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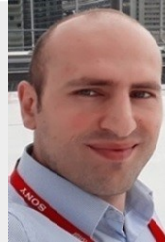
# Ways for enterprises to save resources: from Resource Efficient and Cleaner Production (RECP) to the circular economy principles and practices



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# RECP skills: introductory training 2019 – 2023



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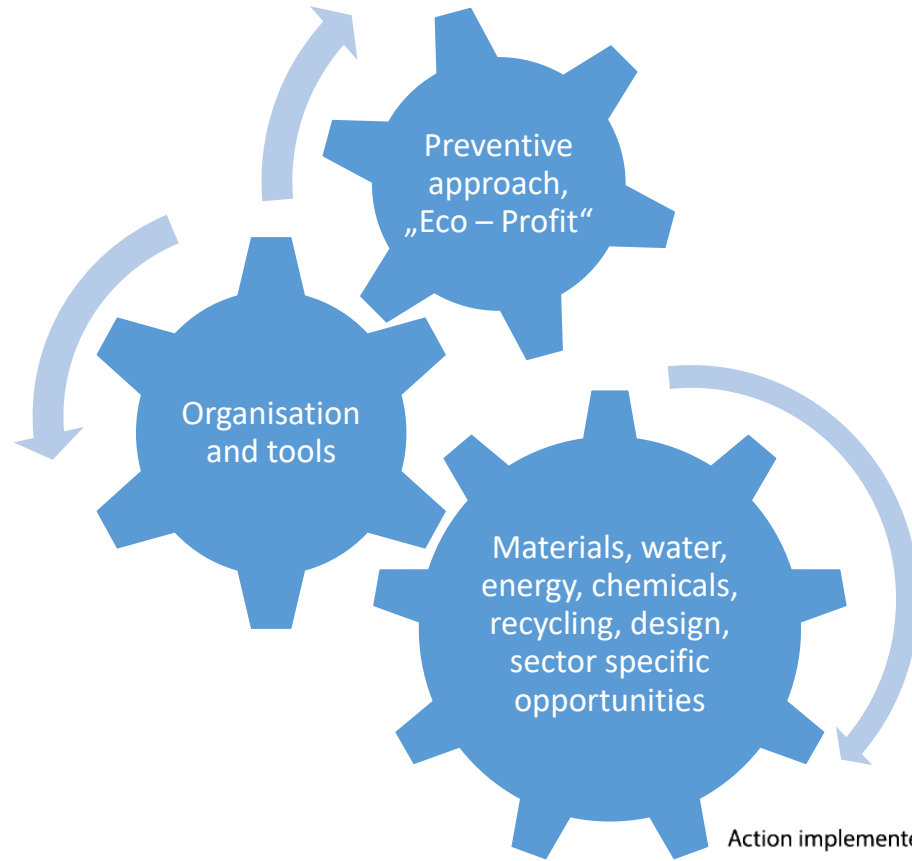


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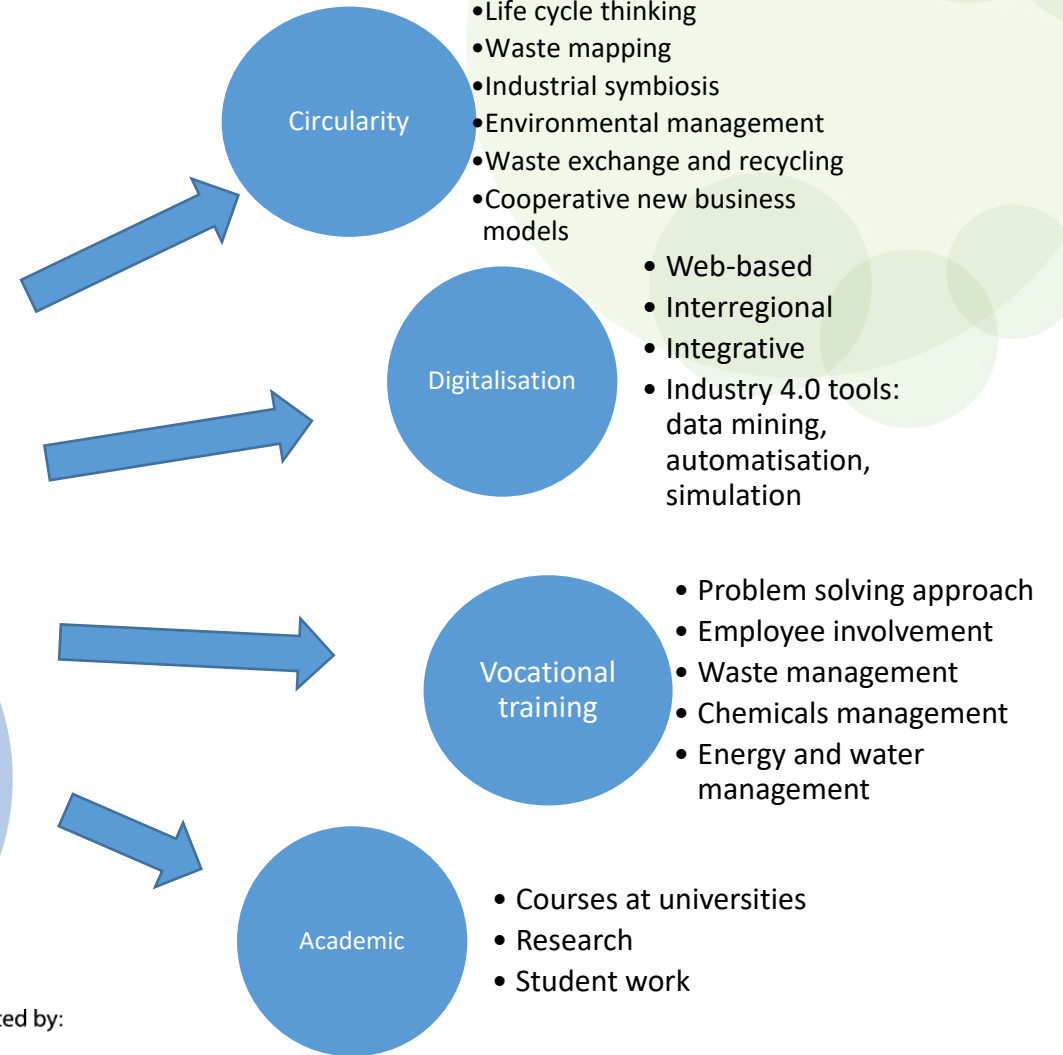
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## RECP as an entry point



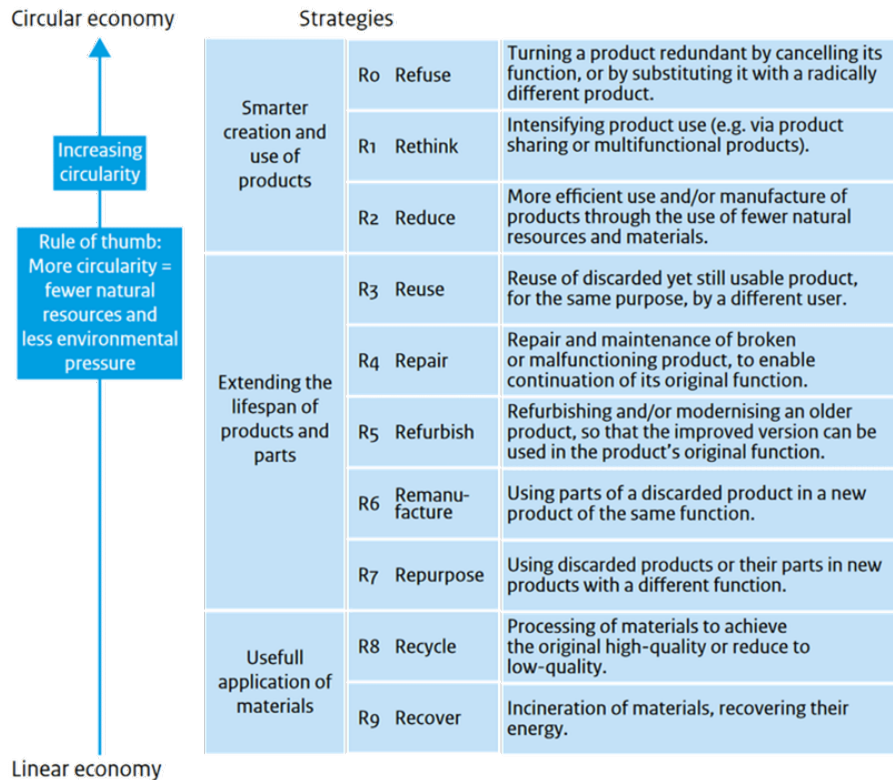
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## Implementing Circular Economy strategies



- Examples of business models, recycling, cooperation, and Industry 4.0 as a basic course
- Seminar on CE principles
- Seminars on recycling
- Seminar on EMS
- Considerations for regional aspects
- Digitalisation: online, recorded, on-demand

Source: Bassens et al. Toward a Circular Economy, 2020



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## Detailed experiences:

- **RECP as a means of vocational training on Environment Management Systems at the Khmelnytsky Business Development Agency**  
by Ms. Kateryna Savchuk, Director of the Regional Development Agency of Khmelnytskyi oblast, Ukraine
- **Online RECP training as a future-oriented approach to reach more enterprises**  
by Mr. Nikoloz Javshanashvili, RECP Center, Georgia Technical University
- **RECP course on engineering at the university**  
by Ms. Larisa Tcaci, Lecturer, Department of Energy, Technical University of Moldova
- **Baku RECP Club**  
by Mr. Mirlazim Dadashov, UNEC Sustainable Development and Green Economy, Azerbaijan

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# RECP as a means of vocational training in Environment Management System (EMS)

**Ms. Kateryna Savchuk,**  
Director of the Regional Development Agency of Khmelnytskyi Oblast,  
Ukraine

[www.recpc.org](http://www.recpc.org)

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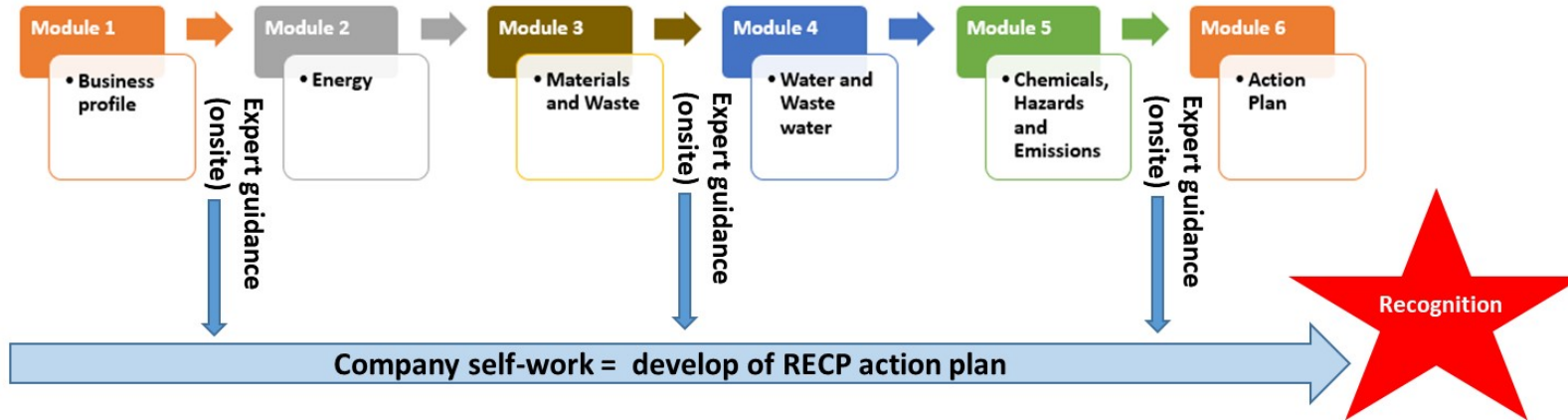
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## Cooperation on RECP Club activities



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## The autonomous knowledge system of the RECP Clubs

**Free online support to enterprises and businesses**

Personal name\*

Contact phone\*

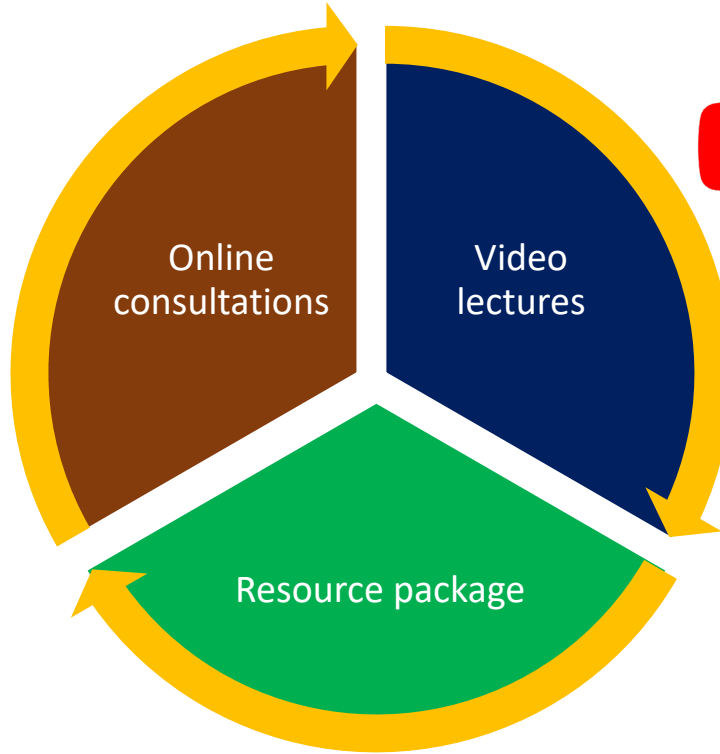
E-mail\*

Please, select the topic\*

Resource efficiency

Question

[Resource Efficient and Cleaner Production Centre \(recpc.org\)](http://recpc.org)



33 videos = 18 hours

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№	Тип	Среднее энергопотребление (кВт*час/кВтэл)	Ресурсоёмкость	Варфактис (г/кВтэл)	Интенсивность выбросов (г CO2/кВтэл)	Эквивалентный выброс
<b>Энергоносители</b>						
1	Электроэнергия	400	200 945,51	752 624,538	1,43	1,43
2	Газ	400	360,00	121 700,000	0,23	0,23
3	Теплоноситель	400	220 175,00	-	1,33	1,33
4	Итого		361 120,51	874 324,538	2,99	2,99
<b>Среднее энергопотребление</b>						
№	Тип	Среднее энергопотребление (кВт*ч)	Ресурсоёмкость	Варфактис (г/кВтэл)	Интенсивность выбросов (г CO2/кВтэл)	Эквивалентный выброс
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## Expanding the areas of competence

### Improved collaboration

- We developed skills to better interact with the manufacturing enterprises within the RECP Club
- The RECP Club showcased the possibility to unite around the RECP concept as a common element

### New opportunities

- A more detailed understanding of business problems related to production
- A focus on possible solutions to overcome the identified problems
- Ability to pay attention to more international initiatives to support businesses

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## RECP Clubs: the online experience and lessons learned



**Nikoloz Javshanashvili**

**RECP Clubs Facilitator, Georgia**

[www.recp.ge](http://www.recp.ge)

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## Face to Face vs Virtual Events - RECP Clubs Experience

	F2F	Virtual
		
	<b>VS</b>	
The impact of geographical factors when selecting RECP Club member companies	^	
Challenges in setting suitable meetings for all RECP Club members to leave their workplace and participate in the training/workshop	X	
Difficulty in organizing two workshops in a month	X	
Costs related to the organization of the training sessions	X	
Managements of the participants' involvement	X	
Number of participants for training sessions	Limited	Unlimited
The participants' involvement in practical exercises	Low	High
Feedback from participants during the training	Low	High



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## RECP Clubs lessons learned

Club members from the same industrial sector are reluctant to share their experiences with their “competitors”, thus clustering does not work

SMEs need ongoing guidance to maintain or modify the RECP measures outlined in the APs in light of actual company changes

SMEs are concerned about the real effects of implementing RECP measures in the technological process

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# RECP embedded in engineering courses at the University

Tcaci Larisa,  
University lecturer

Department of Power Engineering, Faculty of Power Engineering and Electrical Engineering  
Technical University of Moldova

<https://odimm.md/en/about-recp>

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## RECP within academia in the Republic of Moldova

- The basics of RECP were explained in the **Energy Efficiency** course (placed on moodle) in three master groups EMD-22M, EM-22M (**Energy and Environment program**) and EE-22M (**Electro-energetic program**) for a total of **45 master students**. The Energy Efficiency courses comprise hours 150 (**5 credits points**) in all master groups: 20 h of lectures and 20 h of seminars (direct contact).
- The RECP principles and technologies, as well as basic technologies to increase energy efficiency and production were explained in all chapters of the course (some important details, such as benchmarking indicators and tools of the computing technique, were explained in the chapter **Energy efficiency in industry** (lectures -1 h and seminars -1 h)).
- The master students are provided with 110 h of individual activities, divided into different individual tasks. In one of this task, the students' homework consists of a self-study exercise to elaborate papers based on the books and articles offered by the experts of the RECP project.
- In the next academic year, new lectures (2 h) and seminars (2 h) dedicated to projects implemented in the industrial sector in the Republic of Moldova will be introduced in the curriculum. **The RECP aspects related to environmental impact, the principles of economic analysis, and the principles of energy audit are all held in parallel courses or within the Bachelor's programme (or, as part of the Bachelor's and Master's thesis).**

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## RECP Clubs in Azerbaijan as part of the University Centre named after Nizami Ganjavi



UNEC  
Sustainable Development  
and Green Economy  
Research Centre



**Mirlazim Dadashov**

*Project specialist, researcher of the Centre, Azerbaijan*

[www.recp.aceconsultants.az/en](http://www.recp.aceconsultants.az/en)

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# Baku RECP Club

- **The Baku RECP Club was established as part of the University Centre**
- **Baku RECP Club has engaged 9 Small and Medium-sized Enterprises (SMEs) for which it provides practical support.**
- **New opportunities**
  - A more detailed understanding of business problems related to production
  - A focus on possible solutions to overcome the identified problems
  - Ability to pay attention to more international initiatives to support businesses

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## Flagship Activities

- **The Green Economy Week**
  - Daily workshops led by leading green economy stakeholders
  - Dedicated to the World Environment day
- **The Circular Economy and Financing Green Growth Conference**
  - Around 200 panelists including several UN agencies, academicians, major practitioners and relevant stakeholders from all over the country
- **Green Economy Book**

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## Role and interest

- RECP Clubs support 3 mission function of the Center
- Strong link and instrument for cooperation with the private sector on the green economy

## Challenges

- The important role of the RECP Clubs is still not fully understood
- Limited ESG standards and green technology expectations from the private sector
- Hence lack of interest in membership to RECP Clubs

## Future Perspectives

- Growing importance of RECP Clubs due to growing ESG demands from companies
- Increasing interest from companies in membership to RECP Clubs
- Need for multiplication of the RECP Clubs
- Additional financial support for creation of new RECP Clubs in the adoption phase
- Businesses as the leading engine of the transition to green economy with the support of RECP Clubs
- Recognition of RECP Clubs in increasing the green energy and energy efficiency literacy of the private sector

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Дякую за увагу!

მადლობა ყურადღებისთვის!

Vă mulțumim pentru atenție!

diqqətinizə görə təşəkkürlər!

Thank you for your attention!

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