

**Executive Directorate**

**Check against delivery!**

***umati* – on its way to becoming the global language of production**

**Statement by Hartmut Rauen, Deputy Executive Director of the VDMA (German Engineering Federation), at the *umati press conference* on 2 April 2020**

**1. OPC UA success story in the VDMA**

Ladies and Gentlemen,

A warm welcome from me, too. I am delighted to have this opportunity to talk to you today – in this new format – about intelligently networked production and "machine to machine" communication. The last few weeks have provided dramatic proof that dependable communication should never be taken for granted.

How did we get to where we are today? The VDMA has been a driving force behind “Industrie 4.0” from the very beginning, and it was almost ten years ago when we formulated it as our mission statement. It all started in the "Industry and Science" research alliance of the German Government (“Forschungsunion”), then it shifted to the associations platform – but at all stages we were captivated by the idea of an intelligently networked production system that is created in Germany for the whole world.

We soon realised that "machine to machine" communication had to be simplified if we were going to achieve this. And that we had to do something about the cacophony of different languages – every production manager in the world can bear witness to this – and establish a global production language. And this needed to be done quickly if we wanted to maintain and improve our position as a leading global player.

**2. High participation levels – More than 17 associations already involved**

Of course, getting everybody to speak the same language is no easy matter. From an early stage we in the VDMA favoured OPC UA as the standard for data exchange in mechanical and plant engineering. This is because OPC UA provides a uniform framework for machine and system interoperability.

Viewed in linguistic terms, OPC UA technology can be likened to the grammar and syntax of a language.

But of course, we need more than just this to communicate: we also need the vocabulary of the global production language, functional descriptions of the machines. This is defined in the VDMA in close coordination with the OPC Foundation, and by hundreds of industry experts in the individual mechanical engineering domains.

A major milestone here was the VDMA "*Industrie 4.0 - Communication with OPC UA"* guideline which we presented at the Hannover Messe back in 2017. We now had a clearly formulated goal: We want to establish a global language for production. This gave the companies some much-needed orientation from a very early stage – they now knew which direction they were heading in.

Today we can see that our efforts to make OPC UA accessible to the sub-sectors of the mechanical engineering industry were a success. Over 30 specialist groups in more than 17 associations such as Machine Tools and Robotics are currently working on establishing the global production language and standardising product and functional descriptions in the "OPC UA Companion Specifications".

This high level of collaboration forms the basis of true, open interoperability between machines and software systems, from the shop floor to the cloud.

Only the VDMA has the strength to unite the necessary integrative forces from the wide range of production domains. This involves our European and international networks, for example, and covers an immense breadth of technology and a large number of international member companies.

**3. First OPC UA for Machinery standard planned for 2020**

Having adopted a bottom-up approach, it soon became clear how important it was to establish uniform definitions of basic elements for all, or at least a large part, of the diverse range of products in mechanical and plant engineering. The simplest example is machine identification, including features such as manufacturer, serial number, year of manufacture and machine type.

Here, various groups such as Electrical Drive Engineering, Plastics and Rubber Machinery, Machine Vision, Metallurgy, Robotics and Machine Tools – which have already put in a great deal of preparatory work – are currently drawing up the Basic Companion Specification *"OPC UA for Machinery"*. The first version is scheduled for publication later this year.

As you can see, we are taking the "Industrie 4.0" movement decisively to the next stage. Overall, the VDMA's work on OPC UA combined with the idea of universal interoperability and of a global production language is generating immense added value for the entire manufacturing industry.

The German Federal Ministry for Economic Affairs and Energy (BMWi) has come to the same conclusion. That is why we are founded by the German Federal Ministry for Economic Affairs and Energy to launch the "*Interoperable interfaces for intelligent production"* project*,* which is designed to further improve Germany's status as an industrial location.

**4. Supporting market penetration**

Ladies and Gentlemen

The concept of *Plug & Produce* must now be taken out into the world and communicated to customers in particular. We have an extremely diverse range of users, including the automotive industry and the medical technology and furniture construction sectors. Ultimately the mechanical and plant engineering industry encompasses the entire world of goods. Production managers all over the world should be able to count on machines from different manufacturers being able to speak the same language.

We are working on ensuring the correct use of the global production language. *umati* basically represents an authoritative dictionary, a label that stands for the promise of interoperable production. We are reaching end customers and users, the production managers who oversee the machines and plants, at congresses and leading world trade fairs. The EMO Hannover, the METAV in Düsseldorf or the Hannover Messe Industrie are prime examples here.

The aim of our joint marketing framework in the form of the *umati* label is to increase visibility and market penetration. We are also hoping to receive broad-based feedback from users. This is important for prioritising future activities.

This is why we in the VDMA are pleased to cooperate with the VDW to build umati. *umati* is not an OPC UA Companion Specification, but the end customer-based community for the use of OPC UA and the OPC UA Companion Specifications of the mechanical and plant engineering industry. In the future we will be working together to promote *umati* and especially to support our members' end customers in turning the *umati "Connecting the World of Machinery"* claim into reality.

**5. Close cooperation between *umati* and OPC-Foundation**

The basis for this is cooperation with the OPC Foundation, a key partner for the worldwide dissemination of an open standard for interoperability. All our working groups are collaborating in Joint Working Groups which are officially registered with the OPC Foundation. They will continue to work independently for the most part, while still liaising with other working groups.

This ensures that the specific requirements of different industry segments or technologies are taken into account in our efforts to achieve harmonisation across industries.

We are hoping that *umati* will aid us in achieving even greater coordination among the working groups on topics that require uniform regulation for all relevant actors, including manufacturers and above all users, both nationally and internationally. *umati* allows different needs to be incorporated and bundled at an overarching and global level. *umati* will thus become the voice of the global engineering industry and influence future developments regarding OPC UA and its implementation in a more targeted manner.

Ladies and Gentlemen, we would ideally have liked to present the *umati* cooperation between VDMA and VDW in a different way – not virtually, but in a physical, engaging and directly accessible form. But the fact that we are meeting today via this web conference serves as proof of our conviction. *umati* will provide further momentum in the worldwide implementation of the already highly successful standardisation efforts in mechanical engineering. We are overcoming the cacophony of multiple languages, our global production language is becoming reality.

Thank you for your attention.