

STEM CAREERS AND SKILLS OF THE FUTURE

“STEM Careers and Skills of the Future” consists of a series of online events (webinars and chat discussions) and is hosted by the **STEM Alliance**. It aims to promote **Science, Technology, Engineering and Mathematics (STEM)** careers with role models. Representatives from companies – partners of the STEM Alliance – are invited to give online and written presentations to inform teachers, career counsellors, educational authorities and researchers about possible careers in their field.

“Careers and Skills of the Future in the Chemical Industry” Chat on 11 September 2019:

**Alain Hadorn, Deputy Managing Director,
Business Unit Liquids, Bertschi**

**Ben Nagels, Commercial Manager Belgium,
Vopak**



Alain Hadorn studied Law and Economics and worked in a leading business law firm in Zurich thereafter. By 2014, Alain Hadorn joined the Bertschi Group and has undergone a complete logistics traineeship program including planning, a period as truck driver, leading a dispatch-department as well as tender and HR management. Since 2018, Alain Hadorn is the deputy of the managing director of the Business Unit Liquids within Bertschi.

Born in 1986, Ben Nagels has finished his studies with an MBA in International Business, after which he joined Vopak in 2008. Since 2017, he is Commercial Manager for Belgium in this company. He previously held the positions of Manager for Customer Service & Traffic as well as Senior Sales Manager and started his career at Vopak as Customer Service Representative.

What is the importance of chemistry in our day-to-day life?

Chemical products are literally everywhere. We cannot live our current lives without them: the paint on the walls, the cars we drive or the cell phones we use. This is very fascinating and inspired our speakers to work in the chemical sector.

What did you study and how did you decide to work in the chemical industry?

Alain studied law and worked in a law firm in Zurich. After a while, he realised that he was more interested in the chemical and transportation sector and found a position in Bertschi's traineeship programme in which he got to know many parts of the sector.

Ben started in economics and specialised in international business. At Vopak, he started as a management trainee in the financial department and also worked in the sales and operations departments.

What skills are needed in your jobs?

Both speakers agreed that the most important skills are not necessarily related to STEM. What is important are transversal soft skills like a willingness to learn or thinking outside of the box. Generally, the companies are looking for employees who are motivated, passionate and curious.

Of course, knowledge about innovation, technology and chemicals is necessary. But if you really need certain skills in the field, like working with Excel or specific programmes, most of the time you can learn it in the job. This is why learning to learn is a very important skill.

In addition, Ben pointed out that STEM companies benefit from having people with mindsets coming from other sectors, such as entrepreneurs.

What are typical activities in your job?

For Alain, every day bears new challenges. It can happen that on Monday, he needs to deal with human resource issues, on Wednesday, he has to find solutions to a concrete transport problem and communicate with truck drivers and on Friday, he negotiates with customers. The job can be very unpredictable and, in the end, it is about fulfilling customer requirements.

Ben described his job as being very international. He said that you cannot work alone but you always need to cooperate with others, either in your team at work or on a global level. Almost everything is interconnected, especially when it comes to the import and export goods. He gets to travel a lot and thereby gets in touch with many different cultures and lifestyles.

How does your company ensure safety at work?

It's true that the chemical companies are moving dangerous goods. That's why both Bertschi and Vopak have developed policies on safety. Alain described that everyone who starts working at Bertschi needs to participate in a training, so that every employee understands and follows the same safety culture, no matter whether they work as truck driver or in the office.

Also Ben highlighted that safety is priority number one in the entire industry. At Vopak, you follow the “SHEQ policy”, which stands for “Safety, Health, Environment and Quality”. In this line of thought, sustainability and keeping pollution to a minimum are also part of safety.

What is the biggest challenge you face at work?

As mentioned above, the job can be very unpredictable. One of the biggest issues at the moment is the shortage of truck drivers for the transport. The image of the drivers and the respect that society pays to them needs to be addressed. Without truck drivers, we would not have the living standards we have today.

Another challenge is the digitalisation. As a company you need to keep up with technological developments. While humans are still needed, the companies increasingly introduce automated and digitalised processes, such as drones for visual checks or using tablets instead of paper. Also, the business-to-consumer (B2C) interaction will change over time. Just as shopping or booking a hotel online, this can influence the chemical business.

Ben described that at Vopak, the biggest challenge is coping with changing energy dynamics. The energy transition in North-West Europe and moving away from fossil fuels creates a challenge that the chemical industry needs to tackle.

How does the chemical industry influence the environment?

A lot of companies are trying to reduce CO₂ emissions and there are new ways of production that are more sustainable than traditional ones. For instance, Bertschi tries to use the trains whenever possible or to load the same product several times in the same container so that it doesn't have to be cleaned with water after each use.

Ben pointed out that without chemical products, we would not be able to produce solar panels, insulation or light material cars, which overall help reduce consumption.

Generally, there is a growing conscience about recycling and developing sustainable chemical products. What is very important is to not throw plastics away without recycling them. Instead we need to collect plastics and move towards a circular economy.

Are there any mentoring programmes in your companies?

At Bertschi, there is a traineeship for graduates who want to start in the chemical transport industry. In this programme, you go through all levels and departments.

And also Vopak is always looking for talent, for example via the Young Graduates Programme, which consists of two years of development and training on the job.

How can teachers spark motivation in STEM topics and careers?

Ben mentioned that he had a lot of practical elements during his school time which included internships and field trips. This made him interested in the chemical field and, in the end, made him choose his job. He underlined that there are a lot of companies which are eager to show what they do.

Helpful links:

- [Science: Where Can It Take You?](#)
- [EPCA Role Model Series](#)
- [EPCA corporate website](#)
- [Petro & Chemistry: Partnership For A Better Life](#)
- [Chemistry: All About You](#)
- [The Young EPCA Think Tank \(YETT\)](#)

STEM Alliance: <http://www.stemalliance.eu>

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- Policy, research and innovation: information sharing and evidence building.
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About EPCA

Based in Brussels, [European Petrochemical Association](#) (EPCA) is the **primary European Business Network** for the global petrochemical business community consisting of chemical producers, their suppliers, customers and service providers. It operates for and through more than 700-member companies from 54 different countries. EPCA **organises conferences and events** in Europe offering members all over the world the opportunity to meet industry leaders and selected external stakeholders and stay abreast of international market developments as well as technological and societal trends. EPCA also **supports** members on **specific topics** that underpin the sustainable development of the global petrochemical industry. EPCA promotes STEM education, with a clear focus on gender and diversity inclusion. EPCA also highlight the multidisciplinary approach and the variety of challenging career paths that the petrochemical industry offers.