

# A PROFESSIONAL NETWORK

Cold storage industry architects and engineers benefit from new Women in CEBA program.

# By Gina Veazey

mpowering. Barrier-breaking. These are some of the terms women in the controlled environment building industry use to describe the new "Women in CEBA" program from the Global Cold Chain Alliance (GCCA). Women in CEBA provides a support network for women in the male-dominated field. (CEBA (Cold Environment Building Association) is a cold chain partner of GCCA.)

"Being part of Women in CEBA is a naturally empowering experience to me, and I see it as an opportunity to challenge the stereotype of construction being a maledominated industry," says Almedina Hamzić Mušić, Assistant Design Manager at

CT-Technologies in Sarajevo, Bosnia and Herzegovina.

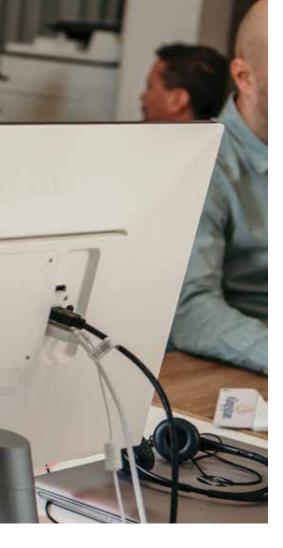
Kristin Westover, Technical Manager, Specialty Installations with GAF, echoes Mušić's sentiment. "We are breaking barriers in the industry," she comments. "It is great to know that we have a group of smart, highperforming and high-achieving women, and we are all in this together. We can uplift each other and do great things within the industry."

Mušić and Westover joined a third member of Women in CEBA, Kate Lyle of Ware Malcomb, to discuss their roles in the industry, their motivations to stay in the cold storage industry and the need for the Women in CEBA program.

## **Choosing Cold Storage**

The architects and engineers uniformly say the unique complexity of cold storage is most appealing.

A licensed architect, Lyle oversees the Ware Malcomb national practice focused on cold



Almedina Hamzić Mušić, Assistant Design Manager at CT-Technologies, challenges stereotypes in the male-dominated construction industry. (Photo courtesy of Almedina Hamzić Mušić.)

storage, food and beverage processing and food-grade buildings. She joined the firm after working on mostly speculative industrial buildings for about six years.

That was 2019. It was a good move, she says. "I found it fascinating! From an architectural standpoint, there's so much complexity and detail. And I also really enjoyed learning about the food supply chain, and all the buildings that help move and process food from farm to table," Lyle says.

"When I joined Ware Malcomb, I was looking for an opportunity to really grow my career, and they said that I would have room to grow," Lyle recalls. "I've been very pleased to find that to be the case." She started as senior project architect and has been promoted twice, to studio manager, industrial cold and food in 2020 and to her current role as director, industrial cold and food in 2021.

Taking a different path, Mušić says she "always had an interest in industrial architecture and practical solutions that have a significant impact on preserving perishable goods. The cold chain industry, with its critical role in this aspect, captured my attention."

Mušić entered the cold storage industry in 2020, not long after completion of her master's

degree in architecture and urban planning. She had previously worked in residential and commercial construction as well as in industrial heritage.

At CT-Technologies, Mušić says the greatest challenge has been ensuring successful project execution in demanding environments such as in Southeast Asia and Africa. "These regions present unique logistical and climatic complexities that require innovative solutions and great adaptability to meet tight schedules and achieve the seamless construction of cold storage facilities," she says.

A professional engineer, Westover joined GAF in 2020 from a structural engineering consultancy where her work focused on existing buildings. She also performed third-party inspections for various building envelope systems in new construction projects. "Every building is different," she observes. "I loved the technical aspect of understanding how building parts come together to make a high-performing building."

At GAF, Westover specializes in cold storage roofing assemblies, bringing her past design experience into the manufacturing world and working with designers and consultants to optimize roofing assemblies.

"Cold storage buildings, while they are the same roof assemblies as 'regular' buildings, require special details to ensure that the roof functions properly, including keeping the inside cold," Westover explains. "Working in the field of cold storage has allowed me to use my knowledge of high-performing buildings and technical detailing to translate into the best roofing assemblies for our cold storage customers."

#### A Day in the Life

All three of the Women in CEBA members say no two days are the same.

Westover consults with designers and contractors on ongoing cold storage roof projects, including on the constraints of projects in the design phase, to help them decide the best roof assembly for their project and to ensure the roof is energy efficient and airtight. "I consider each of our projects a team effort," Westover explains. "Keeping open lines of communication and contact ensures that we are going to have the most high-performing roofing system for each cold storage facility."

Westover also visits worksites to check on progress and help troubleshoot any problems. "That is the fun part of construction," she says. "You can always anticipate something you didn't anticipate."

An expert on cold storage roofing, Westover often shares her knowledge in lunch-and-learn presentations for designers and contractors and travels to conferences to stay educated on topics within the building industry.

Like Westover, Mušić works closely with the design team, conducting design reviews, collaborating with architects and engineers, and ensuring that the design plans meet client requirements and industry standards. She participates in client meetings to address design-related queries and incorporates their feedback into the project.

"Throughout the day, I'm involved in project coordination, managing timelines and liaising with various stakeholders to ensure smooth project execution. Certainly, each day presents its own set of challenges and oppor-

tunities for growth, making my work both diverse and fulfilling," Mušić says.

As the leader of a small team of specialists, Lyle explains, "My days vary a lot, but at the heart of it is sharing my knowledge about cold storage and industrial food design, both internally and with our clients and consultants."

Some days that means meeting with clients about new projects and responding to RFPs, while other days, she interfaces with local Ware Malcomb offices to help with projects. She might develop training programs for her company colleagues on key components in cold storage design. Or she might help a project manager modify a detail to meet local code requirements. She also performs quality control reviews to ensure plans address all of the nuances of cold or food design.

### **Gender Parity**

On the need for the Women in CEBA program, the three women share their experiences in predominantly male professions.

Lyle, who recalls that half of the students in her architecture program were women, says she was surprised when the gender ratio was different in her first job. "I was the only woman. My engineering consultants were men, my contractors were men, the developers were men. It was so surprising to me," Lyle says. "It has slowly gotten better. I work with many more women both at Ware Malcomb, and amongst our clients and consultants. But while I'm no longer the only woman, we're still a long way from 50/50."

Westover agrees. Although she says construction overall, including in the cold storage industry, is predominantly a male industry, she welcomes the increasing number of women. "I definitely have seen an increase in the number of women in the industry in the 15 years I have been working in it."

Indeed, gender parity has improved some over time, but that progress has been very slow. Only 15% of engineering positions were held by women in 2020 across six Organization for Economic Cooperation and Development (OECD) countries - Australia, Brazil, Canada, India, United Kingdom and the

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Kate Lyle, Ware Malcomb

United States. In contrast, 39% of all jobs were held by women in these countries, according to the World Economic Forum Global Gender Gap Report 2022.

"I am optimistic that these issues will continue to evolve positively in the coming years," Mušić says. "In my experience as someone involved in the academic world, I have observed a notable increase in female representation across various engineering fields, which is an encouraging trend."

"Diversity leads to better design," says Lyle. "Every person in the design-build community brings a wealth of knowledge from our lives and experiences, and the greater the variety of those experiences, the better the buildings. I hope more women will join the industry, and stay in the industry and be valued for the diverse experiences they can bring to the table."

#### Looking to the Future

Although women occupy more science and technology roles today, including in the cold storage industry, there are signs that future progress will require a concerted effort.

Women remain significantly underrepresented in engineering, manufacturing and construction classrooms, affecting the future pipeline for women in these roles.

In the United States, almost half of students pursuing an architectural degree today are women, according to the American Institute

of Architects (AIA), yet only a small proportion ultimately become registered architects. Fewer than one in five (17%) registered architects are women in the United States, according to AIA.

"I think each sector of the industry has its own challenges, but on the architecture side I think the biggest problem is attrition," Lyle explains. "Women are still graduating as architects, but they are leaving the industry for a wide variety of reasons, and so it's a very complex problem to solve."

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