



VALCRA FACTS

Final Roadmap webinar

16th December 2020



Valcra project timeline and phases

Review and assessment of EU funded projects

Outputs of Valcra project

- Deliverables

- Dissemination events

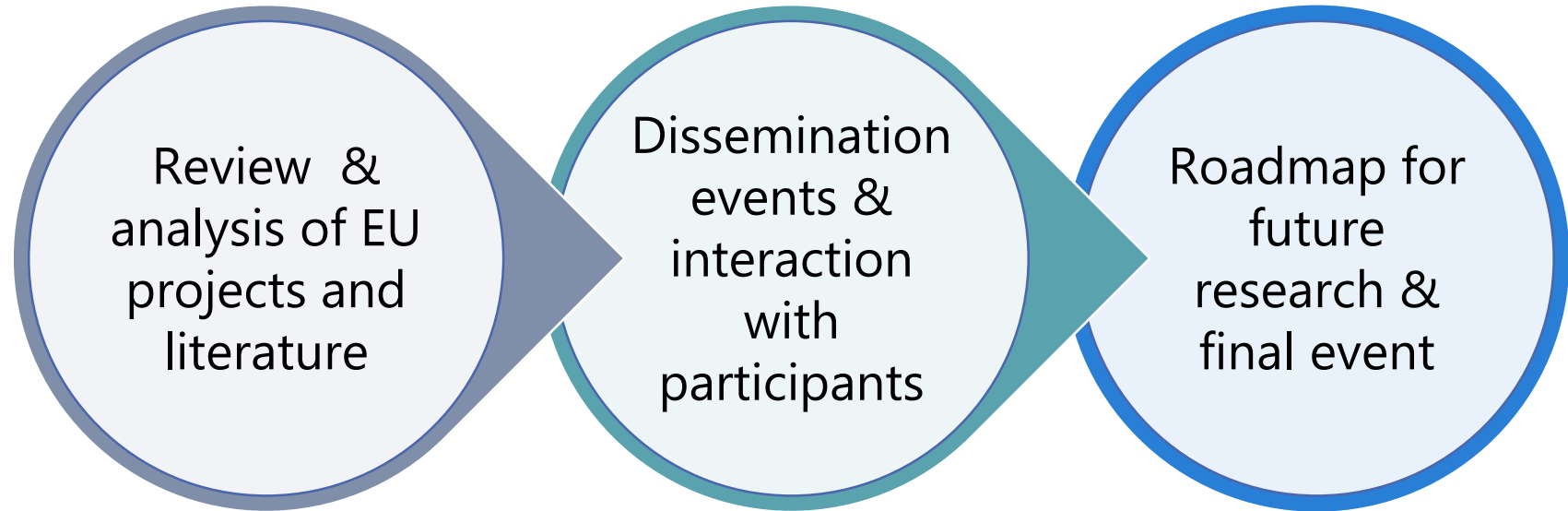
 - Overview and highlights

- Media

 - Website

 - LinkedIn page and group

TIMELINE & PHASES

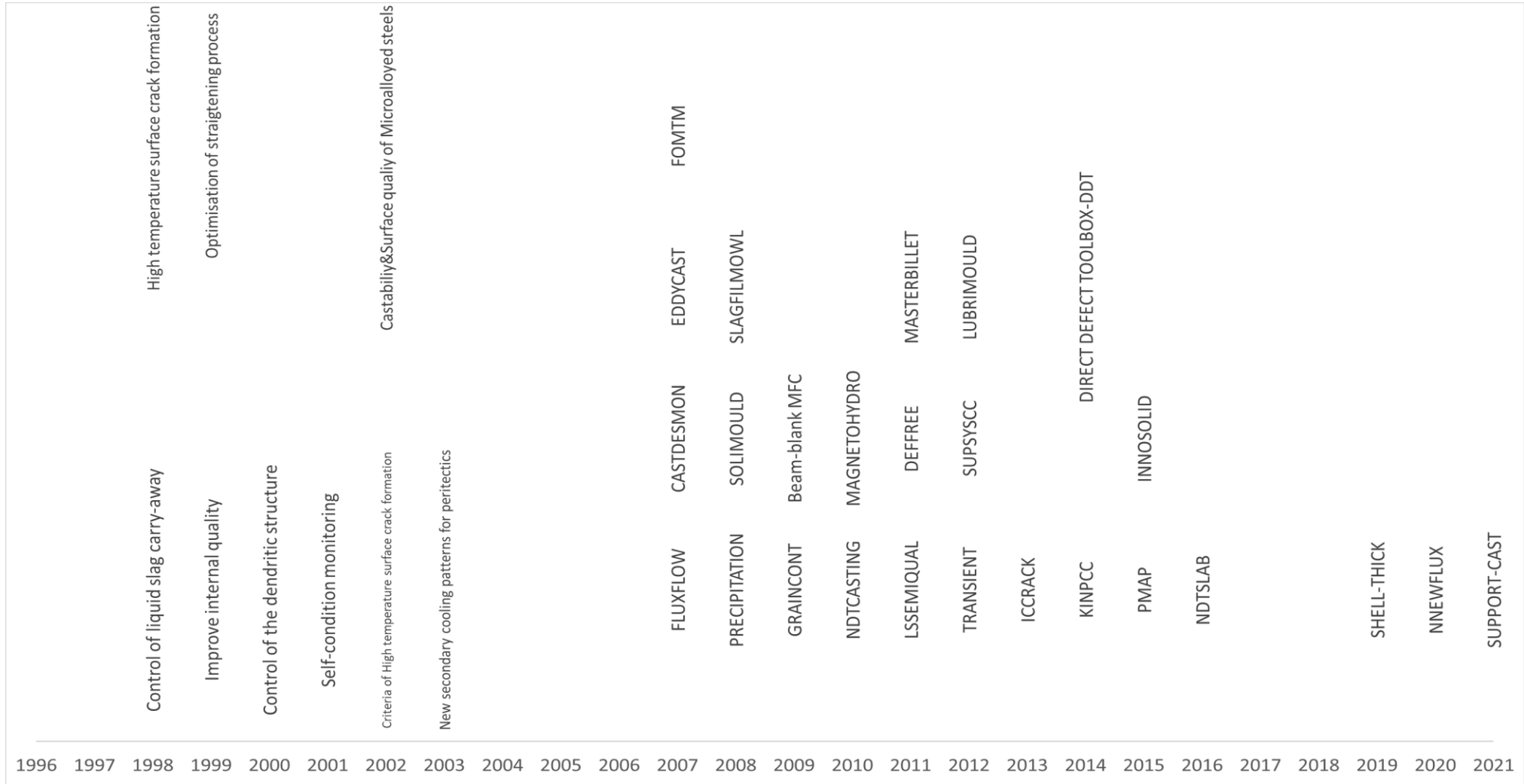


JUN 2019 – FEB 2020

OCT 2020 – DEC 2020

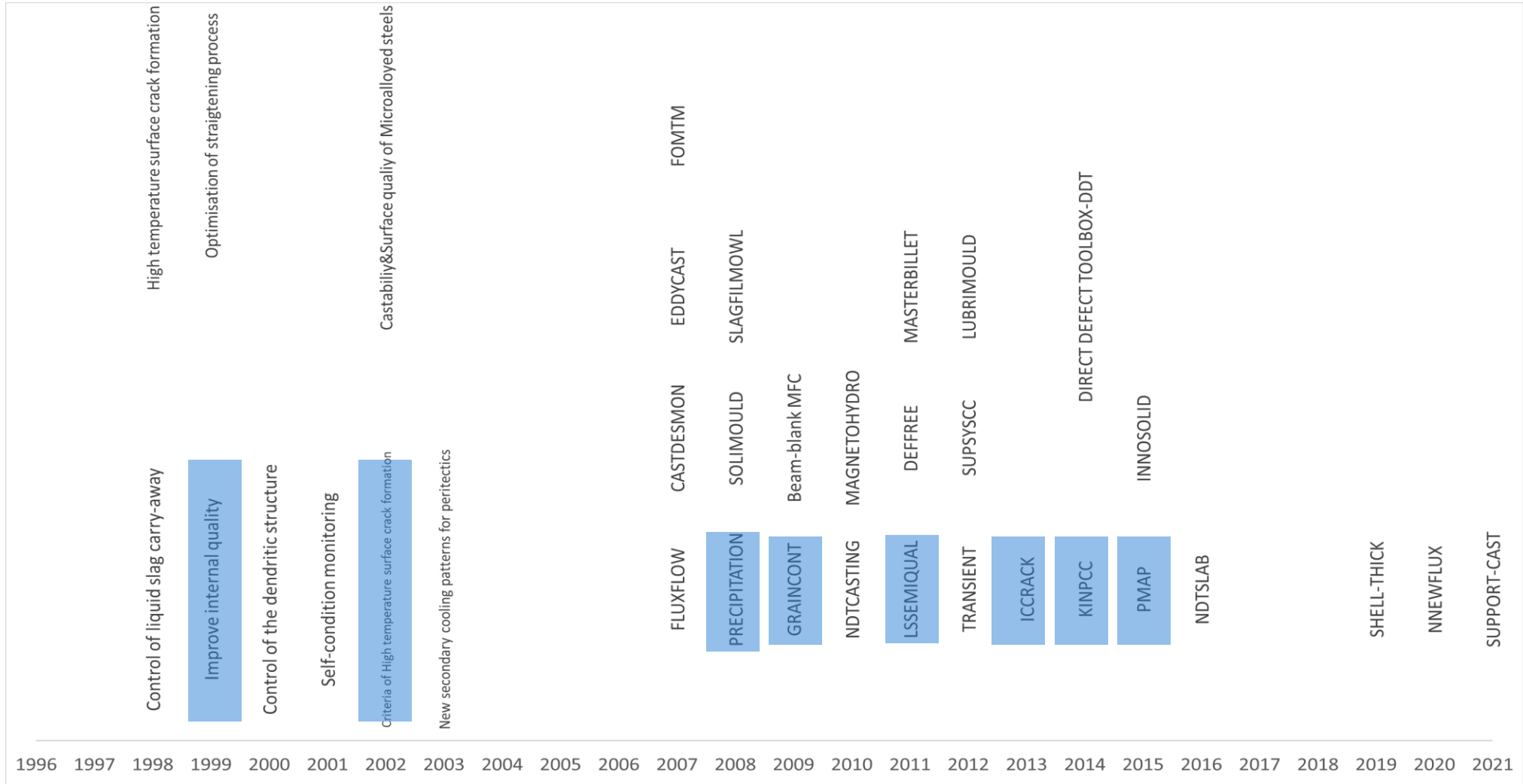
MAR 2020 – NOV 2020

EU PROJECTS TIMELINE

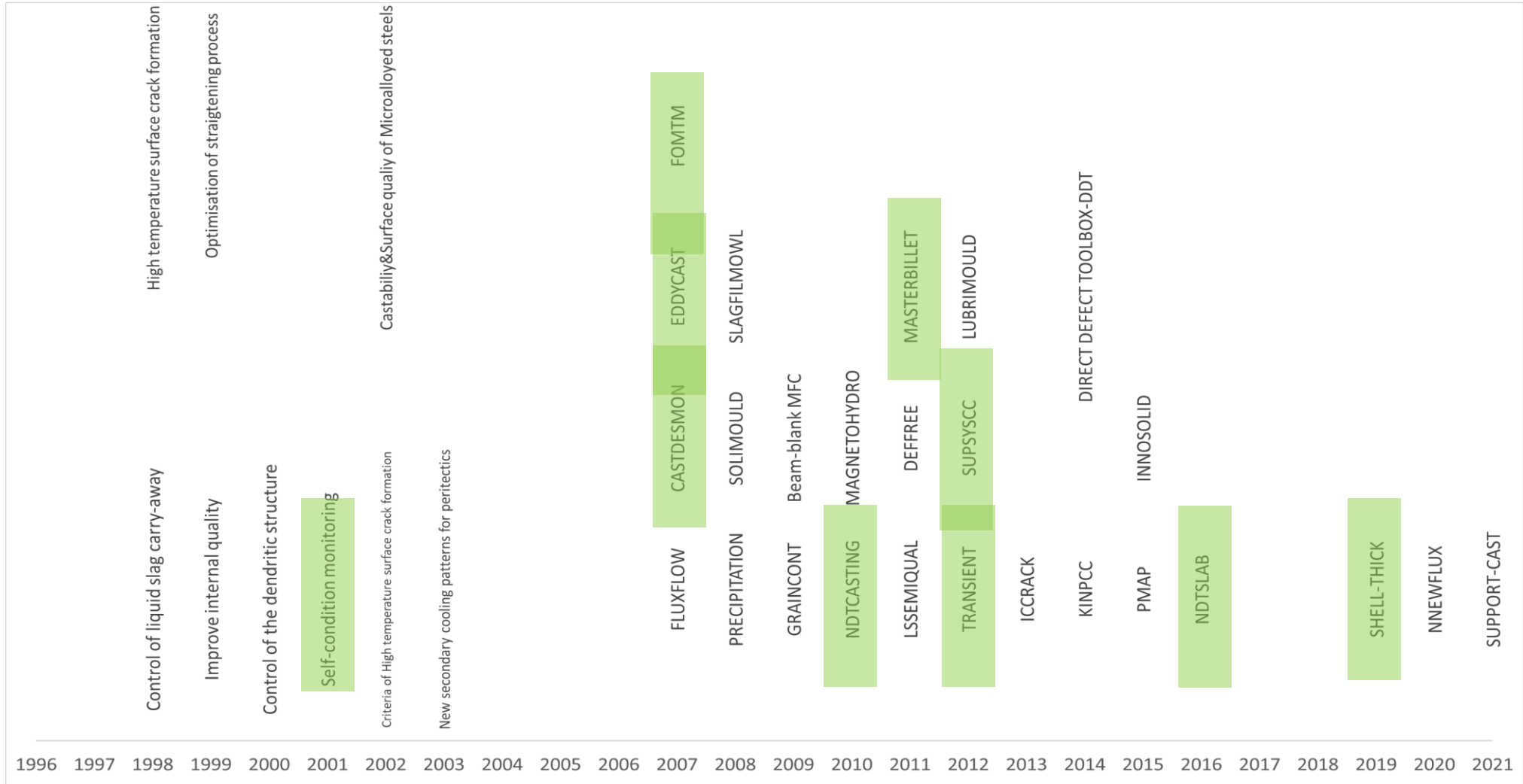


EU PROJECTS TIMELINE

Metallurgical Knowledge



EU PROJECTS TIMELINE Process control and sensors



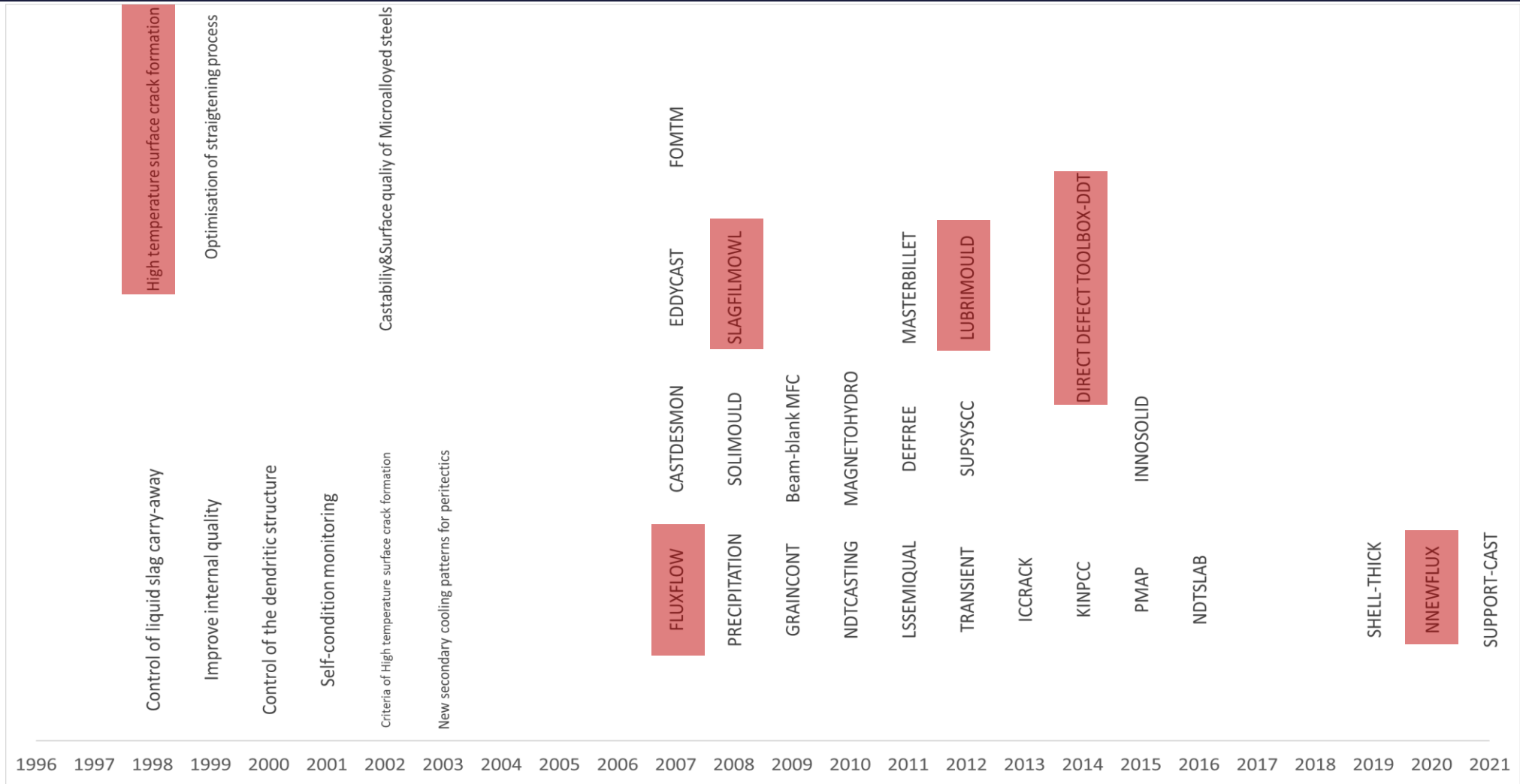
EU PROJECTS TIMELINE

Modelling



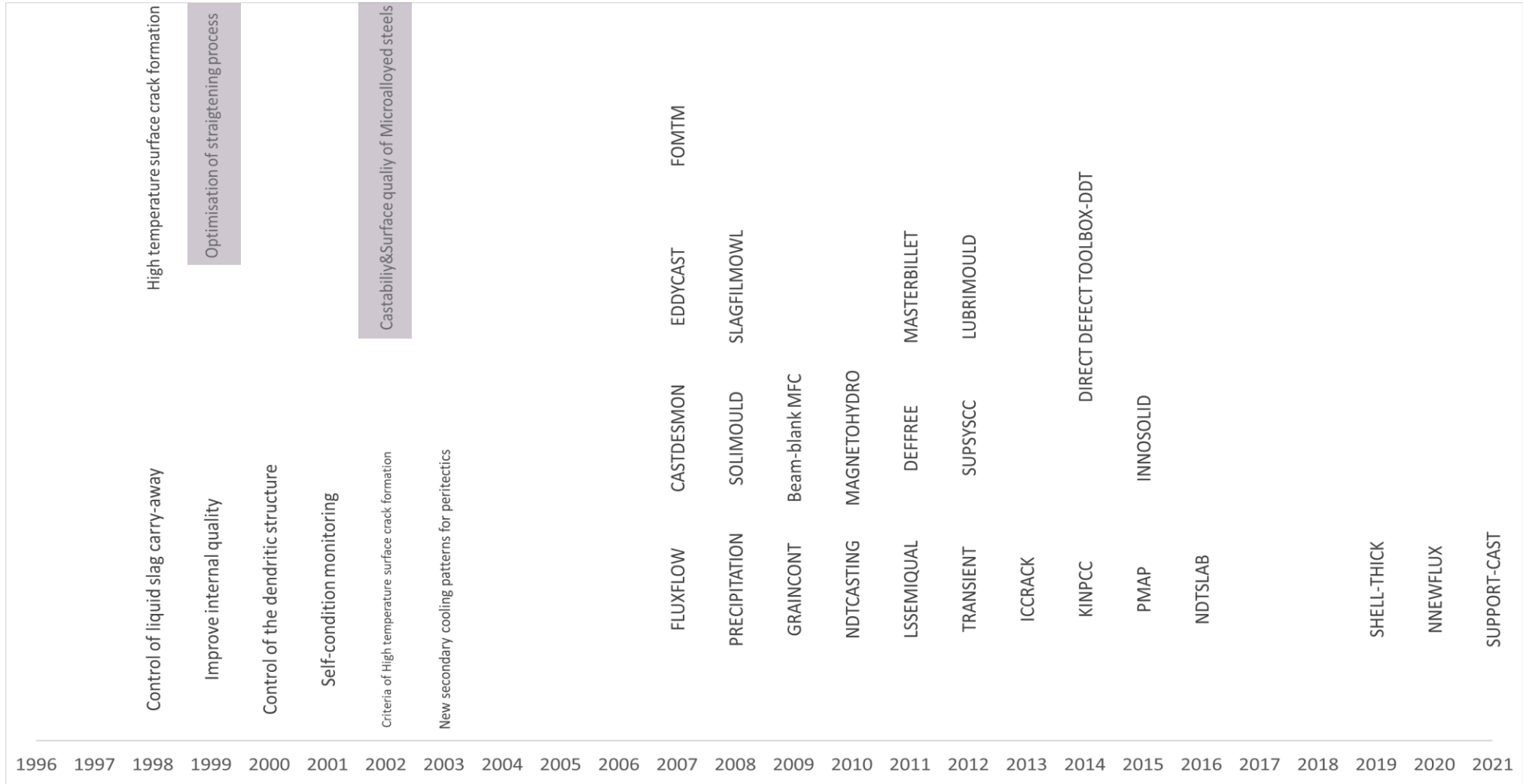
EU PROJECTS TIMELINE

Mould Powders

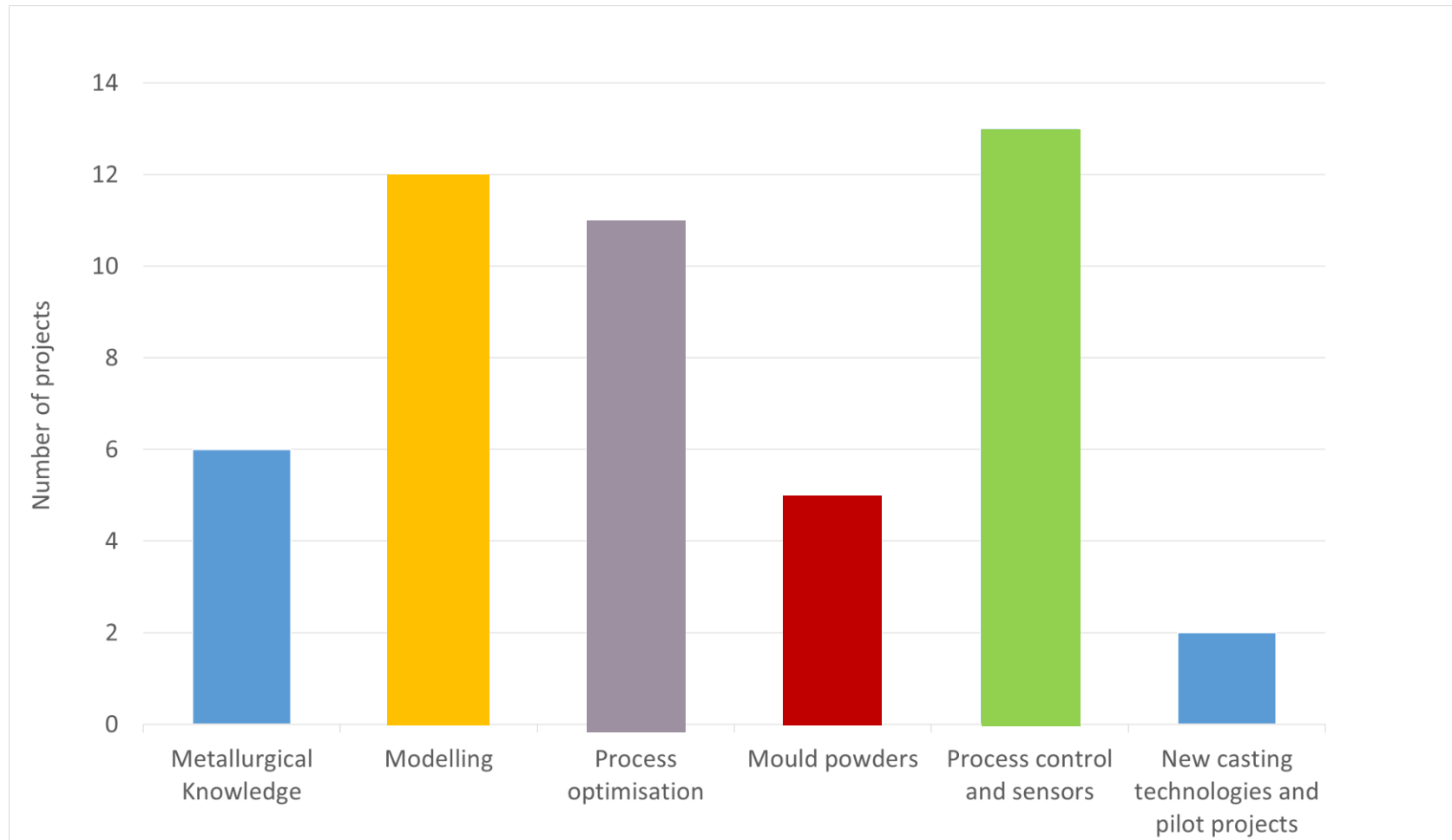


EU PROJECTS TIMELINE

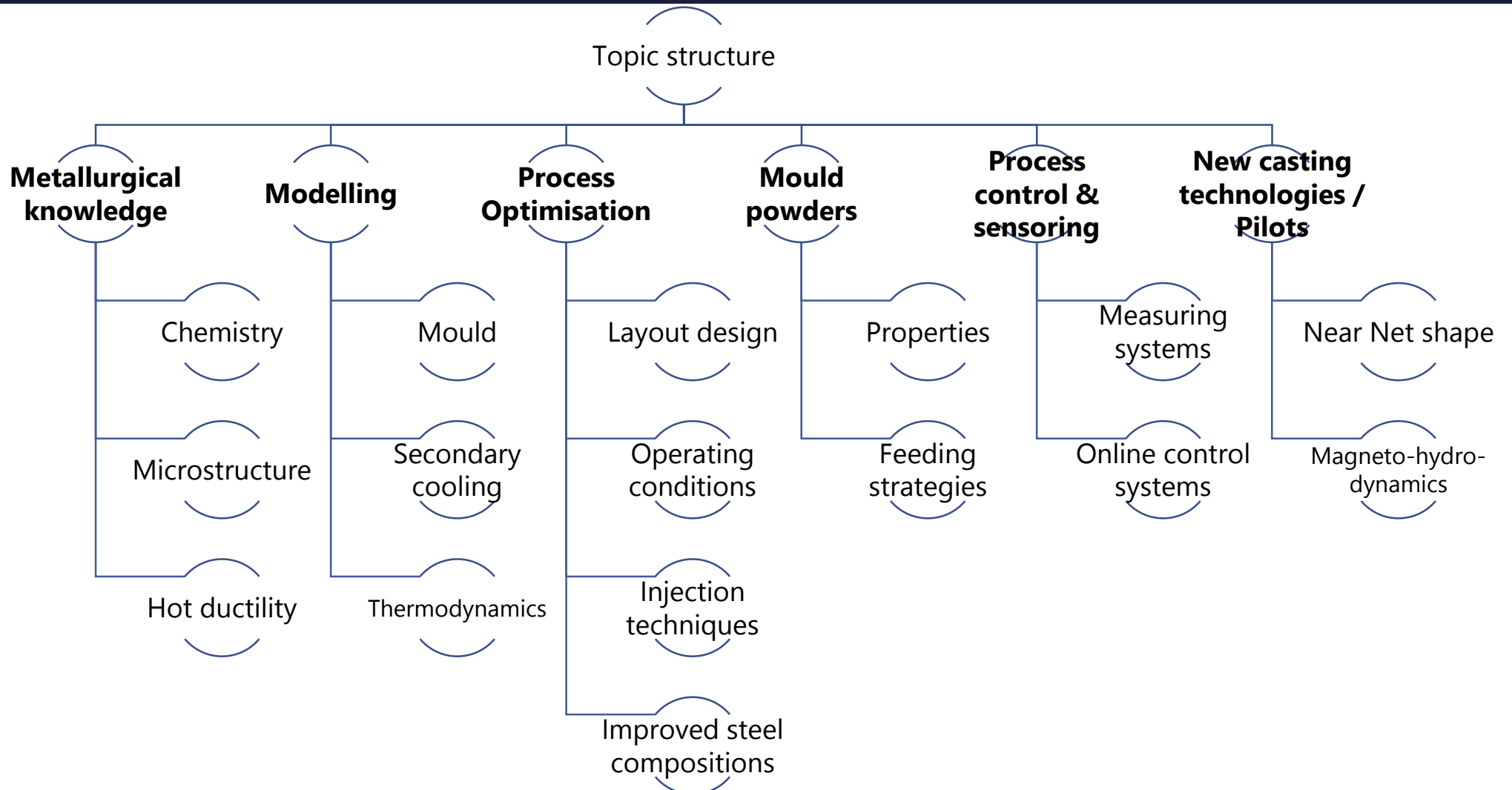
Process Optimisation



Topics in the projects

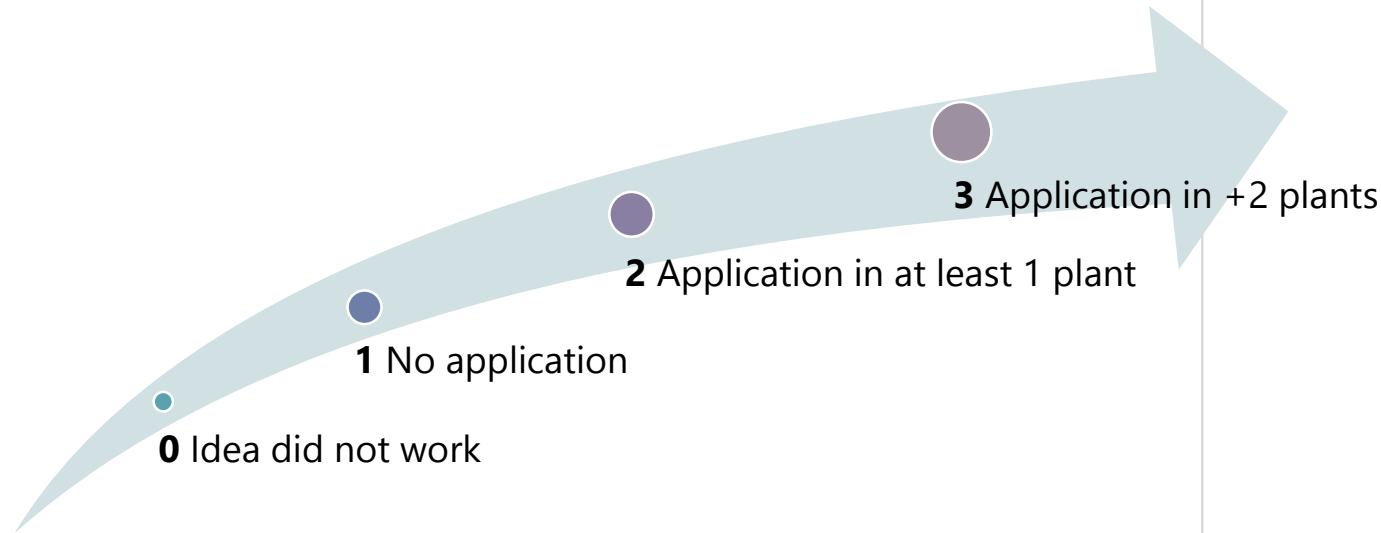


Topics in the projects - Structure

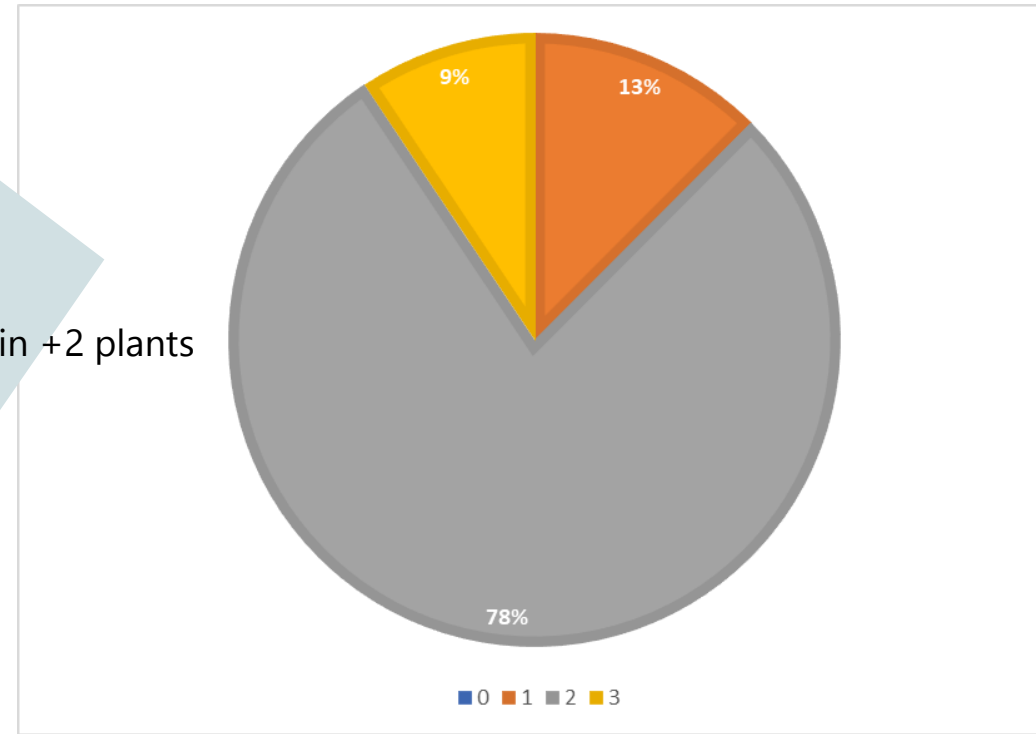


Industrial application

Outputs of RFCS funded projects have potential for further exploitation in industry



Ranking system



Ranking output

DELIVERABLES

Openly available on VALCRA website




D2.1 Complete list of relevant reports and papers

Classification of projects and literature to identify the main topics covered by EU funded research

Spreadsheet list of **32 projects**

Spreadsheet list of **60 papers**



D2.2 List of topics

Analysis by argument of the collected reports



D2.3 Classification and ranking of projects

Assessment of the RFCS projects

- Success of project
- Industrial/economic impact
- TRL evolution



D3.1 State of the Art for each Research Topic

TOPICS:

- Basic Knowledge
- Modelling
- Process Optimization
- Mould powders
- Process control & sensing

STRUCTURE:

1. Evolution of the state of the art in the last 25 years
2. Best practices or solutions
3. Future developments



D3.1 - APPENDIX A Summary of computational and physical modelling

performed in European funded projects over the last 20 years



D3.1 - APPENDIX B Links between cracking and casting conditions

Overview



Micro-alloyed steels and cracks in continuously cast billets
March 2020



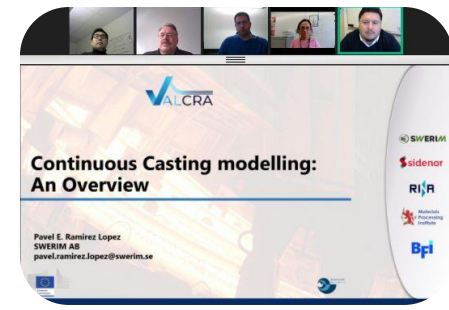
Cracks in continuous casting: highlights of 25 years of RFCS research
June 2020



Measuring techniques in continuous casting
July 2020



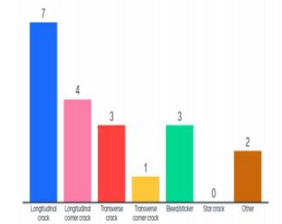
Mould powders and operating conditions
September 2020



Modelling in continuous casting
September 2020



Which type of surface defects are the most significant issue related to mould powders?



Roadmap Interactive workshop - Phase 1
28th October 2020

- Compact housing
- Effective air-cooling prevents heat accumulation in the housing (max. 40°C)
- Cooling air outlet vertical to the field of view → frees the window from dust
- Positioning close to SEN possible, for an outlet onto the melt/powder surface
- Dust prevention for lens/circuit board
 - Filter installed in front of the lens area
 - Cooling air flow creates slight overpressure
- Mobile and stationary installations possible

Measuring Techniques (Plant)
5th Nov 2020

Slag film characterisation

novel techniques e.g. for surface roughness and porosity

Measured surface roughness profile of Sidenor slag film

Sidenor slag film with porosity

Porosities

Casting parameters and mould
11th Nov 2020

FERALPI GROUP, ACCIAI SPECIALI TERNI, TATA, voestalpine, sidenor, Izaskun Alonso Ona, SSAL, Anna Dahlstr, ArcelorMittal, Jean Franco Domgin, outokumpu, David Brooks, Fiera Frittella, Irea Francesco Ciuffini, via Santillana, Sergio Ilie, Marc Walter

Roadmap Interactive workshop - Phase 2
16th Nov 2020

25 years of RFCS research

RFCS Priorities storyline

R&D: Knowledge, Modelling

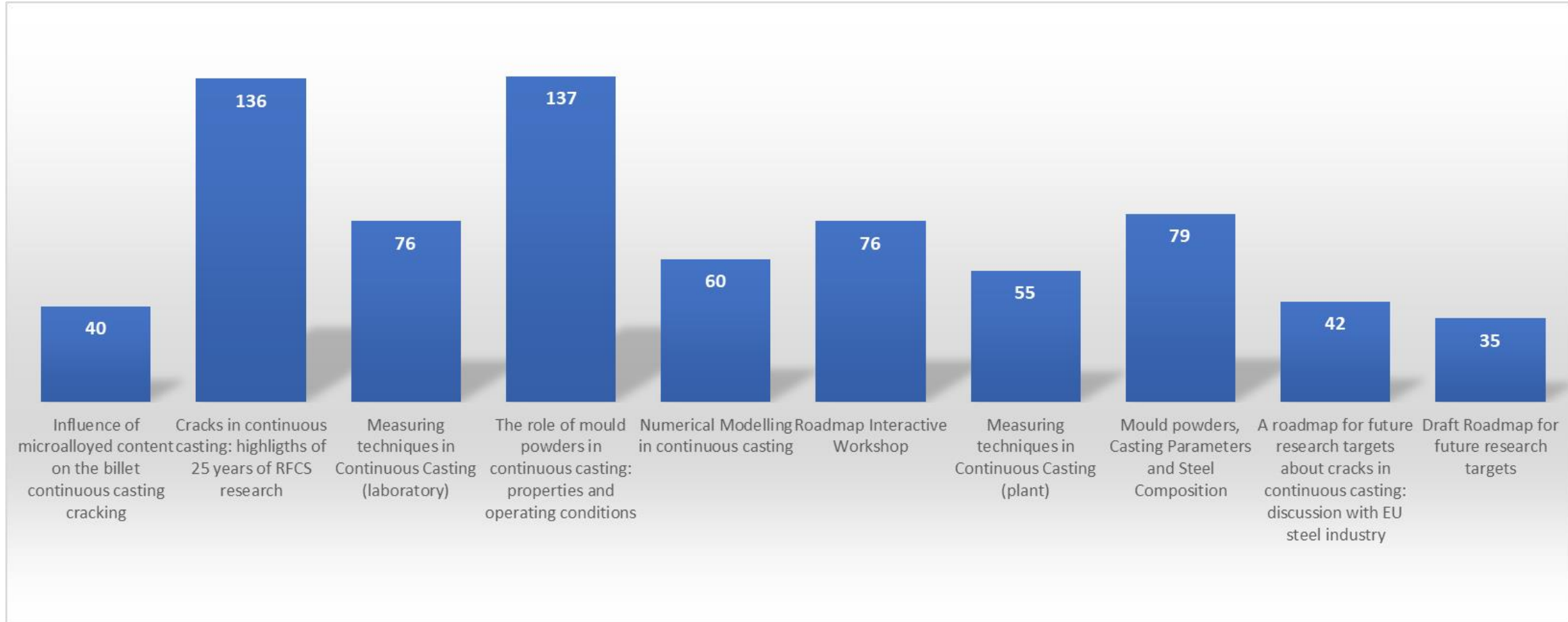
Technology: Process control & Sensors, Industry 4.0

Industry: New steels, High quality

Proposed guideline: rational use of energy, resource efficiency, Additive value in green frame, Quality Increase, workforce skills adaptation of working conditions

Discussion of draft roadmap - Phase 3
2nd Dec 2020

Participants

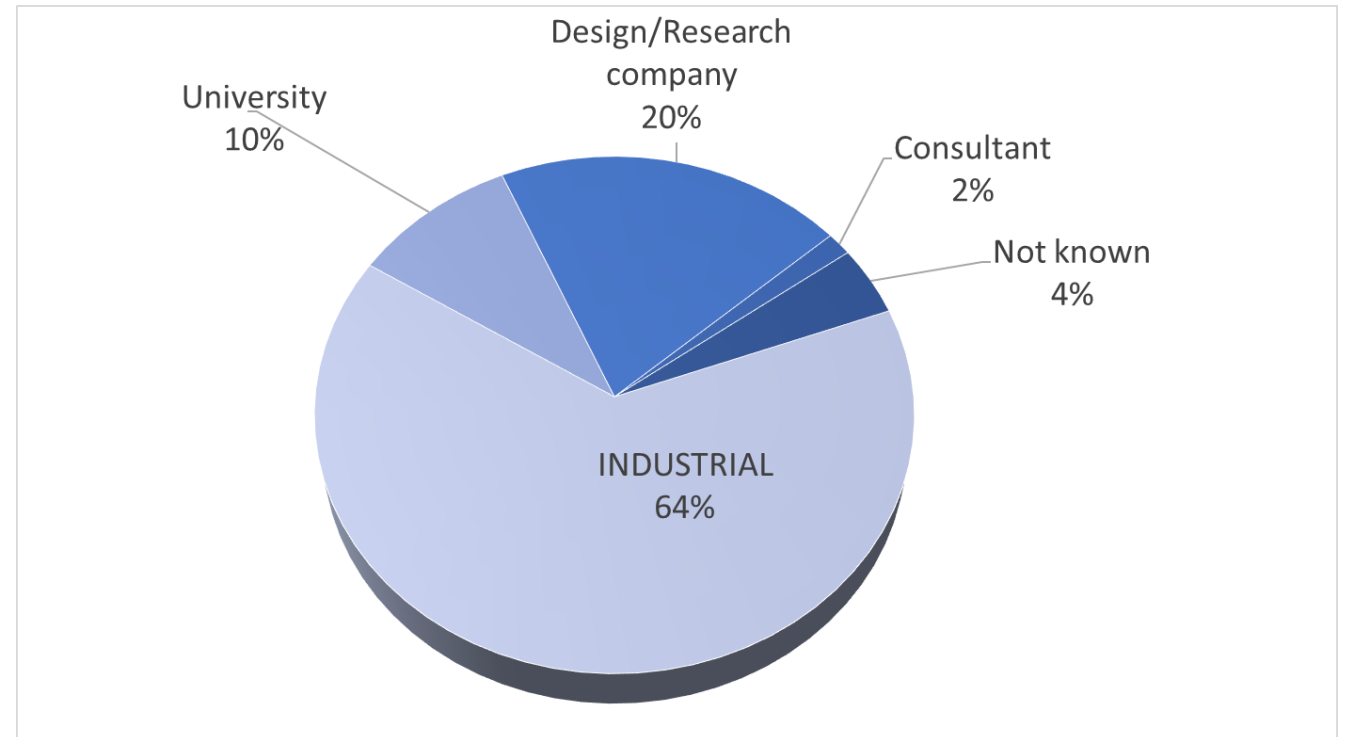


Total participants: 736

Average audience composition: worldwide

+480 different people attended Valcra events

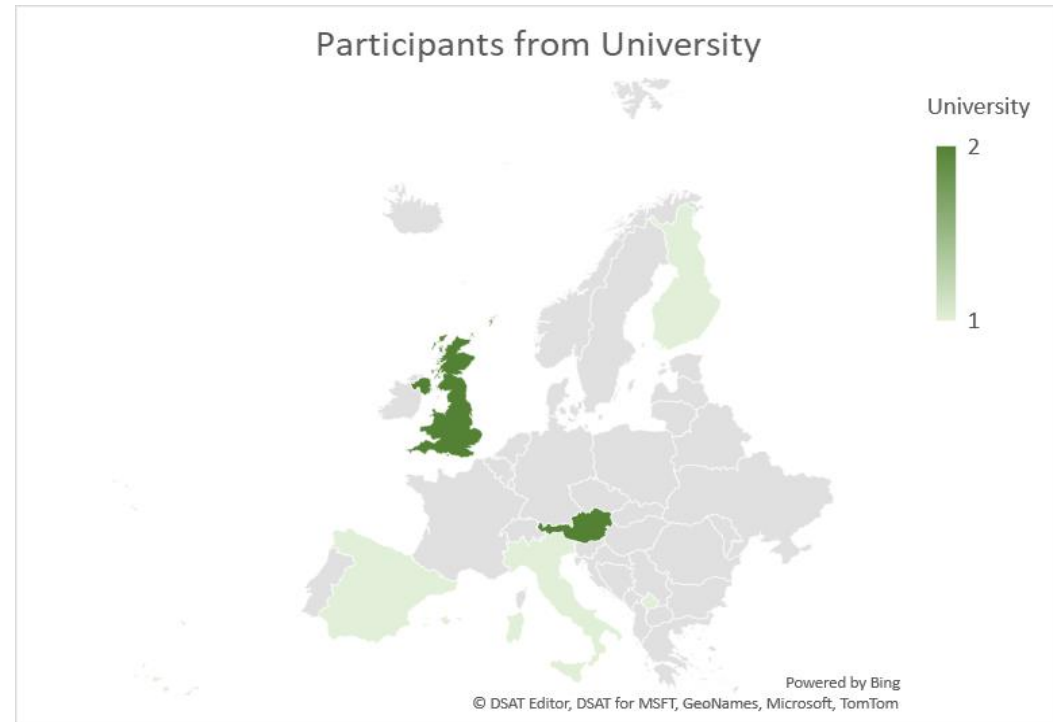
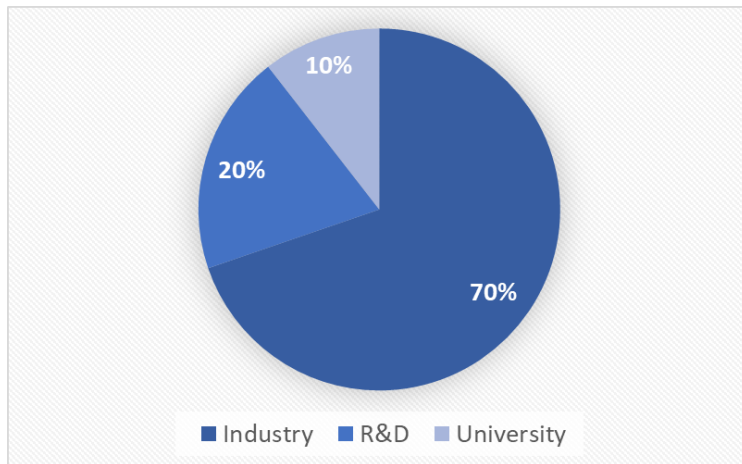
Strong interest from industry



Average audience composition: EUROPE

+80 organisations have attended Valcra events

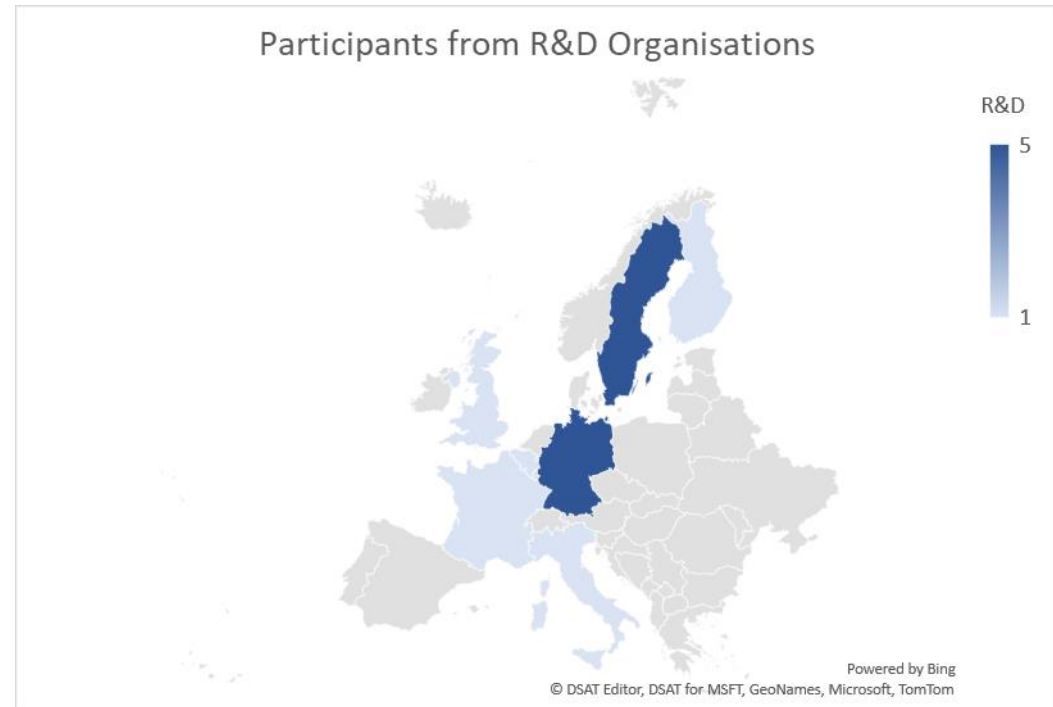
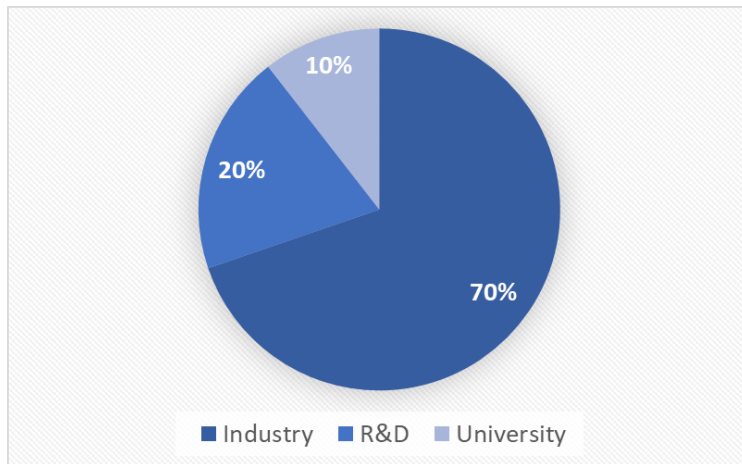
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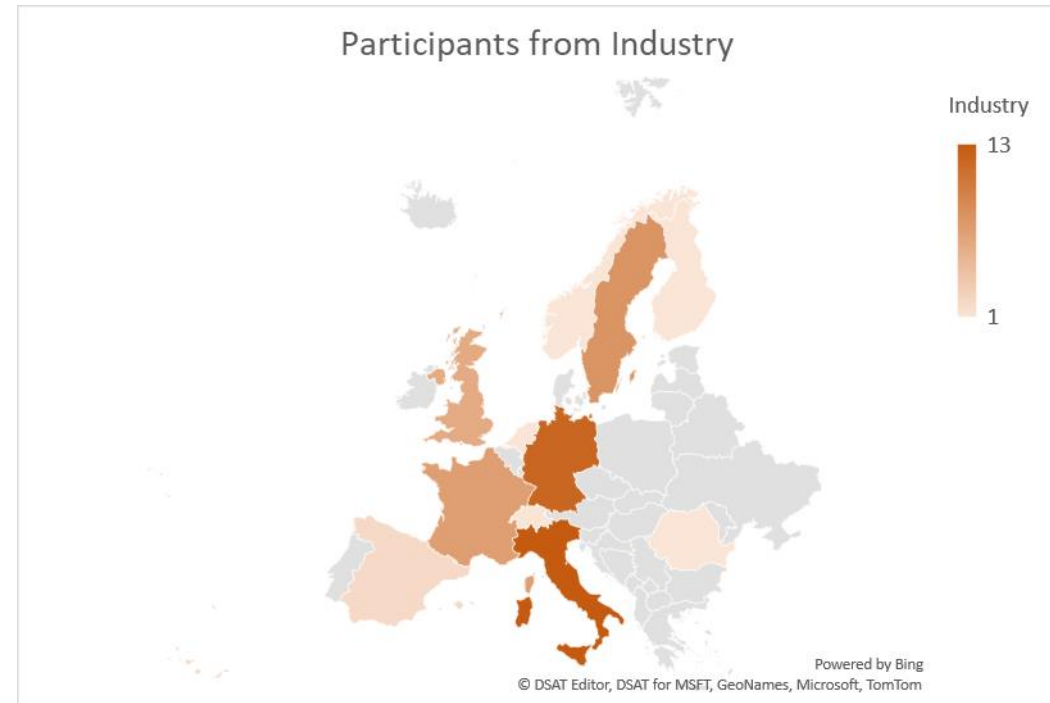
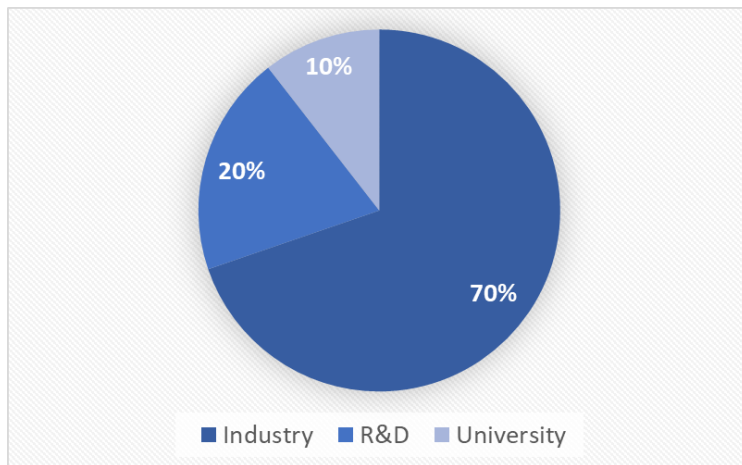
Strong interest from industry



Average audience composition: EUROPE

+80 organisations have attended Valcra events

Strong interest from industry



Overview

- www.valcra.eu
- Project information
- Event schedule/registration
- Download of deliverables
- Download of presentations
- Download of webinar videos

Valcra Website



- <https://www.linkedin.com/company/31417305>
- Get updated information on VALCRA events and deliverables

ECCN – European continuous casting Network on LinkedIn



- <https://www.linkedin.com/groups/13794289/>
- **Get answers to questions asked in webinars**
- 77 participants

Valcra discussion Group on LinkedIn



www.valcra.eu

Online since: 22nd November 2019

Main functions:

Event registration

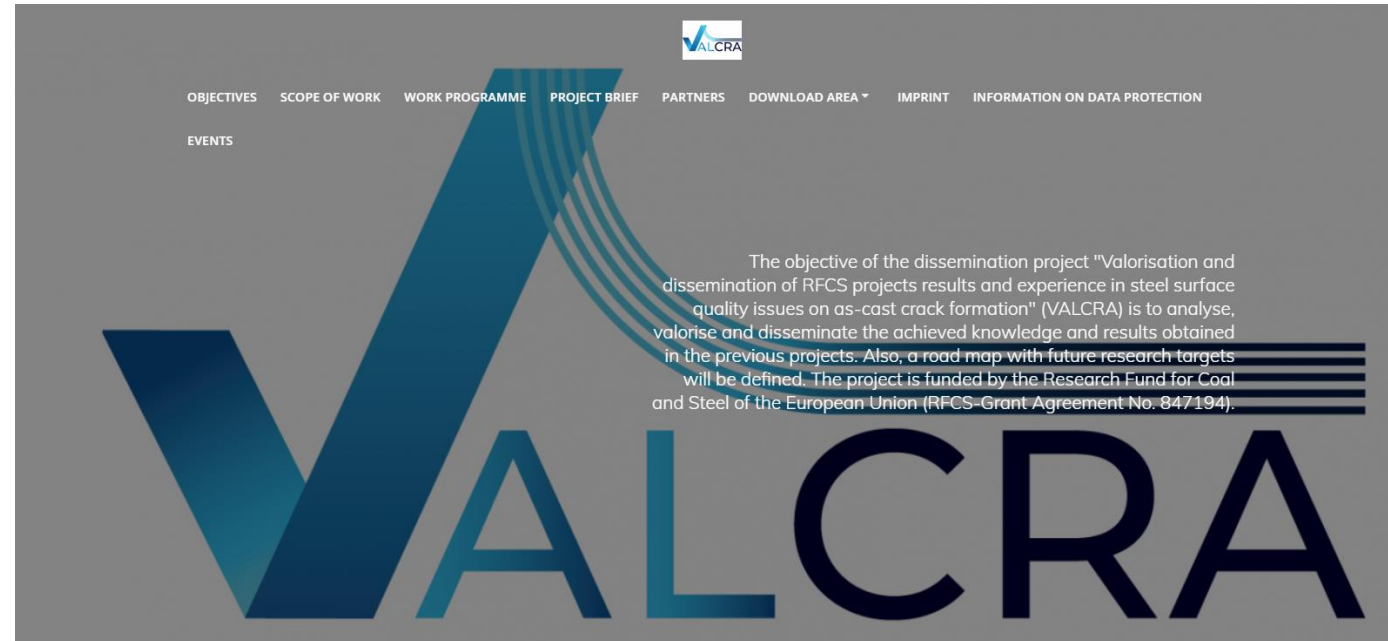
Document download

Deliverables (4)

Presentations (+50)

View videos (+10)

Number of clicks since creation: 5951



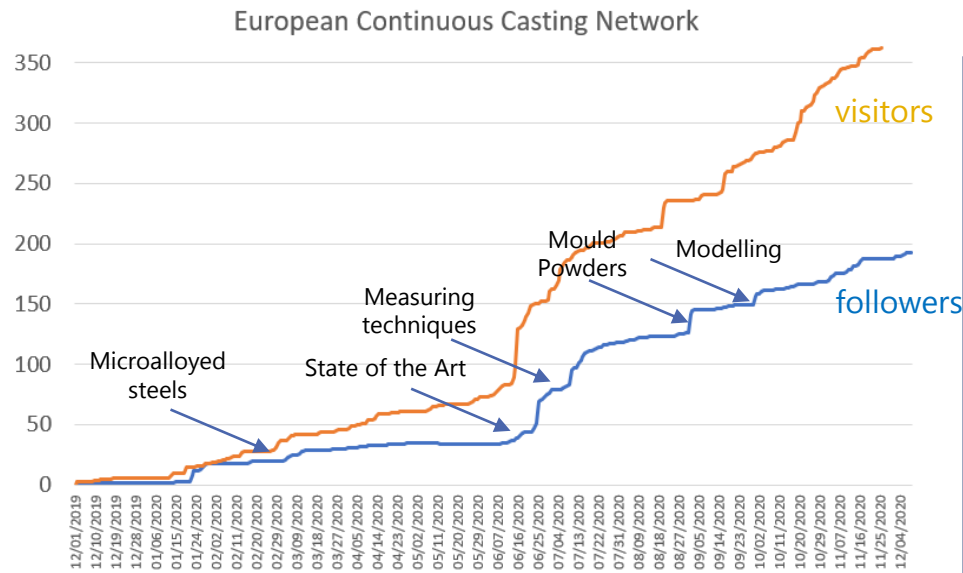
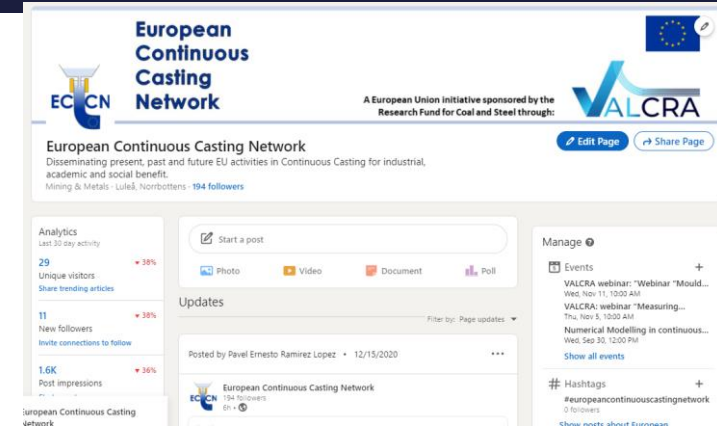
LinkedIn page: European Continuous Casting Network

Page created 1st Dec 2019

Advertises VALCRA Events

194 followers

Webinars affected interest for page



Followers by Industry type

Top industries

- Mining & Metals
- Research
- Mechanical or Industrial Engineering
- Higher Education
- Industrial Automation
- Chemicals
- Machinery
- Construction
- Information Technology and Services
- Oil & Energy

Industry	Followers	% of Followers
Mining & Metals	83	44.39%
Research	34	18.18%
Mechanical or Industrial Engineering	20	10.7%
Higher Education	7	3.74%
Industrial Automation	5	2.67%
Chemicals	4	2.14%
Machinery	4	2.14%
Construction	3	1.6%
Information Technology and Services	3	1.6%
Oil & Energy	3	1.6%

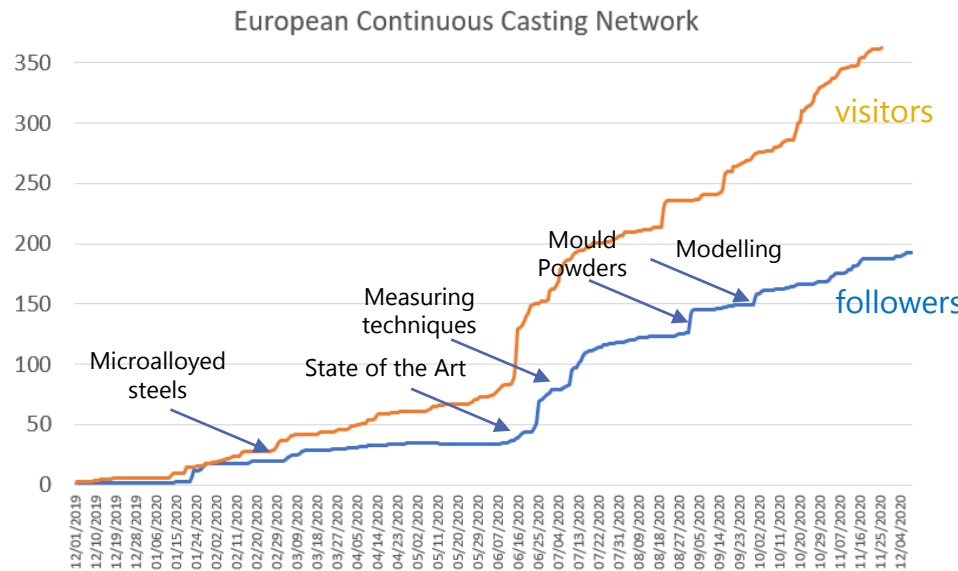
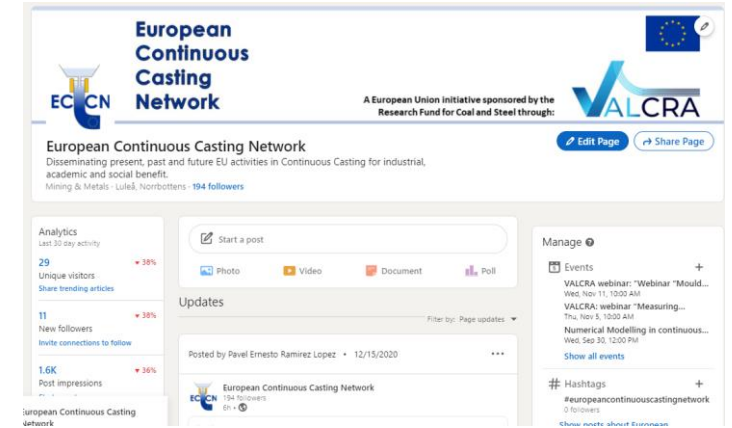
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Followers by Job Function

Top job functions	Followers	% of Followers
Research	29	17.37%
Operations	28	16.77%
Engineering	28	16.77%
Business Development	16	9.58%
Information Technology	14	8.38%
Sales	10	5.99%
Program and Project Management	9	5.39%
Media and Communication	8	4.79%
Marketing	5	2.99%
Product Management	5	2.99%



Thank you for your attention!

