



Where finance and green technologies meet

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EBRD-TAITRA webinar on accelerating the circular economy

As part of the EBRD's ongoing support to developing a greener economy in countries of its

operation, bank's Taipei Office hosted a webinar "Accelerating the circular economy", which was held on 24 February 2022. The main purpose of the event was to raise awareness of the circular economy and various actions businesses can take to fast-track their transition towards it. Unlike a linear economy, the circular economy is aimed at recirculating products and materials in order to eliminate waste and pollution.

"As half of the total greenhouse gas emissions come from resource extraction and processing, scaling up circular economy activities will make a decisive contribution to achieving climate neutrality by 2050," the audience heard the EBRD Associate Director, Ksenia Brockmann, say during her opening remarks. Indeed, circular economy principles motivate people and businesses to evaluate their use of natural resources, design products with recyclability and reusability in mind, and develop ways to be more flexible and accessible in an unpredictable environment.

Several innovative CE solutions were showcases at the event. Miniwiz Co. recycles plastics and fibres and turns them into building materials, wallpaper, chairs, various textile materials, wireless chargers, etc. The company's challenge at the moment is the lack of experience on the part of consumers and producers alike, which is crucial in creating a market and a high-quality product.

Enrestec Inc upcycles tyres into various products, such as wet suits, ink applications, and sports inventory. As Mr. Yuan highlighted, "conquering" the recycling part is not as challenging as creating a good product. Despite his company's 17 years in operation, it is still working on improving the final output that is delivered to customers. Nevertheless, Enrestec's products help avoid about 72% of emissions.

Yet another case for waste management, was presented by KiSmart Corporation. The company turns waste into organic fertiliser, allowing drastic decreases in the use of chemical fertilisers, soil-borne diseases, reduction of carbon in land soils and energy use.

More than 150 attendees had the chance to witness how companies apply circular strategies. The webinar also gave vendors from around the world the opportunity to engage with one another, not only in the form of questions, but also in one-on-one virtual meetings and networking sessions.

Many of the examples given at the webinar by the companies might have seemed like science fiction, but they were in fact real examples of the principles of upcycling, recycling, reusing, and value recovery being applied in business operations.



Masdar to develop Georgia's largest solar power plant

The Georgian Energy Development Fund (GEDF), has signed an agreement with Masdar to develop Georgia's largest solar power plant with a total installed capacity of 100 MW. Masdar and GEDF will jointly monitor the development of the project, which is being carried out as part of a larger framework agreement signed with GEDF this year to develop renewable energy projects in the country.

George Chikovani, CEO of GEDF, said: "Georgia is firmly committed to following a path in accordance with the country's strategy for the utilisation of renewable energy sources. This agreement, which aims to develop a solar project with one of the world's leading renewable energy



Strengthening Georgia's security of electricity supply

Georgia is in the process of reforming its energy market, to develop policies and regulations that will allow the country to fully utilise its energy potential, namely development of renewable energy sources, improving energy planning and increasing the security of electricity supply.

Energy is an essential component of any modern economy. It is central to almost all economic activities and is a core driver of progress and development. Any disruptions in supply can cause both technical and financial damage to the country's economy.

companies, is a pre-condition for achieving the main goals and targets of the state energy policy."

Georgia has been actively pursuing the use of renewable energy sources, which is why a new programme supporting energy sector reform was launched in 2021. The reform is aimed at strengthening the country's energy security, improving the energy efficiency of public, industrial, and residential buildings, and supporting the ongoing reforms of the electricity market.

The goals of the four-year programme are to attract private investments and strengthen the competitiveness of the economic sectors in Georgia through the improvement of energy efficiency as well as develop renewable energy and reduce GHG emissions.

To assist Georgia in putting effective rules to secure its electricity supply, the Energy Community launched the <u>EU4Energy</u> for Georgia. The purpose of this project is to prevent, prepare for and mitigate any supply crises, therefore ensuring that the electricity supply for Georgian citizens and industry is secure. More specifically, the Energy Community Secretariat will support the Georgian authorities in preparing a Risk Preparedness Plan for the country's electricity sector in line with the new Risk Preparedness Regulation.

Read the full article, here.

Overview of sustainable finance development in Georgia

In 2017, the National Bank of Georgia (NBG) joined the <u>Sustainable Banking Network</u>, which is "committed to advancing sustainable finance for national development priorities, financial market deepening, and stability". Since then, NBG has been developing a framework for sustainable finance, to integrate Environmental, Social and Governance (ESG) principles by the financial sector and capital market participants, and managing the risks associated with them. At the start of it, such framework will allow Georgian banks to establish a consistent and comprehensive methodology for the classification and reporting of financial products and services as sustainable.

At the end of last year, NBG released its first Sustainable Finance Status Report, outlining the current status of sustainable finance market in Georgia. The report presents data from 15 commercial banks in Georgia.

As NBG's report outlines, most commercial banks do not have a definition of or classification for green loans. At this stage, "green loans" only apply to loans related to energy efficiency and renewable energy projects. The share of green loans issued by all banks that provided information about their portfolio ranged from 1% to 11%.

NGB's report shows that there is a need for a common classification system for banks to enable a clear and consise reporting of sustainable financing . NBG is on its way to adopting a sustainable finance taxonomy, which will provide a system for classifying green loans.

Most banks have initiated some practices, mostly related to replacing vehicles with internal combustion engines with hybrid or electric cars and improving the energy efficiency of their offices and buildings. Apart from that, most of the commercial banks have waste management policies in place, mainly involving recycling, reducing, and separation. Yet, more work needs to be done, for example, in the area of calculating greenhouse gas emissions, utilisation of renewable energy and setting energy efficiency targets.







The three most popular building certificates around the globe

In today's world, where climate change effects are showing up all over the globe, and public and private sectors are trying to adopt eco-friendly lifestyles, the term "green

building" is becoming a part of everyday life for all citizens.

While Georgia has only outdated or minimal requirements for buildings (the coefficient of "green" area to the total area, SNiP standards), the world has long established what it means for a building to be "green", through rating systems that evaluate buildings based on their efficient use of resources and impact on human health and the environment.

LEED

LEED (Leadership in Energy and Environmental Design) is one of the most popular green building certifications programs created by the U.S. Green Building Council. It is an internationally recognized certificate that can be obtained for various project types, from new and existing buildings, to cities, communities and neighborhoods. The certification takes the following parameters into consideration:

- Energy savings
- · Efficient use of water
- · Reduced greenhouse gas emissions
- Healthier indoor air quality
- · Increased use of recycled materials
- Optimum utilization of resources and sensitivity to their impacts
- Reduced maintenance and operation costs

The rating systems consists of 4 types of certificates: Certified, Silver, Gold and Platinum. According to the LEED its goal is to create better buildings that:

- Reduce contribution to global climate change
- Enhance individual human health
- Protect and restore water resources
- Protect and enhance biodiversity and ecosystem services
- Promote sustainable and regenerative material cycles
- Enhance community's quality of life

LEED is a holistic system that doesn't simply focus on one element of a building such as energy, water or health, rather it looks at the big picture factoring in all of the critical elements that work together to create the best building possible.

BREEAM

Another internationally recognized and popular certification is BREEAM (Building Research Establishment Environmental Assessment Method). It was created in the UK by the Building Research Establishment (BRE). The certification evaluates asset's environmental, social and economic sustainability performance, using standards developed by BRE, and can be obtained by various projects from new construction to refurbishments.

BREEAM has technical standards and certification schemes that measure and certify sustainable values in the building and its environment. Achieving a standard means meeting very detailed criteria that vary from country to country. The ten core categories and benchmark criteria that BREEAM looks at are:

- **Energy** assessment of measures to improve the inherent energy efficiency of the building, encourage the reduction of carbon emissions and support efficient management in the building's operational phase.
- Health and Well Being increased comfort, health and well-being of a building's occupants, visitors and others in close vicinity.
- Innovation opportunities for exemplary performance and innovation that are not included within or go beyond the requirements of the credit criteria.
- Land Use sustainable land use, habitat protection and maintenance of biodiversity at the building's site and surrounding land.
- **Materials** sourced in a responsible way, with low embodied impact over their life including extraction, processing, manufacturing and recycling.
- Management embedding sustainability actions from the beginning to the end of a building's lifecycle.
- **Pollution** the prevention and control of pollution caused by a building.
- Transport accessibility of public transport and other alternative transport solutions like cyclist facilities.
- Waste sustainable management and reuse (where possible) of the construction and operational waste associated with a building.
- Water identifying means of reducing potable water consumption (internal and external) over a building's lifecycle and minimizing water loss through leakage.

EDGE

EDGE or Excellence in Design for Greater Efficiencies, is one of the most widely used green certifications in the world. Created by the IFC, it has the goal of reducing the environmental impact of buildings in three areas: energy consumption, water consumption, and the energy footprint of construction materials. EDGE has three levels of certification for buildings: (1) EDGE Certified, which denotes a 20% reduction in energy consumption, water consumption, and energy embodied in materials; (2) EDGE Advanced - same as EDGE Certified, with at least 40% reduction in energy consumption, and (3) Zero Carbon, which is same as EDGE advanced, with the building becoming carbon neutral by using 100% renewable energy and carbon offsets.

EDGE has simpler requirement than, for instance LEED, even though it still achieves measurable results. It is the most attractive for developing countries, where more complex certifications can be difficult to manage.

Featured Technology: Cooling systems

With climate change causing the increase in temperatures worldwide, it is becoming increasingly important to keep inside spaces cool and comfortable for their users. Consider installing an energy-efficient cooling system that will produce the same result, but consume less energy, saving the operational costs of running a building.

See which energy efficient technology suppliers are available on the Georgian market through Green Technology Selector

Success story



GeoLatex is a Tbilisi-based company, established in 2007 that imports and distributes a wide variety of medical supplies and products throughout Georgia.

In 2021, the company started manufacturing eco-friendly ergonomic furniture for adolescent children. The investment proved successful, however, due to its intensive energy demand and increased electricity rates, the operational costs of the new production were quite high. This motivated the management to look for alternative sources of energy. After an extensive research, the management made a decision to invest in a solar power plant.

View more success stories on our website.

Investor

GeoLatex

Location

Tbilisi, Georgia

Investment

Solar power station (Solar panels, inverter and installation)

Investment size

US\$ 100,000

Energy savings

267 MWh per year

CO₂ savings

138 tonnes per year

Impact

Reduction of negative impact of production on the environment

Donor

GCF. BMF

Supported by:



Federal Ministry
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