

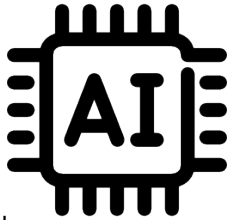
About

Smart Growth offers AI enabled control of crystal growth via Cz process based on ZDM principles to improve crystal yield, reduce critical rare material and energy wastage in the manufacturing process benefitting both crystal manufacturers and downstream users.

Technologies

MANUFACTURING SYNERGIES

- The synergetic benefits of SMART-Growth project include a great potential to upscale and proliferate Industry 4.0 technologies for industrial adoption.
- Relevant sensorics, data models and process control methodologies can be provided to other “hot object” manufacturing technologies.



SUSTAINABLE CRYSTAL GROWING



- To achieve sustainable, reliable and cost-effective production via Czochralski method improving yield and energy consumption while also reducing raw material (especially rare earth) wastage.
- This pilot will involve the development of process hardware, sensorics for monitoring and control and process optimization for the value chain of crystal manufacturing.

Location

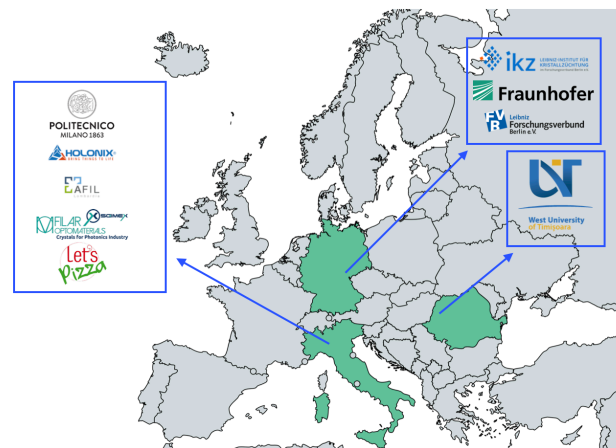
This ambitious, multi-disciplinary project is being carried out by a consortium that forms an ideal inter-regional grouping taking into consideration SMEs who receive 70% of the grant, and partners that either originate from regions that have an interest in contributing to the proposed technology or have an interest in the results. The local eco-system layers being benefitted are:

- Jena Optics Valley and Berlin;
- Lombardy;
- Bolzano;
- Sardinian;
- Timisoara University;



SMART-Growth

THE CONSORTIUM



Implementing new technologies to optimize and improve the production of crystals in the Czochralski method



Co-funded by the European Union