

**Valorisation and dissemination of technologies for
measurement, modelling and control in secondary metallurgy
(DissTec)**

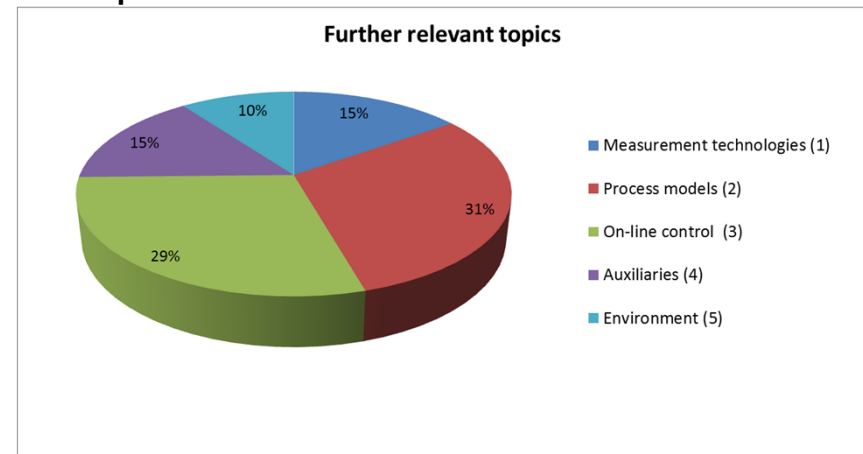
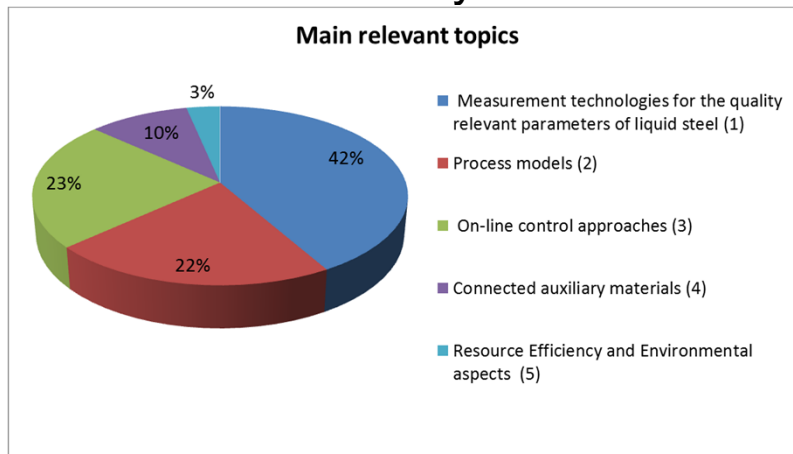
**Reza Safavi Nick
Jonas Alexis
Johan Björkvall**

Objective of the Project

- The objective of the dissemination project DissTec is to revisit the most important European projects related to Secondary Metallurgy technologies carried out in the last two and a half decades.
 - It would be useful to valorize, distribute and promote the exploitation of the results.
 - It is a necessary step for preparing and communicating a roadmap for future research activities and priorities.

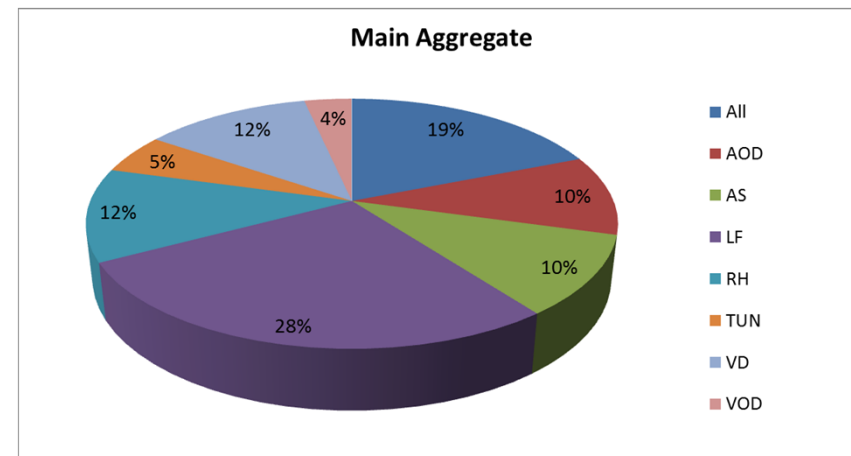
List of Topics

- Identifying the list of topics:
 - Measurement technologies for the quality relevant parameters of liquid steel
 - Process models
 - On-line control approaches
 - Connected auxiliary materials
 - Resources efficiency and environmental aspects



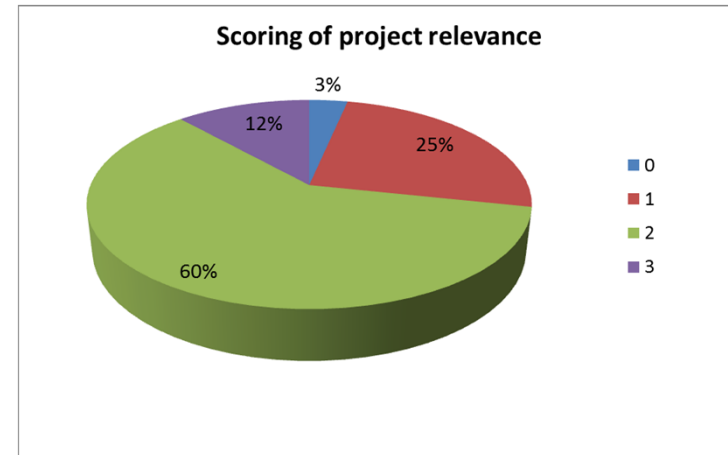
List of Aggregate

- The processes are categorized as follows:
 - Ladle furnace (LF)
 - Ladle stirring station (AS)
 - Vacuum tank degassing plant (VD)
 - RH degassing plant (RH)
 - CAS(-OB) plant (CAS)
 - VOD plant (VOD)
 - AOD converter (AOD)
 - Tundish (TUN)



Scoring

- The scoring of the projects has been based on the following four criteria:
 - **Zero:** if “the project idea does not work”
 - **One:** if “the project idea was in principle good, but industrial implementation was not possible at the time”
 - **Two:** if “the project idea is applied in at least one industrial plant”
 - **Three:** if “the project idea is state of the art and is applied in many plants”



- # of projects scored zero:
- 2 projects (3%)

Seminars, Webinar and Workshop

- To disseminate the findings five Seminars, one for each partner, are planned with respect to the topics as presented above

When	Who	Where	What
27 April	CSM	Milan	Models for Secondary Metallurgy processes
22-23 May	MEFOS	Stockholm	Connected auxiliary materials
May / June	MPI	UK	Optimisation of Secondary Metallurgy practices wrt. models, measurement and control technologies (focus on clean steel)
June	BFI & CRM	Vienna	Measurement technologies
14-15 Nov	BFI	Duisburg	On-line process control of Secondary Metallurgy plants (focus on EAF steelmaking)

Seminars, Webinar and Workshop

- In addition to the Seminars, two webinars are planned to introduce new technological breakthrough to European Industries

When	Who	What
September	CSM & BFI	Measurement technologies
October	MPI & BFI	Level 2/3 Control Systems

Seminars, Webinar and Workshop

- As stated, one of the main objective is to prepare a roadmap for future industry. The workshop is planned as the final step into the project as below:

When	Who	Where	What
10 Nov	BFI	Dusseldorf	Road map for future Secondary Metallurgy technology

Dessimination of materials

- The materials regarding the DissTec project (final reports, presnetations and etc.) can be found in:
 - <http://www.bfi.de/de/projekte/disstec/>

Bfi Über uns Leistungen Themen Lösungen Referenzen Aktuelles

Deutsch

Suche

Partner

Bfi **MPI** Materials Processing Institute
Excellence in Materials & Process Innovation

CRM GROUP **CRM** Center for Research in Metallurgy

swerea|MEFOS

Förderungsnummer

RFCS Contract No. 709740

Kontaktperson

Dr. Bernd Kleimt
Abteilungsleiter
bernd.kleimt@bfi.de
Tel: +49 211/6707 - 385

DissTec

Valorisation and Dissemination of Secondary Metallurgy Technology

DissTec

Initial situation

The evolution of secondary steelmaking processes and its introduction to the steelmaking plants brought about the effective production of high quality steel grades. Today's importance of secondary steelmaking processes in Europe is also reflected in the research activities in this technological area. Within the framework of the ECSC and RFCS steel research programme, in the last 20 years around 50 projects with the focus on secondary metallurgy have been funded. The projects aimed at improving process performance in terms of resource consumption and liquid steel quality optimisation. Within these projects, numerous measurement technologies, process models and online control approaches were developed.

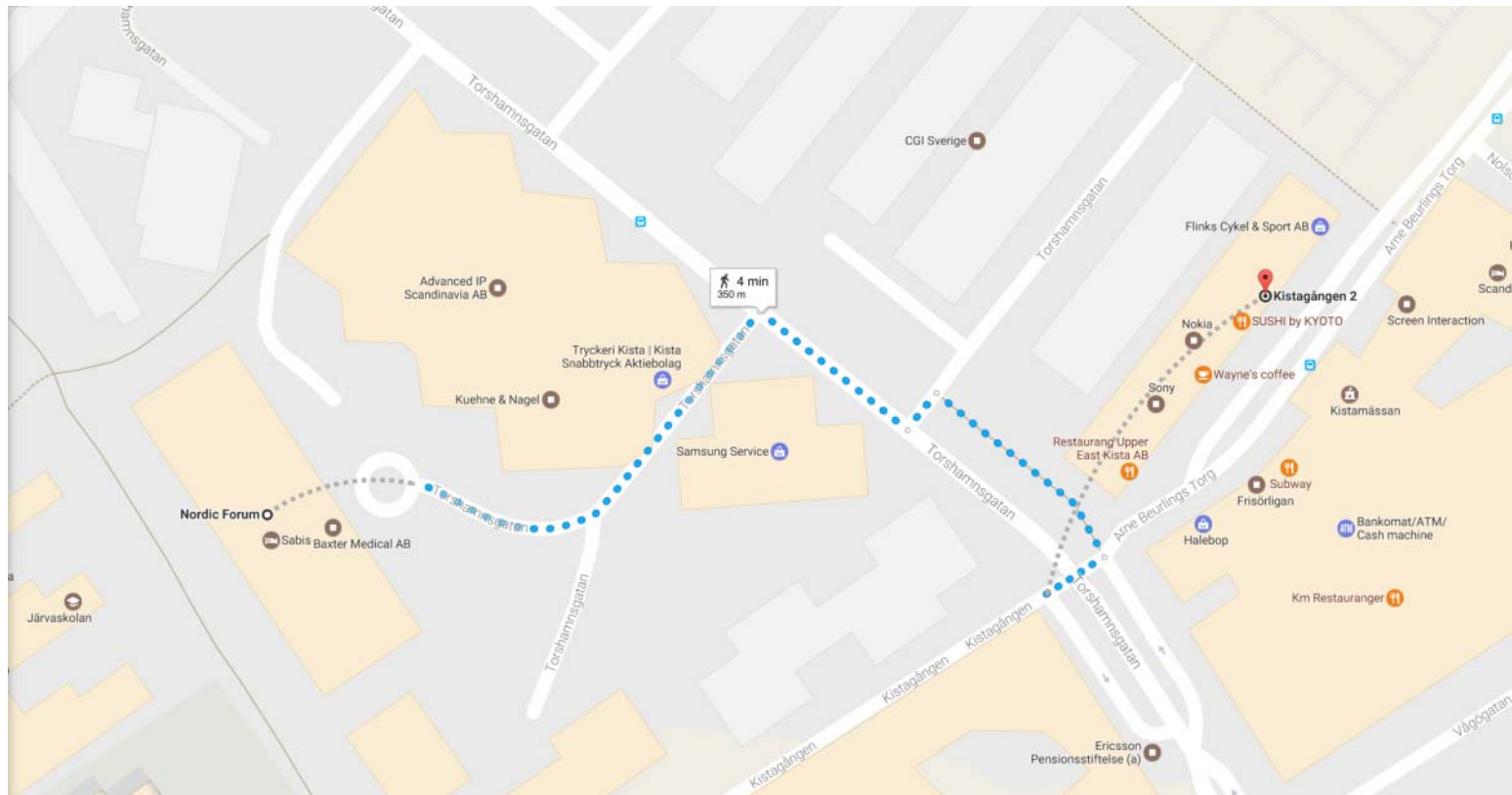
Because of the large variety of subjects, distributed along the different projects performed throughout the years and shared among many research and industrial partners, the situation today regarding the knowledge and results gained in these projects can be summarised as follows:

- The impact of the results of the completed European projects on the industrial practice is much less than potentially achievable.
- The various researches followed different, sometimes diverging development lines, with poor synergy and occasionally contradictory objectives.
- Today there is no clear indication of the most useful future developments and consequently also the requirements for future research activities.

The picture presents part of the website!

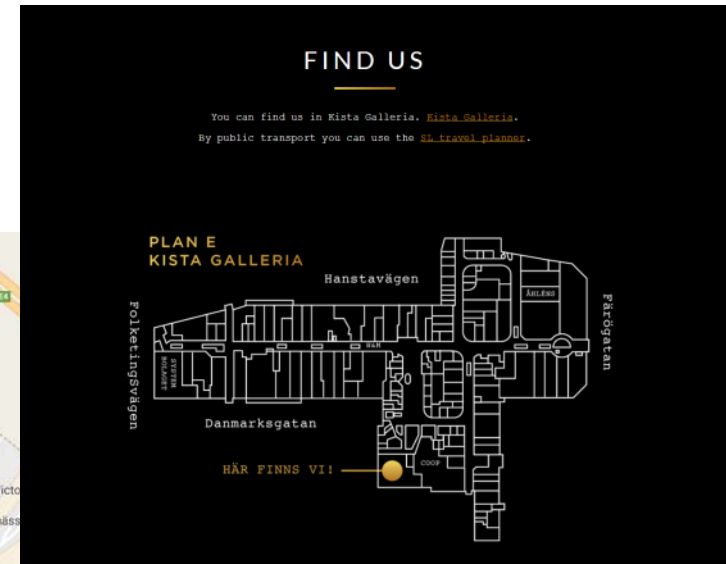
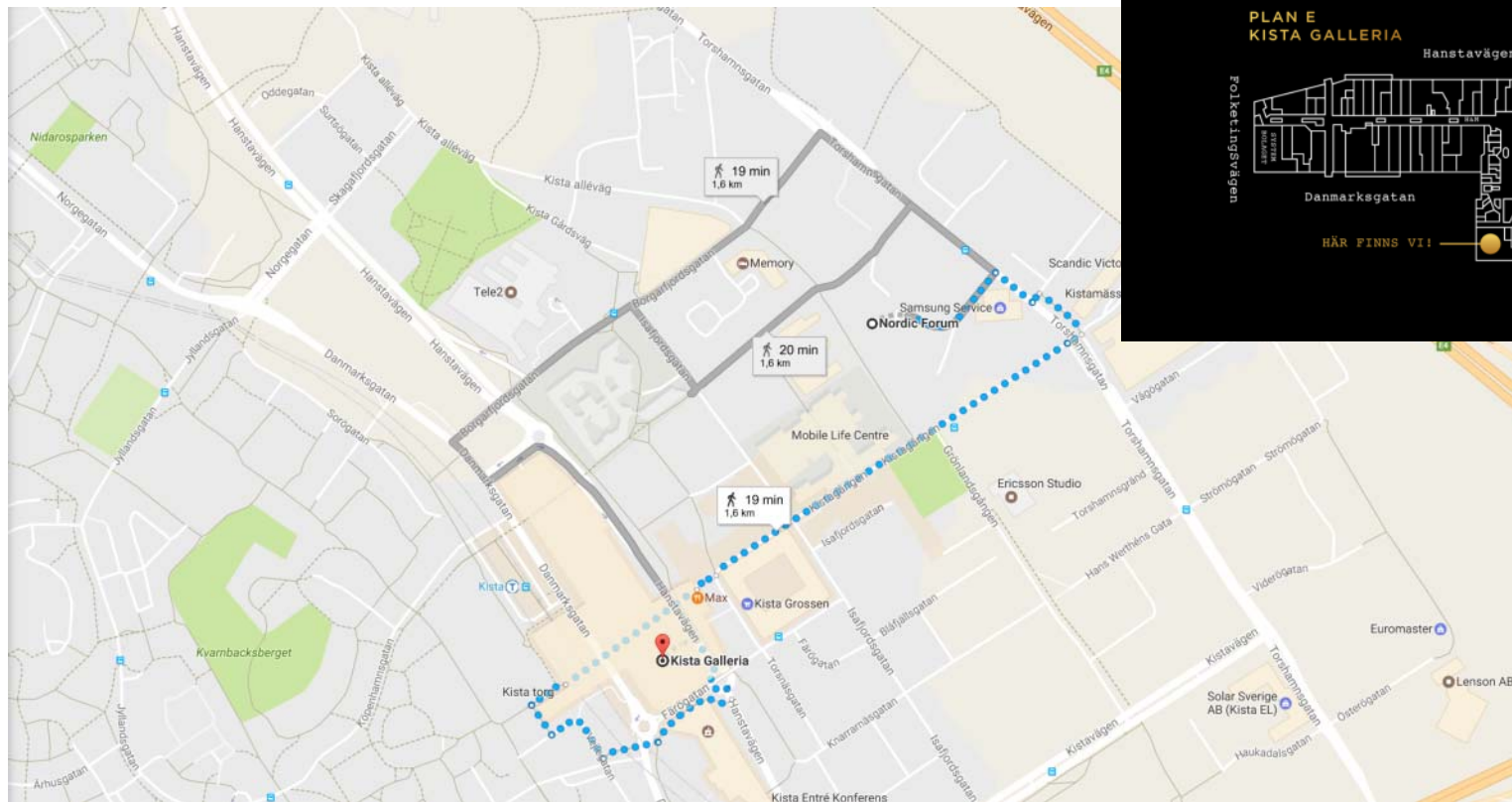
Places and How to get there from Nordic Forum

- Uvån Hagfors Teknologi AB UHT



Places and How to get there from Nordic Forum

- FnB Market in Kista Galleria





Thank you!

