YOUTHDMH · COST ACTION CA23153

# STSMs: An Overview of Year Two Short-Term Scientific Missions

## D1.2.4 Annual report on Short-Term Scientific Missions

**WG1 – Inclusion, Youth Engagement, and Inter-disciplinary Collaboration**

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ANNUAL REPORT ON SHORT-TERM SCIENTIFIC MISSIONS

# STSMs: An Overview of Year Two Short-Term Scientific Missions

**DELIVERABLE**
D1.2.4 Annual report on Short-Term Scientific Missions

**WORKING GROUP**
WG1 – Inclusion, Youth Engagement, and Inter-disciplinary Collaboration

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EXECUTIVE SUMMARY

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# At a glance

This report brings together summaries of Short-Term Scientific Missions (STSMs) undertaken during the second year of YouthDMH COST Action CA23153. It documents the aims of the missions, the activities carried out by grantees with their host institutions, the main scientific and capacity-building outcomes, and the collaborations and follow-up activities arising from the visits. Across the missions, researchers exchanged expertise, developed and refined research protocols and instruments, advanced reviews and manuscripts, explored digital assessment and intervention approaches, and established or strengthened links between institutions and countries. Several missions also supported early-career researchers and participants working in Inclusiveness Target Countries by providing access to specialist expertise, research infrastructure and international collaborators. The reports show that STSMs have contributed to the scientific work of YouthDMH Working Groups while creating opportunities for knowledge exchange and future joint research.

## Key messages

- STSMs have supported cross-border knowledge exchange and collaboration among YouthDMH researchers.
  • Missions have contributed to concrete research activities, including review protocols, surveys, conceptual frameworks, prototypes and manuscripts in preparation.
  • Training and access to host-institution expertise have strengthened research capacity, including for early-career researchers and participants from Inclusiveness Target Countries.
  • Follow-up longer-term collaborations remain important next steps for many of the missions.

**Cross-border collaboration**
STSMs connected home and host institutions across countries and disciplines, creating opportunities for continued exchange.

**Research development**
Missions advanced reviews, research instruments, protocols, conceptual frameworks and early-stage intervention ideas.

**Capacity building**
Grantees gained methodological, technical and interdisciplinary experience through direct work with host research teams.

NAVIGATION

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# Introduction

STSMs aim at supporting individual mobility, strengthening existing networks and fostering collaboration between COST Action Participants. They should specifically contribute to the scientific objectives of this COST Action, whilst at the same time allowing those taking part in the missions to learn new techniques or methods, gain access to specific facilities, instruments or data that are not available in their own institution/organisation. STSMs are research visits that support individual mobility and strengthen collaboration between institutions. They allow researchers to visit a host institution in another COST country to carry out research, learn new methods, access specific resources, and contribute to the goals of the Action.

## STSM Application Assessment and Selection Criteria

STSM applications are evaluated against a set of criteria designed to ensure their scientific quality, relevance and contribution to the objectives of YouthDMH. The assessment considers the relevance of the proposed mission to the Action's aims and Working Groups (weighted twice), its potential to foster interdisciplinary collaboration (weighted twice), scientific quality and clarity, feasibility and planning, and the expected benefits for both the applicant and the host institution. In addition to these criteria, the Grant Coordinator gives particular attention to the relevance of applications to the YouthDMH network, the scientific strength and clarity of the proposed work, and the promotion of inclusion and diversity. Applications from researchers based in Inclusiveness Target Countries (ITCs) and early-career researchers receive additional consideration. Feasibility is an essential requirement: proposals must present realistic objectives and activities that can be achieved within the proposed mission period. Applications involving unrealistic plans, such as large-scale data collection during a very short visit, are not considered suitable.

Further information on STSM eligibility, application procedures, assessment criteria and funding opportunities is available on the YouthDMH Short-Term Scientific Missions webpage.

**REPORT OVERVIEW**

This report provides an overview of the Short-Term Scientific Missions undertaken during Year Two of YouthDMH COST Action CA23153. It brings together the individual mission reports to illustrate how STSMs have supported the Action's scientific objectives, strengthened collaboration between participating institutions and countries, and provided opportunities for researchers to develop new skills and expertise. The accounts highlight the contributions made to Working Group activities, the research outputs initiated or advanced through mobility, and the opportunities for continued collaboration within the YouthDMH network.

# Short-Term Scientific Missions (STSMs) – Year 2

Please find below summary overviews of the STSMs that took place during Year Two of the Action.

**STSM Title: Collaborative Contribution to WG4: Design and Theory in Youth Digital Mental Health Implementation**
**Start and End Date**: 22/06/2026 – 06/07/2026
**Grantee**: Alba Maria Marmol-Romero
**Host Institution** Aalborg University, Denmark
**Home Institution:** Universidad de Jaén, Spain
**Duration:** 15 days
**Working Group:** WG4

**Objectives**
The main goal of this Short-Term Scientific Mission (STSM) is to contribute to the ongoing work of the YouthDMH COST Action WG4, specifically the systematic review titled “The Role of Design and Theory in the Implementation of Digital Mental Health Interventions for Youth”(PROSPERO 2025 CRD420251173258). During this STSM hosted by **Niels van Berkel, PhD.,** the applicant will:
1. Collaborate with experts in Human-Computer Interaction and conversational AI to support the systematic review process.
2. Gain practical experience in the methodology of conducting systematic reviews in the context of digital mental health interventions.
3. Exchange knowledge and approaches with researchers in the WG4, fostering methodological harmonization and scientific discussion.
4. Strengthen scientific connections within the YouthDMH network, promoting future collaborative research efforts.

**Activities**
During the STSM, the grantee worked closely with the host team at Aalborg University on the systematic review "The Role of Design and Theory in the Implementation of Digital Mental Health Interventions for Youth" (PROSPERO 2025 CRD420251173258). Work centered on contributing to the ongoing screening and data extraction process, applying the inclusion and exclusion criteria agreed for the review to studies addressing digital and blended mental health interventions for youth aged 16-25.

Throughout the stay, the grantee held regular working meetings with the host researchers to align methodological approaches. These sessions were used to identify common ground between the grantee's background in NLP and conversational AI and the host team's expertise in Human-Computer Interaction.

As a result of this work, the review progressed: additional studies were screened and coded, extracted data were reviewed for consistency, and preliminary syntheses of findings related to implementation outcomes were discussed and refined jointly with the host team. No significant deviations from the initial working plan were required; the activities carried out were consistent with those proposed in the application.

**Key Outcomes/ Main Achievements**

The STSM successfully achieved its planned goals. The grantee contributed directly to advancing the systematic review coordinated by WG4, supporting the screening and data extraction process and helping move the manuscript closer to completion. This contribution represents a concrete input to the Action's deliverables, specifically the systematic review on design and theory in youth digital mental health interventions.

Beyond the technical contribution to the review, the mission strengthened the scientific connection between the grantee's home institution (Universidad de Jaén, SINAI research group) and the host institution (Aalborg University). The exchanges held during the stay allowed both teams to identify shared research interests.

### Impact and Follow-Up Activities

As a follow-up, both teams agreed to continue the collaboration beyond the STSM period: the grantee will remain in contact with the host researchers to complete the drafting and revision of the systematic review manuscript. In addition, both teams agreed to keep exploring potential joint research initiatives building on this exchange, reinforcing scientific ties within the YouthDMH COST Action network and laying the groundwork for future collaborative work between the two groups.

**STSM Title: Privacy by Design for Youth Mental Citizen Science: Requirements for Trustworthy Digital Journaling**
**Start Start and End Date:** 14/09/2026 – 25/09/2026
**Grantee**: Amina Ćenanović
**Host Institution:** University of Bologna, Italy
**Home Institution:** International Burch University, Bosnia and Herzegovina
**Duration:** 12 days
**Working Group:** WG4

## Objectives

The main goal of this STSM is to investigate how privacy-by-design and privacy-preserving AI can support youth-oriented digital mental health and citizen science, using gratitude journaling as a focused use case for handling sensitive personal reflections.

Hosted by **Prof. Catia Prandi** at the CREATE4Impact Lab, the mission will identify theoretical and methodological gaps at the intersection of youth participation, human-centred co-design, citizen science, and privacy-preserving technologies. Particular attention will be given to Federated Learning as a potential approach for enabling collective analysis while reducing the need to transfer raw personal data to a central server.

The primary contribution of the STSM will be to WG4, through the identification of theoretical gaps and potential interdisciplinary solutions and methods at the intersection of youth mental health, citizen science, human-centred design, and privacy-preserving AI.

The resulting requirements and concise conceptual framework may additionally inform the development of future WG2 and WG3 prototypes, particularly by highlighting privacy, transparency, data minimisation, and user control considerations that should be incorporated from the early stages of prototype design.

The STSM will therefore provide a focused interdisciplinary contribution that connects the applicant's expertise in artificial intelligence (AI), data science, and privacy-preserving machine learning with the host's expertise in human-centred design, citizen science, and youth digital mental health.

## Activities

The work carried out during the STSM followed the planned mission, with no significant deviations from the initial working plan. At the beginning of the STSM, a presentation was delivered on the role of privacy in healthcare AI. It included the importance of protecting behavioural and psychological data in addition to conventional clinical data. Particular attention was given to the sensitivity of personal reflections and the potential risks associated with processing youth-related mental health information.

A targeted literature search was conducted together with Prof. Prandi, using her existing youth gratitude journaling and citizen science framework as our primary use case. We developed an analytical data-extraction workflow to screen and evaluate empirical and review papers investigating digital mental health, citizen science data sharing, and AI-assisted journaling for young people. We found several studies exploring the use of AI in mental health journaling for young people. For example, Su et al. (2024), Mundakir et al. (2026), and Yang et al. (2026) discuss the potential of AI-assisted journaling for therapeutic and reflective purposes. However, these studies also raised questions about how users' sensitive journal entries are collected, processed, and protected. This highlighted the need to pay more attention to privacy-preserving approaches when developing AI-based journaling tools for youth.

Based on these gaps, we worked together to develop a conceptual framework and guidelines for future AI-supported digital journaling tools for youth. The SAFE-Journal Framework focuses on balancing adolescents' privacy, autonomy and crisis support.
It includes four connected layers:

1. Developmental and Psychosocial Foundation,

2. AI and Reflective Interaction Engine,
3. Privacy-Preserving Architecture and PETs, and
4. Clinical Governance and Crisis Oversight.

In addition, we developed eight concrete Privacy-by-Design (PbD) guidelines for the ethical, technical, and methodological architecture of AI-powered mental health journaling tools. The guidelines can support the development of future prototypes within WG2 and WG3 and contribute to the work of WG4.

Overall, all planned activities were completed. The STSM resulted in the identification of key research gaps, the development of the SAFE-Journal Framework, and a set of practical guidelines for future privacy-aware and human-centred digital mental health tools for youth.

**Key Outcomes/ Main Achievements**

The primary goal of this STSM was to investigate the intersection of youth mental health, artificial intelligence (AI), and digital journaling, specifically examining how privacy-preserving technologies (PETs) are currently integrated into digital tools. The mission successfully achieved its planned goals. By screening over 200 records and analysing 50 core empirical and review papers, we examined technical architectures, user-reported privacy barriers, and clinical safety trade-offs. The review revealed that while interactive journaling tools are expanding, dedicated privacy safeguards (such as on-device processing and data minimization) remain critically under-researched in youth interventions.

To advance the Action's objectives on ethical digital health, data governance, and trustworthy AI, the primary scientific deliverable of this STSM was the formulation of the SAFE-Journal Framework, structured across four conceptual layers:

- Layer 1 (Developmental & Psychosocial Foundation): Addressing youth autonomy, stigma, and the barrier of parental/institutional surveillance.
- Layer 2 (AI & Reflective Interaction Engine): Transforming static journaling into an active, therapeutic interaction through real-time emotion recognition and structured reframing.
- Layer 3 (Privacy-Preserving Architecture): Securing user disclosures using cryptographic and decentralized technologies.
- Layer 4 (Clinical Safety & Ethical Governance): Resolving the tension between user confidentiality and the clinical duty of care during emergencies.

From this framework, eight actionable Privacy-by-Design guidelines were synthesized for future AI journaling systems:

1. Local-First / Edge AI: Deploying on-device Small Language Models (SLMs) so intimate diary entries never leave the user's phone.
2. Algorithmic Data Minimization: Using the ReDS principle to extract ephemeral emotional metrics rather than storing permanent narrative logs.
3. Asymmetric Access Control: Creating separate portals where youth have absolute journaling privacy, while parents/teachers only see high-level participation indicators.
4. Cryptographic Alerting: Utilizing Fully Homomorphic Encryption (FHE) to evaluate distress levels on encrypted text without exposing raw entries.
5. Deterministic Safety Nets: Enforcing hard-coded rule classifiers for self-harm/suicide risk that override generative AI.
6. Pre-Disclosed Duty of Care: Clearly informing youth during onboarding of the exact thresholds where emergency help is contacted.
7. Structured Cognitive Restructuring: Guiding reflections through Cognitive Behavioral Therapy (CBT) prompts to prevent negative rumination.

Zero-Knowledge Storage & Shredding: Providing client-side encryption and a one-tap option to permanently erase past diary history.

**Impact and Follow-Up Activities**

The STSM established a strong, long-term institutional collaboration. Most significantly, Prof. Prandi has agreed to serve as a formal PhD co-mentor.

The agreed follow-up roadmap focuses on applying these 8 guidelines directly into practice by integrating privacy-preserving technologies into Prof. Prandi's existing youth gratitude journaling application. Joint work will implement on-device processing, data minimization, and asymmetric role-based privacy partitions within the gratitude journaling prototype, forming a central case study for the doctoral dissertation.

**STSM Title: Generative AI Acceptance and Willingness to Use AI for Mental Health-Related Support Among University Students: An Extended UTAUT-Based Cross-Cultural Study**
**Start and End Date:** 13/07/2026 – 17/07/2026
**Grantee**: Ayla Irem Aydin
**Host Institution** VERN' University, Croatia
**Home Institution:** Bursa Uludağ University, Türkiye
**Duration:** 5 days
**Working Group:** WG3 and WG4

## Objectives

As generative AI tools become increasingly embedded in everyday life, youths are beginning to use them not only for learning and productivity, but also for emotional reflection, reassurance, and informal support. In this context, understanding how youths perceive and intend to use generative AI for mental health-related support has become an important and timely research priority.

Hosted by **Prof. Dr. Irena Miljković Krečar**, the main objective of this project is to examine the acceptance and willingness to use AI-based mental health support among university students within an extended cross-cultural study framework based on UTAUT. More specifically, the STSM will focus on clarifying how perceived usefulness, trust in AI-generated mental health information, trust in AI as an emotional support tool, self-disclosure comfort, perceived risk and boundary awareness, and previous use of generative AI may be associated with students' behavioural intention to use generative AI and their tendency to use it as a substitute for professional mental health support.

The STSM will strengthen the theoretical, methodological, and measurement foundations of a comparative study to be conducted in Türkiye and Croatia. It will also support the development of a structured research protocol, culturally appropriate measurement strategy, and future collaborative outputs within the YouthDMH COST Action.

## Activities

During the STSM, the activities were carried out in line with the approved working plan for the project "Generative AI Acceptance and Willingness to Use AI for Mental Health-Related Support Among University Students: An Extended UTAUT-Based Cross-Cultural Study". The mission focused on strengthening the theoretical, methodological, and ethical foundations of a cross-cultural study to be conducted with university students in Türkiye and Croatia.

Before and during the STSM, a preliminary literature review was discussed with the host researcher, focusing on generative AI use among young people, AI-based mental health-related support, technology acceptance models, and the UTAUT framework. Based on this review, the conceptual scope of the study was refined, and a shared focus was agreed upon. First, an introductory meeting was held with the host researcher and relevant academic staff at the host institution. The STSM aim, expected outputs, timeline, and planned collaboration were presented and discussed. As an outcome, an agreed STSM roadmap was developed, and the conceptual framework was revised based on an extended UTAUT approach.

The research design and methodology were then clarified. The study design, target population, proposed data collection period, and recruitment strategies for university students in both countries were discussed. The main study variables were defined, including AI acceptance, willingness to use AI, trust in AI-generated mental health information, trust in AI as an emotional support tool, perceived usefulness, perceived risk, self-disclosure comfort, boundary awareness, previous use of generative AI, behavioural intention, and substitution tendency. Inclusion and exclusion criteria were also determined.

The sample size and measurement strategy were reviewed. The required sample size for the planned analyses was calculated, and feasible recruitment strategies for Croatian and Turkish university students were discussed. The questionnaire structure was reviewed in detail, and survey questions

and relevant scales were matched with the study variables. This process supported the development of a coherent measurement framework for the planned cross-cultural study.

Ethics-related draft documents were prepared to support future ethics committee applications in each participating country and institution. These included the informed consent form, participant information sheet, confidentiality and anonymity procedures, voluntary participation principles, and a basic data management and data protection plan. It was agreed that ethics approval and/or institutional permission would be obtained separately in accordance with the requirements of each participating country and institution before data collection begins.

On the final day, all materials were brought together into a draft study protocol. The post-STSM process was also planned, including the timeline for ethics applications, data collection, data analysis, manuscript preparation, dissemination, and future collaboration. The host researcher and grantee agreed to continue the collaboration after the STSM with the aim of developing a joint cross-cultural study and a future scientific publication within this COST Action.

### Key Outcomes/ Main Achievements

The STSM achieved its planned goals by producing concrete outputs that will support a Türkiye-Croatia cross- cultural study on university students' acceptance and willingness to use generative AI for mental health-related support. The main achievements included an agreed research roadmap, a revised extended UTAUT-based conceptual framework, a draft methodology section, a sample size calculation, a determining variables with questionnaire items and scales, draft ethics documents, a draft study protocol, and a post-STSM action plan.

These outputs contribute directly to the objectives of the YouthDMH COST Action by strengthening interdisciplinary and cross-cultural collaboration in digital youth mental health research. The STSM addressed an important and emerging topic: how young people perceive, trust, and intend to use generative AI tools for emotional reflection, reassurance, and mild, non-urgent mental health-related support. By focusing on perceived usefulness, trust, perceived risk, self-disclosure comfort, boundary awareness, previous generative AI use, behavioural intention, and substitution tendency, the mission helped to clarify a structured model for examining both the opportunities and potential risks of AI-based support among young people.

A key achievement was the development of a feasible and ethically sensitive research protocol. The planned study aims to examine university students' perceptions of generative AI, their willingness to use it for mental health- related support, and the factors that may influence this willingness. Therefore, the draft ethics materials emphasize informed consent, voluntary participation, anonymity, confidentiality, data protection, and the appropriate wording of mental health-related survey items.

### Impact and Follow-Up Activities

As the next stage, the collaborators agreed to finalize the questionnaire and study protocol and then proceed with ethics committee applications and/or institutional permission processes in both Türkiye and Croatia, in accordance with the requirements of each participating institution. Following the completion of these approvals, data collection will be conducted among university students in both countries. The subsequent stages will include cross-cultural data analysis, interpretation of findings, manuscript preparation, and submission of the study to an SSCI-indexed journal.

Overall, the STSM created a solid foundation for sustained collaboration, future empirical research, and potential joint publications on generative AI and youth mental health-related support. The host researcher and grantee agreed to maintain communication after the STSM to coordinate the ethics application and data collection processes, refine the study protocol when needed, and disseminate the findings within the YouthDMH COST Action.

**STSM Title: Stress Recognition through Multimodal Fusion of EEG Data: A Youth Centred Framework**
**Start and End Date:** 01/09/2026 – 12/09/2026
**Grantee**: Bharat Lal
**Host Institution** University of Calabria, Italy
**Home Institution:** University of Galway, Ireland
**Duration:** 5 days
**Working Group:** WG1 and WG2

## Objectives

Chronic stress is a primary precursor to anxiety and depression in young people, yet digital mental health tools rely predominantly on self-report, constrained by recall bias and the very help-seeking barriers they aim to address. This STSM fills a concrete gap in the YouthDMH agenda: WG2 lacks objective physiological grounding to understand when and why young people seek help digitally; WG1 requires all technologies to embody youth involvement, diversity, equality, and interdisciplinary collaboration. Hosted by **Assoc. Prof. Raffaele Gravina, PhD**., this STSM addresses both imperatives through multimodal fusion of EEG data and compressive sensing.

Specific objectives:

1. Design an energy-efficient EEG acquisition framework using compressive sensing (CS) for wearable youth mental health monitoring.
2. Develop a multimodal fusion model integrating EEG biomarkers (theta/beta ratios, frontal asymmetry) with self-reported psychological measures for stress detection.
3. Validate the framework across demographic subgroups and two EEG platforms (Emotiv and Diadem), embedding fairness by design and producing outputs compatible with future youth co-design studies (WG1).
4. Generate physiological stress indicators to contextualise young people's digital help-seeking behaviour, directly advancing WG2. Establish a foundation for long-term joint research, publications, and a Horizon Europe proposal, contributing to YouthDMH network sustainability.

## Activities

This Short-Term Scientific Mission was carried out at the SPEME Lab, University of Calabria, from 1 to 12 September 2026. During the visit, full access was obtained to the dual-platform EEG dataset, comprising recordings collected from young participants using both the Emotiv and Diadem 12-channel wearable systems under the approved protocols, together with the accompanying self-reported psychological stress measures.

The first phase of the working plan was completed in full. Preprocessing pipelines were standardised across both EEG platforms, including band-pass filtering, independent component analysis for artefact removal, and epoch segmentation, after which the data were cleaned and harmonised for subsequent analysis. Validated EEG stress biomarkers were then extracted from the cleaned recordings.

Work then progressed into the second phase, on compressive sensing integration. Several compressive sensing techniques were implemented and compared across a range of compression ratios, and the original EEG signals were reconstructed from the compressed measurements to assess reconstruction accuracy as compression increased. Building on these results, work has now moved to extracting stress- relevant features directly from the compressed measurements, without first reconstructing the full signal, in line with the reconstruction-free compressed learning approach set out in the application; this feature- extraction step was ongoing at the end of the mission and is being continued remotely in collaboration.

No other deviations from the working plan occurred beyond the change of dates noted above. The dataset access, review, preprocessing, and biomarker extraction milestone was achieved as planned, and the compressive sensing evaluation and reconstruction work substantially advanced the second

milestone; the multimodal fusion, cross-platform and demographic validation, and fairness assessment planned for the later part of Phase 2 and for Phase 3 will be completed as the compressed-domain feature extraction is finalised.

### Key Outcomes/ Main Achievements

The mission achieved its central goal of establishing a working, energy-efficient pipeline for compressive- sensing-based EEG stress recognition on the EEG dataset. Securing full access to recordings of the EEG dataset, together with harmonised preprocessing and validated biomarker extraction, gives the collaboration a clean, quality-controlled foundation of compressed sensing based stress recognition from EEG signals.

The comparative evaluation of compressive sensing techniques across multiple compression ratios, and the associated signal reconstruction analysis, provide an initial characterisation of the trade-off between compression and signal reconstruction for this dataset, directly supporting this cost action objective of an energy-efficient wearable monitoring framework. The transition to compressed-domain feature extraction, still in progress, is expected to yield the reconstruction-free stress classification pipeline set out in the application and will be completed through continued remote collaboration with the host.

### Impact and Follow-Up Activities

A first draft of the joint manuscript reporting these results has been started with the host team. The agreed follow-up plan is to complete the compressed-domain feature extraction and multimodal fusion with the self-reported stress measures, carry out the cross-platform and demographic validation and fairness assessment foreseen in the application, and finalise the joint manuscript for submission to either Smart Health (Elsevier) or the IEEE Journal of Biomedical and Health Informatics, depending on the scope and results of the completed analysis. Once finalised, the results will also feed into the planned YouthDMH WG1/WG2 dissemination activities and will be acknowledged and the collaboration with the host team will continue beyond the manuscript to support the network long-term sustainability objectives.

**STSM Title: Digital Misinformation and Youth Mental Health: An Exploratory Qualitative Study**
**Start and End Date:** 24/08/2026 – 31/08/2026
**Grantee**: Burak Yaprak
**Host Institution:** University of South Wales, UK
**Home Institution:** Istanbul Ticaret University, Türkiye
**Duration:** 8 days
**Working Group:** WG1 and WG2

## Objectives

This STSM explores how young people experience digital misinformation, perceived polarization, and emotionally demanding online environments, and how these experiences may relate to youth mental health and wellbeing. Aligned with YouthDMH's youth-centred and interdisciplinary mission, the project is designed as a focused exploratory qualitative study with preliminary instrument refinement, rather than a large-scale or statistically inferential study.

During the 8-day visit to the University of South Wales (24/08/2026-31/08/2026) which was hosted by **Dr. Hai Nguyen**, approximately 5-7 exploratory semi-structured interviews will be conducted with young people aged 18-30. Participant identification, initial contact, and interview scheduling will be completed prior to the mobility period through host-supported youth and university networks, ensuring feasibility within the short STSM duration.

Building on the qualitative insights and relevant literature, the STSM will refine an initial conceptual framework linking misinformation exposure, perceived polarization, epistemic uncertainty/information distrust, and youth mental health-related outcomes, with attention to algorithmic awareness and news media literacy. The main deliverables are a refined interview guide, preliminary thematic insights, a preliminary survey framework, and a realistic collaboration roadmap for future YouthDMH research.

## Activities

The work followed the exploratory sequential logic defined in the approved application. The first stage focused on research alignment with the host supervisor and refinement of the overall study design. Meetings were held to review the research objectives, recruitment strategy, interview protocol, ethical requirements and the relationship between the qualitative fieldwork and the subsequent comparative research phase.

A substantial part of the STSM involved finalising the ethical and data-management arrangements required by the host institution. Following University of South Wales Data Protection guidance, the study protocol and supporting documentation were refined to ensure appropriate anonymisation and handling of research materials. The participant information materials, consent procedures, recruitment protocol and semi-structured interview guide were consequently reviewed and strengthened.

The planned qualitative fieldwork was successfully completed with eligible young adult participants recruited through host-supported university and youth-related networks. The semi-structured interviews explored experiences of misinformation and misleading online content, perceived online polarisation and conflict, trust and uncertainty in information sources, emotional and wellbeing-related responses, algorithmic awareness, perceived control, and coping or information-evaluation strategies. Reflexive observations and preliminary analytic notes were maintained throughout the fieldwork.

Following completion of the interviews, preliminary thematic reflection and construct mapping were undertaken. Emerging evidence was considered in relation to the initial conceptual framework, particularly the proposed roles of perceived polarisation, epistemic uncertainty and information distrust, algorithmic awareness and news media literacy. These insights informed refinement of the research framework and preparation of the subsequent comparative phase.
The main deviation from the initial working plan concerned sequencing rather than the scientific objectives. Greater-than-anticipated attention was required for ethics, data protection and anonymisation procedures. Therefore, systematic thematic analysis and the broader comparative empirical phase were positioned as immediate post-STSM activities. Nevertheless, the core qualitative

fieldwork, methodological refinement, construct-development and collaboration objectives were successfully completed. Following the mobility period, the project continued as planned, and the subsequent Türkiye data-collection phase has also been completed.

### Key Outcomes/ Main Achievements

The STSM achieved its central objective of establishing an empirically grounded and methodologically feasible research programme examining how digital misinformation, polarised online environments and related information-processing experiences may be associated with youth mental health and wellbeing.

The first major achievement was the successful completion of the UK qualitative fieldwork and the creation of a substantive empirical basis for the next stages of the project. A second tangible output was a refined qualitative research package comprising the semi-structured interview guide, recruitment procedures, consent materials, ethical safeguards and data-management arrangements developed in collaboration with the University of South Wales. These materials provide a reusable methodological foundation for continued collaborative research.

Preliminary qualitative findings already indicate several meaningful patterns. Exposure to misleading or contradictory online information appears to foster greater source scepticism and active verification behaviour, including cross-checking information across platforms and consulting original or verified sources. Highly conflictual or polarised online environments also appear to contribute not only to emotional strain but to behavioural withdrawal, self-silencing and avoidance of online discussion as strategies for protecting wellbeing and reputation. Algorithmic personalisation emerged as an ambivalent mechanism: while personalised information may be perceived as useful and accessible, repeated or highly targeted content may also be experienced as intrusive, overwhelming or difficult to control. Media-literacy practices, selective disengagement, trusted interpersonal or institutional sources, and active information seeking emerged as potentially important protective responses. These preliminary patterns will be assessed systematically across the completed interview material.

### Impact and Follow-Up Activities

Importantly, the research programme has already progressed beyond the mobility period. Following the UK phase, data collection in Türkiye was also completed. The project has therefore developed into an active UK-Türkiye comparative research trajectory. The immediate next steps are systematic thematic analysis, integration of the UK and Türkiye evidence, refinement of the conceptual model and development of a harmonised comparative analytical framework.

The principal scientific output is planned as a joint international manuscript with Dr Hai Nguyen and collaborators at the University of South Wales. The intended target is a high-quality SSCI-indexed journal, preferably within the Q1 category, subject to final empirical contribution and journal fit.

Further follow-up activities will include completion of the comparative analysis, preparation and submission of the joint manuscript, dissemination through YouthDMH channels, and exploration of follow-up collaborative funding opportunities. Overall, the STSM generated a completed qualitative dataset, reusable methodological materials, preliminary empirical findings, a UK–Türkiye comparative research pathway, an active international collaboration and a concrete route towards a high-impact peer-reviewed publication.

**STSM Title: Future design methodologies for contextual mental health assessment in young people**
**Start and End Date: 23/06/2026 – 30/06/2026**
**Grantee**: Elona Krasniqi
**Host Institution:** Thomas More University of Applied Science, Belgium
**Home Institution:** University of Business and Technology, Kosovo
**Duration:** 8 days
**Working Group:** WG3

## Objectives: Goals of the STSM

The goal of this STSM is to conduct qualitative and descriptive analysis of data collected from the Future Design Methodologies for Contextual Mental Health Assessment in Young People workshops with stakeholders held in Brussels (April 2026), as well as data to be collected from workshops with young people in Vienna (June 2026).

Hosted by **Nele De Witte,** the work focuses on exploring how future digital mental health technologies could ethically and responsibly support contextual mental health assessment and wellbeing among young people aged 16–25. The analysis will focus on workshop materials, including contextual assessment mapping exercises, personas, vision statements, prioritisation activities, and implementation discussions. Through thematic analysis, the study aims to generate evidence-informed design principles and identify key ethical, social, and implementation considerations that can inform future research, clinicians, scholarship community, and responsible innovation institutions, in digital mental health for young people.

## Activities

During the STSM, data collected from the Future Design Methodologies for Contextual Mental Health Assessment in Young People workshop, which was conducted with young people in Vienna (June 2026), was analysed. The work focused on addressing the following research questions:

1. What are the perceived barriers, facilitators, and ethical considerations associated with contextual/ambulatory assessment as it is currently available?
2. What would constitute an ideal contextual/ambulatory assessment technology, or which technology features would be most desirable for supporting youth mental health in the future?

Regarding the first research question, the Reflexive Thematic Analysis identified one overarching facilitator theme (Enhancing Mental Health Support) and two overarching barrier themes (Trust, Transparency, and Cultural Bias; and Limited Autonomy in Managing Mental Well-being).

Regarding the second research question, the Reflexive Thematic Analysis identified four major themes:

(1) Human Oversight in Digital Mental Health, (2) Personalized and Multimodal Psychological Support, (3) Co-development of Technology and Psychological Practice, and (4) Legal Regulation of Digital Tools.

The preliminary findings generated during the STSM provide the foundation for drafting a manuscript, which is currently under development. Manuscript preparation will continue at the end of August 2026 in collaboration with the remaining members of the research team WG3. The next meeting, scheduled for 27 August 2026, will focus on further developing the manuscript and drafting the remaining sections with the authors of the WG3.

The preliminary analyses conducted during the STSM established the analytical framework that is now being applied by the other members of the research team in their respective analyses. This approach has helped ensure methodological consistency in coding and the application of reflexive thematic analysis across the different workshop datasets, thereby facilitating the integration and comparison of findings for the joint manuscript.

## Key Outcomes/ Main Achievements

The Reflexive Thematic Analysis conducted during the STSM will contribute directly to Deliverable 2 of the COST Action's Year 2 objectives, namely the preparation of a report/research paper on conceptual prototypes envisioning the future of contextual mental health assessment and interventions. Specifically, the Reflexive Thematic Analysis which I finalised on the Youth Workshop data, held in Vienna, together with the complementary analyses on Stakeholder's Workshop currently being undertaken by WG3 colleagues, will form the empirical basis of the manuscript. Work on the manuscript will resume at the end of August 2026, with the aim of completing Deliverable 2 by the scheduled deadline of October 2026.

## Impact and Follow-Up Activities

It was also considered that the manuscript on Future Methodologies initiated during the STSM, together with the Systematic Review manuscript (currently under discussion), be submitted for presentation at the European Association for Developmental Psychology (EADP) Conference, which will take place in Florence, Italy, from 24 to 27 August 2027. The abstract submission deadline is expected in January 2027.

**STSM Title: Designing Responsible Digital Self-Regulation Frameworks for Neurodivergent Youth: Cross-National Insights from the UK and North Macedonia**
**Start and End Date: 23/06/2026 – 30/06/2026**
**Grantee**: Dr Jasmina Troshanska
**Host Institution:** University of Suffolk School of Business, Arts, Social Science, and Technology, UK
**Home Institution:** University of Tetova, North Macedonia
**Duration:** 8 days
**Working Group:** WG3

## Objectives

This STSM aims to develop a Responsible Digital Self-Regulation Framework for neurodivergent youth (aged 15–25) through a cross-national comparative study between the United Kingdom and North Macedonia. As digital technologies increasingly shape how young people manage stress, emotions, and wellbeing, neurodivergent youth remain insufficiently represented in the design and governance of these tools. Existing digital mental health applications often overlook sensory sensitivities, cognitive diversity, and risks related to digital overstimulation or dependency.

Hosted by **Assoc. Prof., Dr Ivana Lessner Listiakova** and in collaboration with the University of Suffolk, this mission will (1) map current digital self-regulation practices within UK youth mental health and educational contexts, (2) conduct qualitative interviews with practitioners and stakeholders, and (3) undertake a structured comparative analysis with North Macedonian practices. The final outcome will be an Inclusive and Responsible Digital Self-Regulation Framework outlining design principles, safeguarding considerations, and institutional integration pathways.

The STSM contributes directly to YouthDMH objectives by promoting youth-centred, inclusive, and interdisciplinary approaches to digital mental health, while strengthening research collaboration between a COST Inclusiveness Target Country and the UK.

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## Activities

Preparatory activities began on 22 June 2026 with the completion of the North Macedonian phase of the study. Between 22 June and 3 July, eight semi-structured interviews were conducted with teachers and professionals working with neurodivergent youth, alongside a survey involving 50 professionals. Preliminary thematic coding and descriptive statistical analyses were completed before the mobility, resulting in a concise six-page North Macedonia report that served as the basis for the comparative phase. Quantitative findings showed strong agreement regarding the importance of inclusive digital design, ethical AI, accessibility, and institutional responsibility in supporting digital self-regulation, while reliability analysis demonstrated good internal consistency across the five composite scales (Cronbach's α = .70–.89).

During the first week of the STSM, the focus was on mapping the UK ecosystem and engaging with key stakeholders. On 5 July, participation in the A Level Teachers Network Conference at Colchester Sixth Form College provided opportunities to exchange knowledge with educators and conduct research interviews. On 8 July, a study visit to East Coast College (Great Yarmouth) enabled observation of inclusive educational practices, assistive technologies, and support services for neurodivergent students, while interviews with experienced professionals were conducted. On 9 July, fieldwork continued at The Bridge Special School, where additional interviews and surveys were completed.

The second week focused on comparative analysis and framework development. A thematic comparison of interviews from the United Kingdom and North Macedonia identified six common themes: (1) digital tools as external scaffolds for self-regulation, (2) predictability supporting emotional regulation, (3) benefits and risks of digital technology use, (4) inclusive and personalised digital design, (5) institutional support and professional capacity, and (6) principles for a Responsible Digital Self-Regulation Framework. While both countries recognised the benefits of digital technologies for communication, independence, organisation, and emotional regulation, the analysis also revealed contextual differences. UK participants described more established institutional practices,

multidisciplinary collaboration, and stronger digital governance, whereas North Macedonian professionals highlighted limited institutional guidance, greater reliance on families and NGOs, and the need for culturally adapted and Macedonian-language digital resources.

A comparative Analytical Matrix (United Kingdom-North Macedonia) was developed to synthesise qualitative findings across four domains: access to digital technologies, institutional support, cultural and contextual factors, and digital safeguarding and ethical implementation. This matrix directly informed the development of the Responsible Digital Self-Regulation (RDSR) Framework, integrating principles of accessibility, inclusive design, ethical AI, institutional support, and safeguarding.

The framework and preliminary findings were presented at the Children and Childhoods Conference 2026 at the University of Suffolk, promoting dissemination, expert discussion, and future international collaboration. Future work will include integrating the UK and North Macedonia quantitative datasets, completing the mixed-methods analysis, refining and validating the RDSR Framework, and preparing a manuscript for submission to an international peer-reviewed journal.

### Key Outcomes/ Main Achievements

The STSM successfully achieved its primary objective of conducting a cross-national comparative study on responsible digital self-regulation among neurodivergent youth in the United Kingdom and North Macedonia. During the mobility, interviews and surveys were completed with professionals working in education and related support services, complemented by study visits to leading educational institutions. These activities strengthened international collaboration and facilitated the exchange of knowledge and good practices in inclusive education and digital wellbeing.

One of the main achievements was the completion of a comparative thematic analysis, which identified six shared themes related to digital self-regulation, including the role of digital tools in supporting communication, emotional regulation, independence, inclusive design, institutional support, and responsible technology use. The study also highlighted contextual differences between the two countries, particularly regarding institutional capacity, professional training, and access to localised digital resources.

A further key outcome was the development of a Comparative Analytical Matrix (United Kingdom- North Macedonia), providing a structured comparison of similarities and differences across four domains: access to digital technologies, institutional support, cultural and contextual factors, and digital safeguarding and ethical implementation. This matrix formed the basis for the development of the Responsible Digital Self-Regulation (RDSR) Framework, which integrates principles of accessibility, inclusive design, ethical AI, institutional responsibility, and safeguarding.

The preliminary findings and the proposed RDSR Framework were disseminated through a presentation at the Children and Childhoods Conference 2026 at the University of Suffolk, providing opportunities for expert feedback, networking, and future research collaboration.

### Impact and Follow-Up Activities

The STSM also strengthened the collaboration between the University of Suffolk and the University of Tetovo, establishing a foundation for future joint research, knowledge exchange, and international project development within the COST Action network.

Planned follow-up activities include completing the quantitative comparison by integrating the United Kingdom and North Macedonia datasets, refining and validating the RDSR Framework through mixed-methods analysis, and preparing a manuscript for submission to an international peer-reviewed journal. The framework is expected to serve as a practical resource for educators, therapists, policymakers, and researchers, while supporting future international comparative studies and contributing to evidence-based digital wellbeing practices for neurodivergent youth.

**STSM Title: Introspective and future-oriented exploration of the implementation of and engagement with youth digital mental health technologies**
**Start and End Date: 06/07/2026 – 31/07/2026**
**Grantee**: Kerem Doğan
**Host Institution:** University College Dublin, Ireland
**Home Institution:** University of Twente, Netherlands
**Duration:** 26 days
**Working Group:** WG4

## Objectives

This STSM has two goals. The first is to adopt a retrospective and reflexive perspective on a diverse sample of digital mental health projects concluded and currently underway by the Host institution (University College Dublin) and **Dr. Kevin Doherty**'s team. This includes a project concerning access to digital mental health records in Ireland among additional possible collaborations with the Irish national mental health and wellbeing programme, Myndgard, and Football Cooperative. The focus of this analysis is to understand how different teams approached concepts including the implementation of and engagement with youth digital mental health technologies.

The second goal is to adopt a future-oriented approach that will bring together insights from these projects to offer further ethical and sociological implications. The focus of this component of this work is to identify emerging challenges and propose guiding questions grounded in the sociological realities within which implementation of and engagement with youth digital mental health technologies operate.

## Activities

The STSM accomplished two main activities that contributed to the grantee's PhD research, mentoring and learning from a diverse set of postgraduate Human-Computer Interaction (HCI) Master's projects supervised by Dr. Kevin Doherty, and fostering new collaborations with the host institution University College Dublin (UCD), including conducting a bespoke workshop at UCD.

The first activity included participating in the weekly Friday sessions of HCI Master students' postgraduate dissertation projects conducted in partnership with a diverse sample of industry and community collaborators from IBM to EUPATI patient advocates. On these Friday sessions, the grantee observed each student team's project progress presentations, and joined the teams whose work focused on digital physical and mental health projects. After collecting informed signed consent forms, the grantee had weekly conversations with these student teams regarding how they approach topics such as engagement, implementation and data within their projects, and I collected notes from these conversations and observations. Throughout the four weeks, the grantee had the opportunity to observe how each team's approach to engagement, implementation, and data evolved. He also supported the students throughout their projects by discussing ideas with them and encouraging critical reflection on questions related to engagement, implementation, and the role of data in their process.

The second activity undertaken within this STSM was to develop and facilitate a workshop methodology to examine the meanings associated with engagement data in youth digital mental health technologies. We designed the workshop to explore different and divergent meanings of engagement data through a collective storytelling method. Five MSc in HCI students and one PhD student took part in this 2-hour long workshop. The workshop was successful in exploring a diverse range of meanings associated with engagement data through interactive and reflexive activities. The workshop methodology also serves as a foundation for future research activities and can be adapted for use in other educational and research settings.

Overall, the observational notes from the weekly project sessions and the workshop outcomes provide valuable insights into how different student teams conceptualize, measure and design for engagement and implementation, as well as the challenges they face while working with these concepts. Moreover, these insights highlight broader ethical and sociological implications, especially concerning the role of engagement data in youth digital mental health technologies, and offer guidance for future research.

Beyond these research objectives, the STSM also created valuable opportunities to network within the hosting institution. The grantee participated in the PhD Lab at the School of Information and Communication Studies at UCD, took part in the CareLab monthly reading club, had regular weekly meetings with Dr. Kevin Doherty, and engaged in informal discussions with researchers across the department.

## Key Outcomes/ Main Achievements

This STSM successfully achieved the two main goals outlined in the application: (1) to adopt a retrospective and reflexive perspective on a diverse sample of youth digital mental health projects at University College Dublin, and (2) to develop a future-oriented approach that brings together insights from these projects to identify ethical and sociological implications for guiding future research. Participating in the weekly Friday sessions with the student projects provided not only a retrospective and reflexive perspective but also an opportunity to observe these projects as they evolved. This was also an opportunity to discuss different theoretical perspectives that we have been working with at the University of Twente such as Social Practice Theory and to utilize these to encourage students to further reflect on their projects regarding how they approach engagement, implementation and data. The workshop itself served two purposes: (1) to explore meanings associated with engagement data in youth digital mental health technologies and (2) to test this collective storytelling workshop methodology as a methodological contribution to the literature and the objectives of the YouthDMH COST Action group.

## Impact and Follow-Up Activities

The insights generated from weekly discussions with student teams and observational notes, together with the workshop outcomes, will be used to write a research paper to be submitted to a venue such as the Designing Interactive Systems (DIS) conference. This paper will focus on how the topics of engagement, implementation and data evolve throughout different design processes, and the role of meanings of engagement data in youth digital mental health technologies. This paper will form part of my PhD dissertation and it will also be shared with the other members of the YouthDMH COST Action group to support ongoing collaboration and knowledge exchange.

The STSM also established a foundation for continued collaboration between the ENGAGE team at the University of Twente (https://www.utwente.nl/en/bms/pht/research/labs/persuasive-health-technology/engagement/) and the CareLab team at University College Dublin (https://kdoherty.ie/research). Future work will include the joint work of the planned publication together with Dr. Kevin Doherty and PhD student researcher María Paula Silva, the exchange of theoretical and methodological perspectives, and opportunities for further collaboration within the YouthDMH COST Action group.

**STSM Title: Mapping and reimagining food & wellbeing content: a youth-informed conceptual prototype**
**Start and End Date: 11/10/2026 – 15/10/2026**
**Grantee**: Lamprini Chartofylaka
**Host Institution:** Instituto de História da Arte (IHA), Portugal
**Home Institution:** Universite Sorbonne Paris Nord, France
**Duration:** 5 days
**Working Group:** WG2 and WG4

## Objectives

This STSM investigates how food-and-wellbeing content circulating on Instagram and TikTok shapes the mental wellbeing of young people (ages 11–25), and co-develops, with the host and young people themselves, a conceptual prototype for healthier, youth-informed alternatives to this content. Hosted by **Dr Amanda Tavares** at the Instituto de História da Arte (IHA), NOVA FCSH, this mission builds on our prior collaboration during the CIRCUL'ARTs COST Action and extends her current FCT-funded research on food, migration, and hospitality into the domain of digital youth mental health. The mission combines a short media-mapping exercise, informal
youth interviews ("micro-trottoir"), and a collaborative creative synthesis, resulting in a mapping report contributing to WG4 (theoretical gaps and interdisciplinary opportunities) and a collage-based conceptual prototype contributing to WG2 (conceptual prototypes envisaging future online help-seeking experiences). By foregrounding young people's own critiques of, and alternatives to, mainstream food-and-wellbeing content, the
mission places youth voice at the centre of a genuinely interdisciplinary collaboration between educational sciences and contemporary art and food studies.

## Activities

The STSM explored how young people perceive food and wellbeing content on Instagram and TikTok, and translated their views into a youth informed conceptual prototype. The work was done jointly with the host in four phases: mapping, design of the intervention, fieldwork, and analysis and prototyping.

Deviations from the plan. The application foresaw short informal interviews and a collage-based prototype. After discussion with the host, the interviews became a guerrilla style intervention: a brief, informal activity with passers-by in a public university space, better suited to reaching young people quickly in their everyday environment. No collage was produced: the prototype took the form of personas, built as pedagogical discussion tools.

Mapping. About 55 sources (2011 to 2026) were mapped: mostly risk focused and Instagram centred, with almost no participatory work with young people, no explicit focus on TikTok and none on Portugal. Hashtags commonly used for this type of content were grouped into six categories, and ten positively framed ones were shortlisted.

Fieldwork (Campus de Campolide, Universidade NOVA de Lisboa). Young people passing through a corridor were invited to take part voluntarily (convenience sampling). To obtain a diversity of profiles, passers-by who appeared to be of different genders and ages were approached. Gender was deliberately not asked, so as to preserve anonymity and keep the exchange brief. Eligibility was limited to individuals under 25 who use Instagram, TikTok or similar platforms.

Each participation took about five minutes and had three tasks: free association on post-its around food, wellbeing and social media; three open questions (what do you enjoy, what bothers you, what do you propose) on an A4 card designed like a social media post; and a vote for the best hashtag among the ten shortlisted. Thirty participants aged 17 to 23 (mean 19.6) completed the card, in Portuguese or English.

Analysis. Answers were transcribed, translated and entered with age only. We used a hybrid inductive and deductive thematic analysis (Fereday and Muir-Cochrane 2006): themes were generated through

reflexive thematic analysis (Braun and Clarke 2006; 2019), then coded for valence regarding youth digital mental health. Frequencies and votes were counted.

Prototype. Four youth personas were built from students' own answers (profile, quote, likes, frustrations, wants, key tension) and developed with the host, Dr Amanda Tavares. They are the mission's conceptual prototype: discussion tools made by students for students, to open pedagogical conversations about food content online. Other design directions were also discussed for the future.

Ethics and limits. Participation was anonymous and voluntary, with oral information and freedom to stop. Only age was recorded, and no personal experiences were asked. The convenience sample, from one university setting, makes findings exploratory; non users of social media were not captured.

## Key Outcomes/ Main Achievements

Assessment of goals. The three planned goals were achieved: (1) a mapping of the literature and of food and wellbeing hashtags on Instagram and TikTok (WG4); (2) young people's perspectives gathered from 30 participants; (3) a youth informed conceptual prototype, in the form of four personas made as discussion tools by students for students (WG2), developed jointly with Dr Amanda Tavares.

Results of task 1, post-its - free association tool. Words were both positive and negative: pleasure and comfort (fun, satisfaction, cooking, a grandmother's kitchen, travel) next to body ideals and pressure (thinness, comparison, social pressure), disordered eating, and misinformation (fake news, food, fearmongering). Coding gave seven themes: body ideals and social comparison; mental health and disordered eating; platform mechanics; pleasure, comfort and belonging; health practices; trust and misinformation; global food inequality. These themes were further categorised by valence: positive, negative, neutral or ambivalent.

Results of task 2, A4 card as a survey instrument. What they enjoy: recipes (around half of participants), healthy eating presented positively and without guilt, quick and affordable content, new cuisines, and authentic everyday content. What bothers them: harmful body ideals (about a third; health equated with thinness, glorification of eating disorders, extreme diets), then misinformation, unrealistic and unaffordable lifestyles, comparison and pressure. What they propose: open and humorous conversations, expert based and regulatory measures (qualified professionals, adjusted algorithms), more realistic and inclusive content, and transparent recipes.
Results of task 3, hashtag vote (to select hashtags for further studies). The hashtags #healthyeating (9) and #feedyoursoul (8) led, with small differences among the others.

Key insights. Eating disorders and body image were raised spontaneously, suggesting that many of these
young people already see food content as a mental health issue. Many showed a critical understanding of how health discourse can legitimise diet culture.

## Impact and Follow-Up Activities

WG2 (help seeking, information and misinformation): social media is an informal source of information, and the results show how young people judge its reliability, whom they trust and what they propose. WG4 (theory, design and implementation): the mapping and the personas ground design guidance in lived experience. WG1 (youth involvement and co-design): young people took part anonymously and their words shaped the personas. WG5 (policy and dissemination): their proposals on advertising, qualified voices and algorithms can inform policy recommendations.

Outputs and follow up. The four personas are youth informed discussion tools, built from students' answers for their peers. In class or workshops, they can support ideation and the development of food and wellbeing content: young people compare their own experience with a persona, discuss how that persona reads and trusts content, and share strategies. They can also be used in teacher training and media literacy teaching. With Dr Tavares, we agreed on a further publication of the results and on further studies of the strategies used on social media to engage young people and of the visual and audiovisual techniques used to attract them. All work can be shared with the Action's members.

**STSM Title: Developing a youth-centred dissemination strategy and policy-recommendation framework for digital mental health**
**Start and End Date: 27/09/2026 – 05/10/2026**
**Grantee**: Dr. María José Arroyo González
**Host Institution** Edge Hill University, UK
**Home Institution:** UNED, Spain
**Duration:** 9 days
**Working Group:** WG1 and WG5

## Objectives

This STSM aims to design, together with **Dr. Shaun Liverpool**'s team at Edge Hill University, a strategy for disseminating the findings of a Delphi consensus study on Patient and Public Involvement (PPI) in Digital Youth Mental Health (DYMH) directly to the young population itself, positioning young people as active participants rather than passive recipients of research. It also aims to design a framework and evaluation plan for testing the resulting policy recommendations, comparing their applicability between Spain and the United Kingdom, and to initiate a comparative mapping of Spanish and British educational policy relevant to digital youth mental health. The mission places particular emphasis on YouthDMH Working Group 1 (Inclusion, Youth Engagement and Inter-disciplinary Collaboration), while also contributing to Working Group 5 (Policy, Impact and Dissemination). The STSM covers the design and planning stage only; subsequent implementation and testing with young people is foreseen as a follow-up activity.

## Activities

Activity 1. Strategies for disseminating the Delphi among young people

This activity focused on devising dissemination strategies aimed at young people, so that they become active participants and not only recipients of the Delphi study on Patient and Public Involvement (PPI) in Digital Youth Mental Health (DYMH). We proposed complementary strategies with the same core message: animated cartoons telling the same story in two versions, for younger children and for adolescents; a flipbook with the recommendations in accessible language; an escape room with a problem and its solution, designed to take place simultaneously in person and online; a podcast with the main ideas of the Delphi; and social media and community to sustain engagement. We also discussed carrying out a small pilot test with populations we have access to, in order to gather their opinions, suggestions and improvements before launching it.

Activity 2. Analysis of policy recommendations derived from research

We designed a data extraction grid to analyse the recommendations offered by previous research, within the framework of the Working Group 5 review. The grid collects the descriptive data needed to analyse each study (country, participants, age, condition and digital intervention) and answers three questions: (1) what ethical framework it proposes for the use of artificial intelligence, (2) what policy and practice recommendations it offers, and (3) what lines of future research it proposes. The answers are organised according to the stakeholder they refer to: users (children and young people), families, professionals, institutions (schools, public administrations) and artificial intelligence developers.

Based on the answers, we gradually extracted categories for each question. To check that the grid would be useful for the group's future work, we jointly carried out a test analysis of a systematic review on digital interventions for children with behaviour problems (Igbinovia, 2026), from which categories emerged such as the loss of power of the child or person, 24-hour access and instant feedback. We then continued with other studies and considered the possibility of an analysis comparing educational policies on digital risks in Spain and the UK: access regulations, policies and programmes, or a publication on the policy recommendations found in research

Deviations from the working plan

The application foresaw reviewing the Delphi results and a comparative mapping of Spanish and UK policies. As the results were not available, Activity 1 focused on designing strategies, and Activity 2 on

systematically analysing the recommendations of previous research, a necessary step for that comparison. Young people's participation will be incorporated when testing the materials.

## Key Outcomes/ Main Achievements

The STSM met its planning objectives and left the tools ready for the next phase, although the application to the Delphi results and the direct participation of young people are postponed to the implementation phase.

Activity 1. Dissemination of the Delphi

The outcome is a proposal of youth-centred dissemination strategies, with five complementary formats (cartoons, booklet or flipbook, hybrid escape room, podcast and social media) and the plan to test them with different profiles of young people before their launch. The combination of formats makes it possible to reach different age groups and contexts (school, community and digital) and encourages young people themselves to pass on the results to their peers. It contributes to YouthDMH Working Group 1 (Inclusion, Youth Engagement and Interdisciplinary Collaboration), specifically to Task 1.1 and deliverable D1.1, and to Capacity-Building Objective 5 of the MoU, which calls for young people to act as ambassadors for mental health and wellbeing in their communities. It also contributes to Working Group 5 (Policy, Impact and Dissemination) by bringing research closer to a non-academic audience.

Activity 2. Policy recommendations

The outcome is a tested analysis grid ready for the group to use, together with an initial category system for each of the three questions and the first studies already analysed. This work contributes directly to the Working Group 5 deliverables on guidelines and policy recommendations, as it makes it possible to synthesise, in a systematic and comparable way, what research recommends to each stakeholder. Organising the recommendations by recipient also makes it easier to transfer them to specific contexts, such as the Spanish and British ones, and lays the foundations for Research Coordination Objective 4 (a strategic and coordinated research agenda).

## Impact and Follow-Up Activities

In addition, the stay generated joint work between UNED and Edge Hill University, which contributes to Capacity-Building Objective 3 (sustainable collaborations and joint funding applications) and strengthens the transnational network of the Action.

Publications

A joint publication on policy recommendations derived from research in digital youth mental health is planned for submission to a specialised journal in the field of health policy. The results will also be presented at forthcoming YouthDMH meetings.

Agreed follow-up activities

- Activity 1: decide on the format for each audience, produce the materials once the Delphi results are
  available and test them with different profiles of young people before their launch.
- Activity 2: complete the analysis of the studies with the grid and finalise the category system.
- Explore possible joint publications and joint funding applications
- Maintain the collaboration between both institutions, with a possible visit of the host team to UNED.

**STSM Title: Evaluating Large Language Models for Individualised Reporting in Online Group Therapy**
**Start and End Date: 08/04/2026 – 08/05/2026**
**Grantee**: María Navas Loro
**Host Institution** Ulster University, UK
**Home Institution:** Universidad Politecnica de Madrid, Spain
**Duration:** 30 days
**Working Group:** WG1, WG3, and WG4

## Objectives

Hosted by **Prof. Maurice Mulvenna, PhD**., the main goal of this project is to evaluate and identify the most suitable Large Language Models (LLMs) for supporting therapists in online group therapy settings by automatically generating individualized draft reports for each participant after a session. The system will assist clinicians by transforming session transcripts into structured, clinically relevant reports while preserving contextual nuance, participant- specific contributions, and therapeutic dynamics. These reports will include easy to understand terminology for patient's families. Specifically, the project aims to:

1. Compare different state-of-the-art LLMs in terms of summarization quality, contextual coherence, and clinical usefulness.
2. Develop a domain-specific evaluation framework and metrics tailored to therapeutic group sessions, including automated and human-in-the-loop assessment.
3. Design a prototype pipeline that integrates securely with an existing online therapy platform from
Ulster University, ensuring privacy, confidentiality, and compliance with ethical standards.

The ultimate objective is to enhance clinical efficiency, reduce administrative burden, and improve the consistency of session documentation, while ensuring that AI-generated outputs remain transparent, traceable, and supportive—never substitutive—of professional clinical judgment.

The STSM would align with WG1 (interdisciplinary collaboration), WG3 (the results would contribute to D3.2 and D3.3), and WG4 (it bridges the gap between the latest research and digital health applications)

## Activities

Despite the topic refinement to better align with the clinical workflows identified at the host institution, the STSM successfully achieved its core objectives, transitioning from a theoretical exploration of Large Language Models (LLMs) to a validated, requirements-driven framework for PWP practice (instead of the original therapeutic report generation). The planned goals were met as follows:

- We successfully identified and tested a suite of state-of-the-art LLMs (including proprietary and open-weight models), including new kinds of LLMs such as roleplay ones and audio-based LLMs.
- We created a first evaluation framework for these LLMs, specifically focused on the psychological domain.
- Requirements Elicitation: The on-site stay facilitated deep-dive meetings with clinicians and stakeholders from Pneuma Healthcare.
- Prototype & Pipeline: A first basic pipeline was developed to handle the interaction PWP trainee - simulated patient. The architecture supports testing of different prompts and models.
- In order to foster knowledge sharing and collaboration between UPM and Ulster University, the grantee gave a talk about her work during the STSM. This led to another collaboration opportunity (unrelated to the work on progress).

## Key Outcomes/ Main Achievements

- The activities of this STSM directly advanced the objectives of the Action, contributing to different deliverables:
- The mission served as a primary case study for bridging AI research (UPM) with clinical health sciences (Ulster University). It fostered a shared vocabulary between engineers and therapists, contributing directly to the interdisciplinary methodologies outlined in D1.3.
- The developed evaluation rubric, which combines automated metrics (e.g., attribution accuracy) with human-in-the-loop qualitative scoring, provides a tangible contribution to D3.2 and D3.3.

The work performed will result in the following outputs:

- Technical manuscript: A comprehensive analysis of LLM-based architectures performance in psychological training chatbots, currently in progress.
- Psychological Study manuscript: We are currently designing a study with participation from Northern Ireland, Italy and Spain to test people's perception of different LLMs generated transcripts and LLM generated audio.
- Webinar: A knowledge-sharing session for the Action members to present findings on the ongoing work (will be scheduled after the summer).

## Impact and Follow-Up Activities

The STSM has generated a long-term research partnership between Universidad Politécnica de Madrid and Ulster University, currently maintained through bi-weekly meetings. Future steps include:

- Prepare joint Funding Proposals for calls such as Wellcome1 or Horizon Europe to scale the ongoing work.
- Exploring initiating a "LLMs in Mental Health" subgroup within the Action to standardize protocols, ethical challenges and standardized evaluation methodologies for generative AI in clinical contexts. The grantee will suggest it during the next WG2 or WG3 meeting.

**STSM Title: Developing the Youth Digital Self-Regulation Scale for Young People**
**Start and End Date: 19/08/2026 – 28/08/2026**
**Grantee**: Dr Paschalina Lialiou
**Host Institution:** Ulster University, UK
**Home Institution:** University of Piraeus, Greece
**Duration:** 30 days
**Working Group:** WG3

## Objectives

This Short-Term Scientific Mission (STSM) aims to contribute to the objectives of WG3 (Contextual and Early Assessment and Intervention) by consolidating and exchanging existing and emerging knowledge to support the development of innovative, youth-centred approaches for digital mental health. In particular, the mission seeks to establish a contextual framework for the development of an early digital mental health intervention through the creation of the Youth Digital Self-Regulation Scale (YDSRS).

The proposed mission will be carried out at Ulster University and Pneuma Healthcare in Belfast, Northern Ireland, under the supervision of **Professor Maurice Mulvenna**, in close collaboration with the interdisciplinary team of Pneuma Healthcare.

More specifically, the primary objective is to develop an early assessment and intervention framework that promotes youth mental health and wellbeing and strengthens self-regulation capacities in digital environments. The mission directly contributes to D3.1 through a synthesis of the state of the art in early assessment and intervention approaches; supports D3.2 by informing conceptual prototypes for future- oriented assessment and intervention models; and contributes to D3.3 by generating evidence-based recommendations and guidelines to support early interventions and policy development.

Though interdisciplinary collaboration, the STSM aims to advance, preventive, and ethically grounded digital health solutions for youth.

## Activities

The STSM achieved its principal objective of establishing a stronger scientific and methodological foundation for the development of a youth-centred assessment tool addressing self-regulation and perceived control in digital environments. A key achievement was the completion and refinement of the structured mapping of relevant constructs and existing psychometric measures, enabling clearer differentiation between adaptive digital self-regulation, problematic digital use, emotional regulation, healthy digital habits, resilience, and mental-health-related outcomes.

The mission resulted in the refinement of the conceptual framework and the development and organization of the initial pool of candidate items in electronic format. Scientific discussions with researchers at the host institution highlighted the importance of grounding the emerging instrument in an established behavioural theory rather than relying on a broad combination of existing constructs and measures. Consequently, Locus of Control was incorporated as a relevant theoretical foundation for further conceptual development, allowing consideration of internal control as well as social, external, and technology-related influences on young people's digital behaviour. This refinement provides a more coherent theoretical basis for subsequent expert evaluation and psychometric validation while remaining consistent with the overall objective of developing the Youth Digital Self-Regulation Scale (YDSRS).

## Key Outcomes/ Main Achievements

The work contributes directly to the objectives of COST Action CA23153, particularly WG3 activities and Deliverables D3.1–D3.3, by supporting youth-oriented conceptual development, assessment-tool design, and the methodological groundwork required for future prototype- and intervention-oriented research. The STSM also strengthened collaboration between the University of Piraeus and Ulster University and facilitated wider scientific exchange and networking with researchers working in digital mental health, Artificial Intelligence, and related fields, including through participation in a scientific symposium on current developments in AI and mental health.

### Impact and Follow-Up Activities

Planned follow-up activities include ethical approval by both institutions for the research implementation, expert-panel evaluation of item relevance and clarity, cognitive interviews and face-validity assessment, pilot data collection, followed by psychometric validation using exploratory and confirmatory factor analysis, reliability analysis, and convergent and discriminant validity testing. A multicentre implementation involving the collaborating universities is envisaged. Following completion of the validation findings of the study will be disseminated through publication in a peer-reviewed scientific journal, further supporting the dissemination and scientific impact of the STSM outcomes. The longer-term objective is to use the validated assessment framework as a foundation for personalized digital mental-health research, including the development of future digital interventions integrating behavioural indicators with psychological measures of self-regulation and perceived control.

**STSM Title: Co-creative mental health pedagogies for the Global Majority**
**Start and End Date: 20/09/2026 – 09/10/2026**
**Grantee**: Sérgio Barbosa
**Host Institution** Universidade de Brasilia, Brazil
**Home Institution:** University of Graz, Austria
**Duration:** 30 days
**Working Group:** WG1 and WG5

## Objectives

This STSM investigates pedagogical interventions of youth digital mental health. Co- creative digital mental health pedagogical sessions can flatten the richness, plurality, and diversity of data cultures and practices that emerge on the margins, privileging engagement with digital technologies that promotes critical pedagogy beyond the narrow, one-dimensional views of the world. While some efforts already exist at the Anglo-Saxon level to map the implementation of digital mental health initiatives, these tend to privilege the examination of Western, Educated, Rich, Industrialized and Democratic (WEIRD) societies based in the Global North. However, they are insufficient to grasp critical imaginaries of marginalised school communities from the Global South(s) in a meaningful, inclusive and mutually beneficial, taking Brazil as a placeholder. The short mission foregrounds the perspective of youth digital mental health from and with the Global South(s). While implementing a critical pedagogy approach, this STSM develops groundbreaking knowledge on how digital technologies can support the mental health of young individuals aged 16 to 18 at the school level through co-creative pedagogical sessions. It poses on central research question: How and which digital mental health pedagogies emerge in a co-creation process that includes educators, policy makers, artists, researchers and young people?

Hosted by **Assoc. Prof. Dr. Haydée Caruso**, the goals of this STSM are twofold. First, it aims to co-create digital mental health pedagogical toolkits based on the data collected at two selected schools in Brasilia (O1). Second, this STSM evaluates how the critical use of social media platforms at school level (O2). At the same time, it analyses the evolution of social norms, visions and values and related to digital cultures at school level. The findings can potentially be applied to support the creation of educational curricula for schools worldwide.

## Activities

The carried activities during my short mission in Brasilia (Brazil) were successful accomplished. First, it was aimed to allow the visiting researcher to learn more about co-creative pedagogical sessions with young people at the school level. The short visit produced a draft presentation entitled: “Co-creating digital literacy with Young People at the school level in Brasilia” reflected on platforms usage of people of young people
(18+). Second, it sought to identify specific literature of mental health strategies to be applied with two selected schools, namely: CEL Lago Sul and CEM 01 Gama. Specifically, here follows the duration of the 20-day work carried out during the STSM linked to the University of Brasilia:

Desk research carried out during the STSM: the research topic about co- creation and digital literacies was advanced and two co-creative pedagogical sessions with young people were conducted. The latter will open the floor for best practices about mental health at schools. Hence, the STSM linked to the University of Brasilia was a unique opportunity to significantly improve the theoretical concepts for the integration of co-creative methods and improve the research case within the comments and suggestions made by the host professor and broader research community of the Department of Sociology.

While previous research has largely focused on mental health in Europe, this study also integrated a bottom-up perspective, exploring how perceive and respond to mental health problems at the school level in Brazil. The analysis highlights how the co-creative sessions discuss the role of young people in participating and responding to platform challenges. It delivers a pedagogical toolkit with recommendations for policymakers, researchers, school community and civil society actors on how to investigate digital literacy through co-creation in an increasingly interconnected world.

## Key Outcomes/ Main Achievements

The research activities carried out during the STSM were in line with the goals outlined above. There were three main achievements: i) Discussing the research agenda of mental health and young people at two selected schools; ii) Desk research about platforms pedagogy where a pedagogical toolkit was designed; iii) Discussing about several conferences where the paper could be presented. The host professor has recommended to submit an abstract to the XXI ISA conference to be held in South Korea July 2027.

## Impact and Follow-Up Activities

After the period of the research visit in Brasilia (Brazil), the grantee will continue his work to improve the quality of his research case, meanwhile able to consider writing a grant proposal about the different roles of pedagogical strategies related to mental health created in the Global South contexts (for a follow-up mission activity). The host institution has supported the grantee to do cutting-edge research to investigate the challenges of co-creation and mental health issues, while reflecting about new ways to unpack the challenges of platform society, mainly regarding school communities in Brasilia – capital of Brazil. It was an immense pleasure to be linked to a quite vibrant, engaged, and diverse research institute such as the Department of Sociology at the University of Brasilia. The grantee learned to recognize the important contribution to the development of research outputs for future joint grant applications connected to COST ACTION 23153 YouthDMH major topics of mental health and digital technologies.

**STSM Title: Co-designing a youth-centred GenAI-supported intervention for young people's digital mental health and self-regulation: extending the "hEp" approach through human-centred cybersecurity**
**Start and End Date: 15/06/2026 – 23/06/2026**
**Grantee**: Sonay Caner-Yildirim
**Host Institution**: Universite Cote d'Azur, France
**Home Institution:** Erzincan Binali Yildirm University, Turkiye
**Duration:** 9 days
**Working Group:** WG3

Note: "hEp" refers to the self-regulation intervention I developed during my PhD to support university students in managing problematic internet use through Mental Contrasting with Implementation Intentions (MCII), structured goal setting, reflection, and planned responses to obstacles.

## Objectives

Hosted by **Karima Boudaoud**, this STSM aims to extend the grantee's PhD research on the self-regulation of problematic internet use by revisiting the MCII-based hEp intervention and adapting it into a youth-centred mobile concept with carefully bounded use of Generative Artificial Intelligence (GenAI). More specifically, the mission will explore how the core logic of hEp can be redesigned for young people's digital well-being and mental health in a way that is more personalized, safe, and meaningful for users.

During the visit, the grantee worked with the host institution to translate evidence from the PhD into a feasible intervention concept that combines self-regulation theory, digital intervention design, and human-centred cybersecurity. The theoretical and design background developed through my PhD was brought to the project, while the host's expertise ensured that the proposed concept gives appropriate attention to privacy, trust, safety, and the responsible use of GenAI. As part of this process, there was an aim to gather early co-design input from undergraduate students to strengthen the youth-centred perspective of the proposed work.

This mission aligns primarily with YouthDMH WG3 through its focus on contextual and early intervention. It also contributes to WG1 through youth-centred design, inclusion, and interdisciplinary collaboration, and to WG4 through design and evaluation guidance for responsible innovation. More broadly, the collaboration will strengthen methodological exchange between digital mental health, educational technology, intervention design, and cybersecurity, while supporting YouthDMH's aim to develop innovative, responsible, and youth-informed approaches to digital mental health.

## Activities

The STSM achieved its principal goals by producing and evaluating an early youth-centred mobile concept for hEp and by integrating human-centred cybersecurity considerations into the proposed use of GenAI. The co-design sessions identified concrete revisions concerning feature discoverability, onboarding, navigation, goal scope, reminder configuration, multiple obstacle-plan relationships, AI transparency, contextual relevance of AI output, and management of ongoing and finalised hEps.

A notable observation was that several participants did not initially notice the button for requesting AI-generated ideas and required a reminder. Six participants preferred local AI, while only the software engineering student selected remote AI. This pattern may reflect the participants' disciplinary awareness of privacy and data-processing risks, but it will be treated as an exploratory observation rather than a general conclusion.

The findings support revisions to the prototype, including stronger first-use guidance, clearer AI-help labels, easier AI-mode selection, improved navigation from safety and AI screens, more flexible reminder scheduling, clearer time-entry instructions, consistent language, delete and recovery functions, and explicit mapping between multiple obstacles and plans. The sessions also indicated that

local and remote AI outputs require further technical refinement, especially for contextual sensitivity, variation in responses, and support for multiple obstacles and plans.

The co-design findings were synthesised into preliminary design principles concerning user autonomy, AI transparency, privacy-preserving defaults, contextual personalisation, recoverable user actions, clear obstacle-plan relationships, and youth-friendly interaction design. A preliminary safety, privacy, and trust checklist was also developed to guide the bounded and responsible use of GenAI. In addition, an initial pilot evaluation protocol and dissemination pathway were outlined to support subsequent development and research.

### Key Outcomes/ Main Achievements

These outcomes contribute to YouthDMH WG1 through youth-centred co-design and interdisciplinary participation, to WG3 through the development of a contextual early intervention concept, and to WG4 through design and evaluation guidance for responsible GenAI-supported tools.

### Impact and Follow-Up Activities

Planned follow-up activities include revising the prototype, systematically analysing the screen and voice recordings, and preparing the current co-design data for submission to a prestigious conference in the field. Future co-design sessions will aim to include younger students in higher education, particularly those aged 18–22, as well as high school students, to broaden the representation of young people across different educational stages. Following these additional co-design and refinement activities, the mobile version of the intervention will be developed and prepared for subsequent pilot evaluation. The safety, privacy and trust checklist, pilot evaluation protocol, and dissemination plan will also be further refined in collaboration with the host researcher.

**STSM Title: Supporting WG3 Co-Creation in Youth Digital Mental Health: A DDA Informed Approach to Contextual and Early Assessment**
**Start and End Date: 18/05/2026 – 31/05/2026**
**Grantee**: Yagmur Zararsiz
**Host Institution**: Thomas More University of Applied Sciences, Belgium
**Home Institution:** Marmara University, Türkiye
**Duration:** 9 days
**Working Group:** WG3

## Objectives

This Short-Term Scientific Mission (STSM) supports COST Action CA23153 (YouthDMH) by contributing to Working Group 3 (WG3) on Contextual and Early Assessment and Intervention.

Hosted by **Nele De Witte** at Thomas More University of Applied Sciences (Centre of Expertise Health & Well- being), the mission aims to strengthen WG3 co-creation work by (1) supporting the analysis of inputs from the Brussels stakeholder workshop and (2) contributing to the methodological preparation of the subsequent co-creation workshop with young people.

A key scientific goal is to refine a Digital Data Acquisition (DDA)-informed conceptual framework as a prototype for context-sensitive assessment, complementing participatory methods (including the future workshop structure) by helping translate co-creation insights into feasible assessment and intervention design considerations. Through structured exchange with the host teams (including Psychology & Technology and LiCalab), the applicant will gain hands-on understanding of available digital intervention and assessment tools and living lab
methodology, while contributing domain expertise in psychosocial and participatory mental health approaches.

The STSM will strengthen methodological alignment and capacity building within YouthDMH and support WG3 progress towards actionable, youth-informed conceptual prototypes for contextual and early assessment and intervention.

## Activities

The STSM was carried out at Thomas More University of Applied Sciences (LiCalab – Living & Care Lab), Belgium, from 18 to 30 May 2026. Activities followed the planned schedule with minor adaptations.

During Monday and Tuesday May 18 and 19, the applicant attended introductory meetings facilitated by Dr. Nele De Witte (scientific coordinator, Centre of Expertise Health & Well-being), who supported the applicant throughout the visit and facilitated exchange with both the Psychology & Technology team and the LiCalab team. The applicant also met Vicky Van der Auwera (research manager), Ingrid Adriaensen (business manager), and panel managers Sascha Vermeylen and Leen Broeckx. These meetings established shared objectives, agreed on a working schedule, and provided an overview of LiCalab's living lab methodology, co- creation services, and ongoing European research projects. Initial discussions covered the Brussels YouthDMH stakeholder workshop data and contextual assessment needs within WG3.

From May 20 to 22, several important activities took place. Firstly, the applicant was introduced to digital intervention and assessment tools available at Thomas More, including a 135°immersive projector, an interactive touchscreen table, eye-tracking equipment, VR headsets (VRelax), and biofeedback devices (Moonbird). Demonstrations and discussions with the Psychology & Technology team covered AI-related research, stress monitoring via wearables and smartphones, and experience sampling possibilities. The applicant reflected on the potential opportunities and limitations of these

tools in relation to context-sensitive and early assessment in youth digital mental health, which informed the development of the conceptual framework described in Working Plan 4.

The applicant also participated in a workshop facilitated by Leen Broeckx and Sascha Vermeylen introducing two creative facilitation methods: LEGO Serious Play and GPS Brainstorm. Participation in the LEGO Serious Play component provided practical insight into how structured creative tools can be used to externalise abstract concepts and facilitate dialogue within group settings, which is directly relevant to the design of participatory co-creation activities with young people.

The applicant contributed to the analysis of outputs from the Brussels YouthDMH stakeholder workshop. Questionnaire responses were organised into a structured Excel file, providing a foundation for subsequent thematic analysis. To inform development of output 3, an interview was also conducted with Toon Colman, a researcher from the People and Well- being group at Thomas More University, focusing on methodological approaches to digital stress and cognitive assessment. The discussion covered the integration of wearable sensor data with validated self-report measures, the applicability of VR environments for intervention and training purposes, the cross-cultural adaptation of cognitive instruments, psychometric validation procedures usability considerations, and the potential clinical relevance of qualitative interaction data.

Outputs were further completed between May 25 and 27 (although Monday May 25 was a bank holiday in Belgium, so no host-visitor interactions were possible during that day). The applicant developed two icebreaker proposals with session objectives, guiding prompts, and a proposed structure aligned with participatory methods for an existing co-creation workshop. In parallel, a conceptual framework was developed and refined through structured exchanges with the host team and recent empirical literature. The mission concluded with a closing team meeting with the host team and agreement on follow-up steps.

### Key Outcomes/ Main Achievements

The STSM achieved its planned goals and produced three concrete outputs contributing to WG3 research coordination and capacity building within COST Action CA23153 (YouthDMH).

The following key activities were carried out during the mission:

During the initial days of the mission, onboarding meetings with the host team provided orientation to the contextual assessment project structure, including how stakeholder and youth co-creation workshops are organised within the YouthDMH framework. The applicant also gained insight into the Belgian higher education system and the differences between universities and universities of applied sciences, which supported a better understanding of the host institution's research context and facilitated more effective collaboration throughout the mission.

- The applicant contributed to the analysis of outputs from the Brussels YouthDMH stakeholder workshop. Questionnaire responses were organised into a structured Excel file, providing a systematic foundation for subsequent thematic analysis and enabling a clearer overview of stakeholder priorities relevant to WG3.
- An interview was conducted with researchers from the host institution to inform the development of the conceptual framework. The discussion covered the selection of physiological and psychological stress indicators, the limitations of wearable-only assessment approaches, the role of VR in cognitive and behavioural assessment, psychometric validation procedures including reliability and validity evaluation, and the importance of usability in sustaining participant engagement in digital assessment contexts.

- Two icebreaker activity proposals for the planned youth co-creation workshops were developed, including session objectives, informed consent considerations, and guiding prompts aimed at orienting participants to the workshop scope, establishing a shared understanding of key concepts, and building rapport prior to substantive activities.
- A Digital Data Acquisition (DDA)-informed conceptual framework was elaborated through a review of recent empirical literature, serving as a prototype for context-sensitive assessment that complements participatory methods by translating empirical insights into EMA/AA dimensions across five thematic categories: stress patterns, social withdrawal, disrupted routines, emotional overload, and school pressure (Output 3)."
- Structured meetings with the host teams at Thomas More University and a visit to LiCalab provided hands-on exposure to living lab methodology, digital assessment practices, and ongoing research projects at the intersection of AI, wearable data, and mental health monitoring, substantially broadening the applicant's understanding of technology-informed approaches to mental health research.
- The mission concluded with a closing team meeting in which the host team reviewed the findings and outputs developed throughout the STSM.

### Impact and Follow-Up Activities

The outputs contribute directly to the WG3 objective on Contextual and Early Assessment and Intervention, particularly by advancing the conceptual groundwork for context-sensitive digital assessment approaches in youth mental health. The possibility of future collaboration within the YouthDMH network, including potential joint contributions to WG3 outputs, was discussed as a prospective next step following the mission. Output 3 may also form the basis for a future publication, subject to further empirical validation and participatory refinement through co-creation activities with young people.

CLOSING SECTION

04

# Conclusion

The Short-Term Scientific Missions undertaken during the second year of YouthDMH have further strengthened scientific collaboration and research capacity within the Action. Through exchanges between home and host institutions, researchers gained access to specialist expertise, research methods and resources, while contributing to the scientific priorities of the YouthDMH Working Groups.

The Year Two missions supported a diverse range of research activities, including the development of systematic review methodologies, digital self-regulation frameworks, youth-centred intervention concepts, multimodal assessment approaches, generative AI applications, and research on digital misinformation and youth mental health. These activities contributed to ongoing Working Group tasks and advanced the development of research outputs, methodological frameworks, conceptual prototypes and opportunities for future collaborative publications.

Beyond their immediate scientific contributions, the STSMs strengthened connections between researchers and institutions across participating countries. They provided opportunities for early-career researchers to develop methodological and research skills, receive expert guidance and establish international contacts. Participation from Inclusiveness Target Countries also supported the Action's objectives of promoting geographical inclusion and broadening access to research expertise and collaboration.

CREDITS

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CONTRIBUTORS

- Core Group Members
- Grant Holder Manager

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