ITS NUOVE TECNOLOGIE: A LINK BETWEEN EDUCATION AND CHEMICAL INDUSTRY



ITS Nuove Tecnologie della Vita

The chemical industry

The chemical industry is in the midst of significant change:

Artificial Intelligence

Biotechnology

Developments of products

New ethic approach

Raw materials from natural sources



Green Transition

The role of skills and education in the green and digital transition of the chemical industry is to make it resilient to market disruptions and problems with the value chains.



INDUSTRY AND EDUCATION SYSTEM ARE GOING TO LIVE A CRESCENT MISMATCH FOR SUPPLY AND DEMAND.

KEY COMPETENCES ARE GOING TO DEVELOP A NEW PROFILE ROLE APPROACH, MOVING TO IPER SPECIALIZATION

Starpara -



uove Tecnolo



Education

The system education must quickly adapt to the new technological and training challenges:

New approach in reaching young guys

A good background in the Chemistry field with digital competences

Market trend: iper specialization



Education

System thinking is one approach that shows promise in advancing chemistry education from fragmented knowledge presenting to understanding more holistically how chemical reactions and processes are part of larger Earth and societal systems.

Figure 2. Chemical companies can use the four levers of transformation to prepare for the future



Strategizing and transforming...

Sustainability as a way of business

Accelerated energy transition impacting work

Digitalization transforming work Integrated human-tech collaboration

Recoded careers to build workforce of the future

Career paths to meet future employee needs

Work

Changing end-market patterns

Workforce

Challenges attracting talent

...for the industry of the future

Organizational agility for new business models

Evolved contracting, variabilized processes, and servicing for agile organization

Workplace

Changing workplace setting

WHILE CONVENTIONAL CHEMICAL STUDIES AND TECHNICAL SKILLS WILL LIKELY STILL BE CRITICAL, **A CONFLUENCE OF THE TRADITIONAL AND NON** SOURCES TO BUILD AND NURTURE TALENT CAN HELP TO CREATE THE TALENT POOL NECESSARY TO **COMPETE INTO THE FUTURE.**





Technical Superior Institutions

Technical Superior Institutions are getting more and more importance.

University will create ideas and TSI will put ideas in practice.



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Collaboration with industries is such a crucial and winning approach that we really need to make it the base for our teaching.

For our TSI, teachers should origin from Industries rather than academic environment, and this is what we are already following.

Green Economy course

The TSI course in **Green Economy** is our new pathway to improve the green skills and to support the companies in the transition process to a **Sustainable Chemical Industry**.





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