

## PRESS RELEASE

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### Industry 4.0 and Circular Economy: Top Priorities of Tenova R&D Projects

**Tenova announces its participation in BigData@MA, CyberMan4.0 and ECOSLAG – three R&D projects in partnership with key stakeholders of the European metals industry.**

**Castellanza, September 12, 2018** – The challenges that will determine the success of the industry are **continuous innovation** and **environmental sustainability**. This is why **Tenova**, a company of the Techint Group specialized in innovative solutions for the metals and mining industries, is investing in several Research, Development, & Innovation projects with focus on industry 4.0 and circular economy.

Over the course of 2018, Tenova, in partnership with leading European players of the industry, has launched three cooperative **R&D projects** supported by public funding, namely BigData@MA, CyberMan4.0 and ECOSLAG. The company's participation in these endeavours is part of its broader commitment to creating a "**sustainable smart factory**" through the integration of the enabling technologies of the Industry 4.0 and the principles of circular economy, so to optimize the productive process and minimise its environmental footprint.

*"Tenova has always worked at enhancing plant efficiency, productivity and quality, and Research & Development represents a key focus area for the company. However, the challenges that affect our industry cannot be faced alone anymore: Tenova believes in **open innovation** to implement the transformation triggered by digitalization and circular economy. BigData@MA, CyberMan4.0 and ECOSLAG represent a significant step towards this direction", affirmed **Andrea Lovato**, Tenova CEO.*

**BigData@MA** stands for *Big Data application at Manufacturing* and aims to develop a specific **Big Data application framework** as a tool to give online support in decision-making process and task execution. Tenova will investigate the application of Big Data technologies in Pomini Tenova roll grinding machines in order to allow predictive maintenance. This two-year project is co-financed by the European Commission, the Lombardy Region and the Belgian Walloon Region as part of the MANUNET Transnational Call 2017, and is led by Rina Consulting - Centro Svilupperi Materiali S.p.A.

**CyberMan4.0** – *Cyber-Physical System-based approach for intelligent data-driven maintenance operations applied to the rolling area* – intends to develop an innovative **Integrated-Maintenance-Model4.0**, supporting the transition from traditional preventive maintenance to **predictive maintenance**. Tenova will define, install and commission innovative sensors in Pomini Tenova roll grinders and specific software, which will make possible to collect, process and analyze all relevant data to detect at early stage component malfunctions of the machines, improving operations and equipment reliability. CyberMan4.0 will last forty-two months and is partly funded through the European Commission Research & Innovation Fund for Coal and Steel, involving several key players of the steel industry led by Scuola Superiore Sant'Anna (SSSA).

**ECOSLAG** – *Eco-friendly steelmaking slag solidification with energy recovery to produce a high quality slag product for a sustainable recycling* – has the objective to identify and examine operational

technical solutions for **waste heat recovery** from steelworks slag, while obtaining slag that can be used as valuable product allowing to minimise the ecological footprint. Tenova takes part in the project with focus on the granulation of **EAF slag** and its pilot application at industrial scale at A.C.P. Acciaieria di Civate al Piano S.r.l. plant. The project will last forty-two months and is co-financed by the European Commission Research & Innovation Fund for Coal and Steel. The partners are led by FEHS-Institut für Baustoff-Forschung e.V. (FEHS).

### **About Tenova**

*Tenova, a Techint Group company, is a worldwide partner for innovative, reliable and sustainable solutions in metals and mining. Leveraging a workforce of over three thousand forward-thinking professionals located in 22 countries across 5 continents, Tenova designs technologies and develops services that help companies reduce costs, save energy, limit environmental impact and improve working conditions.*

For more information, visit [www.tenova.com](http://www.tenova.com)