TEAMS talk

Special edition of the EMC Bulletin
The setting up of the Environmental Management Center within the Serbian Environmental Protection Agency (SEPA) was an innovative and pioneering undertaking in South Eastern Europe. The EMC fosters a holistic approach to servicing client industries with legal reporting obligations towards the state, and to improving the capacities of the national authorities to provide timely, accurate and up-to-date information on the state of the environment in Serbia.

The project “Setting up the Environmental Management Center (EMC) in Serbia” was implemented between 2010 and 2013 with funding from the Ministry of Foreign Affairs of Norway. The EMC ensures efficient emissions monitoring and reporting within SEPA, connecting the business sector, environmental authorities and relevant EU institutions. The EMC provides client-partners with TEAMS Sustainability Reporting software, an environmental accounting and reporting system in accordance with the Protocol on Pollutant Release and Transfer Registers and with Serbian national legislation.

The EMC project team worked directly with 10 industrial client-partners from various industrial sectors across Serbia: HIP-Petrohemija (producer of petrochemical products, raw materials and chemicals); Delta Agrar Ltd. (agricultural sector); Železnice Srbije JSC (Serbian Railways); Tigar JSC (manufacturer of rubber footwear, technical rubber and recycled rubber products); Kolubara Ltd. (coal production, processing and transportation); Agroprodukt Šinković Ltd. (poultry production and trade); Sojaprotein (joint stock company for soybean processing); Železara Smederevo Ltd. (a steel production and processing company); RTB Bor Ltd. (copper mining and smelting complex); and Beogradske Elektrane (public utility company providing district heating).

This brochure contains profiles of the 10 participating companies, outlining their main activities and summarising how their reporting obligations are supported by the TEAMS software. The profiles also illustrate how the introduction of TEAMS has enabled these companies to improve their internal reporting practices, helping them to identify appropriate ways to enhance their resource efficiency, reduce emissions, and address the negative environmental impacts of their production processes.

An overview of the two main software tools developed for EMC client-partners, the TEAMS Competent Authority Solution and Parent Client Solutions, is also provided. These tools make possible integrated electronic environmental reporting in Serbia as well as the introduction of the Eco-management and Audit Scheme (EMAS) in interested industrial companies.
Key partners in the EMC project

Serbian Environmental Protection Agency — Main beneficiary and contracting authority

The Serbian Environmental Protection Agency (SEPA) is an administrative body within the Ministry of Energy, Development and Environmental Protection of the Republic of Serbia. SEPA is regarded as a key national institution for communication with the relevant bodies of the European Union.

www.sepa.gov.rs

The Regional Environmental Center for Central and Eastern Europe — Project implementing agency

The Regional Environmental Center (REC) is an international organisation with a mission to assist in addressing environmental issues by promoting cooperation among governments, non-governmental organisations, businesses and other environmental stakeholders, and by supporting the free exchange of information and public participation in environmental decision making.

The REC was responsible for EMC project management and provided technical expertise through both its head office and its country office in Serbia. The REC established a project implementation unit (PIU) and provided backstopping services for the PIU in close cooperation with SEPA in order to reduce unnecessary office operational and human resources costs and to ensure the effective use of project funding. The REC successfully completed one of the main objectives of this project: the establishment of the EMC office within SEPA.

www.rec.org

Emisoft AS, Norway — Project implementing agency, selected to supply environmental reporting software

Emisoft is a leading provider of consultancy services and reporting systems within the areas of climate change, environment, and corporate social responsibility. The Norwegian company was selected through an open procurement procedure to supply environmental management software and consultancy services for the EMC project. Its TEAMS reporting solution ensures the transparency and traceability of documentation and meets benchmarking, compliance and corporate reporting requirements. Emisoft was established in 1992 in Norway and its TEAMS reporting system is currently used in more than 120 countries.

www.emisoft.com
HIP-PETROHEMIJA JSC, PANČEVO
Petrochemical products, raw materials and chemicals

HIP-Petrohemija is the largest producer of petrochemicals in the Republic of Serbia, with a tradition that covers almost three decades. The company’s manufacturing facilities occupy the industrial zone of Pančevo, Elemir, which lies near Zrenjanin and Crepaja.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Environment</th>
<th>Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIP-Petrohemija produces nearly 700,000 tonnes of petrochemicals. In addition to HIPLEX®, HIPTEN® and HIPREN® polymers and PE pipes, products include:</td>
<td>HIP-Petrohemija is committed to supporting sustainable development through systematic environmental management. Activities undertaken to control environmental impacts include:</td>
<td>The company reports to SEPA with regard to:</td>
</tr>
<tr>
<td>• ethylene</td>
<td>• air emissions monitoring</td>
<td>• general information about pollution sources</td>
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<tr>
<td>• propylene</td>
<td>• wastewater and groundwater quality control</td>
<td>• emissions to air</td>
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<tr>
<td>• pyrolysis gasoline</td>
<td>• waste management</td>
<td>• emissions to water</td>
</tr>
<tr>
<td>• pyrolysis oil</td>
<td>• chemical management</td>
<td>• waste management, specific waste streams and the management of packaging and packaging waste</td>
</tr>
<tr>
<td>• C4-fraction</td>
<td></td>
<td>Through the EMC project, the company uses TEAMS software for reporting.</td>
</tr>
<tr>
<td>• chloralkali electrolysis products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 1,3-butadiene</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• methyl tertiary butyl ether</td>
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</table>
# DELTA AGRAR LTD., BELGRADE
## Subsidiary of Delta Holding, Serbia

As a member of Delta Holding, Delta Agrar Ltd. has been present in the agribusiness community since 1993 and remains a leader in all aspects of agricultural operations.

## Activities

<table>
<thead>
<tr>
<th><strong>Primary production:</strong></th>
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<tbody>
<tr>
<td>- field crop production on 16,000 ha</td>
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<tr>
<td>- fish production on 600 ha</td>
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<tr>
<td>- 100,000 pigs per year on five farms</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Cooperation sector and buy-up:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- fruits and vegetables</td>
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<tr>
<td>- meat and cattle</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Agro-trade and distribution:</strong></th>
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</thead>
<tbody>
<tr>
<td>- pesticides, seeds, agro-mechanisation</td>
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</tbody>
</table>

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<thead>
<tr>
<th><strong>Food production:</strong></th>
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<tr>
<td>- Yuhor, Mioni, Danubius, Florida bel</td>
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</tbody>
</table>

## Environment

Delta Agrar’s “Environment and Ecology” sector is concerned with all aspects of environmental management, including:

- energy efficiency and conservation
- alternative energy sources
- GHG emissions reductions
- waste management
- the collection, storage and treatment of hazardous and non-hazardous waste
- education for employees

## Reporting

Delta Agrar reports via SEPA to the National Register of Pollution Sources, as well as to the local government. The company also undertakes internal reporting using the TEAMS software.
ŽELEZNICE SRBIJE JSC, BELGRADE
Passenger and freight transport

The main activity of Železnice Srbije (Serbian Railways) JSC is the transportation of passengers and freight.

<table>
<thead>
<tr>
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<th>Reporting</th>
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</thead>
<tbody>
<tr>
<td>The company is responsible for:</td>
<td>As one of the most efficient and environmentally friendly ways to move people and goods, railways have tremendous potential to reduce the environmental impact of transportation and improve quality of life. Acting on this potential, Serbian Railways founded its Center for Sustainable Development on September 1, 2010, to promote rail transportation as an energy-efficient and environmentally friendly option.</td>
<td>As a waste generator, Serbian Railways is obliged to maintain records and send annual reports to SEPA. After joining the EMC project, Serbian Railways began to use the powerful TEAMS software. The company now possesses a platform for submitting information to relevant national and international organisations, including SEPA and the European Bank for Reconstruction and Development.</td>
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<tr>
<td>- organising and controlling rail transportation (passengers and freight)</td>
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<tr>
<td>- maintaining rolling stock and railway infrastructure</td>
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<tr>
<td>- modernising and protecting rolling stock and railway infrastructure</td>
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<tr>
<td>- monitoring the construction and reconstruction of railway infrastructure</td>
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<tr>
<td>- assembling devices, plants and installations</td>
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</tbody>
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TIGAR JSC, PIROT
Manufacturer of rubber footwear, technical rubber and recycled rubber products

Established in 1935, Tigar is a holding company with diversified lines of business. Environmental management according to ISO 14001 criteria was certified a decade ago, and continual improvements are being made to ensure sustainable development.

<table>
<thead>
<tr>
<th>Activities</th>
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</thead>
<tbody>
<tr>
<td>The company’s core business is</td>
<td>The company’s environmental performance is based on:</td>
<td>In addition to providing regular annual reports to investors, customers</td>
</tr>
<tr>
<td>the production of:</td>
<td>• controlling electric power, heat</td>
<td>and other stakeholders, following the establishment of the National</td>
</tr>
<tr>
<td>• rubber footwear</td>
<td>and water consumption</td>
<td>Register of Pollution Sources in Serbia, Tigar has also reported to</td>
</tr>
<tr>
<td>• technical rubber products</td>
<td>• controlling emissions into air</td>
<td>SEPA since 2007. Annual reporting is now supported by the TEAMS solution.</td>
</tr>
<tr>
<td>• products made from recycled</td>
<td>• waste and packaging waste management</td>
<td></td>
</tr>
<tr>
<td>rubber</td>
<td>• chemicals management</td>
<td></td>
</tr>
<tr>
<td>Non-core businesses include:</td>
<td>• achieving established environmental objectives and</td>
<td></td>
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<tr>
<td>• the production of coatings</td>
<td>undertaking programmes for improvement</td>
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<tr>
<td>and adhesives</td>
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<tr>
<td>• trade</td>
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<tr>
<td>• civil engineering design and</td>
<td></td>
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<tr>
<td>construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• waste management</td>
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</tbody>
</table>
KOLUBARA LTD., LAZAREVAC
Coal production, processing and transport

Kolubara is Serbia’s biggest producer of lignite, its main activities being open-pit coal excavation and lignite processing.

Activities
Pit mining began in 1896, and the first open-pit mine began operations in 1952. The four open-pit mines currently active cover nearly 80 square metres. With 10,000 employees, Kolubara produces an average of 30 million tonnes of lignite per year and provides 52 percent of Serbia’s total annual electricity production. Other lignite processing activities include washing, drying and crushing. The company operates a 120 MW heating plant and IPPC facility and has its own integrated management system.

Environment
Notable achievements:
- establishment of the company’s Department of Environmental Protection in 2010
- re-cultivation of more than 800 ha of devastated land
- systematisation of waste management
- installation of sanitary and industrial wastewater treatment facilities and ultrasound flow meters for mining wastewaters
- installation of two automatic weather stations with PM10 analysers
- installation of environmental noise measurement equipment
- documentation of potential for solar energy and biomass production

Reporting
In accordance with Serbian legislation, annual reports submitted to SEPA contain data for regularly monitored emissions to all environmental media, along with information on waste management. Since 2013, this reporting, along with internal reports, is managed through TEAMS software.
### Activities

The company’s main activities are:
- agricultural production
- production of fodder plants and fodder manufacturing
- production and incubation of fertile eggs
- selling day-old chicks
- poultry pre-breeding and cramming

### Environment

The company’s waste products include waste paper and poultry manure. In the interests of environmental protection, the company recycles waste paper via a contracted waste disposal company. It has recently started to compost poultry manure, with the help of a Hungarian company.

### Reporting

Agroprodukt Šinković’s environmental reporting obligations are defined under Serbian law. As an EMC client-partner, the company now uses TEAMS software for reporting.
SOJAPROTEIN JSC, BEČEJ
Joint stock company for soybean processing

Sojaprotein was established in 1977 and started production in 1983. Since 2004, the company has operated as part of a complete production system within the domestic company Victoria Group.

Activities

Sojaprotein produces a variety of safe and healthy products from non-genetically modified soybeans. The company aims to achieve a significant position on the EU, Russian, Central European Free Trade Agreement, European Free Trade Association, Turkish, Middle Eastern and North African markets, producing soybean foods for human and animal consumption.

Environment

Deeply committed to protecting the environment for future generations, Sojaprotein:

- monitors all environmental aspects of production
- takes measures to reduce environmental pollution
- implements internal environmental regulations
- educates and motivates employees to take preventive actions
- conserves resources
- has reduced the use of harmful materials and hazardous wastes
- strives for continual improvement

Reporting

For many years Sojaprotein has followed national procedures when reporting to SEPA and now uses TEAMS software to fulfil its legal reporting obligations. The company endeavours to reduce its environmental impact through:

- periodic controls of air and wastewater emissions
- a waste management system
- an environmental management system that is continually undergoing improvement
**ŽELEZARA SMEDEREVO LTD., SMEDEREVO**  
Steel production and processing company

Železara Smederevo is a well-known Serbian producer of steel, hot and cold rolled products and tin plate. Its facilities are located in the village of Radinac, near the town of Smederevo, and in the towns of Šabac and Kučevo.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Environment</th>
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</thead>
</table>
| Železara Smederevo is involved in the production and processing of steel. Its two blast furnaces produce liquid iron, which is then converted into raw steel. Železara’s facility in Šabac produces tin-coated steel products for use in the packaging industry. | Environmental stewardship is a core value at Železara Smederevo. The company complies with all environment-related laws, policies, practices, procedures and initiatives. It works continuously to improve its environmental and resource management by:  
- reducing emissions  
- conserving energy  
- reusing or recycling the by-products of its production process | Železara Smederevo undertakes regular reporting and delivers reports to competent authorities as required. In 2012, the company used both the RIZ and TEAMS applications for reporting. Its facilities in Smederevo and Šabac report to the National Register of Pollution Sources, and the Kučevo facility reports to the Local Register of Pollution Sources. |
RTB BOR LTD., BOR
Copper mining and smelting complex

RTB Bor operates as a single system with a parent company and main production subsidiaries (Copper Mines Bor, Copper Mines Majdanpek). The TIR Copper Smelter and Refinery complex comprises a smelter, tankhouse, sulphuric acid plant, foundry, power plant, metal salts plant, copper wire plant and transportation.

Activities
In addition to its main product, copper cathode, TIR produces:
- precious metals
- precious metal salts
- sulphuric acid
- copper powder
- copper sulphate
- copper, bronze and brass-based casts
- sectioned and dip-forming wire
- sintered metals
- heat energy

Environment
An ongoing project to reconstruct the smelter and construct a sulphuric acid plant is aimed at achieving:
- ambient air quality legal limit values (125 µg/m³)
- the complete recirculation of technological water
- the safe management of waste
- better process energy efficiency through improved rational resource utilisation

Reporting
The company has started to use TEAMS software for reporting to the National Register of Pollution Sources within SEPA on the smelter, foundry, sulphuric acid plant and power plant. An air quality monitoring system is in operation at fixed points in the city that are particularly vulnerable.
### Activities

The Beogradske Elektrane hot-water system comprises a network of pipes and regulating devices that connects the production source with end users. As the operator of 15 heating plants, Beogradske Elektrane is one of Europe’s largest producers and distributors of thermal energy.

### Environment

Environmental protection is a business policy priority in heating plant management. Reducing emissions of combustion products, primarily pollutants (sulphur dioxide, nitrogen oxides, particulate matter, soot and sedimentary materials) improves air quality, not only in the vicinity of heat sources (e.g. the heating plants) but also in Belgrade and beyond.

### Reporting

At its Centre for Testing, Quality and Environmental Protection, Beogradske Elektrane regularly monitors wastewater, emissions of combustion products, soil and groundwater quality, waste management and noise in the environment. Monitoring results are regularly submitted to relevant competent authorities. The company started using the TEAMS system for report preparation in 2013.
COMPETENT AUTHORITY TEAMS SR SOLUTION

The EMC uses the Competent Authority TEAMS SR Solution (CAS) as its main tool. The CAS is an information system developed on the TEAMS platform in line with the requirements of SEPA and designed according to PRTR rules.

**Concept**

The Competent Authority TEAMS SR Solution is an environmental accounting and reporting system designed to help SEPA to collect, analyse and prepare received data for reporting towards EU institutions.

**Architecture**

The CA Solution comprises:
- annual facility reports from operators, including data on quantities of released pollutants
- master data with code lists to be assigned to reported quantities
- incorporated data logic
- administration and data monitoring
- the Web Report Designer
- a flexible report library with output tables and assigned master data

**Internal reporting**

TEAMS SR enables integrated reporting to SEPA in accordance with state regulations on the development methodology of national and local registers of pollution sources, and also deals with waste management, packaging and packaging waste, and the processing and analysis of data obtained from SEPA’s National Register of Pollution Sources Department.
## PARENT CLIENT SOLUTIONS

TEAMS SR Parent Client Solutions (PCSs) were built, customised, altered, adapted and tailored to the individual needs of the 10 EMC client-partners in order to help them meet their environmental priorities.

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### Concept

The PCSs were designed according to PRTR Protocol rules and domestic legislation, enabling companies to provide data to SEPA for the National Register of Pollution Sources. The PCSs enable companies to document and report efficiently using a single, integrated system throughout all levels of the organisation.

### Architecture

The PC Solution is defined and configured to meet specific customer needs. The client company’s logic, organisational structure, data and administration elements are incorporated into the system design, together with transactions and a report library, while output tables with master data and code lists are assigned accordingly.

### Internal reporting

In using the PC TEAMS SR Solution, reports are defined according to specific needs and parameters across the organisation. These typically consist of internal compliance reports, reports on key environmental indicators, and management or corporate reporting. The flexibility of data structure and relations allows for benchmarking between facilities and units across the organisation.
The Serbian Environmental Protection Agency publishes the EMC Bulletin within the framework of the project “Setting up the Environmental Management Center in Serbia”.

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