

BRACKET e-learning platform guidelines

Project:

Boosting a novel and innovative tRAining approaCh of Key
Enabling Technologies BRACKET

BRACKET

Project partners:

IRMO



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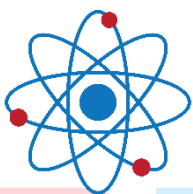
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Source of all pictures in document: own from <https://bracket.erasmus.site/mooc/>

Funding



BRACKET

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BRACKET

Document purpose

The BRACKET e-learning platform guidelines developed in the scope of the BRACKET (Boosting a novel and innovative tRAining appRoach of Key Enabling Technologies, no. 2018-1-HR01-KA202-047493) project is a set of recommendations on the technical development and use of the online platform. It includes information on the usability of the platform, but also the information on all its elements and sections. Supporting the descriptions throughout the whole Guidelines are visuals that make it easier to understand and grasp the steps to follow once inside the platform.

BRACKET e-learning platform guidelines

A. Introduction to the BRACKET e-learning course

The BRACKET e-learning course was designed to deliver training materials related to Key Enabling Technologies to enhance Vocational Education and Training. It contains five units:

Unit 1 – *Introduction to Key Enabling Technologies*

Successful completion of Unit 1 amounts 0,5 ECVET points.

Unit 2 – *Nanotechnology*

Successful completion of Unit 2 amounts 0,9 ECVET points.

Unit 3 – *Biotechnology*

Successful completion of Unit 3 amounts 1,2 ECVET points.

Unit 4 – *Advanced Materials*

Successful completion of Unit 4 amounts 1,0 ECVET points.

Unit 5 – *Innovation regarding Key Enabling Technologies*

Successful completion of Unit 5 amounts 0,8 ECVET points.

It has been defined that 1 ECVET point = 25 hours of total learning

Learners that complete 5 successfully pass the final assessment will gain 4,5 ECVET points.

The design and implementation of the e-learning platform and the peculiarities of the target groups were carefully analyzed (considered were students, workers from technological industries and entrepreneurs aiming at focusing their profession in technological innovation and research). It was also considered that not only professionals will be using the platform, but adults with different levels of digital competencies. As a result, the platform was designed to simplify participation in all sections by any user. Moreover, the content is available in a few languages: English, Croatian, Greek, Latvian, Polish, Slovenian and Spanish.

To access the platform, go to <https://bracket.erasmus.site/mooc/>

You can also continue to the platform through the BRACKET E-LEARNING link on the [project website](#).

The following instructions will introduce all sections of the e-learning platform, describing how to benefit from all the functions.

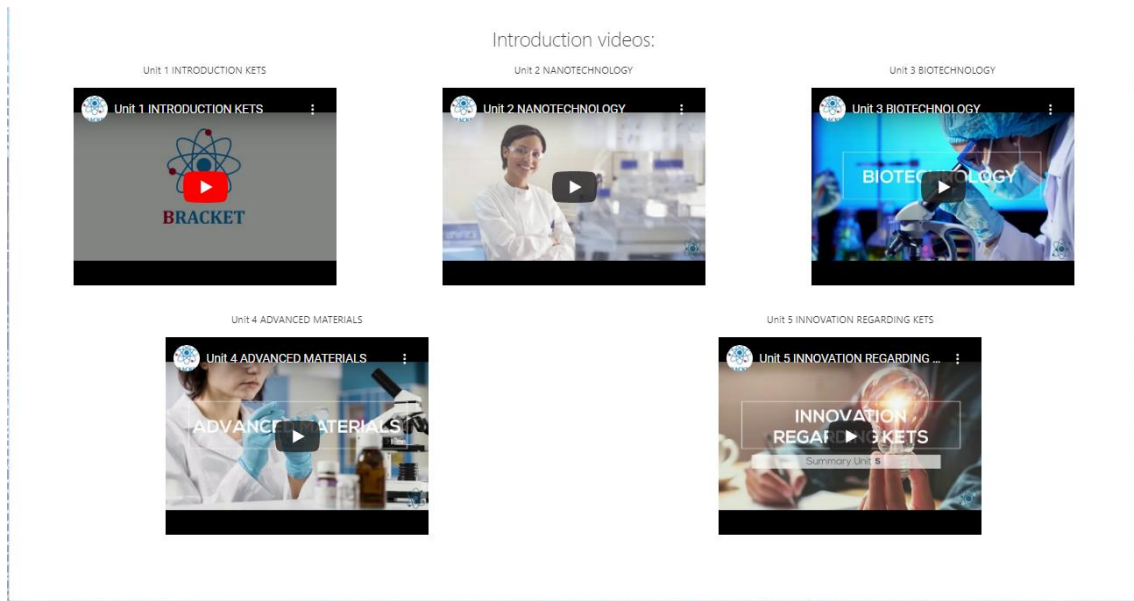
B. BRACKET e-learning platform instructions

Sections available without registration

Once you are on <https://bracket.erasmus.site/mooc/> you will see a few sections that you can already benefit from. The first section that might interest you is the 'Welcome' field where these BRACKET e-learning platform guidelines are available for download.



The homepage also includes Introduction videos to each of 5 training units.

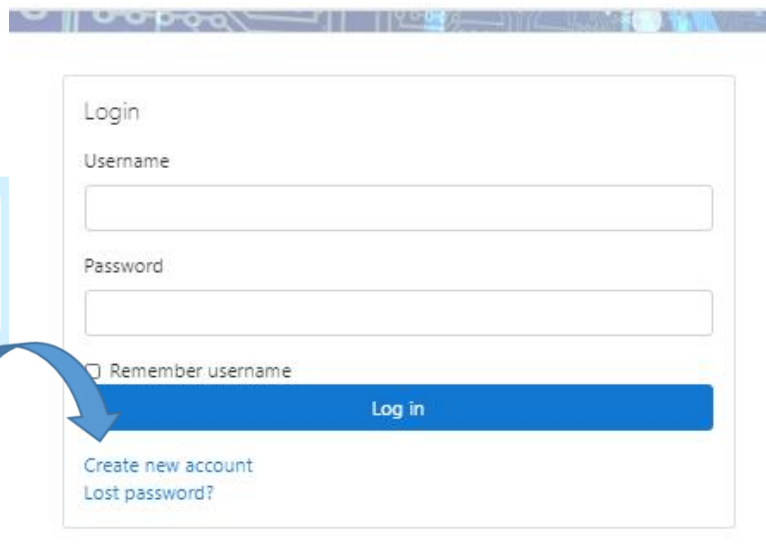


The complete training materials are available after logging in.

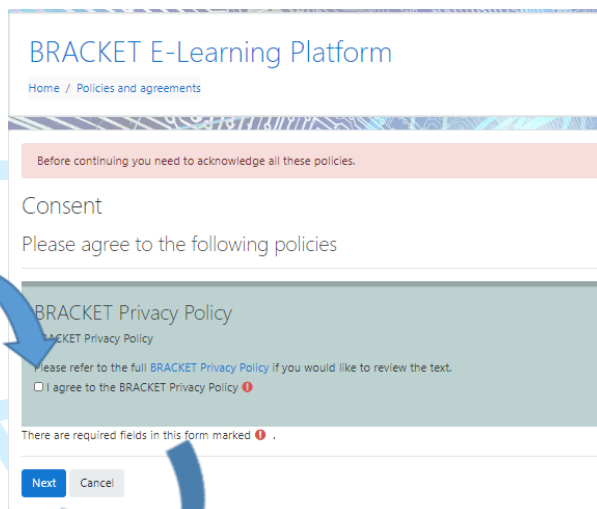
Create an account

If you are a **new user**, click on 'Create a new account' in the Login field.

BRACKET E-Learning Platform



Before you continue you should acknowledge the BRACKET Privacy Policy by ticking the box 'I agree to the BRACKET Privacy Policy' and then the 'Next' button.



BRACKET E-Learning Platform

[Home](#) / [Policies and agreements](#)

Before continuing you need to acknowledge all these policies.

Consent

Please agree to the following policies

BRACKET Privacy Policy

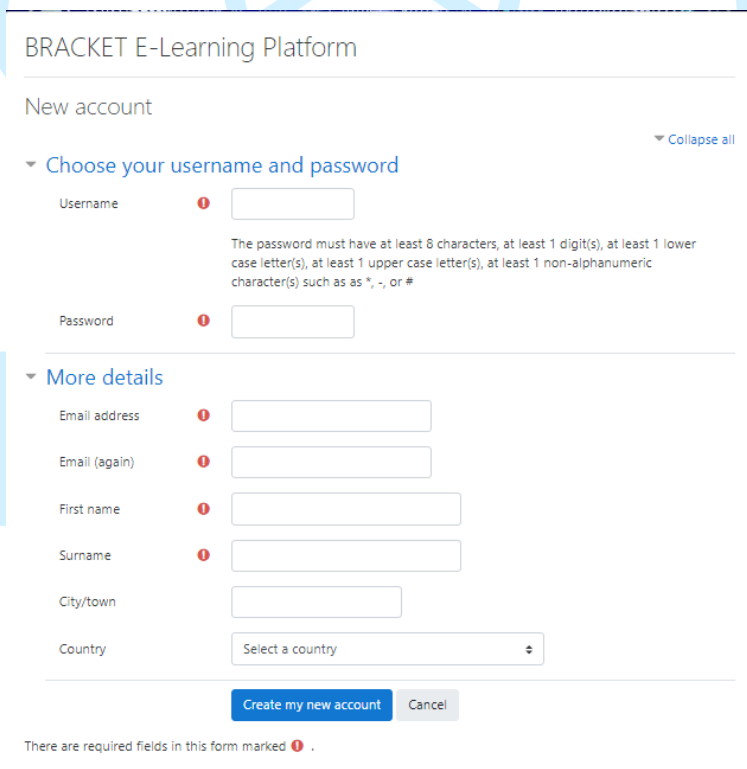
Please refer to the full [BRACKET Privacy Policy](#) if you would like to review the text.

☐ I agree to the BRACKET Privacy Policy

There are required fields in this form marked .

[Next](#) [Cancel](#)

Once you have accepted the BRACKET Privacy Policy, you will be asked to choose your username and password, as well as some additional information: Email address, First name and Surname. The First name and Surname you include will be the personal information that will appear on the course certificates.



BRACKET E-Learning Platform

New account [Collapse all](#)

▼ Choose your username and password

Username

The password must have at least 8 characters, at least 1 digit(s), at least 1 lower case letter(s), at least 1 upper case letter(s), at least 1 non-alphanumeric character(s) such as *, -, or #

Password

▼ More details

Email address

Email (again)

First name

Surname

City/town

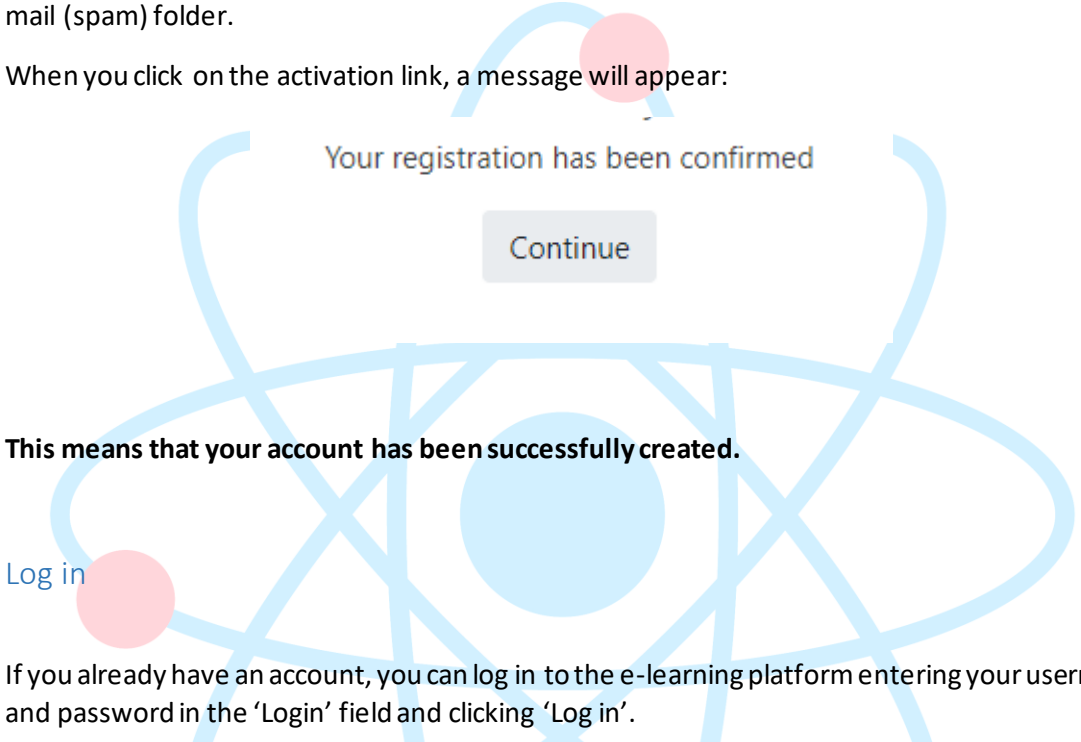
Country

[Create my new account](#) [Cancel](#)

There are required fields in this form marked .

To complete the registration, you must confirm your e-mail address. You will receive an email with an activation link to the email address you provided at registration. When you click on it, your account will be activated. If you don't receive a registration email, please check your junk mail (spam) folder.

When you click on the activation link, a message will appear:

A screenshot of a confirmation message. At the top, it says "Your registration has been confirmed" in a blue font. Below this text is a grey button with the word "Continue" in blue. The background of the screenshot features a large, faint blue atomic symbol.

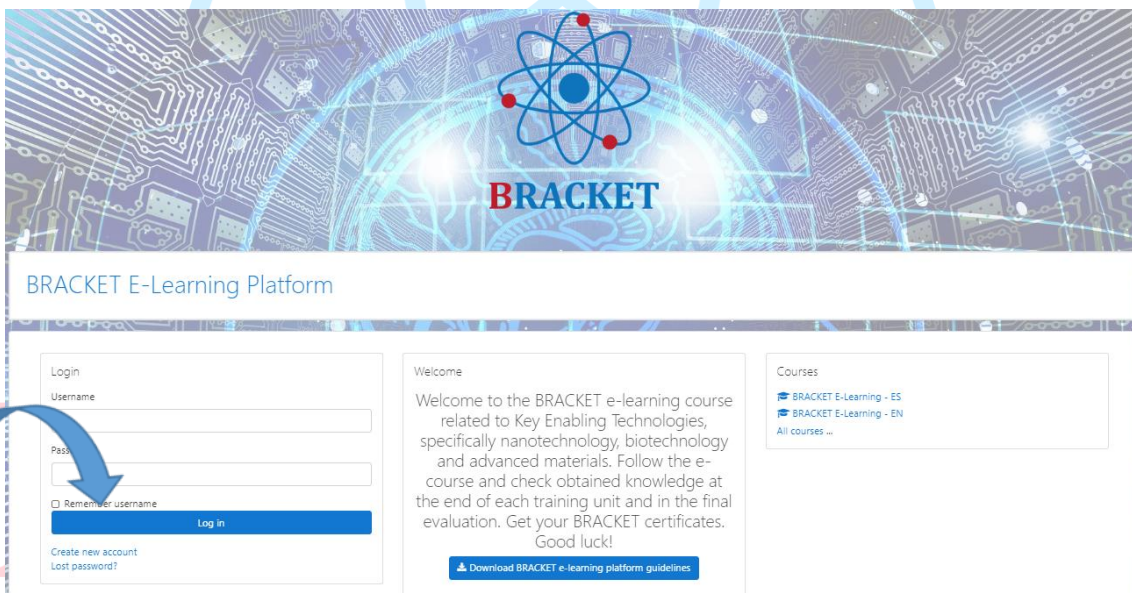
Your registration has been confirmed

Continue

This means that your account has been successfully created.

Log in

If you already have an account, you can log in to the e-learning platform entering your username and password in the 'Login' field and clicking 'Log in'.

A screenshot of the BRACKET E-Learning Platform login page. The header features a blue background with a circuit pattern and the BRACKET logo. Below the header, the text "BRACKET E-Learning Platform" is displayed. The main content area is divided into three sections: a login form on the left, a welcome message in the center, and a list of courses on the right. The login form includes fields for "Username" and "Password", a "Remember username" checkbox, and a blue "Log in" button. Below the login form are links for "Create new account" and "Lost password?". The welcome message states: "Welcome to the BRACKET e-learning course related to Key Enabling Technologies, specifically nanotechnology, biotechnology and advanced materials. Follow the e-course and check obtained knowledge at the end of each training unit and in the final evaluation. Get your BRACKET certificates. Good luck!" and includes a blue button to "Download BRACKET e-learning platform guidelines". The courses section lists "BRACKET E-Learning - ES" and "BRACKET E-Learning - EN" with a link to "All courses ...".

BRACKET E-Learning Platform

Login

Username

Password

☐ Remember username

Log in

Create new account
Lost password?

Welcome

Welcome to the BRACKET e-learning course related to Key Enabling Technologies, specifically nanotechnology, biotechnology and advanced materials. Follow the e-course and check obtained knowledge at the end of each training unit and in the final evaluation. Get your BRACKET certificates. Good luck!

Download BRACKET e-learning platform guidelines

Courses

- BRACKET E-Learning - ES
- BRACKET E-Learning - EN

All courses ...

Inside the e-learning platform

After logging in you will access the Home screen where apart from the content you have seen before logging in, at the bottom of the page is the list of Available courses, e.g.:

Available courses

BRACKET E-Learning - ES



BRACKET

BRACKET E-Learning - EN



BRACKET

Click on the course you are interested in and start learning. You can also choose more than one course if you want to participate in the e-learning in more than one language.

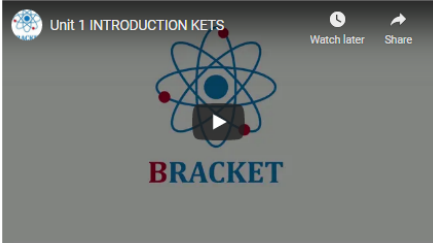
Inside the e-learning course

Welcome to the BRACKET e-learning course related to Key Enabling Technologies, specifically nanotechnology, biotechnology and advanced materials. Follow the e-course and check obtained knowledge at the end of each training unit and in the final evaluation. Get your BRACKET certificates. Good luck!

As you already know the e-learning course includes 5 units and each of the units has the same structure. A unit starts with the Introduction video, Preface, Introduction and Learning outcomes.

If your interest has been triggered, you are invited to explore the treasures within the specific unit and continue to the training by clicking on 'View Content'.

Unit 1 – Introduction to Key Enabling Technologies



Preface

Introduction

Learning outcomes

Interested? Explore the treasures and continue to the training!

[View Content](#)

Modules: Book: 1 Files: 2 SCORM package: 1 Quizzes: 2 Custom certificate: 1

When you continue through the 'View Content' button you will be taken to a new page with the additional activities available, the same for each unit.

Preface

Introduction

Learning outcomes

Interested? Explore the treasures and continue to the training!

Learning Unit 1 main training content

Unit 1 - Supporting presentation (download)

Unit 1 - Supporting presentation (online)

Download Unit 1 to your desktop

Consolidation questions

Unit 1 Evaluation

Complete the evaluation to issue a certificate

Certificate Unit 1

Restricted Not available unless: You achieve a required score in Unit 1 Evaluation

[FORUM](#)

Jump to...

Unit 2 – Nanotechnology

Under the first activity, you will continue to the main training content, divided into topics, including the learning outcomes and a bibliography list at the end. There is a menu of the unit content for your convenience on the right side of the screen.

BRACKET E-Learning - EN

Home / My courses / BRACKET E-Learning - EN / Unit 1 – Introduction to Key Enabling Technologies / Learning Unit 1 main training content

Turn editing on

Learning Unit 1 main training content

1.1. Introduction

1.1.1 Objectives of the Unit

Key Enabling Technologies, also referred to as KETs, are technologies that enable industrial innovation in a variety of products and services. It is not a fixed group of technologies, yet currently comprising of nanotechnology, micro-/nanoelectronics, photonics, advanced materials, industrial biotechnology, and advanced manufacturing technologies. The core focus of the BRACKET project is on three KETs, nanotechnology, biotechnology and advanced materials. These mentioned will be elaborated in further units.

The Industry 4.0 solutions are also becoming part of KETs. This unit will introduce what KETs are and what Industry 4.0 is, providing components of both. An important part of the unit will also be devoted to the topic of sustainable development.

In this Unit of the course, the main learning objectives are framed in:

- Having basic knowledge on the concepts of Industry 4.0.
- Analysing the evolution of digital technologies.
- Identifying different components of Industry 4.0 across sectors.
- Defining hybridisation between the physical and digital worlds.
- Describing what Key Enabling Technologies are and their relevance to Industry 4.0.
- Understanding the role of clusters in the development of KETs.
- Demonstrating awareness on sustainable risks and prospects.
- Identifying moral and social issues relating to sustainability.
- Understanding relevant political and economic factors related to sustainability.

1.1.2. Main contents of the Unit

The content developed throughout the unit is divided into three main sections. The first section is an introduction to Industry 4.0 (I4.0), with a comparison to previous industrial revolutions, a description of the disruptive technology and smart industry concepts, followed by the most common I4.0 components and technology enablers, including the Internet of Things (IoT), as well as current and future sustainable development specific industrial scenarios related to Industry 4.0. The content also includes examples of the implementation of nanotechnology, biotechnology and advanced materials.

Table of contents

- 1.1. Introduction
- 1.2. Industry 4.0
 - 1.2.2. Industrial sector transformation thanks to I4.0
 - 1.2.3. New technologies for communication and data treatment
- 1.3. Key Enabling Technologies (KETs)
 - 1.3.2. Connection between KETs and I4.0
 - 1.3.3. Expected Results of application of KETs in the Industry
- 1.4. Sustainable development
 - 1.4.2. Economic growth and sustainable development goals
 - 1.4.3. Moral, ethical and social issues relating to sustainability
 - 1.4.4. Political and economic factors related to sustainability
- 1.5. Synopsis
 - 1.5.2. Learning Outcomes of Unit 1
- Bibliography

You can go back or jump to other unit contents either by using the blue “back”- “next” arrows or through the menu. You can also go back to the other unit activities through the top screen navigation.

BRACKET E-Learning - EN

Home / My courses / BRACKET E-Learning - EN / Unit 1 – Introduction to Key Enabling Technologies / Learning Unit 1 main training content

Turn editing on

Learning Unit 1 main training content

1.2. Industry 4.0

1.2.2. Industrial sector transformation thanks to I4.0

The introduction of new technologies will always require the transition process from awareness, through experimentation to transformation. And although innovative digital transformation comes every

Table of contents

- 1.1. Introduction
- 1.2. Industry 4.0
 - 1.2.2. Industrial sector transformation thanks to I4.0
 - 1.2.3. New technologies for communication and data treatment
- 1.3. Key Enabling Technologies (KETs)
 - 1.3.2. Connection between KETs and I4.0
 - 1.3.3. Expected Results of application of KETs in the Industry
- 1.4. Sustainable development
 - 1.4.2. Economic growth and sustainable development goals
 - 1.4.3. Moral, ethical and social issues relating to sustainability
 - 1.4.4. Political and economic factors related to sustainability
- 1.5. Synopsis
 - 1.5.2. Learning Outcomes of Unit 1
- Bibliography

Besides the main training content, a supporting presentation is also available. You can choose to download it to your desktop or to check it online.

Preface

Introduction

Learning outcomes


Interested? Explore the treasures and continue to the training!

- Learning Unit 1 main training content
- Unit 1 - Supporting presentation (download)
- Unit 1 - Supporting presentation (online)
- Download Unit 1 to your desktop
- Consolidation questions
- Unit 1 Evaluation

Complete the evaluation to issue a certificate

Certificate Unit 1

Not available unless: You achieve a required score in Unit 1 Evaluation



→FORUM




Jump to...

Unit 2 – Nanotechnology

If you decide to check the supporting presentation online, it will open in a new window and look similar to this:

Menu









- Boosting a novel and innovative t...
- Boosting a novel and innovative t...
- 1.1. Introduction
- 1.1. From Industry 1.0 to Industry ...
- 1.1. Industry 4.0 main components
- 1.1. Smart factory: Bosch
- 1.1. Factory of the future
- Synopsis 1.1.
- Boosting a novel and innovative t...
- 1.2. Introduction
- Introduction
- 1.2. Overview of KETs
- 1.2. Synopsis
- Boosting a novel and innovative t...
- 1.3. Introduction
- 1.3. The concept of sustainable d...
- 1.3. Economic growth and sustai...
- Untitled Slide
- 1.3. Moral and social issues
- 1.3. Political and economic factor...
- 1.3. Synopsis

BOOSTING A NOVEL AND INNOVATIVE TRAINING APPROACH OF KEY ENABLING TECHNOLOGIES

UNIT 1. INTRODUCTION TO KEY ENABLING TECHNOLOGIES

This publication [communication] reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

< PREV

NEXT >

Each unit also includes consolidation questions for revision.

BRACKET E-Learning - EN

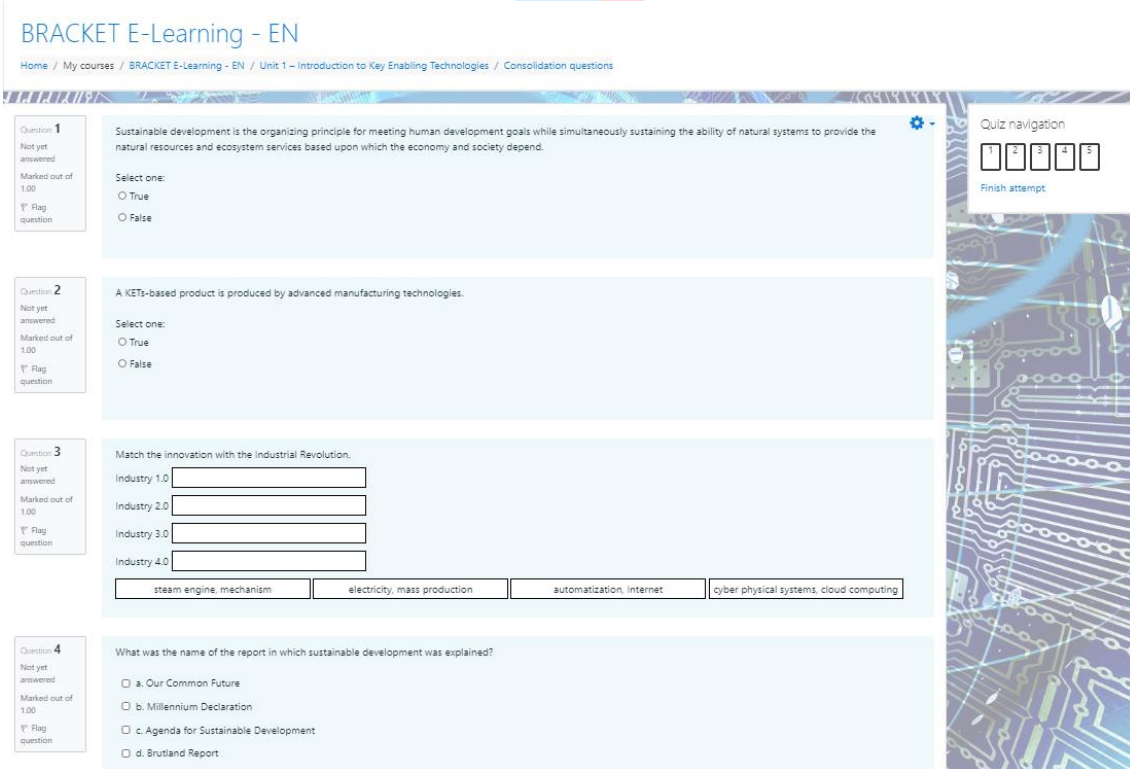
Home / My courses / BRACKET E-Learning - EN / Unit 1 – Introduction to Key Enabling Technologies / Consolidation questions

Consolidation questions

This is a self-assessment and will not affect your evaluation score. Multiple attempts are possible.

Attempt quiz now

You will not necessarily see the same questions at each attempt since they are chosen from a pool of questions on the unit topics. The type of questions includes True and False, Drag and Group or Multiple choice, among others. Here is an example from Unit 1:



BRACKET E-Learning - EN
Home / My courses / BRACKET E-Learning - EN / Unit 1 – Introduction to Key Enabling Technologies / Consolidation questions

Question 1
Not yet answered
Marked out of 1.00
Flag question

Sustainable development is the organizing principle for meeting human development goals while simultaneously sustaining the ability of natural systems to provide the natural resources and ecosystem services based upon which the economy and society depend.

Select one:

☐ True

☐ False

Question 2
Not yet answered
Marked out of 1.00
Flag question

A KETs-based product is produced by advanced manufacturing technologies.

Select one:

☐ True

☐ False

Question 3
Not yet answered
Marked out of 1.00
Flag question

Match the innovation with the Industrial Revolution.

Industry 1.0

Industry 2.0

Industry 3.0

Industry 4.0

Question 4
Not yet answered
Marked out of 1.00
Flag question

What was the name of the report in which sustainable development was explained?

☐ a. Our Common Future

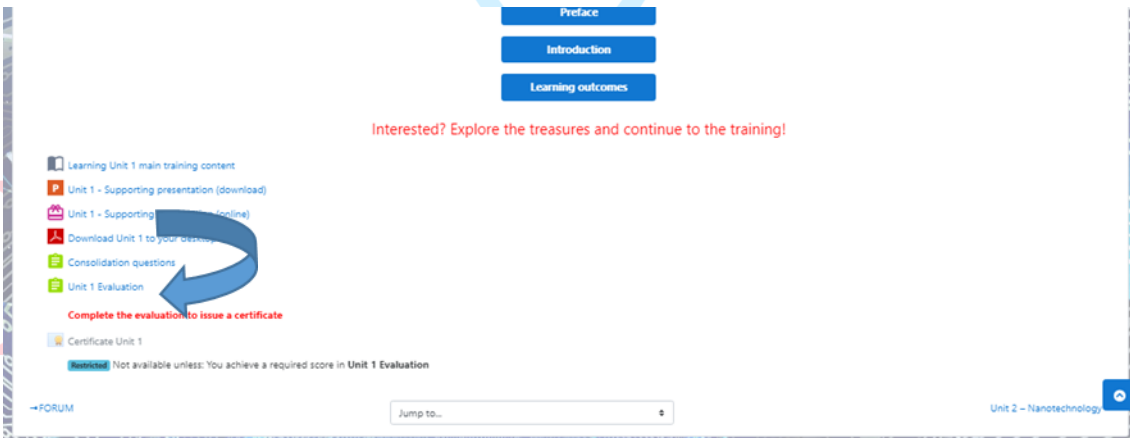
☐ b. Millennium Declaration

☐ c. Agenda for Sustainable Development

☐ d. Brutland Report

Quiz navigation
1 2 3 4 5
Finish attempt

If you are interested in a certificate, it will be necessary to successfully complete the Unit Evaluation, which available at the very end of the Unit activities list.



Preface

Introduction

Learning outcomes

Interested? Explore the treasures and continue to the training!

Learning Unit 1 main training content

Unit 1 - Supporting presentation (download)

Unit 1 - Supporting presentation (online)

Download Unit 1 to your desktop

Consolidation questions

Unit 1 Evaluation

Complete the evaluation to issue a certificate

Certificate Unit 1

Not available unless: You achieve a required score in Unit 1 Evaluation

FORUM

Jump to...

Unit 2 – Nanotechnology

You have 2 attempts to each evaluation. After you submit your answers you can check the correct and incorrect ones, with feedback and a score provided.

BRACKET E-Learning - EN

Home / My courses / BRACKET E-Learning - EN / Unit 1 - Introduction to Key Enabling Technologies / Unit 1 Evaluation

Unit 1 Evaluation

Complete the evaluation to issue a certificate

Summary of your previous attempts

Attempt	State	Marks / 5.00	Grade / 10.00	Review
1	Finished Submitted Thursday, 25 February 2021, 4:30 PM	4.88	9.76	Review

Highest grade: 9.76 / 10.00.

[Re-attempt quiz](#)

With a score of at least 70%, the system will issue a personalized certificate with the data you included in your profile. Sample certificate:

Issue date: XXX

 Erasmus+  

CERTIFICATE OF ACHIEVEMENT

This is to certify that
REGISTERED NAME
successfully completed Unit 1 "Introduction to KETs" of the online course
Boosting a novel and innovative tRAining appRoach of Key Enabling Technologies
(project number: 2018-1-HR01-KA202-047493)
with a score of XX% in the Unit 1 Evaluation, gaining 0,5 ECVET points.

Final Evaluation

At the end of the e-learning course, there is the possibility to receive a certificate for the completion of the whole course, i.e., all 5 units. Similarly, as with single unit certificates, 2 attempts are possible, the passing threshold remains 70% and information provided in your account's profile will be placed on the certificate. The difference is the number of questions, which also come from a thematic pool of questions, but in total amounts 48, testing the knowledge obtained across all 5 units. Examples of questions:

Question 45

Not yet answered

Marked out of 1.00

Flag question

The next EU research and innovation investment programme (2021-2027) is an ambitious €100 billion research and innovation programme to succeed Horizon 2020. Horizon Europe will incorporate and missions to increase the effectiveness of funding by pursuing clearly defined targets. Key novelties in Horizon Europe are:

- Support breakthrough
- Create more impact through mission-orientation and citizens'
- Strengthen international
- Reinforce
- the funding landscape
- Encourage

innovation

openness

Horizon Europe

involvement

cooperation

participation

Rationalize

research

Question 46

Not yet answered

Marked out of 1.00

Flag question

Which of the following is not the way e-leaders may address diversity?

☐ a. Keeping virtual workers engaged

☐ b. Promoting specific activities to enhance team-building

☐ c. Promoting a sense of remoteness

☐ d. Learning how to handle with people from different cultures

If you achieve at least 70% in the Final Evaluation, a Final Certificate will be issued. The level of proficiency in the topics assessed is presented in the table below:

PROFICIENT	achieving 85%-100% score in the final course assessment
COMPETENT	achieving 70%-84% score in the final course assessment
NEED IMPROVEMENT	achieving below 70% score in the final course assessment

This is an example of the BRACKET Certificate issued after the successful completion of the Final Evaluation:

Issue date: XXX


Erasmus+





CERTIFICATE OF ACHIEVEMENT

This is to certify that

REGISTERED NAME

successfully completed the online course

Boosting a novel and innovative tRAining approaCh of Key Enabling Technologies (project number: 2018-1-HR01-KA202-047493)

with a score of XX% in the final assessment, gaining 4,5 ECVET points.

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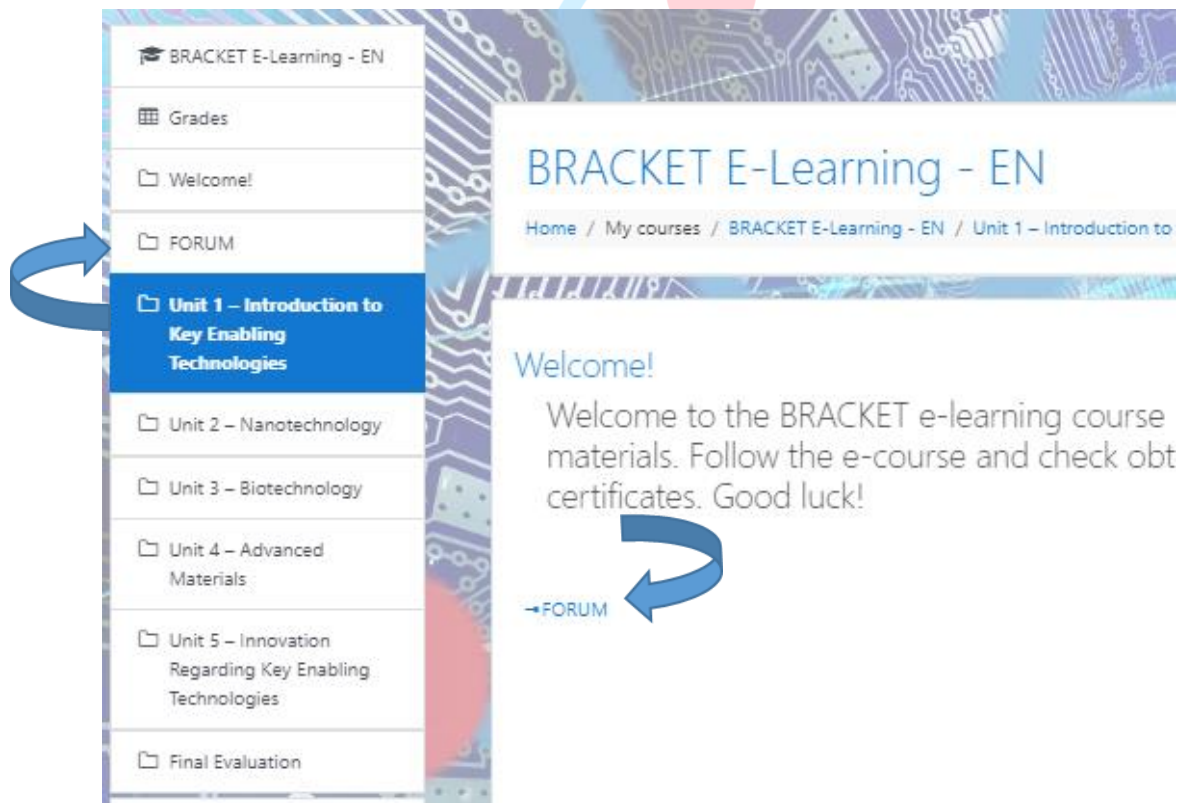
LURS

LIUDSKA ENVIJENSKA AKADEMIJA SLOVENIJA

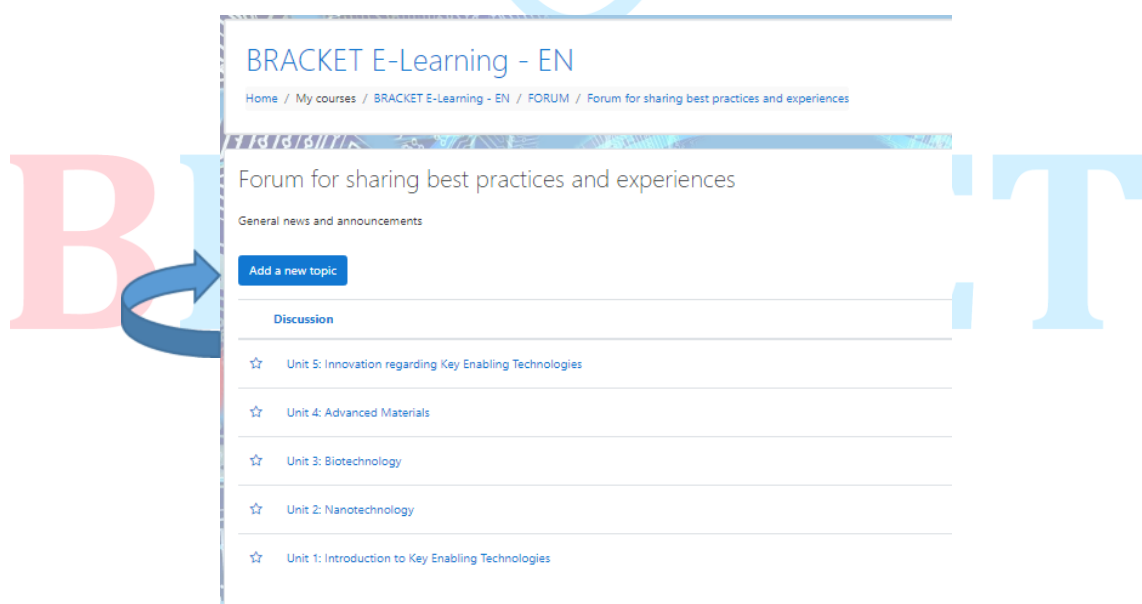


Remaining e-learning platform functions

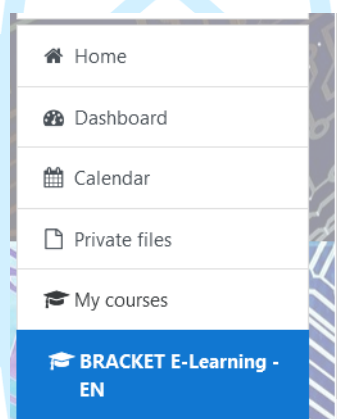
- Forum: this is where you can share best practices and experiences on course topics. The forum is available through the menu bar on the left side of the screen and at the top of any other page inside the e-learning course.



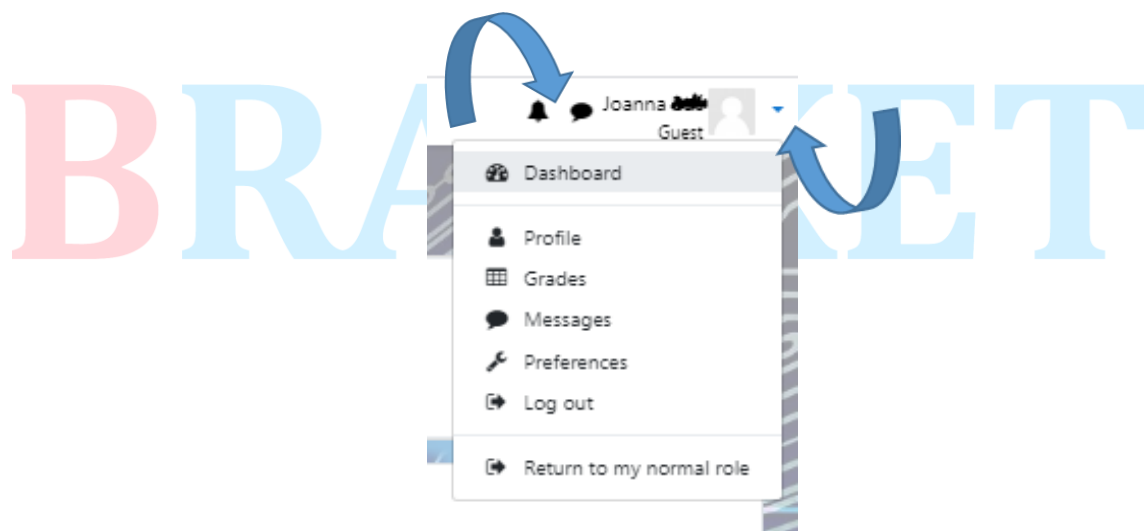
Choose between the predefined topics or add a new topic.



- The main menu, located on the left side of the screen, includes the following buttons in chronological order:
- Home, which is the e-learning course landing page after logging in.
 - Dashboard, which shows recently accessed courses and the list of available courses (in which languages).
 - Calendar, an additional tool where you can mark different events that you are planning or are related to this course.
 - Private files, a section where you can upload your own files on the topic of the course to keep everything in one place.
 - My courses, the place where to see all the courses available and if you want to have a 'quick jump' to the e-learning in a different language.

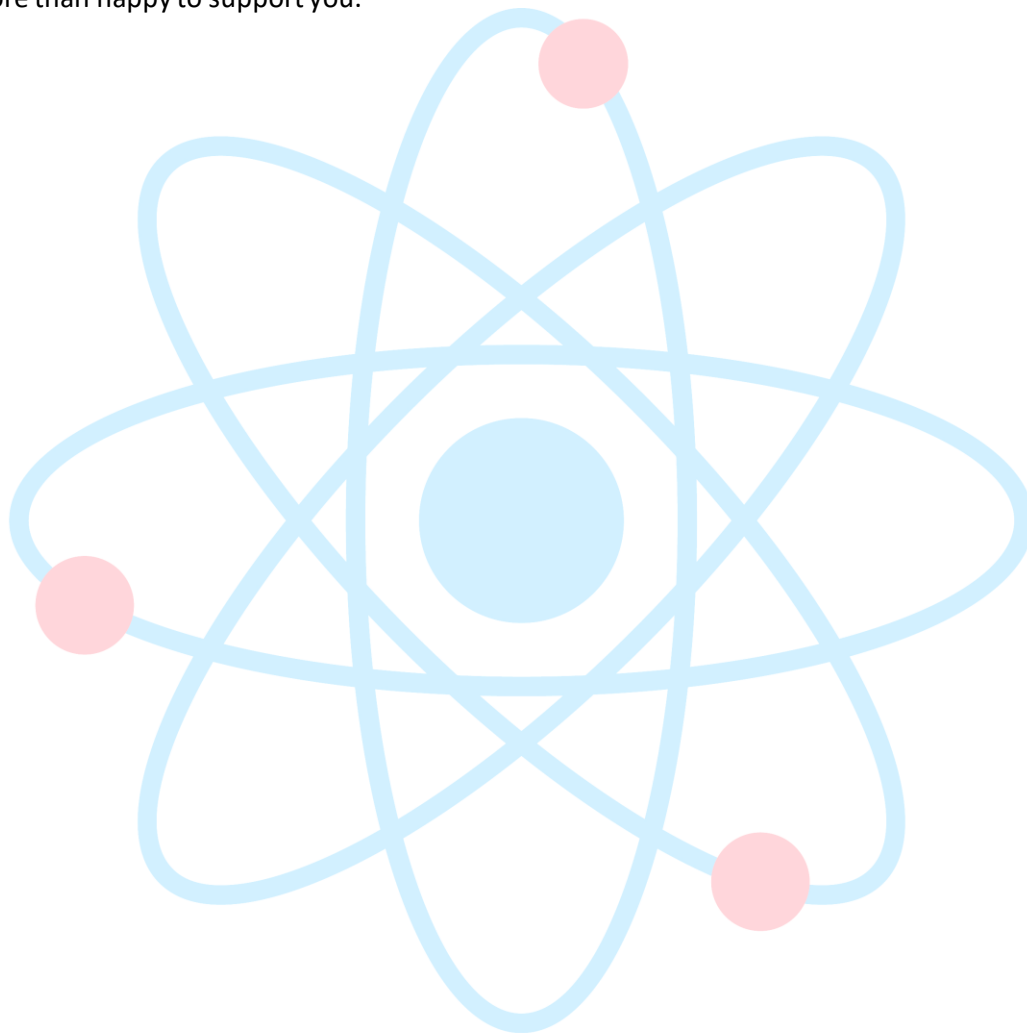


- Your Profile, located in the right corner of the screen after clicking the blue 'arrow'.
- This is where you can review your data, especially for certification purposes.
- Notification preferences, which can be adjusted after clicking the icon of a black 'bell'.
- You can decide to get notified for instance if new forum posts appear.
- Messages, represented by the icon of a black 'conversation cloud' can be sent to different logged-in users or within private groups of users.



Good luck!

That is all to it. If you have any additional questions, contact the [project Partners](#), who will be more than happy to support you.



BRACKET