

# NEXGEN SIMS Project

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# NEXGEN SIMS

## Next Generation Carbon Neutral Pilots for Sustainable Intelligent Mining Systems



- **Project funded by Horizon 2020**
- **Start date: May 1st, 2021**
- **Duration: 3 years**
- **Total budget: 16 MEUR**



European  
Commission

Horizon 2020  
European Union funding  
for Research & Innovation

A large graphic at the bottom of the slide featuring the text "HORIZON 2020" in white, bold, sans-serif capital letters. The letter "O" in "HORIZON" is replaced by a small, realistic image of the Earth. The background is a deep blue with a bright, glowing horizon line and radiating light rays, suggesting a sunrise or sunset over a planet.





The European Union can and  
must become more self-sufficient

# The NEXGEN SIMS project's 3 main impacts

## Impact from NEXGEN SIMS technical and demonstration achievements



### Minimized environmental impact

- Reduced energy consumption by 80% (operating vehicles) and power need by 50% (ventilation systems)
- Systemic approach targeting carbon-neutral mining



### Increased operational efficiency & market share

- Automated solutions & enhanced digitalization deliver up to 40% efficiency improvements
- High potential for expansion in the fastgrowing 18B€ mining market
- Future, even deeper mining enabled in EU
- Global market share for EU technology providers maintained and increased

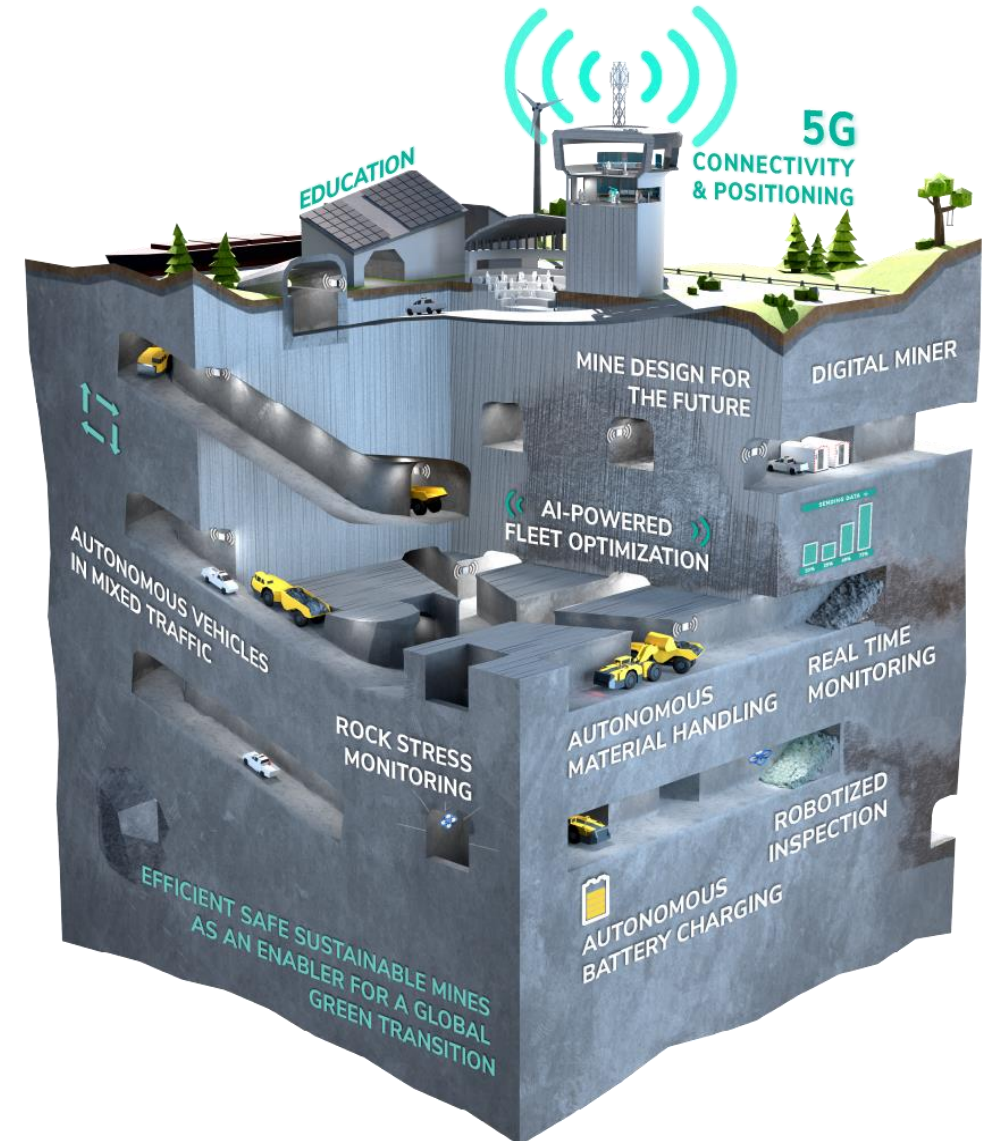


### Improvements in safety & job creation

- Increased safety through reduced underground human labour in potentially dangerous areas
- New jobs created via integrated European value chains
- Publications & patents on the beyond state-of-the-art solutions

# Focus areas

## Enablers to reach the impacts



The next mine production paradigm shift

# The NEXGEN SIMS partners

A world class consortium



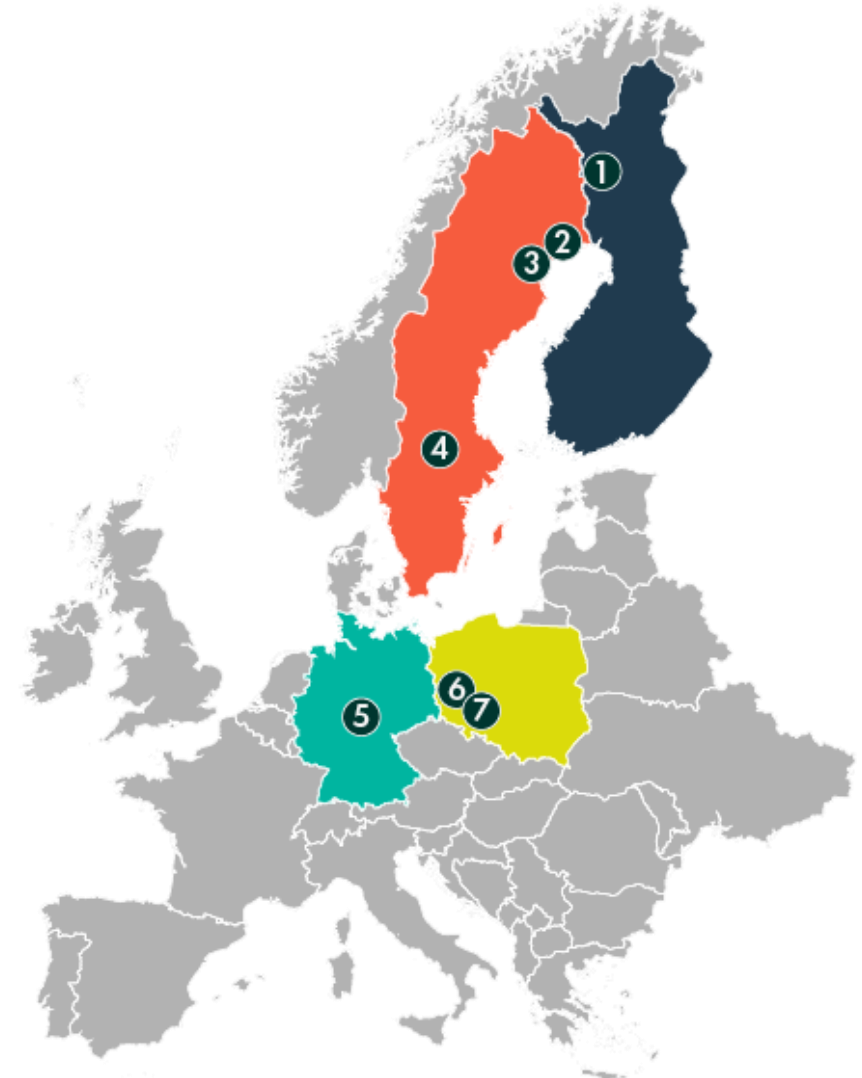


# Piloting and Demonstration in European Mines

Scale-ups demonstrating technical performance and health & safety benefits  
– 8 Pilot Sites

1. Kittilä Mine (Agnico Eagle Finland)
2. LTU Test Mine & VR Lab (Luleå University of Technology)
3. Kankberg and Kristineberg Mine (Boliden)
4. Kvarntorp Test Mine (Epiroc)
5. Werra Mine (K+S)
6. Rudna Mine (KGHM)
7. Lubin Mine (KGHM)

Business value for partners by integrating Go-to-Market strategies that ensure successful exploitation and commercialization of the project results



# Social acceptance, sharing knowledge and earning trust

A highly important topic for all mining projects

Increasing public knowledge about mining and how it is a necessary enabler for the society by supplying necessary raw materials for the green transition

Reportage from Euronews



youtube.com

How technology is creating a safer and more environmentally future for mining

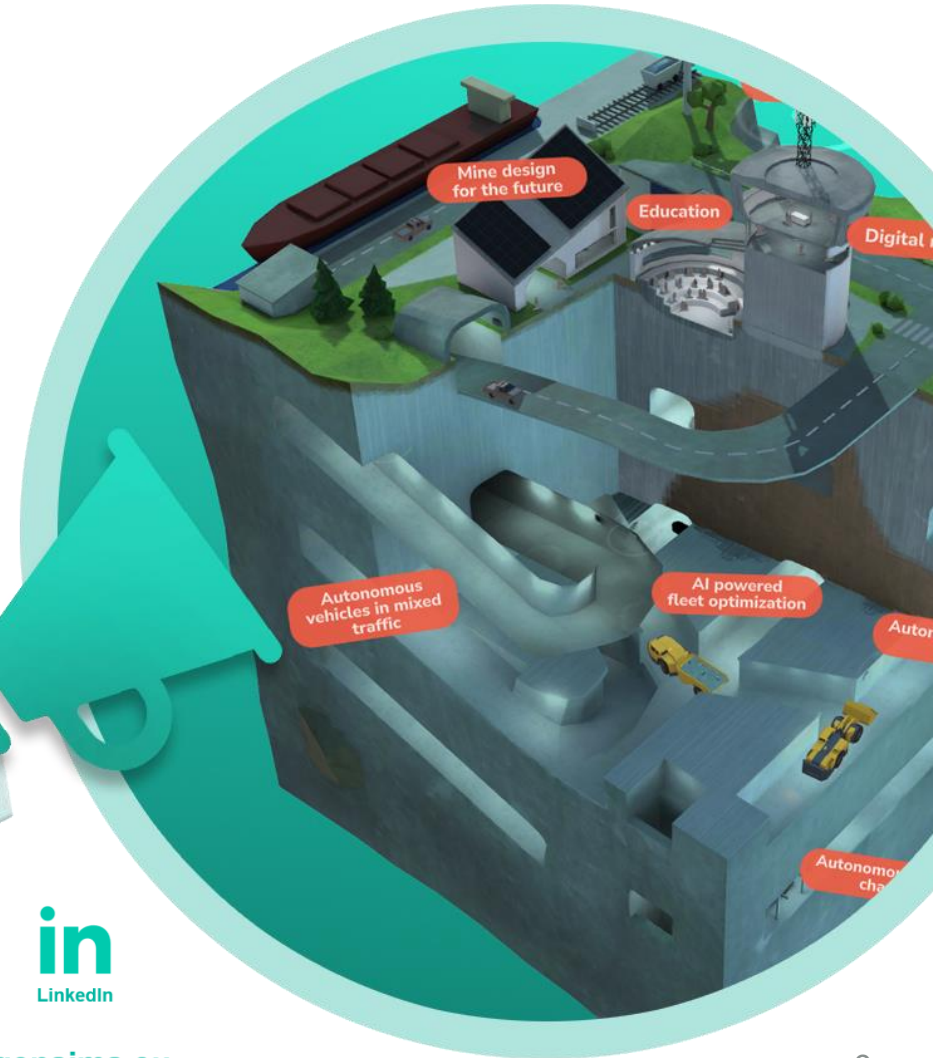


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