



REGIONE DEL VENETO



InnovatiVE
SMART SPECIALISATION STRATEGY
VENETO

Regione del Veneto

presenta

InnovatiVE

Dialoghi per l'innovazione • 1
la parola alla ricerca



📍 Villa Contarini – 19 giugno 2023

Franco Bonollo – Università di Padova

Complessità dei problemi e delle risposte



Type
of Problem

Knowledge &
Competencies

Curriculum
Structure

Teching & Learning
Methods

OBVIOUS
Known Problem
Known Solution
e.g.: Statics

Disciplines

Subject,
Courses

Lecture, active
learning, flipped
classrooms

COMPLICATED
Known Problem
Unknown
Solution
*e.g.: Zero
Carbon House*

Multi-Disciplinary

Collaboration
among several
disciplines

Academic problem-
based projects
across disciplines



Complessità dei problemi e delle risposte



Type
of Problem

COMPLEX
Known Problem
Unknown
Solution
*e.g.: Energy Zero
Buildings in
Energy Zero
Cities, Bio-
technologies,
sustainability*

Knowledge &
Competencies

Inter-Disciplinary

Curriculum
Structure

Re-organization
of Curricula,
Development of
new, student-
centered and
blended learning
models

Teching & Learning
Methods

Complex
problems
analyses and
problem-based
projects across
disciplines and
together with
stakeholders;
Mega-projects



Esperienza #1 – EIT Raw Materials

2014



RAW MATERIALS SUMMIT

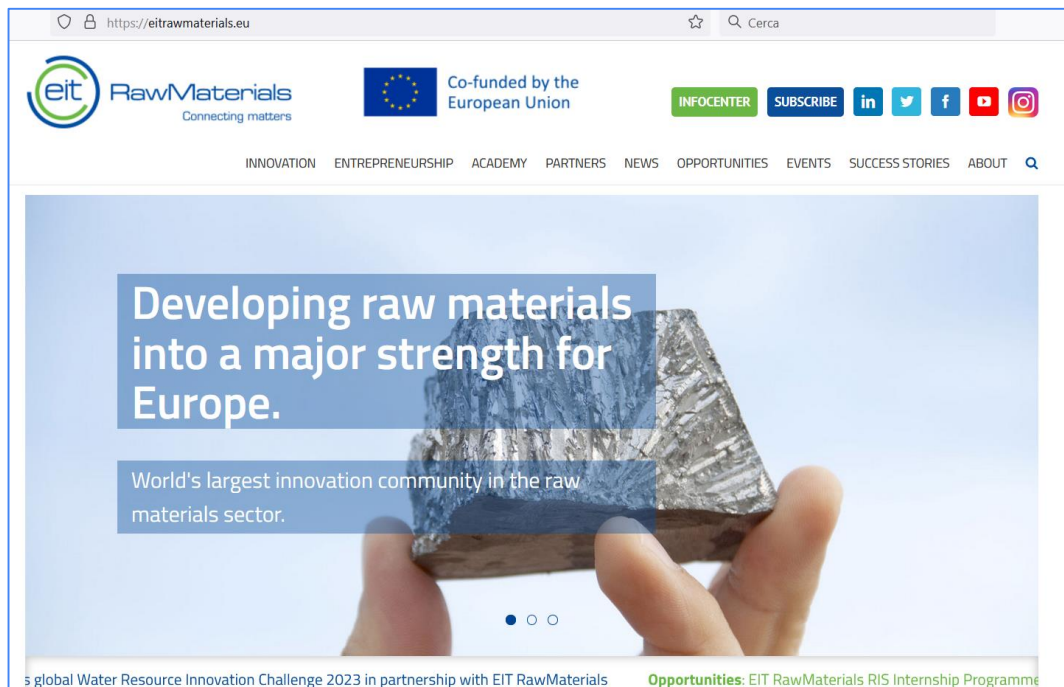
ABOUT PROGRAMME INNOVATION VILLAGE SPONSORSHIP REGISTER HERE

Co-funded by the European Union

SUBSCRIBE TO OUR NEWSLETTER

15-17 May 2023, Brussels, The Egg Conference Venue

The banner features a background image of a rugged, mountainous landscape with a winding river or road, overlaid with a network of white lines connecting various points, symbolizing innovation and connectivity.



https://eitrawmaterials.eu

Cerca

eit RawMaterials
Connecting matters

Co-funded by the European Union

INFOCENTER SUBSCRIBE in twitter f youtube instagram

INNOVATION ENTREPRENEURSHIP ACADEMY PARTNERS NEWS OPPORTUNITIES EVENTS SUCCESS STORIES ABOUT

Developing raw materials into a major strength for Europe.

World's largest innovation community in the raw materials sector.

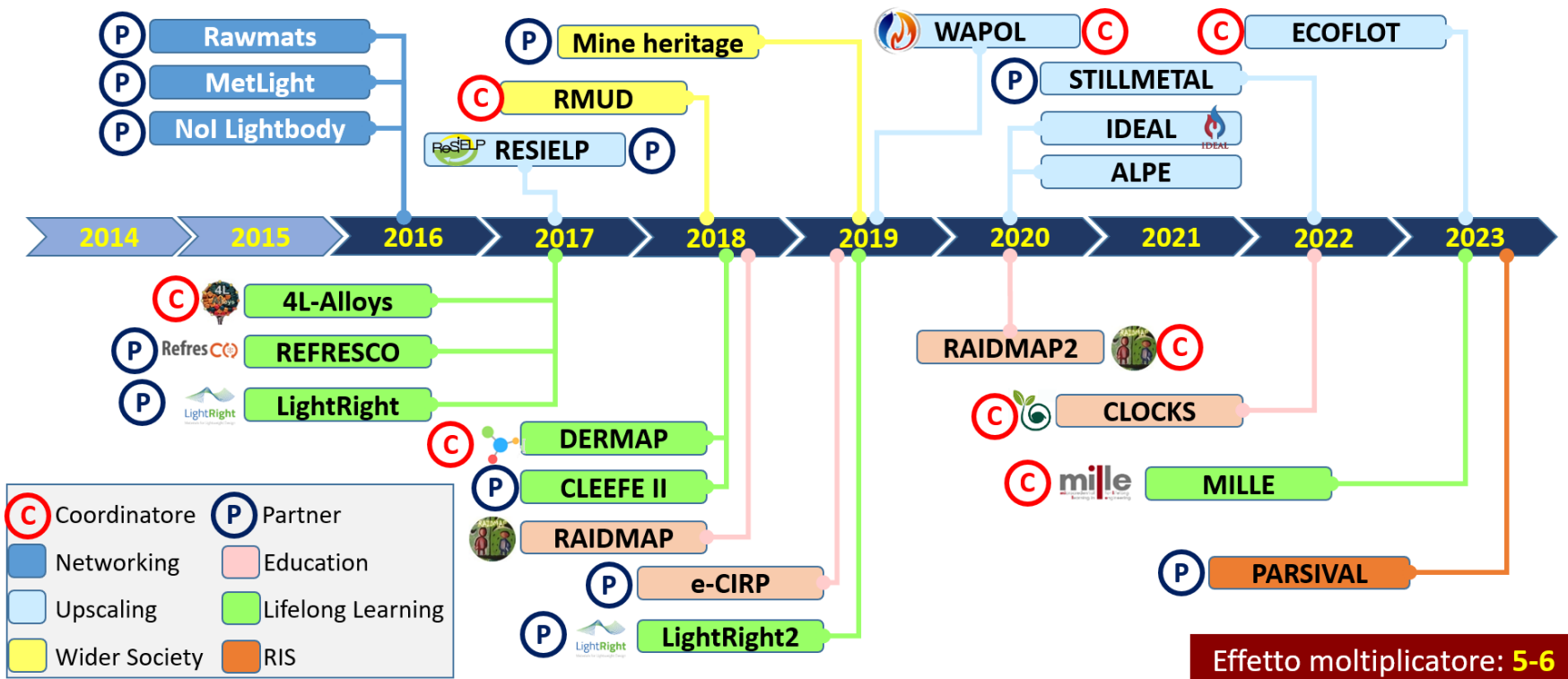
global Water Resource Innovation Challenge 2023 in partnership with EIT RawMaterials **Opportunities:** EIT RawMaterials RIS Internship Programme

The screenshot shows the EIT Raw Materials website. The main header includes the EIT Raw Materials logo, the European Union flag, and navigation links for 'INFOCENTER' and 'SUBSCRIBE'. Below the header is a navigation menu with categories like 'INNOVATION', 'ENTREPRENEURSHIP', 'ACADEMY', 'PARTNERS', 'NEWS', 'OPPORTUNITIES', 'EVENTS', 'SUCCESS STORIES', and 'ABOUT'. The main content area features a large blue banner with a hand holding a piece of raw material. The banner text reads 'Developing raw materials into a major strength for Europe.' and 'World's largest innovation community in the raw materials sector.' At the bottom of the banner, there are three small circles, with the first one filled. Below the banner, there is a footer with text: 'global Water Resource Innovation Challenge 2023 in partnership with EIT RawMaterials' and 'Opportunities: EIT RawMaterials RIS Internship Programme'.



Esperienza #1 – EIT Raw Materials

2014



Effetto moltiplicatore: 5-6

Esperienza #1 – EIT Raw Materials

2014



9-Tech è una start-up composta da un team di ingegneri e ricercatori che studia e prototipa **nuove soluzioni per recuperare materiali strategici dai rifiuti elettronici.**

La missione di 9-tech è garantire un **upcycling** dei rifiuti, ovvero la **valorizzazione dei materiali critici** in essi contenuti. Tra le tecnologie allo studio, quella a maggior grado di sviluppo riguarda il **riciclo dei rifiuti fotovoltaici.**

Nel caso in cui l'industrializzazione della tecnologia abbia esito positivo e grazie ai propri partner industriali (**Depuracque**), 9-Tech curerà la vendita in Italia e in Europa di impianti di **riciclo di pannelli fotovoltaici** che consentiranno di **recuperare più materiali** e con **maggiore purezza** rispetto alle soluzioni esistenti.

9-Tech lavora anche in altri progetti di ricerca nell'ambito dell'**economia circolare** e dell'ESG (Environmental - Social - Governance) supportando la progettazione e la costruzione di **prototipi.**



A screenshot of the Circular Materials website. The header features the 'CIRCULAR MATERIALS' logo on the left and a navigation menu with the following items: 'La nostra azienda', 'Benefici per l'Industria', 'Prova l'impianto', 'Impianto', 'Articoli', and 'Contattaci'. The main content area is dark with a grid pattern. On the left, the headline reads 'LAVORIAMO PER UN FUTURO CIRCOLARE' in white and blue text, followed by the sub-headline 'Circular Materials recupera e ricicla i metalli originati da acque reflue industriali.' On the right, the sub-headline reads 'Un approccio circolare' followed by the text 'Circular Materials studia, progetta, brevetta e costruisce soluzioni uniche capaci di trasformare il mercato del trattamento delle acque industriali, che è in continua ricerca di innovazione.' A colorful, abstract graphic consisting of several horizontal bars in shades of blue, green, and yellow is located in the bottom right corner of the page.

Esperienza #2 – SINFONET

2016

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 €.



Esperienza #2 – SINFONET

2016



Training & Education



Internationalization



Energy Efficiency

INFOS
INFOS2

Participation to Competitive Calls



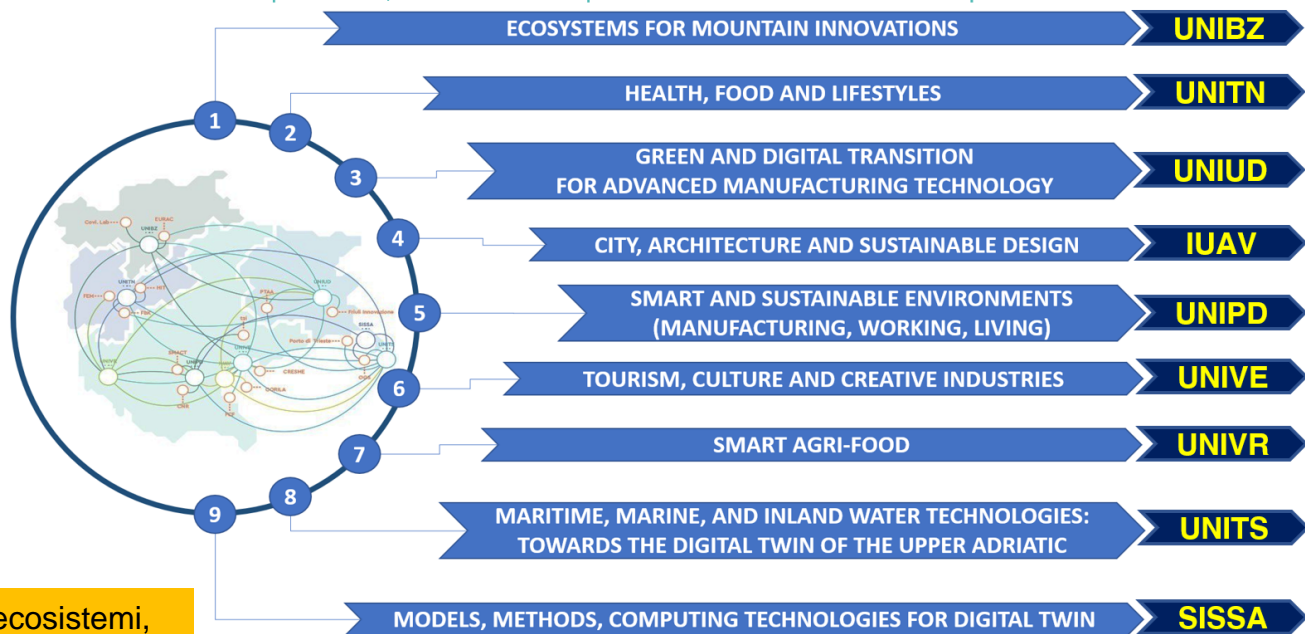
Esperienza #3 – Ecosistema iNEST

2022

Ecosistema

- Rete di università, EPR, enti pubblici territoriali, altri soggetti pubblici e privati altamente qualificati e internazionalmente riconosciuti
- Organizzati in forma consortile
- Interazione continua per stimolare la creazione e la promozione dell'innovazione e della sostenibilità per un'area/uno territorio di riferimento
- Innovazione sulle specifiche aree di specializzazione del territorio.

iNEST: 9 Spokes, with 36 specific Research Topics



iNEST è l'intecconnessione di più ecosistemi, ognuno dei quali associato ad uno Spoke, che agiscono in simbiosi e sinergia



Esperienza #3 – Ecosistema iNEST

2022

iNEST: Attività Cross-cutting

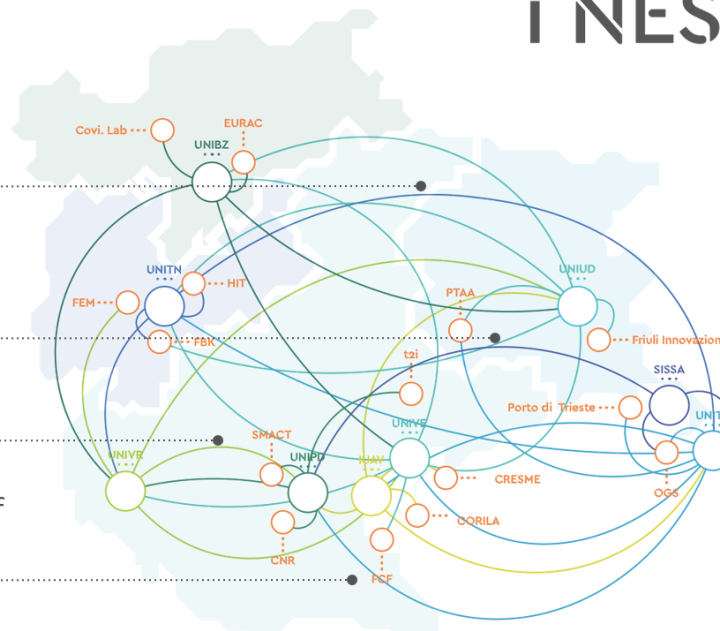
Education, from ITS to Lifelong Learning

Creation of a network of joint strategic labs between universities and companies

Citizen engagement initiatives

Support to the generation and the development of start-ups and spin-offs

iNEST



Esperienza #3 – Ecosistema iNEST

2022

iNEST: Attività & Cronoprogramma

iNEST

2022

2023

2024

2025

2026

Research & Innovation

9 Spokes
36 Research Topics
> 400 Researchers

Recruiting

88 Researchers
8 Research Technologists
70 PhD
100 Research Grants

2 Calls of Cascade Funding

Projects (12-24 months) focussed on Research Topics

Cross-Cutting Activities

Acceleration (Spin off)
Lab Villages
Citizen Engagement
Education & Lifelong Learning

Young Researchers

3 Calls for funding young researchers' project ideas on Research Topics

HUB
Organization & Management



Considerazioni

- Volontà di costruire per continuare lo sviluppo del Territorio
- Strategia di collaborazione e di rete
- Valorizzare le sinergie tra Istituzioni Territoriali, Ricerca e Formazione, Mondo Associativo e Imprenditoriale
- Progettare insieme percorsi e strategie di innovazione
- Multi-, Inter- e Trans-disciplinarietà
- **Networked Growth = InnovatiVE**



GRAZIE PER L'ATTENZIONE!



Franco Bonollo

Università di Padova



Siti web:

<https://eitrawmaterials.eu/>

www.retesinfonet.org

www.consorzioinest.it



franco.bonollo@unipd.it



0444 998743



REGIONE DEL VENETO



InnovatiVE
SMART SPECIALISATION STRATEGY
VENETO



WWW.INNOVENETO.ORG

