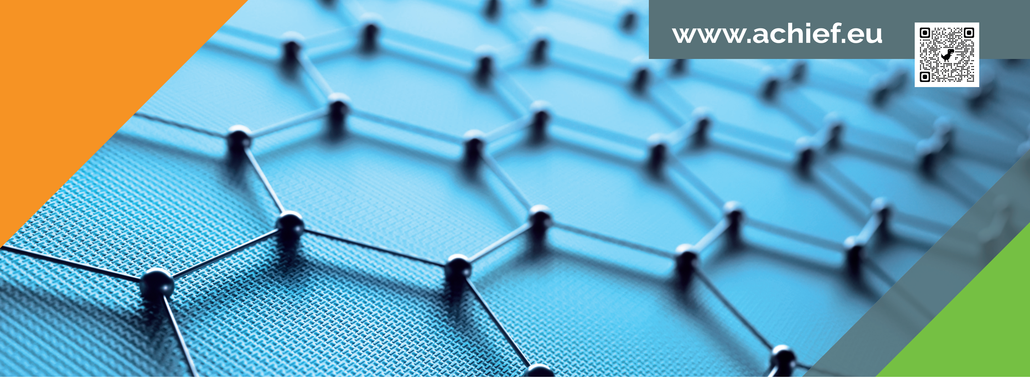
www.achief.eu



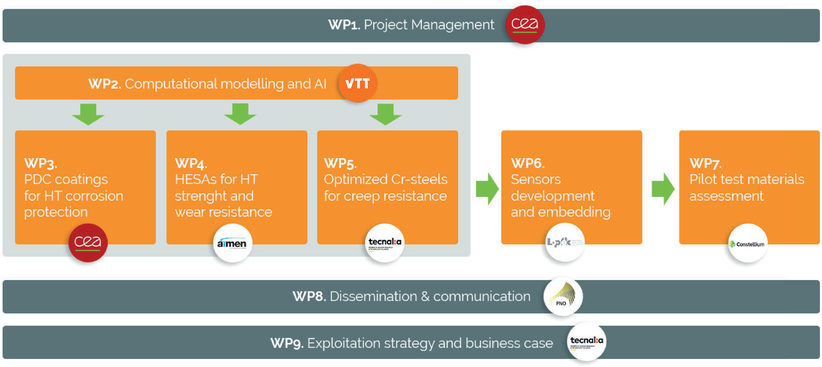
ACHIEF

Innovative high performance **A**lloys and **C**oatings for **HI**ghly **EF**ficient intensive energy processes

The **ACHIEF project** aims at improving process performance and energy efficiency in EIIs by developing more durable materials components and equipment.

How will the project achieve this?

- Developing innovative high-temperature strength and creep resistance materials based on novel High-Entropy Alloys (HEAs) to allow reaching higher process temperatures,
- Developing novel protective Polymer Derived Ceramic (PDC) coatings with improved high-temperature erosion and corrosion resistance,
- Developing high performance coatings based on HEA-nanocomposites with improved high-temperature wear and thermal fatigue resistance to protect industrial equipment employed in hot metal forming processes,
- Developing a new high Chromium steel grade with creep resistance 15% improved,
- Implementing advanced high-performance temperature sensors based on Fiber Bragg Grating technology and corrosion sensors based on Electrochemical Impedance Spectroscopy technique,
- Promoting and disseminating the results of the project to maximize the impact of ACHIEF.



Making a difference

ACHIEF's is working towards **making a difference in the future Energy Intensive industrial sector: more efficient and sustainable**. The project novel intelligence solutions will make an ambitious contribution to the European Action plan on energy efficiency aiming at:

- cutting energy consumption by at least 32.5% and CO_2 emissions by 40% by 2030,
- improving energy efficiency by 30%,
- reducing CO_2 emissions and resource utilization by 20%, and
- increasing lifetime equipment of more than 20%.

€ 5.8 MEUR | **42 MONTHS** 1 October 2020-31 March 2024 | **11 PARTNERS** | **7 COUNTRIES**

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