

# Measuring techniques in Continuous Casting (laboratory)

Introduction to Valcra project & webinar

















# **Valcra: a RFCS dissemination project**



VALorisation and dissemination of RFCS projects results and experience in steel surface quality issues: on as-cast CRAcks formation











Review & analysis of EU projects and literature

Dissemination
events &
interaction
with
participants

Roadmap for future research & final event



# Valcra for the steel community



### Media











- 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 Nework on LinkedIn



- https://www.linkedin.com/ groups/13794289/
- Participate to technical/scientific discussions
- Get answers asked in webinars

Valcra discussion Group on LinkedIn





# Valcra for the steel community



### Deliverables D2.1, D2.2, D2.3











### 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



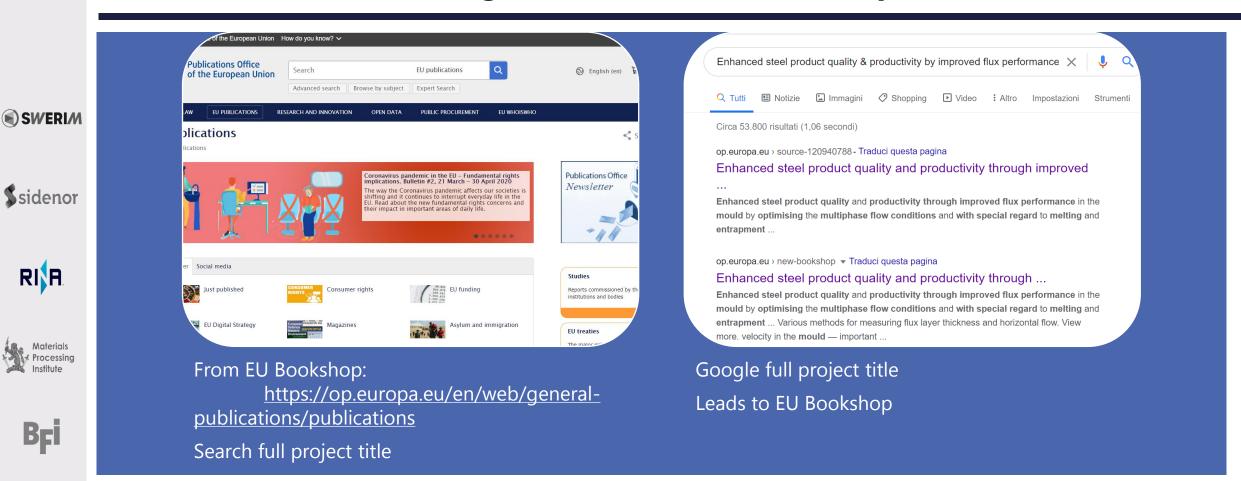
Ssidenor

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# Valcra for the steel community



### Deliverable D2.1: how to get the ECSC/RFCS final reports



Download pdf is free - Reports are available in most cases



# Valcra for the steel community



### **Deliverable D3.1**











# D3.1 State of the Art for each Research Topic

#### **TOPICS:**

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

#### STRUCTURE OF REPORT:

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

#### **APPENDIXES:**

- •APPENDIX A: Summary of computational and physical modelling performed in European funded projects over the last 20 years
- •APPENDIX B: Links between cracking and casting conditions



# Valcra for the steel community: todays' webinar



## **Measuring techniques in Continuous Casting (laboratory)**











#### 10.20 - 10.40

- Investigation of unsteady and asymmetric flow phenomena in continuous casting moulds by physical modelling
- Kersten Marx BFI, Germany

#### 10.40 - 11.00

- Pilot Scale Simulator Based on Liquid Metal to Study Flow Related Issues on Continuous Casting
- Pavel Ramirez Lopez SWERIM, Sweden

#### 11.00 – 11.10

COFFEE BREAK

#### 11.10 - 11.30

- Slab Surface Defect Detection Techniques
- Stuart Higson Material Processing Institute, UK

#### 11.30 - 12.00

- Questions and discussion
- End of webinar



# Valcra for the steel community: todays' webinar



### **Interacting during webinar**

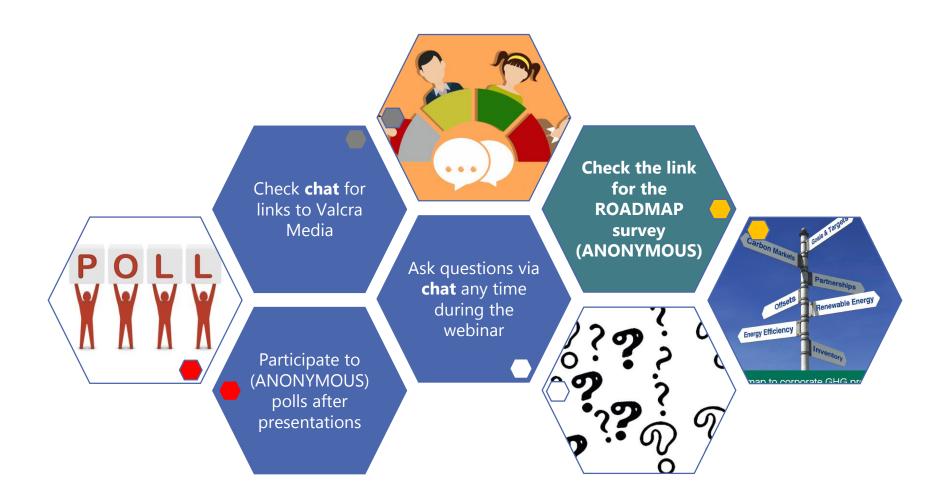
























Enjoy the webinar!









# Valcra interaction with participants



### **Build together the Roadmap for future research**

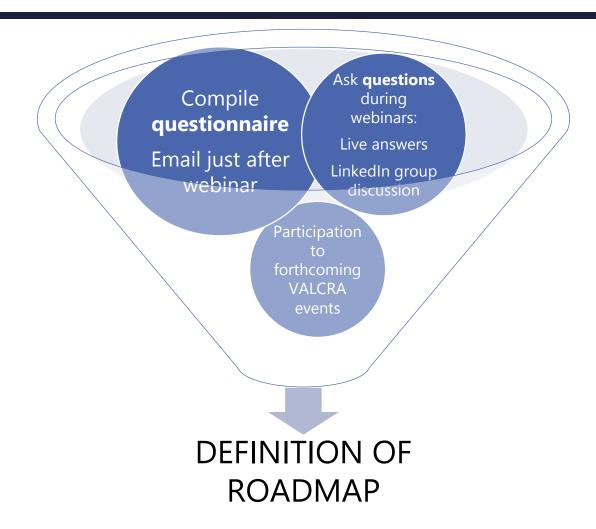














# After this webinar...



## **To-do list for webinar participants**











# Stay updated

Follow LinkedIn page ECCN

Check www.valcra.eu for event schedule & new documents

# Interact

Compile ROADMAP questionnaire

Request access to Valcra discussion group & get answers to your questions

# Stay informed

Download project **deliverables** from www.valcra.eu

presentations & videos from www.valcra.eu



# After this webinar...



### **Past and future events**

#### **VIDEO**

Influence of microalloyed content on the billet continuous casting cracking

- Video of the workshop organized by Sidenor
- •Link to view video at www.valcra.eu

**SWERI**∕∕

#### **VIDEO**

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

- •Video of the webinar organized by RINA-CSM
- •Link to view video at www.valcra.eu



#### **WEBINAR**

The role of mould powders in continuous casting: properties and operating conditions



- •Web live event
- •1st September
- •Organised by Material Processing Institute and RINA-CSM



#### WEBINAR

Numerical Modelling in continuous casting

- •Web live event
- •30th of September
- Organised by SWERM



#### WORKSHOP

**Roadmap Workshop** 

- •Event in presence
- •Session of ECCC Conference 21st 23rd October in Bari, Italy
- Organised by RINA-CSM













Thank you for your attention!





