



Press Release

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Recognition for 4IR Lighthouse production

World Economic Forum recognizes Henkel as frontrunner in the 4th Industrial Revolution for the third time

Toluca / Mexico – Henkel has been awarded as an [“Advanced 4th Industrial Revolution Lighthouse”](#) by the World Economic Forum and McKinsey & Company for the third time. An independent expert panel has recognized Henkel’s Laundry & Home Care production in Toluca, Mexico, as a global lighthouse and frontrunner in Industry 4.0. The company has already received awards for two lighthouse factories of Laundry & Home Care in Düsseldorf, Germany, and Montornès del Vallès, Spain.

The World Economic Forum and McKinsey & Company identify and honor leading manufacturers to become members of their [Global Lighthouse Network](#). The aim is to foster leadership in using Industry 4.0 technologies to transform factories, value chains and business models. Henkel has again prevailed various assessed production sites and was recognized as an overall leader in successfully integrating and leveraging smart digital technologies within its Laundry & Home Care facility in Toluca – the first ever Global Lighthouse in Mexico. By deploying multiple advanced 4th Industrial Revolution (4IR) use cases at scale, Henkel is now represented with three lighthouse factories in the international network.

Pioneer for Industry 4.0

“Being recognized as a frontrunner for Industry 4.0 by the Forum is a great achievement for the whole Toluca team. From international working groups to engineers and line operators – we all contributed to this success, and I am proud that our plant is now part of this international network of world leading manufacturers,” says Toluca plant manager Dayron Carmona.

Henkel has proven its ability to expand digital connectivity in the production through 4IR technologies. In 2020, [Henkel’s Laundry & Home Care factory in Düsseldorf](#), Germany, has been recognized as a global lighthouse production. Just one year later, in March 2021,



[Henkel's Laundry & Home Care plant in Montornès del Vallès](#), Spain, was recognized for advanced technologies and digital connectivity.

Driving Sustainability through Digitalization

To become a [climate-positive company](#) and make an active contribution to climate protection, Henkel starts with a strong focus on its production sites. Thereby, digitalization is a crucial factor to drive environmental impact in manufacturing. "Henkel wants to become a climate-positive company latest by 2040 and our Laundry & Home Care sites worldwide are making a significant contribution to this ambitious goal," says Dr. Dirk Holbach, Chief Supply Chain Officer Henkel Laundry & Home Care. "The third recognition by the World Economic Forum shows that we are pioneers in implementing advanced digital technologies in factories worldwide – it is again a fantastic best practice of great teamwork and excellent collaboration."

In its state-of-the-art Toluca plant, the company has implemented a series of high-class industry 4.0 use cases, which have been recognized by the Forum:

1. End-to-End connectivity through Digital Backbone

A key driver for the digitalization of Henkel's Laundry & Home Care supply chain is the [Digital Backbone](#), a cloud-based data platform that connects over 30 production sites in real-time. "This digital ecosystem allows us to keep track with the constantly growing expectations of customers while continuing to develop most sustainable production processes. Our digital transformation journey started back in 2013 – since then, we have been consistently leveraging digital in all our production sites worldwide," says Holbach. By connecting the Digital Backbone with IT-systems, the business unit is driving line efficiency through predictive maintenance and advanced technologies.

2. Big Data analytics for agile manufacturing

To maximize effectiveness in supply, Henkel is using AI-algorithms and big data analytics for agile planning and product scheduling. The proactive "agile manufacturing" approach in Henkel's Toluca plant minimizes the risks for out-of-stocks, by leveraging integrating data from cloud-computing platforms to identify volatility in consumer demands. Machine learning on historical data and AI-algorithms prescribe actions to assure breakdown-free line operations. A tighter alignment between planning, production and customer operations is thereby possible.

3. Decarbonization of energy-intensive spray drying

The Mexican plant is one of Henkel's five biggest Laundry & Home Care productions worldwide. It produces liquid and powder detergents for the local market. By digitizing energy-intensive processes, such as the spray drying of powder detergents, the company increased energy efficiency in the production. Such processes are incorporated into a so-called "Digital Twin" – a cloud-based 3D replica of the facility – which simulates operations and prescribes optimal process parameters to operators as well as sustainability and safety actions. Scaling such Industry 4.0 applications, the company will further improve the sustainability performance of all its spray-tower sites.

4. Digital Shopfloor Collaboration

A digital ecosystem supports front line workers in day-to-day operations by providing real-time data access and standardized workflows through the "connected worker" program. By digitizing workers' interactions and process documentation into an app-based platform, real-time data can be shared with operators and the shopfloor stays connected. Dashboards, schedules, and action prescriptions are available at the fingertip of the workforce, enabling fast decision making. The app-based program enables monitoring and benchmarking across production sites to identify the most effective and sustainable practices.

Sustainability Lighthouse Award for Düsseldorf

The [World Economic Forum recognized Henkel's Laundry & Home Care factory in Düsseldorf](#) in 2020 as a leader in the 4th industrial revolution. Beyond that, the factory was now designated by the Forum as a "[Sustainability Lighthouse](#)". Thereby, Henkel is one of the three most sustainable production sites in the Global Lighthouse Network.

The Forum acknowledged Henkel for reducing the energy consumption by 38 percent (kWh/ton), water consumption by 28 percent (m³/ton), while simultaneously also reducing waste generation by 20 percent (kg/ton) against factory baseline set in 2010.

Thereby, the company is represented with three Industry 4.0 best practice factories as well as one sustainability lighthouse, proving the potential of 4IR technologies in manufacturing for environmental stewardship and sustainable operations.

About the Global Lighthouse Network

The Global Lighthouse Network is a community of production sites and value chains that are world leaders in the adoption and integration of the cutting-edge technologies of the Fourth Industrial Revolution (4IR). Lighthouses apply 4IR technologies such as artificial intelligence, 3D-printing and big data analytics to maximize efficiency and competitiveness at scale, transform business models and drive economic growth, while augmenting the workforce, protecting the environment and contributing to a learning journey for all-sized manufacturers across all geographies and industries. The Global Lighthouse Network is a World Economic Forum project in collaboration with McKinsey & Co, factories and value chains that join the Network are designated by an independent panel of experts.

About Henkel

Henkel operates globally with a well-balanced and diversified portfolio. The company holds leading positions with its three business units in both industrial and consumer businesses thanks to strong brands, innovations and technologies. Henkel Adhesive Technologies is the global leader in the adhesives market – across all industry segments worldwide. In its Laundry & Home Care and Beauty Care businesses, Henkel holds leading positions in many markets and categories around the world. Founded in 1876, Henkel looks back on more than 140 years of success. In 2020, Henkel reported sales of more than 19 billion euros and adjusted operating profit of about 2.6 billion euros. Henkel employs about 53,000 people globally – a passionate and highly diverse team, united by a strong company culture, a common purpose, and shared values. As a recognized leader in sustainability, Henkel holds top positions in many international indices and rankings. Henkel's preferred shares are listed in the German stock index DAX. For more information, please visit www.henkel.com.

Photo material is available at www.henkel.com/press

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