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DEMETRIOS THEOPHYLACTOU
Ambassador of Cyprus

We are Witnessing Serious Adverse Effects of Climate Change

MILICA ĐURIĆ JOVIČIĆ
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11010 Belgrade

e-mail of the editorial board:
info@energetskiportal.rs

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EDITORIAL BOARD

Editor-in-Chief:
Nevena ĐUKIĆ

Journalists:
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If you visited Kalemegdan and walked down its Sava esplanade during March, you probably noticed the exhibition of photographs from our Natura 2000 in-frame competition, which we jointly organized with the "EU for Natura 2000 in Serbia" project.

The exposition was officially opened on 5th March, and visitors were able to see selected 34 photographs, including the three winning ones.

The goal of this exhibition is to show important values of biodiversity and beautiful landscapes in Serbia through incredible photographs and raise public awareness of the importance of nature conversation, diversity of flora and fauna and the benefits of the Natura 2000 network in Serbia.

Opening the exhibition, the Head of the EU Delegation to the Republic of Serbia, Ambassador Sem Fabrizi, congratulated the talented Serbian photographers who recorded the important values of biodiversity and stunning landscapes of Serbia. "We have gathered here to celebrate nature, and I think that now,more than ever, it is necessary to show that we respect nature andlivein accordance with it. One of the things that the pandemic pointed out was that it was necessary to have a healthy planet because that is the only way we can have a healthy life", emphasized Ambassador Fabrizi.

Serbia has a unique biodiversity and unique habitats in Europe and is home to a large number of endangered species. From March to October, 10,000 records on 163 species and 57 habitat types were collected, and some findings were very interesting: the presence of rare birds that had not been registered for more than two decades. Within the EU project for Natura 2000 in Serbia, the EU provides support to the Ministry of Environmental Protection of the Republic of Serbia to establish the first list of potential sites in Serbia that will be part of the European Natura 2000 network and ensure long-term survival of the most valuable species and habitats.

Let us remind you, the winner of the competition, Levente Szekeres, has been photographing nature since 2011. He has won numerous awards and participated in several exhibitions in Serbia and abroad. Violeta Milutinović took second place and participated in 250 exhibitions in 30 countries worldwide and more than 200 awards. The third winner in the competition is Anica Župunski, a doctor by profession, and she has been engaged in photography for two decades.

Nevena Đukić,
Editor in Chief

IN THIS ISSUE »»

Photographs: (Theophylactou) coutesy of Demetrios Theophylactou; (Đurić-Jovičić) coutesy of Milica Đurić-Jovičić

Photographs: (Pöyry) VIRTA; (Raković Radivojević) coutesy of Jelena Raković Radivojević; (bottom right) MT-Komex

THE CYPRUS WINNING COMBINATION

Water savings, use of solar energy and green urban transport

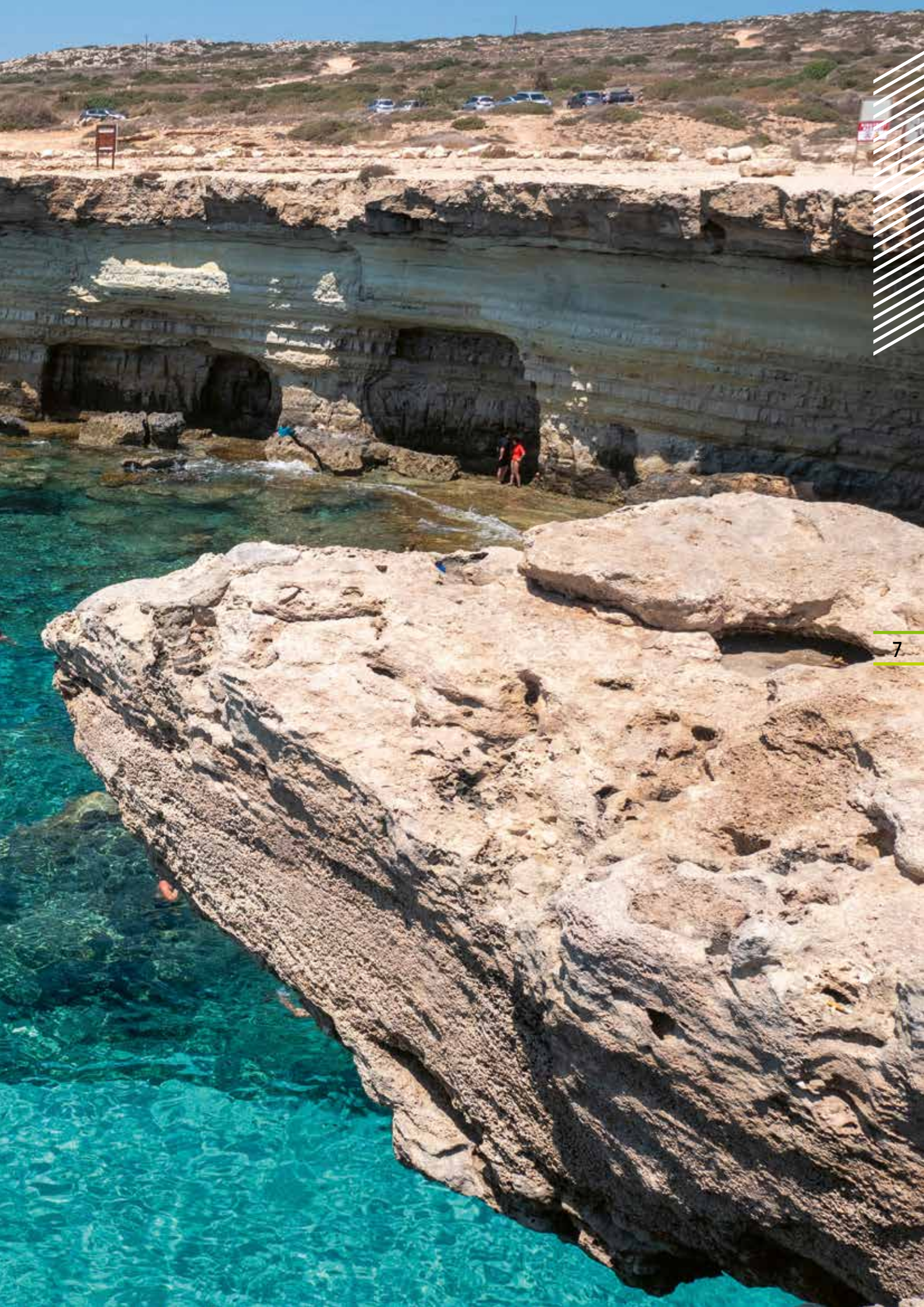
Demetrios Theophylactou,
The Ambassador of the Republic of Cyprus to the Republic of Serbia

The sunniest country in this part of the world, with only a couple of dozen cloudy days throughout a year, is situated at the crossroads of Europe, Asia and Africa. Its beauty, rich history, charming beaches and number of resorts attract many tourists worldwide. If your guess was Cyprus, you got it right. Still, this lovely island in the Mediterranean Sea has already been paying the price for its only until recently propitious geographical position. The citizens are facing severe effects of climate change, droughts and water shortages, and challenges in adopting the circular economy principles. The ambassador of the Republic of Cyprus to Serbia Demetrios Theophylactou was talking to our journalist, revealing if their Government was succeeding in finding the right mix of solutions for climate change adaptation.

EP ***In 2020, the annual temperature reached 20.6°C compared to 17.2°C from 1960-1970. How is Cyprus handling the rising temperature and its effect?***

Demetrios Theophylactou Immediate adaptation measures to reduce the vulnerability of natural and socio-economic systems in response to climate change are in order.

Photographs: (background) Unsplash/Antoine Angoulvant; (Theophilaktou) courtesy of Demetrios Theophylactou



Photograph: Unsplash/Igor Starkov

Likewise, longer-term strategies are being calibrated despite the complex nature of the implementation. Numerous studies have demonstrated that immediate action is imperative, as the cost of climate change will be even higher if no action is taken. Cyprus is already witnessing severe adverse effects of climate change; therefore it has set in place a National Adaptation Strategy and Action Plan.

In this context, Cyprus is compelled to address climate change at the regional level. To this end, we have launched a specific initiative to pool together national action plans from Eastern Mediterranean and Middle East countries to strengthen regional coordination and cooperation. Indeed, a detailed work programme has been developed, consisting of two distinct components: a scientific and an intergovernmental component.

EP ***The total of 340 days of sun a year in Cyprus certainly contributes to great tourism. However, the island is also drought-stricken, and water has always been a valuable commodity. How does your Government deals with water demands when there is huge pressure on water resources?***

Demetrios Theophylactou Water scarcity has always been a major challenge for Cyprus, which is among the EU Member States with the least available water per capita. As an island with a semi-arid climate and limited water resources, which depend mainly on rainfall, Cyprus faces additional challenges compared to mainland countries and is more vulnerable to climate change. To address the problem and improve the reliability of water sources for domestic and irrigation uses, the optimum use of non-conventional water resources, such as desalination and water reuse are being promoted. Recycled water is a growing and stable resource.

Effective water demand management is also one of Cyprus' priorities as it is a fundamental condition for the exercise and application of a sustainable water policy. Various measures aimed at further improving the good practices for water consumption and reuse are being implemented. One of the measures applied is the water pricing policy. Incentive water pricing based on metering, volumetric pricing and rising block tariffs has been in place for many years.

> The main policies and measures focus on promoting and supporting self-consumption of electricity from renewable energy, installing solar water heaters, high-efficiency heat pumps, and introducing RES systems in the competitive electricity market

EP ***Thanks to the discovery of Hydrocarbons in Cyprus's waters and the massive discovery of the Zohr gas field in the Egyptian waters, which is very close to the Cypriot acreages, a***

Photograph: Unsplash/Vladyslav Melnyk

lot of attention has been drawn internationally. The oil and gas sector continues to develop. Will that put at risk the climate agenda priorities?

Demetrios Theophylactou Indeed, the gas discoveries in the Eastern Mediterranean region in the last decade have attracted a lot of attention to the Eastern Mediterranean region and hydrocarbons exploration activities have intensified. Even though the pandemic had a negative impact on the oil and gas industry worldwide, these discoveries are expected to be developed sooner or later. At first glance, they appear not to be in line with the priorities of the climate agenda. That is not the full picture.

The objectives of the climate agenda for Energy Transition cannot be achieved overnight. Besides, significant investments and new technologies are needed. In brief, a transition period is necessary whereby a "bridge-fuel" is necessary; everyone agrees that this is natural gas. We do know that natural gas is used in hydrogen production, which is expected to have a leading role in Energy Transition. In certain sectors, such as transport, the energy transition will be more difficult and slower. Natural gas can play a vital role, as it is undoubtedly the most environmentally friendly conventional fuel.

EP ***Have you paved the way to the Mobility Strategic Plan for Nicosia City Center that could reduce the kilometers traveled and the number of private vehicles by introducing an alternative mode of use of a car-on-demand?***

Demetrios Theophylactou Nicosia, the capital of the Republic of Cyprus, is facing a severe traffic problem. For years, urban transport policy had focused unilaterally on private cars. This has resulted in one of the highest proportions of car ownership globally (more than 700 cars per 1,000 inhabitants) and particularly low use of 'green' transport. In the

Photograph: Unsplash/Alexander Molkov

Incentive water pricing based on metering, volumetric pricing and rising block tariffs has been in place for many years now

dependence on product imports, it seems like this new approach to the economy could be an opportunity for your country. What are the results in implementing a cyclical economy?

Demetrios Theophylactou The competent authorities recognize the need for further initiatives to realize our vision of a truly circular economy. This can be done through an integrated and ambitious long-term policy that promotes more sustainable production and consumption patterns,

wider urban area of Nicosia, the share of public transport is only 5 per cent, and of bicycles less than 3 per cent. The continuous increase of traffic problems has a serious impact on the urban environment (air pollution, noise pollution), road safety and quality of life, making the city less attractive to businesses, consumers and residents. The objective is to ameliorate the situation by increasing public transport, cycling and walking. A target has been set for public transport to reach 10 per cent by the year 2027.

At the same time, the Nicosia Municipality is promoting EU climate objectives. We acknowledge that climate action is a key priority for the EU, so we are working hard to cut greenhouse-gas emissions. The fastest way to achieve that is to focus on Sustainable Mobility, using public transport, cycling and walking, as the most appropriate transport for the urban environment.

EP ***Cyprus faces challenges in adopting the principles of a cyclical economy. However, due to the limited space and***

Nicosia has one of the highest proportions of car ownership in the world - more than 700 cars per 1,000 inhabitants

Photographs: (middle) Unsplash/Elena Mozhvilo; (bottom right) Unsplash/Datingjungle

circular business models, resource efficiency, and the rational management of waste.

The reduction of waste production and management are promoted through the Waste Prevention Program 2015-2021 and the Municipal Waste Management Strategy 2015-2021. Measures cover three main policy pillars: regulatory measures to implement the separate collection of waste, measures to reduce waste in all sectors and provide incentives for the reduction and appropriate management of waste, and information and awareness-raising measures to change production and consumption patterns. The aim to promote reuse and recycling along with the principles of the circular economy.

The gradual implementation of the waste management policy has steered progress in the appropriate and more effective waste management and will significantly contribute to fulfilling our targets.

EP ***Cyprus set out a 19 per cent share of energy from renewable sources in the final gross consumption of energy in 2030.***

Where do you stand now, and will that goal be reached by that year?

Demetrios Theophylactou Cyprus has already exceeded the mandatory national target of 13 per cent share of Renewable Energy Sources (RES) in 2020, as set out in Directive 2009/28/EC. In 2019 the RES share in the final gross consumption of energy in Cyprus was 13.9 per cent. This RES share comes mainly from the use of solar water heaters, photovoltaic systems, wind parks, biomass/ biogas units for electricity production, and the use of heat pumps and biomass for heating.

For the decade 2021-2030, Cyprus set a target to increase RES's share to 23 per cent as a national contribution to the European Union's binding target for a RES share of at least

32 per cent in 2030. The policies and measures regarding the further development of RES technologies and energy saving that will be applied in the following years have been included in the National Energy and Climate Plan (NECP), submitted to the EU in January 2020. The main policies and measures focus on promoting and supporting self-consumption of electricity from renewable energy, installing solar water heaters, high-efficiency heat pumps, and introducing RES systems in the competitive electricity market.

EP ***The "Clean Energy for All Europeans" package was adopted by the EU and was expected to be effective in the first Energy Communities and gradually in Cyprus. How far have you gone with this?***

Demetrios Theophylactou Currently, there are no Energy Communities established in Cyprus. The Ministry of Energy,

Photographs: (left) Unsplash/Danny Feng; (bottom right) Unsplash/Daryl Bleach

cent in 2020 due to the Covid 19 crisis that has taken its toll on world economy generally. Do you think this forecast is realistic if we know that Cyprus relies heavily on tourism and we still don't know if travelling will be as free as we would all like?

Demetrios Theophylactou The Ministry believes that the forecast for Cyprus' GDP by the European Commission is realistic, although on the pessimistic side.

> The objectives of the climate agenda for Energy Transition cannot be achieved overnight. Significant investments and new technologies are needed. In brief, a transition period is necessary whereby a "bridge-fuel" is necessary; everyone agrees that this is natural gas

Commerce and Industry is preparing the new legislation to promote renewable energy sources and harmonize the national legislation with the «EU Directive 2018/2001 for the promotion of the use of energy from renewable sources».

The new RES law includes provisions regarding the operation of renewable energy communities in Cyprus. When the parliament approves the new law, additional regulations and support schemes will be introduced regarding the establishment and operation of Renewable Energy Communities.

EP ***The EU Commission publishes economic forecasts regularly, and for Cyprus, it is indicated that GDP growth will be 3.2 per cent, which is good news having in mind the fall of 5.8 per***

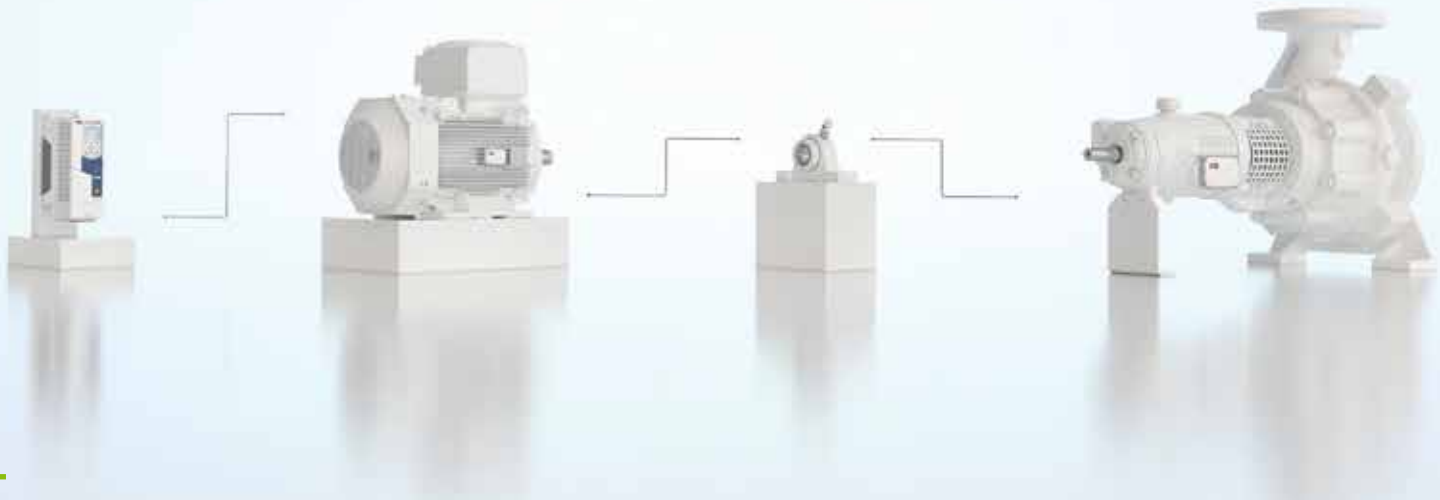
The situation seems to be improving, and the economy is restarting with the gradual relaxation of the restrictive measures imposed by the Government to contain the pandemic and, therefore, we will wait and see in our next forecasting round in September. We are also comparing with a very low base since in 2020 economic activity was very low, so there is also a base effect. Therefore a 3 per cent would be our lower threshold for 2021.

Regarding Cyprus dependence on tourism, last year proved that the reliance was not as big as it was considered, which was proven by the reduction of growth by only around -5 per cent compared to other tourist destinations that had a recession close to -10 per cent.

Interview by: Tamara Zjačić

Photograph: (top) Unsplash/Datingjungle; (middle) Unsplash/Helmar Baechle

Remote monitoring solutions allow data from drives, motors, and pumps to be uploaded to the cloud – providing vital information on the health and performance of the powertrain



Taking the pressure off the water industry with digitalization

Traditional water and wastewater utility systems weren't built for the dramatically changing stresses of climate change and rapid urbanization. Therefore, the risk that ageing infrastructure brings – both in terms of potential failure and poor environmental compliance – is a key concern for water utilities worldwide.

There is increasing pressure on utility companies to lower their total cost of ownership and high leakage rates. The rapid development of real-time sensing and monitoring technologies to improve early leakage and water quality anomaly detection is an effective way to address these challenges. By combining smart monitoring technology with drives and motors, water utility operators can secure pre-emptive asset management optimization and, in the process, drive a significant shift from reactive to real-time monitoring.

Condition-based monitoring

Nearly a third of all electric motors in the world are driven by variable speed drives (VSDs), mainly to reduce energy use. However, there are other reasons for employing drives in water and wastewater applications, including process control (keeping constant water pressure, avoiding leakage caused by high pressure), avoiding water hammer, or optimized well exploitation. Drives can perform pump cleaning in wastewater applications and control several pumps in a cascade system in water pumping applications to optimize pump operations and save energy.

Condition-based monitoring services can work alongside all these water automation products to access real-time data via the cloud from remotely located water assets.

All photographs: ABB

At the heart of this approach is a new generation of smart wireless sensors – a low-cost, easy-to-install digital solution.

Smart sensors have revolutionized motors' maintenance logistics by enabling operators to use remote monitoring for the early detection of incipient problems. Now, maintenance actions can be cost-effectively planned before functional failure. The result is reduced downtime, eliminating unexpected production stops, optimized maintenance, and reduced spare parts stock.

With built-in intelligence for live, adaptive behavior, the technology assists in managing the effects of extreme weather conditions such as excess rainfall that poses problems from water quality to environmental compliance.

Furthermore, the digital solution allows experts to analyze data collected from the sensors and turn it into corrective and confident actions to extend equipment lifetime. It's possible to analyze and decipher the best solution for improving the operation of water and wastewater assets, from a single pump station to entire water or wastewater treatment facility.

Sensors can also turn traditional pumps into smart, wirelessly connected devices. This approach measures vibration and temperature from the pump's surface and uses it to develop meaningful insight into the pump's condition and performance. This includes details such as pump speed, vibrations, misalignment, bearing condition and imbalance. Besides, smart sensors attached to the motors connected to the pumps can detect a drop in water flow based on the motor's output power.

Digitalization also extends to variable speed drives (VSDs). Drive data can be uploaded to the cloud via a remote monitoring solution. This allows data from the drive, motor and pump to be analyzed together, providing insights into the complete powertrain's health and performance.

While water companies are always monitoring their networks for changes in pipe pressures and water flow

Applying smart monitoring technology to water and wastewater utility systems provides asset management optimization for water utility operators

Data collected and sent to the cloud can then be analyzed by water-utility operators to plan out maintenance actions in a cost-effective manner

(that can indicate problems such as blockages and leakages), sometimes the first warning they receive is when a customer notifies them of a burst water pipe. Digitalization can trigger the earliest possible warning. The earlier or quicker utilities can prevent treated water from being wasted, the higher the savings, not to mention the boost in customer confidence. Non-treated water, also known as wastewater, is a real problem if its leaks into the environment. Utilities can be fined, not to mention the safety hazards for people, property and the image of a water utility.

How hard is digitalization to implement?

The water utility sector has made great strides in the uptake of digital technology. However, there is still plenty of scope for improvement. And because technology has evolved, and the prices of smart devices have decreased, it's possible to take a great leap forward to achieve a true digital transformation.

Ripping out all the existing hardware is probably not the best approach. Utilities need to start with a clear strategic plan to create an entire ecosystem. This can start by dividing the water network into discrete zones and identifying what is needed to address each specific challenge. Effectively, it is best to start small by adding to existing technology. In this sense, smart sensors are the perfect starting point as they can be placed on a motor, pump, bearings or gearing. They are easy to connect and use without having to invest in new, expensive systems.

Successful application in Singapore

In the bustling city-state of Singapore, its water utility focuses on one main goal: to ensure that the rapidly growing metropolis – with few natural water sources and limited landmass – has a steady supply of clean water. To add to the challenge, water demand is set to double in the next four decades over its current consumption of over 400 million gallons a day. High operational costs, rising energy usage, and a national workforce shortage compelled Singapore to think beyond convention.

ABB and the Public Utilities Board (PUB), the water utility, conducted a successful pilot, which involved installing smart sensors on the PUB's motors and pumps. The real-time data obtained via the sensors allowed the utility to reduce troubleshooting time and resources, and paperwork.

ABB then installed an integrated solution with 22 smart sensors, remote condition monitoring, and augmented reality glasses (Microsoft HoloLens) to assist with maintenance and training. It also installed six digital powertrains, which integrate sensor and drive data with cloud-based analytics along the entire chain of plant equipment – from drives and motors to pumps and bearings. The condition monitoring portal allows the PUB to configure the powertrains easily and monitor critical health and operating parameters via a single portal. The digital powertrains, in turn, alert the utility to warning signs of failure, which helps reduce maintenance costs.

Looking ahead

A smart city is often described as a 'system of systems', where the Internet of Things (IoT) and analytics converge with traditional infrastructure. These cities use IoT and analytics capabilities to reach operational efficiency and improve service levels, sustainability, and economic vitality. Previously siloed sectors such as power, transport, disaster management, and water all work in sync.

Many cities around the world have made great strides in digitizing several areas of infrastructure, such as energy and transport. Still, most have yet to connect their water supplies to their smart city strategies and systems. However, the threat of growing scarcity may push more cities toward smart water management systems.

For further information: https://new.abb.com/drives/segments/water-and-wastewater

Drives provide a variety of benefits to water utilities, including reduced energy use, process control and pump cleaning.

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milica.vukoje@rs.abb.com
www.abb.rs

EACH PROGRAM MAKES A SMALL CONTRIBUTION TO THE DECISION TO STAY IN THE COUNTRY

In less than two years since the foundation, the Science Fund of the Republic of Serbia has opened as many as five programs of support for scientific research papers. In 2021, additional programs are expected to be opened, offering new opportunities to scientists for research work funding. At the head of this Fund, in the position of acting Director, is Milica Đurić Jovićević, PhD in electrical engineering and computing. Given her extensive experience in implementing multidisciplinary projects which link science and economy, we asked about opportunities to support innovation in entrepreneurship. However, the main topic of our conversation was the plan for the development of projects of our young researchers under the auspices of the Fund managed by Milica.

EP ***Various projects financed by the Fund included 809 researchers. How should this data be observed since this is less than 10 per cent of the total of 12,000 researchers in Serbia?***

Milica Đurić Jovičić The Science Fund was established to support scientific research work through competitive calls, to have high criteria for project selection and to help those who are best ranked according to criteria of scientific excellence, the impact of that research on the further

development of science, economy or society, based on the competence of all team members, as well as research implementation plan. It is a completely different model in relation to how projects were selected or monitored their implementation in the past 10 years. The Fund is rapidly growing as well as the number of projects and researchers to be involved. By the end of 2021, we expect to involve more than 2,000 researchers through various programs. It is important to point out that the community has not been harmed in any way. The researchers have continued to receive financial support from the Ministry of Education, Science and Technological Development through institutional funding thanks to the reform and new law.

EP ***Which ideas were selected within the Program for Excellent Project of Young Researchers (PROMIS) that the Fund will support for the next two years?***

Milica Đurić Jovičić Within the PROMIS program, projects of 59 research teams have been selected to implement the basic and applied research in all fields of science: natural and mathematical sciences, technical and technological, medical, biotechnical, and social sciences, and humanities.

Before being elected the Head of the Science Fund, Milica Đurić Jovičić was the General Manager of the Innovation Center of the Faculty of Electrical Engineering in Belgrade. Today, she uses her extensive experience in scientific research in biomedical engineering and information technologies, as well as participation in domestic and international scientific research projects, to help young researchers in numerous disciplines supported by the Fund through its programs.

By the end of 2021, we expect to involve more than 2,000 researchers through various programs

Photographs: Unsplash/Chuttersnap; (Đurić Jovičić) courtesy of Milica Đurić Jovičić

The research results will have the widest implementation in everyday life, from environmental protection, preservation of cultural monuments, improvement of health care and psychiatric treatment, creation of new energy materials, conservation of plant resources to the development of food products. Many researchers expect their projects to have a long-term effect on the economy, production, industry and society's benefit from the research.

EP ***The publication on the PROMIS Program is adorned with excellent illustrations that accompany project summaries. Is this a sign that we have started promoting the right content, ideas and role models in an interesting way to the audience?***

Milica Đurić Jovičić The work of our scientists has great potential, and everyone must be informed about it in an understandable way. The PROMIS edition, which we published in cooperation with the Centre for the Promotion of Science, presents projects in an original and creative way through 59 original illustrations by our best illustrators. The publication contains descriptions of all PROMIS projects and short texts on the main objectives, expected results and research methodology. The idea was to present these interesting projects to the public but also to inspire new research and new collaboration.

EP ***Last year, funding was approved for 14 projects in the framework of the COVID-19 research program. Among them were those engaged in mental health research at the national level after the pandemic and the immune responses of patients who had suffered from this viral infection. How should these results be used to contribute to the success of our fight against the pandemic?***

Milica Đurić Jovičić Our scientists will look for answers to many questions caused by pandemic: from what the new more efficient methods for detecting the virus are, how to preserve the mental health of people, to how to economically deal with the consequences of the pandemic at the microeconomic and macroeconomic level.

One of the projects that the Science Fund will finance is a project of researchers from the Institute of Economic Sciences, which will first identify most economically affected groups by this pandemic and then investigate how the crisis affected their position and propose most effective measures. Kapsido project is also very interesting, within which students from the Faculty of Chemistry at the Belgrade University will develop a method for detecting viruses based on specific antibodies in animals. Within another project, scientists will examine how the pandemic affected people's mental health. The topics are different, and the expectations from our researchers are high because all these projects and their results are significant for our citizens.

EP ***The loan from the World Bank provided funding for these projects for COVID-19 research. In what ways does the Fund usually provide funds?***

Many projects that are already supported within the Science Fund program have excellent potential for the development and innovative solutions, but also commercialization. Thus the cooperation between science and economy is the next logical step in the further work of the Fund

Photographs: (top) Unsplash/Possessed Photography; (bottom) Unsplash/Thisisengineering Raeng

At the beginning of February, the Government of Serbia passed a decree defining incentives for innovations in entrepreneurship in the total amount of 170 million dinars

Milica Đurić Jovičić The Science Fund is financed from the budget of the Republic of Serbia, a loan from the World Bank, and in 2021 we expect to get additional funds provided through the IPA program of the European Union. Next year, we will dedicate ourselves to international cooperation, including opportunities for new sources of funding. In the future, we expect the Serbian economy to be included in funding of the science. Many projects that are already supported within the Science Fund program have excellent potential for the development and innovative solutions, but also commercialization. Thus the cooperation between science and economy is the next logical step in the further work of the Fund and scientists.

EP ***One of the important programs of the Fund is dedicated to artificial intelligence. At what stage are the projects selected for financing and how would you assess the interest of economic entities in such projects and possible cooperation with the Fund?***

Milica Đurić Jovičić The program for the development of projects in the field of artificial intelligence was made following the Strategy for the Development of Artificial Intelligence in Serbia for the period 2020-2025 and the Strategy of Scientific and Technological Development of the Republic of Serbia, whose goals are to encourage excellence and relevance of scientific research, as well as to promote the implementation of results in the development of the Serbian economy. The program is implemented within two subprograms. The first is intended for basic research and the second for applied research. Scientific projects within this program began to be implemented in September 2020, and scientists are currently actively working on their research.

It is a noticeable interest of the economy in these projects and researchers who have or develop the skills needed to develop algorithms or systems based on artificial intelligence. Some of the project teams have already had cooperation with the economy, both domestic and foreign companies.

The market is large and still eager for innovation and creative solutions, and there is a large amount of data that enables the use of artificial intelligence.

EP ***Do you think that the achievements of young researchers are sufficiently represented in the media, and do you plan to increase the visibility of your team's effort?***

Milica Đurić Jovičić We are glad that there is a growing media interest in our successful scientists. At the beginning of the year, scientists from Serbia found themselves on the cover of a magazine for the first time. These are successful young scientists working on projects within the PROMIS program. We want this type of promotion to continue, and that is why we plan to present scientists and their research through publications, such as PROMIS, and other communication channels.

EP ***How would you assess our progress in innovative entrepreneurship, and is there any activity of the Fund to which you are particularly proud of?***

Milica Đurić Jovičić Entrepreneurship based on innovation is the driver of technological and economic development of a country. In the development of this area, Serbia is following the example of innovation leaders such as Switzerland, Finland and other countries. At the beginning of February, the Government of Serbia passed a decree defining incentives for innovations in entrepreneurship in the total amount of 170 million dinars.

The Science Fund begins the preparation of new projects that will have pre-defined topics according to the state priorities. We are proud of the latest programmes and our support to the development of the science that will contribute to Serbia. However, helping young scientists is our most significant contribution to the date. It is also reflected in new jobs and a better quality of work and life. Each of our programs makes a small contribution to preventing brain drain.

Interview by: Tamara Zjačić

Photographs: (top) Unsplash/Karim Ghantous; (middle) Unsplash/Possessed Photography

ELECTROMOBILITY IN SERBIA AND THE REGION

SHIFT INTO THE FAST LANE FOR SMART EV CHARGING

It is expected that every third vehicle in Europe in the coming period will be environmentally friendly, which is a standard that Serbia aspires to. As a quarter of the EU's total emissions come from diesel and petrol exhausts, nine member states have decided to send a clear request to the European Commission to set a precise deadline for stopping the production and sale of vehicles on fossil fuels, all to achieve climate neutrality by 2050.

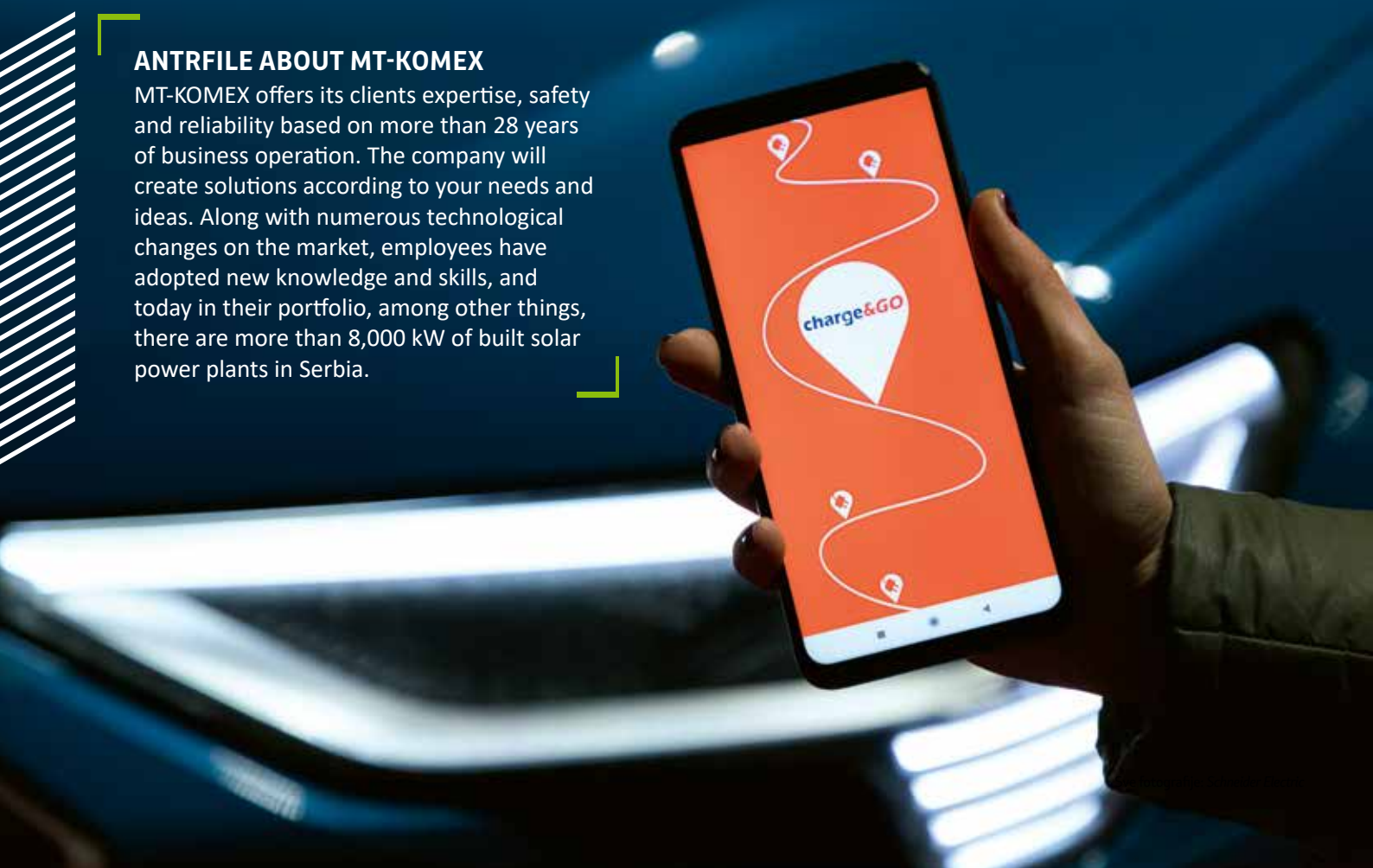
The European Commission will introduce changes to "raise" the number of electric vehicles to 30 million in the next ten years. Currently, there are 1.4 million electric vehicles on the roads of Europe, while on Serbian roads, according to the data from 2020, there are about 300 registered electric cars and around 3.000 registered hybrids.

To encourage the use of environmentally friendly modes of transport, the Ministry of Environmental Protection continues to subsidize electric and hybrid vehicles, which is a part of measures implemented to improve air quality and the environment. It is known that traffic everywhere in the world, especially in big cities, is a significant cause of air pollution.

So, for the electric vehicle ride to become popular in our area, it is necessary to develop the appropriate infrastructure.

ANTRFILE ABOUT MT-KOMEX

MT-KOMEX offers its clients expertise, safety and reliability based on more than 28 years of business operation. The company will create solutions according to your needs and ideas. Along with numerous technological changes on the market, employees have adopted new knowledge and skills, and today in their portfolio, among other things, there are more than 8,000 kW of built solar power plants in Serbia.



New charging points in the charge&GO network

At the end of March, another charger for electric cars was put into operation, which is located near the toll ramp in Vrčin, when you travel from Niš to Belgrade. It is an ABB HP 175 fast charger installed by MT-KOMEX. The company is becoming recognizable in the electromobility sector, and it is quite possible that you have heard for some of the charging points on Serbian highways or you have parked your vehicle in the Plaza shopping centre in Kragujevac or TC Promenada in Novi Sad and saw parking spaces specially reserved for electric four-wheelers. The MT-KOMEX team installed all chargers at these locations.

Each of these shopping malls has five Smart wallbox chargers manufactured by Schneider Electric with the power of 22 kW.

If you go down the Danube main road to Kladovo, a "green" charger under a solar canopy that supplies it with electricity will be waiting for you. This modern combination of panels and chargers is located at the parking lot of domestic company Termovent.

All mentioned chargers are integrated into the charge&GO platform. It is the first regional platform for charging electric vehicles, which also includes neighbouring countries in addition to Serbia. Through this charging system for the use of charging points, drivers of electric cars can charge their vehicles fast and easy. They also have a mobile application charge&GO for Android and iOS at their disposal.

MT-KOMEX continues its mission of developing electromobility in Serbia, and all interested parties are invited to include their chargers in the charge&GO network.

How does charge&GO work?

The software allows users to quickly search for the nearest chargers in the charge&GO network, as well as vacant charging stations. At the charging point, it is necessary to authorize yourself by using a mobile phone or RFID card. The charging session starts the moment you connect the cable to the selected charging point. Service users can use charging points for their four-wheelers with a one-time payment option. Apart from the fact that users will be able to travel around the country and the region without any worries, thanks to the cooperation between MT-KOMEX and Finnish company Virta, they will also have electric chargers in more than 30 countries (more than 180,000 chargers in Europe) which are part of the global platform at their disposal. And all of that without the additional cost of roaming!

We remind you that the subsidies for the purchase of electric vehicles range from 2,500 to 5,000 euros. The Public Company "Roads of Serbia" has launched an initiative to reduce the toll for electric and hybrid vehicles by 13 per cent. In the future, we expect some more benefits for those who opt for electric vehicles, and with the available incentives, we should soon see more of these vehicles on our streets. What we will not see is an ominous cloud of smoke from the exhaust, which will contribute to the reduction of air pollution. ■

Photographs: MT-KOMEX

Sve fotografije: Virta

KEY TRENDS THAT WILL TRANSFORM THE E-MOBILITY WORLD IN THE WESTERN BALKANS

Elias Pöyry is the Co-Founder & CBO of Europe's fastest-growing electric vehicle charging company Virta. Since the company has also been present at our market as a partner in charge&GO - the first regional EV charging network, we asked Pöyry to give us insights on key trends that will change the market in the coming years and advice on how to prepare infrastructure for an EV future.

EP ***Could you tell us about Virta and its mission?***

Elias Pöyry Already in 2013, Virta CEO Jussi Palola and I understood that the future of mobility is electric. We founded Virta with a vision to integrate electric mobility, energy system and digital sectors into one ecosystem. Virta is an independent platform that integrates chargers from different owners to enable the best user experience through interoperability and the most cost-efficient way to handle payments and clearing. We grow fast: five times faster than the market average. The main reason for our rapid growth is the right partners. MT-KOMEX is a great example of this. Another example from Europe is E.ON. In Asia, Virta has partnered with Japan's largest energy company ENEOS. We are currently expanding our reseller network.

Our solutions have been built to support electric vehicle charging infrastructure anywhere globally, and we have hundreds of professional charging network customers in Europe.

> European Commission's new investment plan for the Western Balkan region promotes the development of smart elements in road transport such as EV charging stations

> The EV charging market in 2025 will look very different compared to what it is today, and changes will manifest most in the fields of partnerships, brands, end-to-end and energy management

Today our digital platform connects all the key players in the electric vehicle ecosystem and provides the whole value chain services. Virta operates in over 30 countries worldwide from French Caribbean to Finland - and in Serbia with MT-KOMEX.

EP ***Why electric vehicles are the most important source of flexibility in the energy system?***

Elias Pöyry As you know, renewables cause volatility to our energy systems. They require flexibility, and demand response elements to keep the system stable, reliable, and reasonably priced. That's where electric vehicles come in. According to the International Energy Agency, EVs can provide a critical source of flexibility in our energy system; in fact, they are big batteries on wheels. EVs are the most cost-efficient batteries and energy storages in the energy system because they come with zero incremental costs. They also come with zero infra costs because the charging network is already there. They also run with zero maintenance and operations costs because the operation costs are already taken care of by the EV drivers and charging operators.

EP ***What are the key trends in the e-mobility world at the moment?***

Elias Pöyry The EV charging market in 2025 will look very different from today – both in the Western Balkan region and all over Europe. I would highlight four trends that will change the market in the coming years:

All photographs: Elias Pöyry + Virta brand photo

ELIAS PÖYRY is the CBO and Co-Founder of Virta. With a background as a management consultant specializing in the energy industry, Pöyry has worked with electric mobility since 2009. He is a widely connected influencer in the e-mobility business and an expert in creating new disruptive energy businesses. Besides, Pöyry is a member of the European Commission's Sustainable Transport Forum and acts as the Chairman of Eurelectric's E-mobility Working Group, representing the European energy sector in e-mobility issues.

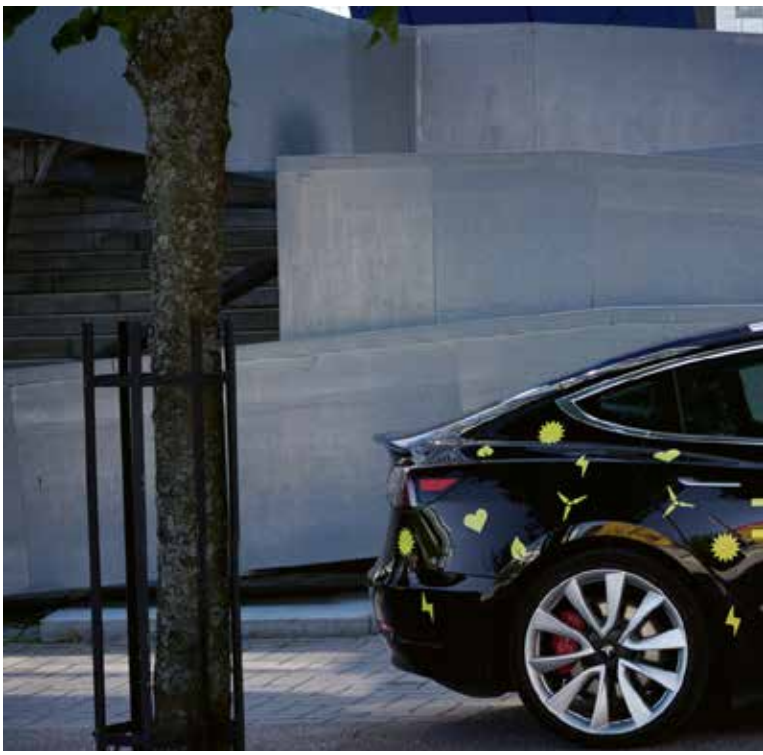
partnership, brands, end-to-end and energy management.

The number one prerequisite for a profitable charging business is very traditional: location. Volumes, in turn, drive scale benefits and transaction efficiency. But partnerships are just as important. Valuable and carefully chosen partners and externalizing platform costs are the keys to success. Partnerships enable both parties to focus on what they do best and the end-user benefits, too.

The brand trend is another big one. People want to do business with familiar brands, for example, charge their electric vehicle at the NIS Gazprom Neft station. And on the other hand, the companies and property owners want their brand to be related to EV charging. That goes well beyond adding the company's logo sticker to the charging station. It means full brand experience – from loyalty programs onwards.

The integrated end-to-end digital value chain is also a big trend. It means that anyone who wants to manage the best user experience or the best value for charging networks must understand and manage the entire value chain, end-to-end: From the customer journey to the hardware journey and from maintenance to operations and to customer experience.

The energy management trend is already in full motion. And no wonder energy management brings direct benefits in the form of saving costs. Electric vehicle charging often requires electrical upgrades, which means an increase in fixed and monthly energy costs. Smart charging solutions



can alleviate many of those energy-related costs while helping future-proof businesses. All smart EV chargers can adapt to this and become active players in the energy flexibility markets.

EP ***How to prepare infrastructure in the Western Balkan region for an EV future?***

Elias Pöyry In general, EVs mean business as usual for the energy sector in most countries. However, the situation is very country-specific. In the Western Balkan region, electricity grids must be interconnected, cross-border fluctuations in wind/sun availability have to be balanced, and all forms of storage capacities put into use. EVs role as a source of flexibility in the energy system is even more important here than in many other European areas. European Commission's new investment plan for the Western Balkan region, promotes smart elements in road transport such as EV charging stations. The role of smart charging software is critical in the Western Balkan region and cooperation between all market players – from DSO and TSO level to individual businesses – is essential. We must be able to benefit economically from the value that comes from integrating clean energy and clean mobility.

> All smart EV chargers can adapt to this and become active players in the energy flexibility markets

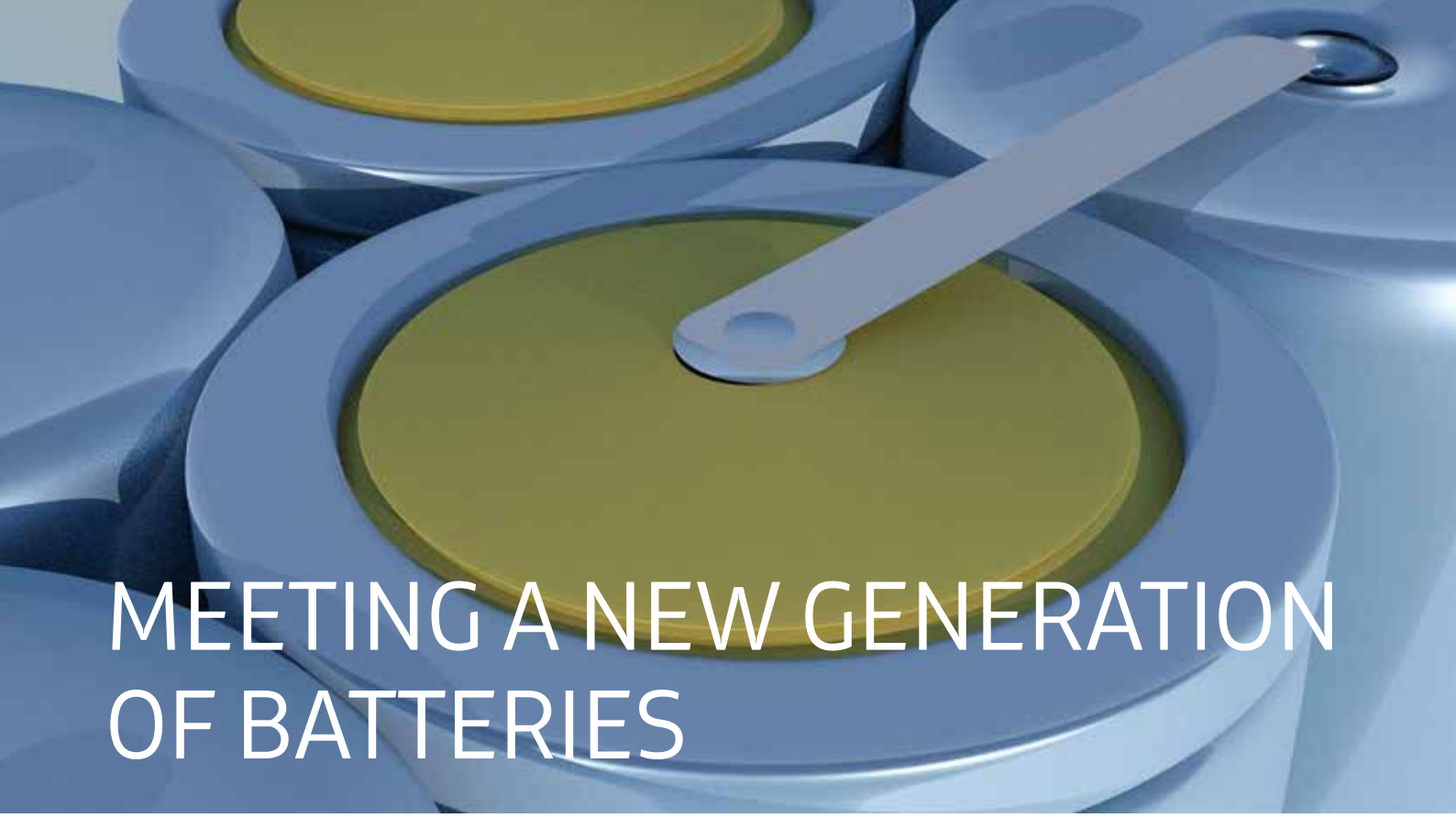
VIRTA IN BRIEF

- Europe's fastest-growing EV charging platform
- Global innovation leader measured by the number of patents
- 2nd largest EV charging platform in Europe
- 30+ countries with charging networks on the Virta platform
- Founded in 2013, offices in Finland, Sweden, Germany, France and the UK
- Approx. 30 000 connected charging points
- + 170 000 available charging points in the roaming network
- Approx. 250 000 active, registered EV drivers
- 400+ professional charging networks
- 50+ customer brands

EP ***Virta has partnered with MT-KOMEX to accelerate the EV revolution in the Western Balkan region. What is your vision for the cooperation?***

Elias Pöyry MT-KOMEX is an important strategic partner for Virta. MT-KOMEX is a forerunner and expert with a clear vision to bring e-mobility to the Western Balkan region. Virta helps MT-KOMEX and its customers to grow and benefit from Europe's second-biggest EV charging network. MT-KOMEX, in turn, provides us with the experience and knowledge about local markets and local service capabilities. Together we empower businesses and people to champion electric vehicles and renewable energy empowered by Virta's global digital ecosystem.

Inteview by: Nevena Đukić



MEETING A NEW GENERATION OF BATTERIES

There is a massive technological appetite for lithium-ion (Li-Ion) batteries. However, their mass application is limited by lithium resources and problems related to the cost and safety of the battery due to the presence of lithium, cobalt and hazardous organic electrolyte. Scientists around the world are trying to find a better solution based on more sustainable energy storage technologies

One Serbian team joined those efforts. Researchers from scientific research institutions such as the Faculty of Physical Chemistry, the Institute of Technical Sciences of the Serbian Academy of Sciences and Arts and the Vinca Institute of Nuclear Sciences are trying to reduce the cost of Li-Ion batteries and their weight and volume, by developing innovative electrode and electrolyte materials, and increase energy. They want to make multivalent-ion batteries, and for their development, it is necessary to obtain materials that will be able to store a large number of multivalent ions during the multiple charging and discharging process. Materials should have high specific capacities that would allow batteries to store a large amount of energy. The name of the project is HiSuperBat, and it is financed by the Science Fund of the Republic of Serbia through the Program for Excellent Projects of Young Researchers (PROMIS). Our interlocutor is Milica Vujković, the manager of the mentioned project.

EP ***We are witnessing a sharp increase in public interest in electric vehicles. What is your opinion on electromobility, and how close or far are we in the Balkans from electrifying traffic?***

Milica Vujković The development of electromobility is of great importance due to the reduction of harmful gas emissions and our dependence on fossil fuels. Due to significant investments in this field, the number of electric cars produced has been growing exponentially in recent years, and it is almost certain that this trend will include the Balkan countries. Competition of manufacturers to maximize the mileage that vehicles can travel between two battery charges is actually a competition in innovation developed by the given companies' research sectors. In general, research aims to reduce the price of Li-Ion batteries, their weight and volume, and increase energy by developing innovative electrode and/or electrolyte materials. However, we must also be aware that the mass production of electric cars brings with it the problems of lithium deficiency, whose reserves are constantly decreasing.

> The project's ultimate goal is to develop a new, cost-effective and sustainable hybrid model for energy storage, applying the concept of hybridization of battery and supercapacitor components in one device or cell

Photograph: Pixabay

EP ***What is the price-safety ratio when it comes to car batteries? How to find the way to new cheap high-security materials?***

Milica Vujković Problems related to the price and safety of the battery limit the mass production of electric cars. The limitations actually stem from the materials of which the batteries are composed, i.e. lithium and cobalt in the cathode material (each battery consists of anode, cathode material and electrolyte) and an organic electrolyte that is flammable and toxic. Therefore, materials that do not contain lithium and cobalt are necessary, while safe electrolytes would replace the dangerous ones. HiSuperBat will respond to these challenges by developing new and cost-effective high-capacity electrode materials for multivalent ion batteries (Ca, Mg or Al-ion) and supercapacitors.

EP ***What other challenges will the HiSuperBat project respond to?***

Milica Vujković The ultimate goal of the project is to develop a new, cost-effective and sustainable hybrid model for energy storage, applying the concept of hybridization of battery and supercapacitor components into one device or cell. The constructed coin-shaped model would be based on multivalent cations (Ca, Mg or Al) that are highly present on Earth and an aqueous electrolyte that would improve safety, reduce cost, and simplify the production of the storage system itself. The developed battery cell would not contain expensive and scarce lithium, flammable and toxic organic electrolyte. It would deliver specific energy higher than the corresponding lithium-ion cell and commercial water batteries (lead-acid battery, nickel-cadmium and nickel-metal hydride batteries).

EP ***Are there any other advantages of a multivalent-ion battery over a lithium-ion battery?***

Milica Vujković The high price, limited resources of lithium, and Li-Ion batteries' safety are factors that have driven researchers around the world, even in Serbia, to develop alternative solutions for energy storage. Multivalent-Ion batteries could be a great solution. Divalent Mg and Ca ions or trivalent Al ions can transfer more electrons during battery charging/discharging than monovalent Li-Ion, which allows multivalent batteries to have a higher capacity than Li-Ion batteries. On the other hand, the interaction of electrolyte ions and electrode material during battery charging/discharging is more pronounced in the case of multivalent charge (Mg_2 +, Ca_2 + or Al_3+), which can cause structural collapse and thus a decrease in battery capacity. These are also obstacles that we will try to overcome within the HiSuperBat project.

EP ***How far have you come with this project?***

The Milica Vujković HiSuperBat project brought together six researchers with expertise in the synthesis and structural study of micro/nanomaterials, electrochemistry, batteries and supercapacitors, from three research

MILICA VUJKOVIĆ graduated from the Faculty of Physical Chemistry, University of Belgrade, where she is currently employed as a senior research associate. She defended her doctoral dissertation in the field of Li-Ion batteries at the same faculty in 2013.

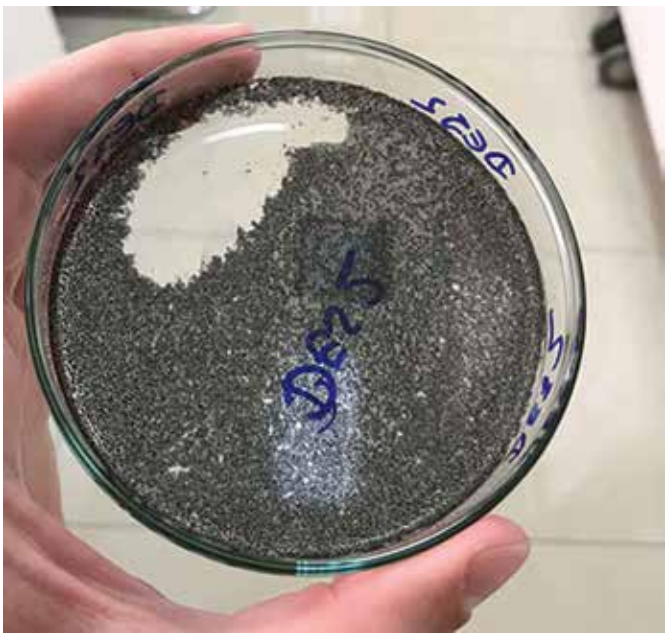
institutes affiliated with the University of Belgrade. We are currently conducting electrochemical testing of given materials, which we have synthesized in our laboratories, to discover the most suitable type of material for a certain type of batteries (Ca, Mg or Al-Ion), and ways to improve the performance of these materials. We have shown that a new high-performance Al-Ion supercapacitor can be made from a polymer-based material. The results were published in a prestigious electrochemical journal. However, there are currently many research "barriers" that need to be overcome to obtain the expected performance of the material, precisely those that could meet the commercial level. We rely on team members' experience, and on interaction and exchange of ideas that are always fruitful.

EP ***We have recently heard that Serbia is among the leaders in the number of women in science, that almost every other researcher is a woman, which puts Serbia in fourth place in Europe. On the other hand, research shows that female scientists on average publish fewer papers than their male counterparts, are paid less, and do not advance in their careers as much as they would like to. What is your view on the participation of women in science in the Balkans?***

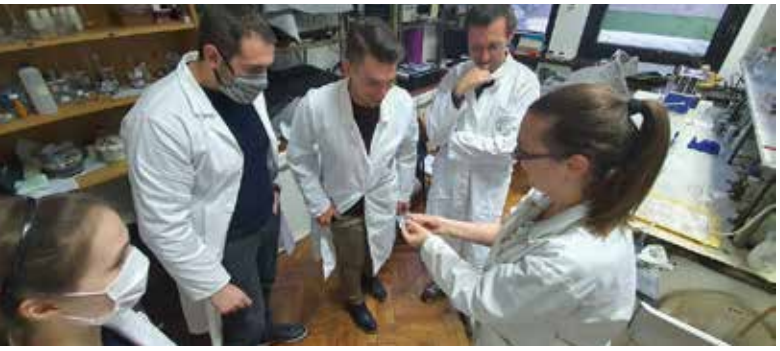
Photographs: courtesy of Milica Vujković

ABOUT THE LITHIUM MINING IN THE ADRIATIC BASIN

"The great world demand for lithium is caused by its low natural presence, which in principle dictates its high price. From the aspect of someone who is extremely committed to experimental research of batteries, I would like to open a Li-Ion battery factory in Serbia. I think that the exploitation of lithium from the jadarite ore, and its use for the production of Li-Ion batteries in Serbia, could be a great solution from which Serbia would benefit. On the other hand, the process itself would have to be performed according to environmental standards so as not to affect human health. I believe that a team of experts in Serbia will find the best possible solution for the citizens of Serbia", says Milica Vujković.



Milica Vujković What you stated confirms the saying that behind every successful man is a successful woman. Although I think that the patriarchal way of life has remained in our region because a woman's greater commitment to the household and the role of a mother leaves less room for business development and career. It is clearly apparent in science because successfully engaging in scientific research work in itself implies many hours of dedication outside working hours. On the other hand, it seems to me that things are changing in the Balkans and that men and women are becoming equal in every field so that ratio of professional success will certainly change as well. I like the information that we are in fourth place in Europe regarding the number of women engaged in science.



There are currently many research "barriers" that need to be overcome to obtain the expected performance of the material, precisely those that could meet the commercial level. We rely on team members' experience, and on interaction and exchange of ideas that are always fruitful

EP ***What are your professional plans when it comes to science?***

Milica Vujković In the foreground are the establishment and strengthening of scientific cooperation with colleagues from other scientific research institutions in Serbia to make a more outstanding contribution to the development of this very current scientific field. Then, it is important to intensively strengthen international scientific cooperation in the field of energy storage in the region and beyond in terms of joint publications, projects, patents, etc. At the moment, my wishes may be too ambitious, but I would like to contribute with my enthusiasm, engagement and effort in the future to create conditions for the realization of a scientific research center for batteries, which would be internationally recognized, and whose research results could be guidelines for the production of the next generation of batteries in Serbia. Such a center could, above all, gather a large number of young researchers in one place who would work together to contribute to a new way of storing energy.

Interview by: Jovana Canić

Photographs: courtesy of Milica Vujković

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How the citizens of Užice solve the problem of air pollution

THE RIGHT MEASURES ALWAYS LEAD TO A SOLUTION

For many years, Užice was on the list of cities with the highest air pollution. During the heating season, it often happened that the amount of soot in the air exceeded the allowed limits several times. The city's specific position, which did not allow the wind to disperse the dangerous particles of pollution, only aggravated the situation. When numerous individual coal and wood fireboxes are added to that, as well as exhaust gases from cars, it is clear that the fight of the citizens of Užice for the right to cleaner air was not easy

Fotografija: Pixabay

When we say the citizens of Užice, we mean both the citizens and the local self-government, and the city authorities are already working hard to solve the problem of polluted air, which greatly affects the quality of life of people and the environment. Gasification of the city, afforestation, investments in energy efficiency, and the inclusion of boiler rooms in the district heating system, purposeful spending of funds intended for environmental protection, are just some of the authorities' measures taken by the so that citizens in this city can breathe clean air. We asked Jelena Raković-Radivojević, the mayor of Užice, how they affected the air quality and what they plan to do in the future.

EP ***Užice is working intensively on solving the problem of air pollution. What would you highlight as the most important results?***

Jelena Raković Radivojević We are one of the small number of local governments that in the previous period took a large number of measures and activities aimed at reducing air pollution, in accordance with the Air Quality Plan that we have adopted.

The first measure that gave the most results was the gasification of the city, starting with the construction of the main gas pipeline Preljina-Užice, construction of a

JELENA RAKOVIĆ RADIVOJEVIĆ, Mayor of Užice, graduated from primary and secondary medical school in Užice, her hometown. After graduating from the Medical Faculty of the University of Belgrade and later from specialist studies (anesthesiology with resuscitation), he upgraded his professional training with a one-year stay in Russia at the Moscow University Center. After the position of the Head of the Intensive Care Department in OB Užice, she became the Head of this hospital in 2013, where she remained until 2020. She started her political career as a councilor in the City Assembly, and since last year she has represented Uzice as the Mayor. She is also the first woman in the history of the city to hold this position.

Photographs: (on the previous page) Vesna Mijailović; (top) courtesy of Jelena Raković Radivojević; (bottom) Pixabay

steel gas pipeline and metering and regulation stations, to the formation of a public-private partnership between the City of Užice and MPP "Jedinstvo" and gas distribution "Užice gas".

In the last ten years, the boiler rooms have been connected to the district heating system "City heating plant Užice". 11 out of 12 city boiler rooms were converted, representing 75 per cent of the total installed capacity. Due to technical reasons, it is not possible to connect the last boiler room, which is on fuel oil, to the district heating system, so the construction of a new gas boiler room is planned, which will enable the connection of new users to the heating network.

In cooperation with the Ministry of Environmental Protection, we implemented the project "Let's breathe life into nature" within which 14 hectares were afforested in the city area.

An effective measure with a direct impact on reducing air pollution is the separate ash from burning in individual households. By installing special containers for collecting ashes, we reduced burning of containers by 70 per cent.

In cooperation with the Ministry of Environmental Protection, we implemented the project "Let's breathe life into nature" within which 14 hectares were afforested in the city area

Photographs: (top) Miloš Karaklić; (middle) courtesy of Jelena Raković Radivojević

MORE ABOUT THE CAUSES OF POLLUTION

Due to the terrain's configuration of the city's geographical position, it is much harder to achieve good air quality in the winter months, says Jelena Raković Radivojević.

"This speaks in favor of the fact that air quality is greatly affected by climatic conditions, because during the winter months there is a temperature inversion, and in a valley like ours, there is no wind, so all pollutants remain in the ground layers of the atmosphere."

The mayor adds that they have realized a lot in previous years to have the best possible air quality. Currently, the biggest polluters in the heating season are individual fireboxes. Besides, in that small post in the very center of the city, the traffic is quite heavy.

"All this greatly affects air quality, and it cannot be improved in the short term. Pollution has been a problem for decades, but there is a shift. Citizens can check the air quality at any time on the official website of the Public Health Institute of Užice. Also, daily and annual air quality reports can be found on this page. Monitoring data is public, and everyone can follow it from year to year and compare it. It is important that the efforts of the local self-government, according to the official results of the Public Health Institute of Užice, give results and speak in favor of going in the right direction", says the Mayor of Užice.

At the City's initiative, the monitoring of ambient air at the Automatic Measuring Station has been improved, where, in addition to other parameters, we can now monitor the values of suspended PM10 and PM2.5 particles in real-time. Ambient air monitoring has also been improved within the local monitoring network by setting up another measuring point in the city center for monitoring the concentrations of PM10 particles, where pollution from the combustion chamber is primarily registered. In this way, we monitor the effects of the measures taken to reduce pollution.

According to the plans for this year, 45 million dinars should be set aside for subsidizing energy efficiency measures

The competent inspections regularly control the boiler rooms of economic entities and other legal entities and

Photographs: City of Užice

ACTION "UZICE – A CLEANER CITY"

This year, the action "Užice – a cleaner city" continues. The city authorities are currently in negotiations with the management of the company "Užice gas" to reduce the price of the connection for citizens. The more households in Užice start using some energy-efficient fuels for heating, such as gas or pellets, the faster the air quality will improve, explains Jelena Raković Radivojević.

Photographs: (top) Unsplash/Ivana Đudić; (all others) City of Užice

entrepreneurs. Where the emission limit values for the measured parameters are determined to be exceeded, it is necessary to eliminate the deficiencies, i.e. to reduce the emission. Fuel oil, pellet and gas combustion plants did not show exceeding the emission limit values for the tested substances.

The City of Užice is also one of the few local governments in which there is no unintended spending of funds intended for environmental protection. Funds earned from the collection of local fees for environmental protection and improvement were increased by additional funds from the City budget and spent exclusively in accordance with the Program for the use of funds from the budget fund for environmental protection approved by the Ministry of Environmental Protection.

The fact that every year, despite the unfavorable weather conditions caused by climate change, the number of days with exceeding the limit values, as well as the number of days with very high values of pollutants, speaks in the right direction.

> Our plans also include the opening of a plant for physical waste processing, whereby about 60 per cent of the waste that arrives at the "Duboko" landfill would be processed, and electricity would be produced

EP ***How much is invested in energy efficiency, and to what extent do citizens apply for these funds?***

Jelena Raković Radivojević Since 2015, the local self-government has been implementing a unique project to improve energy efficiency in individual buildings as direct assistance to our fellow citizens in solving air pollution. This project co-finances the installation of joinery, thermal insulation and the purchase of gas and pellet boilers. The project's goal of the project is to reduce harmful emissions through energy savings, which will be achieved through better insulation of buildings and the use of environmentally friendly fuels. From the beginning of this unique project until 2020, more than 90 million dinars have been allocated from the budget for its realization.

Last year alone, 40 million dinars were set aside for co-financing energy efficiency measures. So far, over 1,000 of our fellow citizens have used the funds we allocate. Many citizens always apply to local competitions, which indicates their great interest in solving this problem. Most people were interested in purchasing gas boilers. According to the plans, 45 million dinars should be set aside for this year to subsidize energy efficiency measures. So we hope that only this year we will largely solve the problem of air pollution from individual furnaces.

EP ***A lot is being done on the rehabilitation of public buildings. What awaits you in the coming period?***

Jelena Raković Radivojević The project of investment maintenance of the building of the elementary school "Kralj Petar II" was done, which envisages energy rehabilitation (replacement of carpentry, installation of insulation and reconstruction of the internal mechanical installation-heating).

> In the last ten years, 11 boiler rooms have been transferred to the district heating system of City heating plant Užice (JKP "Gradska toplana Užice")

Although we have been rejected for the Budget's funds, the period of submitting and responding to complaints is currently underway, followed by the signing of the contract. Regarding the Project of Energy Efficiency and Improvement of Energy Management in Serbia (SECO), the public call for bids for the execution of works has been completed, and bid's evaluation is currently being performed.

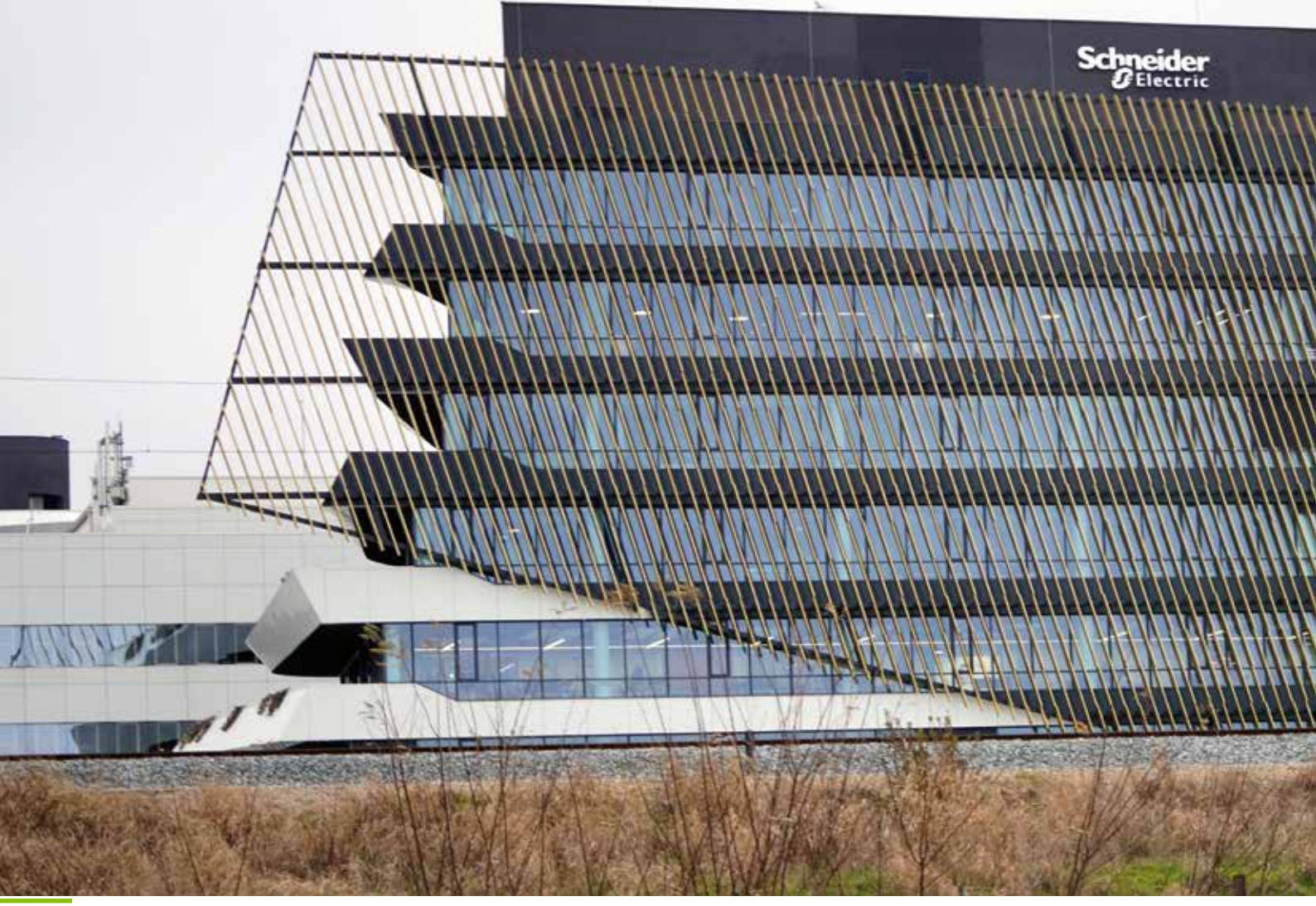
EP ***How is the implementation of the project of the Regional Landfill "Duboko" progressing?***

Jelena Raković Radivojević The presentation of further development of the project and the Terms of reference are defined. After obtaining a building permit, and when the weather conditions allow, we enter the realization of the project at the landfill.

The next step in our plans is to open a physical waste treatment plant, whereby about 60 per cent of the waste that arrives at the "Duboko" landfill would be processed, and electricity could also be produced. We have talked to potential investors on several occasions, and the relevant Ministry of Environmental Protection.

Interview by: Milica Radičević

Photograph: City of Užice



SCHNEIDER ELECTRIC tops the list of the Global 100 most sustainable corporations in the world

Affirmation of long-term commitment to environmental, societal and corporate governance issues

EP ***At the end of January, Schneider Electric announced the extension of its long-term strategy in the fields of environment, society and corporate governance to all its activities and committed itself to help its customers and business partners achieve their sustainability goals. How do you plan to implement it?***

Ksenija Karić As a company that represents a global leader in the digital transformation of energy management and automation, we believe it is our duty to contribute to making the world a more sustainable, greener and inclusive place. We have long been committed to these principles. We are constantly raising the bar of quality for ourselves, our customers and partners, and the fact that back in 2005, we were the first to monitor the impact we had on people, the planet and profit, using the Barometer of sustainability.

We have recently adopted a new program called Schneider Sustainability Impact (SSI), which covers the period from 2021 to 2025 and implies a significant expansion of the previous goals. It is based on six long-term commitments to meet each of the United Nations sustainable development goals. These commitments include working towards a climate-positive world, efficiency with resources, respect for the principles of trust, creating equal opportunities, giving opportunities to all generations and empowering local communities.

Photographs: *Schneider Electric*

Ksenija Karić,
director of Schneider Electric for Serbia and Montenegro

Ksenija Karić The first place on the list of the Global 100 most sustainable corporations in the world for 2021 represents a huge leap from the 29th place we had last year. It is also an expert external confirmation of the long-term commitment to environmental, social and corporate governance (ESG) issues. Our goal is to be an example to others when it comes to our business and ecosystem and we strive to be part of the solution for our clients.

It means a lot to us that this prestigious media and research company dealing with performance in corporate sustainability has seen our efforts and turning point to data centers, data warehousing and other energy distribution resources and smart solutions that promote electrification, energy efficiency and renewability. Today, 70 per cent of our revenues come from sustainable solutions, and that is what provides 73 per cent of our total investments.

We saved 120 million tons of CO_2 emissions over the last 15 years and provided access to energy for about 30 million people worldwide. We help our customers and clients to operate in accordance with the principles of sustainability. For example, the American company Walmart turned to us to help them green their business. By implementing our solutions in the next 10 years, we will help them save 1 gigaton of carbon, while in 2020, more than 2,000 of their suppliers saved more than 230 million tons of carbon - almost a quarter of a ten-year goal. That came after Schneider Electric helped them adopt energy systems based on renewable sources.

We have developed applications, analytics, and services that use IoT data to identify additional energy efficiency opportunities, increase asset life, optimize maintenance services, and increase demand flexibility and renewable electricity. The Edge Control option provides the ability to manage on-site operations, with daily optimization of power consumption via remote access and advanced automation. Related products are eco-friendly designed to improve their efficiency and enable electricity savings.

EP ***Your company is on the prestigious annual list of Corporate Knights as the most sustainable corporation in the world. What does this recognition mean to you?***

EP ***Schneider Electric participated in preparing the report "Net-Zero Carbon Cities - Systemic Efficiency Initiative". What are the conclusions of this report?***

Ksenija Karić It is a global framework that defines the vision of accelerated work on decarbonization and sustainability in cities around the world. It is an initiative in which we participate with Enel Group, a multinational energy company and a leading integrated player in global energy, and the World Economic Forum (WEF), and was created to emphasize the need and benefits of an integrated energy approach to building planning and management, mobility, use digitized and intelligent grid infrastructure in an urban context.

Unfortunately, cities today participate in global CO_2 emissions with almost 70 per cent and consume 78 per

cent of the planet's energy, making this approach key to achieving the goal of limiting global temperature growth by 1.5 °C as compared with pre-industrial levels.

Given these negative trends, it is necessary to emphasize the need for an integrated approach to improving energy productivity, electrification of transport, decarbonization of heating and cooling systems, enabling flexibility of demand, and giving specific recommendations and sharing experiences regarding these concepts.

Since launching the initiative, a year ago, Schneider Electric and Enel have been working with the community to accelerate the transition to zero net CO_2 emissions in 100 cities by 2030.

In addition to this document, tools, an interactive platform and instruments for measuring the progress of cities towards a green and sustainable transition will be developed. Each of these elements will be the result of close cooperation between large cities and several city networks and senior representatives of academia, NGOs, industry and finance.

EP ***Schneider Electric is a real example of sustainable business in Serbia as well, and moving to new, more modern premises is another confirmation of that commitment. What systems have you applied in the new space, and what do they enable?***

Ksenija Karić We have moved to one of the most attractive locations in the capital and we have implemented our solutions in the field of electricity distribution and Building Management System in the new space. We have connected various systems, such as switchboards, access control, heating, air conditioning, lighting and more, into a unique, automated real-time monitoring and control system, which we can access via the application even when we are out of the office. Such an automated system of supervision and management contributes to improving operational and energy efficiency in business with a significant reduction in total costs. The Belgrade office of our Development Center is at the same location.

EP ***When we talk about sustainability, the question of transport always arises. Some predictions say that by the end of the next decade, every third car sold in the world will be electric. Where do you stand in the development of this sector?***

Ksenija Karić We recognized these trends, and to achieve the ambition to achieve net-zero operating carbon emissions by 2030, we joined The Climate Group # EV100 initiative, which includes the replacement of 14,000 company cars with electric vehicles. We believe that electricity is the future of mobility and that a good infrastructure of the electric charger network is the starting point for sustainability. It is also necessary for electric chargers to be compatible with different types of electric vehicles. We have a lot of experience in this field. There are about 100,000 electric vehicle charging points supplied by Schneider Electric in Europe. When we talk about Serbia and Montenegro, about 100 electric chargers have been installed so far. ■

Photograph: MT-Komex

The connected EV charging station for smarter charging

EVlink charging stations are easy to use, tough, intelligent and universal.

They are suitable for daily use and compatible with all type 1 and type 2 electric vehicles for public parking, corporate EV fleets, commercial private or residential areas.

EVlink Parking and Smart Wallbox offer energy metering capabilities plus the connectivity you need to ensure user authentication, generate reports and perform remote maintenance. Easily connect your EVlink charging station to the EcoStruxure™ cloud platform and generate energy management reports or allocate costs to individual users.

Everything you need to make EV charging easier than ever to manage! With EVlink, easily find the charging infrastructure that suits you whether you are a private user or a professional.

www.se.com/rs/evlink

Life Is On Schneider Electric

Carport with 8 parking lots and solar power plant with 20 kW capacity

PROVIDING SHADE WHILE GENERATING CLEAN SOLAR ENERGY

CARPORT FOR INSTALLATION OF SMALL SOLAR POWER PLANT

We have engineered and constructed solar carports for private corporations:

- All solar carports are adjusted to weather characteristics such as wind and snow load for each country climate conditions
- Dependent on the number of lots of parking required, we can offer photovoltaic carports with typically 2 or 4 lots without footpath and the carports with 4 lots with footpath
- Solar parking lots can be extended by adding poles to be large enough to span up to 8 parking places. For more than 8 parking lots thermal dilatation has to be done

INSTALLING A SOLAR CANOPY CAN POWER YOUR PREMISES OR YOUR EV CHARGERS

Carport with 10 parking lots and solar power plant with 24,75 kW capacity

Carport for 2 parking lots without footpath is suitable for installation of 15 PV modules

Carport for 4 parking lots without footpath is suitable for installation of 30 PV modules

Carport for 4 parking lots with 2 m wide footpath is suitable for installation of 36 PV modules

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MOTORISED TRANSPORT: TRAIN, PLANE, ROAD OR BOAT – WHICH IS THE GREENEST?

Traveling by plane, train or automobile: the most environmentally sound choice may not always be clear. The latest annual Transport and Environment Report 2020 (TERM) addresses the issue assessing the value of travel by train and plane, amid efforts to put in place the European Union's green deal. The European Green Deal includes the objective of reducing greenhouse gas emission from transport by 90 percent by 2050 compared with 1990. Shifting to more sustainable transport can make an important contribution to reaching this objective. For passenger transport, a shift from air to rail travel can play a key role, the report says.

ENVIRONMENTAL IMPACT OF TRAINS AND PLANES

Transport accounted for 25 percent of EU greenhouse gas emissions in 2018. This sector's emissions come primarily from road transport (72 percent), while marine transport and aviation represent shares of 14 percent and 13 percent of emissions, respectively, and rail a share of 0.4 percent (emissions by diesel trains only). Apart from their direct contribution to global warming and air pollution, emissions that take place during the production, transmission and distribution of energy used by trains and aircraft are also considered.

TRAIN OR PLANE?

The report specifically looks into the impacts of rail and air travel, both of which are a big part of Europe's passenger transport sector. The assessment concludes that rail travel is the best and most sensible mode of travel, apart from walking or cycling. Aviation's emission impacts are much higher on a passenger-kilometre basis. But the report notes that flying is not necessarily the most harmful choice. Travel by a petrol or diesel-powered car, especially if traveling alone, can be more harmful.

Source: EEA

THIS ELECTRIC CAR BATTERY TAKES THE SAME TIME TO CHARGE AS FILLING UP WITH GAS

An electric-car battery that can be charged in five minutes, the amount of time it takes to fill up a tank of gas, has been produced for the first time in a factory in China. The new lithium-ion batteries were developed by the Israeli company StoreDot and manufactured by Eve Energy in China. The company has produced 1,000 sample batteries compliant with li-ion battery certifications, StoreDot said.

For many drivers, electric cars do not cut it for long trips because of the amount of time it takes to charge the vehicles. Electric-car batteries on the market can take anywhere from 30 minutes to 12 hours to charge, though a typical EV takes about eight hours to charge from empty to full, according to Pod Point, a manufacturer of electric-vehicle chargers.

Electric vehicles are a crucial part of Biden's USD 2 trillion climate-change plan, in which he wants an entirely green electric power grid by 2035 with cars running on electricity instead of gasoline. StoreDot's new battery technology would make this green future more feasible, eliminating what CEO Doron Myersdorf called electric vehicle's biggest barriers: "range and charging anxiety."

Electric cars average about 250 miles of driving per charge. With a battery that could charge faster, drivers would not be range-bound and could take EVs on longer trips.

While lithium-ion batteries use graphite as an electrode, the StoreDot battery works faster by replacing graphite with semiconductor nanoparticles that allow ions to pass more easily and quickly. The company expects to replace this electrode with silicon, a much cheaper component, by the end of the year.

StoreDot's five-minute battery will likely not enter the mainstream market for many years, as mass production will not be available for quite some time as the company continues to hone its technology.

Source: World Economic Forum

Photographs: Pixabay

HOW TECHNOLOGY HELPED SERBIA SAVE 180 MILLION SHEETS OF PAPER IN LESS THAN FOUR YEARS

Digitalization and e-governance can seem like abstract concepts.

But, in a session at the World Economic Forum's Global Technology Governance Summit, Serbian Prime Minister Ana Brnabić gave an example of how going virtual can have a real-world impact.

Brnabić explained how digitalization has become central to everything the country's government is trying to achieve.

This has included a shift to e-governance in order to make government 'fully citizen-centric', she explained. But the benefits have extended beyond efficiency and increased transparency.

Since the introduction of electronic services began on 1 June, 2017, the government has saved more than 180 million pieces of A4 paper, Brnabić told the Leading Industry Transformation session.

"That means we've saved 900 tonnes of paper, which is 18,000 trees, which is more than 76 million litres of water, which is more than 6,000 megawatt hours of electricity", she explained.

This focus on digitalization also helped the country navigate the challenges of the COVID-19 pandemic – with education a particular success story as children were able to switch to online learning.

Of course, shifting paperwork online isn't without its own environmental concerns.

Pre-pandemic research suggests that data centres use an estimated 200 terawatt hours of energy each year – just 1 percent of global electricity demand, but more than the energy consumption of some countries. And, this usage is only set to increase. One model suggests that electricity use by ICT could exceed 20 percent of the global total by the end of the decade.

But, organizations like Amazon Web Services and Facebook are working to improve the sustainability of their data centres, including increased use of renewable energy to power them.

So, e-governance might not only be more convenient and efficient, it could also help you save the planet, one sheet of A4 at a time.

Source: World Economic Forum

FAST-TRACK ENERGY TRANSITIONS TO WIN THE RACE TO ZERO

Proven technologies for a net-zero energy system already largely exist today, finds the preview of World Energy Transitions Outlook by the International Renewable Energy Agency (IRENA). Renewable power, green hydrogen and modern bioenergy will dominate the world of energy in the future.

Previewed at the Berlin Energy Transition Dialogue, IRENA's Outlook proposes energy transition solutions for the narrow pathway available to contain the rise of temperature to 1,5°C and halt irreversible global warming. 90 percent of all decarbonisation solutions in 2050 will involve renewable energy through direct supply of low-cost power, efficiency, renewable-powered electrification in end-use as well as green hydrogen. Carbon capture and removal technologies in combination with bioenergy will deliver the 'last mile' CO_2 reductions towards a net-zero energy system.

With 2030 deadlines around the corner, this Outlook comes at a critical time when acting fast and bold on global climate pledges is crucial in the decisive year of UN High-Level Dialogue on Energy and Glasgow Climate Conference COP26.

Francesco La Camera, Director-General of IRENA said: "The window of opportunity to achieve the 1,5°C Paris Agreement goal is closing fast. The recent trends show that the gap between where we are and where we should be is not decreasing but widening. We are heading in the wrong direction. The World Energy Transitions Outlook considers options of the narrow pathway we have to be in line with the 1,5 °C goal. We need a drastic acceleration of energy transitions to make a meaningful turnaround. Time will be the most important variable to measure our efforts."

Source: IRENA

Photographs: Pixabay

THIS IS HOW CO_2 CAN BE TRANSFORMED INTO FOOD FOR ANIMALS

A British biotechnology start-up is converting industrial greenhouses gases into protein for animal fodder. The company uses a process it says can help to feed the world's growing population while simultaneously being sustainable.

Deep Branch uses micro-organisms to synthesize carbon dioxide (CO_2), the main climate-warming greenhouse gas, into a protein-rich powder.

This can be used in livestock feed, enabling farmers to reduce their reliance on traditional ingredients such as soy and fishmeal. These consume huge amounts of land and fish stocks that can instead be utilized to produce food for the growing population of humans.

"We face two big issues: how do we reduce CO_2 and how do we provide more food in a sustainable manner," says Deep Branch chief executive and co-founder Pete Rowe. "But what if you could solve two problems in one – what if you could use carbon to produce food?"

Deep Branch, which was formed in 2018, calls its protein product Proton.

It has signed a deal to use CO_2 captured at the power plants of British energy giant Drax. Deep Branch estimates Proton can be produced with 90 percent less carbon than alternative protein sources. And from a single production site, its technology would sequester as much CO_2 as 300,000 cars emit from their exhausts in a year.

The company is among start-ups that are searching for ways to boost food production and nutrition security for a population that's expected to grow to almost ten billion by 2050, according to the United Nations.

But the researchers don't expect current food production technology to keep up the pace. The challenge is to increase food yields in a way that doesn't worsen the already high emissions of the food production industry.

Source: World Economic Forum

THE FIRST GLASS PACKAGING CONTAINERS ON THE STREETS IN SOMBOR

The citizens of Sombor and the surrounding areas can start recycling glass, with the first 70 packaging waste containers being placed on the streets, and another 80 containers expected in the weeks to come, and the experiences from Niš, which collected more than two tons of glass in only a few weeks, testifies to citizens' responsible stand towards the environment.

There are 70 containers intended for the urban zone, 10 for the suburban, 40 for rural and 30 for hospitality facilities. The containers have been ensured thanks to the regional project „Managing glass packaging waste in the Western Balkans" implemented by German Development Cooperation (GIZ) in cooperation with the local government, together with the company Sekopak and with the financial support of the Apatin Brewery.

As pointed out by the Mayor Antonio Ratković, Sombor is known as a green city, and in line with this image, every year, the local government invests funds in projects aimed at protecting and improving the environment.

„I believe our fellow citizens will perceive the disposal of glass packaging into specific containers as a simple, but simultaneously useful activity. By changing the perception of all citizens that our planet has limited resources and that sometimes even a small step, like glass waste separation that can and should be performed by each and every one of us, has a significant impact on the future life on Earth", said the Mayor of Sombor.

„In addition to Sombor, the project Managing glass packaging waste in the Western Balkans is also implemented in Niš, Kragujevac and Varvarin, and selected pilot municipalities in Bosnia and Herzegovina and North Macedonia", said Sanela Veljkovski, Project Manager in German Development Cooperation (GIZ).

Source: NALED

Photographs: Pixabay

NATURE-BASED SOLUTIONS SHOULD PLAY INCREASED ROLE IN TACKLING CLIMATE CHANGE

Climate change, biodiversity loss and degradation of ecosystems are linked and all have devastating consequences for our economic and social stability, health and well-being.

Working with nature is increasingly recognised as an efficient way to tackle these growing challenges, according to the new EEA report "Nature-based solutions in Europe: Policy, knowledge and practice for climate change adaptation and disaster risk reduction".

Drawing on selected examples across Europe, the report shows how impacts of extreme weather and climate-related events are already tackled in this way. It also assesses global and European policies and how nature-based solutions are increasingly being integrated in the efforts to shift towards sustainable development.

The EU's 2030 biodiversity strategy, a key pillar of the European Green Deal, includes a nature restoration plan that can boost the uptake of nature-based solutions. Nature-based solutions are also highlighted in the EU strategy on adaptation to climate change that was recently adopted by the European Commission.

Many countries are already restoring nature in river valleys and uplands to reduce downstream flooding risks. In coastal regions, natural vegetation helps to stabilise coastlines, while reforestation is increasingly used for storing carbon.

Nature is also brought back into cities by greening urban spaces or reopening old canals or rivers, which increases resilience to heatwaves and brings additional health and wellbeing benefits. Despite their increasing prominence, nature-based solutions could be mainstreamed further.

Source: EEA

BRITISH HILLS COULD SOON BE GENERATING ELECTRICITY

Hillsides are hidden sources of power just waiting to be unlocked, according to a British renewable energy company.

RheEnergise has developed a way to use hills as 'batteries' that create and store electricity for use when needed.

Instead of using water, RheEnergise has invented a fluid which is two and half times denser.

This means it can provide two and half times more power and energy when it is released downhill.

This, in turn, opens up many more sites as potentially suitable for this kind of hydropower system. Quicker and cheaper to build than traditional hydropower dams, the systems would also be more sustainable.

The high-density fluid is pumped uphill at times of low energy demand and stored in an underground storage tank. When extra electricity is needed, the fluid is released downhill over generating turbines. This way, the energy used to get the water uphill is returned to the grid.

So-called 'pumped-hydro' systems like these are one of the oldest forms of energy storage and traditionally use reservoirs and dams to store and release water.

they help bridge potential gaps in electricity supply when demand is high or production from the electricity grid drops. They also help offset the seasonality of variable renewables like wind and solar power.

While the pandemic has undoubtedly slowed down global renewable energy growth, electricity-generating technologies have proved fairly resilient, according to the International Energy Agency's Renewables 2020 report.

RheEnergise says its system can work on hills with a height of 200 metres and is aiming to have its first commercial system operating in 2024, with a further 100 systems operating within the next decade.

Source: World Economic Forum

Photographs: Pixabay

DENMARK TO BUILD WORLD'S FIRST ENERGY ISLAND IN THE NORTH SEA

Denmark has reached a landmark agreement on the construction of an energy hub in the North Sea. The energy hub will be an artificially constructed island 80 kilometers from the shore of the peninsula Jutland. It will be owned by a public-private partnership.

Denmark has introduced a cutoff date of 2050 for oil and gas extraction in the North Sea and canceled all future licensing rounds. By agreeing on the construction and ownership of the world's first energy hub in the North Sea, Denmark takes another significant step in the green transition. The energy hub will produce yet unseen amounts of green electricity and is one of the government's flagship projects for the green transition in Europe. Fully implemented, it will be able to cover the consumption of 10 million European households.

The energy hub will serve as an offshore power plant gathering and distributing green electricity from hundreds of wind turbines surrounding the island directly to consumers in countries surrounding the North Sea. The island is expected to have a total area of at least 120.000 square meters and in its first phase it will be able to provide 3 million European households with green energy. The project will be a public private partnership between the Danish state and private companies. The State will own the majority of the island, but private companies will be crucial for the project to fulfill the potential as regards to innovation, flexibility, cost-effectiveness and business potentials.

The artificial island will offer the best opportunities to expand the project, for example by building a harbor and facilities for storage and conversion of green electricity from the nearby wind turbines in the sea. It is the long-term ambition to be able to store green electricity on the island, convert it to liquid green fuel, and send it via subsea cables to Denmark and neighboring countries.

Source: CleanTechnica

HOW RENEWABLES OFFER NEW SOLUTIONS FOR DISTRICT HEATING AND COOLING

Innovation in technology, digitalisation and building efficiency are opening the heating sector to low-temperature renewables according to IRENA report.

Heating is the largest end user of energy, accounting for over 50 percent of global final energy consumption worldwide. At present, much of this demand is met by burning fossil fuels, making the sector a significant contributor to greenhouse gas emissions and air pollution. Renewables can play a significant role in decarbonising the way we heat homes and businesses.

Traditionally, biofuels have been the main alternative to fossil fuels in district heating and cooling. However recent improvements in building insulation and digitalisation have opened district energy to widely accessible, low-temperature renewables such as low-temperature geothermal, solar thermal and waste heat sources.

These sources are widely available in many regions. Yet, they remain largely untapped because they are not immediately compatible with current district energy infrastructure and existing building stock according to IRENA's "Integrating Low-Temperature Renewables in District Energy Systems" published in collaboration with Aalborg University, Denmark.

Speaking during a recent workshop to launch the report, Miklos Antics, the President of the European Geothermal Energy Council, said more than 25 percent of the EU population lives in areas directly suitable for geothermal district heating.

The workshop was held under the framework of the Energy Solutions for Cities of the Future and under the umbrella of the Global Geothermal Alliance, with a focus on China with the support of the Chinese Renewable Energy Engineering Institute (CREEI). "District heating is of utmost importance to achieve decarbonised energy systems in China by 2060," said Professor Brian Vad Mathiesen from Aalborg University.

Source: IRENA

Photographs: Pixabay

THE NATIONAL ASSEMBLY ADOPTED FOUR LAWS IN THE FIELD OF ENERGY AND MINING

Members of the National Assembly of the Republic of Serbia adopted four laws in the field of mining and energy, including two new laws – the Law on the Use of Renewable Energy Sources and the Law on Energy Efficiency and Rational Use of Energy, as well as amendments to two laws – the Law on Energy and the Law on mining and geological research, according to the Government's website.

LAW ON THE USE OF RENEWABLE ENERGY SOURCES (RES)

The aim of the new law on the use of renewable energy sources (RES) is to enable new investments in RES and increase the share of renewable sources in total energy produced. The implementation of this law will ensure the protection of the environment, the fight against climate change, the reduction of costs for citizens, the energy transition, as well as the simplification and acceleration of procedures.

The new law introduces market premiums instead of the current feed-in tariffs, which are retained only for small plants and demonstration projects, in line with EU rules for state aid.

It is also important that the new law brings greater involvement of citizens in the energy transition by introducing the category of customer-producer, which means that electricity customers, by installing solar panels on the roofs of buildings, produce electricity for their needs, and thus reduce their bill for consumption of electricity.

LAW ON ENERGY EFFICIENCY

The objectives of the law on energy efficiency and rational use of energy are to achieve energy savings, reduce the impact of the energy sector on the environment and contribute to the sustainable use of natural and other resources. With this law, Serbia is harmonizing with the new EU directives in this area, which, among other things, includes the introduction of regulations for eco-design, which concern the labeling of household appliances that can be found on the market, as well as regulations for highly efficient cogeneration.

In order to encourage efficient use of energy and implementation of energy efficiency measures, it is planned to establish an administration for financing and encouraging energy efficiency within the Ministry of Mining and Energy, which will make it easier for citizens to receive subsidies for replacing windows and doors, and improving facade insulation and heating systems.

ENERGY LAW

The proposed amendments to the Law on Energy will enable the harmonization of domestic legislation with the acquis communautaire, ensuring the security of delivery and supply of energy and energy sources and enabling the introduction of new participants in the energy market. The amendments to the law create the legal basis for the adoption of the Integrated National Energy and Climate Plan and additionally regulate and expand the powers of the Energy Agency of the Republic of Serbia.

MINING LAW

The main goal of passing the law on amendments to the Law on Mining and Geological Research is to create conditions for more efficient and sustainable management of mineral and other geological resources of Serbia, as well as to increase investments in geological research and mining.

The amendments to the law expand the competencies of the Geological Survey of Serbia.

Energy portal

Photographs: Pixabay

IT'S HIGH TIME FOR YOUR SOLAR POWER PLANT

The new Law on Renewable Energy Sources will enable the citizens of Serbia to produce and sell green kilowatts. The novelties brought by this law are auctions for the allocation of premiums and feed-in tariffs, the adoption of the National Energy and Climate Plan (NECP), the possibility of establishing energy communities, etc. However, what is most important for the citizens is that the status of a prosumer (buyer and producer) will finally be introduced and regulated.

The adoption of the new law will enable new investments in renewable energy sources (RES) and their larger share in total energy production. According to the Ministry of Mining and Energy, the share of renewable energy sources in the total electricity production is currently around 24 per cent, wherein the majority comes from large hydropower plants. In contrast, wind, solar and biomass power plants participate with about 4 per cent. One of the main goals of the Serbian Government is that by 2050, at least 50 per cent of energy come from renewable energy sources.

The new law introduces market premiums instead of the current feed-in tariffs, which will expose producers to the influence of the market and competition, reducing the costs for citizens and the economy, while at the same time, investors have guaranteed stability and predictability of the legal framework. Feed-in tariffs are retained only for small plants and demonstration projects, in accordance with the rules of state aid of the European Union state. Small solar plants are power plants with an installed capacity of less than 500 kW or wind farms with less than 3 MW capacity.

When it comes to incentives, they will be awarded in the auction procedure according to the same rules as for auctions for the allocation of market premiums, which will reduce the prices of the feed-in-tariffs.

One of the most important innovations of the RES Law is the concept of the prosumer. It basically means that prosumers will be able to produce electricity for their own needs and deliver the surplus energy to the electricity system. Thanks to that, they will have the right to reduce their electricity bills. If they wish, they can store the produced surplus and use it later.

Experts predict that this will greatly affect the installation of solar panels on the roofs of buildings, and small buyers – households and large buyers – the industry will be most interested in this concept. It essentially implies that

The new law introduces market premiums instead of the current feed-in tariffs, which will expose producers to the influence of the market and competition, reducing the costs for citizens and the economy. At the same time, investors have guaranteed stability and predictability of the legal framework

if you want to install solar panels on the roof of your house, you have to hire a design bureau that will develop the project, examine the location conditions and finally ask for a work permit.

By choosing the right company, almost half of the work is done. Thus, the best is to choose one with many years of experience. The expert team of **CEEFOR** company (Center for Energy Efficiency and Sustainable Development), which consists of engineers with many years of work experience and a long list of successfully completed projects, is ready to listen to all customers' questions at any time and answer them. Energy efficiency and design services in the field of RES represent only one part of their offer.

The design of 200 MW of solar power plants, 25 MW of CHP plants, 120 energy audits and checks of investment risk, as well as 66 MW of wind farms are on **CEEFOR**'s packed list.

In this company, special attention is paid to environmental protection and reduction of air pollution. Being a socially responsible company, their management and employees are often involved in numerous campaigns to raise awareness about environmental protection.

Reliable experts of **CEEFOR** company are always ready to find the best solution, which is why their list of clients is getting longer day by day. Your company might be the next one on their list.

If you are planning to install solar panels on the roof of a house or office space, or you have an ideal location for a small solar power plant, call **CEEFOR**'s engineers, tell them about your wishes and be sure that they will do their best to provide you with energy through green kilowatts.

Prepared by: Milica Radičević

CEEFOR
ENERGY EFFICIENT SOLUTION

CEEFOR d.o.o.
103 Bulevar Oslobođenja St. Belgrade
W | www.ceefor.co.rs
M | info@ceefor.co.rs
T | 011 40 63 160

Photograph: Termovent

ARE YOU FOR ... ACORN COFFEE?

It took seven months for the idea to develop into a plan and for the doors of the first Serbian vegan and low waste café, VeZa, to finally and ceremoniously open. There is no product in their offer that is of animal origin, or created by animal exploitation, and the determinant - low waste (reduced amount of waste) refers to the effort of all employees to leave behind as little waste as possible.

The idea for this concept of a café was conceived in November 2019, and due to the state of emergency, they started working only in June 2020. However, the owner, Jelena Disić, believes that the situation with the pandemic both hindered and helped because it left additional space for considering some ideas and business models.

All photographs: Stefan Vacić

EP ***Why did you choose to open a vegan and low waste café?***

Jelena Disić I have been actively fighting for animal rights for seven years, and less than two years ago, I founded the Vegan Community with my friends. Our association strives to create and strengthen the vegan community in Serbia, and this is just another step towards that. Veganism is in itself low waste, because every plant-based diet, and the vegan lifestyle, have its own ecological aspect, so these two concepts are closely related, although it may not seem so at first glance. My business partner and I, along with our best friend, decided to bring a little activism to the business, and that's how we made VeZa.

EP ***What are the reactions to this concept and food offer?***

Jelena Disić Every day, more and more people come to VeZa. I am especially thrilled that our acorn cappuccino has become an already recognizable product in the city, and that is why many people visit us. Acorn is the fruit of the oak, which is quite common in our region and which, unlike coffee, has no negative impact on the soil and the environment. In the offer of our café, you will find only homemade, cold-pressed juices and water kefir (a drink similar to carbonated juice, full of vitamin B). We try to procure products from local producers who work responsibly.

EP ***How did you reduce the amount of waste generated in the food preparation process?***

Jelena Disić We try not to use anything from disposable packaging, which is the first and perhaps most important step towards reducing waste. We have metal, bamboo and plastic straws, we serve sugar in bowls, we use metal spoons, etc. Also, we make our milk (from coconut, almonds, hazelnuts), then peanut butter, chia pudding, and sunflower spread that we use for our sandwiches. We recycle all the waste we have left; we use Frosh brand products for washing dishes, which are both vegan and ecological, which is another way in which we contribute to the protection of the environment.

EP ***What happens to food that is not used during the day shift?***

Jelena Disić Fortunately, we do not have large surpluses of food. Usually, we have only biodegradable waste from squeezed juices. For now, we are simply throwing it away because due to legal regulations, composting is not possible indoors, i.e. in a bar. Composting is, by the way, a crucual thing - in that way, we return to nature what it has given us. We are preparing to install a composter in the garden soon.

EP ***How do you pack takeaway food, and have you used secondhand furniture to furnish the space?***

Jelena Disić We have reusable packaging that is taken on bail, which the majority of guests uses. Some even bring their bowls. As for takeaway coffee, we sell reusable cups for 300 dinars, and with the cup, you get coffee for free. All the chairs in our café are redesigned old chairs from the seventies and eighties of the last century, which the furniture designer revived especially for our café.

EP ***Do you have any business benefits because you are engaged in responsible entrepreneurship?***

Jelena Disić We do not have any benefits whatsoever. We do not even have an option to declare ourselves as such a café anywhere in the documentation. The Sanitary Inspection in Serbia prescribes rules that are not in line with the concept of reduced waste, but we can find some solutions for now. We found napkins made of recycled paper instead of ordinary paper towels, and we use sponges that are biodegradable (made from walnut shells). We started this business with the desire to change things for the better, and not because of the possibility of making big money and gaining capital.

We have reusable packaging that is taken on bail, which the majority of guests uses. Some even bring their bowls. As for takeaway coffee, we sell reusable cups for 300 dinars, and with the cup, you get coffee for free

Acorn is the fruit of the oak, which is quite common in our region and which, unlike coffee, has no negative impact on the soil and the environment. In the offer of our café, you will find only homemade, cold-pressed juices and water kefir (a drink similar to carbonated juice, full of vitamin B)

EP ***Not only are you involved in the catering industry, but you are also animal rights activists?***

Jelena Disić As I am one of the founders of the Vege Community, through activities related to this group, I find a wide range of activities through which we use different methods to design ways to help animals. We are currently working on one big project, the Vegan guide, which will make it easier for anyone who has doubts or lacks information to switch to veganism. The Vegan Newsletter, our free online magazine is read by an increasing number of people every month. As for the "Break the Cages" campaign, it will last until each cage is empty. Unfortunately, in Serbia, more than 90 per cent of egg producers use a cage (battery) type of chicken breeding,

in which the chicken spends its entire life in a smaller space than the surface of A4 paper. As the greatest success of this first year of work, I would like to single out that we have largely informed the public about everything in the egg production industry. There is a big shift in corporations that are informed about new trends in responsible business. In March, we launched a petition to quantify our dissatisfaction with the conditions in the egg industry in Serbia and to show how a more conscientious consumer society is being created. The transition to cage-free cultivation is a step towards a better world. However, the best way to help chickens is not to consume any eggs.

EP ***Do you have some advice for our readers?***

Jelena Disić For a start, every time you sit down to have a drink, think about whether you need a straw or a plastic spoon. Ask yourself why man is the only mammal who consciously consumes the milk of other mammals! The dairy and meat industries consume a third of the world's drinking water. Every change that is made will be a small step for an individual and a big one for animals and our planet.

Interview by: Jovana Canić

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ENV.NET – CIRCULAR ECONOMY AND CLIMATE CHANGE

The results of the implemented regional project to improve of environmental policies include strengthening interactions between individual participants such as civil society organizations, the media, local communities, decision-makers and policymakers

The third cycle of the project "ENV.net factoring the environmental portfolio for the Western Balkans and Turkey in the EU Policy Agenda" (ref. No. 2017 / 394-372) - ENV.net3 was realized in the period from December 2017 to December 2020. Over the three years, well-known partners from the previous two cycles of ENV.net projects, successfully implemented from 2012 to 2016, used resources, knowledge and experience to build a strong network that represents a unique force in advocating and advancing policies through empowerment and opportunities for citizens to have their voices heard. During the last third ENV.net cycle, the partners worked to strengthen the links made between the various stakeholders in the EU accession countries, to draw the attention of the media and decision-makers to key environmental issues.

In the three years, the goal of the ENV.net3 project was fulfilled related to the contribution to the improvement of environmental policies in accordance with EU standards, in terms of strengthening interactions between individual actors in environmental protection, such as civil society organizations, media, local communities and decision-makers and policymakers. The joint actions examined potential opportunities for creating a better technical and financial environment to develop partnerships and joint action of

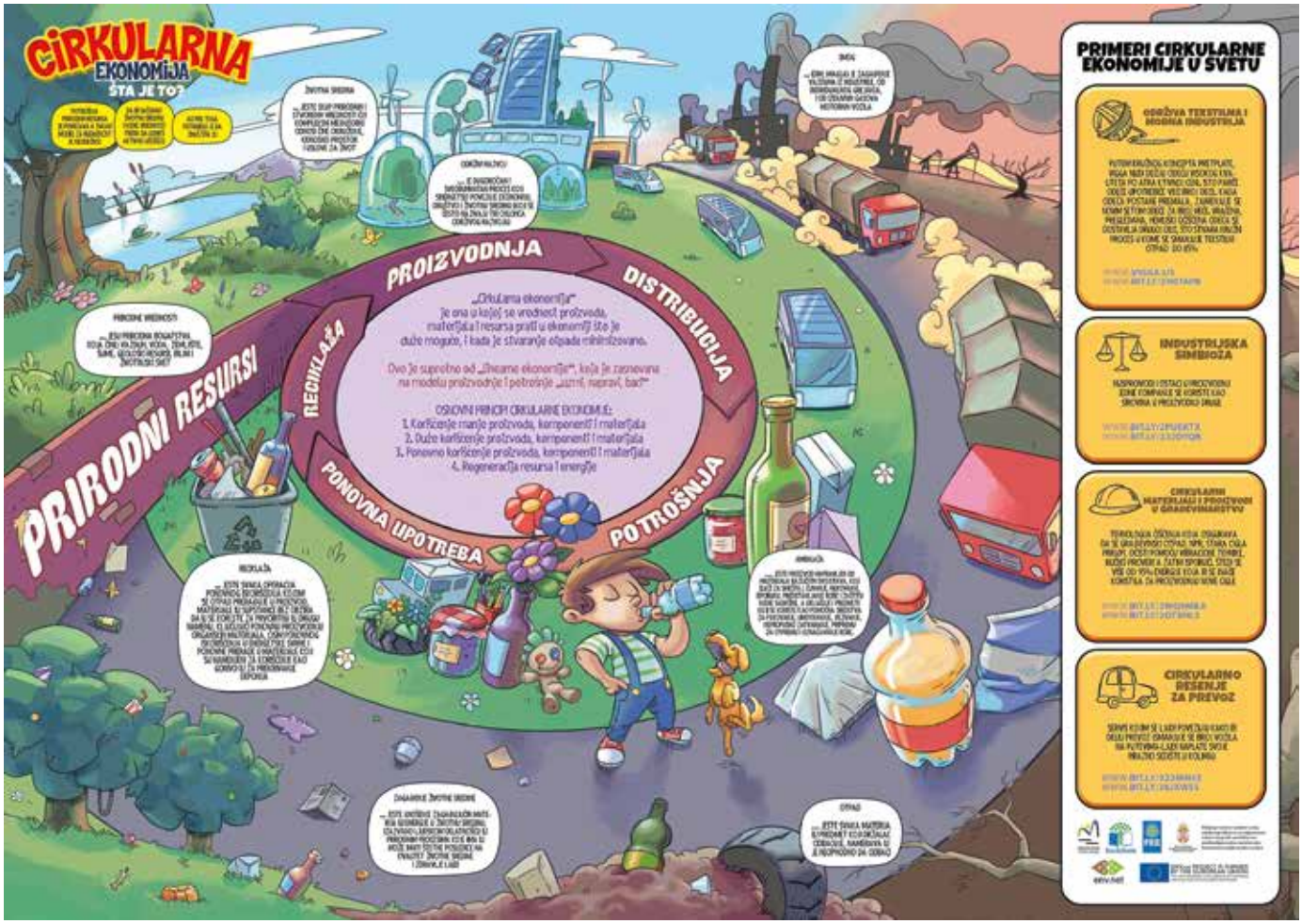
All photographs: ENV.net

all stakeholders. The achieved results and the long-term regional partnership have led to the strengthening of the profile of ENV.net as a leading network that connects various participants in environmental protection in the Western Balkans and Turkey in relation to the EU. In addition to the Ambassador for Sustainable Development and Environment, the project partners are six organizations from the Western Balkans and two organizations from the EU: 4X4X4 Balkan Bridges, Advocacy Training and Resource Center, Green Home, Lir Evolution, TEMA – the Turkish Foundation for Combating Soil Erosion, for Reforestation and Protection of Natural Habitats, European Environmental Bureau (EEB) and Foundation Punto Sud.

The achieved results and the long-term regional partnership have led to the strengthening of the profile of ENV.net as a leading network that connects various participants in environmental protection in the Western Balkans and Turkey in relation to the EU

The Circular economy encompasses but also goes beyond waste management

Perhaps the project's biggest success is the launch of a discussion related to the circular economy in the region, as well as the intensification of activities related to climate change. Activities related to the exchange of experiences with partners from EU countries were adapted to the situation caused by the Covid-19 pandemic. Thus, the virtual tour planned for Italy's experience in the circular economy was organized by Punto Sud partners from Italy, and a special productive way of a consultative virtual meeting with EU representatives, organized by EEB, a partner from Belgium, was used in a very productive way. Also, the participation of the representatives of the ENV.net project in the conference of the signatories of the UN Convention on Climate Change was realized. Besides, the ambassadors of sustainable development and the environment participated in scientific and professional conferences, presenting the results of the ENV.net project (such as the Fifth Eurasian Symposium on Waste Management), where Prof. Andjelka Mihajlov PhD., a thematic expert on the ENV.net project in Serbia, presented the paper "Circular economy surpasses waste management." A new paper was accepted, which will be presented in 2021 at an international conference in Athens ("Communication and Management"). It is based on research conducted by the Ambassadors of Sustainable Development, in cooperation with the Ebart Media Archive, during the ENV.net3 project



AMBASADORI ODRŽIVOG RAZVOJA I ŽIVOTNE SREDINE

ENVIRONMENTAL AMBASSADORS FOR SUSTAINABLE DEVELOPMENT

Eco-schools from a dozen cities in Serbia had the opportunity to host the exhibitions "Life of Garbage" and "Conquering Renewable Energy Sources"

cycle for the nexus of environmental issues. Also, at the Universities of Belgrade and Novi Sad, as well as at meetings of eco-school coordinators, representatives of various educational institutions involved in the Eco-school program, lectures were held to students and teachers on the basics of circular economy and climate change to stimulate their reactions and readiness to act.

The circular economy is one of the main topics of this cycle of the ENV.net project. Introducing the circular economy in different segments and towards different interested parties has contributed to a better understanding of the concept and concept and further promotion of the transition from linear to so-called "circular economy" in different local communities. Eco-schools and civil society organizations in Serbia have played a special role in this through the sub-grant scheme within the ENV.net project. Four organizations: Zlatibor Circle from Čajetina, Planet from Sombor, Eco-Musketeers from Belgrade and the Center of Expertise for Natural and Economic Resources from Belgrade, in cooperation with Eco-schools in their local communities, developed relations with decision-makers and presented the results of work so far in promoting the concept of a cir-

cular economy and their efforts to combat climate change. The subgrants were awarded to civil society organizations that had joint activities with Eco-schools from their communities. They chose the topics of circular economy, climate change or monitoring progress in the development of environmental policies. Also, within the sub-grants, together with the Ambassadors of Sustainable Development, an analysis of policies/regulations related to the environment and climate change in Serbia was made and presented in the form of a monitoring matrix, which can serve in further work on establishing sustainable and integrated environmental protection system, including all actors and stakeholders.

Longer used resources reduce the amount of waste

The analysis "Circular Economy in Serbia – The Process Started" was created to develop a methodology for assessing the state of the circular economy in the Western Balkans and Turkey through the project ENV.net3. Authors Prof. Andjelka Mihajlov, PhD, Aleksandra Mladenović and Filip Jovanović, within this analysis (which was done as a compilation of a limited amount of available information), understand the term circular economy as follows: Circular economy is an economy in which the value of products, materials and resources is maintained in the economy as long as possible, and waste generation is minimized. This is in contrast to the "linear economy", which is based on the model of production and consumption "take, consume and discard". That is how the first report on the circular economy was created, presented at the first regional conference on the circular economy held in November 2018 in Belgrade, where all previous participants in the process of introducing the circular economy in Serbia were presented international organizations, national and local decision-makers, civil society organizations and, of course, economic entities that have based part or all of their production on the principles of the circular economy. The following progress reports on the further development of the circular economy in the Western Balkans and Turkey were presented at two more regional conferences held in Tirana and the last virtual conference hosted by Turkish partners.

The partners of the Ambassador for Sustainable Development and Environment in the advocacy campaign during the ENV.net 3 project on the topics of circular economy and climate change were the French Institute in Serbia, local communities, the EU Convention in Serbia and of course, Eco-schools. ENV.net 3 project and project "Caravan for Climate – All active in the fight against climate change!" crossed paths and together tried to point out the problems of climate change, raise awareness of the existence of this global problem and mobilize citizens, the economy, public institutions and decision-makers. "Green growth" was presented as a new opportunity for development through the promotion of simple and operational solutions that every citizen or business entity, decision-maker or civil society organization can apply and fight against climate change in their own way. Eco-schools from a dozen cities in Serbia had the opportunity to host the exhibitions "Life of Garbage" and "Conquering Renewable Energy Sources" and encourage local decision-makers to take actions that will lead to environmental improvement and climate change mitigation.

Together with the National Convention in Serbia, the need to support all initiatives that bring Serbia closer to the realization of the concept of circular economy was emphasized. It was proposed to the competent Ministry of Environmental Protection to adopt an innovative National Strategy for Sustainable Use of Natural Resources and Goods which would strategically complete all areas of importance for the circular economy along with the National Waste Management Strategy.

This project was funded by the European Union. The article expresses views that are not necessarily the views of European Commission

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CENTURY OF EXCELLENCE

KONČAR GROUP – A CENTURY OF EXCELLENCE, INNOVATION AND SUCCESS

In 1921, a small workshop destined for great achievements was set up. Throughout its hundred years of history, KONČAR Group has become a synonym for excellence and established itself as one of Croatia's leading exporters. The company celebrated its anniversary of excellence and innovation in the face of constant social and economic challenges, showing consistent resilience and adaptability through a continuous successful operation.

All photographs: Končar

High standards drive export to 130 global markets

During a century of high standards of KONČAR Group has earned the unconditional trust of customers and the status of a regional leader in power engineering and traction vehicles. In the successful hundred years of operation, KONČAR has delivered more than **400,000 transformers of various types, voltage levels and rated power to all continents; it has fully or partially built and revitalized 375 hydropower plants, manufactured and refurbished 700 generators, and manufactured and supplied 330 locomotives and almost 200 low-floor trams and trains**.

It is difficult to single out individual achievements that allowed KONCAR to penetrate numerous markets in which we operate today on the principle of customer-specific approach, which distinguishes us from some major global companies. Because of such approach and constant investment in devel-

opment and our expertise, today we can proudly say that we are a regional leader in the field of the electrical industry and rail solutions, points out **Gordan Kolak, Chairman of KONČAR's Management Board.**

The largest solar power plant in Croatia

One of the most important projects last year is certainly the solar power plant on the island of Vis, the largest of its kind in Croatia. For this important turnkey project, KONČAR obtained all necessary permits, drew up design documentation and constructed the plant. More specifically, KONČAR delivered equipment, including proprietary developed and manufactured invertors, performed construction and electrical works and finally connected the plant to the substation.

In 2020, KONČAR – Instrument Transformers made a new step forward in the product range. They delivered nine transformers for the customer in the USA to self-supply substations with a voltage level of 525 kV and a power of 250 kVA. The customer is one of the most strategically important power companies in the United States. These are also the largest transformers that the company has produced to date and among the largest in the world of this type, given the voltage level and power.

Rich tradition in the rail solutions segment

Rail vehicles and infrastructure are certainly a key part of KONČAR's portfolio. KONČAR manufactured the first domestic locomotive back in 1970, and success in this area has continued through later development of low-floor trains and trams. In addition to the domestic market, the high quality of KONČAR's low-floor tram has also been recognized by the European market. KONČAR concluded an agreement in 2018 with a Latvian buyer Liepājas Tramvajs, a breakthrough for the company since it marks the first export of this high-technology product developed in-house. The trams are equipped with their own electric motor drive, auxiliary power supply, microprocessor control and various other solutions designed for maximum passengers' comfort. KONČAR will manufacture and deliver 12 low-floor trams for the Latvian buyer, the first two of which were delivered late last year, while the last tram is to be delivered in April 2022.

A series of successful projects in neighbouring Serbia

In July 2018, KONČAR signed a contract for a major project for the Petroleum Industry of Serbia (NIS); deliveries included 46 explosion-proof premium-efficiency IE3 motors

with a power of up to 200 kW, intended for powering pumps, fans and furnaces located in danger zones. Furthermore, in the last few years, KONČAR has cooperated with several dozen customers from the Republic of Serbia. Apart from development projects, most activities concerned diagnostic and laboratory testing, certification and deliveries of transformer monitoring systems. KONČAR's work on the HPP Đerdap and the Beočin Cement Factory stand out. Delivery of 5 transformers with a power output of 37 MVA for Zvornik HPP and 2 transformers with a rated power of 31.5 MVA for TS Kopaonik should also be mentioned. In total, over the last five years, KONČAR has delivered 14 medium power transformers of various rated power to customers in the Serbian market. ■

Fotografija: Pixabay

SUSTAINABILITY IS IN FASHION

The concept of fast fashion prevails in the fashion industry. Garments are mass-produced, and from harmful materials, and in the process of their creation, many natural resources are consumed. When we consider the rights of workers in this industry are often abused, it is clear that there is no place for the concept of sustainability in this kind of fashion. On the other hand, we as users are not sinless either. We still don't recognize unsustainability in the way we wear clothes. We buy a lot and recklessly, as marketing and trends dictate to us, and we wear that clothes for a short time, which leads to the accumulation of textile waste in landfills

We talked to Dunja Jovanović and Marija Radaković, the authors of the F.fm podcast show, about what sustainable fashion is and how to adopt a healthy attitude towards clothes. In their show, they and their interlocutors from the domestic fashion industry seek a balance between fashion and environmental protection. The F.fm podcast is a radio format that is broadcast every other Wednesday of the month on RadioAparat.com.

Three years ago, Dunja and Marija launched Sustainable Fashion Day, an event held twice a year as part of the official program of Belgrade Fashion Week. In the meantime, they worked on a podcast, wrote columns, held forums and fairs of sustainable local brands, and finally founded the Association for Sustainable Initiatives with the idea of influencing environmental and social change through education and action.

How to tell if a fashion brand is sustainable?

Sustainable fashion is a holistic approach to the design, production, sale, consumption and use of clothing, accessories, and footwear to restoring ecosystems and respecting and protecting human rights, thus enabling the equal development of communities. But what does it mean when we say that a material is sustainable?

In their posts on Instagram, Dunja and Marija mention textiles made from cork, "leather" made from cactus and biosporin. Today, there is more and more talk about mushrooms and their use in the textile industry.

Our readers had the opportunity to read in the previous issue the story of the new material Biosporin, which is an ecological alternative to styrofoam, and was obtained from one type of fungus. This material is produced (or perhaps a better word - grown) by the domestic startup SOMA, and their idea is to replace different types of packaging with it. They are already working with wineries and ceramic producers who want their products to be completely sustainable. California-based company MycoWorks has developed an alternative to animal and plastic skin from a single type of fungus. This material, in addition to being completely safe to wear, is not sprayed with various chemicals, as is the case with other skin types. When it decomposes in a landfill, it actually turns into fertilizer. Maja Halilović and Adrien Ujhazi made sure that our region does not lag behind the world. They work on the development of skin from a symbiotic culture of bacteria and yeast, which is also very sustainable. Research is ongoing, and it should answer how this material behaves when worn and how it is maintained.

We live in a world where we are bombarded from all sides by advertising campaigns that say that we should change our clothes very quickly to be IN, trendy, modern, and no one tells people about the consequences of such behavior, which leads to the accumulation of clothes on landfills

All photographs: Courtesy of Dunja and Marija

The authors of the F.fm podcast believe that in addition to the problems caused by today's fashion industry, it is important to continuously communicate alternatives to today's fast fashion system to inform citizens about possible solutions and better choices available to us - such as domestic, small local brands. They are one of the options of sustainable fashion because they produce a small series of clothes. They consider every aspect of the business - from materials through working conditions to product packaging. It is very encouraging that more and more brands on the local scene are thinking about making their business (more) sustainable.

"On our Instagram profile, we have several separate categories dedicated to domestic producers, as well as a series of posts #domacicakida, so we suggest readers explore the local scene and other brands behind really great, creative and responsible people", Dunja reveals how to keep up. Recommended manufacturers include:
@marijahandmade, in addition to recycling fabrics and materials, also employs women from vulnerable categories;
@thema.page - children's clothing brand that uses certified organic cotton;
@manonija introduced an ordering system according to which sewing is started only after a certain number of orders;
@ivkowomen company introduces numerous innovations such as electricity from renewable energy sources, water purification, fabric recycling and production certification.

Marija also points out the work of fashion designer Ana Trošić Trajković, who opened the concept store Biro 354c three years ago, where clothes can be rented and redesigned to extend its shelf life. There is also a team of young people who are developing an application for exchanging clothes, and their profile on Instagram is Barter.rs.

What about the position of textile workers?

The textile industry in the time of the SFRY was one of the most developed economic branches, and a large part of the production was intended for export. During the 1990s, this industry suffered a complete collapse. It is only at the beginning of the 21st century that its very slow resuscitation occurs. According to our interlocutors, today's textile industry does not look like the former. However, fashion production exists, and it can be divided into two main segments - domestic brands (large and small brands and author's design) and part of the industry that deals exclusively with service sewing for foreign fashion companies.

"When it comes to service production, here we have a situation where factories are either directly foreign-owned (foreign investors) or are domestically owned as suppliers of both luxury and fast fashion brands. When it comes to work ethic, we only have data on working conditions for this service part of the industry. The international activist

Research on working conditions in factories of domestic brands is lacking, so we only have individual cases in which dissatisfied workers have expressed their attitude or work experience with a certain brand

organization Clean Clothes Campaign, which deals with labor rights in the textile industry, conducted field research on foreign-owned factories that exist in Serbia, and these data showed that violations of labor and human rights are widespread," said Marija. In practice, this includes minimum wages, forced vacations, overtime work, unsafe workspace, etc.

"However, research on working conditions in factories of domestic brands is lacking, so we only have individual cases in which dissatisfied workers have expressed their attitude or work experience with a certain brand. Keeping in mind that labor rights are an important segment of sustainability, we hope that we will soon have data available for this part of the market because, for things to change and improve, we need to know what the current situation is," explains Marija.

Map and address book to help donate clothes

In mid-February, Dunja and Marija sent a public invitation for all interested parties to contact them to make a map of organizations, institutions and individuals who collect and distribute clothes to those who need them. They explain that they were led to this action by the fact that textile recycling is still a challenge in our country and that donating clothes that we no longer wear prolongs the life of textile products because the one who receives them will continue to wear them.

"In general, people here like to pass clothes forward, but it seems relatively complicated because there is no official address book of institutions that receive clothes, as well as

information on what kind of clothes are in question. It is not uncommon for citizens to take clothes, but the institution requires that the clothes be first dry cleaned or treated somehow before they take them over. We, therefore, invited all those interested to tell us exactly where they donated clothes to make an address book. Then we called all those organizations and asked them if they wanted to be on a common map which would contain other details about the clothes (for which sex, age, whether it needs to be dry cleaned). "People reacted very well, and the media covered everything, so we collected a lot of addresses in a short time, and the map with those addresses will be published soon," says Dunja, noting that this action is carried out within the project "Textile waste is not in fashion" in cooperation with the Center for Environmental Improvement.

Do you wear plastic?

Plastic materials, such as polyester, acrylic and nylon, are today the most common in the production of clothing because they are the cheapest. It takes up to 400 years to de-

compose these materials, just like any plastic bag or bottle. Also, one of the problems being talked more and more is the large amount of micro and nano plastics in nature and in the human organism. These tiny plastic particles reach nature mainly by washing clothes. It has been scientifically proven that microplastics have negative consequences on human health, and unfortunately, it is found everywhere - in water, air, food and our body. The data show that we all take in about four grams of microplastic per week, which corresponds to the weight of one credit card.

Citizens must get in the habit of recycling in any form, our interlocutors say because currently, very few people are involved in this process. Dunja points out that educational campaigns on why it is important to take care of the environment, on separation and proper disposal of waste, what can be recycled and what the process looks like in general, would be essential for accepting the idea of recycling in our society.

"Every second, a truckload of garbage is thrown in the trash, creating 92 million tons of waste every year. Unfortunately, we live in a world where we are bombarded from all sides by advertising campaigns that say that we should change our clothes very quickly to be IN, trendy, modern. No one tells people about the consequences of such behavior, which leads to the accumulation of clothes on landfills," says Dunja.

Once upon a time, fashion brands had two collections a year (spring/summer and autumn/winter), and today they have up to fifty micro-collections that they have to sell to trend consumers. So, it turns out that today's trends are changing for almost a couple of weeks, and to be in fashion, it is necessary to update our wardrobe often.

"That's why we often tell people who listen to our podcast that instead of following trends, they should start thinking about what their style is and build it carefully, thinking about the impact of fashion marketing and choosing quality instead of wardrobe trends, something they can wear long and happy", advises Marija.

How can we live modestly in a world of all kinds of excesses?

Dunja and Marija say that there is one very simple criterion. "The most sustainable piece of clothing is the one we already have in our closet. If we really need a piece, it is important to think before buying whether the material is of good quality, how it is made and whether it will last us a long time. We should give preference to small local producers or used clothes. If we no longer wear certain clothes, we should forward them to those who need them. In the end, it sounds easy, but in reality, it is a big challenge - we should avoid plastic materials, that is, synthetics, and we choose natural or organic fabrics. We believe that it is important to continuously be informed and continuously educate ourselves about problems and possible solutions. The most important thing is to think about how we can make our habits and behavior, if not sustainable, then at least less harmful to our environment."

Prepared by: Jovana Canić

THE IED SERBIA PROJECT

For the efficient prevention and better control of environmental pollution

Through project "Further Implementation of the Industrial Emissions Directive – IED Serbia", implemented over the past three years, Sweden has supported our country both at institutional and individual companies level, with the aim of prompting our European Union accession process. When it comes to the Ministry of Environmental Protection, this project included the support in preparing legal framework and a part of the Negotiation Position for Chapter 27, which pertains to specific chapters of the Industrial Emissions Directive. A Directive Specific Implementation Plan has been drafted, describing the measures necessary for full transposition of the Industrial Emissions Directive at the institutional level and at the level of each individual industrial installation. Preparation of this document took place for more than a year, and the analysis included 227 large industrial installations that are subject to the integrated permitting procedure.

Ola Andersson, Head of the Development Cooperation to the Embassy of Sweden, says that the analysis has been conducted regarding the main amendments in legislation on integrated pollution prevention and control, introduced by the Industrial Emissions Directive, referring to certain industrial sectors such as chemical and wood processing industry or waste management.

"These amendments envisage that the obligation to obtain integrated permit now applies also to additional industrial activities in these sectors and installations of certain capacities in the same sectors. That means that around 75 new operators could be listed as IPPC installations following the adoption of the amended Law and full alignment of the list of activities and installations obligated to obtain an integrated permit with the Annex I to the Industrial Emissions Directive", Mr Ola Andresson has explained.

Specific attention has been paid to the improvement of the environmental inspectors' knowledge and skills to facilitate their coping with future challenges resulting from the implementation of the Industrial Emissions Directive.

"Electronic tools for the assessment of compliance with Best Available Techniques (BAT) have been developed

Companies most commonly do not have experience in the development of necessary paperwork, do not have employees responsible for environmental affairs, resolved ownership rights and updated or complete technical documentation

Fotografija: Pixabay

for three new sectors of the Directive, which include the majority of companies in Serbia that will also fall under the scope of the Directive following the full transposition thereof", added Mr Andresson.

When it comes to BAT, they have the best environmental performance, efficiently using energy and raw materials, and the practice has already proved their technical feasibility and economic viability. Most companies running businesses in Serbia have sufficient technical knowledge to apply all necessary techniques.

The Ministry's official list comprises 227 installations in Serbia that are subject to the Law on Integrated Pollution Prevention and Control. These industrial installations will have to obtain integrated permits that will contain the programme of compliance with Best Available Techniques. They will have enough time for that, even several years' periods, but certain installations will need a longer time to comply. However, for each such installation, Serbia will have to negotiate to obtain additional periods. To facilitate those negotiations, one of the activities of this project included drafting a Directive Specific Implementation Plan (DISP). Based on the results of the conducted analysis and compliance with Best Available Techniques (BAT), financial and social analyses, 68 installations have been identified as those that will need additional extended periods.

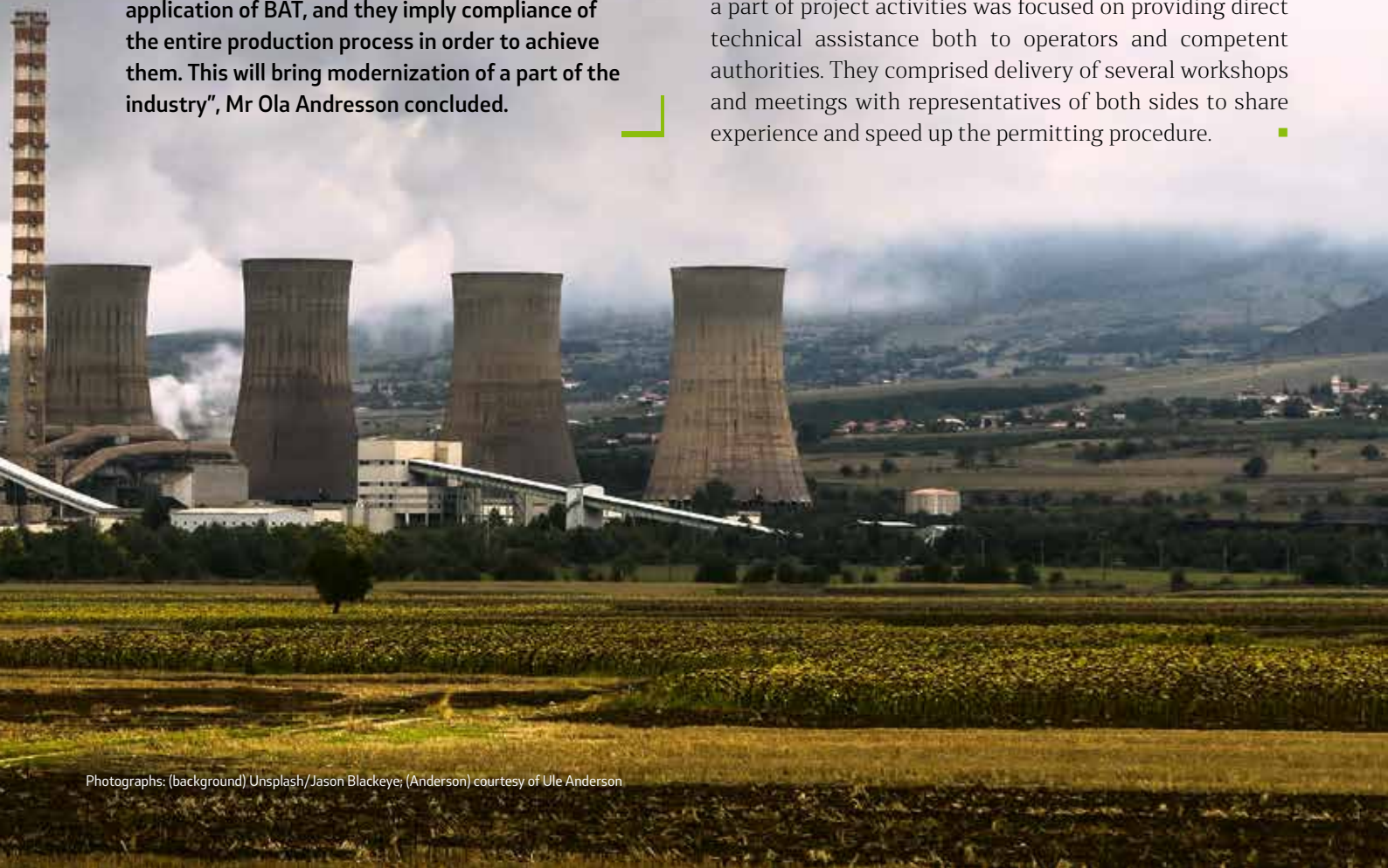
Ola Andersson,
Head of the Development Cooperation to the Embassy of Sweden

"During the cooperation with companies and representatives of competent authorities, many problems have been identified that slow down the integrated permitting process. Companies, most commonly, do not have experience in the development of necessary paperwork, do not have employees responsible for environmental affairs, resolved ownership rights and updated or complete technical documentation. A very commonly noticed problem is the absence of usage and water permits", explained Mr Andersson. From the aspect of competent authorities, the primary problems include limited administrative capacities and other permitting procedures. All stated problem indicated the need for building and strengthening administrative capacities, especially at the local level. To that end, a part of project activities was focused on providing direct technical assistance both to operators and competent authorities. They comprised delivery of several workshops and meetings with representatives of both sides to share experience and speed up the permitting procedure.

LEVEL OF ENVIRONMENTAL PROTECTION

Regarding the level of environmental protection, some companies have achieved higher and some lower level. The Directive, however, brings more stringent regulations.

"This is something that a certain number of companies will have to work on seriously, while on the other hand, there are companies that already comply with those more stringent regulations. Limit values brought by the Directive are related to the application of BAT, and they imply compliance of the entire production process in order to achieve them. This will bring modernization of a part of the industry", Mr Ola Andresson concluded.



Photographs: (background) Unsplash/Jason Blackeye; (Anderson) courtesy of Ule Anderson

eVOC SERBIA PROJECT

For the control of volatile organic compounds emissions

Geir Johansen, Deputy Head of Mission at the Royal Norwegian Embassy in Belgrade

Serbia is engaged in intensive preparation of its negotiating position for Chapter 27, dedicated to environment and climate. In the process of EU accession, one of the key points for our institutions is the Industrial Emissions Directive. To meet European standards in this field, we have received support from the Norwegian government to adopt and implement of legislation pertaining to volatile organic compounds (VOC), which is a constituent part of Chapter V of the aforementioned Directive. The eVOC Serbia Project is implemented by the Cleaner Production Centre of the Faculty of Technology and Metallurgy in Belgrade.

Volatile organic compounds are used in numerous production processes, says Geir Johansen, Deputy Head of Mission at the Royal Norwegian Embassy in Belgrade. "We usually come into contact with these compounds when we use everyday products such as paints, furniture, packaging or dry-cleaned clothes."

However, exposure to these materials is not significant, as their use is strictly regulated. Despite the fact that harmonization of the Serbian legislation with the EU legislation is still relatively low when it comes to VOC, VOC's impact on air pollution is limited compared to other pollution sources. Still, these organic compounds may be hazardous for human and animal health, which is why it's important to have a database of VOC operators that will include not only large companies but also small and medium enterprises that use these chemicals, without even being aware of it. Thanks to the eVOC Project, a digital database of VOC operators will be established for the first time in Serbia, notes Geir Johansen.

The Department for air protection and the ozone layer of the Ministry of Environmental Protection and the Environmental Protection Agency are the competent authorities for implementing legislation in this field. The eVOC Serbia Project provides support to these authorities for the complete transposition of Chapter V of the Industrial Emissions Directive through updates and additions to the national legislation, identification of companies currently operating in Serbia, which are under the scope of the VOC legislation and by preparing the future electronic Register of VOC operators. Special attention has been paid to this tool, which will form a constituent part of the National Register of Pollution Sources. Through the Register, VOC operators will submit data and documents required by the Regulation in digital form.

Another group of important stakeholders in this process are the local inspectors, as they play a key role in the implementation of the VOC Regulation. The Project includes the organization of specific training to increase the knowledge on volatile organic compounds emissions, industrial sectors that fall under the Regulation's scope and the techniques to decrease VOC use and emissions. First and foremost, the inspectors will be trained to assess compliance with the

Photographs: (background) Unsplash/Sven Brandsma; (Johansen) coutesy of Geir Johansen

Table: Industrial sectors encompassed by the Industrial Emissions Directive

Offset printing (heatset-offset)
Publication rotogravure
Other rotogravure, flexography, rotary screen printing, laminating or varnishing units
Rotary screen printing on textile/cardboard
Surface cleaning
Other surface cleanings
Vehicle coating and refinishing
Coil coating
Other coatings, including metal, plastic, textile, fabric, film and paper coating
Winding wire coating with synthetic and natural polymers
Coating of wooden surfaces
Dry cleaning
Wood impregnation
Leather coating
Footwear manufacture
Wood and plastic lamination
Adhesive coating
Manufacture of coating preparations varnishes, inks and adhesives
Rubber conversion
Vegetable oil and animal fat extraction and vegetable oil refining
Manufacturing of pharmaceutical products

HOW DOES VOC TURN INTO SMOG?

Volatile organic compounds (VOCs) play a key role, together with nitrogen oxides, in the process of photochemical generation of ground-level ozone and photochemical smog, which are harmful to human health. By adopting the provisions of the Directive, hazardous materials will be substituted with less hazardous and harmful materials.

Regulation requirements, specifically in terms of emission limit values for air emissions and the control of the annual solvent management plan. Local inspectors will have nine general and sector-specific trainings that will also include VOC operators. Within this training, they will visit four companies to perform on-site inspections.

Chapter V of the Industrial Emissions Directive encompasses 20 industrial sectors, from printing to dry cleaning and coating. An annual threshold for solvent consumption has been prescribed for each sector.

An operator falls under the Directive's scope solely if their annual solvent consumption exceeds the threshold for their sector. These thresholds, as well as all other provisions, have been transposed into the national legislation by the Regulation on the list of industrial installations and activities for which volatile organic compounds emissions are controlled, on the values of volatile organic compounds emissions at a certain solvent consumption and total emission limit values, as well as an emissions reduction scheme ("Official Gazette of the RS" no. 100/2011), which must be updated to completely transpose the aforementioned Chapter.

Communication between the expert and general public is very important, so an Info Centre will be formed, to serve as a place to present informative materials, knowledge on volatile organic compounds, and on the legislation in this field.

The eVOC Project will contribute to economic growth, competitiveness and capacity building in the field of environment protection, climate and energy, and it will be completed in December 2022.

Prepared by: Milica Radičević

Photographs: (middle left) Unsplash/m0851; (bottom) Unsplash/Sigmund

ECO-TEAM MONTENEGRO

MILIJA ČABARKAPA is the national coordinator for Montenegro in WWF Adria and the NGO Eco-team executive director. He is engaged in projects that include stopping hydropower development in the Mediterranean basin, assessing the cumulative impacts of small hydropower plants on the environment and local economic development, preserving the Balkan rivers in free flow, protecting Southeast European rivers and small hydropower plants as an environmental, social and economic problem.

The British travel magazine Culture Trip ranked Montenegro on the list of the best sustainable destinations in 2021. That will surely attract a large number of tourists. While they enjoy the exceptional natural and cultural-historical assets of this neighboring country, an ecological team that called itself simply the Eco-team will continue to fight for an environment in which one day, as they say, a man will know how to live in harmony with nature, whether he is a visitor or a local. This NGO intends to achieve it primarily by advocating for the sustainable use of natural resources and reducing pollution.

Milija Čabarkapa, executive director of the NGO Eco-team, says that they are implementing projects related to the protection of freshwater, focusing on the construction of small hydropower plants (SHPPs), the abolition of the socio-economically unjustified system of incentives for electricity generation support and partnership with WWF Adria.

"We advocate implementing the concept of permanent protection of rivers of special biodiversity, landscape and cultural-historical significance. The Eco-team also implements projects in the field of energy and climate change, as well as public procurement in the field of the environment".

Photograph: Unsplash/Boudewijn Bo Boer; (Čabarkapa) courtesy of Milija Čabarkapa

Valuable members of the Eco-team cooperate with local communities and support them in the fight to protect rivers from the construction of SHPPs. Since they deal with public interest issues, citizens, media and institutions actively monitor their work, and thus, through direct and indirect communication, try to reach solutions in the public interest.

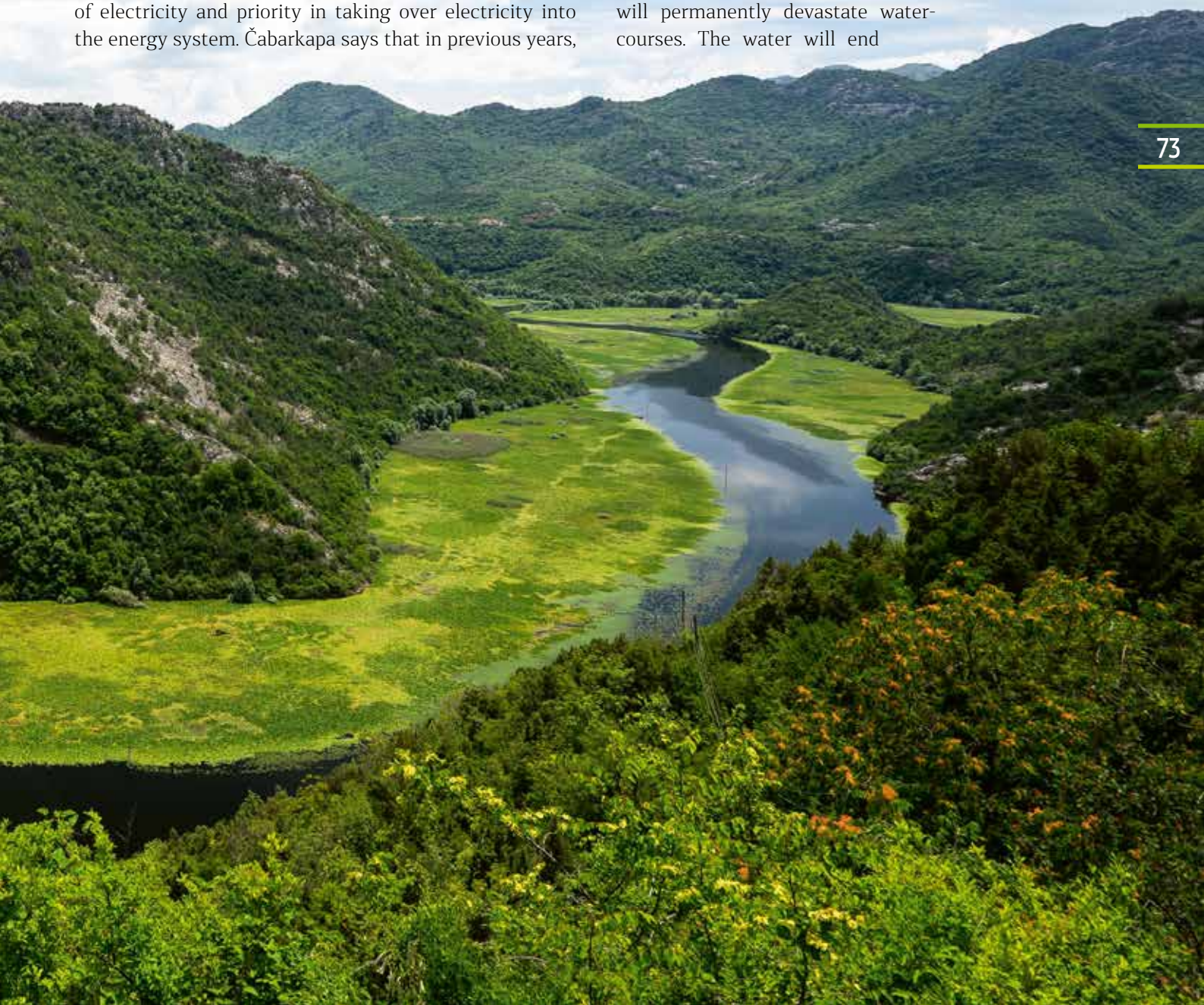
"In 2020, we submitted four initiatives to the Constitutional Court regarding legal and by-law solutions for projects for the construction of small hydropower plants and approved incentives for them. For one company, any economic activity is justified where the social benefits are equal to or greater than the social costs, and an unacceptable situation is one in which the company has higher social costs than benefits, i.e. realizes economic, financial loss as in the case of SHPP", explains Čabarkapa. The fact that in the period from 2014 to 2018, more than 16 million euros of incentive funds were paid to privileged energy producers from SHPPs, which the citizens of Montenegro paid through electricity bills.

The main incentive measures realized by electricity producers are subsidies for 12 years, guaranteed purchase of electricity and priority in taking over electricity into the energy system. Čabarkapa says that in previous years,

In 2020, four initiatives were submitted to the Constitutional Court regarding legal and by-law solutions for projects for the construction of small hydropower plants and approved incentives for them

energy was purchased from privileged producers of electricity from SHPPs at a price that is from 61 per cent to 2.14 times higher than prices on the international market, and directly to the detriment of Montenegrin citizens who for this reason have increased electricity bills.

"The new Government faces a serious task of solving problems in the field of mini hydropower plants. They have promised to stop all SHPP projects, but there are many active concession agreements that the Government must terminate. With these contracts, a large number of SHPPs are planned on our rivers, which, if built, will permanently devastate watercourses. The water will end



Montenegro has a National Strategy for Air Quality Management, however, as is usually the case in practice, there is a problem in the implementation of defined measures on the one hand, and on the other hand, the problem of insufficiently ambitiously defined measures

eral months against the construction of SHPPs on the rivers that flow through these places", states Čabarkapa.

In December last year, WWF Adrija and Eco-team sent, on behalf of the residents of the village of Bare Kraljske in the municipality of Kolašin, a complaint to the Protector of Human Rights and Freedoms of Montenegro regarding the work of the Government, Ministry of Economy and Basic State Prosecutor's Office in Kolašin because of their relationship when it comes to SHPP projects.

To bring the citizens closer to the issue of construction and operation of mini hydropower plants, this non-governmental organization made an educational film about SHPPs

CLIMATE CHANGES

In Montenegro, the energy sector has the most influence when it comes to climate change. They are currently facing a challenge because a decision needs to be made on the further operation of thermal power plants.

"TPP 'Pljevlja' spent the allowed number of hours for work, and the ecological reconstruction was not completed, and the business was not harmonized with the necessary pollution standards. Much depends on the Government's attitude and the will to solve all the problems that the work of this thermal power plant brings with it, how much Montenegro will do in terms of reducing emissions and mitigating climate change. Montenegro is in the process of revising its national contribution to reducing emissions. We need to define an ambitious goal if we want to follow EU policies and contribute to the realization of the European Green Agreement and the goal of 55 per cent reduction of emissions by 2030," says Čabarkapa.

up in pipes, leaving local communities without water for basic living needs. Also, in Montenegro, there are several locations where work is underway. In some locations, locals blocked the works. For example, in the Kolasin villages of Bare Kraljske and Rečine, we have been protesting for sev-

Photograph: (top) Eko/; (bottom) Unsplash/Shant Dem

and the struggle of local communities in the villages of Bare Kraljske and Rečine. Of particular concern is that nature in the places where SHPPs were built cannot be restored to its original state. The only thing that can be done is to mitigate these projects' negative impacts on the environment.

Air pollution

Throughout the region, air pollution has been a major problem for years. It did not bypass Montenegro either. It is well known that air quality is affected by emissions of harmful gases from collective and individual furnaces during the heating season, then from industry, traffic and, coal.

"The use of coal in the European Union is decreasing from year to year, both due to increasingly strict directives and due to the financial unprofitability of investments in coal and fees paid for CO_2 emissions. Montenegro has a National Strategy for Air Quality Management, however, as is usually the case in practice, there is a problem in the implementation of defined measures on the one hand, and on the other hand, the problem of insufficiently ambiguously defined measures", our interlocutor points out.

As in our country, in Montenegro, air quality is affected by the use of energy for heating households, such as wood and coal, while the use of environmentally friendly fuels is insufficient. Also, special attention should be paid, says Čabarkapa, to the development of sustainable transport, in which electrification and the use of alternative modes of transportation have a significant place.

Prepared by: Milica Radičević

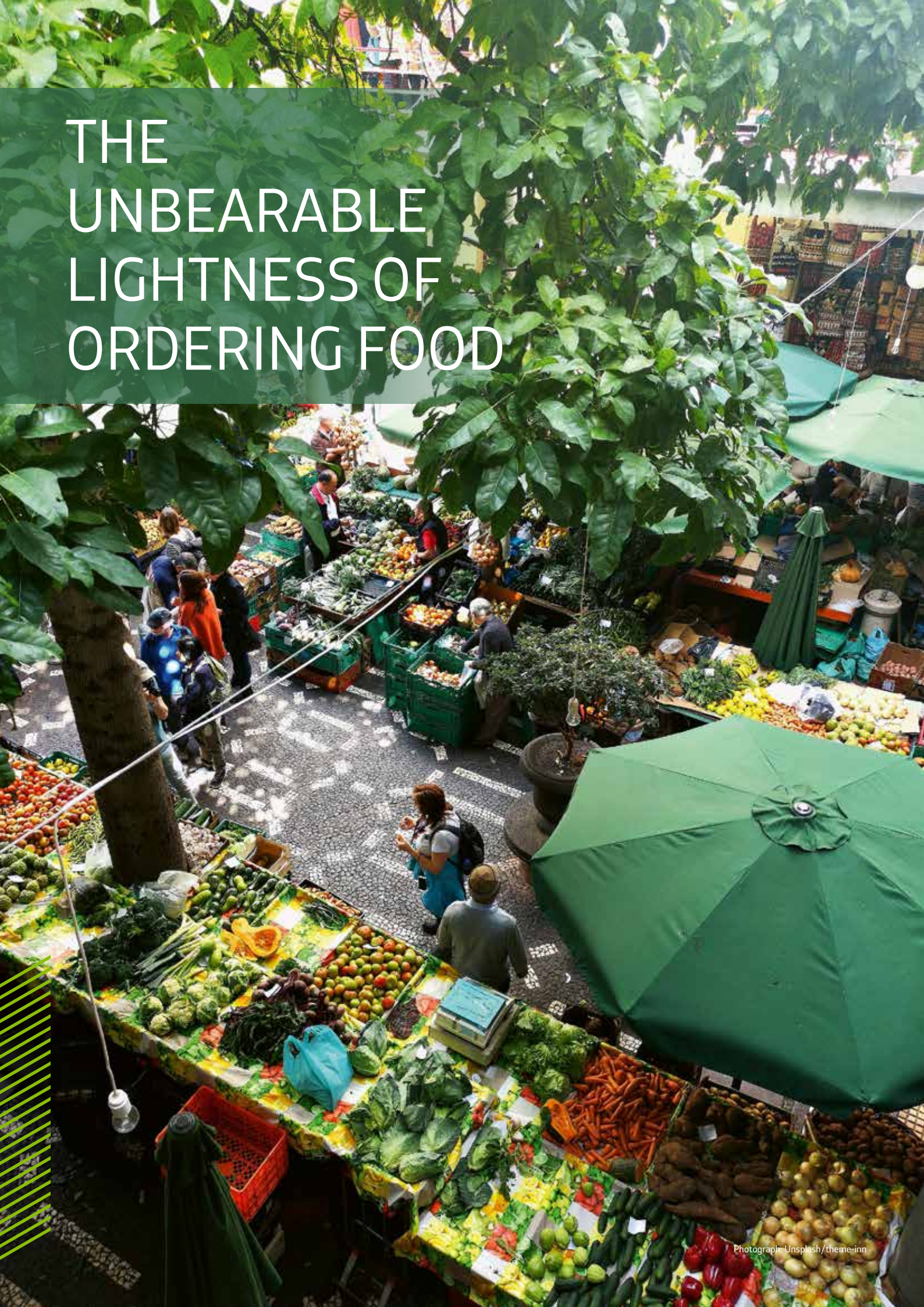
In the period from 2014 to 2018, more than 16 million euros of incentive funds were paid to privileged energy producers from SHPPs, which the citizens of Montenegro paid through electricity bills

Photograph: (top) Unsplash/Vlad Kiselov

THREE DECADES OF ECOLOGICAL DETERMINATION AT THE STATE LEVEL

The Declaration on the Ecological State of Montenegro was adopted at the parliamentary session held in Žabljak on September 20, 1991. It was then precisely defined that Montenegro adopts and applies the highest standards and norms in the field of environment, nature conservation and economic development on the principles of an ecologically sustainable system.

THE UNBEARABLE LIGHTNESS OF ORDERING FOOD



Photograph: Unsplash/theme-inn

As one would expect, nothing has been the same since last year. When it comes to common activities such as going to work, shopping, or a favourite restaurant, we are slowly getting used to doing them online. The change that has arisen in ordering and buying groceries also influenced the appearance of new and better offers. Many groups on social networks offer domestic food products, and large markets have further improved their online sales systems.

However, Ivana Milojević from Niš went one step further.

Ivana has been thinking for a long time about creating a system that will help users review the availability of certain food and groceries in the area they are currently located, in any place, at any time in a quick and easy way. She then devised a unique Gimme Food app that easily connects customers with food producers and restaurants.

"I switched to a vegan diet a few years ago. Since I travel a lot, my diet has often spoiled the pleasure of travelling. The problem was aggravated by the fact that catering facilities have very little information about this diet. There are not many of them who have adapted their offer to a group of people with a selective diet. It happened to

Ivana Milojević,
founder of the application
Gimme Food

me to have inconveniences, especially at group lunches where everyone could order what they wanted. At the same time I would end up only with a salad, and sometimes even without it, because it happened that they poured the dairy sauce on it which vegans do not consume", explains Ivana.

And as it usually happens, the embryo of any solution is already in recognizing the problem, so Ivana also started researching how people cope with a weak or no offer of a vegan diet. She found that a small or inadequate supply plagues more than a third of the total population and that people who are allergic to certain foods have a similar problem. So, she came up with the idea to make Gimme Food, a system that allows users to quickly and easily get an insight of what kind of food is on offer in their current surroundings.

Gimme Food very easily and quickly connects fans of good and healthy snacks with restaurants that prepare meals according to their wishes

"Everything started at the beginning of 2019, and the development of the application took almost six months, of which only preparations took more time than the development of the basic version. My first support was my husband Vladimir, an IT engineer by profession, who developed my idea with his team. In March 2020, the first version for restaurants was ready. However, as it coincided with the proclamation of the coronavirus epidemic, the restaurants

Photographs: (top) courtesy of Ivana Milojević, (down) Pixabay

were mostly closed, so we had to deal with the challenge and adapt to a new situation", says Ivana.

This young entrepreneur points out she realized that the trends are changing rapidly and that this affects the change in the way of shopping, and the offer. That is why they included small food producers who completely fit into the whole concept with their offer.

The application has two types of users. On the one hand, there are partners - restaurants and producers of homemade food and specialties and on the other hand, end users, i.e. food lovers who like to use new technologies and save time. For someone to become a partner, it is enough to have a registered restaurant, shop, or farm and have a smartphone or computer to receive orders. When it comes to end-users, when installing the application, they can choose one of the 15 most common selective diets or simply choose the option without filters.

The application provides other possibilities. Different criteria can be set, such as whether the restaurant has a parking lot, serves alcohol, smoking is allowed, pets are allowed and similar criteria. Ivana points out that you can also adjust the display of restaurants and shops within the distance a user chooses and in the order they want, such as the lowest prices, best ratings and more. With one click, the food is ordered and paid automatically if the seller confirms that he can deliver everything the buyer requires.

"The application is free for end-users while sellers pay a commission. It is calculated as a percentage, depending on the sales volume made through our application. An innovative part of the application is a function with artificial intelligence that allows users, who want to have more control over their diet, to detect possible intolerance to certain food or combination of food based on their experience", says Ivana.

At the user's request, the application can be used as a preventive mechanism for detecting ingredients or combinations of foods that can adversely affect the body. Ivana and her team are developing this function in cooperation with experienced nutritionists who help them create an

The application has two types of users. On the one hand, there are partners - restaurants and producers of homemade food and specialties and on the other hand, end users, i.e., food lovers who like to use new technologies and save time

algorithm based on user's experience, after consuming the meal and identifying any ailments, recognizing the possibility of intolerance and indicate which food could possibly be the cause.

The advantages of this system are reflected in the fact that waiting in lines in front of a fast-food restaurant is eliminated. The application is especially suitable for restaurants that have a smaller number of tables because it allows them to serve a larger number of guests at the same time.

As Ivana explains, ordering through the Gimme Food application is currently only available in Serbia. She hopes that this system will start functioning in America, starting in Florida in the second half of this year. "Several contracts have already been signed with the local restaurants in Miami and Tampa", Ivana points out.

Since selective nutrition is more pronounced in western countries than in Serbia, Ivana believes that Western Europe and America are a more suitable market for their product. "There are more people there who have selective diet as well as food allergies. The problem of obesity is also quite common (especially in America), which increases the desire and need to pay more attention to nutrition. Therefore, we determined our target market quite easily, but since the application was made by a team from Serbia, we want Gimme Food to be launched in Serbia before all other markets. We also hope that the application will be recognized as a Serbian brand" Ivana reveals her hopes and plans.

This innovative system is available on Google Play and the App store, and so far, the team has received very positive feedback on the service the app offers.

Prepared by: Milica Radičević

Photographs: (top) courtesy of Ivana Milojević, (middle) Pixabay

* Technical values are a result of calculation models from the international standards EN ISO 12567-2, EN 13363-2 and ISO 15099.

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