

## SUMMARY OF WEBINAR: STEM CAREERS AND SKILLS OF THE FUTURE - ENGINEER CAREERS IN THE PETROCHEMICAL INDUSTRY

This webinar was held online on Wednesday, 7 February 2018 at 17:30 Central European Time, in English. 48 people attended it.

The purpose of this webinar was to give teachers, career counsellors, educational authorities and researchers an understanding of careers in the STEM field with the chemical and petrochemical industry. Two speakers from company members of the European Petrochemical Association (EPCA) presented their experience in their career paths and talked about opportunities in their sector.

The webinar was moderated and introduced by Maïté Debry, the STEM Alliance project manager from European Schoolnet. The STEM Alliance organises a series of webinars and online chats, the “STEM Careers and Skills of the Future series”, promoting STEM careers and studies. This promotion includes a better understanding of careers in the STEM field, the study paths that can lead to them, the key skills that are needed, and opportunities and challenges of these positions. For the purposes of developing a better insight into STEM careers, two STEM professionals were invited to join the webinar.

### SPEAKERS

**Paul Ruigt, Category Manager Shipping & Barging Petrochemicals, Supply Chain Liquids Europe, SABIC**



**Paul Ruigt** was born in Sittard, a small town in the Netherlands, in 1982. He studied Industrial Engineering and Management Science at Eindhoven University of Technology (NL). As part of the curriculum, Paul went to the Kungliga Tekniska Högskolan in Stockholm (SE). In 2006, he graduated after completing his thesis at Uniqema (ICI) in Gouda (NL). Thereafter, Paul returned to his hometown Sittard to join SABIC and started working within the company’s procurement department. His career path led him via various supply chain roles to his current role as Category Manager for Shipping & Barging for Liquids.

**Jochem Meijknecht, Commercial Manager, LyondellBasell**



**Jochem Meijknecht** is a Commercial Manager responsible for commercial and operational activities of the LyondellBasell Propylene system in Europe. Together with a team of seven, he coordinates the sales from 4 crackers and purchases for 11 polypropylene and 3 propylene-oxide plants. Having joined LyondellBasell in 2014, he previously held the role of Business Consultant for the Global Gasoline Components team. Jochem holds degrees in Finance and International Relations, and worked for 3 years at the Netherlands Institute of International Relations.

**Ingrid Schellens, Corporate Recruiter, SABIC**

## SUMMARY OF DISCUSSION

Paul Ruigt is Category Manager for Shipping & Barging for Liquids at SABIC. In this role, he is responsible for commercial contracts with ship owners, who transport products for SABIC, particularly those who transport products from the Liquids category. He highlighted how shipping is an interesting business for people with a technical background, because there is a lot of technology and innovation involved. He shared some insights about his personal and educational background, experience in school, and how he developed an interest in engineering. In secondary school he was good in physics, mathematics and chemistry, while he was also interested in economics, business and commerce. Therefore, he chose to undertake university studies that combined these interests: the Industrial Engineering and Management Science course at Eindhoven University of Technology allowed him to combine technology, business and economics. He specialised in logistics in a production environment. For his graduation project, he designed a planning control model in a chemical production environment.

He started his career in a quite different role from his initial interest. This allowed him to further explore and specify his professional goals. He changes positions within SABIC every few years and experiences that STEM professionals are needed increasingly in the labour market. For instance, in the shipping business, innovators are needed to work out a way for ships to move around the globe with reduced CO<sub>2</sub> emissions. He also sees that as an engineer you can always develop yourself further at your job, cultivating not only technical but also soft skills, business and managerial skills. There are many people from a technical background who currently occupy high level managerial positions. Nevertheless, to become successful in this business, one needs a

good combination of strategic thinking, creativity, conceptualisation skills and pure technical knowledge of chemistry and physics.

Ingrid Schellens, corporate recruiter at SABIC, shared how the company aims to attract students by creating internship placements, sponsorships, career days and other activities. SABIC targets the secondary school population as well as university students. An example is JETNET, a career day event for high-school students organised by a cooperation of companies, education and government. The goal of this event is to provide students with information about science and technology and to make them interested in follow-up studies in these disciplines.

Jochem Meijknecht started by pointing out that the chemical industry might not seem the most appealing to high-school students, but is in fact a very exciting industry with many compelling puzzles and challenges. He studied International Relations at the University of Groningen, a multidisciplinary course involving politics, economics and law. This multidisciplinaryity helped him recognise that there are various perspectives from which a problem can be solved. In his first job after his studies, he got the motivation to develop more practical skills and so he joined a graduate course in Finance. He occupied positions in various fields, such as investment banking, before he realised that he would prefer to work in a company that has tangible assets and where one can see what is actually produced. He is currently a Commercial Manager at LyondellBasell. In this position, he is responsible for managing the infrastructure and contracts concerning propylene flows across Europe between production site and consumption sites. The biggest challenge of his everyday work is to optimise these flows.

Most of the people he works with are engineers. He believes that a large majority of the opportunities at his company require people from a STEM background. In the petrochemical industry today, there is a tendency to look for solutions that tackle more than just efficiency.

The petrochemical industry needs professionals with innovative and creative skills to look for sustainable solutions for issues that associate the sector with a negative image. He explained that teachers and professionals have a key role in convincing young people to join the STEM field, because once you are in it, you will develop a passion for it. Moreover, opportunities for engineers are constantly increasing and the right technical skills will lead to successful careers. At later stages of your career, the opportunity might arise to do an MBA and expand your skills further in different but essential disciplines.

The webinar also gave teachers the opportunity to put their questions to the STEM professionals, leading to interesting insights on STEM careers. It is essential to have a varied skillset in the STEM field: soft skills, like team working skills, analytical skills and knowledge of business and finance, along with key technical skills. It is crucial that teachers show their students that there is a future for them in STEM professions. When asked what the biggest challenges in their jobs are, the professionals pointed to the difficulty of keeping a long-term perspective among all the daily operational problems, as well as balancing professional and

private lives. They believed that school could be conducive to a career in engineering, as students generally pay attention to subjects that they notice they are good in and in turn they become even better in these subjects and even more interested.

You can find the recording of the webinar here: <https://youtu.be/JPjKKKzSf4>.

The STEM Alliance will publish career sheets based on content picked up from the webinar and drawing on the experience of STEM experts, for the specific career profile presented in the online webinar. Stay tuned on our website.

## ABOUT EPCA

The European Petrochemical Association (EPCA) is the quality network in Europe for the global chemical business community consisting of chemical producers, their suppliers, customers and service providers. They operate for and through more than 700 member companies from 54 different countries. EPCA serves as the platform to meet, exchange information and transfer learning, as well as a think tank for its members and its stakeholders. EPCA promotes STEM education, with a clear focus on gender and diversity inclusion. EPCA develops awareness-raising activities to increase young people's engagement with chemistry and the chemical industry. In the same direction, they have produced several educational films highlighting the multidisciplinary approach and the variety of challenging career paths that the chemical industry offers.

Relevant links:

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