1b. Aptly choosing advanced materials that can suit product or process needs

Functional Area: R&D

Assessment criteria

LO1b.1. Selects new materials for the manufacture relating their characteristics with the functional, technical, economic and physical requirements of the designed products and test results.

- Based on a real example of a process/realization of a product, propose improvements to the use of materials/machining, underlining pros/cons
- Select appropriate measuring instruments and tools to test and validate characteristics of given material sample
- Evaluate appropriateness of testing at lab level vs production process

Assessment criteria

LO1b.1. Selects new materials for the manufacture relating their characteristics with the functional, technical, economic and physical requirements of the designed products and test results.

- Based on a real example of a process/realization of a product, propose improvements to the use of materials/machining, underlining pros/cons
- Select appropriate measuring instruments and tools to test and validate characteristics of given material sample
- Evaluate appropriateness of testing at lab level vs production process

Skills

- Capability to properly read and understand technical specifications and material description
- Identify type of materials and components for machining/assembling or storing in appropriate environment
- Identify and propose adequate types of material for product/process
- Identify appropriate machining procedures
- Identify relevant parameters (eg temperature, humidity, RPM, clean room level...)
- Machine/construct components on the basis of relevant specification

Transferable skills

 Capability to communicate in English in a interdisciplinary / international team, in virtual and real modality

•	Understand descriptions, specifications, technical
	data and other info typical of the profession in
	English and prepare them for next phase of
	project/Customer in understandable manner

 Be capable to interface/report with the R&D/Engineering/Maintenance departments in a logical and coherent manner