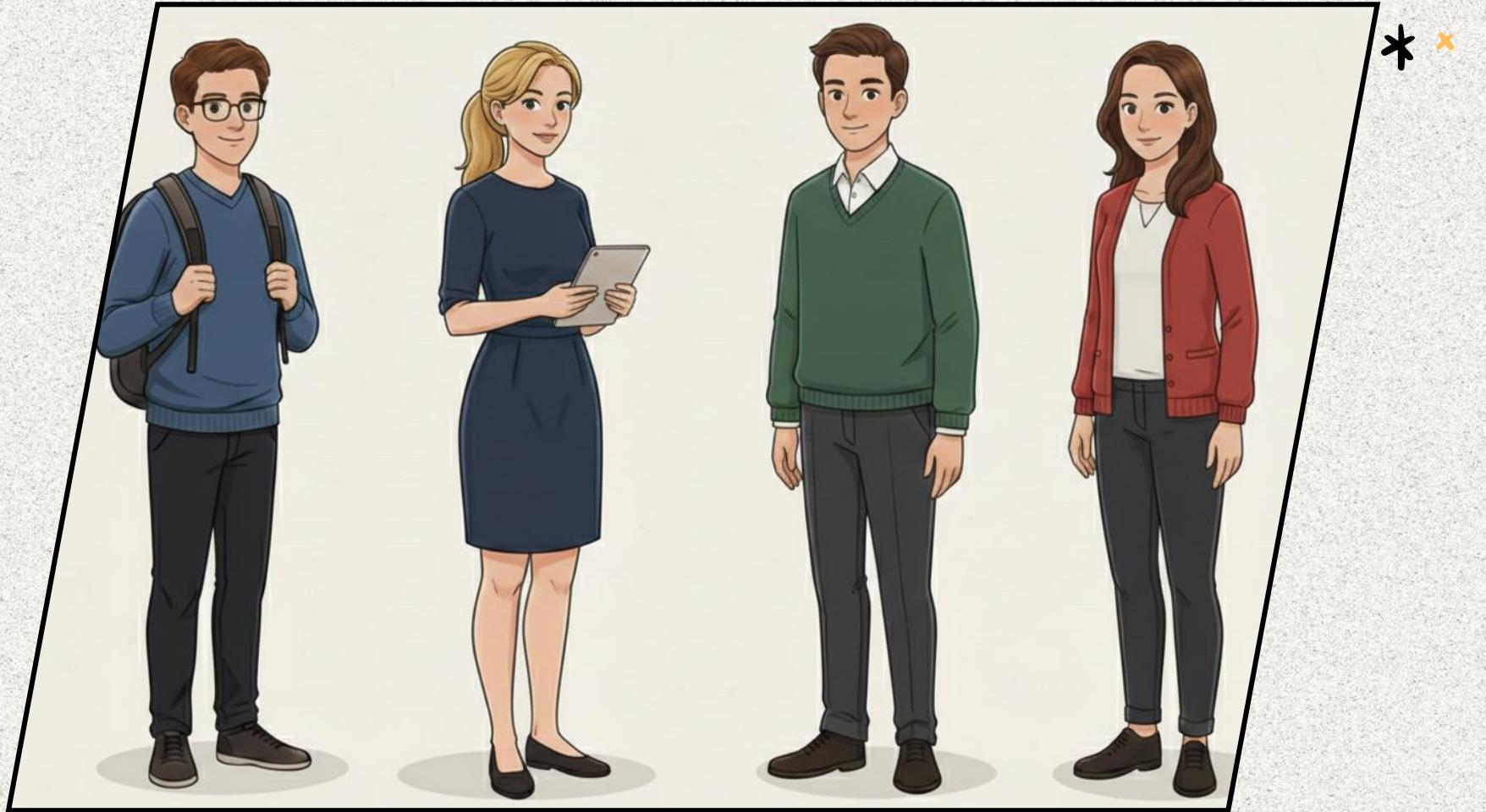




SUPPORTING SKILLS DEVELOPMENT BY MEANS OF AN INCLUSIVE MENTORING TRAJECTORY

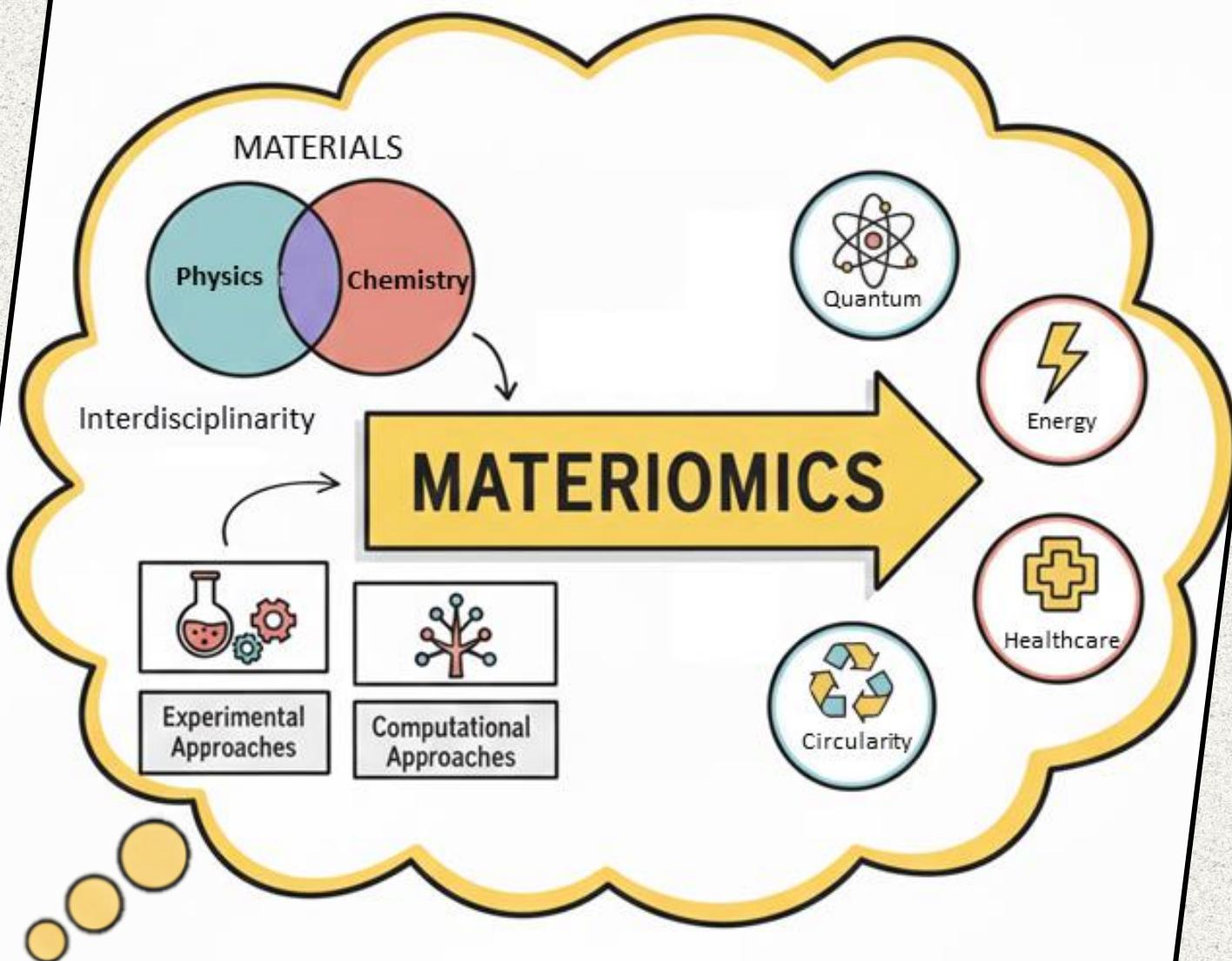
Presented by: **Dorien Baeten,
Sarah Doumen, Olesya Usenko, An Hardy**

<https://www.uhasselt.be/materiomics>



This story features from left to right: a first-year master's student in materomics, a member of the educational support staff, and two professors teaching in the master in materomics.

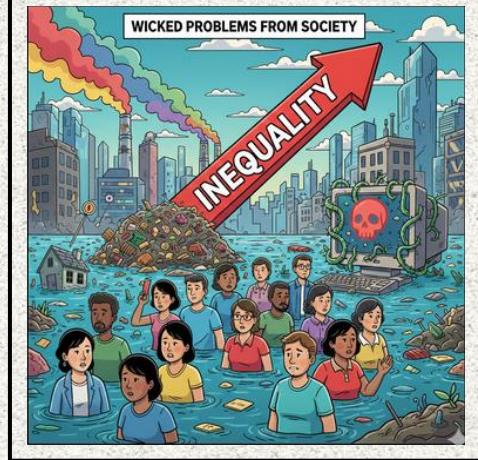
WHAT IS MATERIOMICS?



HOW IT ALL BEGAN



AUTUMN 2020: CORONA PERIOD



Transdisciplinary



Interdisciplinary



Multidisciplinary



Monodisciplinary

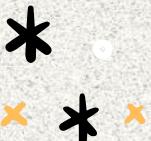


Level of integration

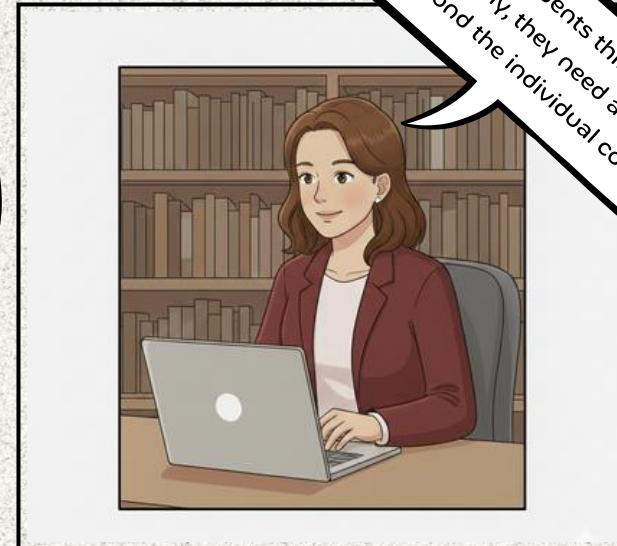
To tackle grand challenges,
students must develop
interdisciplinary competencies



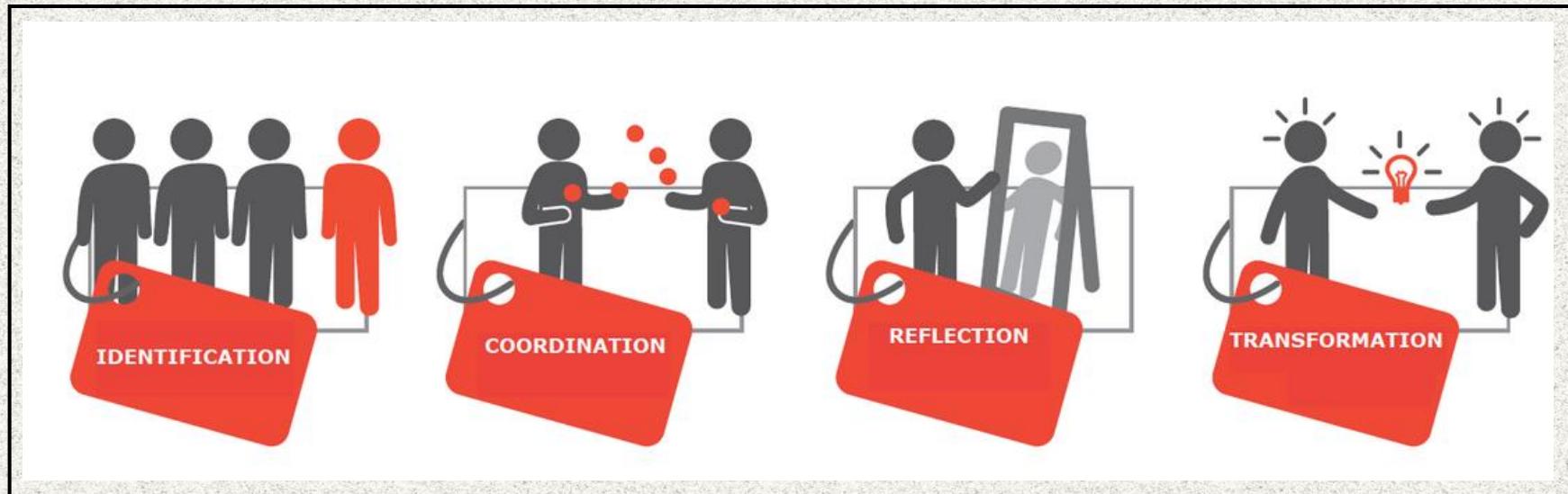
HOW IT ALL BEGAN



Students need to grow in their interdisciplinary competencies, integrating this learning path into the curriculum can help with this.



To make students think truly interdisciplinarily, they need a guide who looks beyond the individual courses



CHARACTERISTICS OF THE MATERIOMICS MENTOR TRAJECTORY

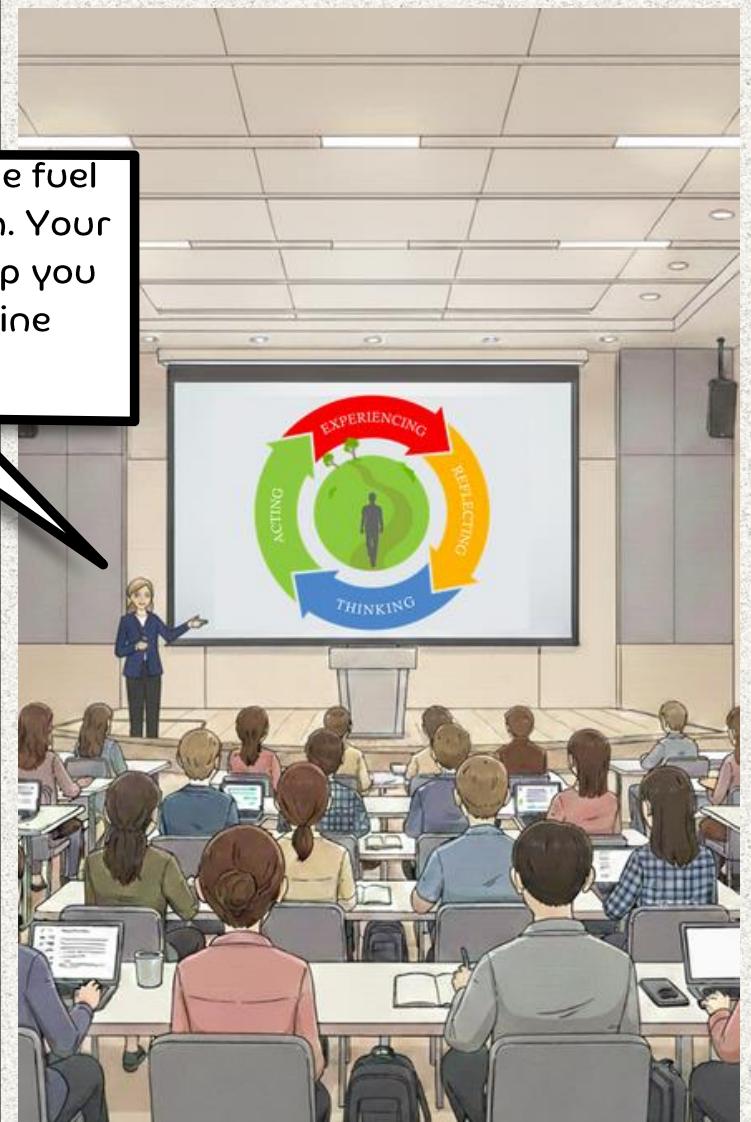
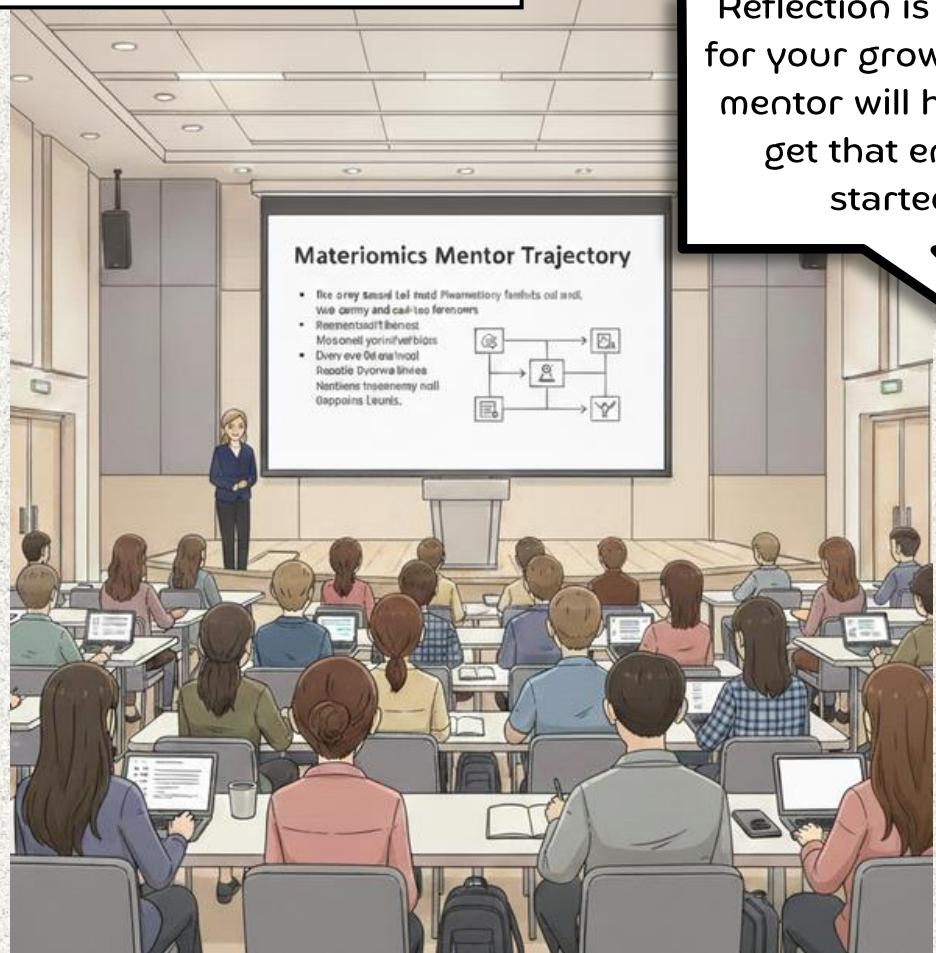


- Goal:
 - track competency development
 - guidance in composing 2nd year study trajectory
 - informal feedback channel
- Each student is paired with a faculty mentor
- At least 5 mentor meeting during master program
- Growth-portfolio
- Pass/Fail

INFORMING THE STUDENTS*

ONCE UPON A DAY IN THE
FIRST SEMESTER OF THE
FIRST MASTER YEAR
MATERIOMICS

Reflection is the fuel
for your growth. Your
mentor will help you
get that engine
started.



INFORMING THE STUDENTS* *

Growth portfolio

1. Self-reflection by means of a rubric

	Initiated	In development	As expected	Mastered
DC 2.8 I can generally identify which disciplines are involved in solving a complex materials problem.	I approach a materials problem from my own discipline.	I approach a materials problem from my own discipline and use other perspectives only when requested.	I approach a materials problem from all relevant disciplines and perspectives.	I independently seek knowledge from other disciplines and perspectives to solve a materials problem.

2. Open questions → learning cycle of Kolb

Reflecting

What did you specifically do regarding these competencies? Give an example of an assignment you completed. What went well? What could have been improved?

Thinking

What actions will you take to improve these competencies? What do you hope to achieve with these actions?

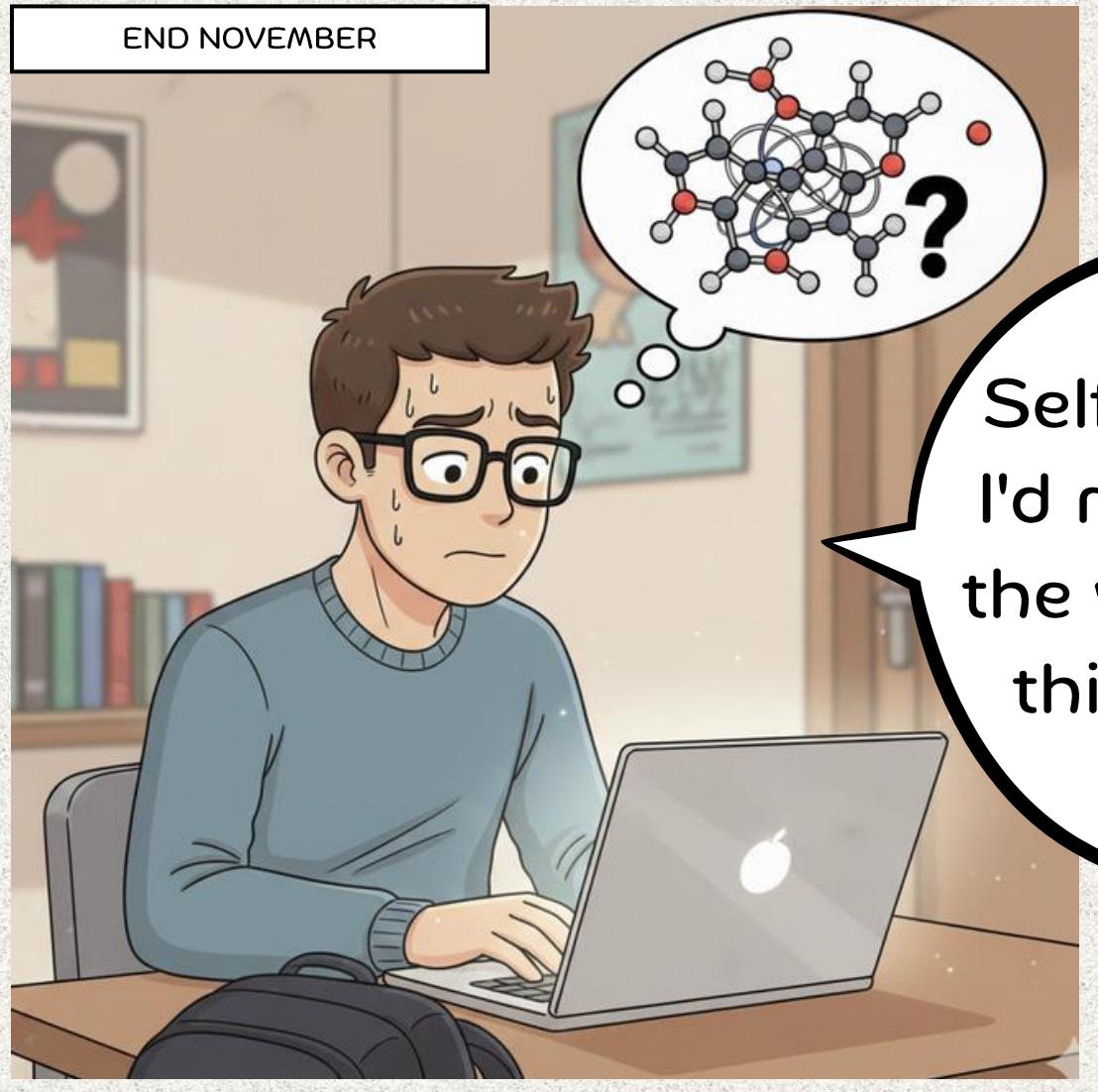
Acting

What specific actions are you going to start with?

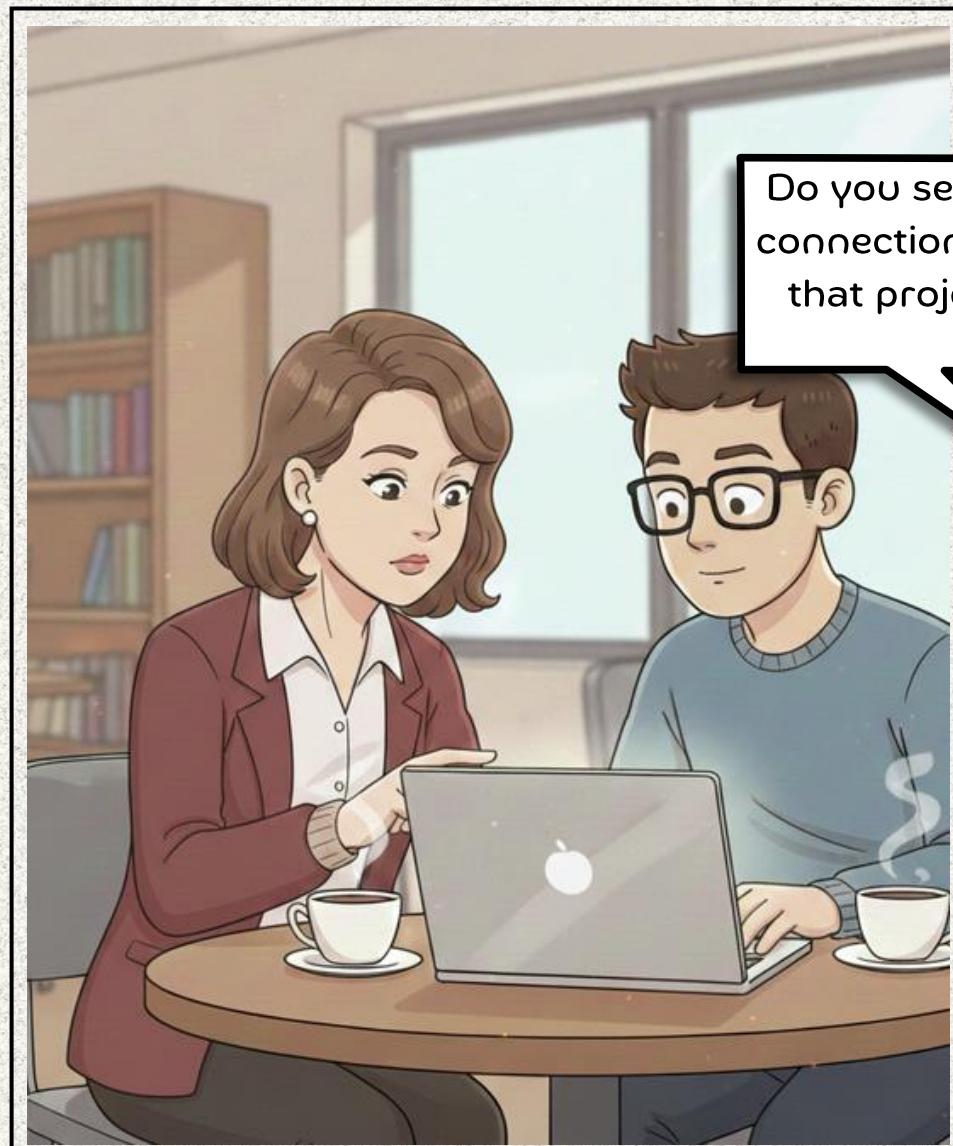
STUDENT PREPARATION

*
* * *

END NOVEMBER



THE FIRST MENTOR MEETING *



CHECK-UP



AFTER THE FIRST MENTOR MEETING

I found it difficult to reflect.



We need professional support.



RECEIVED FEEDBACK STUDENTS



Informal setting



Approachable, open-minded, and easy to communicate with



Sincere interest of mentor



Added value for the program



Reflecting is difficult and also depends on students' confidence



Not all mentors had chance to review the portfolio before the mentor-mentee meeting



Mentors have many responsibilities making it difficult to match their schedules with that of the students

RECEIVED FEEDBACK MENTORS



Overall positive experience



Students are open and honest



The growth portfolio ensures that students come prepared to the meeting and it also serves as a guide.



Helpful guided questions shared by educational team beforehand



Written reflection was often too concise



Students are too modest in their self-reflection



Difficult conversation with introvert students



Too little experience with mentoring/coaching



1-on-1 meeting not feasible when student populations grows

THE LAST MENTOR MEETING *



FROM PASSIVE STUDENT TO ACTIVE OWNER OF THEIR OWN CAREER PATH

THE END



TWO YEARS LATER:
GRADUATED

EXIT

CAREER



I am a
Materiomicus with
the required
competencies for
the labor market.

THE END



In the master in materiomics, we believe that teachers should provide **mentorship and support** as students develop the skill of reflecting on their own learning. By means of **reflection** students turn into self-directed learners who can monitor progress, identify gaps, and adjust strategies for better outcomes.

Disclaimer: Images generated by Gemini, model Nano Banana