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## **Project Deliverable Report**

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Technical Group: **TGA2**

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

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**Cover sheet of 7 subsequent pages**

## 1. INTRODUCTION

The objective of the dissemination project is to revisit the most important European projects related to the formation of cracks in continuous casting carried out in the last two and a half decades. The basic idea is that an action of dissemination and valorisation of the most important results, based on an integrated critical analysis of a large number of projects, is useful to promote the exploitation of the results. This action is a necessary step for preparing and communicating a roadmap for future research activities and priorities.

Preliminary to these activities, classification of projects and literature classification is needed in order to identify the main topics on which the dissemination actions will be based.

To this scope, the present document shows the complete list of relevant reports and papers with some comments and statistics about them.

## 2. LIST OF PROJECTS

The work team identified a total of 34 EU-funded projects, starting from those listed in the proposal description.

The projects underwent a first analysis in order to identify the main research topics (see deliverable 2.2). A list has been compiled where topics and subtopics have been assigned to each project. Some basic information has also been added. (see excel file ANNEX1):

- Period
- Number of Contract
- Title
- Acronym
- Report Number
- Abstract
- **Main Relevant Topic**
- **Further topics**
- **Relevant sub-topics**

A few comments on the listed projects are:

The oldest projects started in 1995 and are concerned with:

- Role of slag and mould conditions on surface and subsurface quality
- Improvement of the straightening process
- Improvement of internal quality in microalloyed steels
- Role of mould powders in long products

All of the projects covering the topic of “Monitoring and sensing” (one of the most studied among the six identified topics) started after the year 2000, with the only exception of one project started in 1998, in which off-line and on line monitoring techniques were developed together with new and more effective means and methods for the interpretation of the signals, including modelling. This proves the increasing need for process control which characterised the research effort in the recent years.

In fact, the most recent project, (NDTSLAB, started in 2016 and still ongoing) is focused on monitoring and sensing.

### 3. LIST OF PAPERS

The list of papers reported below and in ANNEX1 includes the papers listed in the project proposal and other papers made available by the work team. A total of 60 papers have been collected and shared among the participants. These papers, together with the projects described in section 2, will form the basis for the activities to be done in WP2 and 3

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