



Clean Steel Partnership Infoday

December 13th 2023

Teams



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European Union





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European Union



HIYIELD

Highly efficient technologies for increased yields in steelmaking processes and reduced environmental impact

HORIZON-CL4-2021-TWIN-TRANSITION-01-19: Improvement of the yield of the iron and steel making (IA)





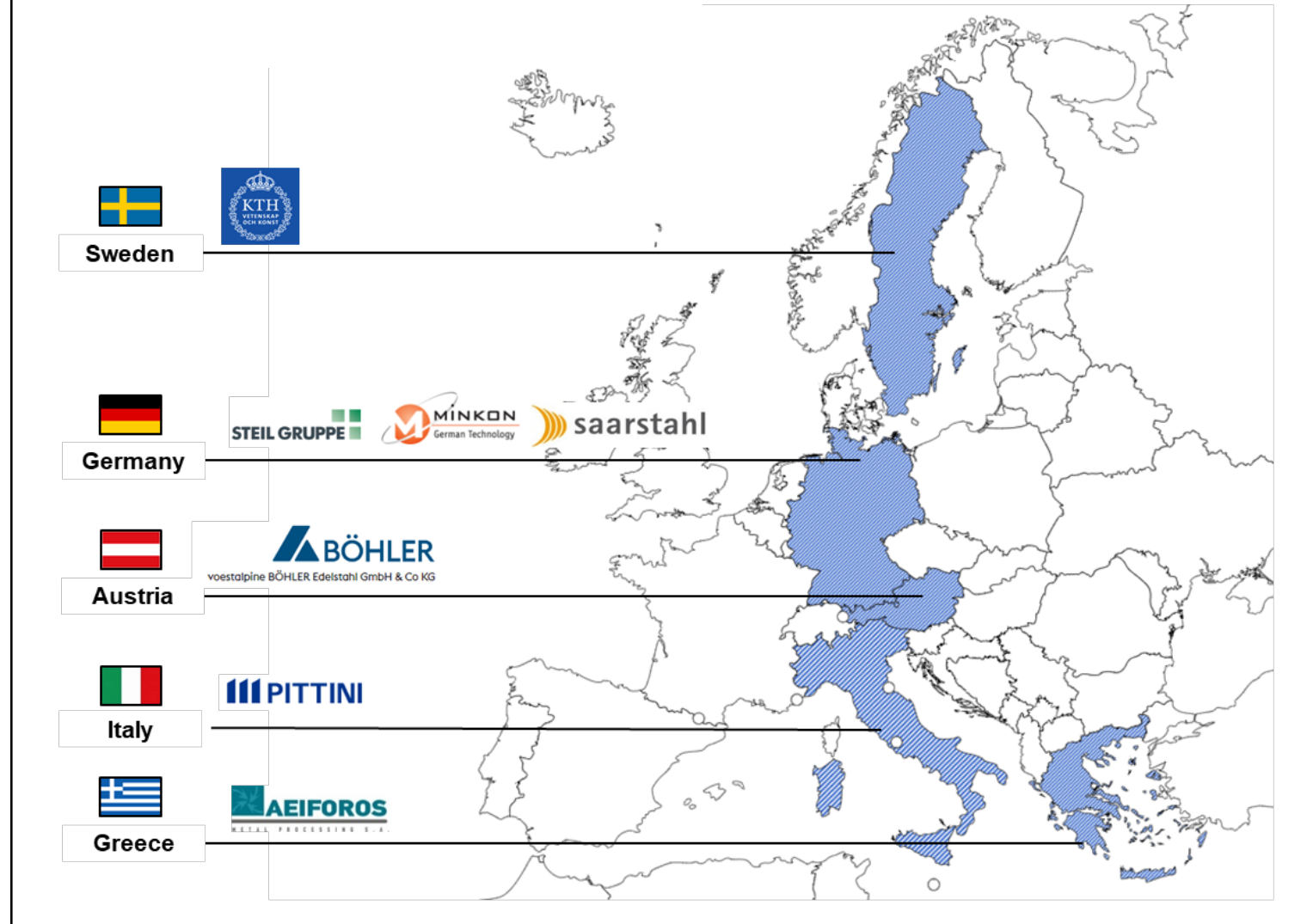
Aim

HIYIELD aims to **promote circular economy** by progressively **increasing the scrap uptake** in three demo cases that represent the current European steelmaking routes, with the ambition to **deliver solutions with relevance to all steelmakers.**

Project duration: 01/07/2022 – 30/06/2025



Consortium



2023-12-13



Björn Glaser



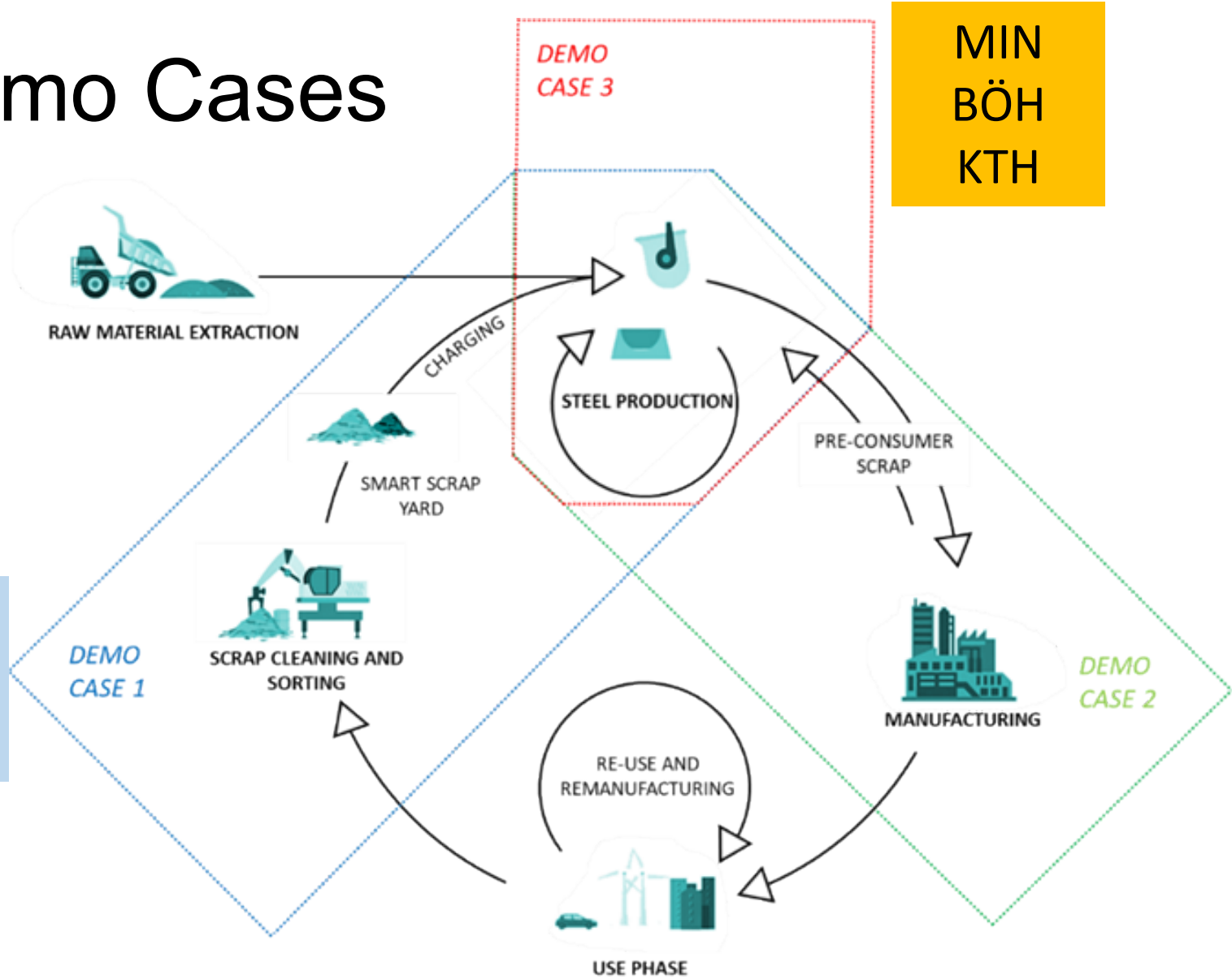


Demo Cases

MIN
BÖH
KTH

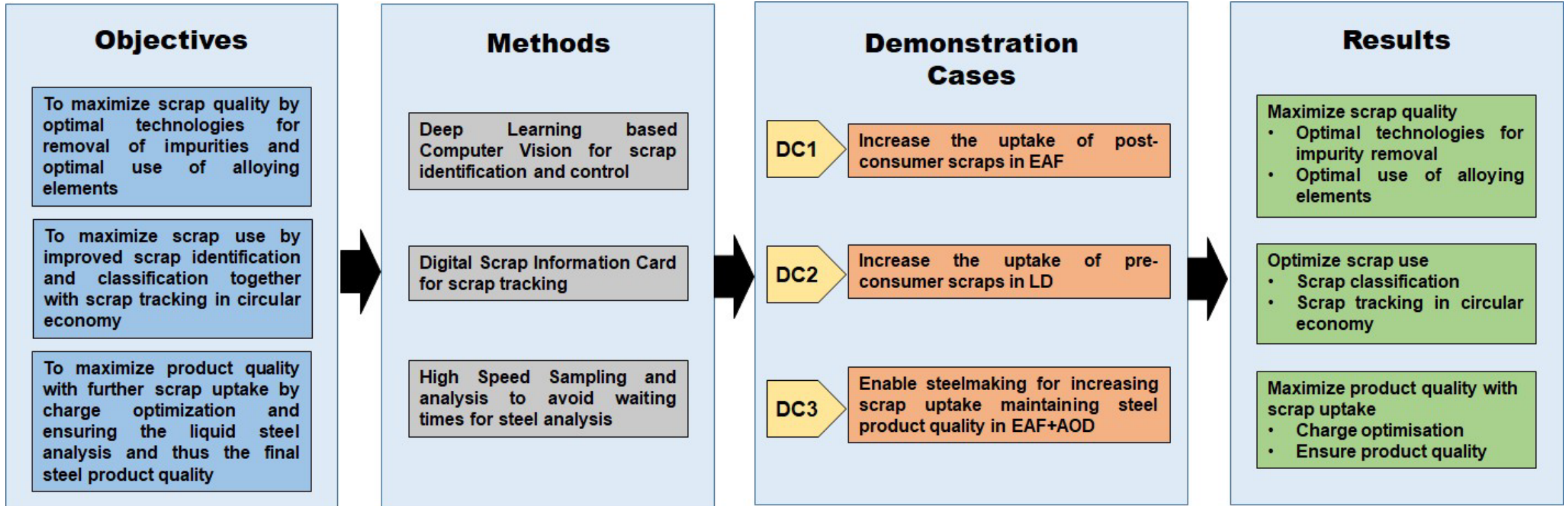
AEIF
FENO
KTH

SAG
STE



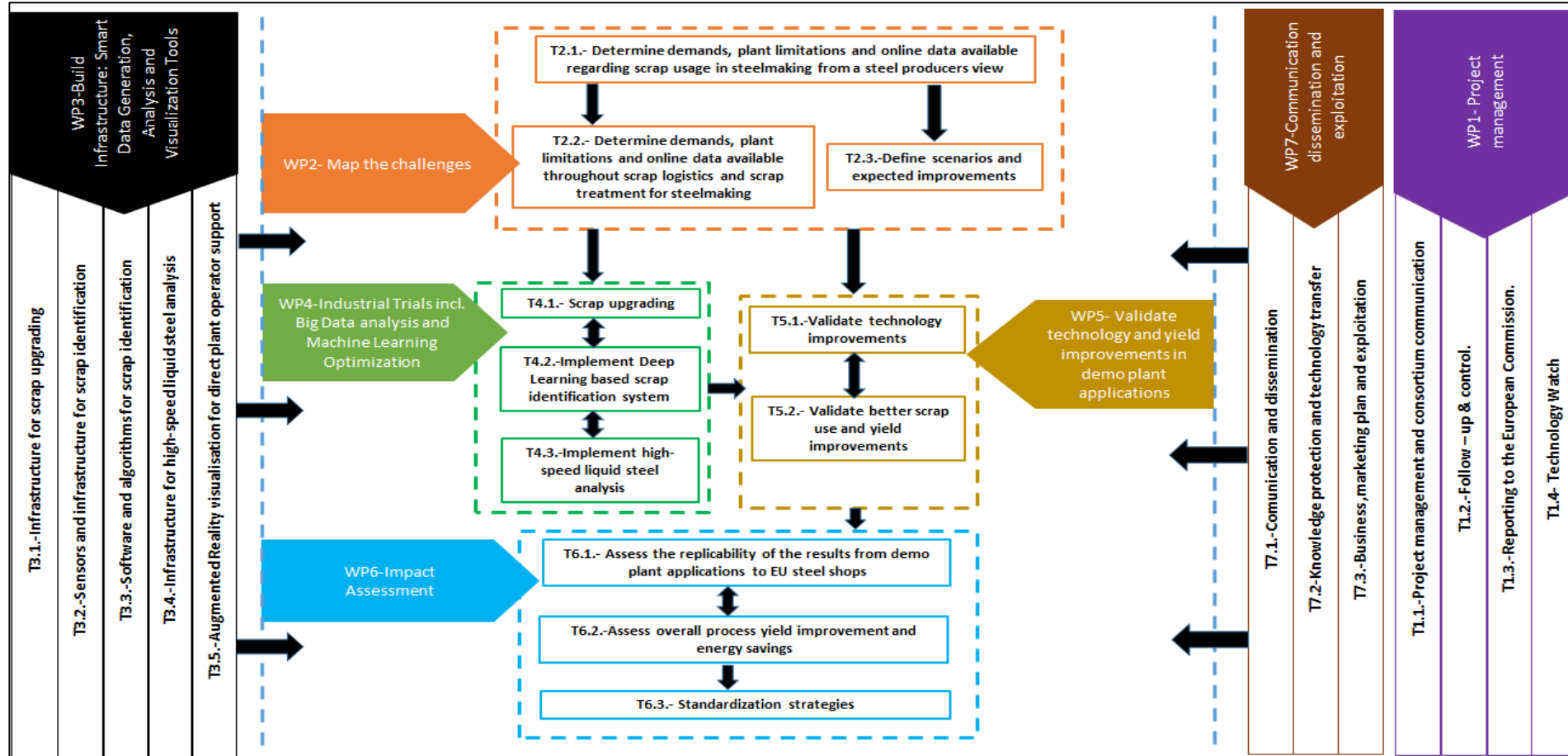


Demo Cases





WP management and schedule





Achievements up to now

Completed Deliverables Report

- D1.2 : Technology Watch report M12 (WP1)
- D2.1 : Database of suitable scrap types as process feedstock (WP2)
- D2.2 : Report on defined Scenarios and Improvements (WP2)
- D3.1 : Report on the implementation of the infrastructure at demo plant (WP3)
- D3.3 : Software and algorithms for scrap identification developed (WP3)
- D7.1 : Plan for Communication, Dissemination and Exploration activities - M6 (WP7)
- D7.5 : Data Management Plan - M6 (WP7)

Achieved Milestones

- M1 : Scenarios defined (WP2)
- M2 : Infrastructure prepared (WP3)



Webpage

<https://www.hiyield.proj.kth.se/>

HIYIELD project



Home | About the project | Research updates | News and events | Contact



Methods and technologies for circular steel making

HIYIELD stands for "Highly efficient technologies for intresed yields in steelmaking processes and reduced environmental impact"

About the project

What is HIYIELD?

The project HIYIELD aims to promote a circular economy by progressively increasing the scrap uptake in three scenarios representing the current European steelmaking routes.

With the ambition to deliver relevant solutions to all steelmakers, the project consortium will work to achieve three main objectives:

1. To maximize scrap quality by optimal technologies for removal of impurities and optimal use of alloying elements.
2. To maximize scrap use by improved scrap identification and classification together with scrap tracking in the circular economy.
3. To maximize product quality with further scrap uptake by charge optimization and ensuring the liquid steel analysis and thus the final steel product quality.

[More project deliveries](#)

Our method

We will apply highly innovative methods and technologies to the steel sector such as:

1. Deep Learning based Computer Vision for scrap identification and control
2. Digital Scrap Information Card for scrap tracking
3. Direct Sample analysis



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KTH Materialvetenskap

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Proposal preparation – Steps/ Hints



1) *Proposal Call*

- a) Looking for a suitable call for an existing project idea
- b) Developing a good project idea for an upcoming call

2) *Identification of consortium partners*

- a) Well distributed within Europe (at least 3 European countries involved) – countries outside from Europe can be involved
- b) Good balance between industry and R&D partners
- c) Funding rate e.g. RIA = 100% for all partners, IA = approx. 60% for industrial partners
- d) How many partners shall be in the consortium?'
- e) Contribution of each partner in the project?
- f) Make partners stay in the proposal!!!
- g) Good distribution max 1/3 new partners with no experience in EU projects and proposals

3) *Proposal/Project coordination*

- a) Who is coordinating?
- b) Who has the resources/ capabilities – large consortium, small consortium?

Proposal preparation – Steps/ Hints



4) *Proposal writing supporting company*

- a) Identification of a good/ recommended company
- b) How much shall this company be involved – only supporting with writing or full coordination of the proposal
- c) Proposal partner or only preparation support?
- d) Costs!!!

5) *Proposal preparation*

- a) All depends on the coordinator – main work load/contribution
- b) Industrial partners have very limited capabilities to contribute – so limit down your contribution expectations
- c) Try to distribute the work load between the R&D partners
- d) TRL levels?
- e) Define Use cases (RIA) or Demo cases (IA)

6) *Other issues to be aware of*

- a) Project start approx. one year after proposal submission
- b) Project duration time