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Craft 4.0

I03 Pilot Test Final Report

Guidelines & Recommendations

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The Partners

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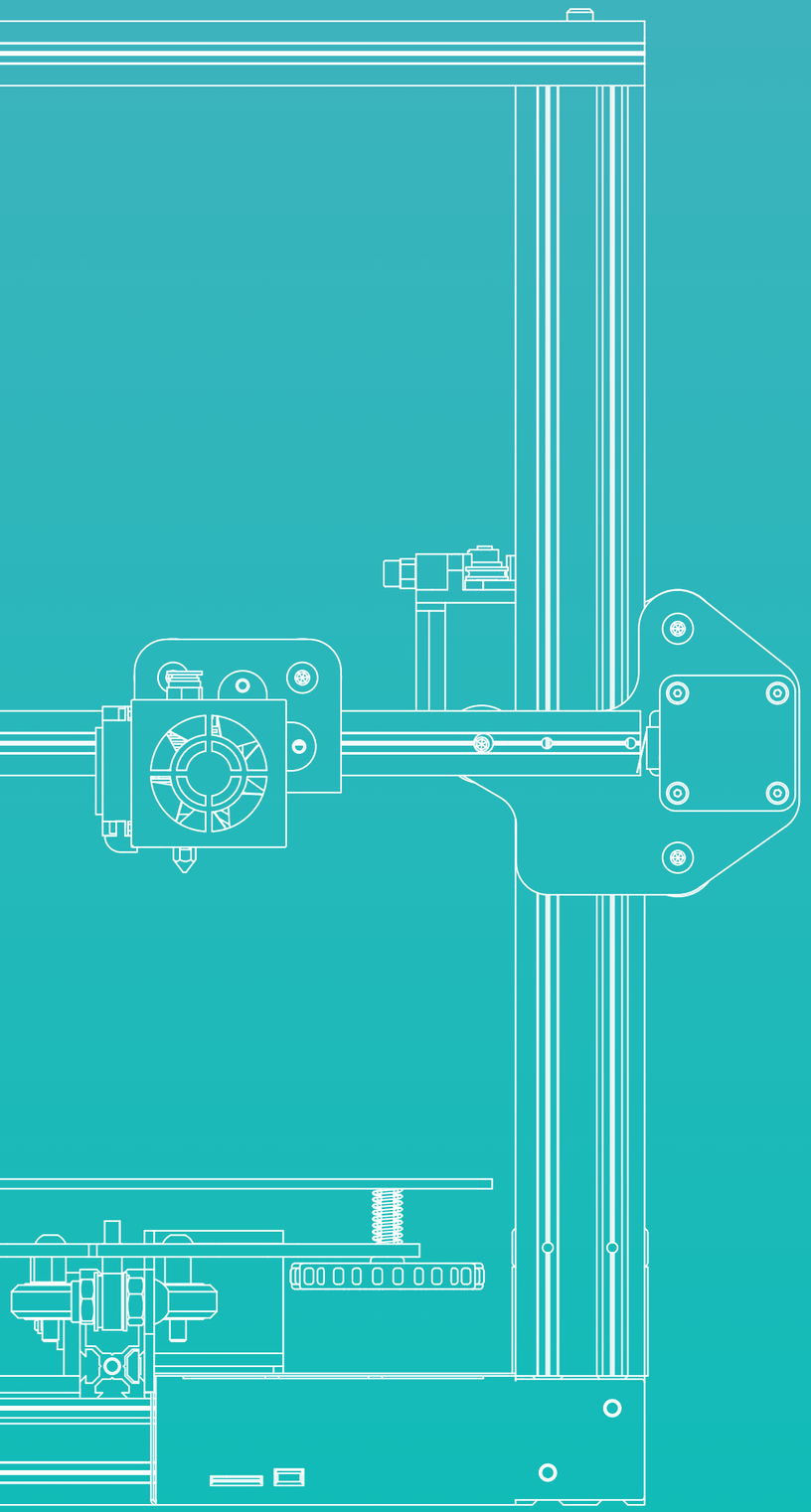


1. INTRODUCTION

1.1 CRAFT 4.0 OVERVIEW
WHAT IS THE AIM OF CRAFT 4.0?

Craft 4.0 was formulated with the aim of supporting the Craft sector through the provision of training in digital technologies such as digital modelling and digital manufacturing.

The general purpose of the project is to improve the performance of the Craft sector through the development of skills and knowledge in technologies such as 3D Printing, Laser Cutting and CNC Machining. Specifically, the project seeks to further improve:

- Market performance
- Customer engagement
- Marketing strategy
- Use of IT tools for the production processes
- New business opportunities
- Sense of entrepreneurship and innovation

The cost barriers for digital manufacturing processes such as 3D Printing, have reduced substantially for individual craftspeople and small craft businesses. However, there remains knowledge barriers in competencies and skills in the use of these technologies.
In response to this, the Craft 4.0 platform delivers training content which porvides a clear, understandable, and accessible framework for use of these technologies aimed directly at Craft and Creative sector practice.

1.2 CRAFT 4.0 INTELLECTUAL OUTPUTS
THE THREE MAIN OUTPUTS

In general, the project outputs improved and evolved individual craft businesses by:

- Bettering digital competences in the craft sector
- Advancing their product design & development skills
- Enhancing the craft-making process
- Increasing sectoral networking both locally & internationally
- Increasing customer engagement

Craft 4.0 three main outputs are:

Intellectual Output 1 (IO1)
Formation of a training model and curriculum with targeted and clear learning outcomes that ensures transferability.

Intellectual Output 2 (IO2)
Creation of training content which allows craftspeople to acquire a set of innovative technological skills.

Intellectual Output 3 (IO3)
Accumulation of guidelines and recommendations, providing an exemplar for the future potential utilisation of Craft 4.0.

I01 RESEARCH REPORT
THE MULTIDIMENSIONAL CRAFT ENTREPRENEUR

Craft 4.0's first intellectual output is an inspiring publication called, The Multidimensional Craft Entrepreneur. This can be found at:

https://craftproject.eu/news/craft-40s-first-intellectual-output-inspiring-publication-called-multidimensional-craft

I02 MODULE CONTENT
BREAKDOWN OF MODULE UNITS

The Platform can be found in five languages at:

plp.craftproject.eu

Module 1 - Craft Design & Digital Technologies
1. Introduction to Module
2. Emergence of Digital Design
3. History of Digital Making
4. Introduction to Digital Making
5. Additive Vs Subtraction
6. Introduction to Subtractive Approaches
7. Subtractive Approaches - 2D Cutting
8. Subtractive Approaches - 3D Shaping
9. Subtractive Approaches - Turning
10. Introduction to Additive Approaches
11. Additive Approaches - FFF
12. Additive Approaches - Vat Polymerisation
13. Additive Approaches - SLS

Module 2 - Digital Design
1. Introduction to Digital Design
2. Design Approaches - Vector Drawing
3. Design Approaches - Solid Modelling
4. Design Approaches - Surface Modelling
5. Design Approaches - Digital Sculpting
6. Design Approaches - 3D Scanning
7. Design Approaches - Parametric Design

Module 3 - From Digital to Physical
1. CAD File Types
2. Machine Learning
3. CAM & CNC Post Processing
4. 3D Print Slicing
5. Laser Cutting Example Project
6. 3D Printing Example Project
7. CNC Router in Detail
8. Tools and Cutters

1.2.1 I01 OVERVIEW
THE MULTIDIMENSIONAL CRAFT ENTREPRENEUR

IO1, The Multidimensional Craft Entrepreneur, includes:

A Research Report
A report of findings and survey results from craft professionals providing direct insights into specific requirements for the development of a focused training strategy based on 3D printing, digital modelling and digital manufacturing. The report underpins the potential development opportunities for the craft sector in adopting these digital technologies and provides initial findings that will be utilised throughout Craft 4.0.

Case Studies of Digital Craftspeople
A collection of case studies sourced from the Craft 4.0 partners, showcasing European-based craft professionals and how digital modelling, 3D printing and other digital tools are used in their business. Furthermore, the case studies provide insights from established designers/ craftspeople who adopted digital technology, and their experiences in embracing these tools into their practice, thus providing an evidential context that ensures transferability and clarity within the proposed training.

Focus Group Recommendations
A collection of focus groups chaired by the Craft 4.0 partners further extrapolated the primary findings from the surveys and case studies, informing the design of the proposed training content. The focus groups were conducted through expert presentations and demonstrations of digital making technologies, and workshops/ discussions with participants of the potential applications within various craft sectors of these technologies

IO1 confirmed the relevance and importance of the Craft 4.0 project and provided a design brief for the development of a curriculum framework which would be used in the next Intellectual Output.

1.2.2 I02 OVERVIEW
PRODUCING AN ONLINE TRAINING PLATFORM

IO2 involved the creation of:

The Craft 4.0 Training Platform
The development of an online training platform which would be used to host the training content and support the learning needs of the craft sector in the area of digital modelling, digital manufacturing and additive manufacturing processes.

The Craft 4.0 Training Content
The development of extensive training content specific to the project in the form of video tutorials, presentations and tests, providing craft professionals with learning resources to help develop their practice and business through adoption of digital making technologies.

I02 MODULE CONTENT - CONTINUATION*
BREAKDOWN OF MODULE UNITS

Module 4 - How Digital Craft Can Relate to My Practice
1. Ceramics & Glass Crafts
2. Fashion & Textile Crafts
3. Metalwork & Jewellery
4. Wood Craft & Furniture Design
5. Papercraft & Toy Design
6. Other Applications & Resources

Module 5 - Craft Future
1. Sustainable Development
2. Intellectual Property
3. Digital Craft & Business
4. Wood Craft & Furniture Design
5. Papercraft & Toy Design
6. Other Applications & Resources

Module 6 - Craft Examples
1. Furnishings Case Study - Baby Mug
2. Furnishings Case Study - Air Purifer
3. Furnishings Case Study - Wooden Spoon
4. From Handcraft to Digital - Pendant
5. From Handcraft to Digital - Candle Holder
6. From Handcraft to Digital - Teaspoon
7. Craft Exemplars - Arosha Jewellery Design
8. Craft Exemplars - 3D Printed Ship Models
9. Craft Exemplars - Additive Technologies in Textiles
10. Craft Exemplars - Laser Cutting Wooden Gifts

Available Assessments
1. Module 1 - Craft Design & Digital Technologies
2. Module 2 - Digital Design
3. Module 3 - From Digital to Physical
4. Module 4 - How Digital Craft can Relate to My Practice

I03 FINAL REPORT
EVALUATIONS OF THE PILOT TEST

Craft 4.0's final intellectual output is a report produced after the platform's pilot testing & contains guidelines & recommendations for the future. This document is I03 and can be found at:

https://craftproject.eu/

I02 OVERVIEW - CONTINUATION*
PRODUCING AN ONLINE TRAINING PLATFORM

Showcase of New Opportunities to Craftspeople
A mechanism to inform the craft sector, the potential of digital modelling and digital/ additive manufacturing. This communicates the possibilities of these technologies and how they can be applied in the development, commercialisation, showcasing and marketing of future craft products and skills.

The Craft 4.0 platform consists of 6 modules, with a total of 47 units and 10 in-depth case studies. All content is available for free upon registration. The modules are:

Module 1 - Craft Design & Digital Technologies
An introduction to digital design and making processes.

Module 2 - Digital Design
A rundown of various digital design approaches and workflows.

Module 3 - From Digital to Physical
A guide on turning digital files into physical objects.

Module 4 - How Digital Craft Can Relate to My Practice
Showcasing methods and examples of real-life implementations.

Module 5 - Craft Futures
Outlining the business and sustainable aspects of digital crafts.

Module 6 - Craft Examples
In-depth case studies from ten various designers & craftspeople.

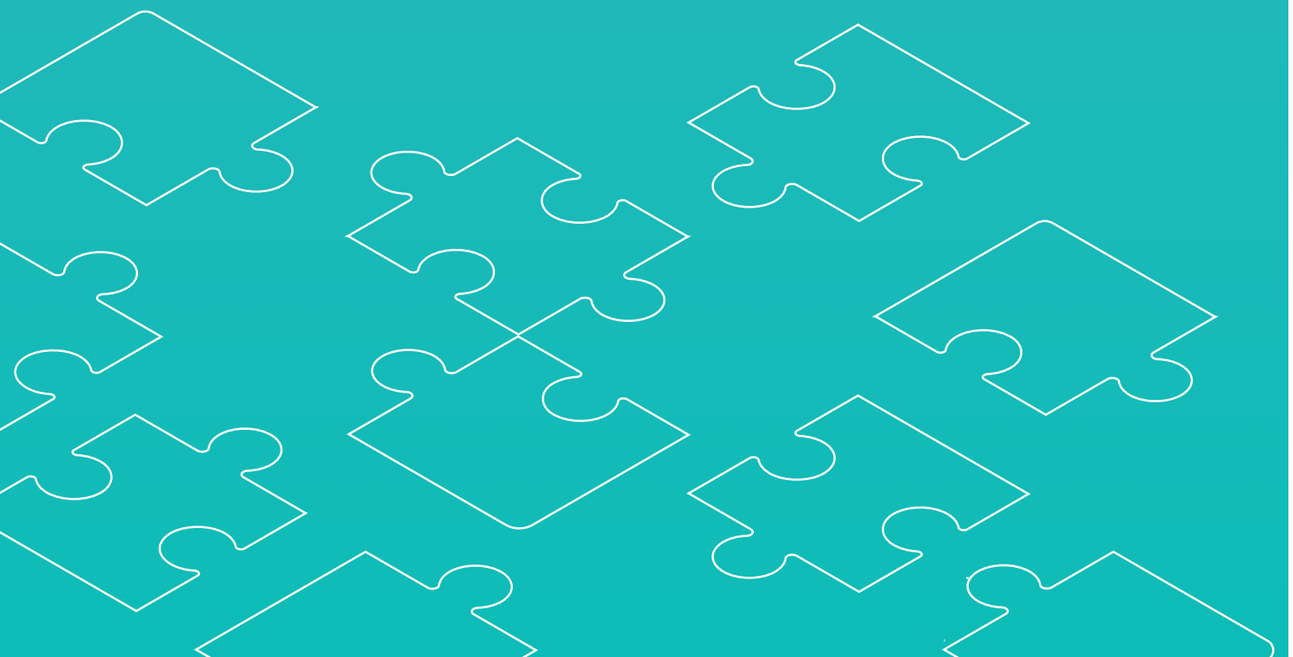
1.2.3 I03 OVERVIEW
PILOT TESTING THE ONLINE PLATFORM

This document represents Intellectual Output 3. It is a joint report containing information and analysis covering the three deliverables:

I03 - A1 Platform Pilot Test
Implementation of the pilot course based on I02 training materials.

I03 - A2 Evaluating Pilot Test
Gathering results of a survey of testers of the platform.

I03 - A3 Pilot Test Evaluation Report
Analysis of the pilot testing survey and project as a whole including recommendations and guidelines for future use.



2. APPROACHES FOR I03

2.1 METHODOLOGY OVERVIEW
IO3 PARTNER FRAMEWORK

The methodology was based on a common framework created by the partners, taking into account the pre-established objectives for Craft 4.0.

This comprised of internal and external user testing, obtaining feedback through questionnaires on the platform usability and the available training content. In line with the project indicators, the quality of the platform, accessibility, guidance tools and supporting materials was evaluated.

Each partner coordinated local testing with both stakeholders and craftspeople, including new participants and those involved in the previous project phases. Evaluation of the pilot test was through a system of data collection using questionnaires/ surveys and direct feedback loop through email, meetings and calls with users.

The data was locally obtained, translated, collated and discussed between the partners. Where applicable, the appropriate feedback was used to improve the platform in both functionality and content. Ultimately, the results of the study are presented comprehensively in this report.

2.2 I03 PLANNED PROCESS
TASKS UNDERTAKEN DURING I03

The pilot testing process involved:

1. Establishing terms of reference and performance indicators, agreed by the partners. Including the scope of the survey and collection method/ treatment of the obtained data. This ensured consistency between the partner's testing process.
2. Development of a rating system to provide clear, comparable and usable feedback combined with free text to allow individual responses, capturing detailed user feedback.
3. Translation of the assessments from English into the partner languages and adaptation of the survey to local requirements.
4. Coordination of testing and collection of responses.
5. Organisation, grouping and filtering of results.
6. Presentation, analysis and discussion of the results.
7. Development of actions/ improvement to be implemented into the platform based on feedback.
8. Development of recommendations and guidelines for this report which were agreed and validated by the whole partnership.
9. Guidelines for VET providers and the stakeholders about the best strategy to apply the course.
10. Recommendation for policy makers that show the further potential of the Craft sector when high level technologies are applied.

USER DEMOGRAPHIC BY COUNTRY
CRAFT 4.0 PARTNER COUNTRIES

1.	Sweden	22%
2.	Bulgaria	18%
3.	Italy	17%
4.	Spain	17%
5.	Romania	16%
6.	Ireland	9%
7.	Finland	1%

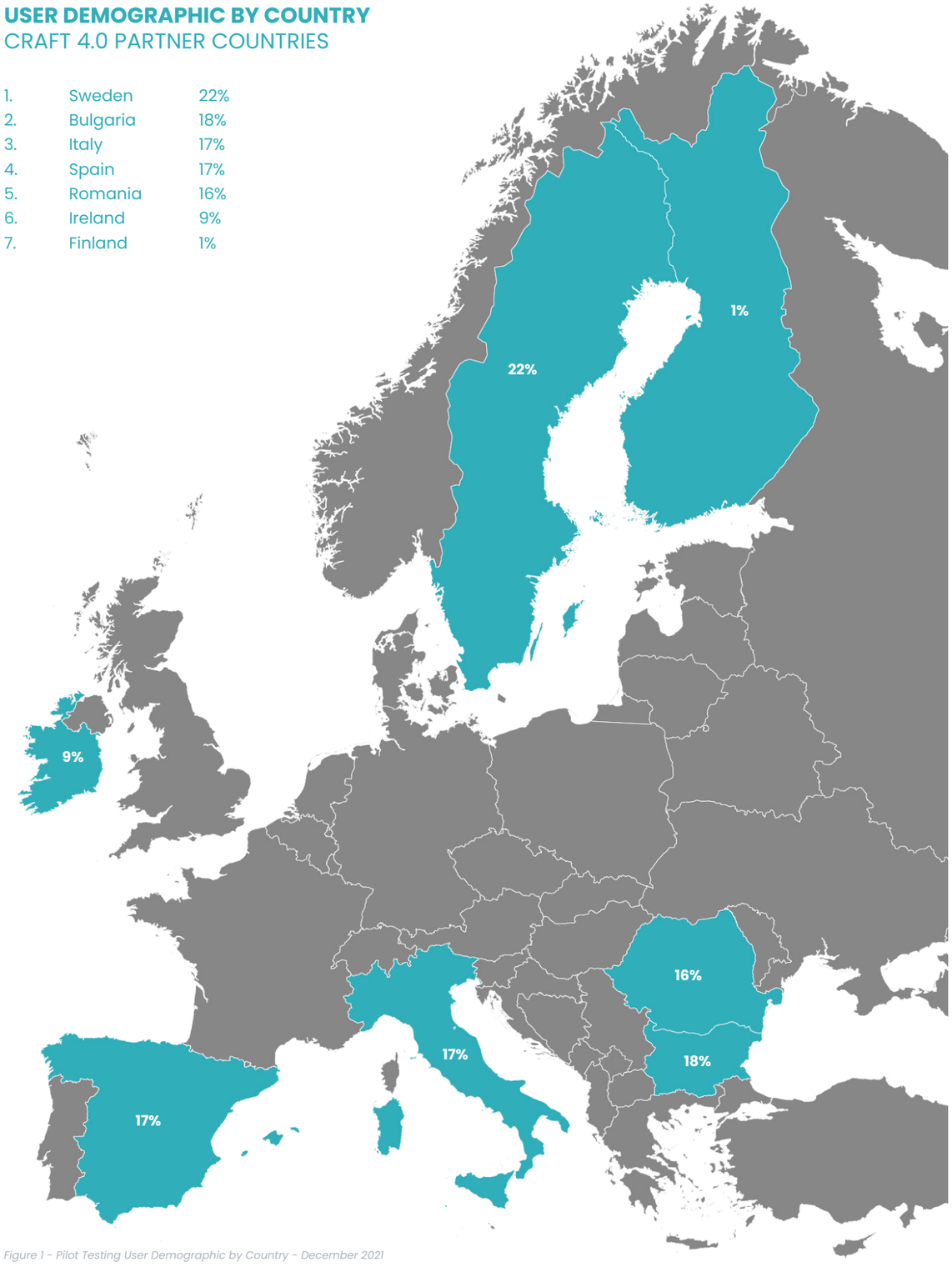


Figure 1 - Pilot Testing User Demographic by Country - December 2021

3. PILOT TEST - PARTICIPANTS

3.1 USER RECRUITMENT
OBTAINING PILOT TESTERS

Pilot Testing - Recruitment Process
It should be noted that the preferred method of pilot testing would have been partially through physical workshops, however, in the context of the pandemic this unfortunately was not possible.

In September 2021, a communication strategy was set up to enroll as many learners as possible into the Craft 4.0 platform. The strategy that was implemented by all partners was based on the following pillars:

- News and social media posts
- Contact related networks and media
- Direct contacts
- Multiplier and other events

At the date of this report the following usage numbers after 3 month period included:

4,100:	Site Visits
1,295:	Video views
2,400:	Minutes of video watch time
200:	Complete responses to the pilot questionnaire
561:	Unique comments/ suggestion comprising of 7,700 words

3.1.1 USER PROFILES
WHO ARE THE PILOT TESTERS?

Pilot Testing - User Demographic
A geographical representation was gained from user profiles who participated in the pilot test survey. All partner countries were represented, *seen in Figure 1.*

The career field of the pilot testers are in line with the project goals, *seen in Figure 2,* with 45% being involved in the Craft/ Design sector, 38% in the Training Provider sector and 17% in Other areas.

The category "Others" mainly includes students, freelancers, NGOs and SMEs from various sectors.

Figure 2 - Pilot Testing User Profession & Roles - December 2021

PILOT TEST SURVEY
ALL QUESTIONS AIMED AT RECEIVING FEEDBACK

Training Materials

1. Training materials (documents, videos, etc.) facilitate an easy learning process.
2. The audiovisual materials have worked well.
3. Contents were clear and comprehensive.
4. The training materials provided helped me better understand the presented issues.
5. The various training contents including additional materials seen during the course have been new and useful to me.
6. The description of the modules is appropriate.
7. The provided training materials are interesting.

Training Methodology

8. The content was well organized and easy to follow.
9. I liked the self-paced learning process of the training course.
10. Practical content associated with case studies enriched the learning process.
11. I liked the "tutorial" approach proposed by most of the modules.
12. The video subtitles allowed me to understand the training content even better.

Training Platform

13. The platform is intuitive and easy to navigate
14. I experienced no technical issues while using the platform
15. The platform has all the features necessary to facilitate the learning process.
16. I liked that the training was organised online.

Training Course

17. This course has improved my knowledge about the topics presented.
18. I will recommend the training to my colleagues and connections.
19. I learned something new
20. Which of the training course contents did you find more interesting and necessary for improving your competencies?
21. Explain why (not compulsory)
22. What was the best thing about the course?
23. Is there anything you didn't like about this training course?
24. How do you think you can apply the knowledge you've acquired from this course?

General Question

25. Please share any ideas you may have regarding how we could improve this training course (e.g. platform usability and features, training contents, presentation of contents etc.)

The full survey can be found here:
https://docs.google.com/forms/d/e/1FAIpQLSc6wyERjTWBa5Qz1akxMRZzCNymyR_EOaDKRKRTbpA6l2a3w/viewform?fbzx=-1434351923884721731

4. PILOT TEST - EVALUATION

4.1 CONTENT & PLATFORM EVALUATION
QUESTIONNAIRE OVERVIEW

The survey included 19 statement with multiple choice answers and 6 open questions. The statements are based upon the likert scale 10 points system. In practice, on each statement, the participants were asked to attribute a value from 1 to 10.

4.1.1 QUESTIONNAIRE AIM
GATHERING INFORMATION FROM PILOT TESTERS

The survey was aimed at receiving feedback with reference to:

Training Materials
Clarity of content, audiovisual materials, usefulness, interest and novelty, description of appropriate materials.

Training Methodology
Autonomy/ self-paced learning, the role of case studies and the approach based on tutorials and video clips.

Training Platform
The intuitiveness of the platform, completeness, navigability, and accessibility.

Training Course
How much it has contributed to generating additional and new skills, transferability of what has been learned, strengths & weaknesses of training and recommendations.

4.2 QUESTIONNAIRE RESULTS
OVERVIEW OF PILOT TESTER SATISFACTION

The overall satisfaction levels with the platform were very high *As seen in Figure 3*, the average satisfaction level across the 4 categories was greater than 8.5 out of 10 in all cases with the average satisfaction level being 8.77 out of 10.

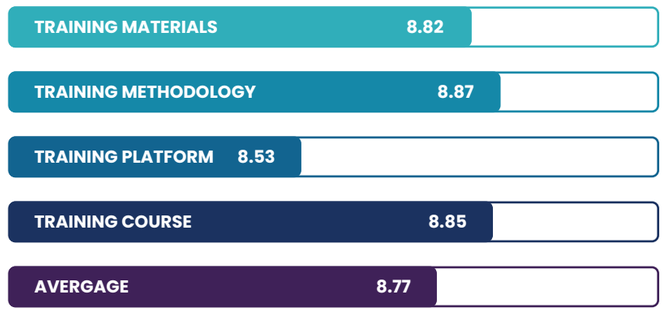


Figure 3 - Average Satisfaction Levels - Value Axis 8.10 to 9.00

TRAINING MATERIAL RESULTS
FULL STATEMENTS, IN ORDER IS AVAILABLE ON PAGE 16

Figure 4 - Training Material Results - Value Axis 8.2 to 9.1

Training Materials (Shortened)
1. Materials facilitate an easy learning process.
2. The audiovisual materials have worked well.
3. Materials were clear and comprehensive.
4. It helped me better understand the presented issues.
5. The course materials have been new and useful to me.
6. The description of the modules is appropriate.
7. The provided training materials are interesting.

TRAINING METHODOLOGY RESULTS
FULL STATEMENTS, IN ORDER IS AVAILABLE ON PAGE 16

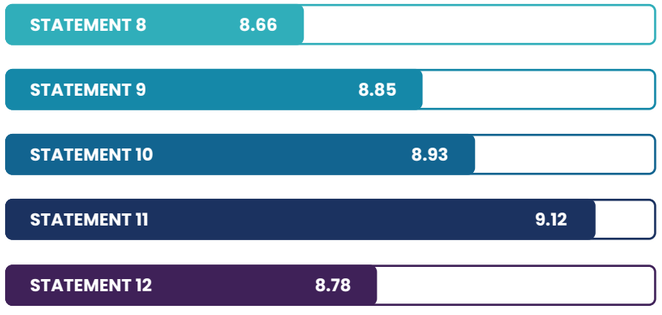


Figure 5 - Training Methodology Results - Value Axis 8.2 tO 9.20

Training Methodology (Shortened)
8. The content was well organized and easy to follow.
9. I liked the self-paced learning process of the training course.
10. Practical content & case studies enriched the learning process.
11. I liked the "tutorial" approach of most the modules.
12. Video subtitles allowed me to understand the materials better.

4.2.1 TRAINING MATERIAL RESULTS
PILOT TESTER FEEDBACK ON TRAINING MATERIALS

The level satisfaction with the training material was very high, averaging at 8.82 out of 10.

The module content is considered highly interesting with an average rating of 9 points out of 10, with only 2 out of 200 pilot testers in disagreement. The content can be considered as clear, well described and comprehensive, facilitating an easy learning process.

An average of 8.6 out of 10 considered the content to be "new" and "useful" for the users, with only 5% of the participants mentioning that they did not consider it new and/or useful enough.

Linked to this, is the recommendation made by some participants to also provide modules for the more experienced practitioners and the suggestion that the development of more in-depth/ detailed learning would be beneficial as a follow-up from this project. Another suggestion was to enable the community to propose or upload new training content to the e-learning platform.

4.2.2 TRAINING METHODOLOGY RESULTS
PILOT TESTER FEEDBACK ON TRAINING METHODOLOGY

The satisfaction of the training methodology was very high with the average rating of 8.87 out of 10. In particular, the pilot testers indicated the tutorial-based approach was very positive. This factor achieved the highest rating overall and received several positive comments in free text, with some respondents noting the appropriateness of this approach to the practical nature of the subject. The use of video content was also noted as being highly beneficial when explaining detailed technical concepts.

The use of case study examples was considered very positive. As explained by some participants, case studies can help contextualize and promote digital craft activity, with the subjects acting as inspiration for many learners. This practical content, associated with case studies, enriched the learning process.

Furthermore, the possibility of accessing the contents autonomously and experiencing a self-paced learning process was positively received. While the response was overwhelmingly positive, a small number of users (7 or 3.5%) are critical about how contents are organised.

TRAINING PLATFORM RESULTS
FULL STATEMENTS, IN ORDER IS AVAILABLE ON PAGE 16

Figure 6 - Training Platform Results - Value Axis 7.60 to 9.40

Training Platform (Shortened)
13. The platform is intuitive and easy to navigate.
14. I experienced no technical issues while using the platform.
15. Features necessary to facilitate the learning process is present.
16. I liked that the training was organised online.

TRAINING COURSE RESULTS
FULL STATEMENTS, IN ORDER IS AVAILABLE ON PAGE 16

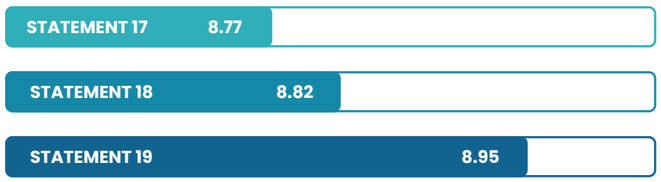


Figure 7 - Training Course Results - Value Axis 8.65 to 9.00

Training Course (Shortened)
17. Craft 4.0 improved my knowledge about the topics presented.
18. I recommend the training to my colleagues and connections.
19. I learned something new.

ALL MODULE RESULTS
WHICH MODULES WERE MOST INTERESTING?

Figure 8 - Pilot Testing User Profession & Roles - December 2021

Module Listing

M1	Craft Design & Digital Technologies	19%
M2	From Digital to Physical	33%
M3	How Digital Craft Can Relate to My Practice	22%
M4	Craft Futures	9%
M5	Craft Examples	17%

4.2.3 TRAINING PLATFORM RESULTS
PILOT TESTER FEEDBACK ON TRAINING PLATFORM

The training platform scored the lowest average, at 8.53 out of 10, the satisfaction level is still very high. It should be noted that at the time of testing there were some minor technical issues with the platform that have since been resolved.

Users appreciated the fact that the training was made freely available online. Many advantages were noted from several users of view including: it makes distance learning accessible and at any time on PC or mobile; being able to count on video material; step by step tutorials and ability to download the content that showcase sample projects, demos, studio work. This reflects positively on the economic sustainability of the learning.

On the other hand, some features were suggested by participants in order to facilitate an even better learning process. Suggestions which could be taken as recommendations for the future included: adding some activities that allow putting your learning into practice and validating the knowledge acquired; Creating a virtual space where community members can interact with each other; have a forum to ask questions to a tutor/ expert on the subject; planning classes/ online webinars where an expert explains some content of the course and the students can ask questions. Some of these elements are related to a more “blended” approach.

11 users have highlighted some specific usability/ navigation issues with the platform. Most of these have been addressed or are in the process of being addressed.

4.2.4 TRAINING COURSE RESULTS
PILOT TESTER FEEDBACK ON OVERALL PLATFORM

The overall training course was received very positively with scores once again reaching an average positive rating of close to 9 out of 10. Except in very rare cases, 2 from 200 users, found that they had learned something new and that the course improved the users’ knowledge of the topics presented. As further evidence of this practically, all the pilot testers stated that they would recommend the course to their colleagues and connections.

The module “From Digital to Physical” was rated as the most interesting and useful module for improving competencies of users in the sector. Modules 1, 3 and 5 all showed a similar level of interest. Module 4, which dealt with sustainability, intellectual property and business aspects rating the lowest.

4.3 PILOT TESTER FEEDBACK OVERVIEW
SUMMARY OF COMMENTS, FEEDBACK & RECOMMENDATIONS

The survey yielded 561 individual responses to free text questions comprising of 7,770 words in comments, recommendations and feedback. The individual responses are summarized below with the original comments available in the annex.

Responses to this question were grouped into the following five main thematic areas and are summarized as below:

Videos
The use of video content was extremely well received and attracted a large number of positive responses. Users appreciated how this approach allows an easy, free flowing and immediate access to the content on a variety of devices from fixed PCs to mobile phones. It allowed users to easily pause and learn at their own pace. The shortness of each clip and the high quality of the video production was appreciated by many users. The content was considered very informative and didactic. In general, users liked getting the information visually more than in a document, such as in module 4.

Tutorials
The tutorial approach was mentioned through many comments as one of the most positive aspects of the platform by many users. The tutorial-based approach works especially well in video format and was recognized as particularly appropriate for training on this topic, which combines theoretical learning and practical skills.

Concrete Craft Based Examples
Users identified the use of concrete examples of craft application very positively. There was a consensus that these can be an inspiration for learners while helping contextualize the evolution of craftsmanship in the digital era. Also, examples within the tutorial helped connect theory with practice.

Variety of Content and Holistic Approach
Many users commented positively on the breadth of material covered and having a single coherent source for learning about all these technologies and processes. They noted the clear progression and connection between the individual units as being positive. Also, the contextualization of learning by introducing the subject with a historical background and leading on to up-to-date examples with practical application was a appreciated.

Flexibility
The ability of the learners to take units in a non-linear and flexible fashion was viewed positively. This “cafeteria” model allows users to access content flexibly, whenever they want and as many times as they want, and to focus on the content they believe is more useful for their practice.

4.3.1 CONSTRUCTIVE FEEDBACK
SUMMARY OF AREAS TO BE ADDRESSED

Beyond some additional specific content requests by some users and some technical issues, there were three main themes found in responses to this question:

The lack of interaction with experts / teachers
Some users felt that while the content is very useful, training in this type of practical and creative material must be combined with hands-on based learning i.e. a "blended learning" model.

Blended learning, also known as hybrid learning, is an approach to education that combines online educational materials and opportunities for interaction online with traditional place-based classroom methods. Furthermore, users explained that in a classroom setting, users could learn about the experience of others and gain knowledge not only from the platform and training, but also from the participants themselves.

Response: While this project does not provide for a blended model, integration of this valuable training content with structured face to face learning would be a significant benefit to the craft sector. Indeed a number of organisations including some Fab Labs and Creative Hubs have contacted partners to request use of the material in a blended learning context.

The lack of practical tests/ assessment
While the platform provides quiz-based tests to assess knowledge, some users suggested "practical" tests/ exercises would be beneficial for users in developing and assessing the application of their learning.

Response: This is an interesting and helpful comment and one that will be considered in the future development of the platform.

Lack of depth to the modules
There were some comments in relation to the "depth" of the training content which was considered to be very broad and "introductory".

Response: The platform aims to give a broad introduction to the "landscape" of digital manufacturing technologies available to professionals within the Craft sector. A more in-depth approach would indeed be beneficial, however, was not possible within the scope if this project, which aims to inform practitioners of the suite of technologies, processes and applications available which could of course be explored in depth as appropriate to the users need.

4.3.2 POSITIVE FEEDBACK
SUMMARY OF AREAS THAT BENEFITED THE USERS

The answers to this question are polarized in relation to the origin of the users. Training providers largely state that they will be able to use the course in whole or in part to support their own training activity.

E.g. "The online course is useful for students, it can be a resource for teaching... the module From Digital to Physical gave great opportunities to discuss physical interaction in digital context".

Those who already work in the field of digital craftsmanship to a large extent see some direct application of knowledge appropriate to their daily work, to improve their professional performance or to expand their activities, processes, and products.

E.g. "At the moment, I only use 3D printers, but I intend to get acquainted with CNC routers" or "thanks to the knowledge I got from the training I have in mind to produce new samples, mock ups and tests of ideas for products".

In many cases, and this goes hand in hand with what has been seen above, the course is an opportunity for further learning, especially in the field of 3D printing or to get inspired. Other users note that the skills might be applied in the future or just to experiment with these technologies with a view to possible professional activity in the field.

Networking is also an aspect that is very much commented on and aligns with the previously mentioned benefits of a blended approach to learning in this area.

“Please share any ideas you may have regarding how we could improve this training course (e.g. platform usability and features, training contents, presentation of contents etc.)”

PILOT TEST SURVEY
ALL QUESTIONS AIMED AT RECEIVING FEEDBACK

1. An easy registration/login process is important to involve people in the online training.
2. A user guide can facilitate the use of the platform and better exploit the content of the training course.
3. A tracking system of learning progress is essential to support users along the learning process.
4. Quizzes are helpful in providing proof of the understanding of the module.
5. Practical tests would be helpful to assess the acquired knowledge.
6. Make a final certificate available (automatic).
7. Make clearer visualization of what content belongs to what module.
8. The Q&A section is highly beneficial and appropriate to support a self-paced learning.
9. Users’ interaction within a discussion forum can be beneficial to promote networking and sharing.
10. An expert panel can be helpful to discuss assignments and information from the modules and share users’ interests and professional experience.
11. A contact person/tutor could support the learning process
12. Add content for experts or in-depth material.
13. Take care of the user experience to implement new functionalities of the platform.
14. Add more text and graphics that interact with the spoken text in the videos.
15. The use of video content/tutorials is highly beneficial and appropriate to this sector due to the practical nature of Craft.
16. The use of examples from real world practitioners is strongly recommended for this type of training.
17. The Step-by-Step approach taken is appropriate for this type of training.
18. Have a course book to support the online learning.
19. Allow people to upload new material or updates.
20. Make available translation of every content.
21. Make the purpose of the platform more evident since the beginning.
22. Add a list of software used and give recommendations to easy and free ones.
23. Add exercises and tasks for users.
24. Add more successful practices.

5. FINAL RECOMMENDATIONS

5.1 SUGGESTION OF IMPROVEMENT TO PLATFORM BASED ON RESULTS OBTAINED FROM IO3

Based on the user feedback outlined above an action list was developed by the partners in order to improve and enhance the Craft 4.0 platform. Some feedback was considered more prospective in nature and is aimed rather at future policy or VET training providers to support the potential adoption of digital technologies by the craft sector. These are also outlined below.

Actions to be taken
Following the analysis of all received answers and comments, the project consortium decided to classify the suggestions of improvements/guidelines in the following two categories: short and medium-term actions, taking into account that only short-term actions can be implemented within the project period, end of December 2021.

Short-term actions

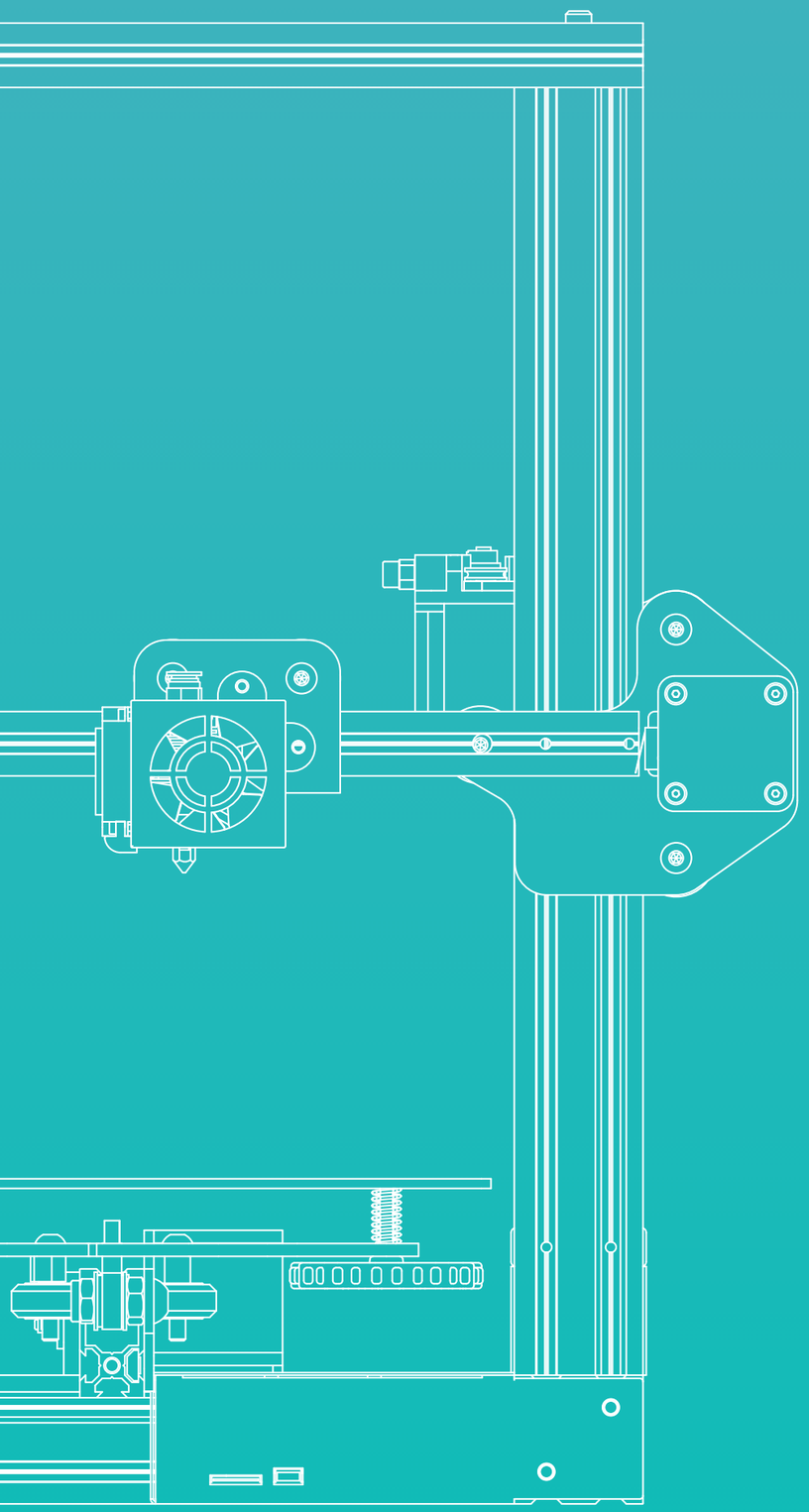
(Completed)
- Revised and improve the registration and login process.
- Add quizzes and tests to assess the knowledge.
- Make Craft 4.0 certificates available for each module.
- Introduced a tracking system of learning progress to support users along the learning process. This may be expanded in the future.

(Ongoing)
- Produced a user guide facilitating the use of the platform and better exploit the content of the training course.
- Improved visualization of what content belongs to what module.

Medium-term actions
- Add practical examples and/or external links to practical case studies related to the implementation
- Improve functionalities of the platform and user experience
- Add expert contents, Q&A and forum
- Search additional funding possibilities allowing the consortium to expand the scope of the course, enrich its content and increase the course interactivity through more dynamic contents and videos.

Consortium partners will try to implement medium-term actions during the first year after the project ends. The idea is that all these improvements allow and facilitate the exploitation by partners of the key project outputs: the training materials produced and the on-line training course.

Moreover, all these planned improvements will help keep the network created through this project, working together, supporting the development of new joint activities and collaboration at EU level. This will allow an increase in possibilities for sharing and thus increasing their knowledge and good practices in the field supporting both the VET system and the EU SMEs companies, with a special attention on the craft sector.



5.2 RECOMMENDATIONS FOR TRAINING PROVIDERS
BASED ON RESULTS OBTAINED FROM IO3

Training Methodology Recommendations

1. Provision of a virtual space where community members can interact and learn from each other would enhance future projects in this area.
2. Promote blended learning, a mix of online tutorials and hands on experience. Integration of online training content with structured face to face learning would be a significant benefit to the Craft and Creative sector in particular.
3. Provide for different levels of learning incorporating the traditional aspect of craft learning and bridging the gap between hands-on learning and computer learning.
4. Develop mentorship/ facilitator based programmes to advise on/ guide better practice. This type of training would be enhanced if supported by interaction with tutors/ experts on the subject.
5. The use of exercises, practical activities, quizzes and tests that allow putting into practice and assessing the knowledge acquired would benefit projects in thiis area.
6. The use of video content is highly beneficial when explaining detailed technical concepts and appropriate to this sector due to the practical nature of Craft.
7. The use of examples from real world practitioners is strongly recommended for this type of training. It reinforces the relevance of the training to the sector and helps identify practical applications for learners.
8. The Step-by-Step approach is appropriate and recommended for this type of training.

Online Training Platform Recommendations

1. Online training is highly beneficial and appropriate to promote flexible learning of this type.
2. In particular, the use of video based tutorials is highly beneficial as it ensures accessibility across multiple devices (phone, tablet, PC etc) in a variety of locations.
3. Training platforms could offer more opportunities for the development of communities of practice so that participants can interact more based on common interests.
4. Enabling users to propose or upload new training content would improve engagement and sustainability of e-learning platforms.
5. Embeding online materials such as videos into YouTube or other open platforms can contribute to a sustainabity and dissemination.
6. Breaking modules into small chunks allows learners to make best use of time by choosing the most relevant modules for their needs/ interests and allows them to undertake learning in a non-linear (non-sequential) way.
7. Providing a balance between content for beginners and for experts is desireable where possible in order to appeal to the broadest target groups.

5.3 RECOMMENDATIONS FOR POLICY MAKERS BASED ON RESULTS OBTAINED FROM IO3

Based on the feedback from our Multiplier Event and Pilot Study the consortium has developed the following recommendations which are aimed at policy makers we've received the following policy recommendation suggestions, where according to them, support form national structures may be provided in various ways e.g.:

1. More financial mechanisms at a state level should be created to support people employed in the creative sector in particular to boost their personal development.
2. Additional government incentives to support the development of the creative industries.
3. There is a need for more CRAFT 4.0 like initiatives targeted at the Craft Sector.
4. Support for platforms/ training systems that interface between customer, craftsman and manufacturers.
5. More investment in projects, presentations, websites and platforms that promote creative initiatives.
6. More investment in projects that promote sectoral engagement and knowledge exchange.

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