward Voncken talks about creating the 'factory of the future' on the Brainport Industries Campus (BIC), which is due to arise on the north-western edge of Eindhoven, he is talking about new partnership models. Partnerships including a company – an OEM – that wants to develop and market a product or module and is prepared to invest in it; also including parties – firms but also universities of applied sciences and regional training centres – that will take responsibility for the development, onward development and testing; plus production and assembly companies, manufacturers who will between them produce the different components and modules and assemble them to make that product or module; and, finally, customers who want to buy that machine or device to use in their own processes and want to feed back their experiences to the group of developers and teachers.

ADDLAB

A prime example of this type of partnership model is AddLab. AddLab is part of the CFT 2.0 technology programme of Brainport Industries, intended to familiarise high-tech suppliers with additive manufacturing (3D printing) with metal. The AddLab school offers masterclasses and online teaching materials, but above all it requires a lot of DIY and learning from others. Participants include FMI, Philips Innovation Services, Machinefabriek De Valk, Frencken, KMWE, NTS Group, MTA, Kaak Groep and Additive Industries. The latter company has put the 'steep learning curve' of participating in AddLab to use in order to develop and market its own 3D metal printer (the MetalFAB1), in close partnership with the other 'Addlab firms' acting as fellow developers and suppliers.

OTHER EXAMPLES

But Voncken has worked out a number of other examples, together with the other initiators, Brainport Industries, BOM and Stam + De Koning Bouw, who will soon be developing and operating the campus. Precisely because the smart factory of the future at BIC will provide an environment for high-tech, high-mix, high-complexity, low-volume production, which calls for a high level of flexible automation, they are examples of products which are needed to make that factory run properly. Voncken: 'We need a balanced and intelligent logistics system, initiated, developed and then applied in the smart factory by the members of the partnership. The same goes for smart interfaces to ensure that, for example, an intelligent pallet can communicate with the robot it delivers the workpieces to or collects them from before taking them on to the next processing step. But you could also imagine a handling system capable of unloading that pallet and packaging the products and making them ready for transport in a smart, highly flexible manner.' He also sees an AddFab, as a successor to the AddLab, as an option. 'At the AddFab, that 3D metal printer and 3D printing process could

Edward Voncken of KMWE and co-initiator of the Brainport Industries Campus: 'Partnership between various companies in the chain, to be able to offer the completeness and capacity of a large supplier combined with the agility of a small one. That is exactly what we want to achieve by means of the BIC.' Photo: Maarten Hartman

be developed further. Students could also contribute to and learn from these development activities, making use of the research facilities of the participating firms.'

WILLING TO SHARE

The advantage of this set-up is that the community can achieve market-ready, 'smart' innovations for which the participants individually don't have the knowledge and resources. The participating educational institutions (senior secondary vocational education institutes and universities of applied sciences) gain access to state-of-the-art know-how and development and production facilities which a school itself could never afford. But that success does depend on the willingness of the members of the BIC community to work together openly and share risks and proceeds. 'By continuing to develop the machine with the same partners, releasing processes for mass production and at the same time also being involved in the design and delivery of the machine itself, Additive Industries has acquired a unique position in, for example Airbus (which bought a beta version of the MetalFab1 machine, ed.). That position can only be retained if the entire community continues to work together openly. Imagine if one of the developing or supplying parties were to keep particular know-how or technology to itself, so that Additive Industries couldn't get its 3D metal printer qualified, then the partnership would have a problem.'

COMPLETE AND AGILE

Of course, the entrepreneurs and their business cases and products are crucial to the success of the BIC partnership. Because they need to be willing to invest and have a market for a typical high-tech, high-complexity, high-mix, low-volume product for which there is also a demand elsewhere in the community. And which can be built cost-effectively in a flexible production environment such as this factory of the future. Voncken is convinced that entrepreneurs will come knocking on the door. After all, this partnership form meets the demand from OEM customers for suppliers who are capable of taking full responsibility for the development, construction and maintenance of devices or the modules inside them. 'I see two trends. One is that of the systems supplier which is increasing its scale and acquiring more and more development and machining activities and responsibilities. The other is that of partnerships between various companies in the chain, to be able to offer the completeness and capacity of a large supplier combined with the agility of a small one. That is exactly what we want to achieve by means of the BIC. BIC instead of big, yes.' ●

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BIC: ROOM FOR SHARING AND NOT SHARING

A place where the residents keep to themselves what they don't want to share and work together where that is in everyone's interests. To this end, a 20-hectare covered industrial estate is being developed, which will house the factory of the future, with 24/7 production facilities equipped with smart technology and plenty of room for logistics – if possible using automatically guided vehicles (AGVs). And with an 'atrium' for the shared facilities and the projects which companies carry out in partnership with educational and research institutes. In a park covering a total of 200 hectares, on the north-western edge of Eindhoven – just off the A2 motorway and close to Eindhoven Airport.

www.brainportindustries.com