"Augmented reality offers a new era of working"

Katarzyna Sawka is Group Marketing Director of Seco/Warwick with headquarters in Świebodzin, Poland. In this interview with *heat processing* she talks about the use of augmented reality and the implementation of this technology into the heat treatment industry.

How did you come up with the idea of using augmented reality technology in your company?

Sawka: While talking about virtual reality and augmented reality, these two technologies are mentioned simultaneously, even are commonly confused with each other, and between them there is a difference. They are the two approaches of diverse yet close formats. Virtual reality (VR) is a recreation of a real life environment or situation, and augmented reality (AR) enriches user's experience. It is said, that AR enriches the real world with computer-generated images, sound or other stimulus, as the user interacts with the real and virtual worlds at the same time – but is not cut from reality; the reality is enhanced instead. It is claimed that AR is the higher generation of VR. Hence, Seco/Warwick works on AR technology, as it allows immersing into space, event, technology, solution.

How does the HoloLens technology actually work?

Sawka: Holographic goggles by Microsoft were originally conceived as a top secret project. It is not a surprise, since the interest in AR technologies has been constantly rising, and its development works are being conducted simultaneously by some of the most influential players of new technologies. Such solutions were firstly introduced to the gaming industry, which has noticed its huge applications possibilities and, as far as I know, implementations will be done on a global scale.

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What benefits does the augmented reality provide for the production in heat treatment industry?

Sawka: HoloLens and its AR technology blend digital components into the real world, while keeping the whole structure, reality and giving the users control. Our solution's creator, Sławomir Wachowski, Director of Automation Department, says that HoloLens will not mess with your vertigo. You will lose your balance, movements' control or sense of reality. We can walk, also outside, leave the hologram inside and with the glasses on go to another room, and with the use of a simple "follow me" command we can go out with the hologram and take it to any place.

How are maintenance and service processes affected by the technology?

Sawka: The October's Microsoft conference, held in New York, showed that the company takes investing in the virtual and augmented realities seriously. HoloLens provide opportunities for applying these technologies to the industry and have already paved the technological way. The number of possible implementations and applications is still high, but it is the solution that is a true novelty. For the record, HoloLens' premiere took place last year and development kits were available only in the second half of the year.

Seco/Warwick has always had a special interest in new technologies, therefore we noticed AR's potential immediately and began working on its application in the real environment. This technology has completely changed the way we look at the heat treating industry. Why? Because for a long time it was believed that for heavy industries, which include heat processing of metals, such innovative solutions are not possible, and applying advanced electronics is no need at all. Introducing virtual reality into our production

processes, handling and Seco/Warwick's equipment servicing is already a fact.

You are an early adopter of this technology in the heavy industry. What next steps are planned?

Sawka: We have noticed great opportunities of holographic solutions, have also named it as Seco/Lens and have been preparing to implement it on a global scale. Seco/Lens, even though worn like traditional glasses, are hard to be called glasses, as this magical belt is a single device that is equipped with various sensors, display and data processor. Seco/Lens can deliver virtual elements of a previously designed 3D model as an overlay onto the real world model. It is a new era of working with Seco/Warwick's equipment – the era of interaction.

Do you think the technology will be the platform of a new business model for the service sector in the heat treatment industry – like predictive maintenance?

Sawka: Just as our CEO Paweł Wyrzykowski remarked, introducing virtual reality into production process, trainings and our equipment maintenance globally, is going to bring many advantages for both our company and our clients. We are counting on even more intuitive equipment use, increased mobility and efficiency improvement and shorten service respond time.

How important is research & development in general for your business?

Sawka: One of the measures that Seco/Warwick takes in order to make a profit, but also to gain competitive advantage are the R&D projects, which relate to design and technological aspects or process optimization, using the latest achievements of science and technology. One of them is the mentioned earlier – Seco/Lens.

We continue to invest in research and development, collaborates with the most important national and global scientific centres, and in 2016 opened a new metallographic laboratory – Seco/Lab. This laboratory enables our company to quickly and professionally review the effects of technological trials using specialized equipment and computer software. Metallographic studies conducted at the Seco/Lab and its conclusions help to develop new technologies, which is fundamental in order to win in terms of technology, not price. By doing the research, projects, optimizing processes, implementing the latest achievements of science and technology and cooperating with research centres, we at Seco/Warwick can confidently say that it creates a history of heat treatment.

What benefits does the technology provide for your customers?

Sawka: Imagine that a service engineer after turning on the Seco/Lens moves to the other end of the world and can check the equipment with no need for costly and time-consuming travel. Such consultation might even be done by the whole team and not individually. Seco/Lens enables remote repairs and equipment monitoring and it would work in a similar way when it comes to checking the production process. SecoLens allows for a very accurate visualization of solutions without leaving home. This is something that none of our competitors has.

We have reached for the world's top-notch IT solution and we are ahead of the competition mainly when it comes to modern way of thinking and approaching the heat treatment.

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Since its world premiere at the Heat Treatment Congress 2016 in Cologne, what development has HoloLens experienced so far?

Sawka: Specifications of the application, its features and tasks, based on technical HoloLens development kit's abilities, are still being developed. This development kit of HoloLens has been available only for a few months.

At this stage, we cannot yet reveal details of the project, but we are already after the first tests with our partners and customers. The results are very promising.

To what extent is your technology connected to Holographic goggles by Microsoft – do you work with own experts or is there a support from Microsoft?

Sawka: We have a bigger, dedicated Seco/Lens team that consists of the whole spectrum of Seco/Warwick's experts, like IT specialists, automation engineers, designers and other engineers.

How do you expect HoloLens to develop in the near future?

Sawka: Seco/Warwick has plans to transfer the virtual world into the heavy industry. Through the use of augmented reality technology we will be able to reduce the cost of production and service, speed up and facilitate the processes of diagnosis, research and development, and to offer independence and mobility solutions.

Vita

Katarzyna Sawka is responsible for global marketing and PR strategy at Seco/Warwick and currently holds the position of Group Marketing Manager.

She earned her BA and MA in Economics and Market Research at the West Pomeranian University of Technology in Szczecin later on MA in Marketing Management on the B2B Market at Poznan University of Economics.

From the beginning of her professional career she has been responsible for marketing and sales, as a specialist, manager, director and Member of Board of Directors or Member of the Supervisory Board. Her marketing experience was always affiliated with business to business market, at first in automotive, later in high-tech, IT and now heavy industry.

In August 2015, Katarzyna was appointed Manager of Group Marketing at Seco/Warwick responsible for organizing all marketing and PR activities and overseeing the developing and delivering of fully integrated marketing strategy for the business.