

I03: IN-SERVICE TRAINING FOR VET TUTORS

**LEARNING UNIT 2 - BY UPB AND ISO
21 HOURS OF FACE TO FACE LEARNING
14 HOURS OF SELF-DIRECTED MATERIALS**



Green-4-Future

Greening the EntreComp Framework to Reconcile Economic
Development and Environmental Security

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Title of the Learning Unit: MEET THE GREENENTRECOMP FRAMEWORK?

Designed by: CALLIDUS and UPIT

AIM OF THE LEARNING UNIT

Aim of this Learning topic is to introduce the VET tutors with the new GreenEntreComp framework, and motivate them to use it in their activities.

TOTAL LEARNING TIME OF WHICH:

35 hours

FACE-TO-FACE LEARNING

21 hours

OF WHICH ASSESSMENT

(during the time trainees perform the F2F activities)

120 min

SELF-DIRECTED LEARNING

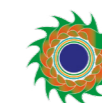
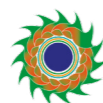
14 hours

LEARNING OUTCOMES

On successful completion of this Learning Unit (LU), VET tutors will be able to:

KNOWLEDGE

- K.1.1. Present how GreenEntreComp Framework is built
- K.1.2. Describe Green Entrepreneurship and its importance
- K.1.3. Explain the rationale behind 'greening' the EntreComp Framework



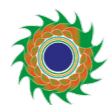
SKILLS

- S.1.1. Discuss the benefits of using GreenEntreComp Framework
- S.1.2. Analyse the impact of GreenEntreComp Framework in entrepreneurship business
- S.1.3. Interpret/describe in own words the descriptors of the GreenEntreComp Framework
- S.1.4. Compare positively GreenEntreComp Framework with EntreComp Framework
- S.1.5. Explain correctly to own trainees the descriptors of the GreenEntreComp Framework
- S.1.6. Use/apply efficiently the GreenEntreComp Framework in practice (in their professional activities)
- S.1.7. Design new 'green(er)' competences and develop their descriptors, for all levels

COMPETENCES (ATTITUDES AND VALUES)

- C.1.1. Motivate own trainees to use GreenEntreComp Framework
- C.1.2. Instruct own trainees about GreenEntreComp Framework
- C.1.3. Monitor own trainees when applying GreenEntreComp Framework in their entrepreneurial activities/business

1. BUSINESS MODELS (DEFINITION, DESCRIPTION, LEVERS, EXAMPLES)



1. BUSINESS MODELS (DEFINITION, DESCRIPTION, LEVERS, EXAMPLES)

ACTIVITY CODE

A1.1

ACTIVITY TITLE

Business Models

ACTIVITY TYPE

(i.e. face-to-face learning or self-directed learning)

Face-to-face

LEARNING OUTCOMES TO BE ACHIEVED THROUGH THIS ACTIVITY

LEARNING TIME FOR THIS ACTIVITY

165 min

OVERVIEW OF CONTENT

- developing new circular products or services
- circular supplies
- recycle, reuse and share
- extending products' life
- sharing platforms
- product as a service
- other methodologies (e.g., lean manufacturing)

CONTENT DELIVERY METHODS

(lecture, discussions, research, group work, EntreComp, etc.)

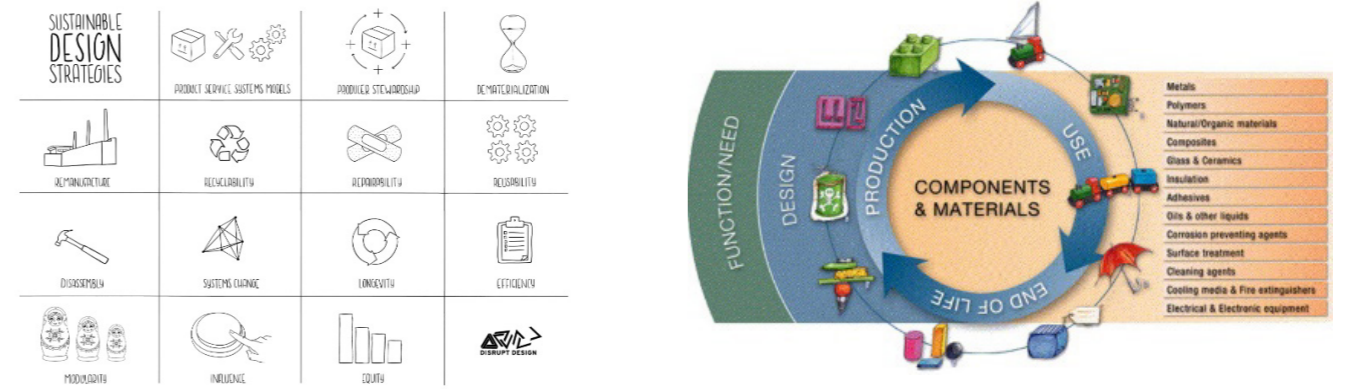
- brainstorm in larger groups to collect new ideas
- (small) group work/group puzzle to work out the differences between recycling, upcycling, downcycling.
- work in pairs for digital research on the platforms for joint use,

criteria-led elaboration of the contents of the platforms with the help of a catalogue of questions

- elaboration of the chart product as a service, what do the students know about the use of a product? What happens in case of defects? What does service mean actually?

DIDACTIC MATERIALS REQUIRED

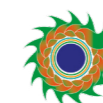
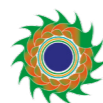
(worksheet, charts, handouts, didactic video, except from books/manuals, mind maps, etc.)



ASSESSMENT METHOD

- creation of a portfolio of the collected work results, supplementary reflection on the development process
- definition check by means of a test
- oral examination, query of the most relevant contents of the respective learning area

REFERENCES (IF NECESSARY)



2. CIRCULAR ECONOMY (DEFINITION, CHARACTERISTICS, PRINCIPLES)

2. CIRCULAR ECONOMY (DEFINITION, CHARACTERISTICS, PRINCIPLES)

ACTIVITY CODE

A1.4

ACTIVITY TITLE

Circular Economy

ACTIVITY TYPE

(i.e. face-to-face learning or self-directed learning)

Face-to-face

LEARNING OUTCOMES TO BE ACHIEVED THROUGH THIS ACTIVITY

LEARNING TIME FOR THIS ACTIVITY

OVERVIEW OF CONTENT

- linear model of production and consumption
- CE Principles as opposed to the Linear Model
- CE Indicators
- CE policies and legislative framework

CONTENT DELIVERY METHODS

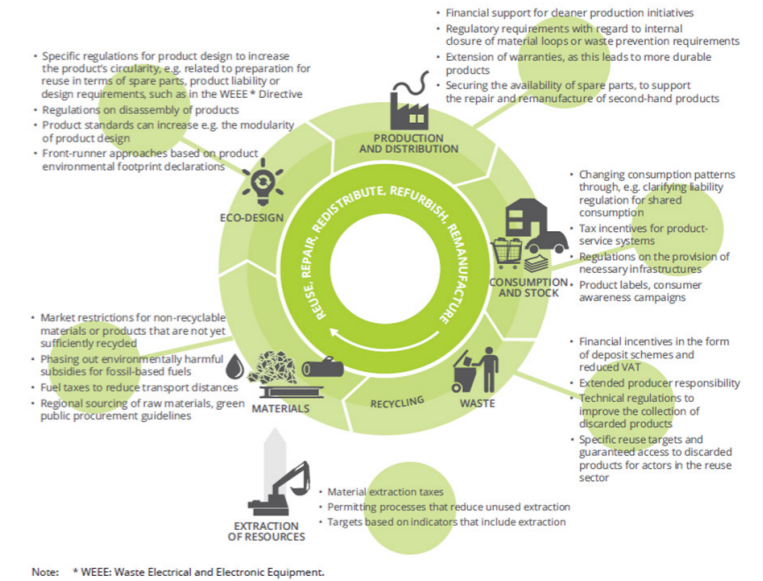
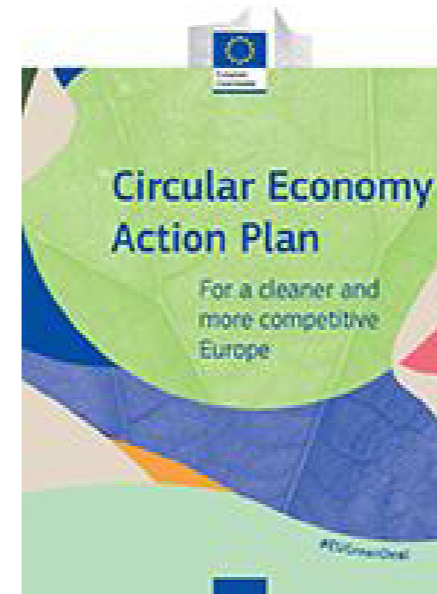
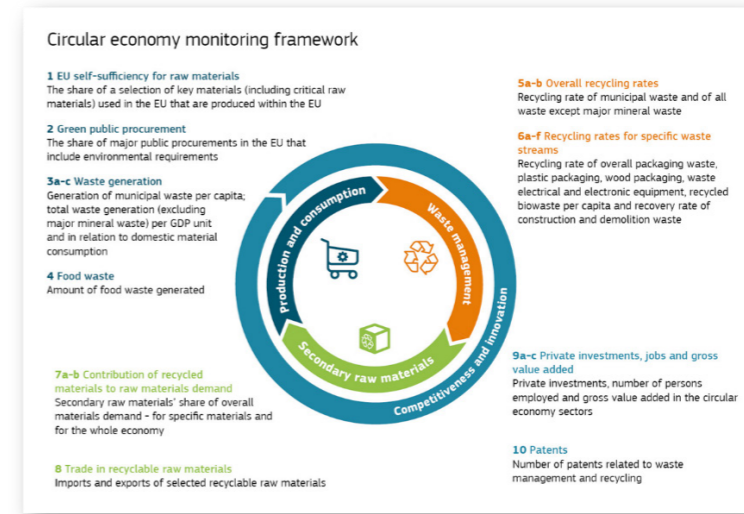
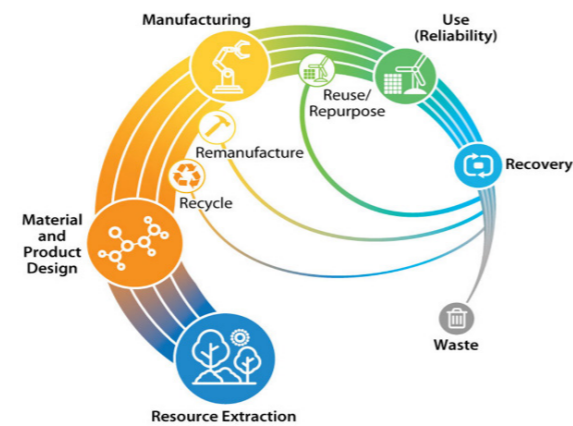
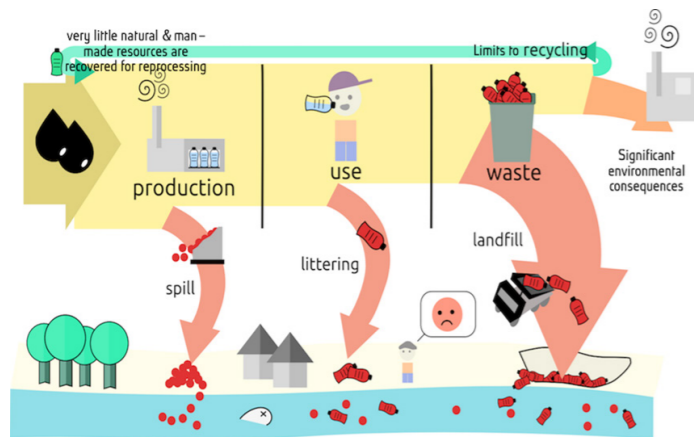
(lecture, discussions, research, group work, GreenEntreComp, etc.)

- collection of ideas in the Think-Pair-Share: What happens to the packaging of your products? What happens to the product when you no longer use it? What happens to our waste actually?
- (small) group work on different types of rubbish/residues that are disposed of, design of a chart for permanent display in the (class) room or on digital platforms

- brainstorm in large group with cluster or mind map: What other ways can you think of what we can do with our waste/leftover produce? Can we avoid the leftovers altogether? What are the advantages?
- criteria-led, digital elaboration of the legal framework and governmental measures in a group puzzle, with the help of a given overview

DIDACTIC MATERIALS REQUIRED

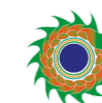
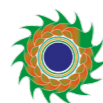
(worksheet, charts, handouts, didactic video, excerpt from books/manuals, mind maps, etc.)



ASSESSMENT METHOD

- submission of the work results as a portfolio
- presentation of the results of working in smaller groups in class

REFERENCES (IF NECESSARY)



3. SCHOOLS OF THOUGHT IN CIRCULAR ECONOMY

3. SCHOOLS OF THOUGHT IN CIRCULAR ECONOMY

ACTIVITY CODE

A1.6

ACTIVITY TITLE

Schools of thought in Circular Economy

ACTIVITY TYPE

(i.e. face-to-face learning or self-directed learning)

Face-to-face

LEARNING OUTCOMES TO BE ACHIEVED THROUGH THIS ACTIVITY

LEARNING TIME FOR THIS ACTIVITY

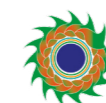
OVERVIEW OF CONTENT

- design out waste and pollution
- keep products and materials in use
- regenerate natural systems

CONTENT DELIVERY METHODS

(lecture, discussions, research, group work, GreenEntreComp, etc.)

- schools of thought in the inverted classroom, students collect ideas and research the different approaches using appropriate media (provided literature or online) depending on the age group
- learning stations followed by a questionnaire which includes the different approaches and a reflection on the students' personal preferences
- documentation task in the form of a portfolio over the period of the series of lessons on how the pupils deal with their own products, whether these are treated more carefully or care is taken when shopping to purchase more durable products



DIDACTIC MATERIALS REQUIRED

(worksheet, charts, handouts, didactic video, excerpt from books/manuals, mind maps, etc.)



Literaturvorschläge:

- Walter R. Stahel, Routledge & CRC Press, 2019, The Circular Economy: A User's Guide
- EUA-Bericht Nr. 6/2017 Circular by design Produkte in der Kreislaufwirtschaft REUSE, REPAIR, EDISTRIBUTE, REFURBISH, REMANUFACTURE, ISSN 1977-8449, Verfügbar unter: https://circulareconomy.europa.eu/platform/sites/default/files/circular_by_design_-_products_in_the_circular_economy.pdf

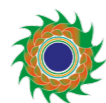
Videos:

Ist dies die Zukunft der globalen Lebensmittelsysteme? Verfügbar unter: <https://www.youtube.com/watch?v=G-pr0cYzuDQ>

ASSESSMENT METHOD

- question catalogue based on the learning stations, added by a reflection task
- portfolio work of the documentation task, added by a reflection task (findings from the documentation and the more conscious handling of products)
- test on the schools of thought, their meanings and approaches to implementation

REFERENCES (IF NECESSARY)



4. CRITICISM OF CIRCULAR ECONOMY

4. CRITICISM OF CIRCULAR ECONOMY

ACTIVITY CODE

A1.7

ACTIVITY TITLE

Criticism of Circular Economy

ACTIVITY TYPE

(i.e. face-to-face learning or self-directed learning)

Face-to-face

LEARNING OUTCOMES TO BE ACHIEVED THROUGH THIS ACTIVITY

LEARNING TIME FOR THIS ACTIVITY

OVERVIEW OF CONTENT

- materials have a limited lifespan (downcycling)
- access to appropriately long-lasting resources is not necessarily available
- participating in CE must be easy for customers
- it must be easy for manufacturers to use sustainable raw materials
- legal framework must be adapted across the board in order to be able to adapt to CE as a company
- financial resources for conversion must be guaranteed

CONTENT DELIVERY METHODS

(lecture, discussions, research, group work, GreenEntreComp, etc.)

- development in the plenary
- collect ideas with moderation cards so that ideas can be sorted and collected thematically

DIDACTIC MATERIALS REQUIRED

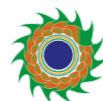
(worksheet, charts, handouts, didactic video, excerpt from books/manuals, mind maps, etc.)

- No didactic materials needed, students develop their own materials

ASSESSMENT METHOD

- Evaluation of the student's materials

REFERENCES (IF NECESSARY)



5. EXAMPLES OF BUSINESS MODELS FOR CIRCULAR ECONOMY

5. EXAMPLES OF BUSINESS MODELS FOR CIRCULAR ECONOMY

ACTIVITY CODE

A1.11

ACTIVITY TITLE

Examples of Business Models for Circular Economy

ACTIVITY TYPE

(i.e. face-to-face learning or self-directed learning)

Face-to-face

LEARNING OUTCOMES TO BE ACHIEVED THROUGH THIS ACTIVITY

LEARNING TIME FOR THIS ACTIVITY

OVERVIEW OF CONTENT

- design for upgradeability and repair (modularity)
- design long-life products
- design for product-life extension
- design for closing resource loops
- design for technical and biological cycles
- design for disassembly and reassembly

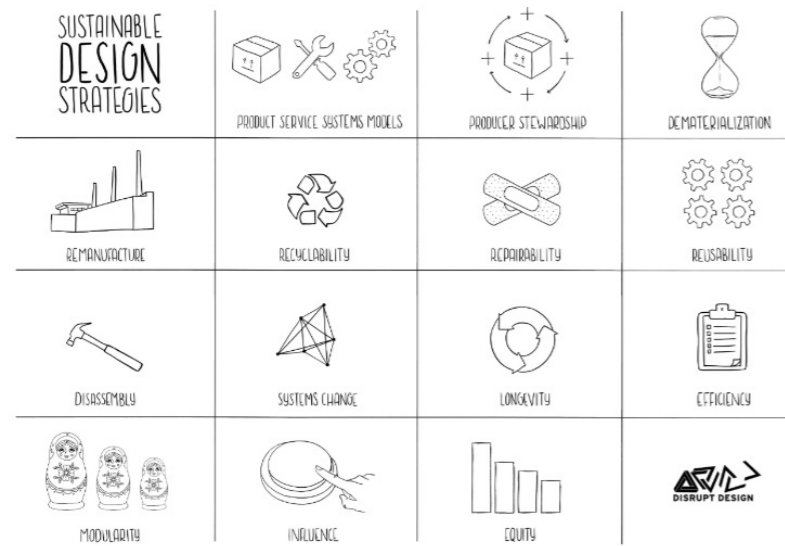
CONTENT DELIVERY METHODS

(lecture, discussions, research, group work, GreenEntreComp, etc.)

- teacher presentation as an example of a selected business model, followed by student presentations on further examples
- group work for individual examples
- learning stations for previously selected examples

DIDACTIC MATERIALS REQUIRED

(worksheet, charts, handouts, didactic video, excerpt from books/manuals, mind maps, etc.)



Literature:

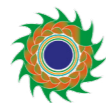
- European Commission, Sustainable Product Policy and Ecodesign. https://ec.europa.eu/growth/industry/sustainability/product-policy-and-ecodesign_en
- European Commission, Ecodesign and Energy Labelling, Directive 2009/125/EC and Regulation (EU) 2017&1369. https://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/ecodesign_en
- European Commission, Ecodesign your future – How ecodesign can help the environment by making products smarter, Report, <https://op.europa.eu/pt/publication-detail/-/publication/4d42d597-4f92-4498-8e1d-857cc157e6db>

ASSESSMENT METHOD

evaluation of the students' results/presentations

REFERENCES (IF NECESSARY)

6. GREENING YOUR BUSINESS



6. GREENING YOUR BUSINESS

ACTIVITY CODE

A1.11

ACTIVITY TITLE

Greening your Business

ACTIVITY TYPE

(i.e. face-to-face learning or self-directed learning)

Face-to-face

LEARNING OUTCOMES TO BE ACHIEVED THROUGH THIS ACTIVITY

LEARNING TIME FOR THIS ACTIVITY

OVERVIEW OF CONTENT

- benefits and barriers in implementing CE models in SMEs
- company Benefits
- consumer Benefits
- benefits for other stakeholders
- environmental benefits following the CE transition

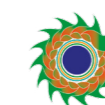
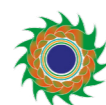
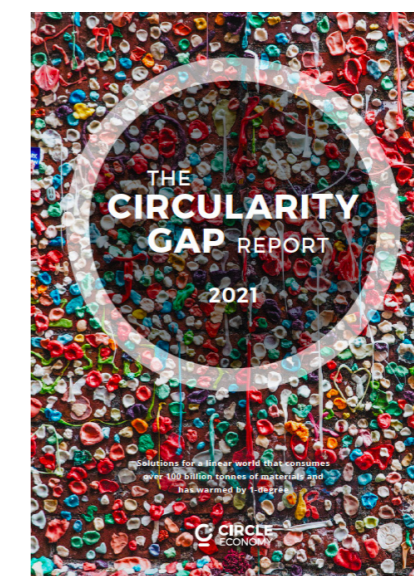
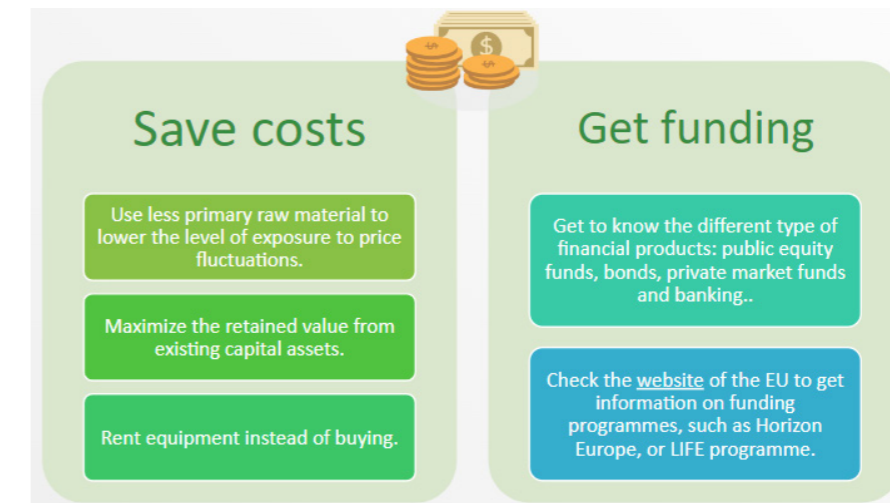
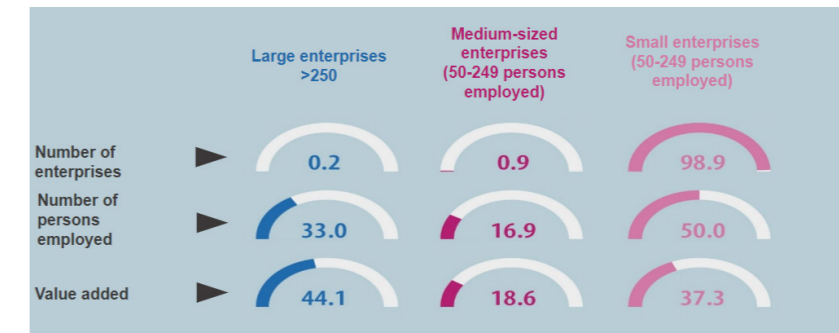
CONTENT DELIVERY METHODS

(lecture, discussions, research, group work, GreenEntreComp, etc.)

- group puzzle for each interest group
- prepared material so that learning outcomes are securely shared

DIDACTIC MATERIALS REQUIRED

(worksheet, charts, handouts, didactic video, excerpt from books/manuals, mind maps, etc.)

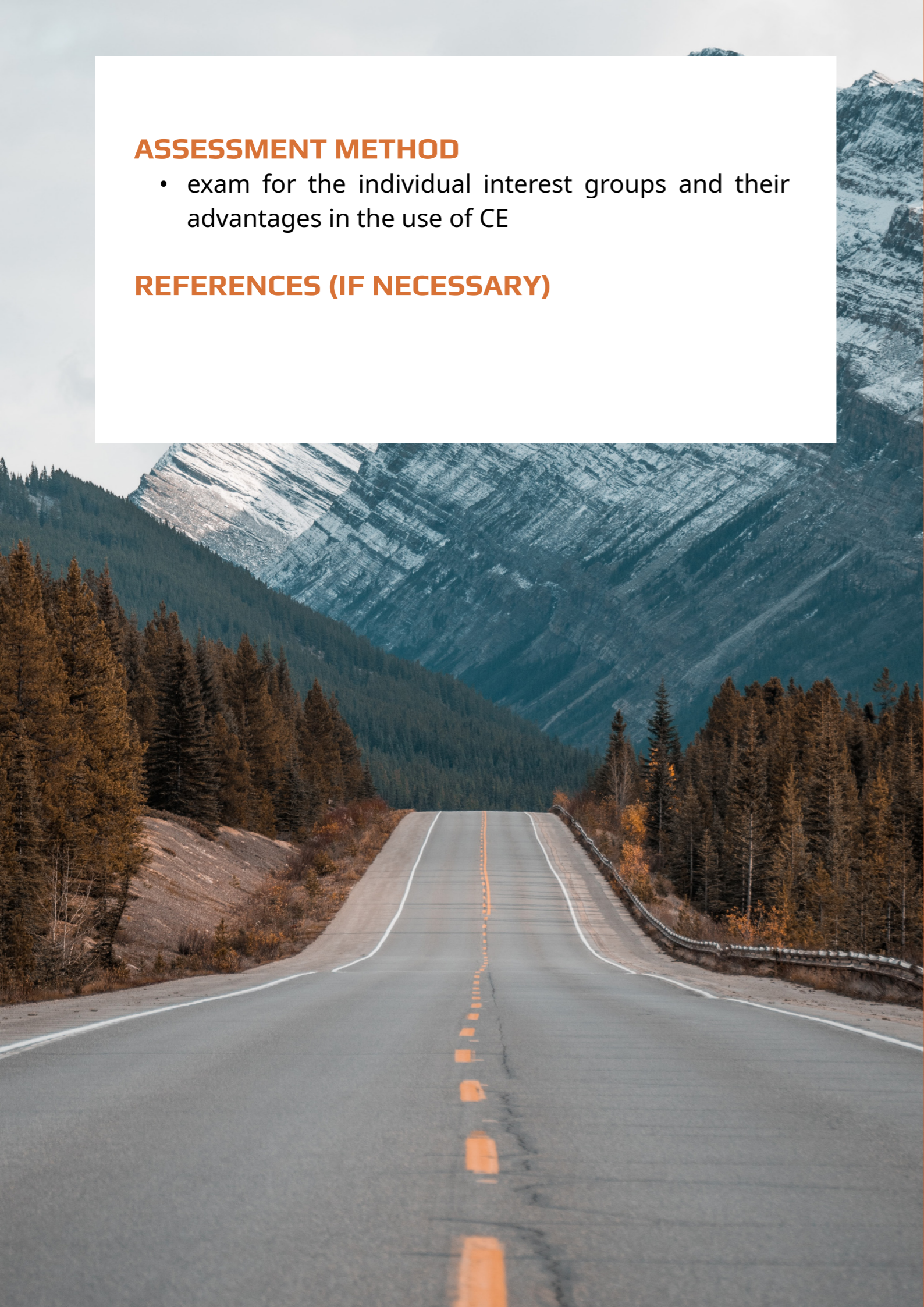


ASSESSMENT METHOD

- exam for the individual interest groups and their advantages in the use of CE

REFERENCES (IF NECESSARY)

7. CE POLICIES AND LEGISLATIVE FRAMEWORK



7. CE POLICIES AND LEGISLATIVE FRAMEWORK

ACTIVITY CODE

A1.11

ACTIVITY TITLE

CE policies and legislative framework

ACTIVITY TYPE

(i.e. face-to-face learning or self-directed learning)

Face-to-face

LEARNING OUTCOMES TO BE ACHIEVED THROUGH THIS ACTIVITY

LEARNING TIME FOR THIS ACTIVITY

OVERVIEW OF CONTENT

- legal framework for CE in Europe
- possible political instruments for the circularity of products throughout the product life cycle

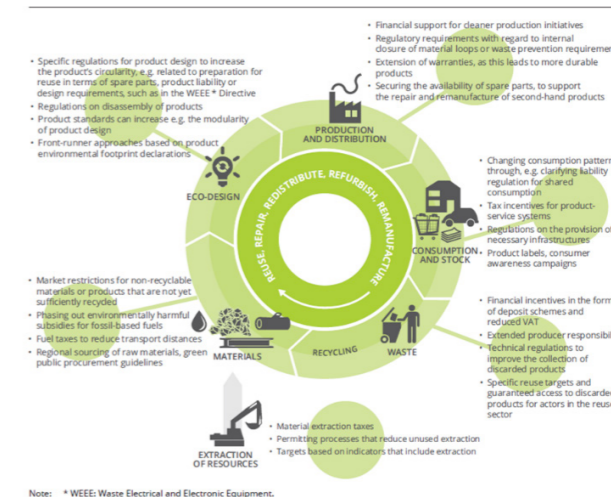
CONTENT DELIVERY METHODS

(lecture, discussions, research, group work, GreenEntreComp, etc.)

- for legal basics, a lecture is suitable, contents must be looked at very closely here, a wide-ranging, independent research by the students can lead to gaps or incorrect results through interpretation, more guidance is needed here
- the basis is working with legal texts, this is not always given and can, depending on the age group, be rather difficult

DIDACTIC MATERIALS REQUIRED

(worksheet, charts, handouts, didactic video, excerpt from books/manuals, mind maps, etc.)



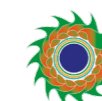
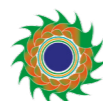
Literature

- A new Circular Economy Action Plan For a cleaner and more competitive Europe (2020). Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN>
- European Parliament Resolution on the new circular economy plan (2020/2077 (INI)), Available at: https://www.europarl.europa.eu/doceo/document/TA-9-2021-0040_EN.html
- Circular by design – Products in the circular economy, EEA Report I N 6/2017, Available at: https://circulareconomy.europa.eu/platform/sites/default/files/circular_by_design_-_products_in_the_circular_economy.pdf
- More from less – materials resource efficiency in Europe, EEA Report I N 10/2016, Available at: http://www.sepa.gov.rs/download/publikacije/MoreFromLess_MaterialResourceEfficiencyEurope.pdf
- EU Ecolabel, Available at: <https://ec.europa.eu/environment/ecolabel/>

ASSESSMENT METHOD

- exam in multiple or single-choice procedure, supported by legal texts, application rather than learning legal texts by heart

REFERENCES (IF NECESSARY)





Green-4-Future



Co-funded by the
Erasmus+ Programme
of the European Union

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Project Number: 2020-1-DE02-KA202-007429