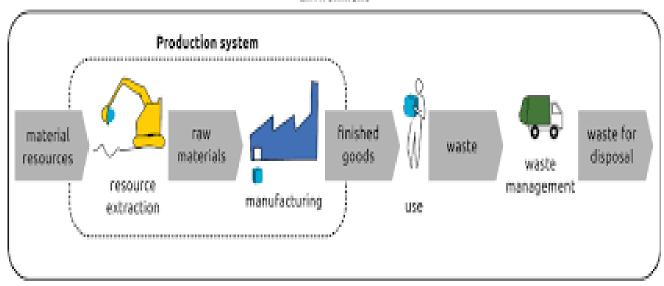
COST Summer School on Circular Economy and Topics Related to TDG Focusing on the Balkan Region and Albania

Prof. As. Dr. Rovena Vangjel, Prof. As. Dr. Llambi Prendi, Dr. Arjeta Hallunovi [UAMD]

Environment



Circular Economy Principles

Key Principles:

- Design out waste and pollution
- Keep products and materials in use
- - Regenerate natural systems







The Importance of Circular Economy in Transferring Know-How

• Encourages Collaboration:

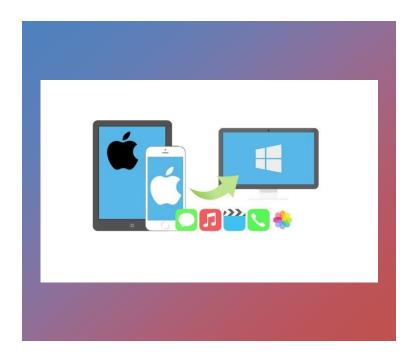
- Sharing of knowledge and innovation across industries.
- Enhances resource efficiency and sustainability.

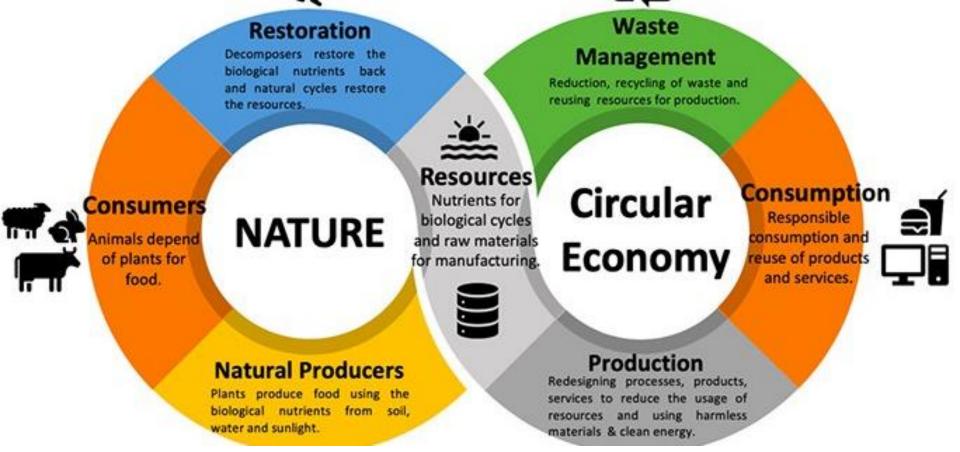
• Promotes Continuous Learning:

- Exchange of best practices and technologies.
- Fosters a culture of continuous improvement.

• Develops New Skills:

- Leads to the development of new competencies.
- Benefits the economy as a whole.





Importance for Sustainability

• Benefits:

- Reduces environmental impact
- Promotes resource efficiency
- Supports economic growth and innovation











Potential Sectors for Circular Economy Implementation in Albania

- Agriculture
- Construction
- Manufacturing
- Waste Management
- Energy
- Transport

Government Policies in Albania



ENVIRONMENTAL PROTECTION LAWS



NATIONAL WASTE MANAGEMENT STRATEGY



RENEWABLE ENERGY INITIATIVES



ECONOMIC DEVELOPMENT PROGRAMS

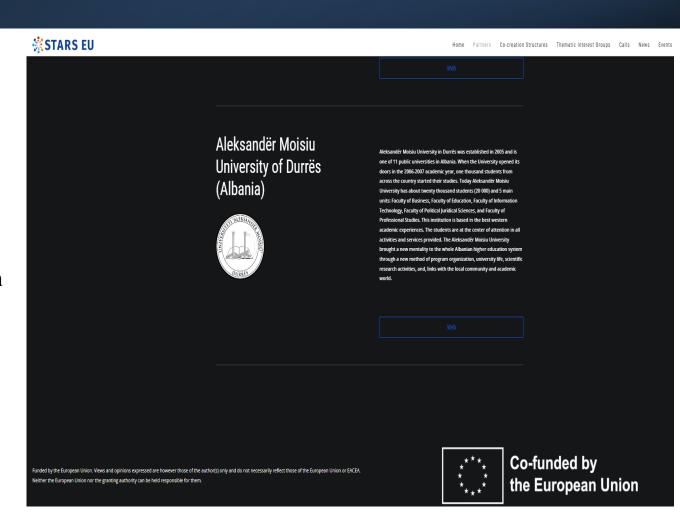


EU FUND PROJECT

1 - UAMD IN STARS EU

UAMD – STARS EU (Alliance)

- 1. Summer School
- 2. BIP
- 3. Project HORIZONT
- 4. MSc curriculum design





The Circular
Economy
Thematic Interest
Group (CE-TIG)

The Circular Economy Thematic Interest Group (CE-TIG) aims to contribute to a sustainable future in an interdisciplinarity environment within the STARS EU initiative.



Partners

Co-creation Structures

Circular Economy

CIRCULAR ECONOMY THEMATIC INTEREST GROUP

Description of Thematic Interest Group:

The circular economy is a production and consumption model involving sharing, leasing, reusing, repairing, refurbishing, and recycling existing materials and products as long as possible. In practice, it implies reducing waste to a minimum [1].

UAMD – STARS EU(Alliance)

OBJECTIVES

- Organise and put in practice joint educational initiatives
- Organise and put in practice joint research initiatives
- Organise and put into practice extension activities
- CE management and dissemination / communication activities

The Circular Economy Thematic Interest Group (CE-TIG)

Leader: Maria-Filomena Barreiro – IPB (PT)

Co-Leader: Katarzyna Matras-Postołek – CUT (PL)

Members:

- Adámek Pavel SUO (CZ)
- Alba Ramallari UAMD (AL)
- Aleksander Prociak CUT (PL)
 Anja Noke HSB (DE)
- Annabella Loconsole HV (SE)
- Arantzazu Santamaria IPB ((PT)
- Artur Gonçalves IPB (PT)
- Carla Pereira IPB (PT)
- Eduardo González Díaz ULL (SP)

- Elsa Ramalhosa IPB (PT)
- Jean Pascal Ansel (UBFC):
- Julien Bousenot UBFC (FR)
- <u>Llambi Prendi UAMD (AL)</u>
- Luís Manuel Frölén IPB (PT)
- Maria Kuranska CUT (PL)
- Marieke Steenbergen UBFC (FR)
- Marta Dominguez ULL (SP)
- Niels Faber HANZE (NL
- Nuno Rodrigues IPB (PT) Paulo Brito
 IPB (PT)
- Peter Schiphof HANZE (NL)
- Pierre Joubert UBFC (FR)
- Soraia Falcão IPB (PT)
- Ursula Barron IPB (PT)
- Vasco Cadavez IPB (PT)

Action plan for 3 years:

Action 1. BIP in Circular Economy

The BIP in Circular Bioeconomy was established in the scholar year 2021/2022, with the two first editions held at IPB (PT) (second semester). The 3rd edition (2023/2024) is planned to occur at USB (DE), the 4th (2024/2025) at HV (SE), and the 5th (2025/2026) at CUT (PL). The 6th (2026/2027) is programmed to be organised by UAMD (AL).

Action 2. Create and put in action a new BIP

Define a new BIP addressing topics in the context of CE-TIG objectives. This
new BIP will be created and implemented during the scholar year of
2024/2025. The contents and participants are to be defined. To avoid
superimposing with the CE-BIP, it will be designed to occur in the 1st
semester.

Action 3. Summer Schools in Circular Economy

 Taking advantage of the summer period (June-September), where classes interrupt at HEIs and the interest in CE topics for a wide student public (from sciences to engineering and economics), Summer Schools will be organised

Action 4. Educational project applications

Identify collaborative interests among TIG participants, but also involve other TIGs to be the basis of educational project applications (e.g., Erasmus Strategic partnerships). It is foreseeing to formalise 2 applications per year. Until now, 1 application led by CUT has been submitted, and one led by IPB is in preparation to be submitted in March 2023.

Action 5. MSc curriculum design

• Design a curriculum program in CE or collaboratively with other TIGs, following the experience acquired in the developed BIPs and conducted projects. This objective is programmed for the scholar year of 2026/2027 and must align with the policies of the STARS EU institutions and respective national rules. Also, an application to an Erasmus Mundus Joint Master (EMJM) action will be considered.



Action plan for 3 years:

Action 6. International Week in Circular Economy

The International Weeks are intended to be organised in specific CE topics, according to the expertise of the organising institution. They will offer an excellent opportunity for disseminating/communicating TIG members' joint actions, networking with external participants, and expanding knowledge and best practices. CE international weeks will be organised yearly.

Action 7. Scientific projects applications

- Identify collaborative interests among TIG participants and involve other TIGs to be the basis of educational project applications (e.g., Horizon Europe, Pillar2, cluster 6).

Action 8. CE-TIG meetings

 On a monthly basis, CE-TIG meetings will be organised using a virtual platform.

Action 9. CE-TIG STAR TALKS

This action will be conducted in cooperation with STARS EU structure "Challenge lab". External stakeholders (academics, industrials, ongoing project consortiums, etc.) will be invited to share experiences and good practices. It is foreseen to propose/organise 4 talks per year or align with the requirements of the "Challenge lab" structure.





2 - COST AND UAMD COST PROJECT FUNDS

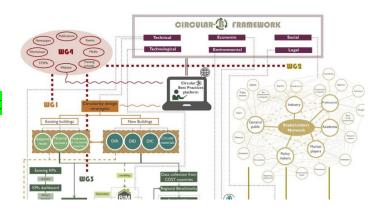


CircularB Action aims to develop a common international framework of a circularity rating tool with Key Performance Indicators (KPIs) based on current best practices of CE construction, state-of-the-art and ECEAP.

Circularity strategies and best practices

Circular value chain and stakeholder engagement

Circular KPIs framework



COST CA21103 - UAMD (CircularB)

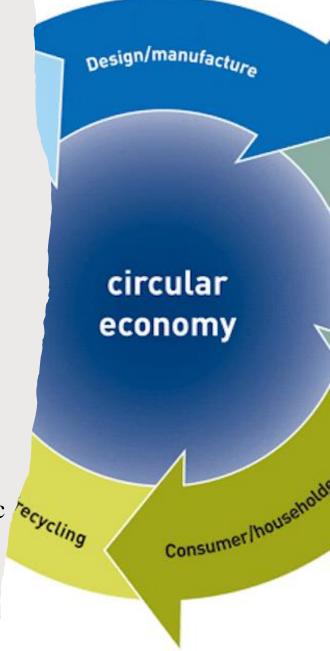


3 - Idea for application to Horizon 2025

UAMD AND HORIZON EU FUNDS Adaptation of Academic programs in preparing students for the dangerous goods transport job market on circular economy

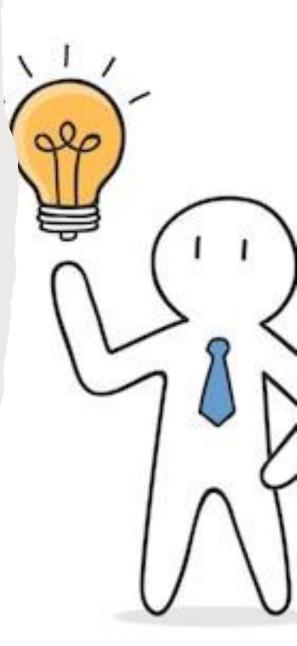
The work package describes

- WP 1 Stakeholders Networking
- Transport Institutes, Transport Operations
- Universities University A. Moisiu of Durres
- University of Faculty of Natural Sciences
- Stakeholders, academia, Research, Development
- Albanian universities, public, private institutions
- MAS, Academia, MIE, ITN, IMs, Inspections, etc Polycling



WP 1 - Stakeholders Networking

- Partner Research on CE, Plastics, materials/recycling, what are used in TDG
- Materials first hand in terms of resistance, criteria for recycling items used
- ADR adoption of academic concepts, new curricula, subjects
- TDG model, Partners (open topic), changes
- Intermodal transport network (ITN) with UAMD, Institutions
- The ITN is chaired by the Albanian Ministry (MIE)
- Albania Railway, Albanian Institute of Transport
- Line Ministries, Inspectorates
- Academic Stakeholders, etc.





- Collaboration with Agriculture University of Tirana, Master on the CE
- UAMD is aiming to open a bachelor in CE
- Stakeholder members are to be prepared for WP1.
- We focus on developing a business model on the CE and promoting it based on European practices
- In this process, we carefully select partners for WP1 and plan for their involvement in WP4.
- Preparing on how to adapt the CE to be more concrete (internship)
- Suggestions with the Engineering and Navigation Faculty (UAMD)

- MSMESs, complementarily in the adaptation of the requirement due to their consistency, cross-sectoral corporations with the universities
- The EEN (European Enterprise Network) in Albania and the ITN network
- The MoU (Memorandum of Understanding) between the Academia
- The TCT shall support the universities of the WB6 region
- The TCT with the academia, findings solutions
- Program to incorporate/existing master program
- The Dangerous Goods Safety Advisors (DGSA)

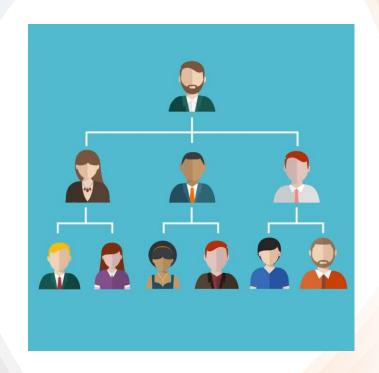


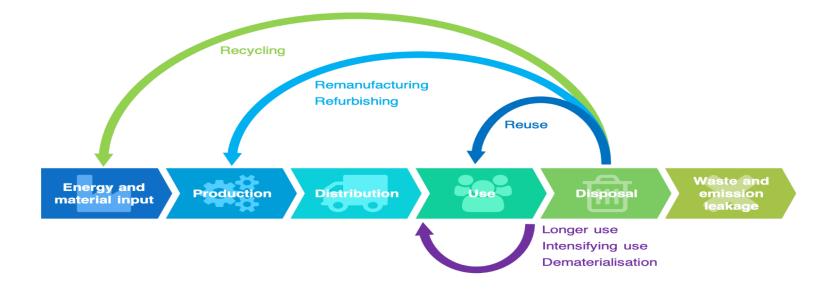
A. Organizational structure (UAMD)

- Business faculty
- The ITS systems
- The Professional Studies Faculty
- Education (and social) faculty
- Juridical sciences faculty

B. Organization of Albanian Railway (HSH)

- Central directorate and project management
- Infrastructure I.M. and transport operations





WP 2 - CE Business Model for enterprises, undertakings

- Risk mitigated via TDG legislation and circular economy
- Risk matrix as part of the risk assessment and mitigation



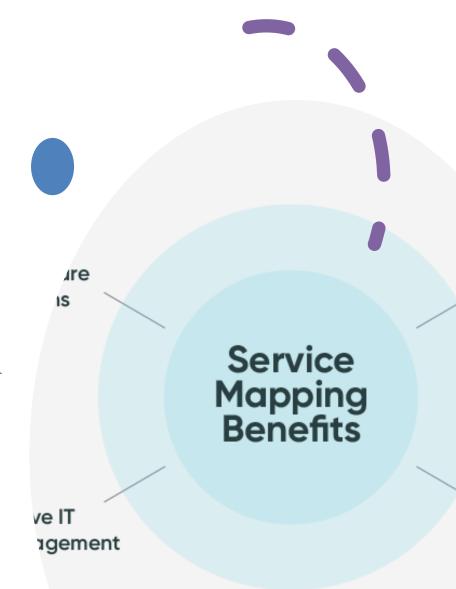
- Our idea is Multimodal navigation in all modes of transport
- TDG by rail and by road, their operations according to regulations
- Issues/ topics/ problems with implementing the international standards
- The CoBs information to be disclosed, i.e. type approval (NoBo.s)
- The notifying bodies (NoBo.s) are to interfere or not
- Stakeholder experience in the TDG and best practice
- Risk mitigation via the TDG legislation (regulations)
- Risk Matrix (3x3, 5x5) as in the Albanian legislation

- Security/safety plan for the TDG, ADR, RID, Chapter 10 of Regulation
- The EU MS assistance (Bremen University, Hamburg University PhD)
- The practices include painting factories, enterprises on CE for WB6
- Events likewise fire in the Elbasan facilities/ factories/ undertakings
- Compliance to a certain level to relevant provisions on the TDG
- Job exchanging data to National Employment Services
- Business analysis to future employment for youth
- Role of the PhD researchers, lawyers, and advisors

- Albanian Railway identified at implementing the legal framework (LGA)
- Data to be gathered from enterprises, undertakings and VIP firms
- Albania Railway is a VIP company with the international code 041
- Technical opinion of Ad Hoc group TDG ALBANIA
- Annexe 1 of Albania Guidelines of the TC TDG
- Inclusion of offices on protection from radiation
- Tentative roll-on plan for raising capacities TDG
- Batteries and Radioactive Materials event in 2025
- Scrap, iron oxide deriving from coal, classes 4.2
- Rail facility operators, as in the Art. 15 of Rail Code
- Kurum Int Co, Durres Port, Albanian Petrolifera, etc



- New initiative of incorporating Circular Economy on TDG transport
- Risk identification, assessment, mitigation and ex-post evaluation
- Propose with conference relating to the activities in WP2 and WP3
- Mapping of services offered from stakeholders, their networking etc.
- Economic reasons behind development regarding legislative regimes.



The WP communication

- WP 3 Communication strategy for CE
- Marketing branding dissemination information
- The info days, PR, forum, and fair on CE activities
- Albania is a producer of the TDG, crude oil
- Produce data from them, Painting factories
- Deutsche Color in the highway Tirana Durres
- Intermodal Transport Operations with TDG
- Inland transport by road and by rail and sea



WP 4 – Deliverables at strengthening skills for better careers

 Internship/ Traineeship programs Capacity building sessions

• Curricula/syllabus/economic resilience of active labor market

• Benefits package of job creation, abilities and competencies



- Traineeship for three modes of transport of TDG, Rail, Road, Sea
- Existing results from academic researchers (Romanian Practices)
- Study on Mobilization with inclusion of workers and mobile workers
- Environmental Aspects on Circular Economy for TDG
- Business, marketing, economics, transport, social, legal
- UAMD HSH Foreign Relations is the potential cooperation
- The principles of European programs are published in the EU
- Greener transport, circular economy, environmental/climate





Challenges and Opportunities

• Challenges:

- Implementation barriers
- Compliance costs
- Awareness and education

Opportunities:

- Innovation in waste management
- Economic incentives
- International collaboration



To expand networking....

