

## The ALCHIMIA Project's Contribution to Sustainable Development Goals



### Europe's Green Challenge: Transforming Metallurgy

European industries need to be more environmentally friendly to achieve climate neutrality. The metallurgy industry, important for Europe's economy but also polluting, faces a big challenge. **The ALCHIMIA project** is a promising initiative that aligns with UN goals to make European metallurgy greener.

### How is the ALCHIMIA project contributing to a greener industry?



**Reduced Energy Consumption:** The project explores methods to optimize steel production for lower energy use



**Emission Reduction Strategies:** ALCHIMIA investigates ways to minimize emissions generated during the steelmaking process



**Waste Management Solutions:** The project aims to improve waste management practices within the steel industry



**High-Quality, Green Production:** ALCHIMIA seeks to achieve these environmental goals while maintaining the production of high-quality steel

### The Alignment of ALCHIMIA with the SDGs



The ALCHIMIA Project focuses on enhancing metalworking industries by fostering high-quality, competitive, efficient, and environmentally friendly production processes, particularly in steelmaking. Its alignment with the Sustainable Development Goals (SDGs) is multi-faceted and impactful, addressing **11 SDGs**.

## The SDGs addressed in ALCHIMIA Project



ALCHIMIA prioritizes professional training to develop skillsets that contribute to successful development and decent jobs (SDG 4), potentially safeguarding labor rights and promoting safe working environments (SDG 8).



The introduction of digitalization and automation has the potential to make the industry more attractive to women, promoting gender equality in the workplace.

ALCHIMIA endeavors to heighten awareness regarding responsible water usage practices. By implementing educational campaigns, offering resources for water conservation, and fostering sustainable behaviors among stakeholders, ALCHIMIA is committed to ensuring the availability and sustainable management of water and sanitation for all.



ALCHIMIA optimizes energy consumption in steelmaking, contributing to cleaner and more sustainable energy sources and promotes monitoring to reduce energy use and waste, fostering a more sustainable steel production process.

ALCHIMIA promotes innovation through artificial intelligence and new technologies, aligning with SDG 9, which focuses on industry, innovation, and infrastructure.



ALCHIMIA's focus on reducing energy consumption can significantly improve air quality, promoting a healthier and more sustainable urban environment.



By reducing emissions and facilitating a transition to greener production methods, ALCHIMIA directly contributes to SDG 13 and Europe's climate neutrality goals.



ALCHIMIA provides open-source technology, reducing inequalities in access to technology, and fostering international cooperation and knowledge exchange.

## Ensuring Holistic Sustainability

The alignment of the ALCHIMIA project with the SDGs goes beyond an objective. It's a constant thread monitored throughout the project's stages using the **IAM4SDG methodology**. This framework provides a structured approach for integrating sustainability principles into project planning and implementation, ensuring ALCHIMIA's activities are strategically aligned with the broader objectives of sustainable development.

In addition to ensuring SDG alignment, IAM4SDG guarantees the project's **holistic nature** in articulating different sectors and safely assessing impacts and opportunities.

