



73rd World Foundry Congress "Creative Foundry"

23rd–27th September 2018 Kraków, POLAND

SINFONET – Smart & INnovative FOundry NETwork

Prof. F. Bonollo, Università di Padova



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Partnership

SINFONET (*Smart and INovative FOundry NETwork*) is the **Innovative Network for the Foundry**, officially acknowledged by Regione Veneto (L.R. 13/2014). **SINFONET** is aimed at developing the “**smart foundry of the future**”, where innovation and integration generate **education, jobs, competitiveness**. **SINFONET** collects about **50 partners** with more than 4500 employees in Regione Veneto, and an overall turnover higher than 1.5 billion of €.



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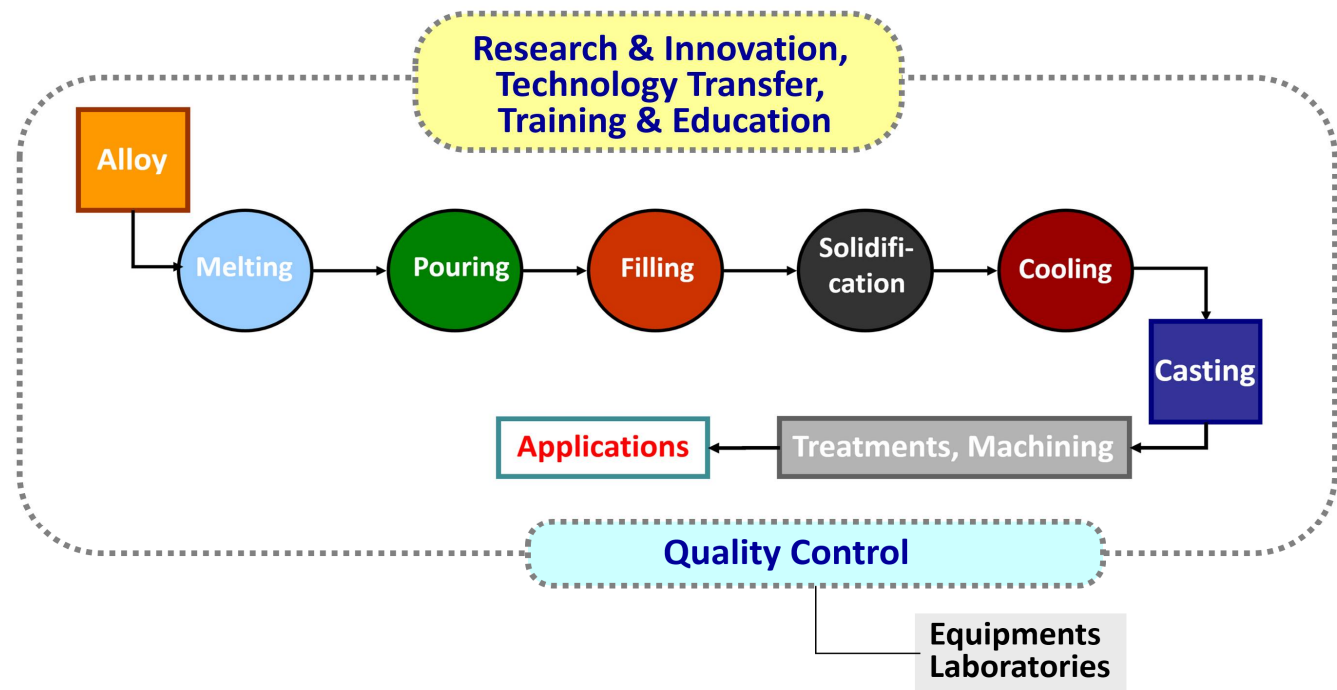
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Targets & Goals

SINFONET is targeted at

- ⇒ **Designing, carrying out, coordinating** a wide system of initiatives addressed to Foundry (ferrous and non-ferrous alloys) and Metalworking Companies,
- ⇒ **Building** in Regione Veneto an **Excellence Centre**, collecting all the players in the supply chain: foundries, producers of raw materials and consumables, suppliers of engineering, services, technology, equipments, Research & Innovation Institutions, end-users.



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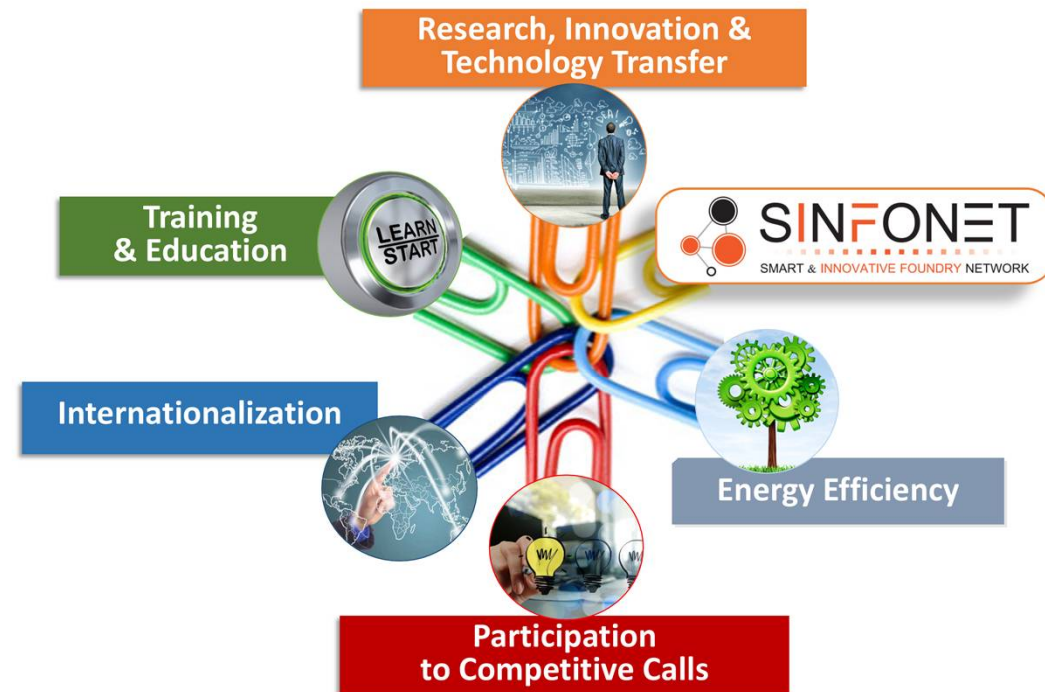


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Vision

SINFONET promotes multi-disciplinarity and integration, developing methods, products, procedure to support competitiveness, based on

- **Research, development, innovation and technology transfer** (materials and processes, control systems, product and process standards, integrated design, energy and environmental management),
- **Integration** among foundries, suppliers (services, materials, technologies) and other metal-working companies,
- **Education and qualification of human resources**,
- **Participation to Competitive Calls for funding**,
- **Scouting of new markets and internationalization.**

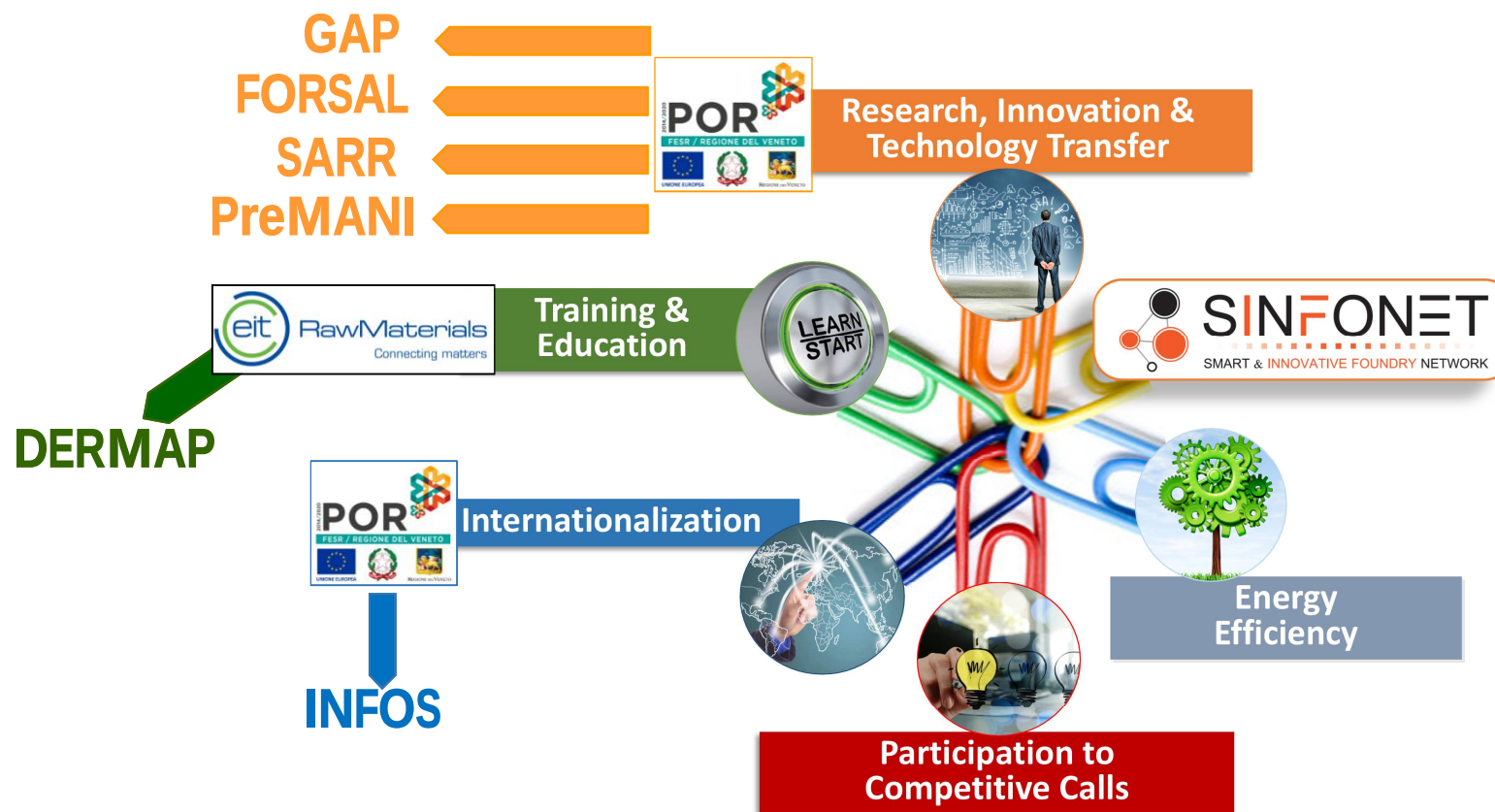


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Projects



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Project: GAP



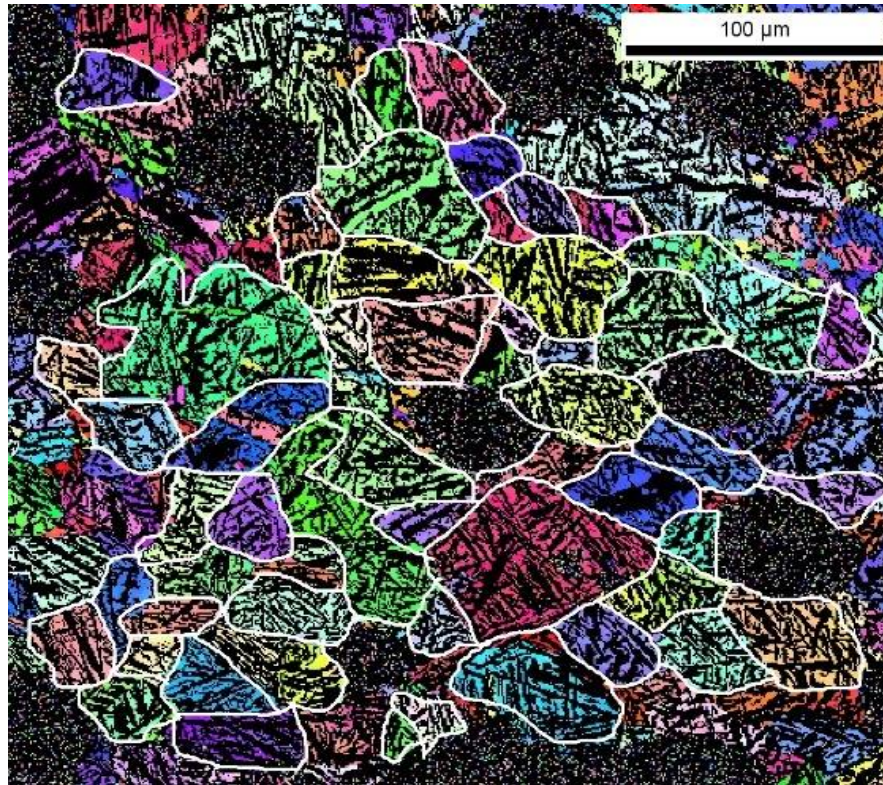
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Project: GAP

ADI optimisation
in view of
innovative
applications



25th September

MATERIALS
4s/Scientific Session

8.50 – 10.50

9.30

The influence of wall thickness on the fatigue limit of V-notched bars made of as-cast or heat treated ductile iron

S. Masaggia, Zanardi Fonderie S.p.A., Italy

10.10

Microstructure quality assessment of isothermed ductile irons through tensile tests

F. Zanardi, Zanardi Fonderie S.p.A., Italy

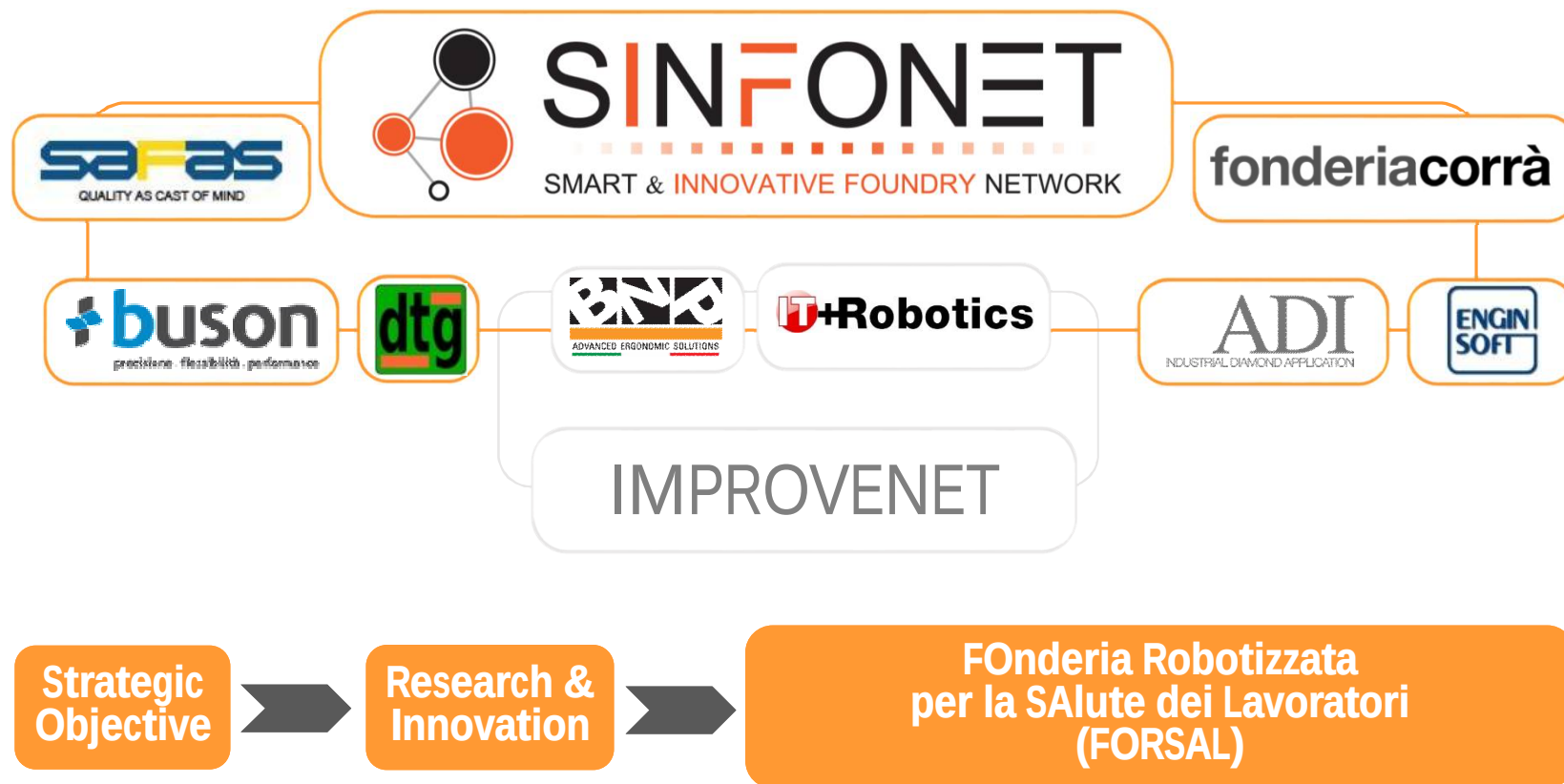


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Project: FORSAL



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Project: PreMANI

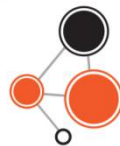
IMPROVENET



fonderiacorrà



Zanardi
Fonderie



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25th September

TECHNOLOGY +
DIGITALIZATION
6s/Scientific Session

14.30 – 15.50

14.50

Digital transformation to Foundry 4.0

N. Gramegna, EnginSoft S.p.A., Manufacturing Business
Unit, Italy

Strategic
Objective

Research &
Innovation

Manifattura Predittiva: progettazione,
sviluppo e implementazione di
soluzioni di Digital Manufacturing per
la previsione della Qualità e la
Manutenzione Intelligente (PreMANI)



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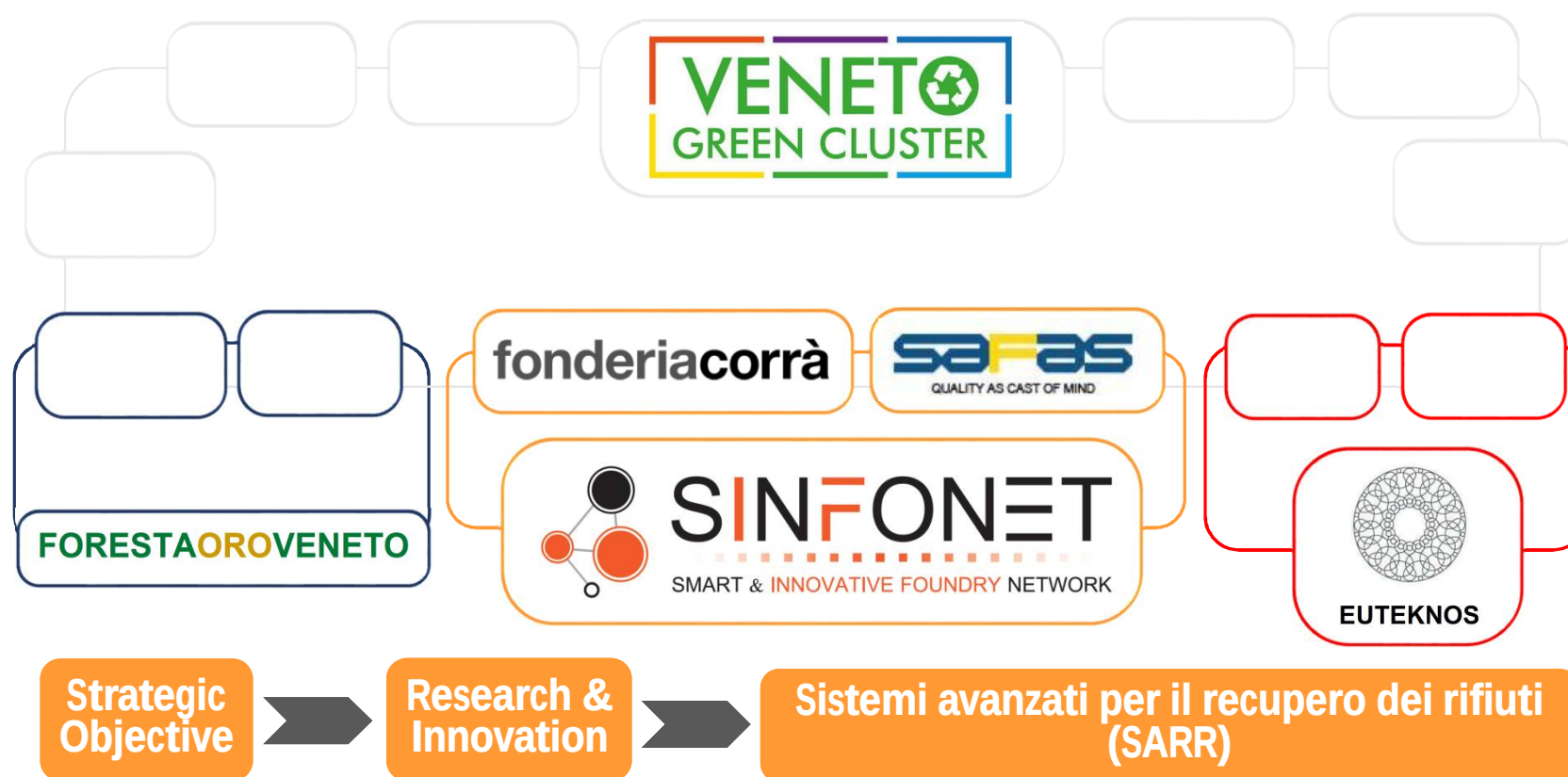


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Project: SARR



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Project: INFOS



Strategic
Objective

Internationalization

Internationalisation of Veneto
Foundry by networked
Strategies (INFOS)



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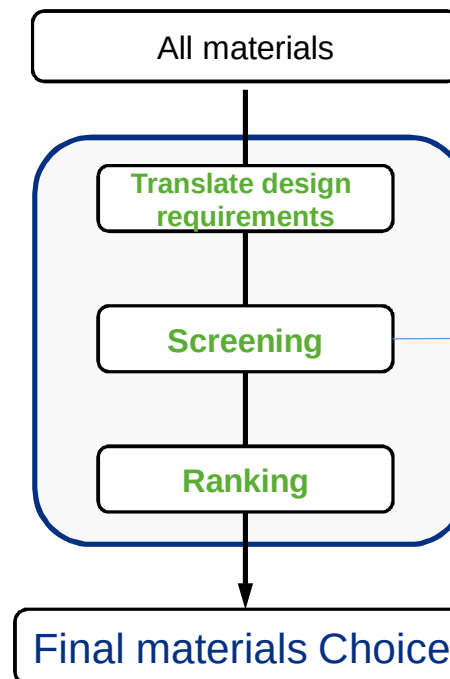
Project: DERMAP

Design of components in a critical Raw Materials Perspective

DERMAP is an in-field training program, aimed at leading industrial designers towards a more responsible materials selection process, taking into account criticality issues of Raw Materials.

Education project...

Material Selection Process (MSP)

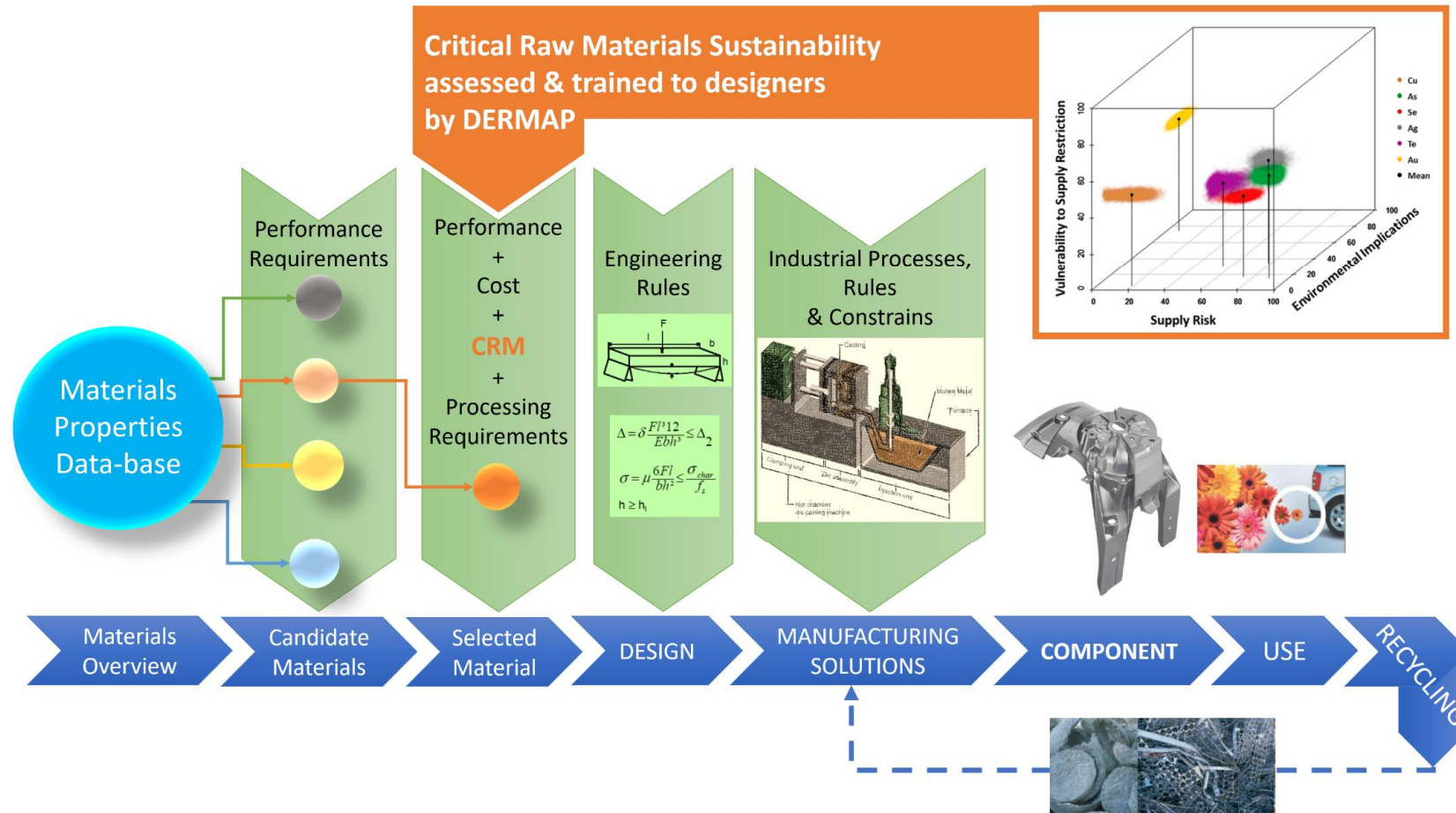


The current generation of designers and engineers doesn't take into account in MSP aspects related to supply risks of Raw Materials, environmental implications and vulnerability to supply restriction.

Still lacking constraints: supply risk, vulnerability to supply restriction, environmental implication

CRM perspective

Project: DERMAP



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RETE INNOVATIVA REGIONALE SULLA FONDERIA

45 Enti ed Imprese per un polo di eccellenza nel Veneto

[LEGGI](#)

Ricerca e Innovazione

SINFONET si occupa di Ricerca, Innovazione & Trasferimento Tecnologico applicate alla Fonderia, e finalizzate al pieno controllo dei processi, alla garanzia di alta qualità dei prodotti e dei servizi, all'introduzione di criteri innovativi di design e progettazione, ad un utilizzo ottimizzato delle materie prime.

Formazione

SINFONET intende valorizzare il capitale umano delle aziende coinvolte nell'intera filiera della fonderia, mediante azioni mirate ad implementare le competenze, potenziare il know how del personale, creare nuove professionalità.

Internazionalizzazione

SINFONET vuole favorire i processi di integrazione nei mercati internazionali, promuovere la collaborazione economica, commerciale, industriale e finanziaria, implementare il processo di espansione sui mercati esteri delle Aziende aderenti alla Rete.

Digitalizzazione

SINFONET ha l'obiettivo di favorire lo sviluppo di fonderie "gestite digitalmente", in cui i processi e la qualità siano continuamente monitorati e controllati mediante la sensoristica avanzata e l'applicazione integrata di modelli numerici e sistemi cognitivi.

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La Rete Innovativa Regionale sulla FONDERIA

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Contacts

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