GREAT MBA
Raw Materials

GLOBAL RAW MATERIALS
Management Education and Training

Course Unit Assessment Method

University: Nova FCT
Curricular Unit: The Role of Raw Materials in the Global Economy
Course unit: Raw Materials as Strategic Assets: Value Creation in Global Markets
Course unit Coordinator: Prof. Pedro Barquinha
Date: 26 October - 07 November 2026



Supported by
EIT RawMaterials
Co-funded by the European Union

Who I am



Pedro Barquinha

Associate Professor, Materials Science Department, NOVA FCT

Director of Materials Research Center, CENIMAT|i3N

G — Geography

Lisbon, born and raised. Professor at NOVA FCT, DCM, since 2012.

R — Role

Too many roles at this moment ☺ Let's say, professor and PI in flexible electronics

E — Expectation

Get participants inspired on the beauty of (advanced) materials and how relevant they are in so many value chains. And learn, learn, learn.

A — About you

Love chips and screens, love to move away from chips and screens, everytime I can

T — Tell us…

Cooking rice and playing piano (people say)

Course Unit 1.2.
Raw Materials as Strategic Assets: Value Creation in Global Markets
-
Assessment Method

NOVA SCHOOL OF SCIENCE & TECHNOLOGY

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Course Unit 1.2. Raw Materials as Strategic Assets: Value Creation in Global Markets

This course is part of the curricular unit The **Role of Raw Materials in the Global Economy**, led by NOVA FCT, and has a workload of 25 hours, corresponding to 4 ECTS credits. The grade for this course unit, will contribute to the final programme grade, weighted according to its ECTS credits.

Course 1.2	Raw Materials as Strategic Assets: Value Creation in Global Markets | Lead by NOVA FCT							
Session	Date	Content	Session Duration	Weekday	Format	Module Coordinator	Faculty Team	Time
6	26/01/2026	From resource to market: mapping where value is created ***Session 6: In-person immersion week: Portugal***	5,0	Monday & Friday	Presencial	Prof. Pedro Barquinha (NOVA FCT)	*The Immersion Week in Portugal will take place from 26 to 30 October. It will begin at the NOVA FCT campus in Costa da Caparica and have 2 days at Oporto, with a visit to an industry partner. Throughout the week, participants will take part in industry visits, class sessions 6 and 7, guest speaker sessions, and other activities.* *Session 6: 26/10: Pedro Barquinha & Dr. Feras Alkhalil* *Session 7: 30/10: José Almeida & José Kullber &Márcia Damas*	3:30 pm to 8:30 pm Session 6: 10:30 am - 12:00 am Session 3:00 pm- 6:00 pm
7	30/10/2026	From resource to market: mapping where value is created ***Session 6: In-person immersion week: Portugal*** The economics of raw materials: costs, prices and value capture: José Almeida & Marcia ***Session 7: In-person immersion week: Portugal***	5,0	Friday	Presencial			
8	04/11/2026	Macroeconomic dynamics, competitiveness and capital allocation	5,0	Wednesday	online		Pedro Barquinha Roderick G. Eggert Simão Rocha	3:00 to 8:00 pm
9	06/11/2026	Global market power and strategic response	5,0	Friday	online		Pedro Barquinha Vitor Correia	9:00 am to 2:00 pm
10	07/11/2026	Strategic positioning: source, make, buy, partner or integrate?	5,0	Saturday	online		Pedro Barquinha José Pinheiro Torres João Castro	9:00 am to 2:00 pm

The Assessment for this course unit will be as follows:

- **Individual online multiple-choice test** = 30%
- **Written group Assignment** = 70%

Assessment Method

The final course unit grade comprises two components:

1. **Individual online multiple-choice test: 30%**

Test Rules:

- The individual online multiple-choice test, will be conducted on Moodle, and will take place on **7 November 2026**. Within a given limited duration, participants will have the opportunity to complete it anytime during the day through Moodle;
- Online test will account for 30% of the final course grade;
- It will assess participants' understanding of the key concepts and their ability to apply the knowledge acquired throughout the unit;
- The test must be completed individually, without assistance from other participants or third parties;
- Collaboration, sharing questions or answers, and the use of AI tools are not permitted;
- Participants must complete and submit the test within the allocated time;
- The Learning Experience Manager, Francisca Macedo or Ana Dores, will be available to provide support if needed.

Assessment Method

The final course unit grade comprises two components:

2. Written group Assignment: 70%

Evalution Criteria:

Participants will develop a written group assignment addressing a practical case or challenge relevant to the course unit. The assignment should demonstrate the application of course concepts, critical analysis and the development of well-supported recommendations. The assignment will be assessed against the following criteria:

- **Overall quality and academic rigor**: accuracy, relevance and depth of the work;
- **Application of knowledge:** effective integration of course concepts and frameworks into the analysis of the selected case or challenge;
- **Critical thinking**: ability to evaluate evidence, compare alternatives and discuss relevant challenges and trade-offs;
- **Use of evidence and sources**: relevance and credibility of supporting information, with appropriate referencing;
- **Structure and written communication:** clear organisation, logical argumentation and professional presentation.

Assessment Method

The final course unit grade comprises two components:

2. Written group Assignment: 70%

Guidelines:

- **Length:** 5 pages of main content, excluding the cover page, references and any appendices;
- **Character count:** no separate character limit applies; the page limit is the guiding requirement;
- **Formatting:** Arial or Calibri, 11-point font, 1.15 line spacing and standard margins of approximately 2.5 cm;
- **Submission format:** a single PDF document per group, with numbered pages. Tables and figures may be included where they support the analysis and should be clearly labelled and referenced*: a guided exercise book is provided to each group, for all sessions, which will serve as the basis for developing the group assignment. Based on these exercises, students will be expected to prepare a portfolio/dossier for CU1.2.*

Assessment Method

The final course unit grade comprises two components:

2. Written group Assignment: 70%

Establishment of the Working Group:

- Participants are already organised into three groups;
- This approach aims to encourage the exchange of different perspectives, collaborative learning and the integration of complementary knowledge into the group assignment. As participants do not yet know one another, the groups have been formed by the programme coordination team to facilitate interaction and help everyone integrate into the cohort.

Group 1	Group 2	Group 3
Bogdan Giubega	Simona Fontul	João Lourenço
Cátia Dias	João Cruz	Maria Barbosa
Dorottya Nagy	Magda Biernat	Marnix Paul
João Fernandes	Pravin Ughade	Annamaria Grassi
Joana Frazão	--	--

Assessment Method

The final course unit grade comprises two components:

2. Written group Assignment: 70%

Project Topic Selection:

- The challenge for this assignment for all groups is the following:

  Act as the management team of a fictional company. Explain its value chain, analyse simple operating economics and risks, and recommend how to obtain additional capacity. Your final decision is: Own an additional capability, use a specialist partner, or defer the expansion.

  - Group 1 - Value Chain Strategy Report: Lithium-ion batteries
  - Group 2 - Value Chain Strategy Report: Rare earth permanent magnets
  - Group 3 - Value Chain Strategy Report: Semiconductors

Submission deadline:

18 November 2026, by 23:59 (CET time).
The group assignment will be assessed solely on the written submission and must be emailed to the **Course unit Coordinator:** Prof. Pedro Barquinha, to the Learnig Experience Manager: Francisca Macedo and Ana Dores and uploaded to Moodle platform**.**
No oral presentation is required.

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Keep Learning. Keep in touch.

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