

EurA[®]

innovation · finance · technology

OPTIMAT

1. Network Meeting

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AGENDA – OPTIMAT KICK-OFF MEETING

1. Welcome
2. Short Introduction of the participants
3. Introduction of funding programmes
4. Presentation of project ideas
5. The Challenges of the Qualified Additive Manufacturing Supply Chain
6. Summary & End of Meeting



We want to push the exploration of new material designs optimized for additive manufacturing and drive them towards industrialization. With these new materials with tailored mechanical and/or functional properties we want to enable new application possibilities for additive manufacturing.

„Despite the immense importance of material properties and the numerous possibilities for influencing them in the context of additive manufacturing processes, which can only be hinted at here, research into the optimization of materials and processes is currently still in its infancy. It is therefore not surprising that the vast majority of additively manufactured components are still produced with a relatively small number of established materials.“ ... “New materials have great potential for the further development of additive manufacturing and its possible applications, which is why their research urgently needs to be intensified.“ *Nationale Akademie der Wissenschaften Leopoldina, acatech – Deutsche Akademie der Technikwissenschaften, Union der deutschen Akademien der Wissenschaften, Gemeinsame Stellungnahme 2020: Additive Fertigung – Entwicklungen, Möglichkeiten und Herausforderungen*

- Global market volume materials for 3D printing: ~1,9 billion USD
- Estimated CAGR: ~12,1%
- Estimated market volume in 2028: ~4 billion USD

→ **Enormous market potential!**

- Current distribution:
 - photopolymers (31.9%),
 - plastic powders (28.1%),
 - plastic filaments (20.6%)
 - metals (17.4%)

GOALS



development

- Material designs (new alloys, MMCs, core shell powders, new polymers, etc.)
- Material supply (atomization, powder handling, recycling, etc.)
- Process development and system engineering (process strategies, process control, sensorics, etc.)



standardisation

- interfaces
- modularisation and definition of interfaces
- methods, procedures and protocols



innovation

- applications
- services
- products

State of the art analysis

Organisation of workshops

Initiation of R&D projects, building consortia, preparation of proposals, moderation and coaching of agreements and processes

Market analysis

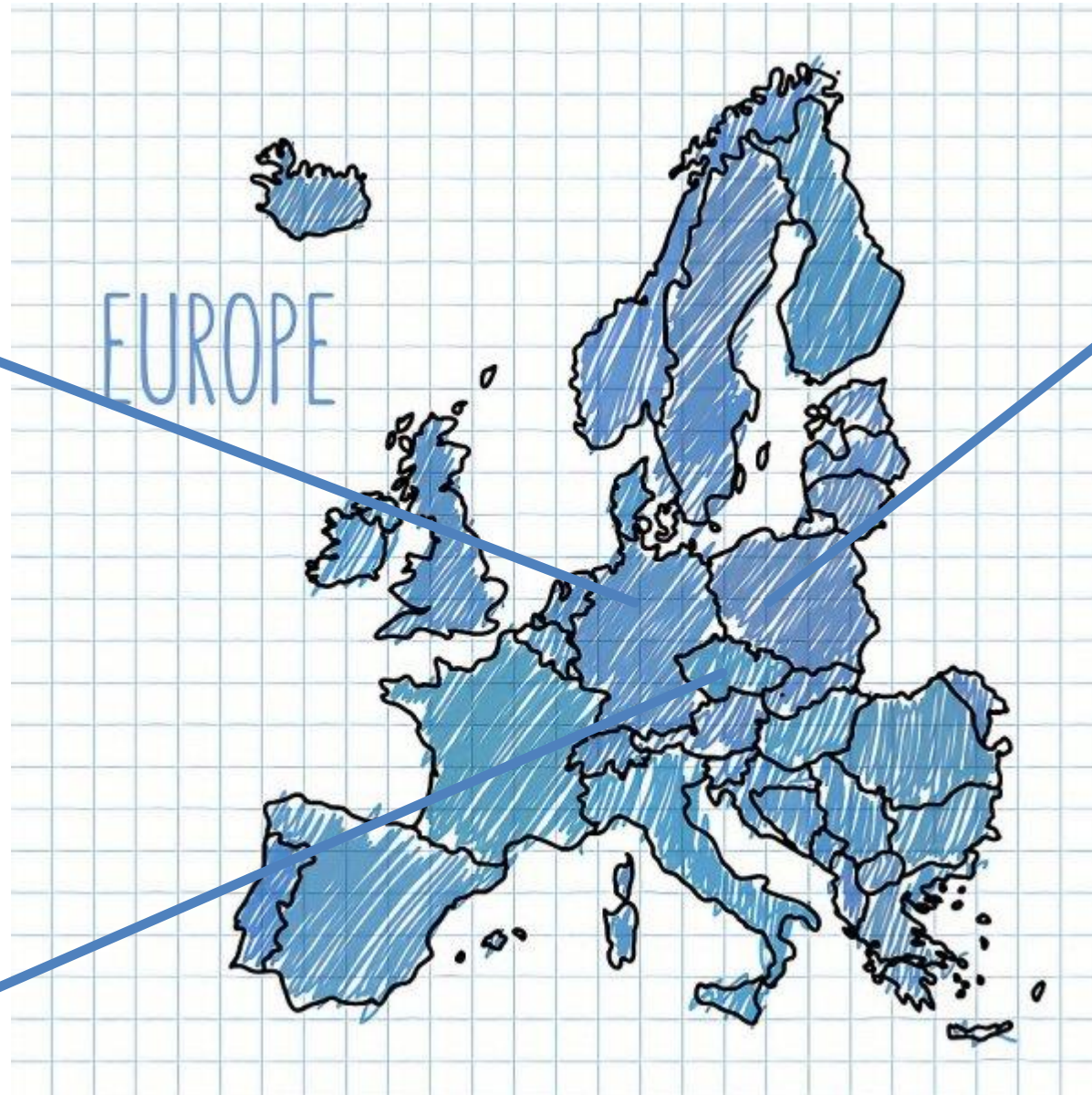
Project controlling

Expansion of the network

Publicity, external presentation, events and public relations

Documentation / Final report

Who are we?



SLM Solutions
Fraunhofer ILT
Deutsche Edelstahl Werke
Fraunhofer IFAM
Technallium
Access
Disc Direct Handels
Sigma Materials
AM Entrepreneur
Bayerisches Laserzentrum
Rosswag
Ponticon
Indutherm
AM Polymers
fem
Hochschule Aalen
Q.big 3D
Kessel Feinguss

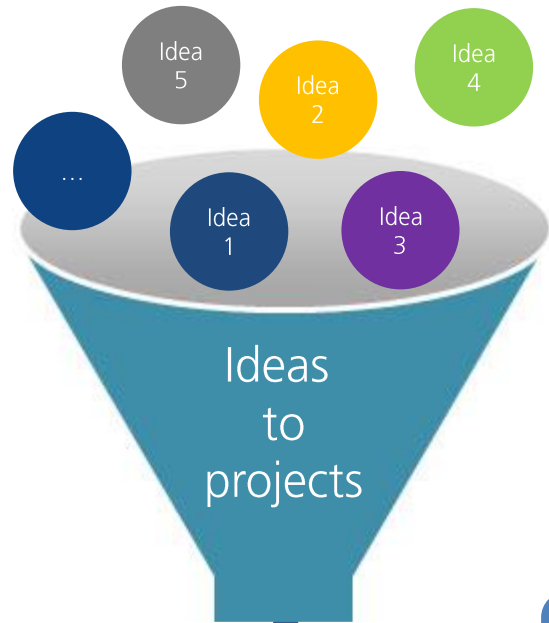
Safina

Amazemet
Sygnis
Slaski Klaster Nano
Polish Cluster of Composite Techn.
Warsaw University of Technology
Corrosion and Protective Coatings
Centre Lukasiewicz

25 partners from three countries:

- Germany: 18
- Poland: 6
- Czech Republic: 1

NETWORK ROADMAP



Phase 1

- Conception
- Technology Roadmap

May 2024

Phase 2

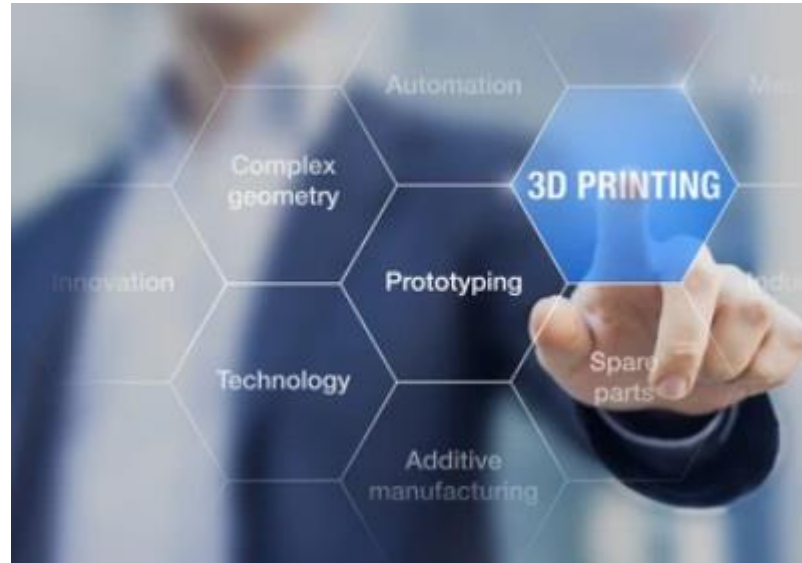
- Funding Programms
- R&D Projects

May 2027

OPTIMAT



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- Homepage (under construction)
 - List of all partners with links to their homepages
 - News area where partners can publicate their own contributions
 - Private area for network members
 - Etc. → further ideas/ wishes are welcome!
- Logo (under construction)
- LinkedIn OPTIMAT focus side
- OPTIMAT Youtube channel
- Etc. → further ideas/ wishes are welcome!

→ Social media lives from continuity!
→ Thus, these channels only make sense if enough partners are interested and we achieve to post regularly new content.
→ I will send a voting link next week.

THANK YOU