

Raw Matters Ambassadors at Schools

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To face the challenges linked to Sustainability

- It is necessary
- a better understanding of science and technology
 - to better equip future actors with the necessary knowledge
 - to enhance the educational process

Key Role of Schools



Raw MatTERS Ambassadors at Schools*

an innovative program to make European challenges and science education attractive for youngsters, involving RM experts and teachers (RM Ambassadors).



<http://rmschools.eu>

RM@Schools is the Flagship Program in the Wider Society Learning segment of EIT RawMaterials

*In our name, "Raw MatTERS", our message resonates:
raw materials are our key focus-Tackling European Resources Sustainably -TERS



RM@Schools Network

27 PARTNERS

18 Countries

120 Schools

30 Companies

**26 Universities and
Research Institutes**

a large range of actions towards society in order to promote sustainability and circular economy strategies, and to raise awareness of the importance of raw materials



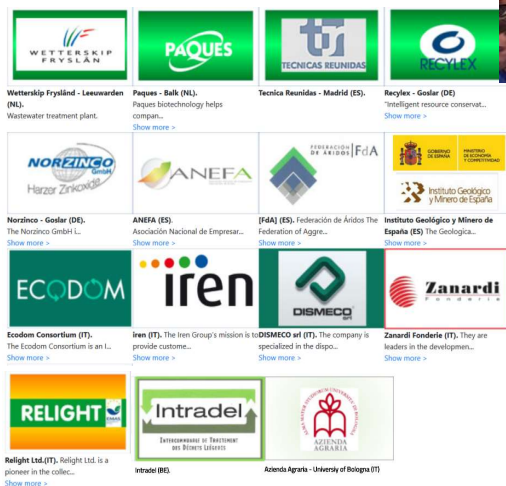
2021	18 Countries	5000 Students	52 Public Events	12.600 Generic public	180 Trained Teachers
2016	6 Countries	600 Students	1 Event	500 Generic public	

Although
the
pandemy...

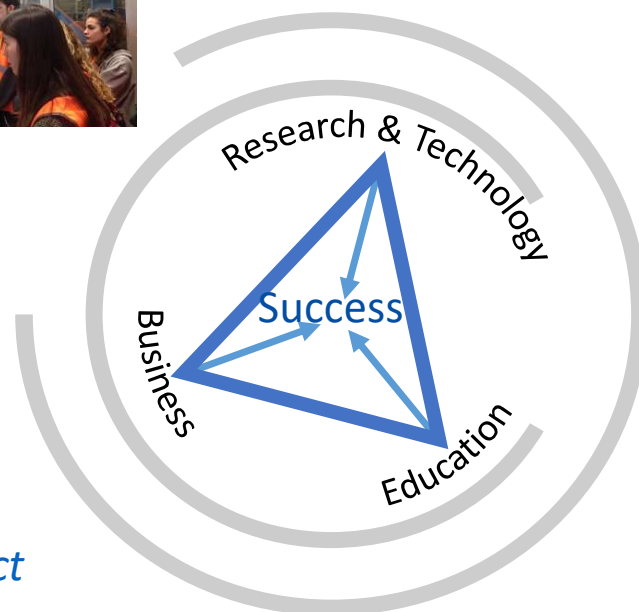
European Consortium:



Core process of RM@Schools



30 SMEs take part to the project



CREATION of Local Networks:
 Research Institutes, Universities,
 Companies & Schools

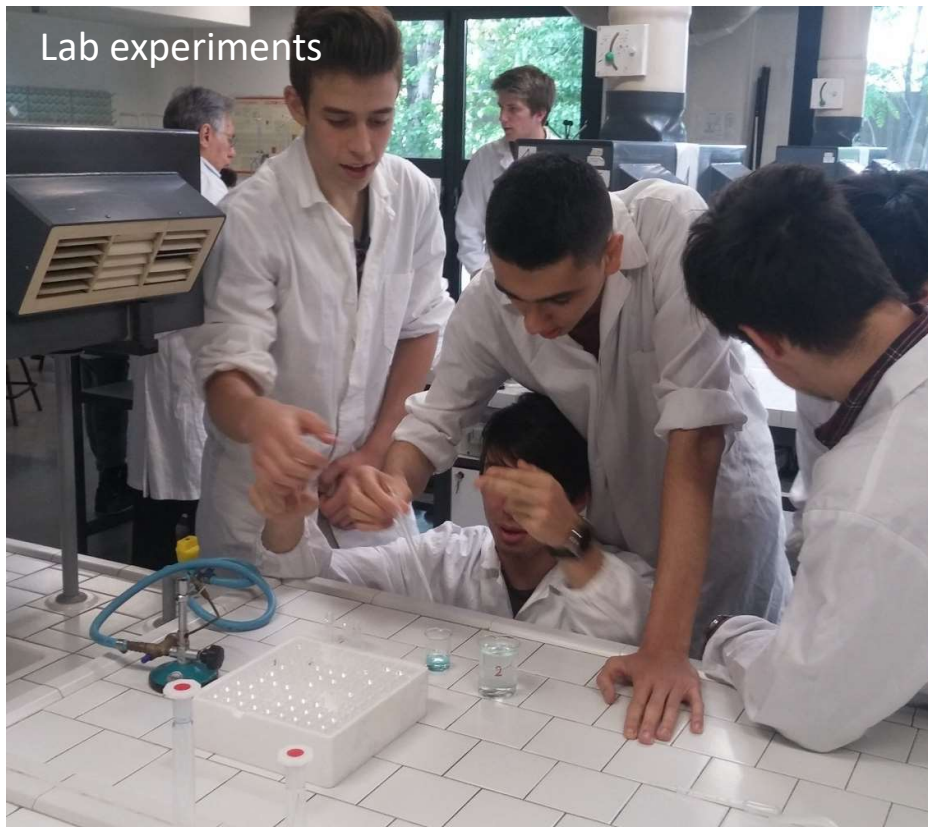
to create an environment where students
 and companies can get to know each other
 in a common learning environment

Raw Matters Ambassadors at Schools

pupils from **10** to **18** yrs

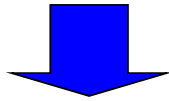
FROM Information TO Engagement

Idea: *an **active learning** to schools by **involving students in experiments** with RM-related hands-on educational kits and **in communication activities***



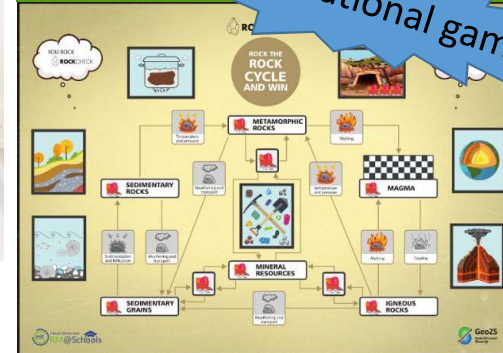
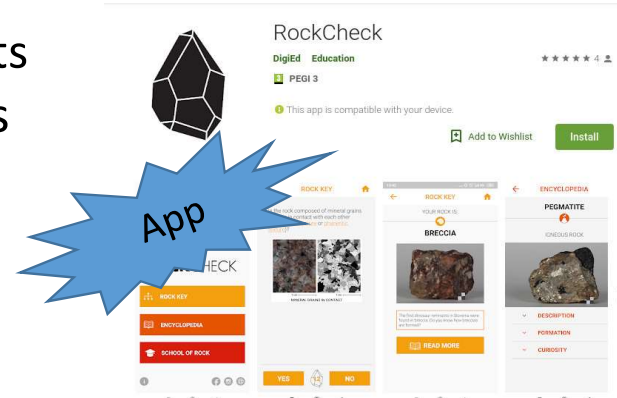
created a significant amount of content and toolkits
for schools in order to introduce at School Topics
linked to the EU Challenges

RM toolkits



Inserted in Learning Pathways

- *Exploration & Mining*
- *Recycling*
- *Substitution*
- *Circular Economy*



<https://rmschools.isof.cnr.it/moodle/>



European Challenges

Circular
Economy

Sustainable
Innovation

Critical Raw
Materials

Low carbon
economy
.....



**Official Curricula
at School**



Link the Concepts with the Current Curricula



FROM Information TO Engagement

Provide MORE ENGADGING Experiences for EVERYONE

Experimental activity

How to link Sustainability-related Concepts with the Current Curricula? i.e. Lab activities on research topics

Examples

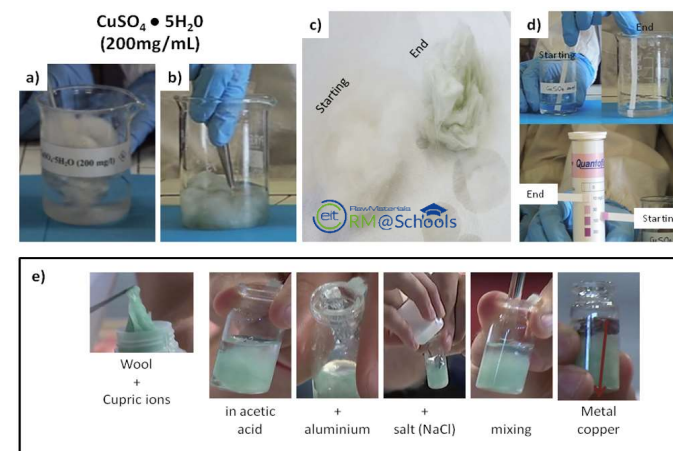
Transformation of a waste in a new resource

<https://rmschools.isof.cnr.it/moodle/course/view.php?id=19>

Renewable keratin wastes
for use in metal mining
and cleaning waters



Linked to the CNR researches



Videos on the experiments



Asynchronous Educational materials
free available

https://rmschools.isof.cnr.it/Toolkits/Circular_Economy/Keratin/K1_it.mp4

EcoCEO: It's your Business!!!

Strategy Business Game

<https://ecoceo.eu>

Gaming

Learnings:

- 1) basic principles of circular economy, such as recycling, take-back, reuse, repair, product-service systems;
- 2) Impact of linear and circular business models on the company performance;
- 3)

Eco-CEO – it's your business

(CEO, Chief Executive Officer)

Mission: to build the most successful company



RM@Schools methodology: Learning pathways

All students are introduced into some Sustainability-related topics by RM Ambassadors (experts from the Consortium & teachers)





MULTIPLIERS of KNOWLEDGE

Video

<https://www.youtube.com/watch?v=AlfxzslC1fc&t=7s>

Students become “Young RM Ambassadors”
by creating dissemination products focused on Raw Materials

<https://rmschools.isof.cnr.it/gallery.html>

Video



Students of 16 yrs become aware of raw materials used in mobiles and relate them to resources coming from around the world, thanks to their involvement in a popularization work.

Comics



Super Cell

Young students of 11-12 yrs convince people not to throw their cells away by means of a nice cartoon. Their superhero "Super Cell" helps the young Marco to convince his grandmother of the importance of the recycling action, besides pushing him to become a Raw Materials Ambassador!

Class I C Scuola Media Zanotti, Bologna (Italy)
Teacher: Loliola and Lippi
RM Ambassadors: Marica Canino

Facebook Page

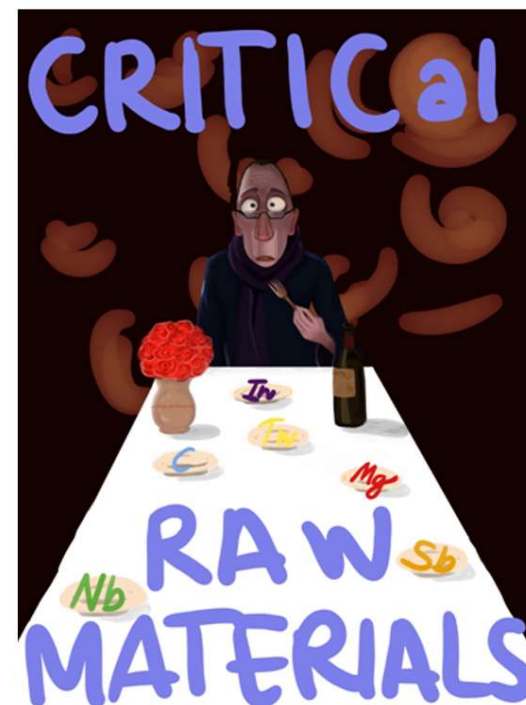


"Graphene project" on Facebook

"Graphene Project is part of RM@School European project in collaboration with C.N.R. We are students involved in science and in safeguarding the planet, our objective is to create a disclosed product to explain everybody the brilliant properties of graphene, in a simple and efficient way, using videos and interactive posts."

Class 3 C Liceo Scientifico "N. Copernico", Bologna (Italy)
Teachers: Patrizia Zambonelli and Annachiara Tognetti
RM Ambassadors: Simone Dell'Elce and Alberto Zanelli

School Magazine



Website

Experiments



What is it?
This is a magazine created by class 3A from Liceo Copernico di Bologna.

History of Graphene
p. 3
Applications p. 6-7
And there is a lot

International sharing

European RM@Schools Conference

Research Area of CNR, Bologna (IT)

Video

<https://www.youtube.com/watch?v=jV0oG8RGvzQ&t=2s>

- *ENGAGE/EMPOWER TEACHERS - key point of RM@Schools*

Workshops for teachers

830 trained teachers in 3 years

First International Teachers' Workshop

Berlin March 6th-7th 2019



25 participants from
Belgium, Italy, Austria,
Estonia, Germany



<https://www.youtube.com/watch?v=mplafyOpRRc&t=8s>

THANK
YOU

<https://rmschools.isof.cnr.it/>



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The EIT is a body of the European Union



RawMaterials
Connecting matters



National Research Council of Italy

