CRAEFT

Dissemination Plan and Activities

Project Acronym	Craeft
Project Title	Craft Understanding, Education, Training, and Preservation for Posterity and Prosperity
Project Number	101094349
Deliverable Number	D7.2
Deliverable Title	Dissemination Plan and Activities
Work Package	7
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http://www.craeft.eu/

Executive summary

This deliverable is designed as a living document to be periodically updated by all partners to keep a trace of any dissemination activity realized during the project. To increase the impact of the results produced by the project, the Dissemination plan will consistently rely on the diversification of the actions according to the expertise and aptitude of the project partners, as well as the maturity of the solution and the different communication means (e.g., in-presence and online).

Document history

Date	Author	Affiliation	Comment
22-03-2023	Nikolaos Partarakis	FORTH	First draft
11/03/2023	Polykarpos Karamaounas	FORTH	Quality Assurance review.
16/03/2023	Xenophon Zabulis	FORTH	Updated draft based on Quality Assurance review and Open Review across members of the consortium.
08/02/2024	Jelena Krivokapic	MDE	Updating the Log of Dissemination activities sheet.

Abbreviations

2½D	Two-and-a-half dimensional
2D	Two-dimensional
3D	Three-dimensional
AI	Artificial Intelligence
AR	Augmented Reality
CH	Cultural Heritage
EC	European Commission

ECVET	European credit system for vocational education and training
EQAVET	European Quality Assurance in Vocational Education and Training
EQF	European Qualifications Framework
EU	European Union
GANS	Generative Adversarial Networks
Gpix	Gigapixel
GUI	Graphical User Interface
ICH	Intangible Cultural Heritage
ICT	Information and Communication Technologies
ORDP	Open Research Data Pilot
REA	Research Executive Agency
TCs	Traditional Crafts
TVET	Technical and Vocational Education and Training
UI	User Interface
VET	Vocational Education and Training
VR	Virtual Reality
XR	eXtended Reality

Table of contents

1. Introduction

At Craeft we are feeling the obligation to pursue the widest possible dissemination of our research outcomes. This obligation stems from the fact that since our project is financed by EU citizens, we should provide the widest possible benefits in return to society. We strongly believe that this is also supported by the priorities set by the project that put the social dimensions of craft preservation, training and practice in focus. In this context, we intend to follow all relevant EU guidelines under a systematic approach and with the willingness to share our results with potential users - peers in the research field, industry, other commercial players and policymakers. By doing so Craeft will have the possibility of sharing its research results with the rest of the scientific community, in the scientific fields targeted by the project, thus contributing to scientific progress and excellence.

In this deliverable, we are placing the foundation of a step-by-step approach to the dissemination of the outcomes of the project. Dissemination in Craeft will involve all activities by which project-related knowledge is provided to relevant stakeholders and other interested parties (including the general public) at local, national, European and international levels.

2. Research publications

What: As academia is an important target audience for the dissemination of research results and the developed technology, publishing articles in academic journals and other professional publications will be an ongoing activity by all research partners of Craeft.

Objectives: Academic and professional publications largely contribute to understanding the academic field and may instigate Action among stakeholders.

How: All research partners within Craeft have experience with (academic) publishing. An inventory of academic journals and other relevant audiences that are targeted at the topics of Craeft is provided in Appendix A.2.

Partners will follow a well-defined publication plan as presented in this section. All publications will be entered in the Log of Communication & Dissemination activities.

The various citation tools and methods will be used to measure the impact of publications. If an academic paper is published, a short abstract with a link to the original publication will be published as an article on our project website.

2.1. Publications in journals

Craeft will pursue publication in highly ranked academic Journals and Conferences and has already related an inventory of potential venues to assist towards this direction (See section 5.1). Furthermore, it will organise two special issues concerning the main topics of the project the first focusing on the widest possible scientific dissemination of cross-disciplinary research conducted in Craeft and the second will focus on basic research outcomes that are exploited by the project. Key information on these special issues is presented in the following sections together with the initial planning of the consortium contributions to each of them. Off course, the special issues will also target the widest possible scientific audience outside the project to collect contributions and thus create a critical mass of scientists publishing craft-related research which will foster the further dissemination of the approach followed by the project.

2.2. Planned Special issue

2.2.1. handicraft production Processes simulation, training and product design

Crafts are part of Cultural Heritage (CH) and involve tangible craft artefacts and products, traditional materials and tools, and handicraft processes. These processes are considered integral parts of the intangible nature of crafts and combine knowledge of materials, dexterity, know-how, and skilled use of tools. crafts are part of the history and economic life of areas and communities. Their nature, diversity, excellence and significance contribute to the sustainability and flourishing of local communities.

This special issue regards the understanding of the making process, as the purposeful interaction of the mind with the world through senses and actions. Knowledge representation is essential for reenactable preservation, but also for understanding human creative tasks, enabling us to provide more specific tools for its aid.

Contributions to this special issue may contain multidisciplinary research on:

- Advanced digitisation of handicraft production processes
- Object and activity recognition
- Semantic representation of handicraft production processes
- Mechanical models of handicraft production and simulation
- Handicraft production simulation
- AI-based product design
- Haptics for multimodal, immersive handicraft training
- Visualization of handicraft products and their production
- Human factors in immersive handicraft training

Special issue editors

- **Dr Xenophon Zabulis**

  Research Director, Institute of Computer Science, Foundation for Research and Technology Hellas, Heraklion, Crete, Greece

  Interests: stereo and multiple-view computer vision; pose estimation and motion estimation for objects and persons; medical and industrial image analysis; applications of computer vision in interactive environments

- **Dr. Nikolaos Partarakis**

  Postdoctoral researcher, Foundation for Research and Technology - Hellas (FORTH), Institute of Computer Science, Vassilika Vouton, GR-700 13 Heraklion, Crete, Greece

  Interests: eXtended Reality (XR) applications; intelligent environments; adaptive and intelligent distributed user interfaces; design for all and universal access; universally accessible platforms and online communities; serious games; 3D reconstruction technologies; automation; micro-controllers and robotics

- **Dr Carlo Meghini**

  Consiglio Nazionale delle Ricerche, Istituto di Scienza e Tecnologie dell'Informazione "A.Faedo", **Interests:** information systems

- **Prof. Dr. Arnaud Dubois**

Conservatoire National des Arts et Métiers, Paris and Ecole Nationale Supérieure d'Art, Limoges, France

Interests: anthropology of colour; relations between aesthetic technology and society; the link between art craft and industry.

- **Prof. Dr Christian Holz**

Interests: Technical human-computer interaction, Augmented Reality/Virtual Reality, and biomedical engineering, involving wearable sensing, computational interaction, and predictive mobile health.

- **Dr. Sotiris Manitsaris**

MINES ParisTech, PSL Université Paris, Paris, France

Interests: machine/deep learning; action and gesture recognition; data analysis and modelling; human-centred AI

2.2. Special issues co-edited by Craeft

2.2.1. Electronics and Computer Science for Cultural Heritage: Advancements, Preservation, and Applications

This Special Issue aims to showcase innovative research that harnesses the potential of electronics and computer science to advance the preservation, understanding, and utilization of cultural heritage. We seek contributions that highlight the transformative role of technology in tackling challenges related to cultural heritage documentation, conservation, analysis, interpretation, and dissemination. The issue will provide a platform to explore interdisciplinary approaches, showcase practical applications, and foster collaboration between researchers, practitioners, and professionals in the realms of electronics, computer science, and cultural heritage.

Topics of interest include, but are not limited to:

1. Technological advancements in cultural heritage preservation;
2. Digital documentation techniques for artifacts, monuments, and sites;
3. Augmented reality (AR) and virtual reality (VR) applications for cultural heritage;
4. Data-driven approaches for cultural heritage analysis and interpretation;
5. Machine learning and computer vision for artifact recognition and classification;
6. Computational methods for historical text analysis and language processing;
7. Digital archiving and data management for cultural heritage collections;
8. Human–computer interaction (HCI) and user interfaces for cultural heritage experiences;
9. Internet of Things (IoT) applications in heritage conservation and monitoring;
10. Collaborative platforms and crowd-sourcing in cultural heritage research;
11. Ethical considerations in the application of electronics and computer science to cultural heritage;

12. Case studies showcasing successful projects and best practices.

Special issue editor

- **Dr Xenophon Zabulis**

  Research Director, Institute of Computer Science, Foundation for Research and Technology Hellas, Heraklion, Crete, Greece

  Interests: stereo and multiple-view computer vision; pose estimation and motion estimation for objects and persons; medical and industrial image analysis; applications of computer vision in interactive environments

2.2.2. Advances in Immersive Technologies, Knowledge Representation, and AI for Human Centered Digital Experiences

This Special Issue on Human-Centered ICT Technologies is approaching research and technological development in an interdisciplinary way. It serves as a platform for researchers, practitioners, and professionals to contribute by projecting advances in their research field to the field of Human–Computer Interaction, thus prioritizing human experiences and interactions.

The journal welcomes contributions from various disciplines, embracing the intersection of technology, design, and human factors. It provides a forum for researchers and experts to share their insights, discoveries, and innovations in a wide range of topics, including but not limited to:

1. Advances in User Interface design, development, and evaluation including new approaches for explicit and implicit interaction.
2. Human-centered web-based information systems leveraging on knowledge representation, data visualization and data mining, big data analysis, and visualization.
3. Semantic Knowledge Representation and Presentation to enhance user interaction with information, user participation in information processing, and user experience.
4. X-Reality Applications (AR, VR, MR) for immersive human-centered experiences, in vocational education and training.
5. Human motion and 3D digitization for enhancing digital experiences and supporting novel interaction metaphors.
6. Serious Games design and development to address educational, training, and societal challenges.
7. AI approaches in User Interfaces, Information Processing, and Information Visualization.

In this Special Issue, we welcome high-quality research papers, case studies, review articles, and theoretical perspectives that contribute to the advancement of the aforementioned research topics. We also encourage the submission of interdisciplinary studies that bridge the gap between technology and human experiences.

Special issue editor

- **Dr. Nikolaos Partarakis**

  Postdoctoral researcher, Foundation for Research and Technology - Hellas (FORTH), Institute of Computer Science, Vassilika Vouton, GR-700 13 Heraklion, Crete, Greece

  Interests: eXtended Reality (XR) applications; intelligent environments; adaptive and intelligent distributed user interfaces; design for all and universal access; universally accessible platforms and online communities; serious games; 3D reconstruction technologies; automation; micro-controllers and robotics

2.3. Publication planning

- **Title: From archetypal modelling of Actions to craft specific actions simulators**

  Co-authoring organisations: FORTH, KHORA, CETEM, CNAM, PIOP, CERFAV

  Abstract: In this paper, we present the concept of archetypal simulators that computationally, geometrically, and mechanically model Elementary Actions (knots, additive/subtractive, free-form transforms). Their implementation is based on existing models from the domain of mechanical systems design and generative AI methods. Based on these simulators, we propose the development of a software method that refines those archetypal simulators to craft-specific simulators. The method uses generative AI (GANs) for this refinement, trained on craft representations, third-party knowledge sources and craft-specific data.

- **Title: Craft Simulation and immersive craft training**

  Co-authoring organisations: FORTH and ARMINES

  Abstract: In this paper, we propose a method for the simulation of craft actions to empower the training of craft practitioners via simulation exercises, a Web-based UI for the educational material, and an immersive 3D GUI interfacing with haptic, VR, and AR devices to achieve realistic, hands-on training.

- **Title: Haptic Devices for Training, simulation, and Design**

  Co-authoring organisations: ETH and FORTH

D8.1 Project Management

Abstract: In this paper, we present the Implementation of interactive haptic apparatuses and systems that simulate the tactile sensations of tool use during craft actions, including the tactile examination ("feeling") of surfaces, especially during manipulation. These systems are used to enable practice and increase exercisability for the development of dexterous actuation skills, in the domain of traditional crafts training.

- **Title: Very-high-resolution 2D and 2½D surface scanning**

  Co-authoring organisations: FORTH

  Abstract: The surface of heritage objects holds important clues about their creation. In this paper, we present an advanced, non-contact surface scanner that acquires 2D and 2½D (anaglyph) digitisations in very high resolution (>1Gpix/cm2). The implementation creates 2½D scanning by extending prior work on 2D digitisation with photogrammetric reconstruction applied to lateral surfaces.

- **Title: Digitisation of transparent, translucent, and shiny materials**

  Co-authoring organisations: FORTH

  Abstract: This paper presents a novel, non-contact 3D reconstruction method, based on polarised and structured illumination. The method uses AR to guide the operator and simplify the 3D reconstruction process.

- **Title:** Scene and activity monitoring

  Co-authoring organisations: ARMINES, FORTH

  Abstract: This paper proposes an approach towards scene and activity monitoring that employs body and hand tracking, object recognition, haptic interaction, and tracking of material deformation. The implementation will utilise craft-specific simulators to generate mental imagery that is compared to the craft digitisations to validate the monitoring results.

- **Title: Craft Understanding, Education, Training, and Preservation for Posterity and Prosperity**

  Co-authoring organisations: All partners

  Abstract: This paper presents our approach towards deepening our understanding of the making activities that include "care, judgement, and dexterity" standing on Anthropology, Knowledge Representation, Cognitive Science, Art History, Advanced Digitisation, Audiovisual & Haptic Immersivity, and Computational Intelligence to cover the multifaceted expression of crafts as living and developing heritage, as a sustainable source of income, and as the expression of the mind through imagery, technology, and sedimented knowledge.

- **Title: Ethnographic Strategies for Craft Understanding**

Co-authoring organisations: CNAM, FORTH, CETEM, PIOP, CERFAV

Abstract: This paper presents interdisciplinary and iterative strategies for ethnographic methods to represent craftwork and capture sensorimotor, intellectual, and mechanical elements of crafting activities. These strategies have been formulated with the participation of experienced craft practitioners & instructors, as the main source of knowledge. The development of ethnographic strategies is guided by anthropologists, philosophers, and information scientists.

- **Title: Action and affordance modelling for Traditional Crafts**

  Co-authoring organisations: FORTH, CNR, CETEM, CNAM, PIOP, CERFAV

  Abstract: This paper, present a novel approach towards action and affordances modelling based on the digitisation of practitioner motion, haptic interaction, and material transformations in the context of traditional crafts. Modelled actions can be used for the instantiation of action simulators and specify affordances, conditions, and parameters. The results of this research work contain a training dataset that associates semantic, geometric and mechanic representations of actions and plans with multimodal recordings of their execution and effect will be compiled.

- **Title: A semantic model and authoring platform for Maker-Material Negotiation**

  Co-authoring organisations: CNR, FORTH, CETEM, CNAM, PIOP, CERFAV

  Abstract: This paper presents the design and implementation of an ontology for the negotiation of the maker with materials in traditional crafts. The ontology models basic concepts such as tools, materials, workspaces, process schemas, and contextualisation narratives and advanced concepts such as action plans, material effects of actions, action hypotheses, conditions, parameters and perceptual stimuli. The model is used as the backbone ontology of an authoring platform for crafts representation, presentation and simulation.

- **Title: An Authoring Environment for Multimodal Craft Training**

  Co-authoring organisations: FORTH, ETH, CETEM, PIOP, CERFAV

  Abstract: In this paper, we present an authoring environment for multimodal craft training with 3D and immersive rendering components powered by a game engine rendering pipeline and rich authoring components powered through an ontology model and platform for traditional crafts representation. The backbone of the environment builds on generic and craft-specific simulations of crafting procedures, action plans and schemas.

- **Title: Toys and Games for Informal Craft Education**

  Co-authoring organisations: FORTH and KHORA

D8.1 Project Management

Abstract: In this paper, we present the design and prototype implementation of creative digital games and physical toys for craft introduction, recreation, and development of crafting capacities. These are based on a simplification of traditional crafts and techniques and have both digital and physical components.

- **Title: Novel Approaches towards the Education and Training of Traditional Craft Apprentices**

  Co-authoring organisations: CERFAV FORTH, ARMINES, KHORA, CETEM, CNAM, PIOP

  Abstract: In this paper, we present a novel approach toward the education and training of craft apprenticed with the support of intuitive digital aids, telecommunications, craft-specific simulators, advanced immersive, and high-end digitisation, to widen access, economise learning, increase exercisability, and relax remoteness constraints in craft learning.

- **Title: Creative Design to Empower the Preservation of Traditional Crafts**

  Co-authoring organisations: CNAM, FORTH, ARMINES, KHORA, CETEM, CERFAV, PIOP

  Abstract:

- **Title: Valorisation Strategies and ICT Solution in the Service of Traditional Craftsmanship**

  Co-authoring organisations: PIOP, FORTH, ARMINES, KHORA, CETEM, CNAM, CERFAV, MDE

  Abstract: In this paper, we propose several dimensions towards the valorisation of traditional craft products. These include binding traditional craft products with digital content, certificates, and applications available online, using their appearance or embedding visual codes in their design. Such linked content can be of any type the producer of craftwork may wish to attach to an individual item or a collection of items such as online services and games, offers, combinations with other products and multimodal narratives that serve contextualization and personalization of objects. Additionally, supporting certification of validation and authentication purchase, creator signage, collective/certification marks, composition, origin, production method and linkage to “green” certificates of production in general and material provenance, in particular, may support this objective. Finally, Combine them with proposed serious & creative digital games and physical toys for all ages.

- **Title: Community-based Innovation in Traditional Crafts**

  Co-authoring organisations: MDE, FORTH, ARMINES, KHORA, CETEM, CNAM, PIOP, CERFAV

  Abstract: In this paper, we study how community-based innovation in traditional crafts is a collaborative process of creating and improving traditional crafts through the active participation of members of a community. This approach to innovation recognizes the importance of local knowledge and expertise in the preservation and development of traditional crafts. In this process, artisans and craftspeople work together with members of their community, including designers, researchers, and

other stakeholders, to identify opportunities for innovation and improvement in traditional crafts. They may incorporate new materials, techniques, or designs into their work, while still maintaining the unique cultural and historical significance of the craft. Community-based innovation in traditional crafts can also involve the use of digital technologies and other modern tools to enhance the production process, expand markets, and connect artisans with buyers and consumers. By working together and sharing knowledge and resources, communities can revitalize and sustain their traditional crafts while also generating economic opportunities and promoting cultural heritage.

2.4. Open access

2.4.1. Publications

Craeft addresses open research data as a keystone in advancing EU research and fostering innovation. Craeft will target "Gold" open access and has foreseen budget for this activity. Wherever "gold" is not possible, "green" open access will be pursued. The target is to maximise the impact on scientific excellence in ways that include publication in open-access yet highly appreciated journals as well as blogs and publicly available White Papers.

2.4.2. Research data

In Craeft, with regards to open access to research data Craeft will participate in the Commission's pilot on open access to research data, which has recently been extended to cover all thematic areas of Horizon 2020, thus realising the Commission's ambition of "open research data per default".

The Craeft project will use an open-access repository to share the publications as well as the research data, which the project members intend to designate for sharing under the ORDP, to enable third parties to access and use free of charge. The project members are free to choose the specific repositories to utilise, as long as they satisfy the free access requirements of the ORDP. Example open access repositories recommended by the OpenAIRE project[1], funded by the EC aiming to support the implementation of open access in Europe, including the Zenodo repository[2] and the arXiv e-print service[3] facilitated by the Cornell University library.

To this end from the beginning of the project, we have set up a community for the project in the Zenodo repository to collect and disseminate open research data. Zenodo provides the flexibility on selecting the dissemination policy to support various types of licences including restricted access or moderated access to research data thus supporting the full range of potential dissemination strategies that may be needed in the context of Craeft. The landing page of the community is presented in Figure 1.

[1] https://www.openaire.eu/
[2] http://www.zenodo.org/
[3] https://arxiv.org/

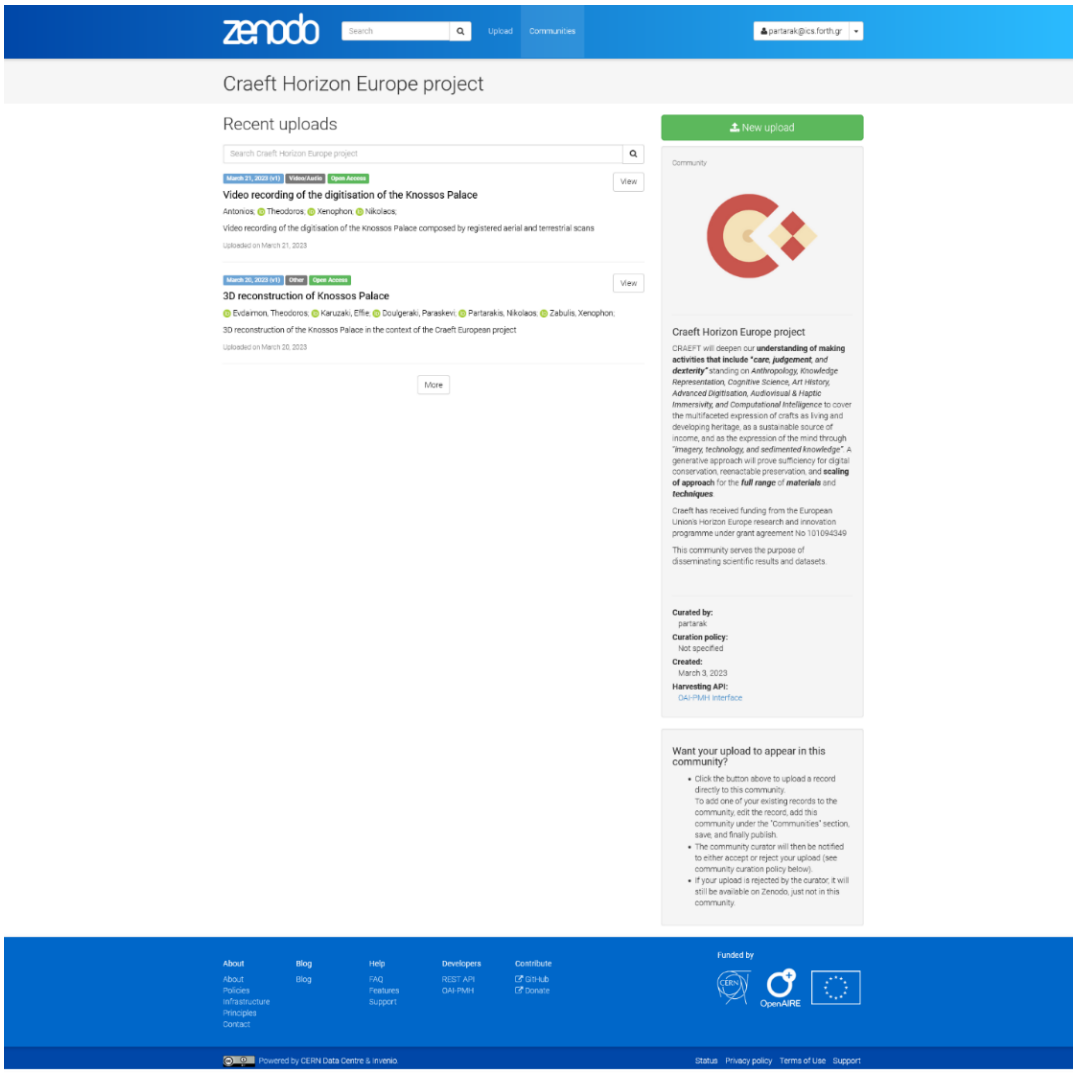

Figure 1. The landing page of Craeft Community in Zenodo.

3. Synergies

In this section, we present the synergies established by Craeft that will have an impact on the dissemination activities of the project. Each synergy is led by a Craeft partner. For each synergy, the services provided to others and the services provided to Craeft are specified.

3.1. Project clusters

This synergy is organised by the EC. FORTH will do the initial negotiations for joint actions with the optional participation of any partner interested.

3.1.1. EC call cluster

The EC project cluster for projects within the same call with Craeft includes the following projects: Craeft, HEPHAESTUS, Colour4CRAFTS, and Tracks4Crafts.

Objectives

- Create joint dissemination events
- Author joint publications
- Maximise impact of projects

Relation with Craeft

Research Programme Administrators Rodrigo MARTIN GALAN and Angel M. FUENTES from the European Research Executive Agency (REA), Unit C1, of the European Commission, initiated an introductory activity between the “sister” projects Craeft, HEPHAESTUS, Colour4CRAFTS, and Tracks4Crafts.

An online meeting between coordinators and the Research Programme Administrators took place. A clustering meeting to which all consortia members are invited is scheduled for another on the 28th of April. Consortia will take that opportunity to introduce their projects and start considering which clustering activities would benefit them, the future dissemination of your results and the preparation of policy recommendations together.

3.2.2. COP CoVEs

Brought by MDE.

D8.1 Project Management

Project information

Community of Practice Centres of Vocational Excellence - https://copcoves.eu/

Eight countries are participating: six ETF partner countries (Azerbaijan, Georgia, Israel, Morocco, Tunisia and Turkey) and two EU Member States (Finland, and Netherlands). In guiding and facilitating the work of the partnership, the ETF is supported by the Finnish organisation Omnia, a large and modern education provider that offers a wide range of services supporting lifelong learning.

Abstract

The project leaders of all Erasmus Centres of Vocational Excellence have joined forces in the CoVE Community of Practice. In this community, the project leaders share experiences, inspire each other and jointly try to find solutions for common issues they encounter while implementing the Centres of Vocational Excellence. By doing so, the project leaders are supporting each other and no one has to reinvent the wheel. The CoVE Community of Practice is a bottom-up initiative by and for the CoVE project leaders and participation is voluntary. Furthermore, the Community of Practice is working closely with other stakeholders and policymakers in the field of VET and higher education.

Objectives

The CoVE Community of Practice is more than happy to welcome project leaders of future Erasmus Centres of Vocational Excellence in their midst and to share experiences of the existing CoVEs. The project leaders aim to meet twice a year face to face and have monthly online thematic discussions, based on the needs of the project leaders.

Relation with Craeft

Given that this project end in the spring of 2023, Craeft intends to gain from synergy with COP CoVEs mainly in the field of craft education and more specifically to:

- Use the COP CoVEs network and matchmaking tool to build relations with new partners in craft fields of interest.
- Find craft experts working on education.
- Participate in COP CoVEs meetings, to meet craft experts in education and Centres of Vocational Excellence.
- Learn from published knowledge of COP CoVEs, free tools and building blocks for public-private partnerships.

Craeft intends to share educational material and training tools produced in the project.

3.2. EC projects

3.2.1. MOSAIC

This synergy is brought by MDE as a member of the World Craft Council Europe which participates in this project.

Project Information

- 18 partners
- Mastering job-Oriented Skills in Arts & crafts thanks to Inclusive Centres of vocational excellence
- https://mosaiceuproject.eu/

Abstract

The MOSAIC project will focus on three areas within the Arts & Crafts sector: Traditional & rare crafts, Precious metals & jewellery, Furniture & Wood and their relation with Design, Arts & Industry. The platform of transnational cooperation that will be set up within this project will bring together relevant EU and non-EU partners who want to foster Excellence in VET within the Arts & Crafts sector, ensuring high-quality skills that lead to quality employment and career-long opportunities, which meet the needs of an innovative, inclusive and sustainable economy. The platform will also make it possible to break down the barriers and bring together certain universes, which still too often function in a silo.

Objectives

- Increase and improve collaboration between companies and VET centres, to reach a state of cross-fertilisation
- Improve VET provision by delivering new training modules
- Foster internationalisation and transnational strategies in response to the evolutions of vet and society
- Provide forward-looking VET through the use of digital methodologies and tools

Relation with Craeft

The collaboration will focus on employability, traditional, and rare crafts, including precious metals and jewellery, wood and furniture, as well as their relation with Design, Arts, and Industry.

3.2.2. CHARTER

Project Information

- https://charter-alliance.eu/
- CHARTER -Cultural Heritage Actions to Refine Training, Education and Roles
- Erasmus+ started in January 2021
- Duration: four years.
- 28 full partners and 19 affiliates
- 5 fields of analysis: safeguarding and preservation; crafts and traditional knowledge; dissemination and communication; knowledge; planning and management.

Abstract

CHARTER, the European Cultural Heritage Skills Alliance, brings together and represents the whole range of the cultural heritage sector in Europe. We strive towards making apparent the value of cultural heritage and creating a resilient and responsive sector. We work towards creating a lasting, comprehensive strategy that will guarantee Europe has the necessary cultural heritage skills to support sustainable societies and economies.

Objectives

With a budget of close to 4.000.000 euros, CHARTER aims to:

- Clarify occupational roles and activities as well as create tools for an integrated, responsive education system.
- Identify curricula and learning outcomes to equip education and training to respond to current and future needs for cultural heritage skills.
- Structure cultural heritage as an economically active sector.

The Alliance covers 5 fields of analysis to identify core and transversal competencies, including digital, technological and green adaptation skills. Safeguarding and preservation; crafts and traditional knowledge; dissemination and communication; knowledge; planning and management.

Relation with Craeft

The collaboration will focus on the preservation of crafting techniques, as well as the preservation and reuse of designs.

3.2.3. ARACHNE

Project Information

- Advocating the Role of Silk Art and Cultural Heritage at National and European Scale
- 14 partners
- Horizon Europe RIA
- https://cordis.europa.eu/project/id/101095188

Abstract

The overarching goal of ARACHNE is to create a wide and well-connected Silk Innovation Ecosystem that, starting from the historical path followed by Marco Polo in his travels to the East, also includes the routes of production and commercialization of silk in Europe in the following centuries. An innovation ecosystem is an interconnected network of quadruple helix stakeholders, including academia, industry and different levels of the public sector and civil society. This multi-level approach applies a systemic and bottom-up approach to creating research, innovation and knowledge. Silk Innovation Ecosystem includes every stakeholder and innovator in the cultural silk value chain even if not participating directly in the project activities. The production and, more in general, the past and present development of the silk sector in the ARACNE Consortium countries represent the common thread for the future "European Silk Route" as a cultural itinerary across Europe, to boost the European values concerning the silk arts and CH for the benefit, prosperity, peace of our societies. To this aim, the project will explore the CCIs' capacities to create a cultural and artistic niche market where silk produced within EU boundaries will be valued as a distinct immaterial asset; on the other hand, the ambition is to contribute to stopping the loss of technical, traditional and cultural know-how and skills that accompanied the decline of this fibre production and that is detrimental exactly to those CCIs which might be active in fashion, art, design and product communication.

Objectives

- Enhancement of knowledge and memory for the renaissance of a European Silk Innovation Ecosystem (WP1)
- Co-creation of human-centred and place-specific creative silk-based solutions leveraging digital and cutting-edge technologies (WP2)
- Implementation of innovative strategies and business, governance and financing models for the involved CCIs organisations and SMEs, building on previous research (WP3)
- Support the establishment of a cultural European Silk Route, based on the tangible and intangible silk cultural heritage and landscapes (WP4)

- Raise awareness of ARACHNE results and impacts among different stakeholders of the territories and CCIs of the silk sector and raise the expectation for the constitution of a European Silk Route in support of the European silk CH and silk CCIs (WP5)
- Enhance the European cultural identity and strengthen European competitiveness for a more resilient post-crisis society (ALL WPs)
- Contribution to the European Green Deal, the New European Bauhaus and the Sustainable Development Goals (SDGs) (ALL WPs)

Relation with Craeft

Through PIOP, Craeft will provide a technical way to the representation of historical narrative and textile scanning technologies. Craeft will gain from the enrichment of its narrative directory and will promote its semantic authoring platform for the representation of historical narratives and crafting processes.

3.2.4. Crafting 50 & Beyond

Project Information

- Digital enabler for ageing crafts people's business
- 7 partners
- Erasmus+
- https://madineurope.eu/en/crafting-50-beyond/

Abstract

The project "Crafting 50 & Beyond" aims at improving the entrepreneurial skills of European professional craftspeople, aged 50 years or more and at accompanying them in the digital transition. For many of them, the economic crisis of 2008-2014 and the following Covid-related ones, have represented a loss of income and unemployment. This is particularly true for European areas with less economic and social preparation to face the collapse. Traditional handicrafts are human-centred professions, rooted in European territories as part of the local culture and economy, including the circular economy. It is necessary to keep crafts professions alive and preserve access to artisanal products. And it is urgent to increase the revenues of craftsmen to make this possible. In many cases, crafts businesses are also an opportunity to involve people with disabilities by providing them with social integration.

Objectives

Support the solution to the following problems:

- Products are created in small quantities as opposed to industrial products that can be made in series. The economy of scale is not possible for artisans, which makes their products less competitive.
- Traditional crafts production works more locally where products are recognised and valorised or through specific resellers, aware of the products.
- Professionals are ageing and have not integrated new ways of promoting their skills and their work to ensure their revenues.
- The sector is fragmented into micro businesses, often based in rural areas, and not connected with the global market.

Considering the characteristics of the craft sector, Crafting 50 & Beyond will work to understand the competencies that craftsmen from different partner countries have and the activities they need to develop to make these activities more creative and digital. Taking advantage of the economic restructuring that the pandemic requires, the entire craft area will be worked on, understanding the cultural and legislative contexts of each country for these activities, and working directly with craftsmen to endow them with the business and technical skills needed to boost their business. At least 42 craftsmen will be involved in the project activities, following a co-construction methodology and 18 craftsmen will have the opportunity to participate in the blended mobility of learners. 230 stakeholders will be involved in multiplier events directly.

Relation with Craeft

Crafting 50 & Beyond will provide requirements and aspirations for digital tools and engage in fruitful discussions with Craeft on relevant topics. Craeft will provide digital training tools and materials to Crafting 50 & beyond. Moreover, Craeft through its partner CETEM will provide Crafting 50 & Beyond reports and insights obtained through their participation in the 3D4ELDERLY – “3D printing to create innovative learning pathways for caregivers and staff members dealing with people with Alzheimer's and elderly people with dementia” project (project number: 2020-1-LT01-KA204-077896) is a project supported by the European Commission through the Erasmus+ programme, Key Action 2- Strategic partnership for adult education.

3.3. Nationally funded

3.3.1. PROTEAS

Project Information

- http://proteas-project.eu
- 6 Greek partners

Abstract

The project introduces the public to the work of the art conservator and, through this, to the materials and techniques employed, the historical context of a work of art as well as the message and the expression of the creator. Establishing an open communication channel between curators, conservators and researchers is important for implementing this idea. The project is coordinated by ISL and the HCI Laboratory is responsible for the image registration algorithm and tool.

Relation with Craeft

Craeft and Proteas have α common scientific goal on Very-high-resolution 2D surfaces, whereas Craeft is also exploring the 2½D (anaglyph) digitisations in very high resolution.

3.3.2. Branding Heritage - digitization of contemporary art inspired by the Greek antiquities

Abstract

Digitization of contemporary art to create unique experiences for each visitor by i) enhancing collections with additional information; ii) enabling promotion and dissemination; iii) enhancing accessibility; and iv) improving the visit and converting it from a simple visit to a rich media experience suitable for education, interaction and entertainment.

Relation with Craeft

2D and 3D digitisation of CH artefacts

3.3.3. Other

Further synergies established and an update on the progress of the aforementioned, intended synergies, will be reported in the next version(s) of this deliverable.

4. Participation and organization of events, workshops, and conferences

What: All consortium partners, and especially the ones that partake in research, have the responsibility to take part in conferences and events, and organise workshops, to present or promote Craeft.

Objectives: Presentations, workshops and events are opportunities to achieve a deeper understanding of the project and instigate Action. They are especially targeted at expert audiences, such as museums and HC institutes, academics and researchers and the ICT community.

How: An online collaborative spreadsheet is used to keep track of upcoming events and opportunities for communications. This is a living document, to which all partners contribute events and opportunities that are relevant to Craeft. Partners need to indicate whether they are attending these events and describe the type of activity that they are planning to perform.

Afterwards, partners need to keep track of events they attended or organised where dissemination activities about Craeft have taken place. This should be entered in the Log of Communication & Dissemination activities that will be shared with all partners via monthly email reminders. The format of this log is provided in Appendix A.2.

References

1. UNESCO (2003), Text of the Convention for the Safeguarding of the Intangible Cultural Heritage.
2. Pye, David. (1968). The Nature and Art of Workmanship, Cambridge University Press.
3. Gibson (1966), The senses considered as perceptual systems, Houghton Mifflin.
4. Keller & Keller (1996), Cognition and Tool Use, Cambridge University Press.

Appendix A

A.1 Inventory of Audiences

The inventory of audiences is a living document in Google Sheets that is updated continuously by all partners. With regards to dissemination, the following venues are of interest.

Academic journals, universities, research groups, educational programs		
Organisation	**Type**	**URL**
ACM Conference on Computer-Supported Cooperative Work & Social Computing	Conference	http://cscw.acm.org/
ACM Journal on Computing and Cultural Heritage	Journal	https://jocch.acm.org/
Centre for Global Heritage and Development	Research Centre	https://www.globalheritage.nl/home
Cities of Memory: International Journal on Culture and Heritage at Risk	Journal	https://www.criticalheritagestudies.org/announcements-1/2016/2/15/new-international-journal-lauched-cities-of-memory-international-journal-on-culture-and-heritage-at-risk

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http://www.craeft.eu/

Continuum - Journal of Media & Cultural Studies	Journal	https://www.tandfonline.com/toc/ccon20/current
Critical Heritage Studies	Network	https://www.criticalheritagestudies.org/
Curator - The museum journal	Journal	https://curatorjournal.org/
Digital Heritage	Conference	http://www.digitalheritage2018.org/
Endangered material knowledge programme	research program	https://www.emkp.org
Heritage	Journal	https://www.mdpi.com/journal/heritage
Heritage & Society	Journal	https://www.tandfonline.com/toc/yhso20/current
Heritage, Tourism and Hospitality (HTHIC 2020)	Conference	https://heritagetourismhospitality.org/
ICH and museums	research program	https://www.ichandmuseums.eu/en
International Conference on C&T - Transforming Communities	Conference	https://2019.comtech.community/
International Conference on Cultural Heritage	Conference	https://euromed2018.eu/index.php/call-participation
International Conference on Cultural Heritage and New Technologies	Conference	

International Conference on Tangible, Embedded, and Embodied Interaction	Conference	http://www.tei-conf.org/
International Journal of Cultural Policy	Journal	https://www.tandfonline.com/toc/gcul20/current
International Journal of Cultural Property	Journal	https://www.cambridge.org/core/journals/international-journal-of-cultural-property
International Journal of Heritage Studies	Journal	https://www.tandfonline.com/toc/rjhs20/current
International Journal of Intangible Heritage	Journal	http://www.ijih.org/
International Journal of Tourism Research	Journal	https://onlinelibrary.wiley.com/journal/15221970
Journal of Cultural Heritage	Journal	https://www.journals.elsevier.com/journal-of-cultural-heritage
Journal of Cultural Heritage Management and Sustainable Development	Journal	https://www.emeraldinsight.com/journal/jchmsd
Journal of Heritage Management	Journal	https://au.sagepub.com/en-gb/oce/journal-of-heritage-management/journal202506
Journal of Heritage Tourism	Journal	https://www.tandfonline.com/toc/rjht20/current
MUSEUM International	Journal	https://onlinelibrary.wiley.com/page/journal/14680033/homepage/ProductInformation.html
Museums and the Web	Conference	https://www.museweb.net/conferences/

Scientific Methods in Cultural Heritage Research	Conference	https://www.grc.org/scientific-methods-in-cultural-heritage-research-conference/2018/
Tourism Culture & Communication	Journal	https://www.cognizantcommunication.com/journal-titles/tourism-culture-a-communication
Tourism Management	Journal	https://www.journals.elsevier.com/tourism-management/
Tourist Studies	Journal	https://journals.sagepub.com/home/tou

A.2 Log of dissemination activities

Partners will keep track of:

- Organisation or participation in an event/conference/workshop regarding Craeft or as a representative of Craeft
- Publication of a scientific publication regarding Craeft
- Distribution of the Craeft Communication Kit
- Any other activity in which they communicate about Craeft

All partners will fill in an online spreadsheet regarding their dissemination activities following the form presented below. The spreadsheet will be updated every three months, before submitting the quarterly reports. So in this way we have same deadlines for both communication and dissemination activities

Partner short name: CNR						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**
02.04.2023.	Workshop	Carlo Meghini	Workshop Text2Story 2023	Dublin	https://text2story23.inesctec.pt/	CRAEFT project will be introduced and

						described as a context in which the CNR Narrative Ontology will be used and extended for the semantic representation of traditional craft processes and their technological, social, and historical context as narratives.
Partner short name: MDE						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**
05.05.2023.	Meeting	Madina Benvenuti	Online meeting with DANIEL CARPENTER	Online		The meeting was focused on understanding Heritage crafts methodology on increasing awareness of the Craeft project to the Heritage Crafts community, mapping endangered crafts (Red List) and finding synergies.

Partner short name: MDE						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**
25.05.2023.	Webinar	Madina Benvenuti	FRH Webinar - “European Year of Skills: the future of endangered heritage crafts”	Online	https://www.youtube.com/watch?v=aGX31k_G8bg&t=2725s	Daniel Carpenter and Mary Lewis from the Heritage Crafts Association discussed the UK's "Red List of Endangered Crafts," while Madina Benvenuti introduced the CRAEFT project. Together, they explored CRAEFT's contribution to addressing the issues highlighted by the "Red List."
Partner short name: FORTH and all other partners						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**

13.06.2023.	Journal article	Xenophon Zabulis, et al	A Roadmap for Craft Understanding, Education, Training, and Preservation	Heritage. 2023; 6(7):5305-5328. MDPI HERITAGE	https://www.mdpi.com/2571-9408/6/7/280	Proposing a systematic roadmap for craft preservation and evaluation, this article aims to enhance understanding and design tools for documentation, education, and training while stimulating practitioner income diversification.
Partner short name: MDE						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**
22.06.2023.	Information session	Madina Benvenuti	Info session with the EAC D1 unit of the European Commission	Online		MDE had the opportunity to participate in an Info session with the EAC D1 unit of the European Commission, alongside the EAC D2 unit and

						EACEA. During the meeting, MDE discussed its activities, including the Creaft project. Following the meeting, the Craeft consortium was advised to create synergies with the CHARTER project.
Partner short name: FORTH						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**
05.10.2023.	Journal article	Partarakis N. and Zabulis X.	Safeguarding Traditional Crafts of Europe	Encyclopedia 2023, 3(4), 1244-1261.	https://www.mdpi.com/2673-8392/3/4/90	This entry addresses the challenge of safeguarding crafts in Europe, defined as the systematic process of understanding, preserving, and promoting them according to

						UNESCO and UN-World Tourism Organization guidelines. It explores multidisciplinary challenges from technology to ethics, law, and policy, emphasizing the importance of education and training in preserving crafts amidst declining practitioner numbers, crucial for both cultural heritage and community impact.
Partner short name: MDE						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**
11.10.2023	Training event	Xenophon Zabulis	Harnessing Robotics: Applications	Online	https://www.ekt.gr/el/events/29479	Organised by the National Documentation Centre (Greece's

			and Challenges			Nation Aggregator for Europeana).
Partner short name: Cerfav						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**
02. – 05.11.2023	International Heritage Fair	Xenophon Zabulis, et al	Paris Salon international du patrimoine 2023	Paris	https://www.patrimoineculturel.com/en/the-2023-edition/	Cerfav seized the opportunity to showcase the Craeft project to an international audience at one of the largest Heritage Fairs.
Partner short name: FORTH						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**
11.11.2023.	Ceremony	Xenophon Zabulis	Memorandum of Understanding (MoU)	FORTH Headquarters	https://www.linkedin.com/feed/update/urn:li:activity:71333981512347361 29	Ceremony where The Palace Museum in Beijing and the Foundation for Research and Technology-Hellas signed the Memorandum of

						Understanding (MoU). Scientific dissemination to the delegation of the Palace Museum for advanced digitisation methods in Craeft.
Partner short name: MDE						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**
15. – 16.11.2023.	Event	Madina Benvenuti	Pilot 2 of the Horizon project, Tracks 4 Crafts	Florence		Attended as an expert at the Pilot 2 of the Horizon project .At this occasion Madina presented Craeft by highlighting the value of creating a bridge between Artificial Intelligence and digital tools with the crafts sector in order to empower it.

Partner short name: FORTH						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**
16.11.2023.	Workshop	Xenophon Zabulis	Gender dimension in research on Culture/Cultural Heritage/Cultural & Creative Industries - organised by German Federal Ministry of Education and Research (BMBF)	Online	https://www.eubuero.de/files/agenda_workshop_culture_231116_final.pdf	As an invited speaker, Xenophon Zabulis presented Craeft and talk about gender dimensions in traditional crafts.
Partner short name: FORTH						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**
17.11.2023.	Training event	Xenophon Zabulis	Advanced digitisation methods in Craeft	Online	https://www.mdpi.com/2571-	As a lecturer Xenophon Zabulis presented Craeft to scientists of The Palace

					9408/6/7/280	Museum's, Digital and Information Department, Cultural Relics Protection, Technology Department, Cultural Relics Protection Standardization, Research Institute, Ancient Architecture Department, and Heritage Monitoring Department (about 30 people). The lecture was organised by the Ministry of Culture and Tourism of China
Partner short name: FORTH						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**
21.11.2023.	Training event	Xenophon Zabulis	Documenting and Digitizing	Online	https://www.ekt.g	Organised by the National

			Intangible Cultural Heritage: Issues and Good Practices		r/el/events/29706	Documentation Centre (Greece's Nation Aggregator for Europeana).
Partner short name: CETEM						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**
04.12.2023.	Event	Communication department	Cambium	Online	https://cambium.gva.es/cetem-impulsa-la-talla-de-madera-milenaria-de-yecla-en-el-siglo-xxi/	Appearance of a press note about the project and woodcarving in this media sector.
Partner short name: FORTH						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**

14.12.2023.	Journal article	Xenophon Zabulis, et al	Large Scale Optical Projection Tomography without the Use of Refractive-Index-Matching Liquid	Published in journal, Open Accesss	https://doi.org/10.3390/s23249814	In this study, we demonstrate that a specific class of transparent objects can be reconstructed without the need for opaque spray coatings using Optical Projection Tomography (OPT).
Partner short name: FORTH						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**
29.12.2023.	Journal article	Partarakis N. and Zabulis X.	Applying Cognitive Load Theory to eLearning of Crafts	Published in journal, Open Accesss	https://www.mdpi.com/2414-4088/8/1/2	This research paper presents a comprehensive framework for applying Cognitive Load Theory to enhance craft education and training via eLearning platforms.

Partner short name: FORTH						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**
07.01.2024.	Journal article	Partarakis N. and Zabulis X.	A Review of Immersive Technologies, Knowledge Representation, and AI for Human-Centered Digital Experiences	Published in journal, Open Accesss	https://www.mdpi.com/2079-9292/13/2/269	This paper reviews the impact of digital technology evolution on diverse interaction domains including user interface design, web-based information systems, knowledge representation, X-reality applications, human motion and 3D digitization, serious games, and AI. We examine how these domains influence our

						interaction with digital interfaces, information processing, and immersive experiences.
Partner short name: FORTH						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**
31.01.2024.	Journal article	Partarakis N. and Zabulis X.	A low-cost close-range photogrammetric surface scanner	Published in journal, Open Accesss	https://www.frontiersin.org/articles/10.3389/fimag.2024.1341343/full	Introduction to: A low-cost, close-range photogrammetric surface scanner is proposed, made from Computer Numerical Control (CNC) components and an off-the-shelf, consumer-grade macro camera.
Partner short name: FORTH						
Date	**Type of action**	**Name of communicator**	**Name of event**	**Location**	**Link**	**Short description**

	Conference paper	G. Galanakis, X. Zabulis, and A. Argyros.	International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications. VISAPP 2024	Online	https://visapp.scitevents.org/	Accepted for publication, still not published