

Be prepared for change! – Results of ECEG’s EU projects

**MAVESZ – Chemical Vocational Education Conference:
“New skills and competences for the future of chemistry”**

26 March 2024



Emma Argutyan, ECEG’s Director General

Who we are?

The European Chemical Employers Group (ECEG)...

...represents the Employers' interests from the **chemical, pharmaceutical, rubber and plastics industries** in Europe.

...is a **recognised social partner** and a consultation body of the European Institutions.



Credit: Cefic

On the Road to Climate Neutrality 2050 – the Role of Social Partners in the Decarbonisation of the Chemical, Pharmaceutical, Rubber and Plastics Industries

Objectives:

- To develop scenarios regarding technological pathways and their impact on companies and workers in the decarbonisation of the industries.
- To identify main topics for social partners in this context.
- To develop tools and recommendations for social dialogue in this context.
- To increase the level of trust between social partners and enhance the quality of social dialogue by working and developing scenarios and solutions together.



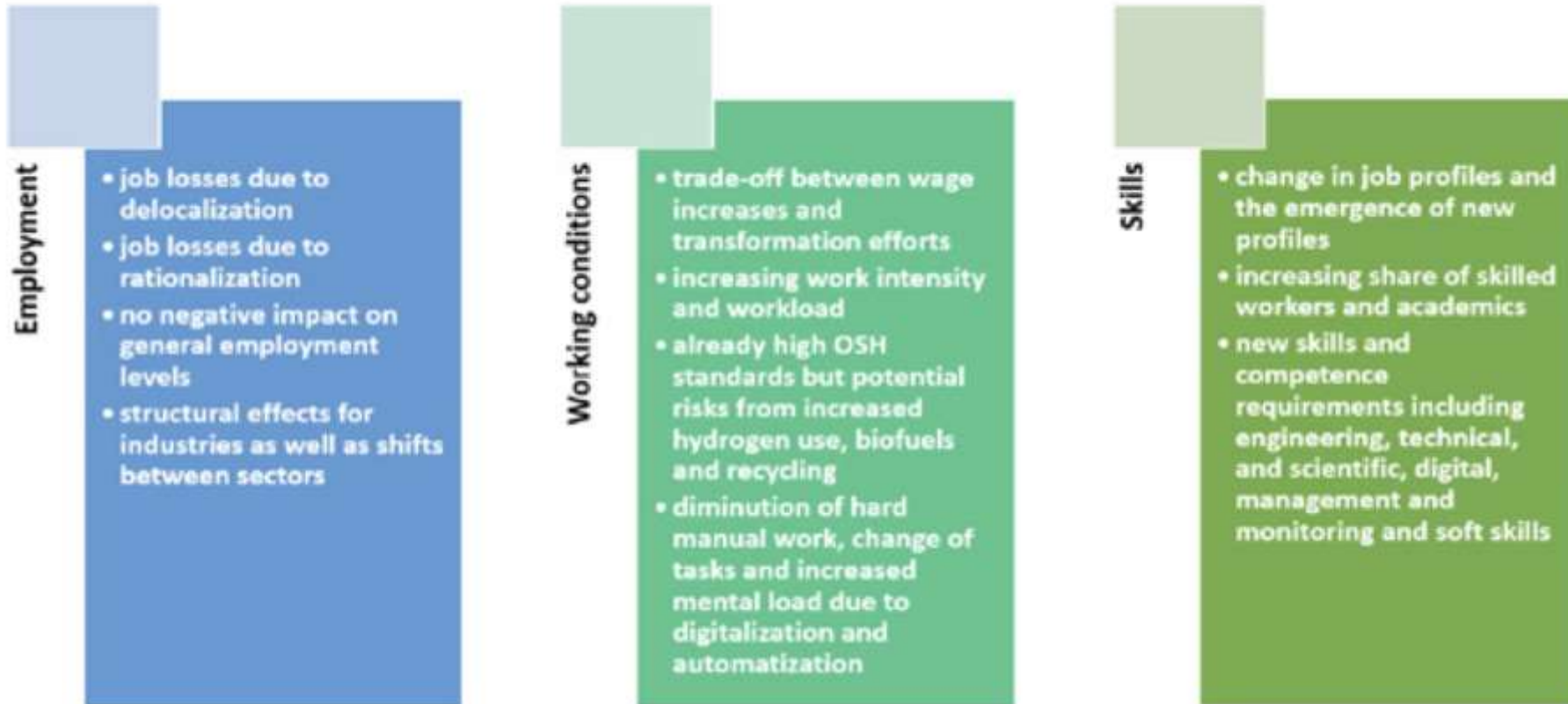
Start date: February 2021 / **End date:** May 2023

Project partners: [industriAll European Trade Union](#) (main applicant) and ECEG (co-applicant)

Skills development and strategic workforce planning at Michelin

Against evolving skills requirements, in 2018, Michelin established a new 'Managing and Developing People and Skills' process being sustained by a strategic workforce planning process (SWP), updated in 2021. The process is managed by the Group Competency Managers, each of whom is in charge of one skills-set (competency) leading to the creation of two new positions, Development Partner and Skills Manager. The SWP consists in identifying the potential risks involving the Group's skills and workforce needs over the next five years and recommending solutions to address them, covering job families for which the Group Competency Managers have identified issues requiring a response (due to a new organisation, significant changes in a job family or skill needs, etc.) (Michelin 2020b).

Overview of the impact on employment, working conditions and skills



Overview of skills and competence needs on the way to climate neutrality

Engineering, technical and scientific skills	Digital skills
<ul style="list-style-type: none">• applied biology, chemistry and electromechanics• applied thermodynamics, mechanics, and aeronautics• scientific and mathematical skills• (renewable) energy technologies and design• energy-saving• process optimization, with an environmental focus• product design (“safe and sustainable-by-design”)• materials science• technical-scientific interface competencies• research and development expertise	<ul style="list-style-type: none">• industrial IoT technologies (e.g., connectivity, smart metering, predictive maintenance)• robotic process automation technologies• cyber & application security technologies• augmented reality• programming• data science: artificial intelligence and big data• principles of process simulation / digital twins• machine learning• data processing and analytics



Management and monitoring skills

- lobbying and influencing
- permit and grant application
- sales and marketing
- managerial agility
- life-cycle management and analysis, lean production and cooperation with external actors, including customers
- sustainable energy management (demand vs. supply) & monitoring
- technical standards and legal aspects
- environmental impact quantification and monitoring
- economic and financial modeling
- social impact analysis
- leadership
- change and transformation management
- stakeholder management
- quality management
- energy management
- sustainable & customer-oriented product and material design

Soft skills

- design thinking
- creativity
- adaptability, resilience and flexibility
- ability to work in a team
- ability to cooperate and communicate
- analytical understanding and ability to abstract
- responsibility
- critical & ethical thinking
- decision-making skills (based on data / assistive technologies)
- systems thinking / process thinking throughout the different steps of the production process
- creative and innovative thinking
- entrepreneurship
- willingness to learn
- scenario thinking
- flexible planning & organisation
- (agile) project operation
- coaching & training
- participative techniques
- multidisciplinary collaboration
- intercultural and language skills, international experience
- communications and media expertise
- self-development



Promoting training and education

Training for sustainability at Evonik

Methodological competence training is offered at Evonik. There are tutorials, online training courses and digital “Evonik Learning Hours” in which up to 2,000 employees participate. The topics of sustainability and climate are also integrated into standard management training courses. New works councils are encouraged to address the issue. Actors, such as employee representatives on the supervisory board, must be qualified so that they can participate in internal and external discourse (Source: interview).

International training network at Pirelli

As “to innovate is to keep learning”, Pirelli has established an extensive training network across all countries where the company is present. Ten Professional Academies - among others the Manufacturing Academy and R&D Academy - play an important role in the company’s technological development. Sustainable Management elements are transversal throughout the Academies, with a focus for example on environmental efficiency of the process, health and safety, sustainable management of the supply chain, risk management and diversity management (Pirelli 2020).



FINAL REPORT

On the Road to Climate Neutrality 2050

– the Role of Social Partners in the Decarbonisation of the
Chemical, Pharmaceutical, Rubber and Plastics Industries

Final report:
[EN], [HU], [DE], [FR], [IT], [ES]

Identifying and Meeting Digital Skills Needs in the European Chemical, Pharmaceutical, Rubber and Plastics Industry



With the financial support
of the European Union

Objectives:

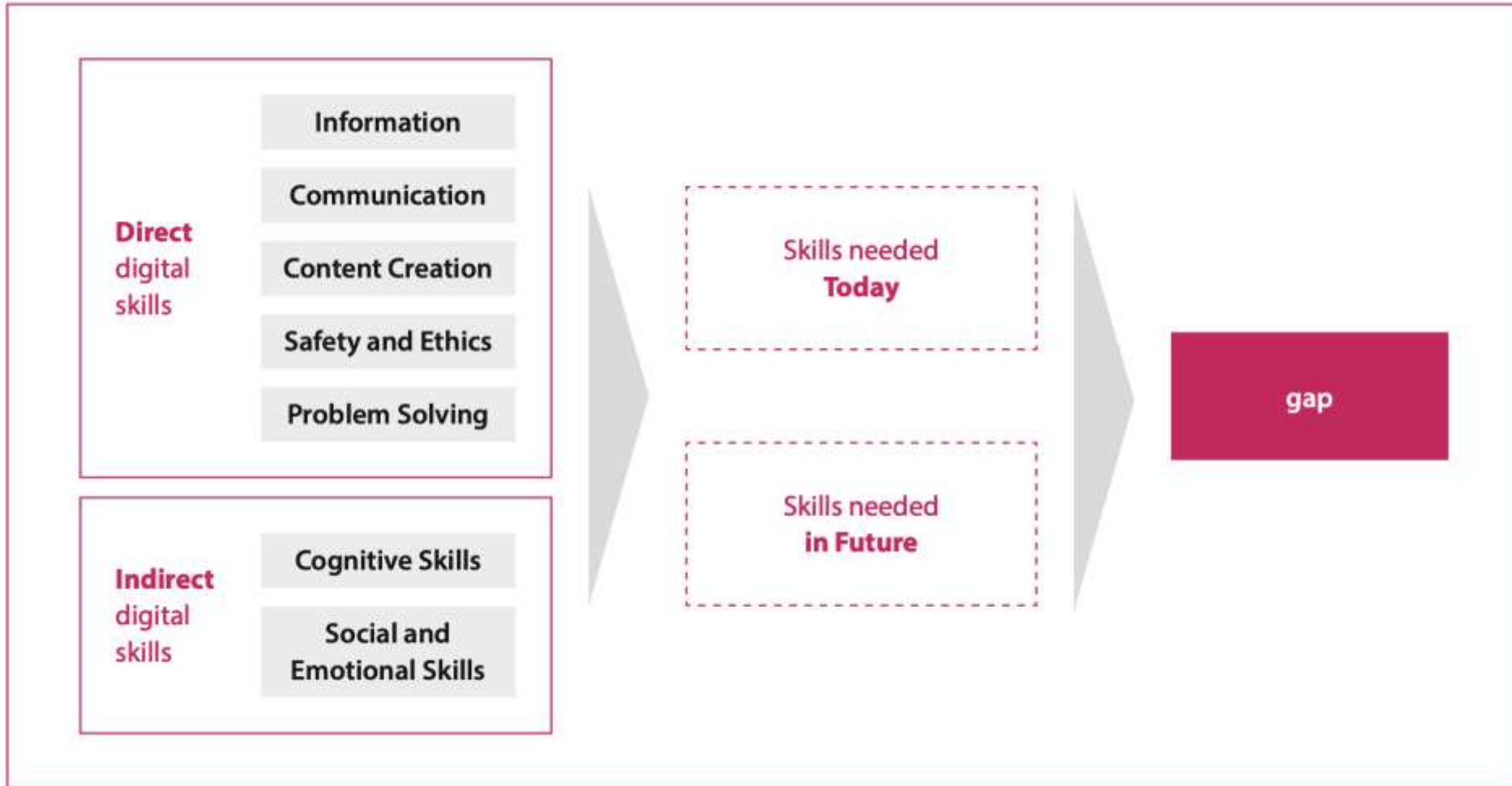
- To identify advanced and specific digital skills currently needed.
- To anticipate skills set for the future on all levels of the workforce (workers, managerial staff, employers).
- To develop new skills profiles, amend the existing ones and devise general frameworks for upskilling training on the basis of the above-mentioned analysis.
- To develop strategies that would help to amend existing curricula of universities and Vocational Training Institutions.

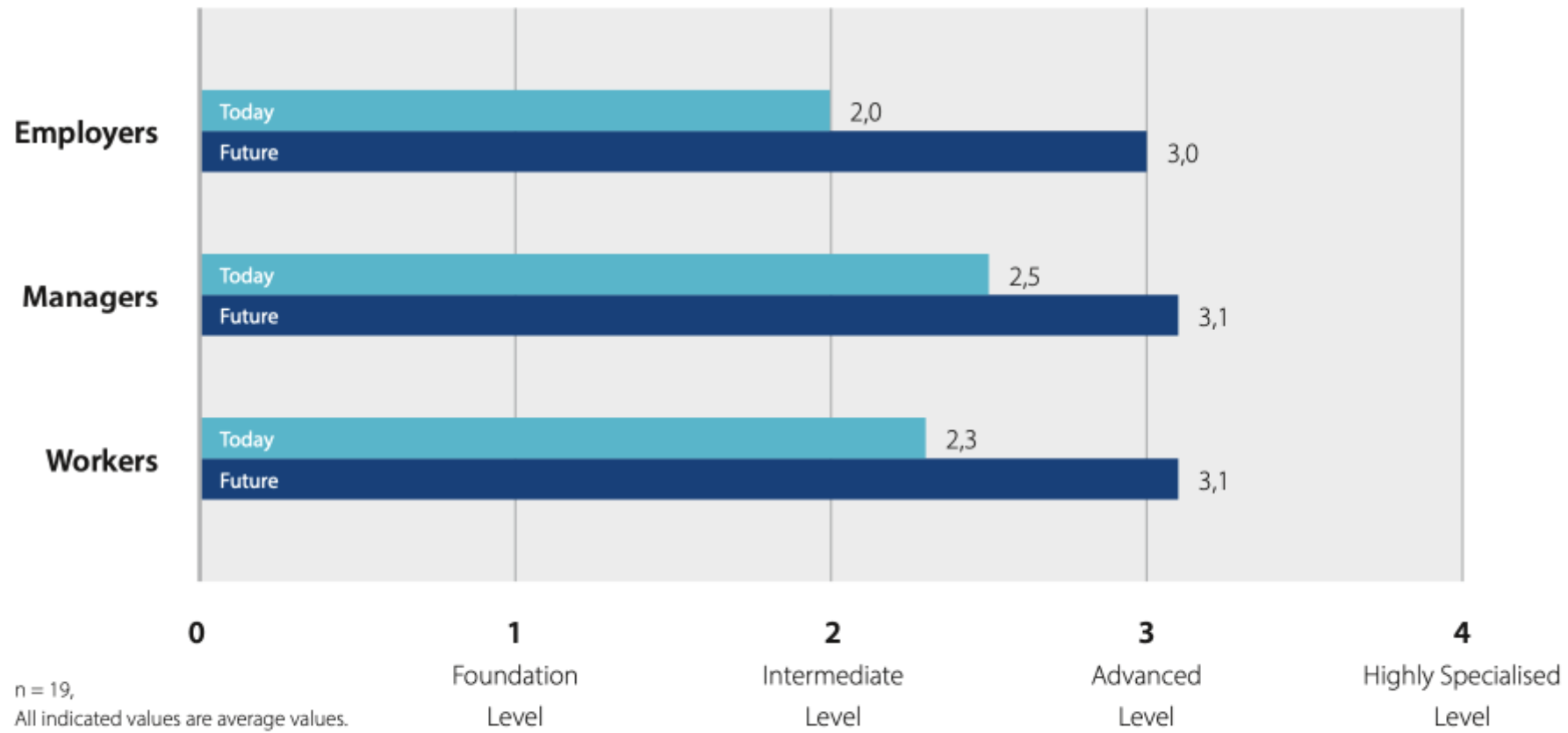
Start date: January 2020 / **End date:** October 2022

Project partners: ECEG, [FECCIA](#) (European Federation of Managerial Staff in the Chemical and Allied Industries) and [Ledarna](#) (Swedish Federation of Managerial Staff in the Chemical Industry)



Skills gaps





SURVEY

Digital Skills Needs in the European chemical, pharmaceutical, rubber, and plastics industry



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[Survey \[EN\]](#)

REPORT

Identifying and Meeting Digital Skills Needs in the European Chemical, Pharmaceutical, Rubber, and Plastics Industry

Darwin: "It is not the strongest of the species that survives, nor the most intelligent. It is the one that is the most adaptable to change."



ledarna
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[Report \[EN\]](#)

[Curricula Framework for Academia and Vocational Training Institutes: \[EN\], \[DE\], \[ES\], \[FR\], \[HU\], \[IT\]](#)

[Curricula Framework for Employers: \[EN\], \[DE\], \[ES\], \[FR\], \[HU\], \[IT\]](#)

[Curricula Framework for Managers: \[EN\], \[DE\], \[ES\], \[FR\], \[HU\], \[IT\]](#)

[Curricula Framework for VET Courses for Workers: \[EN\], \[DE\], \[ES\], \[FR\], \[HU\], \[IT\]](#)



Thank you for your attention
The European Chemical Employers' Group