



Exploring Green Futures: Integrating the New European Bauhaus into Art and Design Education

An Evaluation Report:

Identifying the Educational and Training needs across Students, Educators and Working Creative Professionals.



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Glossary

The European Green Deal

Announced in December 2019, the European Green Deal addresses various aspects of environmental sustainability, including reducing greenhouse gas emissions, fostering renewable energy, promoting energy efficiency, and ensuring a circular economy. It also emphasizes the importance of biodiversity, sustainable agriculture, and social inclusion. The European Green Deal is a key component of the EU's efforts to combat climate change and promote a more resilient and environmentally conscious future. As outlined by the EU Commission (2019), Climate change and environmental degradation are existential threats to Europe and the rest of the world. To overcome these challenges, the European commission has developed the European Green Deal with the aim to transform the EU into a modern, resource-efficient and competitive economy, ensuring:

- No net emissions of greenhouse gases by 2050
- Economic growth decoupled from resource use
- No person and no place left behind

17 UN Sustainable Goals

The 17 Sustainable Development Goals (SDGs) were established in 2012 by the United Nations (UN) to address global challenges and promote sustainable development. They cover various aspects such as poverty, inequality, climate change, and more. Each goal has specific targets to be achieved by 2030. The 17 Goals are:

1. **No Poverty:** End poverty in all its forms everywhere.
2. **Zero Hunger:** End hunger, achieve food security, and promote sustainable agriculture.
3. **Good Health and Well-being:** Ensure healthy lives and promote well-being for all at all ages.
4. **Quality Education:** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
5. **Gender Equality:** Achieve gender equality and empower all women and girls.
6. **Clean Water and Sanitation:** Ensure availability and sustainable management of water and sanitation for all.
7. **Affordable and Clean Energy:** Ensure access to affordable, reliable, sustainable, and modern energy for all.
8. **Decent Work and Economic Growth:** Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.
9. **Industry, Innovation, and Infrastructure:** Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.
10. **Reduced Inequality:** Reduce inequality within and among countries.
11. **Sustainable Cities and Communities:** Make cities and human settlements inclusive, safe, resilient, and sustainable.
12. **Responsible Consumption and Production:** Ensure sustainable consumption and

production patterns.

13. **Climate Action:** Take urgent action to combat climate change and its impacts.
14. **Life Below Water:** Conserve and sustainably use the oceans, seas, and marine resources for sustainable development.
15. **Life on Land:** Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
16. **Peace, Justice, and Strong Institutions:** Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels.
17. **Partnerships for the Goals:** Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development.

The New European Bauhaus

To connect the European Green Deal to our living spaces and experiences, the EU has launched the New European Bauhaus (NEB) initiative. The initiative promotes a new lifestyle where sustainability matches style, thus accelerating the green transition in various sectors of our economy and in our societies. Essentially, the NEB expresses the EU's ambition of creating beautiful, sustainable, and inclusive places, products and ways of living, bringing out the benefits of environmental transition through tangible experiences at local level to improve our daily lives.

“The New European Bauhaus initiative calls on all of us to imagine and build together a sustainable and inclusive future that is beautiful for our eyes, minds, and souls. Beautiful are the places, practices, and experiences that are:

- **Enriching**, inspired by art and culture, responding to needs beyond functionality.
- **Sustainable**, in harmony with nature, the environment, and our planet.
- **Inclusive**, encouraging a dialogue across cultures, disciplines, genders and ages.”

(EU Commission, 2020)

Three core inseparable values guide the NEB: **Environmental sustainability**, from climate goals, circularity, zero pollution, and biodiversity; **Aesthetics**, quality of experience and style, beyond functionality; and **Inclusion**, valorizing diversity, equality for all, accessibility, and affordability. At the same time, three fundamental principles emerge during the co-design process of the NEB: combining **global and local** dimensions, **participation** and **transdisciplinarity**.

The NEB does not merely aim to target one sector, it aims to bring together citizens, as well as experts, business and institutions to co-create and to reimagine a new sustainable living for Europe and beyond. In addition, the NEB initiative has created a platform for these connections, providing a space for experimentation and creativity, where funding supports positive change (EU Commission, 2020).

Micro Credential Courses:

Microcredential courses, also known as microcredentials or nanodegrees, are specialized, skill-oriented educational programs that focus on teaching a specific set of skills or competencies within a particular subject area. These courses are designed to be shorter in duration and more focused than traditional degree programs, making them a popular choice for individuals looking to up-skill or re-skill in a rapidly changing job market. Microcredential courses usually encompass the following:

Short Duration: Microcredential courses are typically shorter in duration compared to traditional degree programs. They can range from a few weeks to a few months, depending on the complexity and depth of the subject matter.

Focused Content: These courses are highly focused on teaching specific skills or competencies relevant to a particular industry or job role. They are designed to provide practical, hands-on learning experiences that can be directly applied in the workplace.

Modular Structure: Microcredential courses often have a modular structure, where each module covers a specific topic or skill within the broader subject area. This modular approach allows learners to customize their learning experience based on their individual needs and interests.

Online Learning: Many microcredential courses are offered online, allowing learners to access course materials and participate in lectures and assignments from anywhere with an internet connection. This flexibility makes it easier for working professionals to fit learning into their busy schedules.

Credentialing: Upon successful completion of a microcredential course, learners are awarded a digital credential, such as a badge or certificate, that validates their proficiency in the skills taught in the course. These credentials are often recognized by employers as evidence of the learner's capabilities.

Collaborations between Educational Institutions and Industry: Microcredential courses are often developed in collaboration between educational institutions, industry partners, and employers. This ensures that the curriculum is aligned with the needs of the job market and that learners are acquiring skills that are in demand by employers.

Continuous Learning: Microcredential courses are well-suited for individuals who are committed to lifelong learning and continuous skill development. They allow learners to quickly acquire new skills or update existing ones to stay relevant in their chosen field.

Cost-effective: Compared to traditional degree programs, microcredential courses are often more cost-effective, making them a popular choice for individuals who want to gain specific skills without investing the time and money required for a full degree.

“The New European Bauhaus initiative, taking inspiration from the influential Bauhaus movement, provides Europe with the opportunity to demonstrate the potential of the circular economy, and lead the way in the transition.”

Joe Iles, 2021

Introduction

Design pedagogy increasingly includes discussions about ethical considerations in design, as well as considerations of the social and environmental impacts of design decisions. As educators, encouraging students to incorporate sustainable practices into their designs is crucial for the development of Design Education.

A review of over 160 publications on the subject of SDGs in Education entitled ‘Integrating Sustainable Development Goals in Educational Institutions’ (Ferrer-Estévez and Chalmeta, 2021) noted that “almost 30 years later, ESD is still considered a complement to traditional education, and specific actions and a lack of global sense tend to prevail in academic institutions,” highlighting the need to tackle the integration of SDGs within specific courses and programs at all levels of Education.

Furthermore, EU recommendations have noted that the Green Transition has created a new demand for all sectors to upskill and reskill (EU, 2022). On 16 June 2022, the Council of the European Union (EU) adopted a ‘Recommendation on a European approach to Micro-Credentials for lifelong learning and employability’.

To connect the European Green Deal to our living spaces and experiences, the EU has launched the New European Bauhaus (NEB) initiative. The initiative promotes a new lifestyle where sustainability matches style, thus accelerating the green transition in various sectors of our economy and in our societies. Essentially, the NEB expresses the EU’s ambition of creating beautiful, sustainable, and inclusive places, products and ways of living, bringing out the benefits of environmental transition through tangible experiences at local level to improve our daily lives. As part of the NEB the NEB Lab (2022), which is composed mostly of research and education fields, opened a call for the transformation of places of learning based on the ideals of the NEB principles. Further strengthening the need for Educational integration both EU wide and Internationally.

Based upon the current Educational Climate and EU recommendations, ‘Futures Designed’ addresses the current and future needs for Art & Design students, graduates and creative professionals.

Our [research questions](#) underpinning this project are:

- How can we [integrate knowledge](#) of the NEB and the Green Transition into existing HE Art and Design Programs
- How can we [improve sustainability skills](#) and [competences](#) of Design Educators
- How can we [ensure](#) that our future creative and cultural industries are [equipped with the skills necessary](#) for the demands of the green transition and beyond

'Futures Designed' focuses on the development and delivery of Micro-Credential courses and integrated workshops specifically for the fields of Art and Design in Higher Education (HE). Proposed courses will equip students with skills deemed necessary for the green transition, thus increasing employability, encouraging behavioral change, consumption habits and lifestyles (personally and in future careers) and allowing them to become the facilitators of the aims and goals of the European Green Deal and the New European Bauhaus (NEB).

'Futures Designed' will also promote hybrid and alternative spaces of learning in line with NEB recommendations, the developed courses will be delivered asynchronously via an interactive digital platform as well as physically in alternative spaces of learning aiming to support digital and green capabilities of the Higher Education sector. Furthermore, the introduction of alternative space of learning calls on educators to develop their sustainability competences and support the approaches of the green transition and integration of the NEB.

This report demonstrates the initial stage of the 'Futures Designed' project focusing on the Educational and Training needs of target groups: Students, Educators and Working Professionals in the fields of Interior, Graphic and Fashion Design. The initial stage is an evaluation and analysis of current knowledge and integration of the UN Sustainable Development Goals (SDGs), the NEB and the European Green Deal across the EU in HE Art & Design Studies.

Through: [Desk Research](#); [Surveys](#); [Focus Groups](#); and [Industry Consultation Workshops](#) the report focuses on:

- Opinions related to climate change
- Current knowledge of the European Green Deal, SDGs and the NEB
- Current integration of these related to the Green transition in Current Design Education
- Methods to produce meaningful theoretical and practical courses to address these needs
- Micro-Credential Recommendations

These activities were undertaken in the project's participating countries: [Cyprus](#); [Lithuania](#); [Greece](#); [Belgium](#) and [Italy](#) as well as an [EU wide survey](#). Overall the results support the needs of all target groups and the initial needs identified at the project proposal stage. Most significantly in strong support of the project [85% of participants felt that they needed more knowledge in the skills required for the Green Transition](#) and [75% were highly interested in upskilling](#) in themes relating to climate neutrality.



“Education and lifelong learning are central to equipping current and future citizens with a deep understanding of the issues, critical thinking and skills necessary to bring about change.”

EU Commission, 2021

Background and Motivation

Historically, the creation of the Bauhaus in 1919 emerged at a moment of deep transformation – towards the modern societal and industrial era bringing together artists, designers, architects and craftspeople. First based in Weimar and then at Dessau, the Bauhaus encouraged experimentation and constant connection between the fields of study. The Bauhaus legacy has remained in collective memory (Bradbury, 2023) and this transdisciplinary approach is very much needed for the challenges of our times where we are once again facing profound transformation. According to Saowski (2021) “the activities of the European Commission are up-to-date, and the goal of achieving climate neutrality by 2050, is ambitious on a global scale”(pp.2).

As the NEB is in its infancy, a variety of events have taken place during the past 4 years. During the online conference ‘*Common Ground: Making the Renovation Wave a Cultural Project*’ organised by the New European Bauhaus Collective on the 29 April 2021 recommendations were that:

- It is about [educating educators, educators becoming learners](#).
- The focus needs to be on [learners and the ways they see](#) and look at the world.
- It is pivotal not to forget about the [ludic aspects](#), making playfulness a crucial part of the NEB movement
- It should be a [sustainable way to host circularity, efficiency, localism, and continuity](#).

The NEB Compass (2022); the NEB Handbook (2023); and the NEB Toolbox (2024) have also been published since the announcement of the NEB in 2020 allowing others to take on the ideals of the NEB within a particular frame, yet being able to adapt the ideals to specific project parameters.

Despite the international developments; recognitions; and adoption of policies related to the Green Transition, a report produced by the Design Council UK (2024) related to the Design Economy stated that only “a mere 46% [of professional designers] rate themselves as proficient or expert in environmental design, signalling a clear need for skill development within the industry.”

Although the report is UK based, its results mirror those found through the ‘Futures Designed’ consortium. In 2022 project coordinators Frederick University, Cyprus published a sustainability report mapping the SDGs in University Curricula. Findings showed that 54% of academic staff were familiar/very familiar with SDGs but only 51% felt able to integrate these into their teaching. In agreement with the Design Economy Report, it underscores the belief that design is inherently a green skill which in turn is a catalyst for sustainable innovation and progress. A transformative approach is needed to foster sustainable choices, and it is designers that will play a pivotal role in shaping a greener future.

EU recommendations note that Education's contributions to the New European Bauhaus initiative lies in the development of the green skills that are necessary for emerging green jobs, for the greening of existing jobs or more generally as life skills. (Education and the New European Bauhaus, 2021). During three online sessions held by ELIA in 2021, (a globally connected European network that provides a dynamic platform for professional exchange and development in higher arts education. With over 280 members in 52 countries). Students interested in tackling global challenges such as climate change and sustainability, were given the opportunity to raise their voices at an international level, proposing solutions and initiatives, and connecting with peers and stakeholders to create a positive impact. The sessions named *'Agents of transformation'* discussed how Art and Design play an important role and discussed topics in relation to the NEB. They were able to engage in a public dialogue directly with the EU commission. In conclusion, amplifying the message that **"students are the agents of this transformative integration** – they will drive new approaches, provide critical inspection and render the inclusive, affordable and sustainable future tangible."

During the online conference *'Common Ground: Making the Renovation Wave a Cultural Project'* organised by the New European Bauhaus Collective on the 29 April 2021 participants undertook a participatory exercise stating the expectations of the NEB. Some of the recurring themes were: **a holistic approach, change, inclusion, togetherness, innovation, sustainability, and quality**. One way to begin this integration is advocated by Torchia et al (2023), it is important to remember that the path to sustainability in design is not merely through the NEB and the European Green Deal, but we must embrace the 17 Sustainable Development Goals (SDGs) which are promoted by the United Nations. As such the SDGs will also take high importance in the project's development.

Despite the NEB developments, "further research is needed to evaluate the long-term impact of the initiative, beyond the ordinary reporting requirements of the NEB" (Torchia, 2023). Should the New Bauhaus be driving an extensive array of interlinked missions? (Ness, 2021) or should it focus on the local? It would be easy on an initiative at an EU scale to forget about the local, "therefore, it is essential that any new green initiative aimed at adapting to climate change prioritizes local wisdom [...] This means incorporating vernacular knowledge." (Hu et al, 2023).

Motivated by the above, this shift towards sustainability and the green and digital transitions creates new demand in Art & Design Education, as today's graduates will be the ones to facilitate and continue this vision in relation to the ambition of creating beautiful, sustainable, and inclusive places, products and ways of living. Eckert (2022) stresses the need to connect the Educational world with the job world, through Education we must address the dynamic and complex problems facing the world, advocating the skills of life-long learning. As designers we should naturally be lifelong learners where our work is characterized by changing conditions, understanding there is no constant truth.

The sudden digital transitions experienced by Art & Design disciplines during the pandemic of Covid-19 explored opportunities for online and hybrid learning scenarios within the creative sector, for both current students and working professionals. The design studio can no longer be viewed as the only space of learning, a more flexible and hybrid model of delivery taking place in different settings should be embraced. In line with the NEB various alternative spaces of learning should also be utilized (green spaces, transdisciplinary spaces, online spaces etc.).

“A form of teaching and learning is required that makes students aware of their agency and responsibility” Students should be given the tools for the transition to sustainable futures, a transition which “requires changes in the material world as well as it requires an enormous mind shift.”

David Reitenbach, Student, Berlin University of the Arts, (ELIA, 2022)

Target Groups

The project aims to reach Art & Design Students, Educators and Working Professionals from Interior, Graphic, Fashion Design. The project will appeal to creatives from different disciplines and levels of education providing common skills to work cohesively to find common solutions towards the European Green Deal. As outlined by Bason et al (2020), target groups will be able to: [Image the Green Deal](#); [Deliver the Green Deal](#); and [Participate in the Green Deal](#).

Current Art and Design HE students will benefit from: the exposure to the micro-credential courses and complementary workshops developed under the project. The courses will provide skills and knowledge for design-based solutions to climate change, thus equipping current students with the skills deemed necessary for the Green Transition. The courses will essentially work as complementary courses to their already obtained skills, enhancing their employability and their ability to implement environmental and sustainability elements in their work.

Staff and Educators in HE Art and Design Institutions will benefit from: the tailor-made courses, Educational Interactive Toolkit and methods of delivery produced by the project. This stage plays a pivotal role in the future of Art and Design Education and the Sustainable competences of Educators. Linking to the review of SDGs in Education entitled ‘Integrating Sustainable Development Goals in Educational Institutions’ (Ferrer-Estévez and Chalmeta, 2021) the need to tackle the integration of SDGs within specific courses and programs at all levels of Education is imperative. Design Educators will be trained in the content of the micro credentials and the hybrid spaces of learning, resulting in the upskilling of educators in the design sector.

Working Creative Sector Professionals will benefit from: newly obtained skills acting as add-ons to their already obtained degrees. This will enhance their employability and their ability to implement environmental and sustainability elements in their work. Until recently the demand for people to upskill and re-skill until recently has mainly been dealt with traditional courses and qualifications. This approach has often brought a reluctance for people to undertake further studies since it is often expensive and time-consuming. It is only recently that learning opportunities of smaller volume (micro-credentials) are being promoted and developed in response to a demand for more flexible, learner-centered forms of education and training.

85% of Respondents felt that they need more knowledge in the skills required for the Green Transition

75% are interested in upskilling in themes relating to climate neutrality

Number = 376

Needs Analysis Framework

The initial stage of the project outlined in this report focuses on the Educational and Training needs of target groups. In order to assess these needs and to produce meaningful course content Quantitative and Qualitative methods were utilized to gain the necessary results.

When selecting the appropriate approach to the data collection methods it was important to consider the research aims and objectives as well as the participant target groups. The projects needs analysis would employ a multi method approach which allows two significant advantages:

- To gain different results for varying objectives, thus allowing confidence that the research outcome will address the most significant issues.
- To ensure that collected data is actually displaying what you believe it is telling you.

Questionnaire Survey: A questionnaire survey containing 8 targeted sections on the themes of the 'futures designed' project was disseminated by partners across the EU. The questionnaire survey yielded 376 responses, from the project's specific target groups, providing the needs analysis with invaluable data.

The overall aim of the questionnaire survey was to gain knowledge as well as statistical data on the Educational and Training needs of target groups; current integration of SDGs in HE Art & Design Education; current course structures; and knowledge across students, graduates, educators & working professionals in SDGs and the NEB, in the participating countries and the EU in general.

Based on the results of the questionnaire, focus groups and workshops were conducted across partner countries.

Focus Groups: aimed for face to face control over questions in order to provide important insight into human behavior as well as allowing for further probing questions and further discussions, in a naturalistic flow which is not structured as in a questionnaire survey (Fern, 2001).

The focus groups also aimed to explore: current integration of SDGs in HE Art & Design Education; current course structures; and knowledge across students, graduates, educators & working professionals in SDGs and the NEB, in the participating countries.

Focus groups took place both in person and via online platforms such as zoom, online events also took advantage of breakout rooms for targeted discussions. The venue of each focus group was determined by project partners and the best way to reach project target groups. Participants were current Art and Design Educators (54) and Students (47).

Industry Consultation Workshops: also allowed for face to face control over the questions and activities. The workshops aimed to aid the development of course themes and content, providing recommendations directly from creative industries in the skills required to carry out the European Green Deal. The venue of each workshop was determined by project partners and the best way to reach project target groups.

During these discussions partners explored opinions related to climate change; current knowledge and methods to produce meaningful theoretical and practical courses and alternative spaces of course delivery. Participants were working design creatives (25).



Figure 1: Focus Group and Interactive Industry Workshop (Frederick University, Cyprus)

Needs Analysis Findings

The project needs analysis combined the results of: [desk research](#); [questionnaire surveys](#); [focus groups](#); and [industry consultation workshops](#).

Findings outline: [Existing knowledge](#) across students, graduates, educators & working professionals in SDGs & the NEB, in participating partner countries & the EU in general; [Availability of Micro-credentials](#) & the identification of key gaps & themes; [Current Integration](#) of SDGs in HE Art & Design Education/ [Current Course Structures](#); and [Educational & Training needs](#) of Target Groups.

Through desk research key background knowledge was gained as a backdrop to the questionnaire survey, as well as knowledge in availability of current micro-credential courses.

Availability of Micro-credentials

The research encompassed various sources, including online platforms, educational institutions, and professional organizations offering skill-based training and certification programs. Key findings regarding the availability of micro-credential courses are outlined below:

Online Platforms: Platforms such as Coursera, edX, Udemy, and LinkedIn Learning offer a wide range of micro-credential courses covering diverse topics, including design, sustainability, and innovation.

These courses often provide flexible learning options, allowing participants to engage at their own pace and earn certificates upon completion.

Educational Institutions: Universities and colleges worldwide are increasingly incorporating micro-credential courses into their continuing education programs. These institutions offer specialized courses tailored to meet the evolving needs of professionals in fields such as design, environmental studies, and sustainable development.

Professional Organizations: Industry-specific organizations and associations often collaborate with educational providers to offer micro-credential courses aligned with industry standards and best practices. These courses may focus on niche areas within design education, such as sustainable design practices, circular economy principles, and green building certification.

Gap Analysis

While the availability of micro-credential courses is extensive, there may be gaps in coverage within certain thematic areas identified during the research process. Opportunities exist to develop new courses or enhance existing offerings to address emerging needs and trends identified through stakeholder engagement and thematic analysis.

Currently Micro-credential courses directly related to the NEB can only be found on the eit-campus.eu website. A series of 6 courses are readily available covering: *The New European Bauhaus: Concept, Movement, and Opportunities*; *New European Bauhaus: Long Term, Life Cycle and Integrated Thinking in the Industrial Ecosystem*; *Fostering Inclusive Citizen Engagement in Urban Development*; *Building Belonging in a Globalised and Mobile World*; *Creating Ethical and Sustainable Cities at the Local Level*; and *Bringing Urban Nature Into the Cities of Tomorrow* (EIT Campus, 2023). When the user clicks on the 'free' courses they are redirected to www.futurelearn.com where users can login and undertake the short courses for free with limited access. Users are granted a 2 week limited access with no certificate when the course is complete. In order to receive unlimited access to the course, learning at their own pace and a certificate of completion they either have to buy the course (104 euro one off payment) or a (23.99 for the first two months and 34.99 there after subscription). This does not allow a flexible structure for learners. On reflection material is free to access yet there is no recognition of completion which may affect learners employability.

During Desk Research the 'Futures Designed' Consortium has identified a parallel EU funded program entitled HU_VOLUTION (2024). In summary of their joint curriculum report "The HU_VOLUTION project aims to support HE organisations to equip designers with the necessary skills to design more sustainable, aesthetic and inclusive spaces, aligned with the NEB. For that reason, results of HU-VOLUTION will define the necessary learning outcomes and design a Joint Curriculum to launch an innovative lifelong learning for HE organisations, that better meet labour market and society needs.

The project itself provides futures designed with valuable insight into its units and modules, yet courses have not been developed yet. It is important to note that although the projects display similarities they are set apart due to HU-VOLUTIONS focus on habitat design, whereas 'futures designed' focus on fashion, interior and graphic design disciplines which all contribute to the design world.

Their research and survey allowed insight into the gaps and themes and their modules also provided valuable input and comparisons across design disciplines:

- Introduction on Web
- Inclusive Design
- Development of formal
- Digital Design
- Demand and user oriented design
- Circular economy and reuse
- Sustainable design

The analysis of current micro-credential offerings related to the New European Bauhaus (NEB) initiative reveals both opportunities and challenges in addressing the needs of learners and professionals in the design field. While a series of courses are available on platforms such as eit-campus.eu and FutureLearn, limitations in accessibility and recognition of completion raise concerns about their effectiveness in meeting learner requirements and enhancing employability.

Furthermore, the identification of parallel initiatives such as the HU_VOLUTION project provides additional insights into efforts aimed at equipping designers with the skills necessary to create sustainable, aesthetic, and inclusive spaces aligned with NEB principles. Although distinct in focus, these projects contribute valuable perspectives and approaches to design education and practice.

Additionally, the rise of collaborative European universities offering micro-credentials across institutions signifies a growing trend towards fostering cross-disciplinary and cross-institutional collaboration in education. This trend presents opportunities for learners to access a diverse range of courses and expertise, both freely and through paid options, enhancing the accessibility and flexibility of micro-credential programs.

Insights gained from these initiatives and collaborative efforts provide valuable input for refining the design and delivery of micro-credential courses within the 'Futures Designed' Consortium. By leveraging partnerships, sharing best practices, and embracing innovative approaches to design education, the Consortium aims to deliver comprehensive micro-credential courses that empower learners to drive positive change in the design world.

In conclusion, while challenges persist in the current landscape of micro-credential offerings, the collaborative efforts and emerging trends highlighted in this analysis underscore the potential for transformative impact in design education and practice. Through continued collaboration, adaptation, and responsiveness to evolving needs, initiatives like the 'Futures Designed' Consortium are poised to shape the future of design education in Europe and beyond, fostering a community of skilled and empowered designers committed to the principles of the New European Bauhaus.

Existing knowledge across students, graduates, educators & working professionals in SDGs & the NEB, in participating partner countries & the EU in general

Increasing global awareness and action toward sustainable development goals (SDGs) has become paramount in addressing pressing environmental and societal challenges. As part of ongoing efforts to assess and enhance engagement with sustainability initiatives, the first part of the analysis delved into the existing knowledge and awareness levels among students, educators, and working professionals regarding key initiatives such as the UN Sustainable Development Goals (SDGs), the European Green Deal, and the New European Bauhaus (NEB). Through a combination of surveys, desk research, focus group discussions, and consultation with creative professionals, this section examines the varying degrees of familiarity and comprehension across these diverse groups, shedding light on potential areas for educational intervention and awareness-raising campaigns to foster deeper engagement with sustainability efforts.

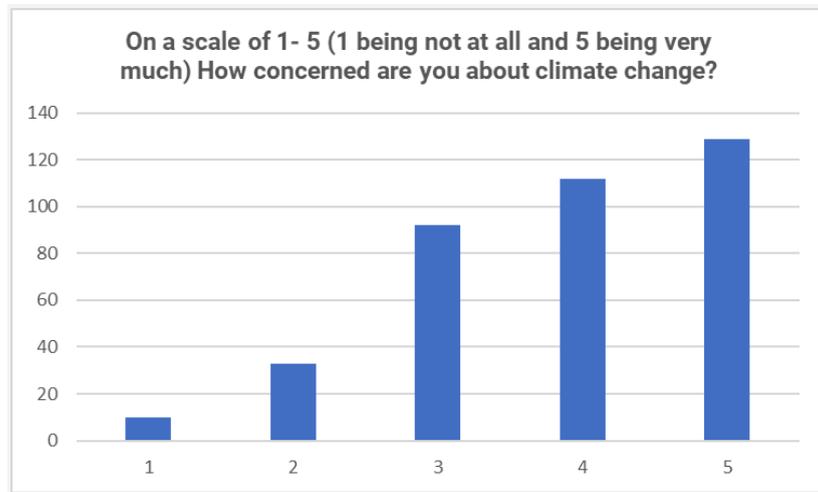


Figure 2: Climate Change Concern across all target groups (n=376)

In order to place the results into context the majority of respondents (over 240 out of 376) rated their concern level as a 4 or 5, indicating a significant degree of concern about climate change. This suggests a prevalent awareness and acknowledgment of the issue among target groups in the participating partner countries and the EU in general. Yet when looking at the differences between the groups, results suggest that while all three groups show varying degrees of concern about climate change, educators and creative professionals tend to express a stronger level of concern compared to students. This difference may be influenced by factors such as professional experience, awareness of environmental issues, and the perceived impact of climate change on their respective fields.

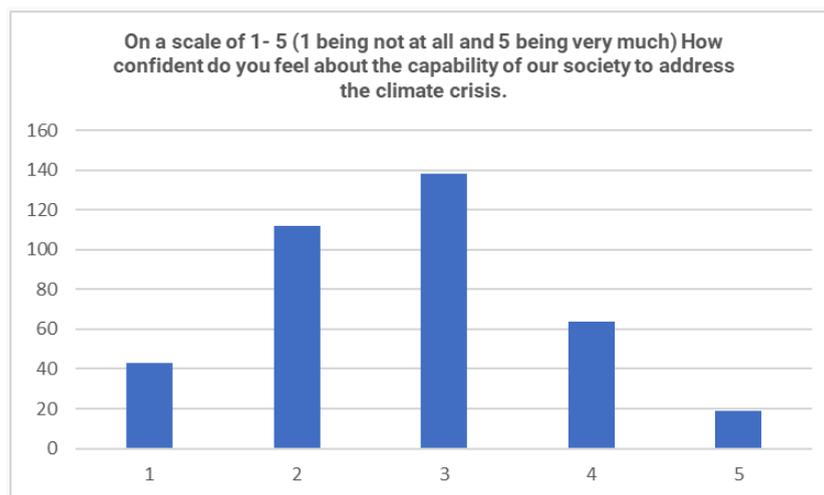


Figure 3: Climate Change and Society across all target groups (n=376)

When asked about how confident participants felt in societies capability to address the climate crisis, it appears there is less confidence in society's ability to effectively address the crisis. The majority of respondents rated their confidence level as a 2 or 3, with fewer respondents

expressing higher levels of confidence (4 or 5). This suggests that there may be doubts or reservations about the effectiveness of current societal efforts to tackle the climate crisis among the surveyed individuals.

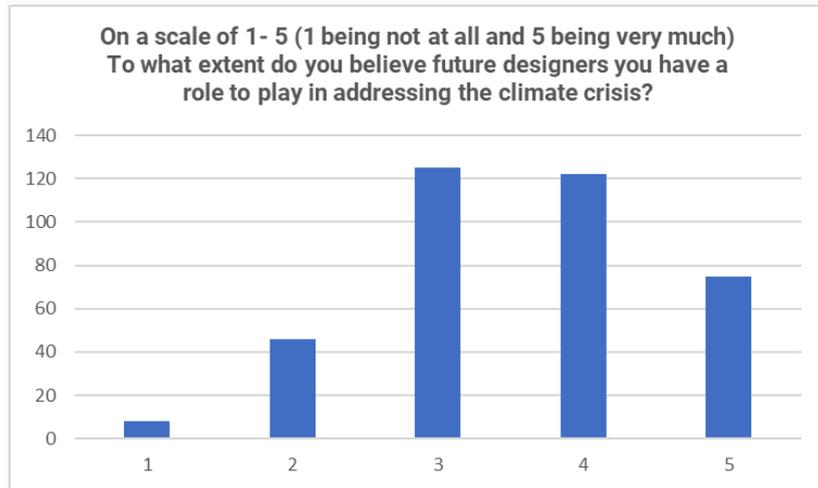


Figure 4: Future Designers and Combating Climate Change across all target groups (n=376)

It's notable that a majority of respondents (over 300 out of 376) believe that future designers have a significant role to play in addressing the climate crisis, as indicated by ratings of 4 or 5. This suggests a strong perception among participants that designers can make meaningful contributions to addressing environmental challenges.

In order to assess the existing knowledge across students, graduates, educators & working professionals in SDGs & the NEB, the familiarity of the 17 UN sustainable goals was a crucial starting point in understanding if participants have integration of themes relating to the European Green deal and Sustainable principles.

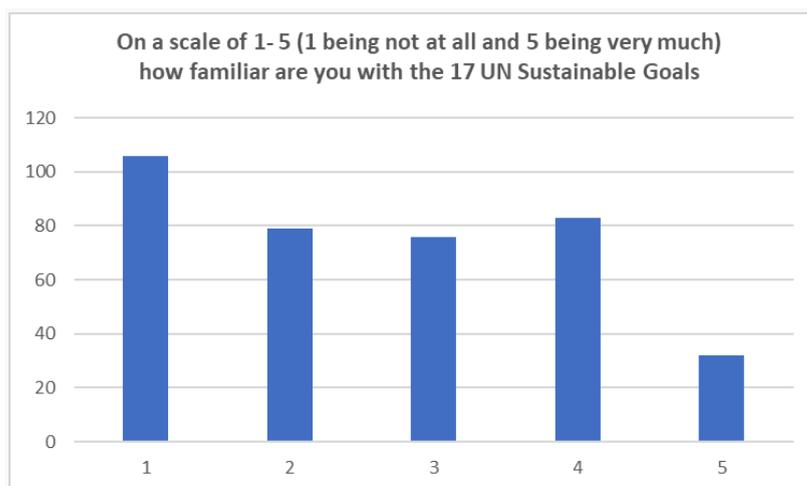


Figure 5: Familiarity with the 17 UN Sustainable Goals across all target groups (n=376)

It appears that there is a range of familiarity among respondents with the SDGs. A considerable number indicated lower levels of familiarity (1 or 2) While a significant portion of respondents rated their familiarity as moderate (3, 4), and the lowest number of respondents answered very much. As there is a range of familiarity the analysis across students, educators, and creative professionals individually reveals distinct patterns within each group.

Among **students**, a notable portion indicated lower levels of familiarity with the SDGs, with the majority rating their familiarity as low (1 or 2). This suggests a potential gap in education and awareness initiatives targeting students regarding the SDGs, highlighting the need for enhanced integration of these goals into educational curricula.

In contrast, **educators** demonstrated a comparatively higher level of familiarity with the SDGs, with fewer respondents rating their familiarity as low (1 or 2) and a larger proportion indicating moderate (3 or 4) or high (5) levels of familiarity. While this suggests a greater awareness among educators, there remains an opportunity to deepen their understanding and integration of the SDGs into teaching practices to further engage students in sustainable development initiatives.

Similarly, **creative professionals** also exhibited a higher level of familiarity with the SDGs compared to students, with fewer respondents rating their familiarity as low (1 or 2) and a larger proportion indicating moderate (3 or 4) or high (5) levels of familiarity. However, like educators, there is room for improvement in deepening their understanding and engagement with the SDGs to leverage their creative expertise for sustainable development efforts.

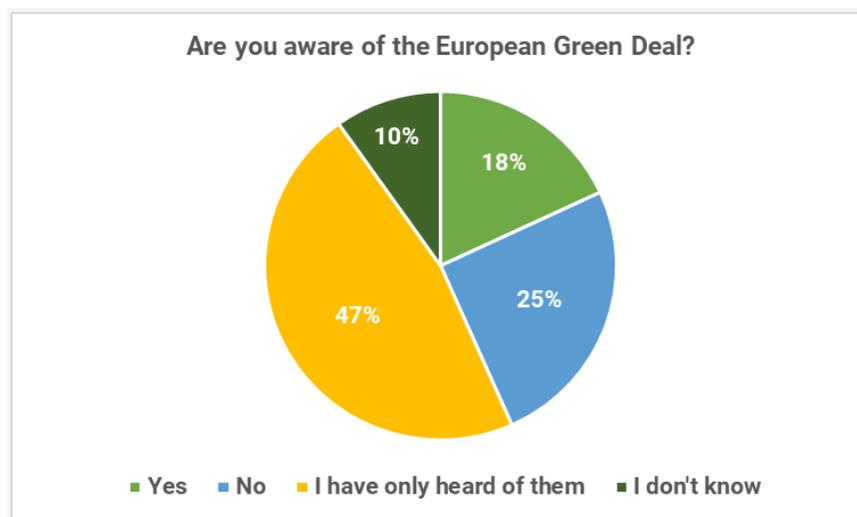


Figure 6: Awareness of the European Green Deal across all target groups (n=376)

It was also significant to find out how many respondents were familiar with the European Green Deal and the New European Bauhaus. The majority of respondents indicated limited awareness of the European Green Deal, with the highest number stating that they have only heard of it. In relation to the New European Bauhaus findings suggest that while a notable portion of respondents have heard of the New European Bauhaus, a significant number remain unaware of it. This suggests a need for increased dissemination of information and educational efforts to

enhance understanding and engagement with this significant European initiative aimed at addressing climate change and promoting sustainability.

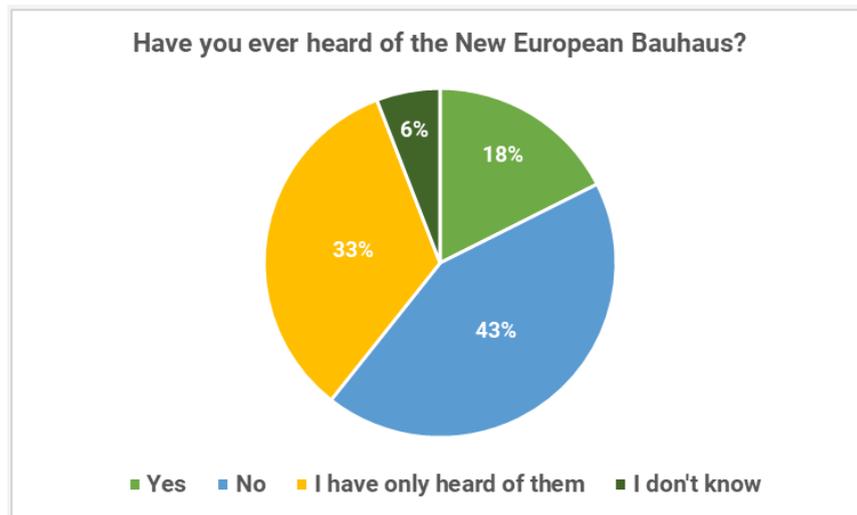


Figure 6: Awareness of the New European Bauhaus across all target groups (n=376)

The data presented in the section outlining the existing knowledge across students, graduates, educators & working professionals in SDGs & the NEB suggests a varied level of existing knowledge among students, graduates, educators, and working professionals regarding the UN Sustainable Development Goals (SDGs), the European Green Deal, and the New European Bauhaus (NEB) initiative. While educators and creative professionals generally demonstrate higher levels of familiarity with these initiatives compared to students, there is still room for improvement in deepening understanding and engagement across all groups. Additionally, a significant portion of respondents, particularly students, appear to have limited awareness of these initiatives, indicating a need for enhanced education, awareness campaigns, and dissemination of information to foster greater understanding and active participation in sustainable development efforts.

In addition to the survey results, insights from focus groups conducted as part of this study reveal that across all groups—students, graduates, educators, and working professionals—there was minimal awareness of the UN Sustainable Development Goals (SDGs), the European Green Deal, and the New European Bauhaus (NEB) initiative as only few participants were able to provide a thorough explanation of these concepts during the discussions. These findings underscore the need for comprehensive educational interventions and awareness campaigns aimed at enhancing understanding and engagement with these critical sustainability initiatives among diverse stakeholders.

Current Integration of SDGs in HE Art & Design Education/Current Course Structures

In recent years, there has been a growing recognition of the critical role that Higher Education (HE) institutions play in advancing sustainability and addressing global challenges. Within the realm of Art & Design Education, this recognition has prompted a closer examination of how Sustainable Development Goals (SDGs) are integrated into current course structures. As the

imperative for sustainability becomes increasingly urgent, educators and institutions are faced with the task of aligning curricula and pedagogical approaches with the principles and objectives outlined in the SDGs. This section aims to explore the current state of integration of SDGs within HE Art & Design Education.

Many design schools and courses across Europe have responded to this initiative by updating their curricula to include modules or courses specifically focused on sustainable design practices. These may cover topics such as eco-friendly materials, energy efficiency, circular design principles, and social responsibility in design, yet through the survey results this response needs to be accelerated.

Furthermore, the New European Bauhaus encourages interdisciplinary collaboration and co-creation, which has prompted design programs to incorporate collaborative projects with other disciplines such as engineering, environmental science, and social sciences to address complex sustainability challenges.

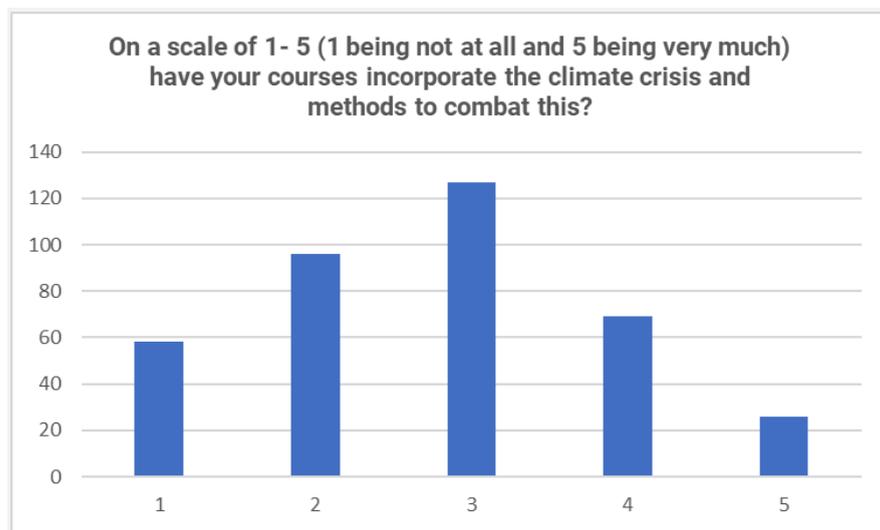


Figure 7: Integration of themes in course structures across all target groups (n=376)

When asked if participants' educational courses had incorporated the climate crisis and methods to combat this, survey results indicate a varied level of integration of climate crisis education and mitigation methods within Higher Education (HE) Art & Design programs. A significant portion of respondents rated their education's incorporation of these topics moderately (3) (127 respondents) or somewhat (2) (96 respondents), a notable proportion indicated lower levels of integration, with 58 respondents rating it as not at all (1). Conversely, a smaller but significant number of respondents (69 rated it as 4 and 26 as 5) expressed a high degree of incorporation. These findings suggest a mixed landscape in the current integration of climate crisis education within HE Art & Design programs, highlighting opportunities for further enhancement and prioritization of sustainability education initiatives.



Figure 8: Integration of SDGs in course structures across all target groups (n=376)

In relation to the integration of themes to combat the climate crisis, participants were asked about the integration of the UN Sustainable Development Goals. The survey also revealed a diverse landscape. While a notable portion of respondents (140) indicated that the SDGs are incorporated, a considerable number (76) reported that they are not. Additionally, a significant proportion (160) expressed uncertainty about the incorporation of SDGs into their design education or practice. These findings suggest a need for greater clarity and awareness regarding the integration of SDGs within design education and practice, as well as potential opportunities for enhancing alignment with sustainable development objectives. As there was a varied level of response it is important to assess the differences across target groups.

Students: The majority of students indicated uncertainty (122) about whether the UN Sustainable Development Goals (SDGs) are incorporated into their design education. A significant number of students (36) reported that the SDGs are not incorporated into their education. This highlights a potential gap in sustainability education within design programs, which could be addressed through curriculum enhancements and awareness-raising initiatives.

Educators: While a considerable proportion of educators (39) affirmed the incorporation of the SDGs into design education, a smaller number (18) indicated that they are not. The relatively low number of educators expressing uncertainty (12) about the incorporation of SDGs indicates a higher level of awareness or clarity among this group compared to students. However, efforts may still be needed to ensure consistent integration of sustainability principles across all design education programs.

Creative Professionals: Similar to educators, a significant proportion of creative professionals (36) reported the incorporation of SDGs into their design practice. This indicates a recognition among professionals of the importance of aligning design work with sustainability objectives. However, a notable number of creative professionals (22) indicated that the SDGs are not incorporated into their practice, suggesting potential opportunities for further integration of sustainability principles within the design industry. The relatively high number of creative

professionals expressing uncertainty (26) about the incorporation of SDGs highlights a need for clearer guidance or resources to support sustainability initiatives within design practice.

When examining which specific SDGs were incorporated, the data suggests that certain goals are more commonly integrated than others. Goals related to [quality education, industry innovation and infrastructure, sustainable cities and communities, and partnerships for the goals](#) appear to be among the most frequently incorporated. On the other hand, goals such as [zero hunger, life below water, and life on land](#) seem to be less commonly integrated.

Overall, these findings highlight the need for further efforts to enhance awareness and integration of the SDGs into design education and practice across all levels. The extent to which sustainable design and the New European Bauhaus are integrated into design education can still vary depending on factors such as the institution's resources, faculty expertise, and the specific focus of the design program. Some institutions may be more proactive in embracing these principles, while others may be slower to adapt. By producing micro credential courses, with a supporting educator toolkit and training through the 'Futures Designed' project will also aid institutions in the development of their programs.

Educational & Training needs of Target Groups/Gaps in Current Education

In today's rapidly evolving global landscape, addressing sustainability challenges requires not only individual awareness but also comprehensive educational and training initiatives across various sectors. This section examines the educational and training needs of target groups by identifying gaps in current education, we aim to highlight areas for improvement and propose strategies to enhance sustainability education and training initiatives. Through a combination of desk research, stakeholder consultations, and analysis of existing educational frameworks, this section seeks to provide insights into how educational institutions and training programs can better equip individuals with the knowledge, skills, and competencies needed to address pressing sustainability challenges effectively.

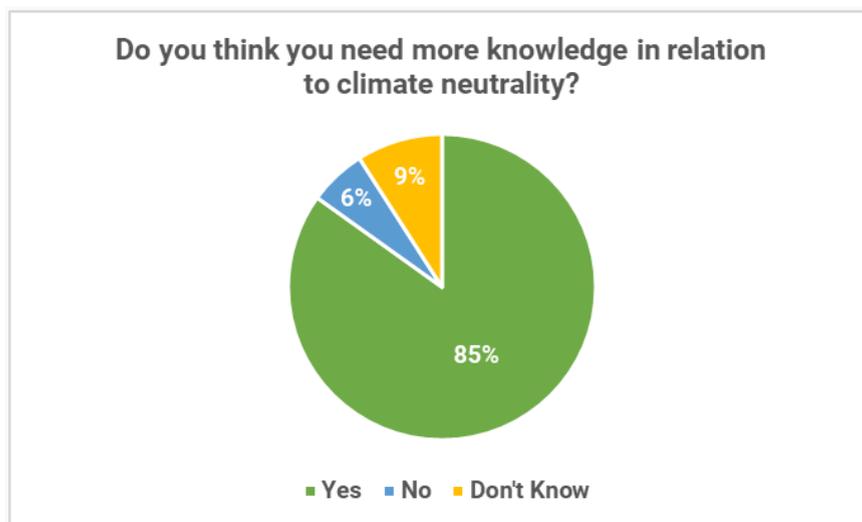


Figure 9: Need to upskill across all target groups (n=376)

First and foremost it was crucially important to understand if the target groups believed that they needed more knowledge in subjects related to climate neutrality. The majority of respondents (310 out of 365) expressed a need for more knowledge, indicating a recognized gap in understanding or awareness of this topic among the surveyed individuals. This underscores the importance of further education and awareness initiatives to address the knowledge needs of the respondents and enhance their capacity to contribute to efforts aimed at achieving climate neutrality.

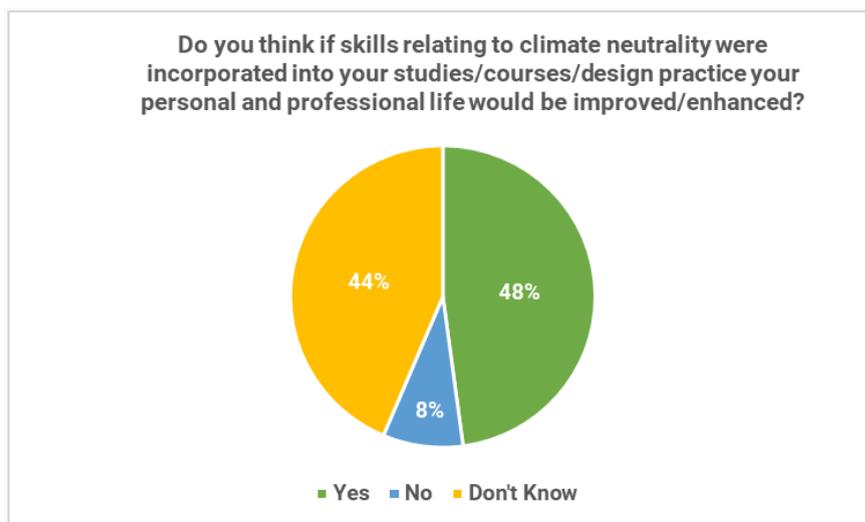


Figure 10: Improvement of personal and professional lives across all target groups (n=376)

It was also important to gauge if participants believed that if these skills were gained it would have a significant impact on both their professional and personal lives. The data suggests that a significant portion of respondents (180 out of 376) believe that incorporating skills relating to climate neutrality into their current studies or professional practice would improve or enhance both their personal and professional lives. However, a notable number of respondents (164) indicated uncertainty about the potential impact, while a smaller proportion (32) expressed a belief that their lives would not be improved or enhanced by such skills. These findings highlight the importance of considering the perceived benefits and potential challenges associated with integrating climate neutrality-related skills into educational curricula and professional training programs. Further exploration of the reasons behind respondents' perceptions could provide valuable insights for designing effective education and training initiatives aimed at fostering sustainability skills and competencies. During focus group discussions it was noted that the response of uncertainty was most likely linked to the respondents lack of knowledge of the subject matter. If they had a comprehensive understanding of skills relating to climate change they would further be able to understand how this could benefit them personally and professionally.

During the Desk research performed for the needs analysis a series of themes relating to climate neutrality, SDGs, NEB and the European Green Deal were identified. In order to produce meaningful outcomes of the 'Futures Designed' project and to assess the educational & training needs of target groups as well as gaps in current education, the survey enquired if these themes were taught during the participants current courses or prior education.

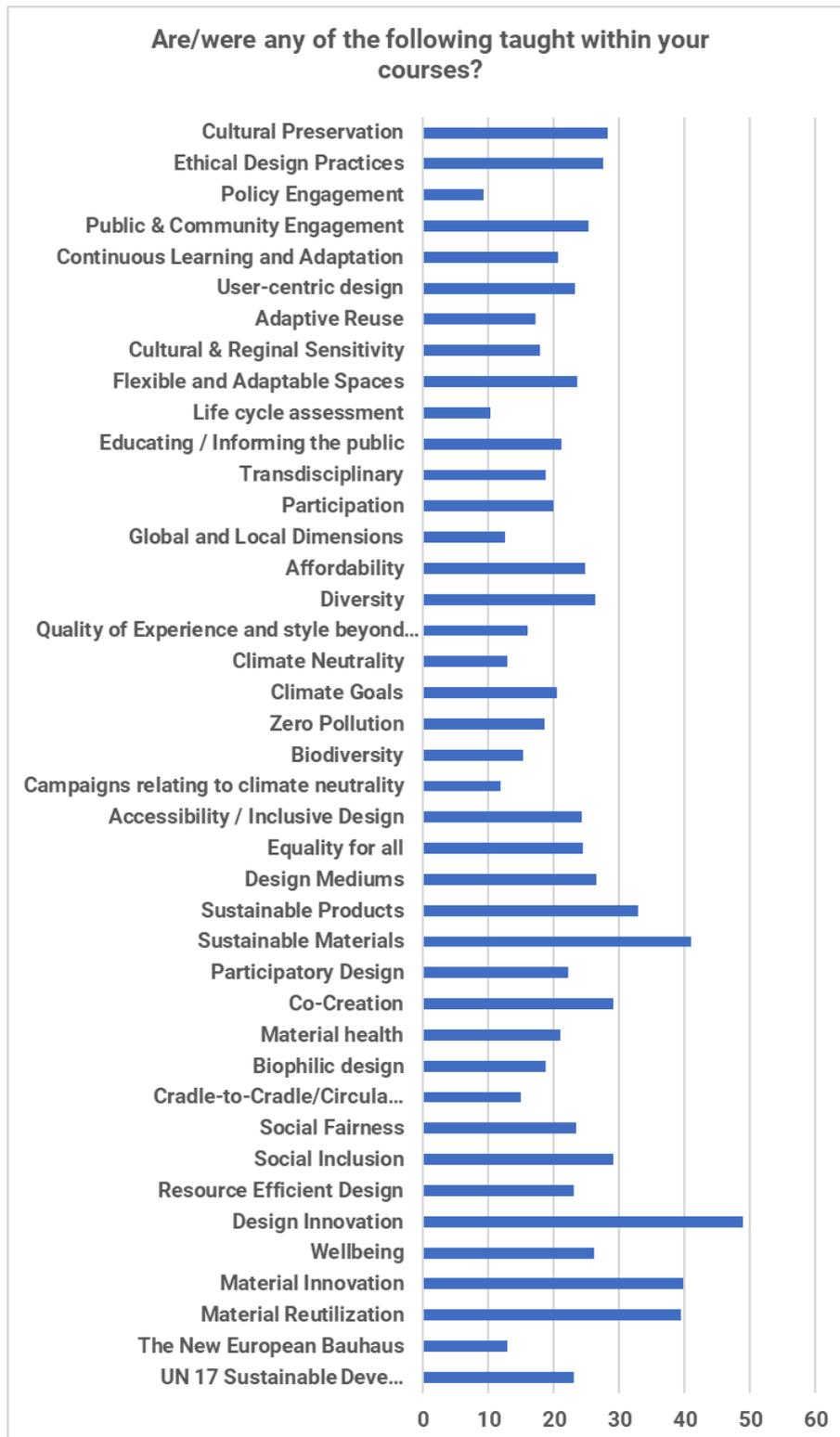


Figure 11: Gaps in themes across all target groups (n=376)

Data reveals a diverse landscape in the integration of sustainability-related topics within educational curricula. While certain areas such as [Design Innovation](#) and [Sustainable Materials](#) appear to receive relatively high levels of coverage, others such as [Campaigns relating to Climate Neutrality](#) and [Life Cycle Assessment](#) show lower levels of inclusion. These findings suggest both strengths and areas for improvement in current educational practices. Addressing the gaps identified in the coverage of key sustainability topics could enhance the preparedness of students and professionals to address pressing environmental and societal challenges effectively. Furthermore, fostering a more comprehensive and holistic approach to sustainability education could better equip individuals with the knowledge, skills, and competencies needed to contribute meaningfully to the transition towards a more sustainable future. It is also important to look at the three target groups individually:

Students: The themes that received relatively higher levels of integration into students' courses include [Design Innovation](#) (40.93%), [Sustainable Materials](#) (53.68%), and [Sustainable Products](#) (41.08%). This suggests a focus on practical aspects of sustainability within design studies. However, themes such as [Policy Engagement](#) (5.53%), [Climate Neutrality](#) (6.93%), and [Life cycle assessment](#) (9.15%) were among the least integrated. This indicates potential gaps in addressing broader environmental policy frameworks and comprehensive assessment methodologies within students' education.

Educators: Educators demonstrated a relatively higher level of integration across most themes compared to students. Notable integrations include [Design Innovation](#) (45.4%), [Sustainable Materials](#) (33.9%), and [Design Mediums](#) (20.5%). However, similar to students, themes such as [Policy Engagement](#) (15.2%), [Climate Neutrality](#) (14.85%), and [Life cycle assessment](#) (10.92%) were among the least integrated. This suggests a need for educators to further incorporate broader environmental and policy considerations into their curriculum.

Creative professionals: Creative professionals exhibited a similar pattern of integration as educators, with relatively higher levels across most themes. Notable integrations include [Design Innovation](#) (60.34%), [Sustainable Materials](#) (35.34%), and [Ethical Design Practices](#) (44.34%). However, themes such as [Policy Engagement](#) (6.66%), [Global and Local Dimensions](#) (8.66%), and [Biodiversity](#) (14.66%) were among the least integrated. This indicates potential gaps in addressing broader environmental and societal contexts within professional development programs for creative professionals.

Overall, these conclusions highlight the varying degrees of integration of sustainability-related themes across different educational and professional groups. Addressing the gaps identified, particularly in areas such as policy engagement and broader environmental considerations, could enhance the effectiveness of sustainability education within design studies and professional practice.

In order to address these gaps an interdisciplinary approach was highlighted across participants. Topics such as [Transdisciplinary](#) and [Co-Creation](#) demonstrated a moderate level of coverage. This highlights the importance of adopting an interdisciplinary approach to sustainability education, which can help students and professionals develop the skills to collaborate across different fields and address complex sustainability issues effectively.

Some of the emerging concepts, such as The [New European Bauhaus](#), show relatively low levels of coverage. Given the increasing importance of initiatives like the NEB and the focus of the

'Futures Designed' project' in promoting sustainable design and innovation, there may be opportunities to expand educational offerings in this area to better prepare students and professionals for the evolving sustainability landscape.

Ethical Design Practices receive a relatively high level of coverage, indicating a growing recognition of the importance of ethical considerations in design and decision-making processes. Integrating ethical perspectives into sustainability education can foster responsible and conscientious practices among future professionals.

While topics like **Global and Local Dimensions** and **Cultural & Regional Sensitivity** demonstrate some level of coverage, there may be room for further emphasis on understanding the interconnectedness of global and local sustainability challenges and the importance of considering cultural and regional contexts in sustainability initiatives.

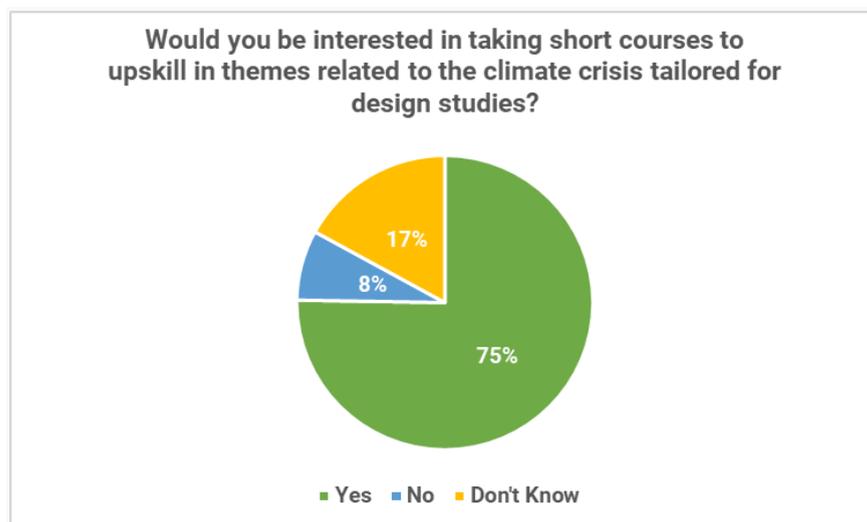


Figure 12: Interest in short courses across all target groups (n=376)

A key finding for the needs analysis was to understand how many respondents would be interested in taking short courses in themes related to the climate crisis. The majority of respondents (283 out of 376) expressed interest in taking short courses to upskill. This indicates a strong desire among surveyed individuals to further enhance their knowledge and skills in addressing climate-related challenges within the context of design studies.

During focus groups and workshops during the positive responses of the participants to undertake such courses it was also suggested that current gaps to be addressed were:

Alignment with Industry Trends: The higher integration of certain themes, such as Design Innovation and Sustainable Materials, may align with industry trends and emerging priorities within the design sector. Educators and training providers may need to continuously update curricula to ensure alignment with evolving industry standards and sustainability goals.

Interdisciplinary Collaboration Opportunities: Themes like Co-Creation and Transdisciplinary, which received moderate levels of integration, present opportunities for interdisciplinary

collaboration within the design studies community. Encouraging collaboration across disciplines could foster innovative solutions to complex sustainability challenges.

Need for Continuous Learning: The dynamic nature of sustainability issues necessitates a commitment to continuous learning and adaptation. Themes like Continuous Learning and Adaptation highlight the importance of fostering a culture of lifelong learning within the design studies community to stay informed about evolving sustainability practices and methodologies.

Importance of Ethical Considerations: The relatively high integration of themes like Ethical Design Practices underscores the importance of ethical considerations within design education and professional practice. Emphasizing ethical decision-making and responsible design practices can contribute to more sustainable and socially responsible outcomes.

These insights highlight the complexity and diversity of sustainability education and suggest opportunities for enhancing the depth and breadth of educational offerings to better equip individuals for addressing contemporary sustainability challenges. By providing a holistic understanding of sustainability issues and solutions, educational institutions can empower students and professionals to drive positive change in their respective fields and communities.

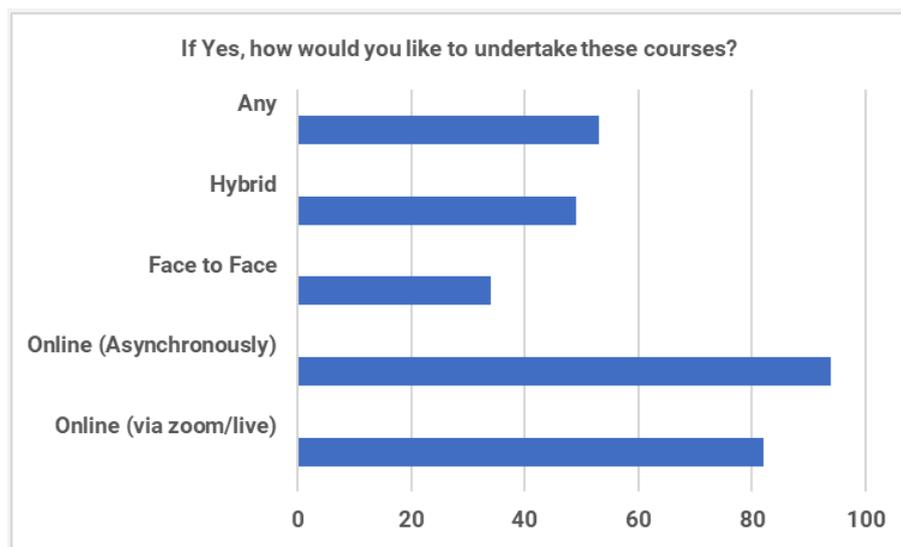


Figure 13: Course delivery across all target groups (n=376)

The project aims not merely at the upgrade of current educational courses, but at the upskilling of both Educators and Creative Professionals. As such it was key to understand how each of the target groups would like to undertake these courses. Responses indicate a variety of preferences among respondents for how they would like to undertake these courses. The highest number of respondents prefer asynchronous online courses, followed by live online courses (via zoom/live) and hybrid courses. A smaller portion of respondents prefer face-to-face courses, while some express a preference for any mode of course delivery.

Microcredential courses often have a modular structure and promote online learning, this allows learners to access course materials and participate in lectures and assignments from anywhere with an internet connection. This flexibility makes it easier for working professionals to fit learning into their busy schedules which is mirrored in the results and opinions of participants, revealing that the international of the 'Futures Designed' project to deliver the courses in a asynchronous way with an added on face-to-face practical workshop can find a solution for all target groups.

The majority of participants (220 out of 378) expressed interest in being informed about additional information regarding the project and having open access to the free courses produced in response to the questionnaire. This indicates a strong interest among surveyed individuals in staying updated on the project's progress and accessing the educational resources developed as part of the initiative. This was also mirrored in the focus groups and workshops.

However, 20% of respondents (77) indicated that they are not interested in receiving additional information or accessing the free courses, while others 22% (81) expressed uncertainty. These findings suggest the importance of providing clear communication channels and options for opt-in/opt-out to accommodate varying preferences among respondents.

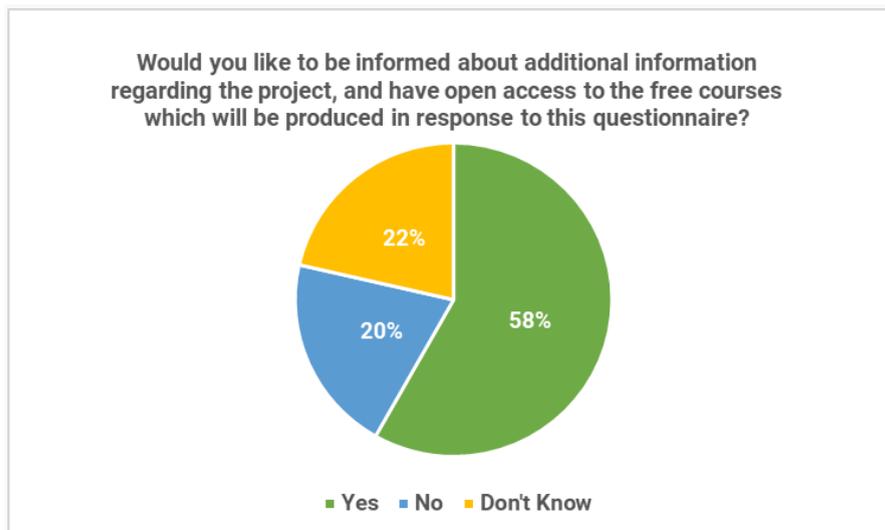


Figure 14: Further information about the project and courses across all target groups (n=376)

The findings from this section provide valuable insights into the educational needs, preferences, and interests of individuals within the design studies community regarding sustainability-related topics and courses tailored for addressing the climate crisis. Firstly, the data highlights a strong interest among respondents in upskilling and acquiring knowledge related to climate crisis themes within the context of design studies. A significant majority expressed a desire to take short courses tailored for this purpose, indicating a recognized need for further education in this area.

Furthermore, respondents demonstrated diverse preferences regarding the mode of course delivery, with a notable preference for asynchronous online courses, followed by live online courses and hybrid models. This suggests the importance of offering flexible and accessible learning options to accommodate different learning styles and schedules. Additionally, there is a clear interest among respondents in staying informed about the project and having open access to the free courses produced in response to the questionnaire. This underscores the value of transparent communication and providing opportunities for continued engagement and access to educational resources.

Overall, these findings underscore the importance of developing tailored educational initiatives that address the specific needs and preferences of individuals within the design studies community while also promoting accessibility, flexibility, and ongoing engagement. By aligning educational offerings with the interests and priorities of learners, educational institutions and training providers can effectively support the development of knowledge, skills, and competencies needed to address pressing sustainability challenges and drive positive change within the design industry and beyond.

Micro-Credential Recommendations

The data indicates the need for tailored approaches that resonate with diverse participant groups, ensuring relevance and impact. By highlighting specific SDGs that resonate most with each group, course developers can craft targeted learning experiences that address knowledge gaps and foster actionable insights. Furthermore, the emphasis on consistency and alignment underscores the importance of embedding SDGs across educational and professional contexts. Through Micro-credential courses, we have the opportunity to bridge these gaps, promote interdisciplinary collaboration, and empower individuals to contribute meaningfully to sustainable development efforts. By leveraging the insights gleaned from participant feedback, we can design courses that inspire and equip learners with the knowledge, skills, and motivation to drive positive change in their communities and beyond.

Key findings for Course Development

Educators' Commitment to Sustainable Design Integration: Design educators expressed a strong commitment to integrating sustainable practices into their work. Their insights will inform the content and focus areas of the Micro-credential courses, ensuring alignment with industry needs and sustainability goals.

Students' Awareness and Engagement with Sustainability Frameworks: Students demonstrated varying levels of familiarity with sustainability frameworks such as the UN Sustainable Goals and the European Green Deal. This highlights the importance of incorporating foundational knowledge on sustainability into the Micro-credential courses to ensure all participants have a common understanding.

Interest in New European Bauhaus: All Groups showed extensive interest in the New European Bauhaus initiative, viewing it as an opportunity to promote holistic and human-centric design approaches.

Need for Flexibility in Course Design: Participants emphasized the importance of designing micro-credential courses that are flexible and adaptable to the varying needs of students, educators and professionals. This includes considerations for different learning paces, backgrounds, and the incorporation of interdisciplinary approaches to ensure the courses are relevant and applicable across various design fields.

Integration of Practical and Theoretical Components: There was a strong consensus on the need to balance theoretical knowledge with practical applications within the courses. Participants suggested that the courses should include co-creative workshops, project-based learning, and real-world case studies that allow learners to apply sustainable design principles and New European Bauhaus values in practical scenarios.

Emphasis on Sustainability and Social Impact: The discussions highlighted a unanimous interest in ensuring that the courses not only focus on sustainability from an environmental perspective but also consider social impact and inclusivity. This involves preparing students and professionals to contribute to the green transition in a way that is socially responsible and aligned with the broader goals of sustainable development.

Emphasis on Practical Application: A unanimous agreement emerged on the importance of embedding practical applications and real-world project work within the micro-credential courses. Participants stressed that for sustainability principles to be effectively integrated into design education, students must engage in hands-on projects that reflect real-world challenges and solutions.

Interdisciplinary Approach: There was a strong call for an interdisciplinary approach in the course design, which would allow for the integration of sustainability into various facets of design education. This approach is seen as essential for fostering a holistic understanding of sustainability issues across different design disciplines, this approach is seen as essential.

Incorporation of Industry Insights: The workshop highlighted the value of including industry professionals' insights and experiences in the course content. This would ensure that the courses are relevant and up-to-date with current practices and challenges in the design field, making graduates more employable and better equipped to contribute to sustainable design solutions and better equipped to contribute to sustainable design solutions.

Practical Steps for Course Development

In order to cultivate a holistic approach to sustainable design education, the development of micro-credential courses requires careful consideration and strategic planning. This section outlines practical steps aimed at fostering a dynamic learning environment that integrates theoretical knowledge with hands-on experience.

Curriculum Design: Incorporate a mix of theoretical content and practical projects focusing on sustainability, climate change, and the principles of the New European Bauhaus. Use case studies and collaborations with industry to enrich the curriculum.

Online Learning Platform: Develop the courses for online delivery, ensuring they are accessible to a wider audience, including international participants. Utilize interactive platforms that support live discussions, group work, and hands-on activities.

Practical Resources: courses should provide comprehensive lists of suppliers and material lists, along with their specificities, enabling students, educators, and professionals to access sustainable materials easily. By facilitating access to such essential resources, participants will

be empowered to incorporate sustainable materials and practices into their design projects effectively.

Integration of NEB Values: To integrate the values of the New European Bauhaus (NEB) checklists and other similar tools should be incorporated. These tools will serve as practical frameworks for evaluating design projects against NEB principles, such as sustainability, inclusivity, and aesthetic quality.

Integration of SDGs and European Green Deal: Align the course content with the Sustainable Development Goals (SDGs) and the European Green Deal, addressing the areas most participants are concerned about and see as vital for their education and practice.

Professional Development: Offer specific modules aimed at professionals looking to integrate sustainability into their practice, as all professionals surveyed showed interest in this area.

Focus on practical application: The importance of embedding practical applications and real projects in micro-credit courses was agreed. It was stressed that the effective integration of sustainability principles into design education requires that students are involved in practical projects that reflect real challenges and solutions. In addition, providing industry collaboration in practical workshops could allow focus on the development of materials and trends.

Course Themes and Structure

In the context of our project's endeavor to shape the future of art and design education through the lens of sustainability and the NEB, this section delves into the thematic frameworks and microcredential offerings. Drawing insights from immersive focus groups and workshops, we display the diverse tapestry of themes based on participants feedback. These themes not only inform our educational initiatives but also serve as pillars for the design of targeted microcredential courses.

The major themes identified through [students](#) were the exploration of:

1. Themes to tackle [Zero Pollution](#): Through Campaigns, Social Events, Outdoor Group Projects, Hands on Projects and Group experimentation.
2. [Digital Innovation](#): Through face to face seminars, learning latest software, interactive lessons.
3. [Sustainable Materials](#) for the home: Through using sustainable materials, visiting places that are designed with sustainable materials, learning about the origin of materials, visiting places that practice sustainability.
4. [Material Health](#): Through creating places and products for vulnerable people, learning about industrial production, and researching existing material properties.

5. **Cultural and Regional Sensitivity:** Through visiting historical monuments, travel excursions, participating in traditional practices, visiting villages and museums.
6. Themes to tackle **Social Fairness:** and how to address social fairness through the design of public space.
7. The **17 UN Sustainable Goals:** and how to be more conscious about materials and processes used in all design work.
8. **User-Centric Design:** through the design of objects or products which are actually needed and would be utilised.
9. **Sustainability in Advertising Campaigns:** Through, climate neutrality, resource efficient design, sustainable products, zero pollution, design innovation techniques, digital innovation, life cycle analysis, equity for all and wellbeing.
10. **Heritage and Craftsmanship Preservation:** Through the 17 SDGs, ethical design practices, cultural and regional sensibilities, design mediums, social inclusion and fairness and cultural preservation.
11. **Sustainable Fashion:** Through Material Innovation, Co-creation, Sustainable Materials, Material Health, Materials Reutilisation, Diversity, Biodiversity, Adaptive Reuse, Participation and Affordability.
12. **Design and Sustainability** in general: Through the SDGs, Sustainable Materials, Climate Goals, Sustainable Products, biophilic design and biodiversity.
13. **Materials:** Through Material Reutilisation, Life Cycle Assessment, Material Innovation, Affordability, Material Health and Sustainable Materials.

From the **Educators** perspective, suggestions were more specific to their existing courses and how these themes could be integrated. The major themes identified through educators were:

1. **Research Design Projects**, including appropriate material, sourcing research, ethical product design and production: Through Material Health, Design Innovation, Sustainable Products, Various Design Mediums, Wellbeing, Material Innovation and Sustainable Materials.
2. Design project examining **issues related to local industry** and its effect on the direct environment: Through an analysis on the design process and production as well as its effect on the environment, including consumerism and waste. Themes that are connected are: Climate neutrality, Zero Pollution, Climate Goals and Flexible and Adaptable Spaces.
3. Projects relating to **Product Design, Advertising Design, Image Making:** Should include processes to be informed, student centred research and discussions. Through these means' students get informed and can create and discuss an art work based on their process. Themes to be included are, Equality for all, Participation, Social Fairness, Participatory Design, Educating/Informing the Public, Diversity, Co-Creation, Cultural and Regional Sensitivity.

The major themes identified through [creative professionals](#) were the exploration of themes to:

1. Tackle [Biodiversity](#): Through life cycle assessments and Material Health. In addition, Biophilic Design, Transdisciplinarity and Biodiversity should also be considered in the course.
2. [Sustainable Fashion](#): looking at cradle to cradle design and the circular economy was advocated through sustainable products and adaptive reuse.
3. [Living Textiles](#): Through Material Health, Biophilic Design, Material Innovation and Life Cycle Assessment.
4. [Heritage in today's design](#): Through cultural and regional sensitivity and cultural preservation
5. [NEB](#): Through The understanding of climate goals, SDGs and the NEB in general, including current projects and case studies. As well as co-creation, participation and Adaptive reuse.
6. [Zero waste and Modular Design](#): Through Resource Efficient design, Digital Innovation and the Circular Economy
7. [Green Futures](#): Through Climate goals, zero pollution, Biodiversity and campaigns relating to climate neutrality
8. [Design Cultures](#): Through Social Inclusion and Fairness, Diversity, Equality for all, Continuous Learning and Adaptation, Ethical Design Practices and Informing the Public.
9. A course on [Bylaws](#) was also suggested: Through public and community engagement, Policy engagement, Transdisciplinarity, Cultural and Regional sensitivity and Global and Local Dimensions.
10. Professionals also explored the idea of [Ethics in Design Processes and Use of Materials](#): Through Ethical design practices, Material Innovation, Material Reutilisation, Resource Efficient Design, Circular Economy, Sustainable Materials and a lifecycle analysis.
11. [Mass Production and Consumerism \(Against Design\)](#): Through Transdisciplinarity, Inclusive Design and Adaptive Reuse.
12. A [Cultural Melting Pot](#): Through social inclusion and social fairness in Cultural and Regional sensitivity and Global and Local Dimensions.

Conclusions

Literature sourced from the desk research suggests that the NEB in Education should be about: [educating educators, educators becoming learners](#); there needs to be a [focus on learners and the ways they see and look at the world](#); and it should be a [sustainable way to host circularity, efficiency, localism, and continuity](#).

The needs analysis has shown that it is highly necessary to heighten awareness of the climate crisis through the ideals of the SDGs and the NEB in Art & Design Education. As all target groups noted their enthusiasm in taking the courses designed through the project and wish to upskill.

The research has further shown that it is necessary to Integrate focused theory and ideals relating to SDGs and NEB (Life Cycle, Assessment Circular Economy, Biophilic Design etc.) into design courses in a focused theoretical context as well as to Integrate themes from the focused theoretical context into practically applied design studio courses (workshops). This allows flexibility for participants, for example creative professionals may opt only to take the online course, whereas for students it will be compulsory for the face to face workshops.

The next stages of the project to heighten awareness of the climate crisis through the ideals of the SDGs and the NEB will be to develop six open access Micro-Credential Courses to be taken asynchronously and six complementary workshops to be taken face to face in alternative spaces of learning.

In order to Integrate terminology and ideals relating to SDGs and NEB into design courses in a focused theoretical context Case Studies, Recorded Lectures, Videos, and Assessment Methods such as Quizzes, and Student written Assignments will be utilized. In order to Integrate themes from the focused theoretical context into practically applied design studio courses (workshops), Practical Workshops based on real world projects will be designed with a Co-Design Methodology and a focus on Experimentation of materials and products.

Lastly in order to facilitate Students: Face to Face learning, Educators: Hybrid methods and Creative Professionals: Online learning we will conduct and Exploration of Alternative spaces of Learning, Produce an Online E-Learning Platform, an Educational Toolkit and perform Pilot Studies to assess the effectiveness of the courses in action. In relation to the Method of delivery of the new targeted courses as their was such a variety in responses, a fair and balanced option would be an Asynchronous model of delivery was preferred where two thirds of their time would be spent online at periods convenient to them and then a 16 hr face to face design workshop will utilise the skills learnt.

Courses will be available to current students as well as to graduates and professionals in the industry as add on qualifications thus providing equal opportunities. In addition, the training and upskilling of educators in the sector will also play a pivotal role in the future of Art & Design Education and the sustainable competences of Educators.

Following the paradigm set by the NEB, course content will facilitate the green transition, focusing on the ideals of the NEB and Sustainable Development Goals (SDGS) to effectively achieve the goals of the European Green Deal, targeted case studies, research and practical projects across different design genres will apply the new competencies and evaluate the students newly acquired skills. At the same time providing a participatory way to understand,

experience and embrace sustainability and inclusion, provides a sense of initiative, active citizenship and ethics for continued lifelong learning, not merely environmental sustainability which is currently a focus.

Integrating micro-credentials into existing HE Arts & Design programs will allow students to choose a larger number of reduced load courses providing targeted knowledge and skills. In line with EU recommendations the courses will complement existing qualifications, and be used in the role of Art Electives, providing added value while not undermining the core principle of the full degree programs. This model aims to simulate innovative learning and teaching practices within the discipline. Course content will facilitate the green transition, focusing on the ideals of the NEB and SDGS thus supporting the environment and fighting against climate change. Students will be appropriately assessed through online methods and in person through practical workshops, a crucial assessment method within the field of art & design to assure authentic work and critical thinking.

Using alternative spaces of learning to host courses, can also serve as facilitators for co-design experiences, multidisciplinary projects, and places to meetup, discuss and demonstrate the ideals of the NEB. These developments not only provide opportunities to current students but also flexible and easily attainable solutions to working professionals who wish to upskill or reskill.

Learning opportunities of smaller volume, in comparison to traditional qualifications, are being developed rapidly across Europe making them a highly attractive way of acquisition of new skills and the development of already held skills. As well as curricula development, using shorter micro credential courses with fewer ECTS within Art & Design HE can promote a development in the educational structure of current HE Degrees allowing students to choose a larger number of reduced load courses, resulting in a greater number of skills in comparison with current high numbered ECTS art and free electives. The findings of the 'Futures Designed' project not merely allows the upskilling of current students, educators as professional creatives but our participants strongly identified that the outcomes of the project will act as a trampoline for the strengthening of the sector and the encouragement of young people to choose this field and have the capacity to change the face of Europe.

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