



f Mutual Interest

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Helping Our Service Center Marketing Partners Activate Their Ideas in Stainless

Market Development Plays Key Role In Growth of Stainless

Outokumpu is recognized as an industry leader in the development of new grades for specific applications. Such game-changing

grades as PRODEC®, developed nearly 30 years ago in bar and plate form to improve PRODUCTION Economy for machining and tooling is one such example. More recently, Outokumpu's lean duplex LDX 2101®, gave end-users a grade with pitting resistance similar to 316L, but with far better stress corrosion cracking resistance and twice the mechanical strength of the commodity grade. Countless hours are spent in Outokumpu's metallurgy laboratories to perfect the company's

new grades.

But what many may not realize is the amount of effort that goes into identifying the end-user's initial needs and ultimately establishing an end-user industry standard that legitimizes the use of a unique grade for a specific application. In essence the identification, specification, and standards acceptance of specific grades

is the responsibility of the Market Development team at Outokumpu.

Market Development is a Marathon, Not a Sprint

This month Outokumpu loses a valuable member of the Market Development team in North America, Elisabeth Torsner, who retired November 30 from her post as VP Market Development after more than ten years in the position and more than 42 years in the industry (see related article on page 3). Since February, Torsner has been working closely with Poul-Erik Arnvig, North America's new VP Market Development to help ensure a seamless transition after her retirement. ('Get to Know' Poul-Erik on page 2.) Together, Torsner and Arnvig have lead the way in developing new market opportunities for stainless steel, and specifically for Outokumpu's special grades of stainless.

Market development starts in the trenches, with the market development team engaging end-users to establish their needs. These initial contacts with end-users can occur at tradeshows, industry conferences, and association gatherings. So it is important that the market development team serves as active members of end-user professional organizations. Some of the many professional associations that

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Members of Outokumpu's market development team like Ralph Davison (of TMR) and Madonna Ashbrook, attend industry tradeshows and conferences to engage end-users in their needs for stainless steel.

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Outokumpu's market development team members join include: American Petroleum Institute; American Society of Mechanical Engineers (they run the standards for such applications as boilers and pressure vessels); American Waste Water Association; and Technical Association of the Pulp & Paper Industry.

Getting Specified Takes Risk

Once the end-user's need has been identified—and after the technical team at Outokumpu has determined the best grade for the need—then the market development team goes to work in getting an end-user to specify a grade for a particular application. As Torsner explained, “It is a bit of a risk for a company to be the first to try a new grade for an application. It is usually an industry leader—a company continually looking for new solutions—that will first specify a grade for a new use.” Of course, these specifications don't happen until after the market development team has demonstrated through laboratory and field-testing that the grade is suitable for the application. Once an industry leader puts a grade on their specification list, other companies follow.

Setting the Standards

“We write a lot of technical papers and present these papers at industry conferences to further demonstrate to an industry

the performance of a grade for an application,” Torsner noted, referring to the activities of the market development team. The presenting of papers becomes the first step in getting a grade accepted into an industry standard.

In some cases the industry doesn't have any standard for the application, so the market development team works with the association to establish a new standard. Such is the case with the American Waste Water Association (AWWA). At present, the industry has no standards for water tanks. So Outokumpu convinced the association to follow the tank standards established by the American Petroleum Institute (API 650 standard). “Now we've been invited to create a new standard for tanks according to AWWA,” reported Torsner.

It is time-consuming work to get our grades into standards, but definitely worth the effort. As Torsner explained, “Standards are the ultimate tool to reach end-users. There are thousands of projects, that as a producer, we never are alerted to and never have a chance to influence the material choice unless our materials are included in the proper standards.”

To date, Outokumpu grades are listed in 38 American standards representing more than a dozen industries from pulp & paper to oil & gas, and from automotive to drinking water. ■

Poul-Erik Arnvig, VP Market Development

Poul-Erik Arnvig joined Outokumpu's North American business unit in March 2009 as VP Market Development. Since that time he has been working closely with Elisabeth Torsner, who in November retired from the position of VP Market Development. Arnvig's focus is on market development for special grades in North America, including all product forms. In a recent

getting to know
our people

“My key focus will be on ensuring that specifiers and buyers in North America know the advantages of Outokumpu's wide product and service range.” He

article for *Stainless Steel World*, Arnvig outlined his plans for this position:

sees particular opportunities in North America for Outokumpu's duplex grades like LDX 2101 and 2205 Code Plus Two. In the *Stainless Steel World* article, Arnvig noted, “It is still only a limited portion of the design and engineering community in North America that has sufficient knowledge to fully utilize the offerings from Outokumpu's full duplex family.”

Arnvig is a citizen of Denmark and has more than twenty years of experience in the metals industry, most of which has been with Outokumpu (and its predecessors). He joined the company in 1991 where he served in the corrosion department. Since 1996 he has held operations and product and



business development positions with the company, mostly working in the coil and plate product areas.

Arnvig and his family live in the Chicago suburbs where, together, they enjoy outdoor sports including soccer. ■

Elisabeth Torsner Retires, After 42 Years of Service

After more than 42 years in the metals industry, Elisabeth Torsner, is retiring from Outokumpu where she has been employed for more than 30 years, most recently as VP of Market Development.

For more than ten years, Torsner has held the position of Outokumpu's VP Market Development in North America. During that time she has presented at more than 50 industry technical conferences, has authored 15 peer reviewed technical papers, and written an estimated hundred other technical articles. Her contributions to the industry are significant and far-reaching. Her technical writings have covered such topics as "Solving Corrosion Problems in Bio-fuels Industry," "Modern Materials in Flue Gas Cleaning Applications," and "Post-Fabrication Cleaning of Stainless Steel in the Pulp & Paper Industry." A Google search of "Elisabeth Torsner" yields 926 results, most of which are Elisabeth's papers, MSDS sheets, speaking engagements, and numerous professional memberships.

Torsner's efforts have affected public policy and industry regulations. In 2005, Elisabeth testified before the US Occupational Safety and Health Administration (OSHA) as a representative of the Specialty Steel Industry of North America (SSINA) with regard to the proposed changes in federal regulations for occupational exposure to Hexavalent Chromium (CrVI). A colleague of Torsner's on the SSINA Environmental Committee, Joseph Green, recently described Torsner's contributions to the industry: "She is among the most valuable and dependable resources we have had over the last decade or more in the industry. Her breadth of knowledge over almost every health, safety and environmental aspect of the steel business is practically unparalleled in my experience. Elisabeth's abilities have been vital in helping to guide the industry through many challenging regulatory matters, including specifically hexavalent chromium workplace standards, climate change, and clean air act regulations to name just a few. We will miss her service as the current chair of the Specialty Steel Industry of North America (SSINA) Environmental Committee, but are grateful for her years of dedicated service and wise counsel. She will be greatly missed."

Prior to her work as VP Market Development, Torsner was the general manager of the Hot Band Division for (then) Avesta Sheffield, where she was responsible for the new Steckel rolling mill. The mill was the company's largest



investment at that time, and was the company's first mill with fully automated process control from entry to exit and one of the only steel mills at the time managed by a female.

"Elisabeth has been a pioneer in everything she has done for Outokumpu, from managing the automated Steckel mill in Sweden, to creating new market opportunities for our products in North America," noted Mike Stateczny, Outokumpu's Senior VP for Plate Products. "She leaves behind a tremendous legacy of knowledge and product applications not only for Outokumpu, but for the entire industry."

A native of Sweden, Elisabeth moved to the United States in 1995 when she joined the North American Division of Outokumpu (then known as Avesta Sheffield). Upon her retirement, Elisabeth and her husband plan to return to Sweden where they'll enjoy spending time with their young grandchildren and rehabbing a 98-year old country farmhouse. Elisabeth will continue to work part-time as a consultant.

Torsner has been an active member of the SSINA, The Materials Technology Institute (MTI), AMTA (American Membrane Technology Association), the Society of Mining & Metallurgy Exploration (SME), the Technical Association of the Pulp & Paper Industry, and the National Association of Corrosion Engineers (NACE), to name a few. ■

A 40-Year Perspective on the Stainless Industry

We recently sat down with Elisabeth Torsner, who retired last month from her position as Outokumpu's VP Market Development after working for more than 40 years in the industry.

Question: How has the production of stainless steel changed since you entered the industry in 1975?

Answer: There have been two significant changes that I have seen. When I started at Degerfors the mill's area of focus wasn't evident, which was the case with most of the steel mills back then. Now the facility is 100% stainless steel. It concentrates on milling just one product, stainless, even if it's a lot of varieties. The industry mirrors this trend, realizing the importance of size to achieve better efficiencies and economies. The other change I see is in regard to technology. When I started, technologies like continuous casting didn't exist. Several production steps that were necessary back in the 1970s have been eliminated. Today stainless steel is produced in a much more efficient manner.

Q: How has the process of bringing a product to market changed?

A: In the old days, people just got orders. But this changed with the improved production efficiencies. Now mills can produce much more material. But the products just don't sell themselves. We have to work hard to promote our grades and explain their applications to the end-users. Customer service and marketing are also important.

Q: It seems unusual for a woman to have chosen the stainless steel industry. Can you share any experiences that were unique to being a woman?

A: That's another area that has changed. When I was in college there were 100 students in my metallurgy class, four were women. My daughter had the same education and the number of females in the program had grown to 28 when she was in school. There are definitely more women entering the field now, I'm pleased to say. The reality is, as a woman you are much more visible in this industry, and you have to work twice as hard to prove yourself. If you succeed it is very good, but if you fail it is very bad.

Q: What advice would you give women entering the industry today?

A: Work hard.

Q: You've been working in market development for more than ten years. Any highlights from your efforts in this area?

A: In the years that I have been VP of Market Development, we have tripled the volume of special grades sold at Outokumpu. I am proud of that, although a lot of the foundation was in place before I took over (by Ralph Davison and Jim Redmond from TMR). Since 1992, Outokumpu has increased special grades volume by about 30% every year. I am also proud of our accomplishments with the hexavalent chromium legal issue. We managed to stand up and fight against OSHA so that our products could be made and



so end-users could weld stainless steel. OSHA's initial proposal would have made the production and welding of stainless steel really difficult.

Q: Any prediction for where the stainless steel market will go in the future?

A: I think the industry will become even more efficient. And I think our industry will continue to impact the environment in positive ways. There will be more demand for lower carbon emissions from which we will benefit because stainless steel is better for the environment. Green house gases are removed with stainless steel, clean water is delivered through stainless steel, and even nuclear energy is created with stainless steel.

Q: Any final thoughts before you enter retirement?

A: I love this industry. It is so exciting! You never know where it's going next. I know production is slow now, but I predict that before we know it demand will come back. And it will be with enormous volumes that we didn't expect. To me, that's what makes this industry so exciting! ■

Outokumpu Makes Dow Jones Sustainability Index for the Fourth Time

For the fourth consecutive year, Outokumpu has landed on the Dow Jones Sustainability Indexes, important check-lists for international investors and customers with an eye toward the environment. "This is a significant milestone for Outokumpu," remarked Mike Stateczny, Outokumpu's Senior VP for Plate Products. "A lot more customers are placing an importance on buying materials produced in an environmentally friendly way. The Dow Jones Sustainability Index gives customers a high level of proof to demonstrate that we are doing everything we can to protect the environment."

Liisa Jalanko, Outokumpu's VP of Corporate Responsibility, reported that in the Indexes, for both Europe and the World, Outokumpu received a perfect score (100) in the area of environmental reporting and occupational health and safety. The company was also the best in the industry in risk and crisis management, scoring 89.



One of the many criteria considered for the Indexes, is a company's ISO 14000 certification. Stateczny noted that very few stainless steel producers have achieved ISO 14000 standards (referring to a series of international standards recognizing environmental management). All of Outokumpu's

major production sites (including those in the US) have ISO 14000 systems in place. "Many of these ISO systems have been in place for years at Outokumpu mills," added Stateczny.



To further support our commitment to environmental stewardship, Outokumpu publishes an annual report on the environment at the same time that our financial annual report is produced. The environmental report sets forth our targets with regard to sustainability and reports on the achievements from the previous year. Go to http://www.outokumpu.com/Pages/AreaPageInvestors___42614.aspx to download a copy of the most recent Environmental report. ■

Leadership Changes at Pipe

Allen Cantrell Promoted

Outokumpu Stainless Tubular Products (OSTP) announces the appointment of Allen H. Cantrell as Vice President-Sales and Marketing for the Wildwood, Florida pipe facility. Cantrell was formerly the Southwest Regional Sales Manager for OSTP. Cantrell replaces Rich Bahus who retired at the end of November.

Rich Bahus Retires

Rich Bahus, retired in November after 41 years of service at Outokumpu (and its predecessors). Rich was the VP Sales and Marketing for Pipe Products in Wildwood, Florida for the past 15 years. "The great people I have had the opportunity to work with over the years stands out as the highlight during my tenure at Wildwood," Bahus said. He plans to spend time with his family, maintain his health, travel, garden, read, and keep in touch with friends during his retirement years. ■

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Outokumpu is a global leader in stainless steel. Our vision is to be the undisputed number one in stainless, with success based on operational excellence. Customers in a wide range of industries use our stainless steel and services worldwide. Being fully recyclable, maintenance-free, as well as very strong and durable material, stainless steel is one of the key building blocks for sustainable future.

What makes Outokumpu special is total customer focus – all the way, from R&D to delivery. You have the idea. We offer world-class stainless steel, technical know-how and support. We activate your ideas.

New Edition of Corrosion Handbooks

A new edition of the Outokumpu Corrosion Handbook for the stainless steel market will soon be available on the company's web site. The handbook, published for the first time in 1934, is an important tool for corrosion engineers, metallurgists, designers, and other specialists when looking for solutions for corrosion problems and selecting the correct stainless steel grade for a certain application.

The handbook addresses corrosion with extensive articles and technical descriptions covering different industrial sectors. The content is based on the thorough and long-term research and development carried out in Outokumpu's research centers.



The updated handbook addresses the rapid growth of low-nickel stainless steel and the rich variety of new products and applications. In this 10th edition, a special focus is on industries with demanding applications such as desalination, pulp & paper, and oil & gas. New topics discussed are stainless steels in food processing, catering and household appliances, stainless steels in soil, in road environments and in swimming pool buildings, as well as stainless steels as concrete reinforcement. ■

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