CATALYST PROSPECTUS

A CATALYST PUBLICATION

CATALYST

Leading sustainable systems and business transformation

Second Edition
December 6, 2024

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PUBLISHER
INSTITUTE FOR RESEARCH IN ENVIRONMENT, CIVIL ENGINEERING AND ENERGY

DREZDENSKA 52, SKOPJE
N.MACEDONIA
00 389 2 30 91 931
INFO@IEGE.EDU.MK
WWW.IEGE.EDU.MK

CATALYST PROSPECTUS MAGAZINE
SECOND ISSUE
DECEMBER 2024

LETTER FROM OUR EDITOR

Welcome to the Second Issue of CATALYST Magazine!

Dear readers,
It is with great excitement that we welcome you to the second issue of the **CATALYST Magazine Prospectus!** This edition brings you closer to the big picture—bold ideas, actionable insights, and inspiring initiatives to help us tackle the challenges of our time and seize emerging opportunities.

We start with a feature on COP29, where groundbreaking technical and financial solutions are setting the stage for transformative climate adaptation projects. Scaling up green initiatives has never been more critical, and we delve into how innovative approaches are bridging the gap between traditional financing and cutting-edge green technologies.

This issue also highlights the CATALYST Platform, designed to empower businesses, individuals, and organisations to navigate the green transitions. Moving forward, we introduce the Business Pilot Project, an exciting initiative that brings together collaborators to solve real-world sustainability challenges while driving impactful, long-term change.

Additionally, we showcase the opportunities offered by the CATALYST specialisation programmes—tailored to help you build expertise in sustainability, innovation, and leadership. These programmes provide a chance to enhance your skills, deepen your knowledge, and collaborate on applied research with industry experts and professionals.

Finally, we explore the European Climate Pact's sustainability goals, examining how we can collectively support these ambitions through education, action, and innovative solutions.

This issue is packed with insights and opportunities designed to inspire and empower you. As you read through, we hope you feel motivated to take your next big step toward a more sustainable and impactful future.

Warm Regards

The CATALYST team

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YOUTUBE

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CATALYST

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FEEDBACK

PERSPECTIVES

Insights into ideas that are essential for Leading Business Sustainability and VET Excellence Centres Vocational Training

COP29 NOVEMBER 2024 CONVENTION

Author: Phoebe Koundouri

From 11 to 22 November 2024 the 29th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, better known as COP29, took place in Baku, Azerbaijan. Delegates from around the world gathered for two weeks of crucial negotiations, dynamic discussions, and global collaboration, all aimed at addressing the climate crisis with urgency and ambition.

The global stocktaking at COP28 had underscored the urgency of enhancing climate action towards achieving carbon neutrality. By systematically examining potential changes in global climate governance, countries can unlock the potential for action across various levels and actors. The international cooperation of governments, researchers, experts, businesses and stakeholders is more crucial than ever for transforming global climate governance.

Below we share some key discussion points during the COP29, relevant to sustainable business transformation, as reported by the AE4RIA team—affiliated with Athens University of Economics and Business, Technical University of Denmark, Athena Research Center, and UN Sustainable Development Solutions Network - Global Climate Hub.

Working towards achieving the targets sets for the Sustainable Development Goals (SDGs) is the vehicle to promote transformative solutions that support such transitions, particularly in response to the escalating challenges posed by climate change. In this context we would like to highlight three dimensions:

Subnational investments to drive climate mitigation and adaptation.

Despite some progress at the international level, a significant funding gap persists, with only a small portion of climate finance reaching local levels where most solutions are implemented. Increasing investment at the subnational level—targeting states, regions, cities and municipalities—is essential for effective climate action, as these actors are well-positioned to implement locally-tailored solutions. Considering the negotiations on the New Collective Quantified Goal on climate finance (NCQG), subnational investments can become a real game-changer. To this end, the United Nations Climate Change Global Innovation Hub (UNCC-GIH) launched the City Challenge; aimed at engaging, mobilising and empowering cities to address their most pressing sustainability challenges. The City Challenge, which is open not just to cities but also rural areas, is launched in collaboration with UNSDSN, X Prize, Global Covenant of Mayors, International Council for Local Environmental Initiatives (ICLEI) and Global Enabling Sustainability Initiative (GESI). It will run over a 10-year period and provide a prize of 1 billion USD for a Gigaton of GHG emission reduction.

Innovative technical and financial mechanisms to support transformative adaptation projects.

Building resilience in EU regions requires a strong emphasis on developing technical and financial mechanisms to support transformative adaptation projects. Addressing the gap between traditional financing and green technology projects is crucial for scaling up climate initiatives. Innovative financial instruments and funding schemes are needed; that also includes private sector investments and research contributions in sustaining long-term climate actions. Robust Adaptation Investment Plans must align with strategic financial planning; these financial solutions and novel funding instruments should support these efforts.

In particular, natural capital needs to be taken into account as a financial asset to enable developing and emerging nations in the global south access affordable finance to support their mitigation and adaptation efforts.

Growing demand for green and digital skills.

Investing in education and training is critical for equipping the current and future workforce, particularly women and youth, with the necessary skills to thrive in the evolving green economy. For instance, the solar and storage sectors demand specific technical and digital expertise to meet the requirements of the energy transition, which means that local manufacturing capabilities must be enhanced for developing a skilled renewable energy workforce.

The 2030 Agenda for Sustainable Development, alongside the EU's Twin Transition strategy, aims for climate neutrality by 2050, highlighting the growing demand for green and digital skills. This was in the focus of the AE4RIA - HUAWEI White Paper, titled "Twin Skills for the Twin Transition" that identifies essential skills for net-zero technologies and emphasises the role of Technical and Vocational Education and Training (TVET) systems in addressing the skills gap. Aligning green and digital competencies with industry needs and market demands is vital for achieving the goals of the net-zero economy.

As a closing and overarching remark, we must emphasise the importance of measuring, monitoring, and assessing the performance of Sustainable Development Goals (SDGs) across various sectors and scales, as this can assist decision-makers to achieve SDG targets at both national and international levels.

RESOURCES

Practical ideas and insights from other platforms for assistance

THE CATALYST PLATFORM

Pande Pop-Antoska, IECE

The Erasmus+ CATALYST project has established a dynamic platform for promoting sustainability and green transition functioning as a digital hub, open to all professionals and students interested in sustainable transformation no matter their background; providing education, resources, and networking for individuals and organizations aiming to build sustainable business practices. The platform plays a key role in empowering students, professionals, and SMEs to respond effectively to Europe's climate and digital transformation goals.

The CATALYST platform offers a comprehensive set of resources focusing on sustainable business transformation and vocational excellence. The platform aims to support its users through a mix of educational tools, collaborative networks, and access to tailored content designed to inspire, enable, and facilitate sustainable practices.

The Magazine is a biannual open access online magazine offering practitioner perspectives on the topics.

Open to all professionals and students interested in sustainable transformation.

1. Enable: Focused on Vocational Education

The “Enable” component offers a comprehensive vocational program called “Leading Sustainable Systems and Business Transformation,” which is designed to enhance knowledge in sustainable business practices. This program includes more than 70 courses.

The platform also uses digital tools and gamification techniques, fostering interactive and engaging learning experiences. By making vocational education digitally accessible, CATALYST enables individuals from various sectors and regions to participate in sustainability-focused training.

2. Inspire: Resources and services for SMEs

SMEs play a critical role in the economy, and the “Inspire” component focuses on mentoring and resource-sharing for these organisations. Through a portfolio of resources (case-study best practices, glossary, guidelines, self-assessment tool, templates, tips and tricks) and services (coaching, consultancy, ask an expert events, field trips) the CATALYST Platform assists SMEs in integrating sustainable concepts and practices into their operations. This mentorship extends to practical applications, helping businesses adopt sustainable innovations and strategies to contribute to Europe’s green objectives.

3. Connect: Building a Network of Sustainability Advocates

The CATALYST Network is an expansive community of like-minded professionals, students, industry experts, and academics. Members can connect with peers, share insights, and collaborate on sustainable initiatives. This community fosters relationships across various sectors, promoting knowledge exchange, collaboration, and joint problem-solving on key sustainability issues. Networking opportunities extend across Europe, providing a valuable platform for members to learn from diverse perspectives and participate in workshops and events.

4. CATALYST PROSPECTUS Magazine

The Magazine is a biannual open access online magazine offering practitioner perspectives on the topics of sustainability and management free of charge. The goal of the magazine is to support business transformation by providing helpful information, a space to share best practices, inspiration, and guidance. Serving as the foundation for a collaborative business community, the goal is to inspire and enable businesses to operate sustainably.

Impact and Vision

The CATALYST Platform envisions an outcome where businesses, professionals, and young talents are equipped with the skills and knowledge to lead in sustainable development. As the demand for green skills rises, this platform empowers its users to meet the challenges of digital and climate transitions, ensuring a future where European industries and SMEs contribute positively to global sustainability goals. It represents a forward-thinking approach to vocational education, business support, and sustainable transformation.

By joining the CATALYST platform, users gain a broad suite of resources tailored to support them in adopting sustainable business practices, enhancing personal competencies, and connecting with a supportive network of like-minded professionals and organisations across Europe.

...all are encouraged to participate in any way they can!

OPPORTUNITIES

Calls for networking activities or other internal and external possibilities

INVITATION TO COLLABORATE ON THE BUSINESS PILOT PROJECT

Victoria Funk, CSCP, Angelina Taneva-Veshoska, IECE

We invite organisations to join the CATALYST Business Pilot Projects, advancing sustainability through collaborative applied research and specialised educational programmes. The CATALYST Centre is set to foster partnerships between businesses and educational institutions, driving innovation, and addressing sustainability challenges through hands-on research and development.

What is the Business Pilot Project?

The CATALYST Centre for Sustainable Transformation fosters collaboration between industry and academia, with a strong emphasis on applied research and practical, tailored solution development for businesses. The centre invites professionals, businesses, and educational institutions to come together, share knowledge, and co-create innovative first solution steps. These projects can be implemented on both international and national levels.

How Can Your Organisation Participate?

The Business Pilot Project is an opportunity for strategic collaboration and knowledge exchange among established entities with a shared commitment to sustainability. Depending on your organisational priorities and goals, there are several ways in which you could participate:

Share Ideas or Propose Challenges

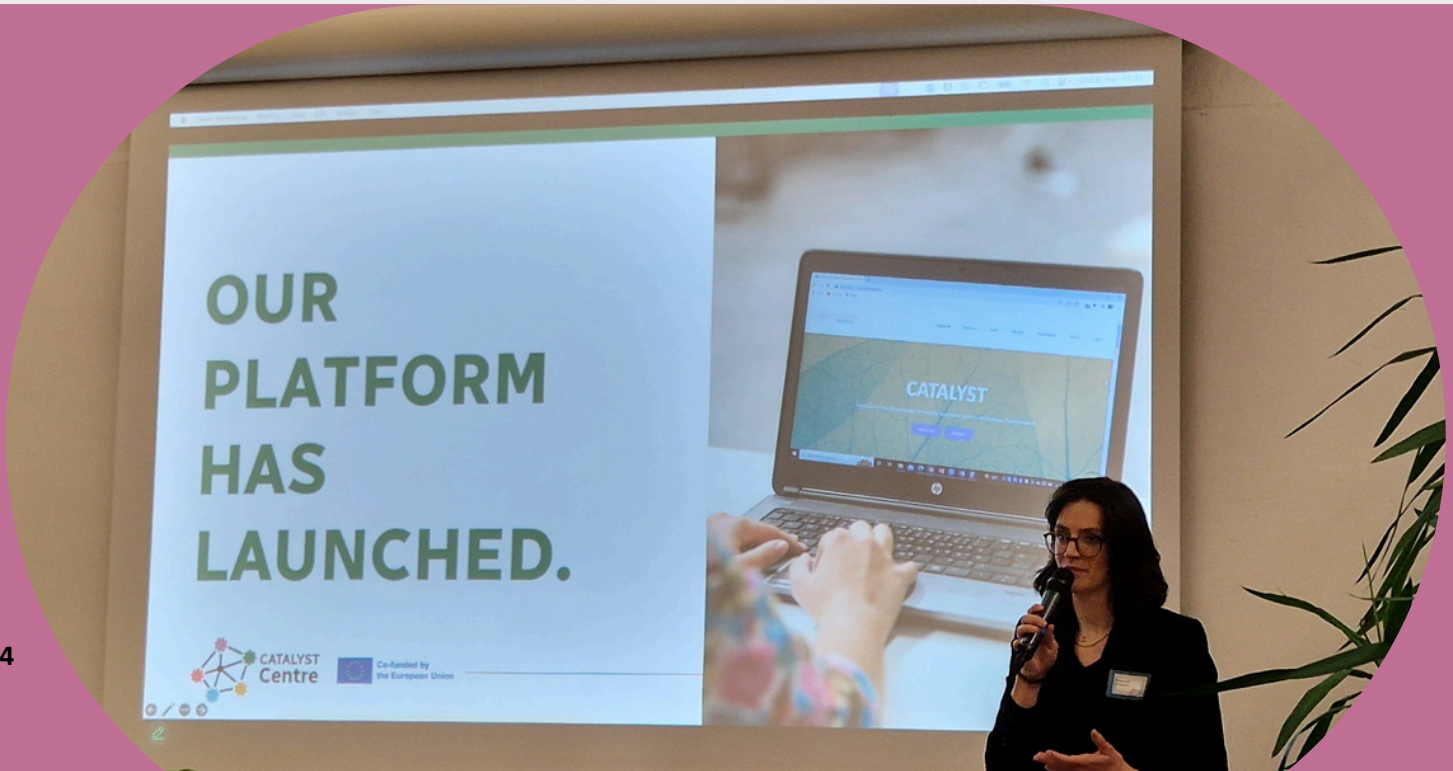
Propose a specific sustainability-related challenge to request support in developing tailored, evidence-based solution approaches through research and cross-sector collaboration.

Contribute to Pilot Projects

Collaborate on sustainability challenges by hosting a pilot project as a business partner, engaging academic experts, and applying impactful research outcomes.

Mentorship & Expert Guidance

Support future sustainability leaders as a mentor or by guiding participants in our Specialisation Programmes, gaining access to highly sought-after talents.



Key Benefits of Participating

Enhanced Networking and Collaboration Opportunities: Join a community of like-minded organisations and benefit from partnerships among academia and industry that foster joint learning and co-creating practical, evidence-based solutions addressing your organisation's sustainability challenges.

Access to Expertise and Capacity Building: Leverage insights from thought leaders and strengthen your team's sustainability knowledge and skills through related immersive, hands-on Specialisation Programmes.

Practical Solutions for Real-World Impact: Collaborate on business pilot projects to develop and test tangible sustainability solutions that can be scaled and directly integrated into your organisation's operations.

Moving Forward Together

We are keen to discuss how we can collaborate to achieve mutual goals and create lasting impact. If you are interested in exploring the various ways your organisation can get involved, please reach out to us at catalyst.erasmus2022@gmail.com.

We would be happy to arrange a meeting to discuss potential opportunities and next steps.

If you already have a specific sustainability-related challenge in mind that you would like to address through a Business Pilot Project, or if you want to share your fields of interest directly with us, we invite you to complete this short survey so that we can consider your enquiry in the screening process.

Thank you for considering this opportunity to collaborate. We look forward to partnering with you in driving meaningful sustainability change.

CATALYST Centre
Sustainable Transformation

BUSINESS PILOT PROJECTS

Bridging the gap between theory and practical implementation.

CATALYST Pilot Projects bring together businesses, students, and educational institutions to develop practical, sustainable solutions to real-world business challenges.

Project Scope

Duration: 1-4 months, based on business needs and complexity.

Focus: Sustainability challenges within the CATALYST specialisation themes.

Outcome: Practical solutions or decision-making frameworks.

Project Examples

- Circular Business Model Transition
- Carbon-Reduction Strategy
- Sustainable Product Design

Why Pilot Projects?

- **Test and implement** actionable solutions that drive both - business growth and sustainability.
- Facilitate **collaborative and cross-functional** problem solving
- **Strengthen partnerships** between businesses and educational institutions.

Approach

Evaluation

R&D

Problem-Solving

Participation Requirements

Participants must complete related Specialisation Programme courses and apply for limited spots, clearly demonstrating their commitment to collaboration.

Get Involved

Reach out to us at
catalyst.erasmus2022@gmail.com

SHOWCASE

Insights into the Catalyst project, centre, network and platform

ERASMUS INTERNATIONAL LAUNCH EVENT SUMMARY 2024-11-06

Author: Rhonda L. Bowen

OVERVIEW

The Catalyst Project Platform was launched, aiming to equip leaders with the necessary tools and skills for sustainable transformation. The platform, developed by 16 partners from across Europe, includes a broad range of online courses, a portfolio of resources and services, and a powerful international network of businesses, students, and educators. The conversation ended with a call for action, encouraging participants to sign up and start their learning journey on the platform, and to stay in touch for further discussions and networking opportunities.

Catalyst Project Platform Launch Meeting

In the meeting, the host, Flandra Syla Beqiri, welcomed everyone to the launch of the Catalyst Project Platform. She emphasised the importance of investing in human capital to navigate through complex challenges and to prepare for the future. The platform aims to equip leaders with the necessary tools and skills for sustainable transformation.

The agenda included a presentation by Dr. Phoebe Koundouri on the systemic approach to education for sustainability, followed by a presentation by Victoria Funk on the platform and its courses. The evening also included an interactive session with Angelina Taneva-Veshoska providing an overview of the specialised programmes offered as part of the platform. The conversation ended with closing remarks.

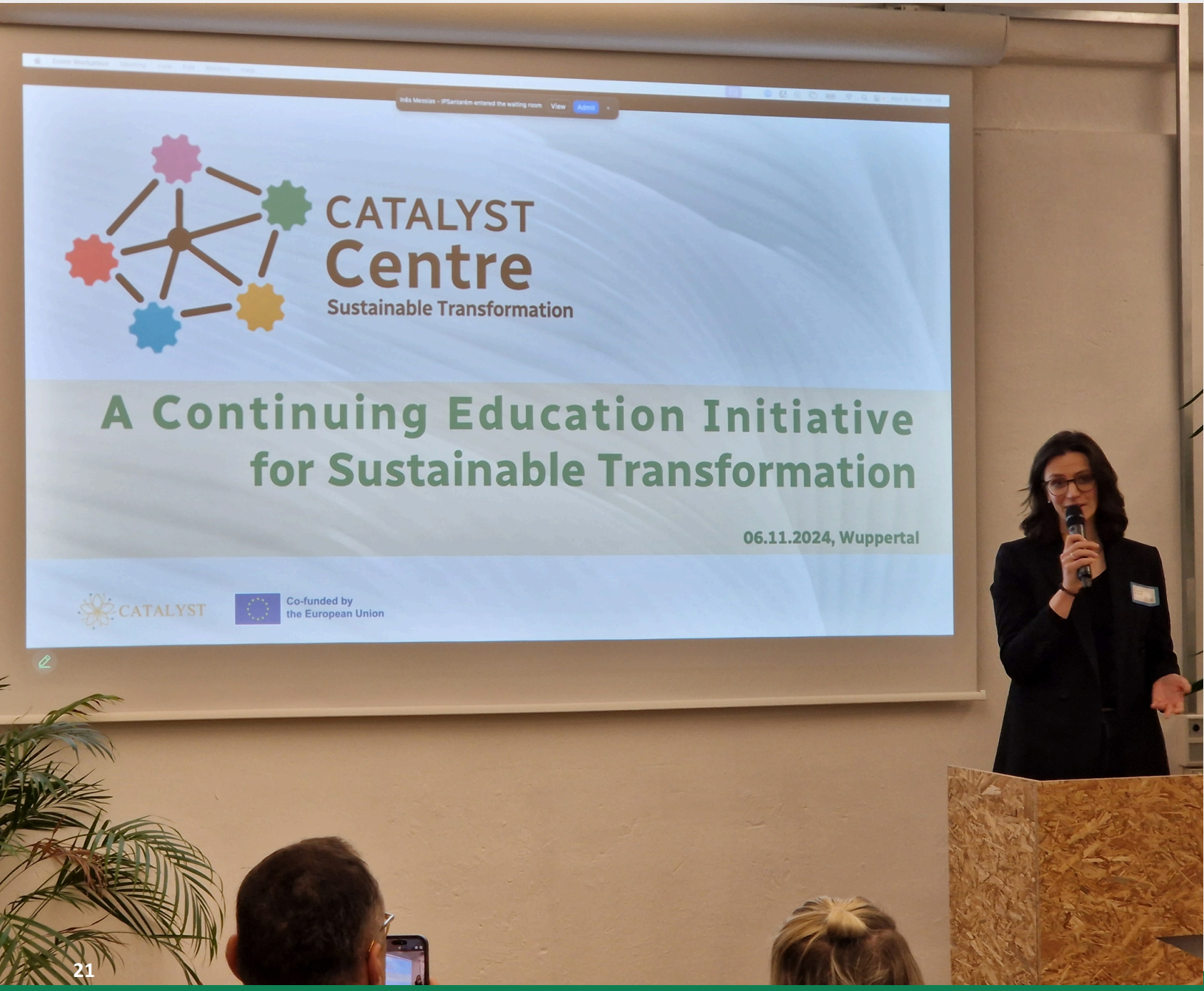
Transition to Sustainability and Skills

In the meeting, Professor Koundouri discussed the need for a transition towards sustainability, highlighting the multi-crisis situation the world is facing, including economic, climate, and population crises. She emphasised the importance of the UN Agenda 2030 and the Sustainable Development Solutions Network (SDSN) Global Climate Hub in developing pathways for climate neutrality and resilience. She also presented a report on the skills and occupations needed for the green and digital transition, noting that 85% of the required jobs are not yet in the market.

She suggested a significant investment in education, upskilling, and reskilling to equip the labor force with the necessary skills. Victoria Funk then discussed how the Catalyst project fits into the big picture and addresses the needs identified in the report.

Catalyst Platform for Sustainable Transformation

Victoria Funk introduced the Catalyst educational platform, a project co-funded by Erasmus+. The platform aims to empower and involve people from all departments and hierarchical levels to become part of the transformation efforts. The platform consists of three main pillars: a broad range of online courses, a portfolio of resources and services, and a powerful international network of businesses, students, and educators. The courses cover topics such as sustainable development, sustainable business management, and personal transformation. The platform is designed to support sustainable transformation of businesses, with a focus on small and medium enterprises. Ms. Funk also encouraged feedback to improve the platform.



Special Offers and Networking Discussion

The host thanked everyone, then announced a break, during which the participants could network and have some refreshments. After the break, Angelina joined the host to discuss special offers and their implications for different stakeholders. The host also introduced an interactive part of the agenda. The participants on site had time to choose two of the four stations. Booth 1, Specialisation Programmes, Booth 2, Pilot Project Support, Booth 3, Network Member Activities and Booth 4, SEED17 Academy. Those attending virtually also had the opportunity to attend online breakout rooms to participate in the corresponding sessions.

Platform Launch, Sustainability, and Collaboration

The meeting involved a discussion about the launch of the first part of the platform, with a focus on sustainability and competitiveness. Participants shared their thoughts and experiences, with some expressing concerns about the focus on sustainability alone. The importance of collaboration and interdisciplinary discussions was emphasised, with the idea of building bridges between different levels and sectors. The conversation ended with a call for action, encouraging participants to sign up and start their learning journey on the platform, and to stay in touch for further discussions and networking opportunities.

PARTNERSHIPS

Section to introduce ourselves and other partners

CoVE FUTURE SKILLS FACTORY

Authors: Florinda Matos, ISCTE-IUL;
Nuno Matos, ICAA; Rui Soares, CENTIMFE

In an era of rapid transformation, it is crucial to move beyond short-term financial outcomes and consider the broader impact of organisational actions on society and the future. An observatory that integrates social sustainability with intellectual capital management has the potential to serve as a guiding light for organisations striving for responsibility, innovation, and resilience.
Establishing such a structure is not merely an ethical obligation; it is also a strategic imperative for organisations aiming to lead in an increasingly competitive and interconnected global landscape.

The skills required to thrive in today's job market are evolving rapidly, mainly as artificial intelligence (AI)—a cornerstone of digital transformation—accelerates. While AI increasingly automates repetitive tasks requiring basic cognitive skills, the future of human employment lies in high-value capabilities that are difficult for current AI systems to replicate.
Success in the labour market of the future will demand a willingness and ability to learn and grow independently, adapting to shifting societal and commercial trends. Reinventing oneself through continuous professional development can lead to more fulfilling career paths and long-term success. This includes the ability to anticipate and manage disruptions, such as the obsolescence of certain skills, which has become a fundamental element of career planning.

Digital transformation has reshaped lifestyles globally, constantly redefining how we work, interact, and measure success. The recent global public health crisis highlighted the value of focusing on outcomes, nurturing human connections, and reducing excessive emphasis on traditional inputs.
Certain capabilities—those that machines cannot replicate with the same agility and nuance as humans —will remain essential for the future. These include conceptual and strategic thinking, creativity, problem-solving, empathy, ethics, emotional intelligence, and judgment. By 2030, it is estimated that two-thirds of all jobs will require such "soft skill-intensive" abilities. However, equipping individuals with these skills at scale poses a significant challenge.

Traditional educational systems often struggle to adapt to the rapidly shifting global knowledge landscape. As a result, they may fall short in fostering the critical competencies and skills required for the future.
To bridge this gap, alternative instruments and collaborative efforts are essential.
Bringing together diverse stakeholders — including governments, educators, students, researchers, and social partners — to develop a shared vision and common language around future skills has become a pressing need. This global dialogue is critical for anticipating and addressing the demands of tomorrow's workforce.

What is the Future Skills Factory?

The CoVE Future Skills Factory is a Centre of Vocational Excellence (Centres of Vocational Excellence - Employment, Social Affairs & Inclusion - European Commission), a European initiative.

The CoVE Future Skills Factory is a key component of the Catalyst Centre for Sustainable Transformation, a European network of Centres of Vocational Excellence developed under the CATALYST project framework. In Portugal, it is known as Fábrica de Competências do Futuro.

The Future Skills Factory aims to lead sustainable systems and drive business transformation, anticipating and co-creating the competencies necessary for empowering students and professionals to shape a better future. By fostering innovation, adaptability, and collaboration, the initiative will play a vital role in preparing individuals and organizations to thrive in a rapidly evolving world.

In doing so, the Future Skills Factory not only equips individuals with the tools needed to navigate uncertainty but also contributes to a broader transformation—one where sustainability, innovation, and human potential take centre stage.

***CoVE Future Skills Factory* considers three types of stakeholders:**

- Founders: Portuguese Members of the Catalyst Project (Iscte - IUL, ICAA and CENTIMFE)
- Implementers: Key players responsible for executing strategies, driving actions, and ensuring the initiative's objectives are met.
- Consultants: Experts providing guidance, insights, and specialised knowledge to support decision-making and enhance the project's impact.

Key Areas of Action

The work of the *Future Skills Factory* will be structured around areas such as:

- Social sustainability: Research practices promoting well-being, inclusion, and equality.
- Intellectual capital management: Analysing strategies for talent retention, knowledge sharing, and organisational innovation.
- Organisational impact: Evaluating how sustainable practices yield positive outcomes for businesses and communities.
- Public policy alignment: Bridging corporate practices with the Sustainable Development Goals (SDGs) guidelines.

These areas are fundamental for creating synergies among businesses, academia, NGOs, and policymakers, enabling effective collaboration around common objectives.

Indicators and Outcomes

Monitoring and anticipating are cornerstones of the Future Skills Factory. Indicators such as organisational diversity, talent retention, and investments in social impact projects provide concrete data to evaluate progress and identify areas for improvement. These indicators also support the creation of reports and studies that serve as references for managers, researchers, and legislators.

Educate, Innovate, and Collaborate

Beyond monitoring, the *Future Skills Factory* serves as a platform for knowledge sharing.
Organising conferences, workshops, and seminars on best practices and global trends inspires change.
Publishing guides and reports based on robust research further reinforces its mission to educate.
Collaboration across sectors is a key success factor. Businesses can learn from academic initiatives, and governments can find essential data for formulating more effective public policies. This collective effort benefits everyone, fostering real and lasting impact.

After all, the future we want begins today.

Building Bridges for a Sustainable Future

Beyond analysing data, the Future Skills Factory will act as a catalyst for partnerships, connecting different sectors and fostering community engagement, creating spaces where innovative solutions can be co-created.
This collaborative approach is essential to tackling global challenges such as climate change, social inequality, and resource scarcity.

Another significant legacy is the creation of a culture of sustainability. By disseminating knowledge and raising awareness, the Future Skills Factory observatory helps shift mindsets, encouraging more responsible and balanced practices. This ensures that future generations inherit a society better prepared to face tomorrow's uncertainties.

The Transformative Power of Knowledge

The core of the Future Skills Factory as an observatory lies in the belief that knowledge is power—the power to transform realities, correct inequalities, and drive sustainable progress. By integrating intellectual capital and social sustainability, these initiatives become agents of change, capable of shaping a future where people, businesses, and the planet can thrive together.

Creating the Future Skills Factory is not just an opportunity but an urgent necessity. It invites us to rethink how we relate to the world and to each other, offering the tools needed to build a positive and lasting legacy.

EXCELLENCE

Insights into ideas that are essential for Leading Business Sustainability and VET Excellence Centres Vocational Training

THE ROLE OF AI IN CONTEXT OF SUSTAINABILITY IN EDUCATION & COMPANIES

Prof. Dr. Birgit Phillips, MA, MSc. FH JOANNEUM University of Applied Sciences

What are some real-world examples of how AI can help us address pressing sustainability challenges?

AI is already solving real sustainability problems in ways that are practical and impactful. Cities are using it to cut traffic congestion by optimising transport systems in real time, directly reducing emissions. Farmers rely on AI to predict weather and fine-tune irrigation, growing more food while using fewer resources. Energy grids use AI to predict demand, prevent waste, and integrate renewable energy more effectively. In conservation, AI tracks biodiversity and detects illegal activities like poaching in real time. Even manufacturing is seeing AI-driven efficiency, with systems that minimise material waste and reduce energy use. These aren't just future promises—they're concrete examples of how AI is making a difference today.

How can small businesses and individuals leverage AI tools to reduce their environmental impact?

AI offers small businesses and individuals some incredibly practical ways to reduce their environmental impact. For example, small businesses can use AI to optimise energy use—adjusting heating and cooling systems automatically based on real-time data, which cuts costs and carbon emissions. Delivery services can leverage AI to map the most efficient routes, saving fuel and time. Even inventory management benefits, with AI predicting demand to reduce waste from overstocking.

On an individual level, AI apps can help people track their carbon footprints or suggest more sustainable choices in their daily lives. There's a host of accessible tools that don't require huge investments but can have a real, measurable impact on sustainability.

How do we ensure that AI technologies don't inadvertently create new environmental or social problems?

We need to be proactive in making sure AI doesn't cause more problems than it solves, especially when it comes to environmental and social issues. To put this into perspective, a single ChatGPT query uses about 10 times the electricity of a Google search. This highlights the urgent need to optimize AI systems for energy efficiency, especially as their usage grows exponentially. One way is to design AI with sustainability in mind—assessing the carbon footprint of training large models and finding ways to make them more energy-efficient. For example, some organisations are exploring using renewable energy for data centres or optimising algorithms to use less power. Socially, we need to tackle biases head-on by involving diverse voices in AI development and creating regulatory frameworks that prioritise fairness and accountability. Continuous monitoring is key: we should track AI's real-world impacts—both positive and negative—and adjust as needed to stay aligned with sustainability and equity goals.

How can universities contribute to global AI and sustainability initiatives?

Universities have a unique role to play in advancing AI and sustainability. They're not just educating future leaders; they're actively solving real-world problems. By integrating AI and sustainability into interdisciplinary programs, universities can equip students with the tools to address challenges like energy optimization or waste reduction. Campuses themselves can serve as testbeds for AI-driven solutions, demonstrating what's possible with technologies like smart energy systems or waste tracking. Collaboration is key—partnering with industry and governments to tackle issues like carbon reduction or biodiversity conservation creates scalable impact.

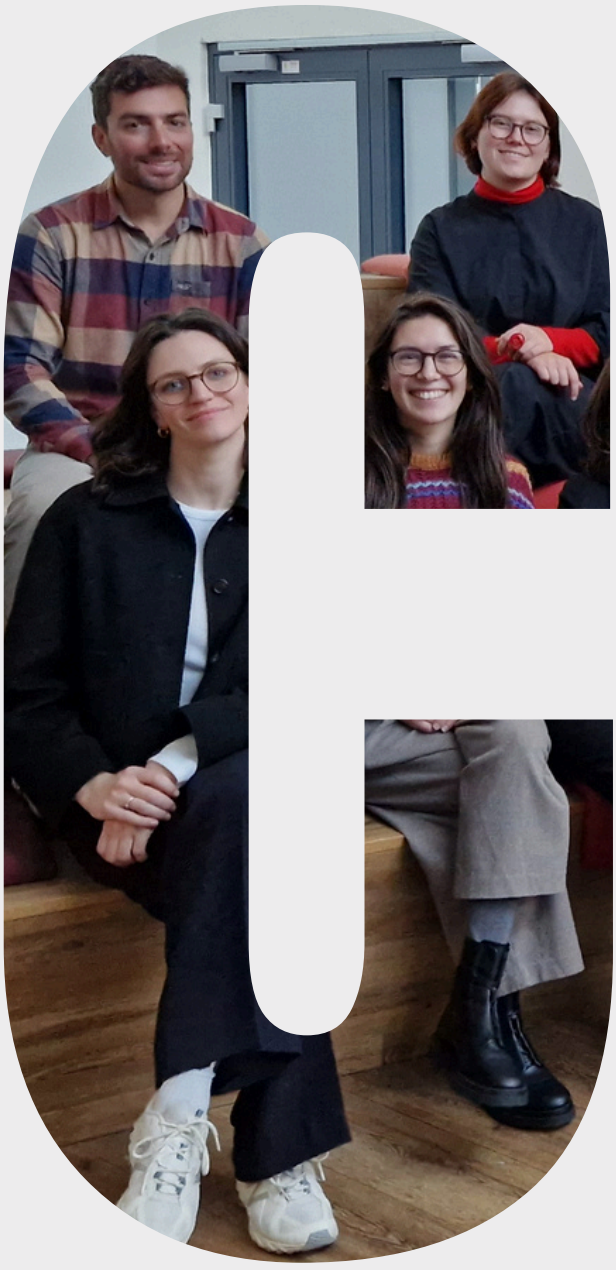
And by participating in global networks, universities ensure their innovations and practices align with ethical standards and sustainability goals. It's this combination of education, experimentation, and collaboration that positions universities to lead in building a more sustainable future.

What competencies should students develop to tackle sustainability challenges with AI?

To tackle sustainability challenges with AI, students need to build a set of competencies that blend technical expertise with human-centred skills. They should start with a solid foundation in AI—things like machine learning, data analysis, and maybe some programming—but just as important are systems thinking and trans-disciplinary understanding. These help students address the complex, interconnected nature of sustainability challenges. Ethical reasoning is crucial too, especially to evaluate the societal implications of AI, like bias or unintended harm. Creativity, critical thinking, and collaboration round out the mix, enabling students to innovate and work effectively with stakeholders across different fields. It's this combination of technical, ethical, and interdisciplinary competencies that prepares students to make a real impact.

COMMUNITY

Section to emphasise and present community opportunities



SPECIALISATION PROGRAMMES AT HAND

Angelina Taneva-Veshoska, IECE

The Specialisation Programmes offer an immersive learning experience, blending advanced knowledge acquisition with active participation in applied research. The programmes are designed to address specific industry needs and promote sustainable practices within companies. They also encourage close collaboration between participants, professors, and SMEs to develop innovative, tailored solutions for real-life challenges.

Key Features:

- Deep learning & skill development

- Business pilot projects

- Collaborative engagement

- Mentorship & professional guidance

The Specialisation Programmes require a deeper commitment, designed for individuals who seek to lead change in their organisations, ensuring they not only learn but also implement sustainable strategies in collaboration with peers and experts.

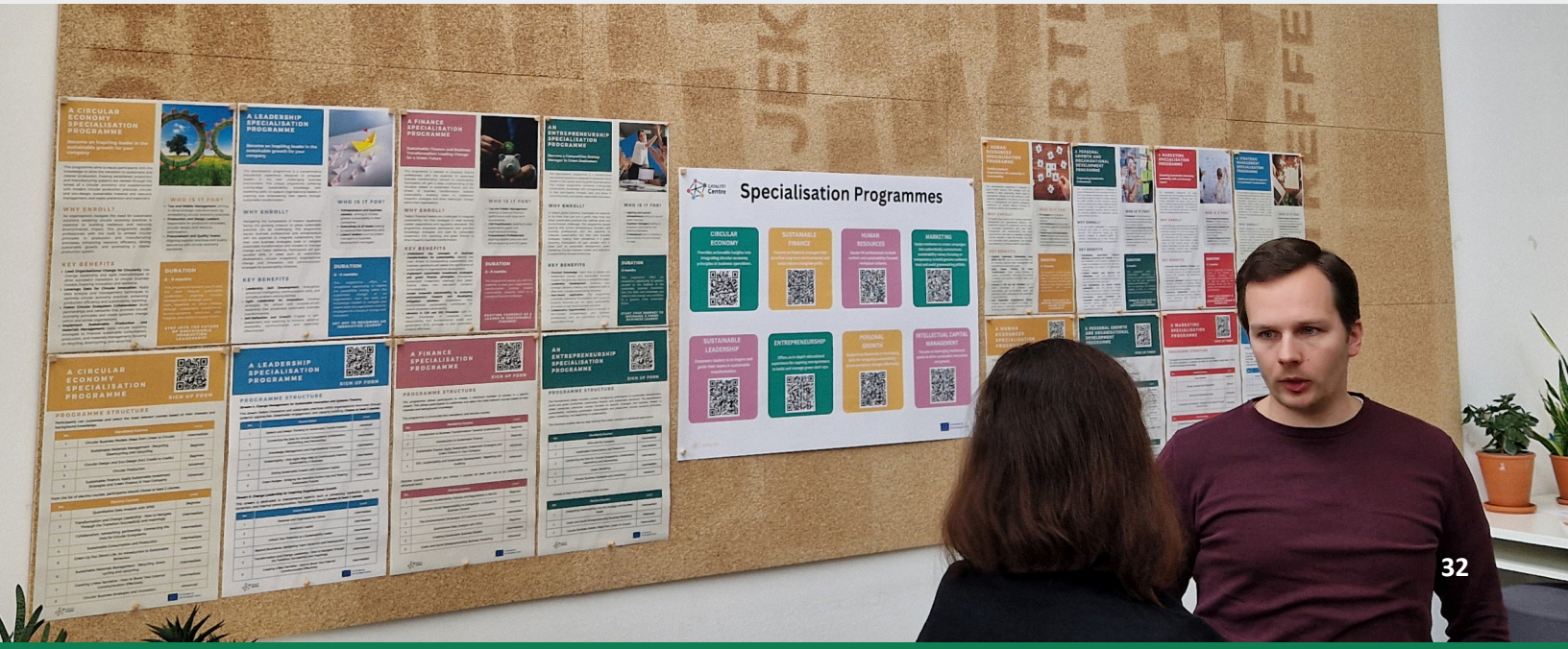
Programme Overview:

Duration: 6 to 9 months

Focus Areas: Participants can select from a variety of sustainability-related topics, aligned with their career progression goals and organisational needs:

Circular Economy	***Sustainable Leadership***
Sustainable Finance	***Entrepreneurship***
Human Resources	***Personal Growth***
Marketing	***Intellectual Capital Management***

Structure: The programmes include a combination of self-paced online learning, interactive live sessions, and hands-on experience through Business Pilot Projects.



What`s in it for you?!

The importance of practical knowledge and skills in addressing real-world sustainability challenges is recognised, so our approach emphasises hands-on learning and close collaboration with industry partners.

Self-paced learning modules (progress at your own pace and engage with course material conveniently),

Live online sessions (complimenting the self-paced learning, experienced industry experts and thought leaders will conduct live online sessions with real-time interaction, discussions and Q&A sessions),

Service offerings (participants have access to additional services that enhance the learning experience – webinars, mentorship, guest speakers),

Participation in Business Pilot Projects (engage in Business Pilot Projects in close cooperation with industry partners. These projects will provide hands-on experience addressing companies' real-world sustainability challenges, allowing participants to apply their knowledge and skills to develop practical solutions and recommendations),

Individual work and reflection (this aspect of the programme encourages self-reflection and critical thinking, helping participants to internalise what they have learned and consider how it applies to their professional practice),

Supporting materials (you will have access to various supporting materials as guidelines, reports, case studies).

Limited spaces available: Each programme will enroll 20 participants. Selection will be made based on the interest, motivation and commitment of interested candidates.

Express your interest and sign up

CATALYST Centre

Specialisation Programmes

CIRCULAR ECONOMY
Provides actionable insights into integrating circular economy principles in business operations.

SUSTAINABLE FINANCE
Focuses on financial strategies that prioritise long-term environmental and social returns alongside profit.

HUMAN RESOURCES
Equips HR professionals to build resilient and sustainability-focused workplace cultures.

MARKETING
Equips marketers to create campaigns that authentically communicate sustainability values, focusing on transparency to build genuine audience trust and avoid greenwashing pitfalls.

SUSTAINABLE LEADERSHIP
Empowers leaders to to inspire and guide their teams in sustainable transformation.

ENTREPRENEURSHIP
Offers an in-depth educational experience for aspiring entrepreneurs to build and manage green start-ups.

PERSONAL GROWTH
Supports professionals in developing skills for navigating sustainability-driven workplace changes effectively.

INTELLECTUAL CAPITAL MANAGEMENT
Focuses on leveraging intellectual assets to drive sustainable innovation and growth.

TRANSFORMATION

Section to show methodologies and/or how-to content

THE EUROPEAN CLIMATE PACT

Interview with Alice Corovessi conducted by Eleni Toli

Climate awareness is raising among the general population in Europe. Therefore, operating sustainably is considered by many businesses as an asset. More and more businesses are integrating relevant principles of Sustainable Development into their decision-making processes and daily operations, and are even associating the business success with the achievement of sustainability targets.

Are, however, managers and employees prepared for the integration of sustainability into corporate practices?

We discussed with Alice Corovessi, the Country Coordinator for Greece for the European Climate Pact, about the aims of the Climate Pact and the role the Vocational Education and Training (VET) can play in achieving sustainability. Alice Corovessi is the co-founder and the Managing Director of INZEB, a non-profit organisation dedicated to advancing research and advocacy in energy, climate and sustainability. Since 2009, Alice Corovessi has advocated for and implemented strategies to enhance sustainability and resilience in medium to large-scale projects.

Tell us a few things about the European Climate Pact: what are its aims, and what does it try to achieve?

The European Climate Pact is an initiative launched by the European Commission within the frame of the EU Green Deal to engage citizens and communities in climate action across Europe. Its primary aim is to raise awareness about climate change and encourage individuals and organisations to participate actively in the transition towards a climate-neutral Europe by 2050. The Climate Pact seeks to foster all Europeans' shared ownership and responsibility for climate action. The key objectives of the European Climate Pact include (a) educating the public about the impacts of climate change and the importance of sustainable practices, (b) mobilising a broad range of stakeholders, including businesses, educational institutions, non-governmental organisations, and individuals to commit to concrete climate actions, (c) supporting the development and dissemination of innovative solutions and best practices to address climate challenges, and (d) creating a platform for collaboration and exchange of ideas, experiences, and resources among diverse actors at local, national, and European levels.

The EU Climate Pact's mission is to contribute to a climate-neutral continent by empowering citizens and organisations to take practical actions such as reducing carbon footprints, adopting renewable energy, enhancing energy efficiency, promoting sustainable mobility, and protecting and restoring natural ecosystems. In addition, it aims to accelerate the transition to a sustainable and resilient Europe by giving individuals and groups the power to make a real difference through their climate actions.

What are the activities through which you try to achieve these objectives as country coordinator for Greece?

As the Country Coordinator for Greece for the European Climate Pact, the role involves orchestrating a series of activities designed to engage various stakeholders and drive climate action at the national level. Among the core activities is the support provided to a network of 56 EU Climate Pact Ambassadors who voluntarily advocate for climate action and serve as role models within their communities. This network facilitates the exchange of knowledge, resources, and experiences. In addition, as Country Coordinators, we organise campaigns, workshops and events to inform citizens and various target groups (educational institutions, civil society organisations, public authorities, etc.) about climate change, its impacts, and the importance of sustainability. These activities target schools, universities, local communities, and businesses to foster a deeper understanding and commitment to climate action.

Our activities also include collaboration with local governments, NGOs, educational institutions, and private sector groups to facilitate climate dialogue and partnerships that align with the Pact's objectives. Another activity is to highlight successful climate initiatives and sustainable practices through case studies, webinars, and media outreach. This helps to inspire and motivate other individuals and organisations to adopt similar approaches. Last but not least, through our actions, we encourage developing and adopting innovative solutions to climate challenges. At the same time, we track the progress of various climate initiatives in our country and report on their outcomes.

What role does VET training play in achieving sustainability targets?

Vocational Education and Training (VET) plays a pivotal role in achieving sustainability targets by equipping persons at any age with the skills and knowledge necessary to participate in and contribute to a sustainable economy. VET focuses on practical and applied learning, making it an effective means of preparing a workforce capable of implementing and advancing sustainable practices across various industries. There are several ways in which VET training supports sustainability targets, including the development of green skills, promoting best practices, supporting innovation and adaptation to new requirements, and enhancing employability and society's economic resilience.

Starting with green skills development, VET programmes can integrate sustainability principles into their curricula, providing students with the skills needed for green jobs. This includes training in renewable energy technologies, energy efficiency, sustainable construction practices, and environmental management. With such actions, VET ensures that the workforce is prepared to meet the demands of a transitioning economy, supporting the development of industries that contribute to environmental sustainability.

VET institutions often serve as models for sustainable practices, incorporating energy-efficient technologies, waste reduction strategies, and resource conservation into their operations. This reduces their environmental impact and demonstrates sustainable practices to students.

Moreover, training programmes should emphasise the importance of sustainable practices in various sectors, encouraging students to apply these principles in their future careers.

Regarding the support for innovation and adaptation to new requirements, VET can foster innovation by encouraging students to develop and implement new technologies and processes that promote sustainability. In such cases, hands-on projects and collaborations with industry partners to address real-world environmental challenges are considered mandatory. VET programmes should be developed in ways that allow rapid updates to curricula in response to emerging sustainability trends and technologies, ensuring that training remains relevant and practical.

Enhancing employability and economic resilience is considered mandatory in a constantly changing working environment. Thus, VET should be tailored to provide pathways to employment in the green economy, enhance job prospects for individuals, and contribute to the economic resilience of societies.

In summary, VET training is vital to achieving sustainability targets by developing a skilled workforce, promoting sustainable practices, supporting innovation, enhancing employability, and building community engagement.

How could the European Climate Pact promote relevant training across a wide network?

The European Climate Pact can promote relevant training activities across a wide network through collaboration with educational authorities and industry representatives and align them with the sustainability targets the market requires. In addition, INZEB, as the country coordinator for Greece and the network of ambassadors, can organise awareness campaigns to highlight the importance of sustainability in vocational education and training.
This can be achieved by promoting successful case studies and the positive impact of VET on achieving sustainability targets.

What other synergies do you foresee with the CATALYST project?

There are several ways to create synergies with the CATALYST project. From the side of the EU Climate Pact, the country coordinator, in collaboration with the ambassadors' network, can organise joint capacity-building workshops and training sessions to equip interested persons with the skills needed to implement practical climate actions. In addition, policy advocacy efforts can be coordinated to promote supportive regulations and incentives for sustainability initiatives. In addition, the utilisation of both initiatives' networks can lead to the reach of a broader audience and the engagement of more stakeholders.

Synergies with other projects that work towards the same direction are also recommended, for example, the GreenComp Enterprises project (funded by the Erasmus+) of which INZEB is a project partner. The project aims to develop the skills and competences of entrepreneurs and start-uppers in sustainable entrepreneurship, boosting them to create sustainable enterprises and enhancing the production of eco-friendly products. The creation of innovative learning materials and the implementation of hybrid training will achieve this.
Moreover, through individual mentoring, the project will encourage start-uppers to practice their eco-innovative ideas.

GREEN TRANSITION IMPACT TO COMMUNITY

Author: Edvard Sofeski, SBC

What is the meaning of green economy?

The green economy is an economic system in which sustainable development is practiced and offers support for achieving environmental, social and economic reforms, the so-called green transition towards a more sustainable and environmentally friendly society and economy.

The green economy is characterised by a shift away from resource-intensive and polluting industries towards cleaner, more efficient technologies and practices. This can include the adoption of renewable energy sources, the implementation of circular economy models and the development of green infrastructure and services.

The green economy, with the support of public and private investments, creates a green infrastructure that encourages social and environmental sustainability. At the same time, a green economy can promote social and economic well-being by creating new job opportunities, improving public health and reducing poverty and inequality.

Green business transition

For companies transitioning to a green economy, the challenge is to achieve economic growth while encouraging a responsible relationship between nature and people.The transition to a green economy business organisation is necessary for companies to achieve sustainable development goals. The green transition encourages resource and energy efficiency and promotes sustainable production, enabling the use of environmentally friendly technologies, processes and products.

The green transition is time-consuming and requires capital expenditure, but businesses themselves increasingly see it as creating business opportunities for a green economy. Innovations are the main source of all economic growth and that approach is no different in the green economy.

Companies that want to increase the sustainability of their business focus on the development of green socially responsible products and services. The introduction of green socially responsible practices in operations helps companies, their staff to plan and build long-term relationships with foreign clients and associates, investors, relevant institutions and raise environmental awareness in the community.

There is an increasing demand for green products and services worldwide. Green products and services are demanded by consumers in industrialsed countries, but also in developing countries there is an increasing demand for environmentally responsible products and services. Offering green products and services can enhance companies' business reputation with customers and communities who are concerned about environmental sustainability.

Responsible Environment, Social and Governance (ESG) practices of companies in EU countries are defined as part of green public procurement. There are several EU legislatives NFRD, CSDR, SFDR, CS3D, ESRS… that encourage and oblige companies for responsible social and governance practices in their operations.

The introduction of responsible ESG practices in operations, the implementation of socially responsible legal regulations, selling environmentally friendly products or by greening their processes makes companies more environmentally sustainable.

Green businesses are continuously engaged in developing and improving business models that will contribute to greenhouse gas emission reduction, life cycle management, resource efficiency and cleaner production, environmental management systems and environmental certification.

Social Economy & Green Social Entrepreneurship

The green transformation is not only a matter of job sector; it cannot be separated from civil society awareness and pressure surrounding issues of environmental sustainability. In Europe, the strong development of ecological organisations, consumer associations, unions, business organisations, and other civil society bodies is the factor that can allow the coming changes to generate an economy that ensures more manageable, sustainable, social and environment-friendly development.

Therefore, the green transition can blend technological innovation with social and environmental improvement, into an economic model that is socially inclusive and equitable, and that places more emphasis on human well-being, preserving our planet's natural resources.

There are two broad characteristics of social economy organisations that are of particular interest when considering the green transformation: values and structure. The generation of profit is secondary to their explicitly social aims and their democratic structure provides a further distinguishing feature in comparison to profit business.

Green social entrepreneurship

Green social entrepreneur could play two important roles in sustainable development: first as an innovative community to change the structure of the economy through sustainability and second as a community which creates and changes the norms in a society so as to maintain sustainable development. In fact, green social entrepreneurs do not focus only on the most immediate problems, but also seek to understand the context to develop new resources and make them available to influence global society.

A green entrepreneur is one who cultivates green business with the help of green practices. A green entrepreneur consciously addresses an environmental or social problem/need through the understanding of entrepreneurial ideas. They penetrate the market by swapping conventional or traditional products.

Circular economy transition

The greening of the economy has targeted the circular economy as one of their main objectives through the achievement of a sustainable-development, low-carbon and resource-efficient and competitive economy, in which "the transition to a circular economy is a systemic change"

Green transition requires fundamental changes to production and consumption systems, going well beyond resource efficiency and recycling waste. The transition implies a systemic change and innovation not only in technologies, but also in organisation, society, finance methods and policies.

Within a circular economy, the economy is designed to be regenerative, working on the regeneration of capital assets. It is a principle of an ongoing self-renewal process which builds relationships and allows socio-economic and ecological systems to constantly evolve. The circular economy play a key role towards green transformation that should imply systemic change in the economy.

In its EU action plan for the circular economy, the European Commission recognised that social economy enterprises will make "a key contribution to the circular economy." Both models place individuals and sustainable development at the centre of their concerns, where the key factor for both consists in strengthening creative and innovative capacity at the local level.

Renewable energy cooperative

The values and principles of the cooperative movement and the social economy, such as links with the local area, inter-cooperation, or community ownership are demonstrating pillars for the development of alternative models to promoting community access to the benefits of renewable energy.

Renewable energy projects are suitable for many locations, communities and commercial conditions range from biomass and district heating, to energy efficiency and micro generation. The projects include support to communities to set up their own energy producing and/or consuming co-operatives. This is done through the co-operative model of community ownership which maximises primary and secondary benefits of renewable energy to local people.

The creation of networks among social economic actors it can be considered a very powerful tool since it combines two important aspects: to be grounded at the local level and to be connected globally. The network gives the possibility to develop many impactful activities such as development of skills, competences and know-how, testing innovative approaches, exchanging of best practices, networking and promotion of social economy aims, and information dissemination.

The communities' awareness is a way to make them more participative and responsible about the green transition. Thanks to their formal and informal networks, social enterprises are able to be closer to the community. They influence their community because they make real the change of habits and make people part of this change. Social enterprises operate in a way that generates creative solutions where the crisis is turned into an opportunity. They think differently and work differently. They are flexible enough to address complex issues and consider collaboration as a winning strategy.

UPDATES

Events of the network both those open to the public and those for members only

CONNECTING FOR SUSTAINABLE CHANGE: JOIN THE CATALYST NETWORK

Author: Zofia Kunysz, UN Sustainable Development Solutions Network (SDSN)

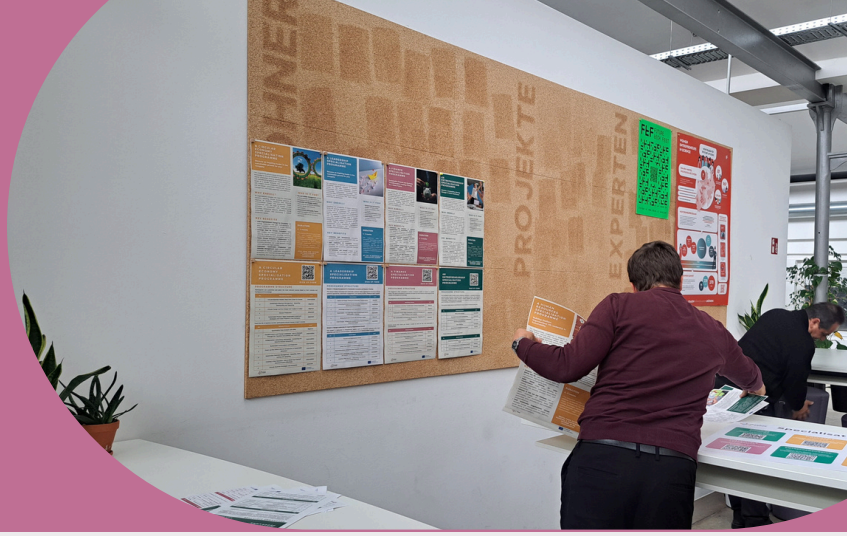
The CATALYST Network is a dynamic platform that connects professionals and students committed to sustainability and business transformation. It provides a space for knowledge-sharing, collaboration, and learning, supporting both personal and organisational growth as we collectively navigate the challenges of building more sustainable and resilient business practices.

The network offers a wide range of activities focused on key areas like sustainable development, circular economy, and organisational transformation. Through these activities, members can exchange ideas, share best practices, and gain insights to help them advance their work in the field of sustainability.

Calendar of Activities

The CATALYST Network organises its activities around several core themes, with each topic area being addressed during specific months. Here is a look at the tentative schedule for the upcoming months:

CALENDAR OF ACTIVITIES



JANUARY - MARCH 2025

Sustainable Development, Business Transformation, Transformation Readiness within the Organisation

APRIL - JUNE 2025

Resilient Transition, Intellectual Capital Management, Transformation Readiness on Personal Level

JULY - SEPTEMBER 2025

Circular Economy, Sustainable Business Management

OCTOBER - DECEMBER 2025

Sustainable Development, Intellectual Capital Management, Transformation Readiness within the Organisation

JANUARY - MARCH 2026

Resilient Transition, Transformation Readiness on Personal Level

ACTIVITIES FOR NETWORK MEMBERS

The CATALYST Network offers a variety of activities tailored to these themes, designed to provide opportunities for learning, collaboration, and connection. Here are some of the key activities that will be available to members*:

- **Mastermind Groups**

These peer-led groups offer members the chance to connect with others facing similar challenges. Through sharing experiences, learning from one another, and receiving mentorship, members can gain valuable insights that can be applied to their own work.

- **Workshops, Webinars, and Coffee Chats**

Regularly scheduled events will cover a range of topics related to the themes of the network. These could include deep dives into sustainability strategies, webinars on the latest trends in business transformation, or informal coffee chats where members can network and exchange ideas.

- **Matchmaking Events**

Aimed at helping members build professional relationships, these events connect people with similar goals and interests. Whether you are looking for new collaborations, business partners, or mentors, matchmaking events provide the perfect opportunity to make valuable connections.

- **Member Spotlights**

The network will also celebrate the achievements of its members. Whether it is a breakthrough project, a milestone in personal development, or an innovative approach to sustainability, member spotlights provide recognition and inspiration to the entire community.

How to Join the CATALYST Network

To become a member of the CATALYST Network, simply scan the QR code below or follow the link to complete the registration form.

Once you have signed up, you will receive an email invitation to join the Network community space on the CATALYST Platform, where you will gain access to all the resources, activities, and networking opportunities available to members.

We look forward to welcoming you to the CATALYST Network and to your active participation in the upcoming activities!

SOCIETY

The impact of Catalyst's work on society at large, including SDGs, good practices, and community initiatives.

SUSTAINABLE FASHION AND FUTURE TRENDS IN THE TEXTILE INDUSTRY

Aurhor: Thomas Winkler

Sustainability and fashion are two opposite words at first sight, since one refers by definition to lasting concepts, while the other refers to a temporary and constantly changing idea.

Global textile and fashion production have a negative impact on the environment and a very high carbon footprint. In 2018 the global textile and shoe industry alone was responsible for up to 10% of the global CO2-emissions and is estimated to be responsible for 20% of the global clean water pollution.

Sustainable Fashion is a necessity

A sustainable approach is necessary! This not only includes environmental factors but also social issues such as fair wages, good working conditions, and so on. The good news is, there are solutions already available today.

For example, there are several different types of biodegradable plant-based fabrics out there, including hemp, cotton, lyocell (aka TENCEL, Modal, Ecovero, etc.), jute and more. Especially cellulose fabrics are a promising alternative for a sustainable transformation of the whole industry.

Another step further towards a circular approach are recycled fabrics reducing textile waste and even use other waste materials.

In 2021 the European Parliament introduced the new circular economy action plan. This plan demands a “carbon-neutral, environmentally sustainable, toxic-free and fully circular economy by 2050.” Additionally, the action plan includes a strategy to tackle fast fashion and make textiles more durable and reuseable. This action plan contains many ideas not only for tackling fast-fashion, but also for handling textile waste. In Austria alone around 221,800 tons of textile garbage are produced per year. Only 17% are reused or recycled, the majority is just treated thermally.

Take care of your clothes

However, the most sustainable approach is a reduction of over-production, over-consumption and in general to take care of your clothes. Wearing your clothes as long as possible, repairing them and washing them at low temperatures. Especially vintage clothes are considered as a fashion statement among the young population. This has several positive effects on our environment and can be seen as a movement in contrast to fast-fashion.

My tip: do not worry about the “latest fashion” unless it is “slow fashion”!

CREDITS: Apflbutzn Faires Gwand OG, 2023

1. https://rifo-lab.com/en/pages/abbigliamento-etico
2. https://www.unep.org/news-and-stories/story/environmental-costs-fast-fashion
3. https://www.textileworld.com/textile-world/2022/05/circular-economy-the-future-of-the-textile-industry/
4. cp. Rajkishore N, Amanpreet S, Tarun P, Rajiv P. A Review of Recent Trends in Sustainable Fashion and Textile Production. Curr Trends Fashion Technol Textile Eng. 2019; 4(5): 555648. DOI: 10.19080/CTFTTE.2019.04.555648
5. https://www.europarl.europa.eu/news/en/headlines/society/20201208STO93327/the-impact-of-textile-production-and-waste-on-the-environment-infographic
6. https://www.umweltbundesamt.at/en/news220207en

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- Discover all the advantages of the network
- Receive invitations to events
- Interact with peers and make your contribution

FEEDBACK

CATALYST