The NEXGEN SIMS Project

Next Generation Carbon Neutral Pilots for Smart Intelligent Mining Systems

An international consortium of mining companies, equipment and system manufacturers and universities has started a new European Union-funded collaboration project. The project, NEXGEN SIMS, will support new technologies, methods and processes that will enable a more sustainable and efficient carbon neutral mining operation.

The European mining industry is essential for providing raw materials and innovative solutions to meet the society's needs for raw materials. Thus, the mining industry needs to play an important role in the green transition. Moving from a linear economy to a circular economy creates the need for more sustainable and carbon-neutral production systems that enable a more efficient resource utilization. The challenge for the mining industry is to scale-up promising technologies that can meet the increasing demands for greater production efficiency, optimized processes and working methods.

NEXGEN SIMS – a 3-year project funded by Horizon 2020

Start Date: May 1st, 2021
Duration: 3 years
Total budget: 16 MEUR

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Consortium:

Epiroc, KHS, Boliden, Agnico Eagle, OZ Minerals, KGHM Polska Miedź, Afry, KGHM Cuprum Research & Development Centre, Ericsson, LTU Business, Mobilaris Mining & Civil Engineering, Luleå University of Technology, AMT, RWTH Aachen University

Our vision: Sustainable and efficient mine production

The vision of ***NEXGEN SIMS*** is a more sustainable and efficient production of raw minerals resulting in economic growth and minimized environmental impact, supporting the next production paradigm shift of the mining industry.

Based on SIMS breakthroughs – focus on scale-up and demonstration

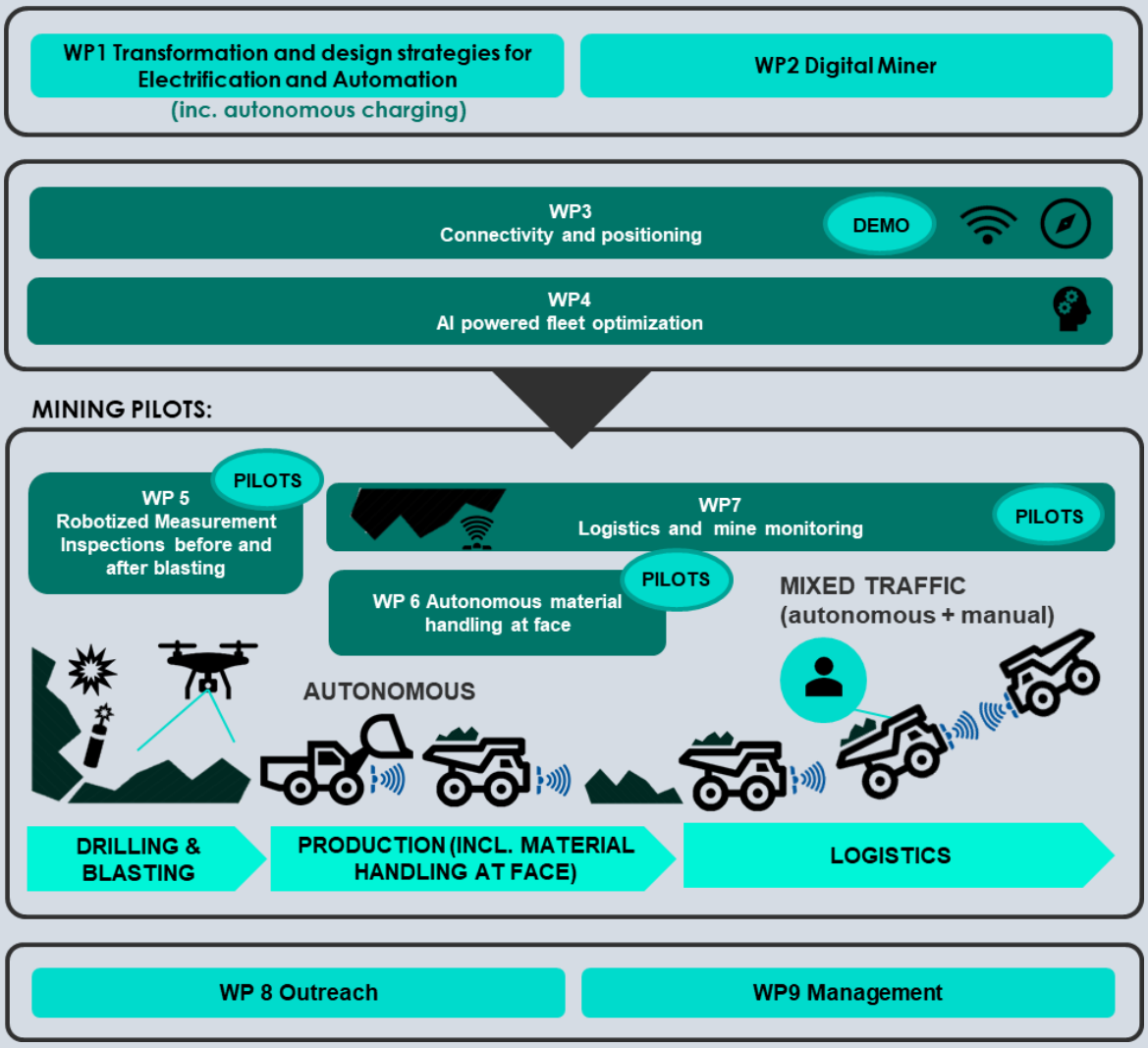
- NEXGEN SIMS is based on breakthroughs achieved by the *SIMS (Smart Intelligent Mining Systems)* Horizon 2020 project (2017-2020)
- Focus on the **scale-up of promising technologies** and **demonstrating** their potential at several large-scale mining pilots
- The project includes **design thinking activities** that will set the strategies for future mining regarding mining workplaces on human terms and **safe introduction of autonomous carbon neutral mining machines**
- The participating partners are making available a total of **eight demonstration sites** (underground mines)
- Sustainable and green transition of the mining industry

Focus areas

- Improved production efficiency
- Lowered energy consumption
- Reduced environmental impact
- Decreased cost for production
- Even better safety for human workers

Focusing on the "autonomous material handling process"

- Largest impact on increasing the productivity
- Using battery powered mining machines in autonomous operation.



Thanks for your attention!

Follow our 3 year journey towards sustainable mining on our website and social media

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www.nexgensims.eu

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