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Green Economy in Eastern Partner Countries

# Application of Circular Economy in Azerbaijan: development of implementation of Resource Efficient and Cleaner Production within production enterprises

## Introduction to the project: objectives, implemented activities

Date: May 13, 2024

Asya Chelebova  
ACE Group Consultants  
Administrator/Group Leader  
The National Executive Partner of UNIDO in Azerbaijan for RECP



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## Project summary

Within the framework of EU4Environment's "Circular Economy and New Development Opportunities" program, the United Nations Industrial Development Organization (UNIDO) and its National Executive Partner ACE Group Consultants, the Ministry of Economy, the Ministry of Ecology and Natural Resources and KOBIA have been working in Azerbaijan for the past 3 years. Measures were taken to expand, and institutionalize the practice of "Increasing Resource Efficient and Cleaner Production and eco-innovation measures" (RECP) among small and medium-sized enterprises (SMEs), and identify opportunities that can support the creation of circular value chains through industrial waste maps.



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## UNIDO "Resource Efficient and Cleaner Production" project actions carried out within the framework



**Measure 1**  
Administration,  
networking and  
institutionalization



**Measure 2**  
RECP clubs and  
industry  
demonstrations



**Measure 3**  
Circular  
economy and  
waste maps



**Measure 4**  
Awareness and  
knowledge  
management

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## Main activities of the project



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## Covering the period May 2021 - January 2023 Phase I ACTIVITIES

- Preliminary Report
- First interim report
- Second interim report

### **Preliminary Report (6 months) (May-October 2021)**

- A detailed list of promotional activities and companies, and establishing contact with training participants within these activities
- Updating the set of documents intended for RECP Clubs and presentation of the master plan for two clubs

### **First Interim Report (9 months) (November 2021-July 2022)**

- Attracting 15 industrial enterprises to the demonstration component.
- Creation of 2 RECP clubs and involvement of 16-20 industrial enterprises in those clubs
- Selection of trainers and organization of trainings for them
- Organization of preliminary visits to enterprises
- Evaluation of technological processes of enterprises during the visit, preparation of technical reports

### **Second Interim Report (6 months) (August 2022-January 2023)**

- Holding two CE events for national experts on current Circular Economy (CE)-related practices
- Preparation of the action plan for the promotion and implementation of the prepared Waste maps together with the interested parties
- Organization of further visits to enterprises
- Organization of monitoring visits to 8 enterprises under the EaP Green project
- Conducting 6 trainings for club members
- Including recommendations for businesses
- preparation of "business case" reports

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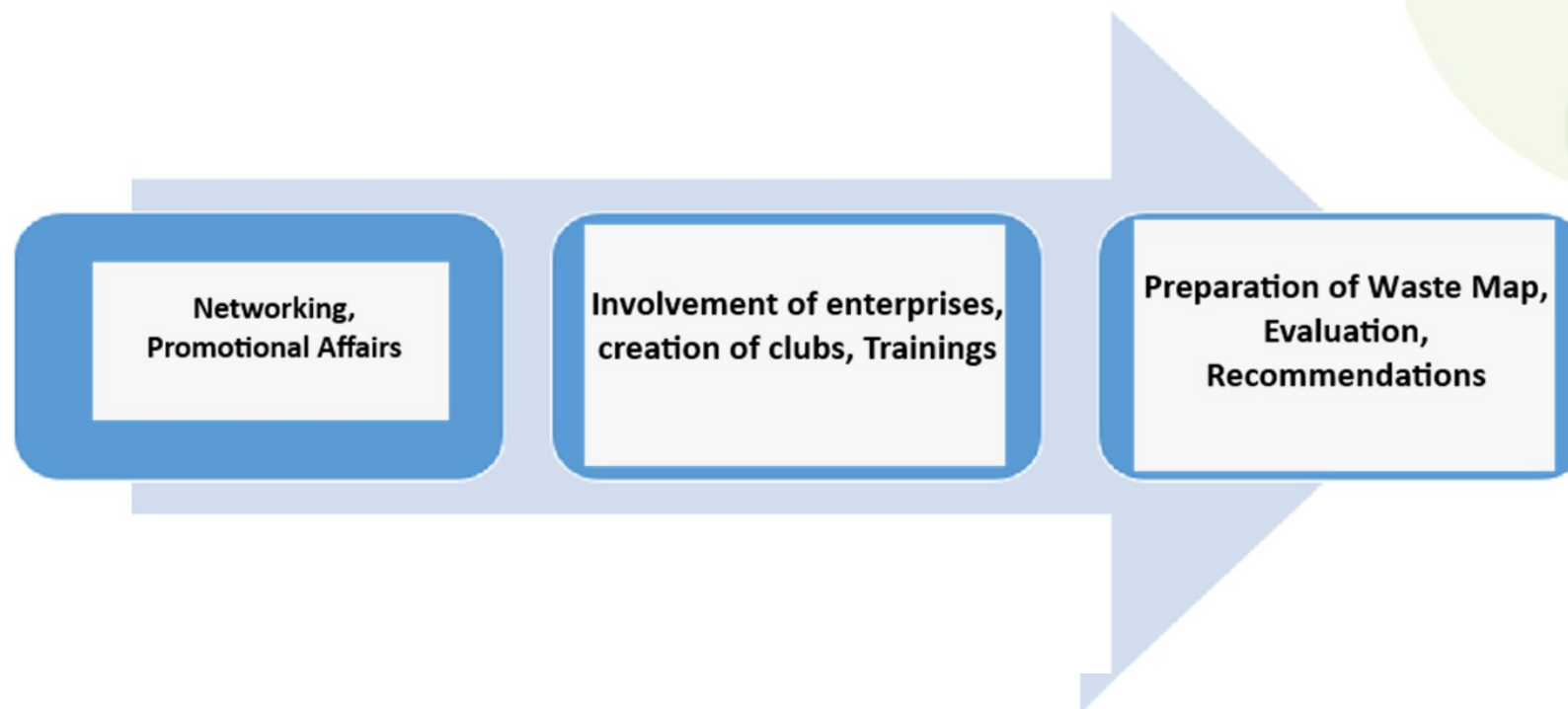


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Covering the period of  
May 2021 - January 2023



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## Phase II ACTIVITIES covering the period of February 2023 - May 2024

- Third Interim Report
- Final Report

### Third Interim Report (7 months) (February - August 2023)

- Report on the Institutionalization of RECP methodology in Azerbaijan
- Individual final reports on 6 newly involved enterprises
- Organization of visits to new enterprises, preparation of reports
- Final Management and technical reports on clubs
- Circular Economy (CE) event, report on CE experts and experiences

### Final Report (5 months) (September 2023 – May 2024)

- Organization of monitoring visits to 35 enterprises
- Technical reports based on the monitoring visits
- Cooperation with UNEC and other universities on inclusion of RECP in the subject curricula related to green economy
- Preparation of business plans/training
- Final Conference
- Final Report

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## Phase II activities covering the period of February 2023 – May 2024



Monitoring, business plan, final  
conference (providing certificates)



Involvement of new enterprises,  
preparation of reports on clubs

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## WORKS COMPLETED / TO BE COMPLETED



- A total of 36 enterprises were involved in the project, among them:
  - a) 15 industrial enterprises are involved in the Demonstration component
  - b) 21 industrial enterprises are involved in 2 RECP clubs
- Trainings were held on the application of RECP methodology to each enterprise
- Several visits were organized and technological processes of enterprises were evaluated
- Individual technical evaluation reports and business case reports were prepared
- A report and action plan on waste mapping was prepared, and training was held on the preparation of a business plan
- Business plans have been prepared
- Monitoring visits have been organized, monitoring reports are currently being prepared
- Signing of the Memorandum of Cooperation between UNEC and ACE Group Consultants (signed on March 15, 2024)

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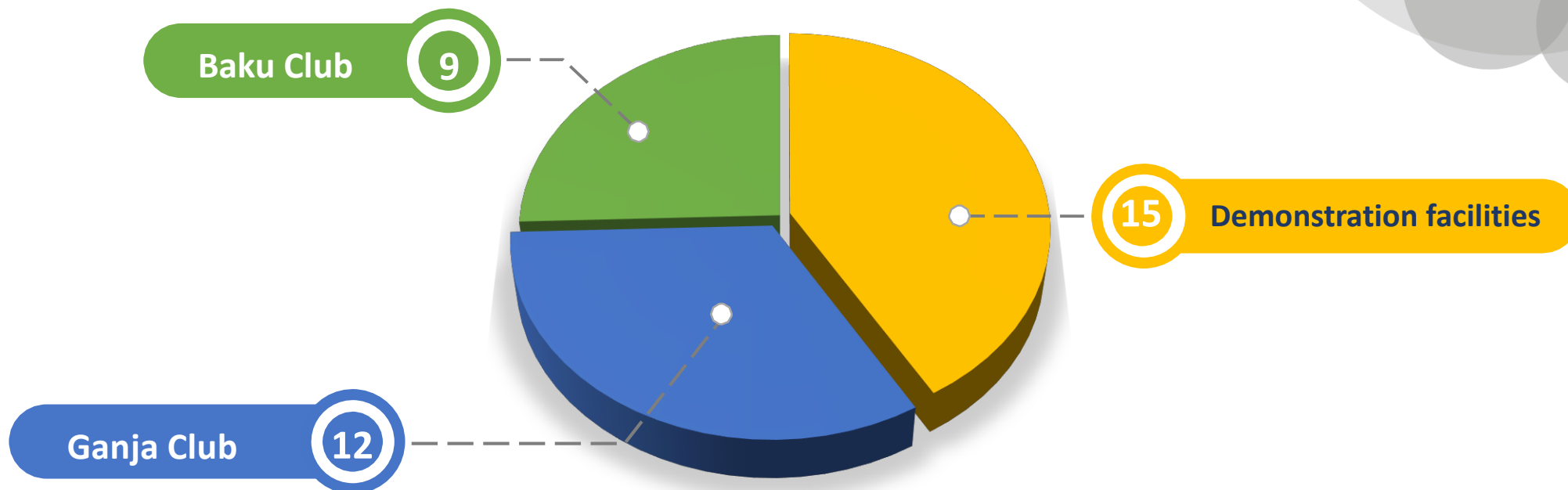


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## 36 enterprises applying RECP methodology in Azerbaijan



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## Enterprises involved in the Demonstration component of the project (phase 1)

No	Name of the Organization	Fəaliyyət növü
1.	Lachin-1 MMC	Cement production
2.	Baku Textile Factory	Textile production
3.	Alliance Textile	Textile production
4.	Betex Textile	Textile production
5.	Bliss Group	Mattress production
6.	NORM	Cement production
7.	Elastik MMC	Rubber products
8.	AzerAluminium	Aluminum metallurgy
9.	Shamxal-86	Concrete workshop

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## Organization of visits to enterprises

#	Enterprise	Photos and Videos - Link
1.	Bliss Group	<a href="https://mega.nz/folder/tu5zVC4T#UpDrqKM9j6BPh290eBOJKA">https://mega.nz/folder/tu5zVC4T#UpDrqKM9j6BPh290eBOJKA</a>
2.	Alyans Textile	<a href="https://mega.nz/folder/589mwBrL#JzuOYG-JqXQx_a9YLCptEw">https://mega.nz/folder/589mwBrL#JzuOYG-JqXQx_a9YLCptEw</a>
3.	Elastik LLC	<a href="https://mega.nz/folder/1uZkml5A#PtMsD4g85TLiBGYlrEwtHw">https://mega.nz/folder/1uZkml5A#PtMsD4g85TLiBGYlrEwtHw</a>
4.	Shamxal – 86	<a href="https://mega.nz/folder/16xk2ASK#Yt1jtmiZGrrTfrw978lnBw">https://mega.nz/folder/16xk2ASK#Yt1jtmiZGrrTfrw978lnBw</a>
5.	Lachin-1 LLC	<a href="https://mega.nz/folder/suQAETjD#a1e-9TTfk8hmLcXiZrp7PA">https://mega.nz/folder/suQAETjD#a1e-9TTfk8hmLcXiZrp7PA</a>
6.	Baku Textile Factory	<a href="https://mega.nz/folder/hnp0Xawa#jeZAq7w9H5b0hEhO6YRxiw">https://mega.nz/folder/hnp0Xawa#jeZAq7w9H5b0hEhO6YRxiw</a>
7.	AzerAluminum LLC	<a href="https://mega.nz/folder/F9MQXL6Q#n-janHGVtT3XWUTKnhcuRA">https://mega.nz/folder/F9MQXL6Q#n-janHGVtT3XWUTKnhcuRA</a>
8.	NORM LLC	<a href="https://mega.nz/folder/14FzDAoT#UWcJa94Ls-qKOvaeW9ESKQ">https://mega.nz/folder/14FzDAoT#UWcJa94Ls-qKOvaeW9ESKQ</a>
9.	Betex Textile	<a href="https://mega.nz/folder/YnwUnRwZ#afxXb4rFQyO0XNMZ6LbttA">https://mega.nz/folder/YnwUnRwZ#afxXb4rFQyO0XNMZ6LbttA</a>

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## Enterprises involved in the Demonstration component of the project (phase 2)

No	Name of the Enterprise	Type of activity
10.	Caspian Cable Systems	Production of low voltage cables
11.	Helind Energy	Electricity products production
12.	Azerfloat	Glass production
13.	UnicoProduction	Furniture production
14.	Green Blue	Waste recycling
15.	Rotvest Safety Uniform	Textile production

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## Organization of visits to enterprises

#	Enterprise	Photos and Videos - Link
1.	Rortvest Safety Uniform LLC	<a href="https://mega.nz/folder/Eg1FBA7A#5yitcLLCveKQcMC0mJrIcQ">https://mega.nz/folder/Eg1FBA7A#5yitcLLCveKQcMC0mJrIcQ</a>
2.	Azerfloat LLC	<a href="https://mega.nz/folder/1nw3AJZQ#5dqldvzvEziWYSdSn-ibw">https://mega.nz/folder/1nw3AJZQ#5dqldvzvEziWYSdSn-ibw</a>
3.	Caspian Cable Systems	<a href="https://mega.nz/folder/R1tGWQJR#kutTr-zoSfeL7qZw00RfxQ">https://mega.nz/folder/R1tGWQJR#kutTr-zoSfeL7qZw00RfxQ</a>
4.	Helind Energy	<a href="https://mega.nz/folder/Bxdi3D7T#I7pANvrChALhzHyS3NZInw">https://mega.nz/folder/Bxdi3D7T#I7pANvrChALhzHyS3NZInw</a>

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## Opportunities created for project participants

- The ability to set priorities to improve the efficiency of using resources in the enterprise
- Providing training to the company's employees on UNIDO's RECP methodology
- Identifying deficiencies in technological processes and proposing RECP measures and preparing recommendations.



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## Additional opportunities

- Organization of at least 4 meetings with the international team of trainers in the format of individual consultation
- Ability to prepare for national de-carbonization legislation
- Development of a business model for the implementation of a specific RECP measure selected by the enterprise based on the required technological and economic resources (Elastic LLC and Azerfloat OSJC)



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## Challenges Encountered - In the recruitment process

**Lack of awareness of enterprises regarding RECP**

(accordingly, MIT spends a relatively large amount of time on educational work on RECP)

**Difficulties in allocating appropriate personnel for the project in enterprises**

**Relatively low costs of utility services**



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## Challenges Encountered - Enterprises Involved



- Gaps in data collection and recording in small and medium enterprises
- Failure to provide information on time by the enterprise
- Employment of a designated enterprise representative for the project
- Change of business owner
- Termination of the enterprise
- Uncertainty regarding access to financial resources and access to new markets
- Delay in adoption of relevant legislation

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## Composition of RECP teams and role of participants

	Group 1	Group 2	Group 3	Group 4	Group 5	Group 7	Group 8	Group 9
<b>Trainers/ Experts</b>	-Alizade Rana -Huseynli Ramin	- Ismayilova Gulgaz - Gafarov Ruslan - Mirzayeva Gulnar	-Valeh Nasibov -Vasif Hasanov	-Laman Hasanova -Shahriyar Mustafayev	-Alizade Rana -Valeh Nasibov	-Salimova Afag -Elshan Sultanov	-Tofig Hasanov -Jahangir Afandiyev -Valeh Nasibov	-Rena Alizada -Afag Salimova
<b>Enterprises</b>	LACHIN 1 LLC  NORM LLC	BAKU TEXTILE FACTORY LLC  ALYANS TEXTILE	BLISS GROUP LLC  AZERALUMINI UM LLC	ELASTIK LLC  SHAMKHAL-86 LLC  GREENBLUE LLC	NORM LLC  AZERALUMINI UM LLC  AZERFLOAT	BETEX TEXTILE LLC	CASPIAN CABLE SYSTEMS  HELIND ENERGY	UNIPRO LLC  RORTVEST SAFETY UNIFORM

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## Saving budget funds - demonstration companies

15

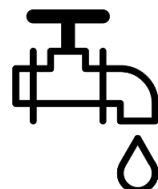
Enterprise

33

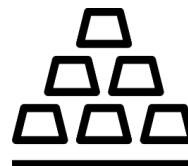
RECP event



30 038 374  
kWh/yr  
energy



1 290  
m3/yr  
water



8 802  
tons/yr  
materials



229  
tons/yr  
waste



77,6  
tons/yr  
CO2  
emission



1 466 285  
EUR/yr  
cost saving



2 480 630  
EUR  
savings

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## Establishment of RECP Clubs

**Baku Club**

Azerbaijan State University of Economics (UNEC) was established under the Nizami Ganjavi Center for Sustainable Development and Green Economy Research (NG DİYİT)

**Ganja Club**

It was created under the Center for Sustainable Smart Cities and Regions named after Nizami Ganjavi in the Department of Innovations of Ganja State University.

Note: Several activities of RECP are included in the Regulations of both Centers

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## Members of the Baku Club

1	"Universal Construction Engineering and Supply" CJSC	Industrial construction	Construction materials	Zamina Babayeva	Business Development Manager
2	"M&T LTD" Firm	Production	Food and beverage	Azade Rzayeva	Head Management System
3	"Mahmud-Topchu K" LLC	Manufacturing	Production of polystyrene	Eldar Topchuyev	Director
4	"A+CO" OJSC	Production	Aerated water and beverages	Ruslan Baghirov	Head of alcoholic and non-alcoholic production
5	"Carlsberg Azerbaijan" LLC	Production	Alcoholic drinks	Lala Afandi	Head of Corporate Affairs
6	"Veliev" LLC	Manufacturing	Polymer products	Ibrahim Majidli	Quality Manager
7	"Gilan Textile Park" LLC	Manufacturing	Textile	Shargiya Gozalova	Chief accountant
8	"Fire Safety Caspian Azerbaijan" LLC	Production	Fire extinguisher	Anver Mursakulov	Director
9	"C.Q. Partners" LLC	Production	Concret	Anar Suleymanov	Deputy Director

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## Members of the Ganja Club

#	Company	Manager	Address
1	Gizil Eller LLC	Zenfira Aghayeva Huseyn	Ganja city, Nariman Narimanov, 123
2	"ABADLIQ" Construction Materials Manufacturing Firm	Elman Heydarov	Ganja city, Abbas Sahhat street, 74
3	"Zaferoglu elektrik" Limited Liability Company	Subhan Hasanov	Ganja city, Heydar Aliyev avenue, 64
4	Az-Eco Product LLC	Ruhlan Chobanov	Ganjavi str., 135, Ganja city, AZ2007
5	"Hicranoglu" LLC	Ibrahim Mammadov	Dada Gorgud str., 34, apt. 5, Ganja city, AZ2011
6	Ganja Textile OJSC	Qabil Aliyev	Ganja city, AZ2001, Sh.I.Khatai, 64
7	"NB Ceramic" LLC	Anar Mammadov	Ganja city, right side of Ganja-Gazakh highway
8	Ganja Sharab 2 OJSC	Saleh Babazadeh Nadir	Ganja city, Kapaz district, Kanar str., 3
9	<u>Ganja Cihazqavirma Zavodu OJSC</u>	Ayat Baghiyev	Ganja city, <u>H.Aliyev ave.</u> , 121
10	<u>Semsan LLC</u>	Samir Heydarov	Ganja city, Zolfi Hajiyeve, 48
11	<u>Sempa LLC</u>	Samir Heydarov	
12	<u>"Technosteel-G"</u>	<u>Orkhan Huseynov</u>	Ganja city, <u>Zolfi Hajiyeve</u> , 48

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## Saving budget funds – RECP Clubs

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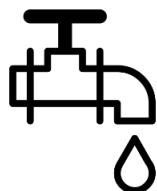
Enterprise

25

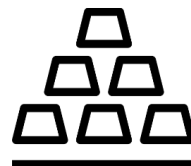
RECP event



304 595  
kWh/yr  
**energy**



477 371  
m3/yr  
**water**



51 358  
tons/yr  
**materials**



4  
%  
**waste**



347 040  
tons/yr  
**CO2  
emission**



692 429  
EUR/yr  
**cost saving**



1 585 202  
EUR  
**investment**

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## MEMORANDUM OF COOPERATION between UNEC and ACE Group Consultants (March 15, 2024)

This Memorandum was signed for strengthening University-Industry Cooperation, as well as for sharing modern knowledge and experiences of the EU4Environment program aimed at resource efficiency, cleaner production (RECP) and circular economy through transition to green economy for achieving sustainable development in the Republic of Azerbaijan, for joint training, preparation of educational programs, textbooks, and implementation of local and international projects.



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***THANK YOU FOR  
YOUR ATTENTION!***

**Asya Chelebova**

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