

EU – Ukraine Strategic Partnership on Raw Materials Roadmap 2021-22

The Memorandum of Understanding between the European Union and Ukraine on a Strategic Partnership on Raw Materials (hereinafter "the MoU") was signed on 13 July 2021. It reflects a shared commitment to enhance cooperation in the field of raw materials and batteries. The aim is to bring about closer integration of critical raw materials and battery value chains, with mutual benefits.

While the MoU sets the political framework, this Roadmap represents the initial actions to advance the goals of the Partnership defined under the three MoU work streams. These work streams are:

- **WS 1** - Approximation of regulatory mining frameworks and application of the sustainable mining principles.
- **WS 2** - Integration of (critical) raw materials and battery value chains by facilitating joint venture projects and business opportunities.
- **WS 3** - Closer collaboration in Research and Innovation along critical raw materials and batteries value chains utilising Horizon Europe and other EU programmes relating to raw materials and batteries.

This Roadmap will be a **living document with regular updates** to reflect progress made, and new opportunities identified in the course of their implementation.

The partners agreed to use the existing collaboration structure of the Working Group on Raw Materials, established under the EU-Ukraine High Level Industrial Dialogue, to monitor and discuss any matters of relevance to implementation of the Roadmap.

The partners intend to organise a **regular biennial high-level meeting** (at ministerial level) to take stock of Partnership progress and endorse the updates of the Roadmap.

The **European Raw Materials Alliance** and the **European Battery Alliance** play a key role on the implementation of the Actions of this Roadmap.

Stakeholders from both sides will be invited to engage in the identified initial actions of interest to them.

List of Initial Actions

1) Develop a low carbon strategy and roadmap to decarbonise raw material mining, extraction and processing in Ukraine

Jointly developing a Low Carbon Strategy including Roadmap scenarios with agreed emission-reduction targets for 2030/40/50 is a key action towards our common Green Deal objectives. This will help to raise public awareness and to identify areas for capacity building in the raw materials and batteries sectors.

2) Strengthen sustainable and responsible sourcing and processing of raw materials and batteries in Ukraine

Improved knowledge and application of responsible environmental, social and good governance mining practices throughout the raw material and battery value chains is a way of securing public acceptance and meeting sustainable financing criteria in Europe.

3) Digitalise and strengthen data management of Ukrainian mineral resources/reserves

Access to reliable geological and mining data and information will increase the attractiveness of business opportunities for foreign investors in Ukraine. Information should be harmonised and evaluated using international standards (e.g. UNFC, JORC).

4) Enhance the use of Earth-observation programmes and remote sensing for resource exploration, operations and post-closure environmental management

Use the potential of remote sensing using Europe's Copernicus Programme and other Earth observation data and services to identify new critical raw material sites, monitor the environmental performance of mines during their operating life and after closure. Develop concrete case studies, provide capacity building and knowledge transfer.

5) Identify and conduct joint-venture projects for EU and Ukrainian industrial and investment actors

The integration of sustainable raw material and battery value chains will not happen on its own. The partners will promote active participation among their respective stakeholders in the European industrial alliances, notably the European Raw Materials Alliance and the European Battery Alliance, as platforms to collaborate and develop investment projects. In parallel, continue to identify barriers and to promote investment opportunities for EU stakeholders.

Partnership Roadmap - as of 7th July 2021

MoU work streams / specific objectives	Actions	Leading organisations
<p>WS1 - cooperation to improve the legal, regulatory and administrative framework stimulating the development of extractive industries in line with the Ukrainian Strategy 2030 on extractives.</p> <p>WS2 - modernisation of extractive and refining processes and technologies.</p> <p>WS2 - supporting a circular economy in raw materials through effective use and increased recycling of critical materials.</p> <p>WS3 - decarbonisation of extractive industry by using green energy and industry digitalisation.</p>	<p>1) Develop a low carbon strategy and Roadmap for Ukraine to decarbonise raw material mining, extraction and processing in Ukraine</p>	<ul style="list-style-type: none"> - Ministries of Energy, Environment, Economy, Strategic Industries, Education and Science / National Academy of Science of Ukraine - EBRD / DGs GROW, ENER, TRADE, EU Delegation in Kyiv / EIB
	<ul style="list-style-type: none"> - Jointly develop a Low Carbon Strategy and Roadmap scenarios 2030/40/50 with agreed emission-reduction targets. 	
	<ul style="list-style-type: none"> - Organise capacity building events to improved public and mining sector stakeholders awareness of decarbonizing mining operations. 	
<p>WS1 - cooperation to improve the legal, regulatory and administrative framework stimulating the development of extractive industries in line with the Ukrainian Strategy 2030 on extractives.</p> <p>WS1 - exchange of information regarding application of existing international standards on due diligence and related certification schemes for sustainable production/sourcing.</p> <p>WS1- facilitating capacity building for public administration and industry stakeholders in Ukraine involved in the European Raw Materials Alliance and European Battery Alliance.</p>	<p>2) Strengthen the sustainable and responsible sourcing and processing of raw materials and batteries in Ukraine</p>	<ul style="list-style-type: none"> - Ministries of Environment Energy, Economy, Strategic Industries, Education and Science / National Academy of Science of Ukraine - EU Delegation to Kyiv, DG GROW, EIB
	<ul style="list-style-type: none"> - Conduct a study to get the overview of advanced battery technologies in Ukraine and of related players in science and industry. 	
	<ul style="list-style-type: none"> - Facilitate engagement of Ukrainian stakeholders (membership) in EU industrial alliances. 	
	<ul style="list-style-type: none"> - Organise a series of capacity building events for public administration on responsible mining, due diligence in the filled of critical raw materials and batteries 	
	<ul style="list-style-type: none"> - Technical assistance in preparation of the secondary mining legislation 	
<p>WS 2 - digitalisation and harmonisation of geological and mining documentation of selected subsoil areas with CRMs in Ukraine and their preparation for auction.</p> <p>WS 2- technical assessment and evaluation of previously-identified CRMs reserves in Ukraine.</p>	<p>3) Digitalise and strengthen data management of Ukrainian mineral resources/reserves</p>	<ul style="list-style-type: none"> - Ukrainian Geological Survey / NADRA / Ukrainian Commission for reserves - EBRD / EuroGeoSurveys / EIT RawMaterials
	<ul style="list-style-type: none"> - Digitalization/scanning of the geological reports and creation of investors' "DATA ROOM" to provide 	

	free access to relevant data and information on greenfields, brownfields and privatization assets.	
	- Reprocessing of legacy geological reports to identify new promising spots according to EU list of CRMs.	
	- Establish a joint certified laboratory-analytical centre for preparation and comprehensive research of samples of rocks and ores.	
	- Facilitate exchange of experience in de-classifying of geological data and information (e.g. some data for CRM are still classified in Ukraine which is a barrier for taking investment decision).	
	- Verification/re-assessment of CRM reserves of Ukraine using international classification system (e.g. UNFC, JORC).	
<p>WS 2 - cooperation in exploration of new primary and secondary CRMs deposits in Ukraine.</p> <p>WS 2- application of Earth Observation/Copernicus data, services and technology to support exploration, and monitor active and abandoned mining areas.</p> <p>WS 3 - new methods and advanced technologies for exploration of new raw materials and environmental monitoring of mining activity using Earth Observation and Copernicus data and services.</p>	<p>4) Enhance the use of Earth-observation programmes and remote sensing for resource exploration, operations and post-closure environmental management</p>	<ul style="list-style-type: none"> - Geoinform / Ukrainian Space Agency / Ukrainian Geological Survey / Ministry of Education and Science / National Academy of Science of Ukraine - European Space Agency / DG GROW / EIB / EIT RawMaterials
	- Develop the Earth Observation Platform for Raw Materials in Ukraine (EORM-U) to foster exploration of primary and secondary CRM, as well as monitoring of active and abandoned mining areas.	
	- Conduct two selected case studies to demonstrate the added value of the use of Earth observation/Copernicus data and services (e.g. mining waste exploration, analysis of changes in natural landscapes in mining areas).	
	- Organise a dedicated Workshop during the EU Raw Materials Week 2021 to promote further the collaboration in Earth observation for raw materials related research and innovation.	
	- Promote existing specialised Earth observation for raw materials training packages and other means of capacity building (e.g. RawMatCop Programme).	
<p>WS 2 - cooperation in exploration of new primary and secondary CRMs deposits in Ukraine.</p> <p>WS2 - modernisation of extractive and refining processes and technologies;</p>	<p>5) Identify and conduct joint-venture projects for EU and Ukrainian industrial and investment actors</p>	<ul style="list-style-type: none"> - UGS / Ministries of Environment, Energy, strategic Industries, Education and Science / National Academy of Science of Ukraine - EITs (ERMA, EBA members)

<p>WS2 - supporting a circular economy in raw materials through effective use and increased recycling of critical materials;</p>	<ul style="list-style-type: none"> - Matchmaking between sustainable and responsible raw materials and battery projects in Ukraine and investors via the business investment platforms of the European Alliances (EBA, ERMA) 	
<p>WS2 - actively identifying appropriate battery-related projects,</p>	<ul style="list-style-type: none"> - Promote active engagement of Ukrainian industrial and research organisations in the EU industrial alliances. 	
	<ul style="list-style-type: none"> - Organise a “Call for expression of interest” among EU Alliances Members (ERMA, EBA) to promote collaboration opportunities of the strategic partnership. 	
	<ul style="list-style-type: none"> - Organise a dedicated business Workshop within ERMA/EBA to present the investment opportunities in Ukraine to EU industrial actors. 	