ChemSkills

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Consortium Gathers in Brussels to Advance Skills for a Sustainable Future

Dear reader,

Welcome to this brand-new issue of the ChemSkills newsletter, which regularly updates you on the latest developments of the project.

Earlier this month, the ChemSkills consortium convened in Brussels for its bi-annual in-person meeting, reaffirming its shared ambition to bridge the skills gaps within the European chemical industry. The two productive days allowed partners to realign visions, exchange best practices, and take concrete steps forward into the next project phase.

The meeting also featured insightful contributions from Frans Stokman, Executive Director of Petrochemicals Europe (Cefic), who discussed the current state of the European chemical industry and the urgent need to ensure a competitive, resilient, and sustainable industrial future for Europe. Additionally, Naïs Habermacher, Project Officer at EACEA, provided key guidance on the project's administrative aspects.

We would like to extend our sincere thanks to EuPC for their flawless organisation and to all participants for their active engagement.

Enjoy the reading, and stay tuned for more updates as we move forward on our journey toward a greener, more digital future for the chemical industry!

Best regards,
The ChemSkills project management team

We’re launching the Future Skills Survey!

The ChemSkills project is launching the Future Skills Survey – and we want YOU to be part of this industry-shaping initiative!

Your active participation in this survey is essential for evaluating current trends, understanding the drivers of change, and identifying the skills and competency needs across sectors. By sharing your insights, you will play a crucial role in bridging the gap between skills requirements and available training opportunities.

Join us in shaping the future of the chemical industry!

Your data will be anonymised and used responsibly

Click here!

Interview with

Wim de Boer

We have the pleasure of speaking with **Wim de Boer, a representative of the University of Twente, where he serves as Program Director of Industrial Design Engineering** and is also deeply involved in the university's Lifelong Learning strategy.

As part of the ChemSkills project we're exploring how to deliver high-quality, practical training in emerging green and digital skills, specifically tailored to the chemical industrial sectors. These training programs are designed for a wide range of learners, from young professionals starting their careers to experienced managers seeking to broaden their expertise.

With his background at the intersection of education, innovation, and lifelong learning, Wim brings valuable insights into how universities like Twente are preparing professionals for the challenges of the future. We're excited to hear his perspective.

Q: Given the diverse backgrounds of our participants and the fact that training providers come from different organizations and countries, one of the main challenges is ensuring that the language used is engaging, accessible, and easily understood by all. Do you have any recommendations on how to achieve this?

Wim: A diverse group of students/participants and trainers from different cultures and languages is indeed challenging. The quality of the learning materials is key. That includes language, format, and the use of media (videos and images); it should be understandable for all users. The best way to ensure this is to test it with the variety of users you aim for. There are several ways to assess the quality of learning materials, ranging from expert reviews to piloting. These approaches require resources (time and money) but will increase the impact of the learning materials.

Another important aspect is the instructional materials for trainers (if that is also part of the learning design). Here, the same applies: the materials should be very clear. You might consider including variations in instructional approaches to accommodate cultural differences and improve the learning experience. Additionally, integrating formative design approaches into the process allows material designers to learn how the materials are used and make improvements, ultimately enhancing quality and impact.

Q: Since the training will be hosted on a digital platform, we have the opportunity to integrate interactive digital tools to enhance engagement and maintain participants' attention. What strategies would you suggest to make the digital training as effective as possible?

Wim: If the learning materials are designed for self-study, several strategies can engage learners and improve their learning experience:
Enabling students to learn at their level, ensuring the content is neither too easy nor too difficult. Digital

tools could assess learners' proficiency and align learning materials accordingly.
Offering students choices fosters a sense of ownership and motivation. Providing choices also helps students relate content to their individual needs. Feedback is a strong learning mechanism, and digital learning environments can support this. After learning about new theories, concepts, or models, students should have opportunities to test their understanding. Ideally, feedback should not only indicate correct or incorrect answers but also provide insights into why an answer is correct and, if wrong, what the mistake was and how to improve.

Q: We want to avoid making the training feel impersonal or overly standardized. Instead, we aim to create a sense of human connection, as if participants were in a classroom interacting directly with the instructor. How can we achieve this?

Wim: Learning in a community and social setting helps students feel more motivated. It also fosters a sense of belonging and provides peer support. The design of the (digital) learning environment should facilitate this. MOOCs offer examples, where large groups of students work online at a similar pace, allowing interaction, collaboration, and discussions. You could also incorporate learning activities such as: "Find someone in your student group with an example of X (a new concept) covered in lesson Y, discuss, and do activity Z." These type of activities make use of the fact that students with similar backgrounds are studying the same (at the same time) and can be "rich resources" for each other.

Additionally, the learning environment should function smoothly, as technical issues can create barriers to engagement. In traditional classrooms, instructors provide additional support, but in an online environment, clarity and seamless navigation are essential.

Q: In today's rapidly evolving world, training content may quickly become outdated. However, we will not have the capacity to conduct frequent updates. How can we address this issue to ensure the material remains relevant?

Wim: This is a tricky issue. You could identify more stable content that is unlikely to change and distinguish it from evolving topics. At the very least, indicating this distinction and providing students with suggestions for further reading can help.

It would be ideal to have a team responsible for updates to ensure the materials remain relevant. This includes maintaining links, interactive elements, and correcting errors. Would it be possible to partner with a commercial entity that uses the materials in exchange for maintaining them? Another approach could be a "wiki-style" system, where the source materials are open for updates by contributors. However, this would require a solid administrative framework, similar to Wikipedia. I am not sure if educational services exist that already support this approach.

Q: All training providers are involved in multiple activities, which can make it challenging to keep them engaged and proactive. How can we effectively communicate the importance of this initiative and encourage their active participation?

Wim: You can explain the educational approach you have chosen and how participants can work with it, emphasizing the benefits. Ultimately, engagement depends on individual participants. If the topics are highly relevant and the learning approach is effective and manageable, engagement is likely.

You might also consider allowing participants to focus more on certain themes based on their relevance, offering additional exercises, readings, and references to support this flexibility.

Q: How can the University of Twente benefit from this initiative?

Wim: The learning materials will serve as a valuable reference for our students, although (as I understand) they are not at the level of our BSc programs. Our efforts to contribute to the digital and green transition, along with the chemicals strategy for sustainability in the chemical industry, may generate interest among participants and their colleagues in what UT has to offer, e.g. our BSc and Master programs, and of course our EngD programs. Also, we are currently exploring ways for professionals to participate in our MSc courses, which could be interesting for participants of their colleagues.

More broadly, working in this field and making meaningful contributions align with our university's mission. As a fourth-generation university, we aim to maintain strong connections with regional, national, and EU-level initiatives, as well as address key societal challenges.

ChemSkills Consortium Meets in Brussels

On 1–2 April 2025, the ChemSkills consortium met in person at the headquarters of the European Plastics Converters (EuPC) in Brussels. The two-day meeting brought together representatives from across the partnership to review project progress, coordinate upcoming activities, and exchange on key developments in the field of skills for the chemical sector.

The agenda featured presentations from several work packages, including:

- **WP2 – Impact and Dissemination,** led by NEWTON University
- **WP3 – Sectoral Skills Intelligence**, led by VSB–Technical University of Ostrava
- **WP4 – Training Development and Delivery**, led by the University of Twente

In addition, partners participated in focused sessions covering plastics, pharmaceuticals, fertilisers, rubber, consumer chemicals, and petrochemicals. Discussions also included cross-cutting topics such as stakeholder engagement, project coordination, and planning for future project phases.
These face-to-face exchanges remain essential as the project moves into its next stage, strengthening collaboration and ensuring alignment across the consortium.

STEM Talents for the EU Competitiveness Compass

Reclaiming the EU Competitive Edge

On 4 March 2025, ECEG and the Association of Nordic Engineers (ANE) celebrated the World Engineering Day at the European Parliament with an event fully dedicated to STEM.
Hosted by MEP Annalisa Corrado, the breakfast session titled **"STEM Talents for the EU Competitiveness Compass – Reclaiming the EU Competitive Edge"** focused on the critical shortage of STEM talents and its implications for European strategic autonomy and global competitiveness.

The two organisations jointly called for the **re-establishment of the STEM interest group within the European Parliament** to tackle key challenges facing the European chemical industry:

- Tough global competition, given by several factors, including higher EU energy costs in comparison with other countries, such as the US,
- Heavy regulatory burden on companies,
- The need for greater adaptability and innovation for the twin transitions, and
- Persistent labour shortages and skills gaps, particularly in STEM fields.

ECEG also presented the ChemSkills project as a key initiative helping to tackle these challenges. Our EU co-funded project supports skills intelligence in the chemical sector by identifying gaps between industry needs and current education and training offers and by designing tailored training programmes focused on green and digital skills.

Read more about the event

University of Twente Showcases ChemSkills Project at Tire Technology Expo 2025

We're proud to share that our partners from the **University of Twente** recently represented the **ChemSkills project** at the **Tire Technology Expo 2025** in Hannover. This internationally renowned event is one of the world's premier gatherings for tire design, development, and manufacturing, bringing together over 300 exhibitors and thousands of professionals from across the automotive and materials sectors.

ChemSkills, a European initiative aimed at strengthening skills and innovation in the chemical sector, took the spotlight as part of the university's commitment to future-proofing education and workforce development. The presence of ChemSkills at such a prominent international event highlights the importance of lifelong learning, digital upskilling, and cross-sector collaboration in the future of sustainable manufacturing and materials science.

stay tuned for more news...

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