

Success in the Carpathian Mountains with DS Smith Zarnesti

After only five years of DS Smith ownership, something unique happened in this romantic and legendary part of Romania. Thanks to people power and determination at the Zarnesti mill, this packaging board enterprise is on the rise and poised to expand as a sustainable model beyond their borders.



Marius Juncanariu believes investing in their people and advanced process technologies is the path to world-class paper and packaging products from Romania.

“Customers expect quality and prompt deliveries from us.” says Marius Juncanariu General Manager of the mill. “This happens because of pride built into all that we produce. We count on all team members and strategic suppliers to contribute to our ongoing and future success. We can thank DS Smith’s management, know-how, and vision for the company’s global perspective. Our can-do attitude and innovations are quite natural in this context.”

The new beginning

While many upgrades continue to happen on PM1, the actual starting point for DS Smith Zarnesti’s future is a substantial investment in a new water treatment plant, inaugurated in September. The investment of 8.7 million euros will improve environmental performance while also increasing the water treatment capacity at the mill. As a critical part of the company’s investment plan in sustainable development, the water treatment plant is both a real change and a symbolic one.

Juncanariu says that the dual anaerobic reactor system for wastewater treatment reduces the carbon footprint of the mill in addition to increased production. Projected CO2 savings of up to 4,500 tpy are anticipated. There will also be a 20% decrease in freshwater consumption and a 60% decrease in waste quantity through a more efficient recovery process.

DS Smith Zarnesti makes board from recycled OCC and mixed waste. Their collection network throughout the country fuels their strong Romanian market position of supplying half of the country’s paperboard.





Vera Taskinen, CEO of Toplet Oy, represents AFT in Romania and has a long history with the Zarnesti mill.

A valuable partnership for several decades

Vera Taskinen, AFT's representative for Romania, comments, "We have had a valuable partnership with the Zarnesti mill for several decades. The mill counts on AFT as a reliable partner. An added advantage from DS Smith is global know-how and a profound commitment to sustainability."

Optimal fiber usage and waste reduction

One recent advance is a three-stage fine screening line from AFT, which started up in 2020. DS Smith Zarnesti's objectives were to reduce fiber losses, run cleaner, and improve board machine runnability.

Multiple stages of screening are a proven approach to increasing quality and minimizing fiber loss. Prior to the new fine screening, the mill was rejecting a lot of valuable fiber mixed with contaminants.

"Significant wastewater treatment investment at the Zarnesti mill is further evidence of our economic and sustainability commitment to our region.

We are steadily increasing papermaking quality and capacity, and, for the long run, creating attractive job opportunities. "

*– Marius Juncanariu
General Manager, DS Smith Zarnesti*

Says Juncanariu, "With our new fine screening line, our furnish quality is improved and fiber recovery is maximized. This contributes to smoother runnability and higher productivity, and most importantly, customer satisfaction."

According to Erkki Jokirinne, Regional Manager, DS Smith Zarnesti is determined to increase capacity and remove bottlenecks without significant investments in new equipment.



A new AFT fine screening line started in 2020. Multiple stages of screening are a proven approach to increasing quality and minimizing fiber loss.

The new AFT MaxFlow screen and HC cleaner were installed in 2022 to improve yield and stock quality.



“We challenge suppliers like AFT to brainstorm with us, because they understand the importance of sustainable gains and how we approach achieving them.”

– **Zeljko Dubrovic**
Plant Manager, DS Smith Zarnesti

A recent PM 1 audit pinpointed the potential for gains from various incremental process changes. “Tying our recommendations into the mill’s DCS system allows operators to achieve a capacity increase without any capital investment.”

Late in 2022, AFT also delivered and started up a reject line consisting of a single screen and cleaner with the aim to further improve efficiency and sustainability. Because the reject line saves fiber, the payback time is very short.

Continues Juncanariu, “Service and capital projects with AFT always consistently go according to schedule. In each case, you could say we hit the start button and do better than before.”

A passion for problem-solving

Plant Manager Zeljko Dubrovic has a reputation for open-minded problem solving. Since arriving from a sister mill in Belisce, Croatia, he has encouraged his team and suppliers to make the most out of the equipment and systems they have in place.

Dubrovic comments, “Few can achieve breakthroughs with creative small investments, but AFT is especially good at this. They take an upgrading approach to improve mill operations by refurbishing and repurposing existing parts and equipment.”

Into the future

Now that the new wastewater treatment is installed and PM1 is running at a highly optimized level, a significant next step could be restarting PM6 at some point in the future.

Concludes Juncanariu, “This mill is a great place for making further investments as our owners, DS Smith, are poised to do. Restarting PM6 has been carefully studied and will be feasible shortly. In addition to a capacity boost, we can support a broader range of customers and develop entirely new grades. With well-planned investments in the near term, you will see Zarnesti rise even higher.”

AFT’s Kalle Lahti (left) and DS Smith’s Process Engineer, Romulus Lazar, monitor process values during the restart of the fiberline.

Lazar appreciates the ongoing exchange of ideas with the AFT team.



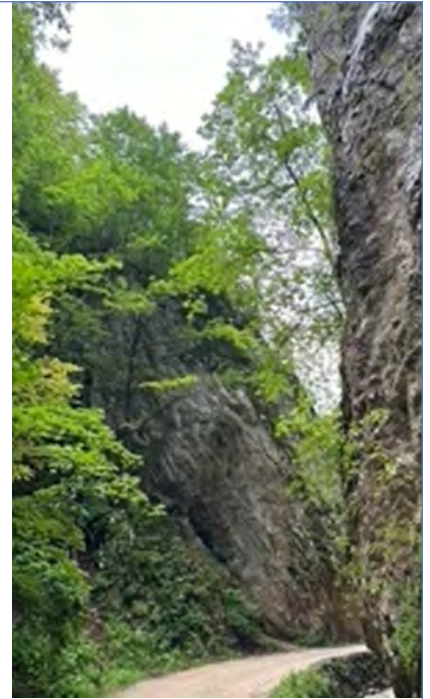
In 1862, twelve types of paper were manufactured, including writing and printing paper, colored paper, cigarette, and wrapping paper.

1980 marked a moment of significant changes, as capacity increased for corrugated board production to 40,000 tonnes/year, using wastepaper as the primary raw material.

In 2001, capacity doubled. Soon after, owners renamed the company S.C. Ecopaper S.A. Then, in 2018, DS Smith acquired the mill.

At that time, PM1 was installed, followed by a significant machine upgrade two years later to increase speed and efficiency. With the support of the DS Smith global team and strategic suppliers, integrated quality management standards were achieved, including ISO9001, ISO45001, and ISO50001.

Zarnesti is located at the “crossroads” of Eastern Europe with historic land and sea routes to many nations around them. It’s easy to understand why the mill roots go back to 1862.



In nearby Bran, Dracula’s Castle draws millions of visitors every year. The mythic fictional Dracula was made famous by Irish author Bram Stoker.

DS Smith Zarnesti is the largest paper manufacturer in Romania, accounting for almost half of the country’s domestic demand for paper and corrugated board. Liner 1 and Liner 3 are their primary offerings. The quality of products and services is in accordance with ISO standards 9001:2001 and 14001:2004. In addition to the Zarnesti mill, DS Smith’s operations in Romania have a recycling head office in Bucharest, two recycling depots in Otopeni and Cluj Napoca, two packaging production units in Ghimbav and Timișoara and three service centers in Pitești, Timișoara, and Otopeni, employing in total over 650 people. In 2023, DS Smith Zarnesti was honored with a Sustainability and Environment Award from the British–Romanian Chamber of Commerce. They were honored for championing sustainability, inspiring new ideas and positive change, and a clear commitment to long-term impact.

AFT is a global supplier specialized in screening, refining, stock preparation, and paper machine approach flow systems. With over a century of experience, AFT offers solutions tailored to the customer’s furnish, mill process, and end-product being produced in order to optimize the return on investment.

For more on AFT technologies, visit aft-global.com

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