



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



„Gheorghe Asachi” Technical University of Iasi, Romania
Faculty of Electrical Engineering

Improving the cross-border public transportation using electric buses supplied with renewable energy - ELBUS Project EMS-ENI, code 2SOFT/3.1/54

Work visit at „Gheorghe Asachi” Technical University of Iași, Romania

Activity A.3.7, Work visit at „Gheorghe Asachi” Technical University of Iași, Romania

Project manager, conf.dr.ing. Costică Nițucă

Friday, 01.10.2021; Saturday 02.10.2021



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Meeting agenda:

Friday, 01.10.2020, from 10.00-14.00

- Presentation and exchange of information, technical, financial and scientific on the evolution of the ELBUS project:
 - A presentation on project management, procurement, information and communication plan, project addendum; **from TUIASI, Project manager, conf.dr.ing. Costică Nițucă;**
 - A presentation on project management, information and communication plan, **from UTM, Project manager, conf.dr.ing. Ilie Nucă**
 - A presentation of the financial aspects, **from TUIASI, Financial manager, Ec. Cristina Horga.**
 - A presentation of the financial aspects, **from UTM, Financial manager, Ec. Daniela Gîrlea;**
- Analysis and discussions.

Saturday, 02.10.2021, from 10.00-14.00

- Presentation and exchange of information, technical and scientific on the evolution of the ELBUS project:
 - A presentation on the implementation of the scientific and research activities **from TUIASI, s.l.dr.ing. Gabriel Chiriac;**
 - A presentation on the implementation of the scientific and research activities **from UTM, lect.univ.dr.ing. Vadim Cazac and lect.univ.dr.ing. Marcel Burduniuc;**
- Visit to the laboratories of the Faculty of Electrical Engineering.
- Conclusions. Closing of the working visit.



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



A presentation on project management, procurement, financial issues, information and communication plan, addendum



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Activity A.3.7:

Work visit at „Gheorghe Asachi” Technical University of Iasi, Romania.

Planned: Start month 6; **End month 18.**

Executed: Start month 6; **In progress.**

No	Deliverable	Target value	Achieved
D3.7.1	Work visit at „Gheorghe Asachi” Technical University of Iasi, Romania	1	In progress
D3.7.2	Report on the work visit	1	In progress
D3.7.3	Press release published	1	In progress



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



List of sources of verification issued during/after the event:

- **Invitation** to participate on the working visit;
- **Agenda** of the Work visit at „Gheorghe Asachi” Technical University of Iasi, Romania;
- **Short Video recording** of the event;
- **Report** regarding the Work visit at „Gheorghe Asachi” Technical University of Iasi, Romania;
- **Press release** published on the address:
<http://www.elbus.ieeia.tuiasi.ro/>



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Project management

G.A.No.1. Project management

Activity A.1.1:

Organizing the teams project and implementation of the project.

Planned: Start month 1; End month 1.

Executed: Start month 1; End month 3.



This project is funded by the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Activity A.1.2:

Monitoring, evaluation, technical report and financial report into the project.

Planned: Start month 1; End month 18; Addendum - End month 21.

Executed: Start month 1; In progress.

No	Deliverable	Target value	Achieved
D1.2.1	Monitoring time sheets, TUIASI	90	73
D1.2.2	Monitoring time sheets, UTM	108	76
D1.2.3	Progress report no. 1	1	1
D1.2.4	Progress report no. 2	1	1
D1.2.5	Intermediate internal report	1	1
D1.2.6	Final Report	1	In progress
D1.2.7	Audit – UTM	1	No started
D1.2.8	Practical guideline	1	In progress



This project is funded by the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Activity A.1.3:

Equipments acquisition and promotional materials.

Planned: Start month 2; **End month 8;** **Addendum - End month 21.**

Executed: Start month 4; **In progress.**

No	Deliverable	Target value	Achieved
D1.3.1	List of the acquired equipment, TUIASI	1	In progress
D1.3.2	List of the acquired equipment, UTM	1	In progress
D1.3.3	List of the promotional materials - visibility, TUIASI	1	In progress
D1.3.4	List of the promotional materials - visibility, UTM	1	In progress



This project is funded by the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



G.A.No.2. Information and Communication plan

Activity A.2.1:

Design and update of a web site, to disseminate the project progress and results.

Planned: Start month 1; End month 18.

Executed: Start month 1; **In progress.**

No	Deliverable	Target value	Achieved
D2.1.1	Web page	1	1



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Activity A.2.2:

***Final scientific project seminars (communication) organized at „Gheorghe Asachi”
Technical University of Iasi, Romania.***

Planned: Start month 10; End month 18; Addendum - End month 21.

Executed: Start month - 10; In progress.

No	Deliverable	Target value	Achieved
D2.2.1	Final scientific project seminars (communication) organized	2	In progress
D2.2.2	Number of participants at the first final scientific project seminar (communication)	60	In progress
D2.2.3	List with the participants at the first final scientific project seminar (communication)	1	In progress
D2.2.4	Number of participants at the second final scientific project seminar (communication)	60	In progress
D2.2.5	List with the participants at the second final scientific project seminar (communication)	1	In progress
D2.2.6	Press conference organized	1	In progress
D2.2.7	Press release published	1	In progress
D2.2.8	Seminars report	2	In progress



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Activity A.2.3:

Workshops organized at Technical University of Moldova, Chisinau, Republic of Moldova.

Planned: Start month 10; End month 18; Addendum - End month 21.

Executed: Start month - 10; In progress.

No	Deliverable	Target value	Achieved
D2.3.1	Workshops organized	2	In progress
D2.3.2	Number of participants at the first workshop	60	In progress
D2.3.3	List with the participants at the first workshop	1	In progress
D2.3.4	Number of participants at the second workshop	60	In progress
D2.3.5	List with the participants at the second workshop	1	In progress
D2.3.6	Press releases published	2	In progress



This project is funded by the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Activity A.2.4:

Elaboration and dissemination of visibility materials.

Planned: Start month 1; End month 18; Addendum - End month 21.

Executed: Start month - 1; In progress.

No	Deliverable	Target value	Achieved
D2.4.1	250 flyers disseminated – TUIASI	250	In progress
D2.4.2	2 press releases published – TUIASI	2	In progress
D2.4.3	3 banner-rollup displayed – TUIASI	3	3
D2.4.4	50 portfolios disseminated – TUIASI	50	In progress
D2.4.5	250 flyers disseminated – UTM	250	In progress
D2.4.6	3 press releases published – UTM	3	In progress
D2.4.7	100 stickers for equipment – UTM	100	100
D2.4.8	15 portfolios disseminated – UTM	15	In progress
D2.4.9	1 short video about the project displayed – UTM	1	In progress
D2.4.10	1 article „telling the project’s story” published – UTM	1	In progress
D2.4.11	130 brochures disseminated – UTM	130	In progress
D24.12.	111 Brochures disseminated -TUIASI	111	In progress



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



G.A.No.3. Analysis of the electric bus optimal functionality

Activity A.3.1:

Analysis of the electric buses.

Planned: Start month 1; End month 4.

Executed: Start month 2; **End month 5.**

No	Deliverable	Target value	Achieved
D3.1.1	Technical report related to the using of the electric buses	1	1



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Activity A.3.2:

Analysis of the auxiliary loads.

Planned: Start month 5; End month 9.

Executed: Start month 6; End month 9.

No	Deliverable	Target value	Achieved
D3.2.1	Automation system for auxiliary loads	1	1



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Activity A.3.3:

Thermal model of the indoor climatic environment.

Planned: Start month 10; End month 13.

Executed: Start month - **10**; End month - **13**.

No	Deliverable	Target value	Achieved
D3.3.1	Thermal model	1	1
D3.3.2	Thermal map for the indoor climatic environment	1	1



This project is funded by the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Activity A.3.4:

Renewable energy for the batteries.

Planned: Start month 14; End month 18; Addendum - End month 21.

Executed: Start month - 14; End month – In progress.

No	Deliverable	Target value	Achieved
D3.4.1	Technical report related to the recharging of the batteries by renewable energy	1	In progress



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Activity A.3.5:

Elaborating a practical guideline regarding the improve of the energetical performances for an electric bus.

Planned: Start month 4; End month 18; Addendum - End month 21.

Executed: Start month 4; In progress.

No	Deliverable	Target value	Achieved
D3.5.1	Guideline regarding the improve of the energetical performances for an electric bus elaborated	1	In progress
D3.5.2	Guideline regarding the improve of the energetical performances for an electric bus disseminated	40	No started
D3.5.3	List with the persons that received the guideline	1	No started



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Activity A.3.6:

Work visit at Technical University of Moldova, Chisinau, Republic of Moldova.

Planned: Start month 2; End month 9.

Executed: Start month 6; End month 9.

No	Deliverable	Target value	Achieved
D3.6.1	Work visit at Technical University of Moldova, Chisinau, Republic of Moldova	1	1
D3.6.2	Report on the work visit	1	1
D3.6.3	Press release published	1	1



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Activity A.3.7:

Work visit at „Gheorghe Asachi” Technical University of Iasi, Romania.

Planned: Start month 6; End month 18.

Executed: Start month 6; **In progress.**

No	Deliverable	Target value	Achieved
D3.7.1	Work visit at „Gheorghe Asachi” Technical University of Iasi, Romania	1	1
D3.7.2	Report on the work visit	1	1
D3.7.3	Press release published	1	1



This project is funded by the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Outputs and results

Outputs and results during the report period (01.04.2020, 02.06.2020 – 25.02.2021)

Project outputs

Outputs	Output indicator (value)	Achieved
Output 3.1. Increasing the energy efficiency of the auxiliary loads	1	1
Output 3.2. Increasing the overall energy efficiency of the electric bus	1	In progress

Project results

Project results	Target value	Achieved
1.Improved automation system for auxiliary loads of the electric bus	1	1
2.Advanced thermal model related to the climatic environment within the electric bus	1	In progress



This project is funded by the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Programme outputs according to the description in the project proposal

Programme outputs	Description	Value	Achieved
Programme output1	3.1.4 Number of environmentally friendly (carbon-proofed) cross-border transport initiatives developed	4	3 Achieved 1 in progress

In the project description were highlighted 4 initiatives, which fold on the programme outputs, as folloing

Initiatives developed	Value	Achieved
1.Optimization of electric energy consumption	1	1
2.Increasing of power efficiency	1	1
3.Decreasing of the thermal losses	1	1
4.Theoretical solution for using the renewable energy as an ecological solution for recharging the batteries of the electric bus from a system with photovoltaic panel	1	In progress



This project is funded by the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



The procurement

TUIASI-LB:

Equipment	Pieces	Purchase value with VAT [Lei]	Supply Contract	Equipment supplier
Laptop	1	4.275,75	23836/16.11.2020//GC 0859/19.11.2020	Giros Company SRL
Multifunction laserjet printer	1	2.245,53	23836/16.11.2020//GC 0859/19.11.2020	Giros Company SRL
Programmable Logic Controllers (PLC)	2	9.667,56	22656/03.11.2020	Siemens SRL

Materials	Pieces	Purchase value with VAT [Lei]	Supply Contract	Equipment supplier
250 flyers disseminated - TUIASI	250	669,38	22844/29.07.2021	S.C. LEMINGS S.R.L.
3 banner-rollup displayed – TUIASI	3	428,40	22844/29.07.2021	S.C. LEMINGS S.R.L.
50 portfolio disseminated – TUIASI	50	416,50	22844/29.07.2021	S.C. LEMINGS S.R.L.
111 Brochures -TUIASI	111	-	-	In progress

The procurement procedure at TUIASI is in progress.



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



The procurement - Addendum

9. Introduction of new budget lines for "***Specialized equipment and endowment***", namely:
- "4.2.2.2. **Thermal vision camera**, *Unit* (per item), of units (1), unit rate (1,500.00), total budget (1,500.00 euro)". The purchased product will be used under GA3, A.3.4.
- "4.2.2.3. **Adjustable voltage source**, *Unit* (per item), of units (4), unit rate (300.00), total budget (1,200.00 euro)". The purchased products will be used under GA3, A.3.4.
- "4.2.2.4. **Oscilloscope**, *Unit* (per item), of units (4), unit rate (600.00), total budget (2,400.00 euro)". The purchased products will be used under GA3, A.3.4.
- "4.2.2.5. **Signal generator**, *Unit* (per item), of units (4), unit rate (500.00), total budget (2,000.00 euro)". The purchased products will be used under GA3, A.3.4.
- "4.2.2.6. **Temperature sensor / thermocouple – kit control**, *Unit* (per item), of units (10), unit rate (120.62), total budget (1,206.20 euro)". The purchased products will be used under GA3, A.3.4.

The procurement procedure at TUIASI is in progress.



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Visibility. Dissemination of visibility materials

The procurement

250 flyers disseminated - TUIASI	250
2 press releases published - TUIASI	2*
3 banner-rollup displayed - TUIASI	3
50 portfolio disseminated - TUIASI	50
250 flyers disseminated - UTM	250
3 press releases published - UTM	3
100 stickers for equipments - UTM	100
15 portfolio disseminated - UTM	15
1 short video about the project displayed - UTM	1
1 article „telling the project’s story” published – UTM	1
130 brochures disseminated – UTM	130
11 Brochures disseminated - TUIASI	111



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Financial issues ELBUS Project

TUIASI – Ec. Cristina Horga

UTM – Ec. Daniela Gârlea



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Addendum no 1

Analysis and discussions

- Revised Annex I: Description of the Project - Application form;
- Revised Annex I: Description of the Project – Justification of costs for individual budgets;
- Revised Annex II: Partnership Agreement – Annex 2: Schedule for programmed activities;
- Revised Annex II: Partnership Agreement – Annex 3: Budget of the project to be implemented by every Beneficiary;
- Revised Annex II: Partnership Agreement – Annex 4: Schedule for requests for payment and technical and financial interim reports / final implementation report;
- Annex F - Declaration of the legal representative of the organization Technical University “Gheorghe Asachi” of Iasi, Romania, as Lead Beneficiary for the project;
- The partners agreement (LB - Technical University “Gheorghe Asachi” of Iasi, Romania and B1 - Technical University of Moldova, Chisinau, Republic of Moldova).



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Analysis, discussions, various presentations



This project is funded by
the European Union



Romania-Republic of Moldova
ENI-CROSS BORDER COOPERATION



Dear friends, thank you!