







Prepared by Orientra on behalf of the CLEAR LTA.

This case example has been prepared to facilitate discussion during the facilitate the training of Erasmus+ assessors. Whilst modelled on emerging priorities and past project ideas, the project and partnership are fictional and any similarity to actual or future projects is purely coincidental.

PROJECT SUMMARY

Title

Promoting digital and entrepreneurial competences and careers for female pupils (STEAM-AHEAD)

Field

School Education (SCH)

Duration

24 months

Lump Sum

€250,000

Short Description

STEAM-AHEAD aims to build the capacity of female pupils through building digital and entrepreneurial skills that will allow them to improve their competence, confidence and motivation and pursue a career in one of the many STEAM (science, technology, engineering, arts and mathematics) sectors and industries. STEAM-AHEAD will create a common curriculum and set of educational resources, as well as developing a digital portfolio of successful female role models already operational in their chosen profession. Promotional events will also be hosted, and educators and role models will deliver targeted workshops and mentoring sessions to engage female pupils, tackle gender stereotypes and promote a more diverse and gender inclusive STEAM workforce.

RELEVANCE

Priorities

- P1. HORIZONTAL: inclusion and diversity in all fields of education, training, youth and sport.
- P2. SCHOOL EDUCATION: promoting interest and excellence in science, technology, engineering, and mathematics (STEM) and the STEAM approach.

Motivation

It is widely recognized that women are underrepresented in STEAM (science, technology, engineering, arts and mathematics) careers and industries. The European Commission has highlighted the need to empower women and girls by boosting digital and entrepreneurial skills that will allow them to improve their competence, confidence and motivation and to pursue a career in one of the many STEAM sectors and industries. In 2021, the OECD confirmed that nearly four out of ten women in the EU, during the period 2016-2020, had the required knowledge and skills to start a business, a figure that equates to just half of that for men in the same geographical region and time period. Whilst girls are equally interested in science-related careers, they tend to deviate from Science, Technology, Engineering and Mathematics (STEM) topics as they mature. In STEAM-AHEAD, we intend to build the capacity of female pupils through building the necessary digital and entrepreneurial skills that will allow entrepreneurial pathways in STEM to be actively considered and directly addressing the current gender imbalance in this important sector of the workforce.

Project Objectives

STEAM-AHEAD aims to achieve the following objectives:

- O1. To improve the competence, confidence and motivation of female pupils, specifically by boosting digital and entrepreneurial skills.
- O2. To inspire female pupils to pursue a career in STEAM through engaging female role models (already operational or with a history of success in STEAM sectors and industries) in mentoring programmes and a centralised digital portfolio of successful female role models.
- O3. To equip educators in secondary education with gender-sensitive teaching resources.
- O4. To establish local stakeholder networks involving educators and female entrepreneurs and/or business leaders.
- O5. To deliver targeted promotional campaigns which directly address gender stereotypes and encourage female pupils to actively pursue a career in STEAM sectors and industries.

Expected Results

The following results and deliverables are expected for STEAM-AHEAD:

- R1. STEAM-AHEAD Curriculum and Digital Modules in 5 languages (EN-EL-FR-ES-NL).
- R2. STEAM-AHEAD Digital Learning Space.
- R3. STEAM-AHEAD Digital Portfolio of Female Role Models.
- R4. STEAM-AHEAD Local Stakeholder Networks (one per country).
- R5. STEAM-AHEAD Promotional and Multiplier Events (one per country).

Innovation

STEAM-AHEAD targets disruptive innovation by challenging traditional gender roles and promoting STEAM career pathways as a viable choice for female pupils. A more diverse and inclusive workforce is envisaged which tackles the status quo in which women and girls are notable underrepresented in STEAM sectors and industries and have faced significant and identifiable barriers to entry and advancement.

By empowering women and girls, we aim to promote gender equity and inclusion, whilst also addressing an emerging and increasing skills gap in the targeted domains. By building the necessary skills sets and motivations, we aim to enable women and girls to deliver their unique perspectives and to solve some of the world's most pressing challenges.

We also see innovation in the way we approach education, training and workplace culture by creating resources that are tailored to meet and address the needs of female pupils specifically and by engaging female role models from the targeted sector as a means of highlighting the potential for success.

Complementarity

We acknowledge that there have been many past campaigns in which STEAM careers were marketed directly towards women and girls, and we anticipate building on past successes, yet there have been few examples of projects and initiatives which combine the delivery of digital and entrepreneurial skill sets with the engagement of female role models and the use of targeted promotional actions as such a pivotal stage of the education and development of female pupils. STEAM-AHEAD partners have direct experience in addressing digital and entrepreneurial skills development as well as in the design and delivery of secondary education and the upskilling of teachers and educators.

SFAA has access to more than 50 schools and 500 educators and youth workers and has managed and delivered numerous past projects related to this topic, including 'Action for Girls' and 'STEAM-Roller' operating in the youth and informal education sectors, respectively.

DEI is committed to promoting digital innovation and entrepreneurship and is familiar with the needs of companies and the workplace, with some past experience as a partner in the 'Going Digital' project, where educational and digital transformation resources were mapped against the needs of local industries.

LTPSP has direct responsibility for the delivery of secondary VET programmes in the targeted STEAM domains and is has some prior experience as a partner in Erasmus+ mobility projects.

AD was leader of the FIND (Female Inclusion with New Digital technologies) project and has many years of experience in international development and digital transition in education.

GG has access to all secondary education students in its locality and has responsibility for educator engagement in capacity-building and upskilling activities.

MIH has a wealth of experience in marketing and promotion and will support partners in the delivery of targeted campaigns aimed at promoting STEAM careers to female pupils.

Synergies

STEAM-AHEAD actions and resources are not limited to a single educational field. Whilst our initial focus is on educators and female pupils in secondary education, we anticipate that the targeted resources will be able to be adapted and employed in wider circumstances, such as in career, volunteering and learning-oriented programmes in the youth sector and in the marketing of vocational education and training programmes to adults and young people. Mentoring programme successes might also benefit those delivering more formal programmes of education to adults and young adults, including in the field of higher education. Promotional campaigns will also have significant potential for wider outreach and use in all sectors of education and in wider youth engagement activities.

European Added-value

STEAM-AHEAD brings together partners from five European countries (Cyprus, Greece, France, Spain, Netherlands) with complementary experience and expertise. However, no single partner is able to deliver the project as a whole, with differing skill sets, knowledge and understanding of the target market, and with plans for sharing insights, experience and best practices expected to enhance the final resource set and model of engagement. Partner collaboration allows for a sharing of knowledge and for different national, institutional and cultural insights to be shared, ensuring that the final model is able to be applied extensively, including in countries that do not directly participate in the project. We are addressing a challenge that is common in all European countries and we anticipate high levels of interest in the emerging results, for which consolidated partner outreach will facilitate promotion.

Needs and Needs Analysis

STEAM-AHEAD is based on the following identified needs:

N1. Gender Equality: numerous high-level reports confirm an under-representation of women in STEAM sectors and industries, we aim to address this imbalance by providing targeted educational and promotional resources to help in developing the competence, confidence and motivation needed to enter, thrive and succeed in their chosen domain. We will also provide direct opportunities to engage with successful female role models to positively inspire and actively engage female pupils.

N2. Skills Gaps: STEAM careers and professions require a specific set of competences and skills (including technical, creative and entrepreneurial skills) that women and girls might not traditionally have access to or be encouraged to develop. We will directly address this by helping to develop the digital and entrepreneurial skills of female pupils specifically, developing key skills that are necessary for success in the 21st-century workforce.

N3. Inadequate Resources: educators working in secondary education environments need access to targeted and high-quality resources that they can align with the existing curriculum to deliver key skill sets to female pupils centred on critical thinking, problem-solving, creativity and innovation. We will address this by developing a series of educational resources, focusing on digital and entrepreneurial skills, and with a focus on STEAM-centred careers, helping to prepare female students, specifically, for future workforce and business requirements and helping to inspire female pupils to pursue STEAM career paths.

These needs were identified by STEAM-AHEAD through the following means:

NA1. Desk Research: SFAA and DEI undertook desk research to on behalf of all partners, with a focus on more fully understanding the challenges faced by women in entering STEAM-related career pathways and industries. A wealth of reports was consulted and noted significant and numerous barriers and challenges being faced by women, including the continuing use and existence of gender-based stereotypes, an underrepresentation of women and a lack of successful female role models in STEAM sectors and industries; and few educational resources that are targeted specifically for use with women and girls as a means of encouraging access to STEAM related careers.

NA2: Workforce Interviews: partners were asked to interview women that are already operational in the STEAM workforce to share their experiences of early-stage career decision-making, entry to and progression within STEAM-related sectors and industries. A total of 52 interviews were held across the five partner countries and confirmed many of the key messages emerging from the initial desk research, whilst also identifying additional needs such as: the need for positive marketing campaigns that show women operating in high-level STEAM professions; and the need for educators to more actively promote STEAM careers among female students and pupils.

NA3: Educator Focus Groups: partners were asked to hold a single focus group in which educators would be invited to share their experiences of promoting STEAM-related careers in the classroom and in related learning and skills development activities. A total of five focus groups were held (one focus group per country, often held in a single school or educational institution) involving 77 educators and confirming that STEAM-related careers were promoted but that actions were often not centred on engaging female pupils specifically and that dedicated resources were often lacking, including those which positively highlight and promote female engagement in STEAM-related careers and professions. Educators also reported a lack of resources to support digital and entrepreneurial skills development.

Target Groups

STEAM-AHEAD addresses the following (direct and indirect) target audiences:

TA1. Female Pupils in Secondary Education: with a focus on developing competence, confidence and motivation for them to enter, thrive and succeed in STEAM-related careers [DIRECT].

TA2. Teachers and Educators in Secondary Education: with a focus on the delivery of new models and resources through which they can more effectively engage female pupils in STEAM-related activities (including skills development and mentoring programmes) and more actively promote STEAM-related careers paths [DIRECT].

TA3: Industry, education and wider stakeholders involved in promoting STEAM-related career pathways at local, national and European levels: with a focus on accessing, using and helping to promote the developed STEAM-AHEAD resources in the longer-term [INDIRECT].

PROJECT DESIGN

WP1: Project Management (€49,500)

Monitoring

We recognise the importance of monitoring progress, quality and achievement in the planned activities and deliverables. As overall project coordinator, SFAA will take the lead in WP1, relying on a variety of methods, including: a requirement for partners REGULARLY REPORT ON PROGRESS highlighting challenges and solutions, detailing levels of participation and engagement and using pre-defined indicators to determine overall success (MO1); a requirement for lead partners to regularly report on achieved and outstanding actions using dedicated ACTION TRACKING tools and reporting against pre-determine milestones and deadlines (MO2); a requirement for each partner to nominate one individual to participate in a STEERING COMMITTEE which is responsible for governance and decision-making and for dealing with any possible risks or emerging conflicts - Steering Committee members will meet once every 6-8 weeks to review progress and achievement, and wider partner staff will also participate in project review meetings, as needed (MO3); production of a dedicated QUALITY ASSURANCE PLAN at the outset of the project to define quality assurance objectives, tools, methods, contingencies, metrics, indicators and related partner roles; whilst all monitoring actions will be undertaken internally, wider outreach and feedback is envisaged from external educator and learner audiences with all such engagement also expected to feature in the quality assurance plan (MO4).

Budget and Time Management

Budget and time management are critical management aspects and will remain the responsibility of SFAA as overall project coordinator. To ensure effective control of the budget, partners will be required to periodically report on activities, deliverables and related expenditure (six-monthly reporting) and to provide timesheets and evidence of costs as per the guidance from the project coordinator. A detailed budget overview will be hosted online and, following periodic updates, will provide an up-to-date overview of all project-related expenditure. Payments to partners will be made twice per year on the basis of reported and validated expenditure. No pre-financing payments are foreseen, except in exceptional circumstances.

Scheduling and time management will feature in all partner meetings and will form the basis of the action tracking tool/platform. Partner meetings will allow for decisions to be taken on revised scheduling for one or more of the targeted actions and outputs. Where delays are met by one or more partners, discussion will take place with the project coordinator to identify possible human and financial resources from within the partnership that might help to bring the project back-on-track. The contracting authority will be kept informed of significant deviations or changes to the original time plan.

Risk Management

Risk management and mitigation is an important aspect of the project and we have already considered some of the possible risks related to project delivery. In all cases, we will document risks that have the potential to impact on project and output delivery and end user engagement, using a Risk Management Plan, detailing possible mitigation strategies in each case. This will help to facilitate a common understanding of risk across the partnership. Examples of possible risks include: lack of interest and engagement among educators and female pupils (mitigation options include: increased promotion of the timing, extent and benefits of participation; use of mediators or influencers); resistance from external stakeholders (mitigation options include: targeted promotion and engagement activities; culturally-reinforced storytelling; use of influencers); role model identification and engagement (mitigation options include: increased promotion; outreach via partner and wider networks; greater clarity on levels of engagement and commitment); partner withdrawal (mitigation options include: identification of barriers to participation and possible renegotiation of role; identification and introduction of replacement partner).

Accessible and Inclusive Activities

Inclusion is inherent to the overall project vision for STEAM-AHEAD, with early stage needs identification and analysis having already considered barriers to participation in STEAM-related careers for women and girls and with the targeted actions and outputs centred on positively addressing the underrepresentation of women in STEAM sectors and industries. In terms of project delivery, actions are modelled predominantly on steps towards the more active engagement of women and girls in STEAM-related careers, including the development on positively-modelled educational resources, the identification and engagement (in mentoring programmes) of successful female role models, and the use of targeted promotional campaigns to promote successful female engagement in STEAM-related careers and professions. In addition, we will make use of universal design principles to ensure that the targeted educational resources are designed in a way that is accessible for all participants and will we adopt inclusive communication tools and practices to actively engage and build positive awareness among educators and female pupils. To facilitate resource access and integration, we will deliver resources in multiple partner languages (English plus all partner languages) and in digital format. Physical events for partners, beneficiaries and others will always be located in accessible venues.

Digital Tools and Learning Methods

STEAM-AHEAD will adopt digital tools and learning methods in a number of ways, including: VIRTUAL MEETINGS AND EVENTS (use of readily-accessible virtual meeting technologies and platforms to host more regular partner meetings and to host targeted promotional activities and events); VIRTUAL COLLABORATION (use of readily-accessible communication and document-sharing platforms to facilitate partner cooperation and exchange); SOCIAL MEDIA (use of readily-accessible social media platforms and tools to communicate with internal and external stakeholder audiences); DIGITAL LEARNING PLATFORM (use of readily-accessible digital platform to host digital and mixed-media learning content and to facilitate access among educators from across Europe); DIGITAL BADGES (use of readily-accessible digital badging platforms to reward participation among educator and learner audiences); SURVEYS (use of readily-accessible digital survey tools and platforms to gather input and feedback from key beneficiary and stakeholder audiences, including event participants and those engaged in pilot activities).

Green Practices

STEAM-AHEAD considers the following green practices within wider project planning and design: VIRTUAL MEETINGS (held more regularly as a complement to three face-to-face partner meetings and reducing the overall demand for resource- and energy-intensive travel and accommodation); DIGITAL RESOURCES (internal and external documents and resources will in most cases be produced in digital/electronic format reducing the demand for and use of paper and printing; printing will exceptionally be allowed where access and inclusion is better addressed through this means; all partners will be encouraged to use cloud based resource hosting to avoid multiple copies of resources being held; digital surveys will be encouraged as a more environmentally sustainable model); SUSTAINABLE TRANSPORT (partners will be encouraged to use public or shared transport means wherever possible, when attending the three face-to-face meetings).

Active and Civic Participation

STEAM-AHEAD encourages active and civic participation through engaging multiple actors (learners, educators, wider stakeholders) to collaboratively address a common societal challenge associated with the need for promote greater gender balance, access and progression in these STEAM-related sectors and industries. Successful female role models will be used to actively promote career pathways and opportunities and project successes and achievements will be actively promoted to key stakeholder networks, including at policy level. Targeted promotion will actively address the underrepresentation of women in STEAM-related sectors and industries.

WP2: Needs Mapping and Co-Creation/Testing/Validation/Translation of Digital Learning Resources (€88,500)							
Title	Task Description	Start and End Dates	Lead and Support Partners	Indicators of Achievement	Expected Results	Cost	
Needs Mapping	Online survey and focus groups to fully document the development and awareness-raising needs of female pupils considering STEAM careers and professions. Digital survey in 5 partner countries (10 questions; 200 responses; 50% response rate). Two Focus Groups in each of 5 partner countries (10 events; 100 participants in total).	M1-M3	AD plus SFAA; DEI; LTPSP; GG	10 survey questions; 200 responses; 50% response rate. 10 focus groups in 5 countries; 100 participants.	Needs Mapping Report (EN) plus Executive Summary in Five Languages (EN-EL-FR-ES-NL)	€12,500	
Co-creation of Curriculum and Digital Learning Content	Co-creation of curriculum and digital learning content, building on needs mapping and reflecting components and competences of European DigComp and EntreComp frameworks: two modules each having 30 notional learning hours and including challenge-based learning, reflection and assessment. Development of Guide for Educators.	M4-M12	LTPSP plus SFAA; DEI; AD; GG	2 Modules each having 30 notional learning hours (incl. challenge-based learning, reflection and assessment). 1 guide for educators (EN)	Digital Skills and STEAM Module (EN) and Entrepreneurial Skills and STEAM Module (EN). Guide for Educators (EN)	€57,000	
User Testing & Validation	Testing of learning content with educators (4 per country) and female pupils (50 per country) in five partner countries. Validation, feedback and finalisation of digital learning content and guide for educators, prior to translation.	M13-M20	DEI plus SFAA; LTPSP; AD, GG	Pilot testing and validation activities in five countries involving 20 educators and 250 female pupils.	Pilot Evaluation and Feedback Report (EN)	€7,000	
Translation	Translation of digital learning content/modules and guide for educators into 4 partner languages (EL-FR-ES-NL)	M21-M22	DEI plus SFAA; LTPSP; AD, GG	Translated modules and content to 4 partner languages (EL-FR-ES-NL)	Translated Digital/Entrepreneurial Skills and STEAM Modules (EL-FR-ES-NL)	€12,000	

WP3: Portfolio of Successful Female Role Models and Mentoring Programmes (€49,500)							
Title	Task Description	Start and End Dates	Lead and Support Partners	Indicators of Achievement	Expected Results	Cost	
Call for Participation of Female Role Models	Design, Development and Launch of Multi-language Call for Participation of Female Role Models to Promote STEAM Career Pathways and Professions. Target for participation of 25 role models in total, including at least 5 SMEs. Digital call and selection criteria followed by role model selection by partners, and welcome, engagement and induction of role models.	M7-M9	AD plus SFAA; DEI; LTPSP; GG; MIH	Engagement of 25 role models across 5 partner countries.	Digital Call and Selection Criteria (EN-EL-FR-ES-NL). Selected role models (25).	€9,500	
Portfolio Development and Translation	Agreement on Data Protection, Publishing and Management. Data Collection, Design and Publishing as a Digital Portfolio with Link to Mentoring Programmes (EN). Translation to Partner Languages (EL-FR-ES-NL). Upload to Digital Platform.	M10-M12	MIH plus SFAA; DEI; LTPSP; AD, GG	Digital Portfolio in EN and 4 partner languages.	Data Management Strategy (EN). Digital Portfolio (EN-EL-FR-ES-NL).	€12,000	
Local Mentor Pilot Programmes	Focus Groups involving Local Partners and Mentors in Design of the Mentoring Programmes. Guide for Mentors and Mentor Engagement Strategy (EN-EL-FR- ES-NL). Local Mentor Pilot Programmes involving 25 Mentors and 25 Mentees.	M13-M20	DEI plus SFAA; LTPSP; AD, GG	Translated Mentor Guide in 4 partner languages (EL-FR- ES-NL). Engaged Mentors (25) and Mentees (25).	Guide for Mentors and Mentor Engagement Strategy (EN-EL-FR-ES-NL).	€28,000	

WP4: Digital Platform Development and Testing (€23,000)							
Title	Task Description	Start and End Dates	Lead and Support Partners	Indicators of Achievement	Expected Results	Cost	
Digital Platform Development	Selection of digital platform for hosting digital learning content (including digital badging options), mentor matching tool and portfolio of successful female role models in multiple partner languages. Design, prototyping and functionality testing. Content migration. User testing. Platform maintenance and CMS support.	M4-M24	AD plus SFAA; DEI; LTPSP; GG	Digital learning platform operating in five partner languages.	Multi-language digital platform (EN-EL-FR-ES-NL).	€15,000	
Piloting of Mentoring Programmes	Use of Mentee Matching Tool (EN-EL-FR-ES-NL) for Pairing Participants. Delivery of 10-hour / 10-week mentoring programmes involving 25 Mentors and 25 Mentees.	M13-M22	DEI plus SFAA; LTPSP; AD, GG	10-hour / 10-week mentoring with 25 mentor-mentee pairs engaged.	25 Mentoring Pairs engaged.	€8,000	

WP5: Communication, Dissemination and Multiplier Workshops (€39,500)							
Title	Task Description	Start and End Dates	Lead and Support Partners	Indicators of Achievement	Expected Results	Cost	
Intra-project Communication Strategy and Steps	Development and delivery of strategy to govern all aspects of intra-project communication (e.g. internal partner engagement; external stakeholder engagement; thematic outreach and end beneficiary engagement). Use of dedicated website and partners' own social media accounts with a dedicated hashtag for analytics. Use of existing partner networks and events for digital and face-to-face promotion. Positive marketing in all partner countries to actively promote STEAM careers for women and girls.	M1-M24	MIH plus SFAA; DEI; LTPSP; AD; GG	Communication Strategy (1). Multi- Language Project Website. Social Media Hashtag. Positive marketing campaign in all partner countries.	Communication Strategy (EN) and Tools (multi-language). Positive marketing campaign to promote STEAM careers for women and girls.	€17,500	
Post-project Dissemination and Sustainability Strategy and Steps	Development of strategy to govern all aspects of post-project use of the developed digital resources, including open access and IPR, sustained digital hosting and maintenance, and ongoing and wider promotion. Costs for continued hosting, beyond the project lifetime, will be shared among partners.	M1-M24	MIH plus SFAA; DEI; LTSPS; AD, GG	Dissemination and Sustainability Strategy (1).	Dissemination and Sustainability Strategy (EN).	€10,000	
Multiplier Workshops	Hosting of a local half-day multiplier workshops in each partner country (total of 5 events and 150 participants) to actively promote project goals and achievements to wider educator and stakeholder audiences.	M21-M24	MIH plus SFAA; DEI; LTPSP; AD, GG	Total of 5 events and 150 participants.	Local Multiplier Workshops held in Five Partner Countries.	€12,000	

PARTNERSHIP

Applicant

E12345678 / STEAM For All Alliance (SFAA) / Cyprus / Larnaca / Foundation

SFAA supports member clubs and institutions to help them grow to the next level, promoting individual and institutional leadership and strategic development and creating and delivering campaigns for the promotion of STEAM careers. We work directly with schools and youth centres to develop content related to career promotion, using a train-the-trainer approach and having already trained more than 500 educators and youth workers, since our inception in 2009. We regularly consult key education and policy stakeholders to ensure that we are on track to deliver content which is consistent with the needs of the labour market. SFAA is also active internationally connecting with similar career development and promotion actors across Europe and globally. Our staff know how to engage, connect and empower pupils and students to visualise their futures in STEAM sectors and industries and we use a broad range of media to communicate, educate and engage key stakeholder audiences.

Partner Organisations

E12345679 / Digital Entrepreneurship Institute (DEI) / Greece / Athens / SME

DEI has been operating for 20+ years in the field of Entrepreneurship Development. Having an initially-national outreach, the organisation was created to promote innovation and entrepreneurial competences in all areas of the Greek economy. After a short period, and having observed the pace of development of digital technologies in the labour market, we decided to fine-tune our operations and to focus mainly on Digital Entrepreneurship. Our mandate is to support businesses on their development journey, providing consultancy services to micro enterprises (digital entrepreneurs) and combining technological tools with human insights and experience. In all cases, our focus in on building knowledge, skills and competence to operate successfully as a digital entrepreneur and considering all aspects of the business, including business modelling and value proposition, marketing and attracting customers, risk management, market trends, operational resilience and many other topics. DEI delivers market-leading training solutions, relying on the solid experience of its staff who have a strong history of employment in education, technological development and customer engagement. DEI helps clients to identify their training needs prior to developing and delivering bespoke training solutions that can help to strengthen vision, strategy and growth.

E12345680 / Lycée Technique et Professionnel Saint Paul (LTPSP) / France / Marseille / VET Institution (secondary level)

LTPSP is a public school, founded in 1974, in Marseille, which provides vocational education programmes for pupils aged between 14 and 18 years. In an average year, we have around 1000 pupils engaged in technical and vocational programmes, for which we have almost 100 full and part-time staff employed across 6 different schools and departments: emerging technologies, coding and programming; electronics and electrical installations; machine technologies and CNC; welding and metalwork; heating and cooling systems; and biomedical technologies. As a secondary education provider, we are constantly seeking to update and improve our programmes, to meet the demands of the labour market, and we actively engage local employers in promoting career and development options in their respective sectors.

E12345681 / Aprende Digital (AD) / Spain / Madrid / SME

AD is a cooperative and SME based in Madrid, founded by a team of experts with a background in technology enhanced learning and educational innovation. AD supports all types of educational institutions, helping to adapt and transform curricula and teaching practices centred on delivering technical and transversal skills that can meet the needs of the future labour market. AD has a strong footprint in secondary education, promoting innovative educational methodologies based on digital innovation. AD also aims at making education accessible and inclusive through the use of digital technologies. AD believes that capacity-building for educators is the key to successfully embedding digital technologies and has significant experience in the delivery of targeted training and capacity-building actions aimed at educators specifically. Our team of staff is well versed in the use of innovative technologies and tools for education (including the use of AI) as well as in software and platform development and teacher training. We have many years of experience in international development and have led many exciting projects and initiatives in which we have helped to facilitate digital transition in education. Our role in European and international networks also makes us a strong partner for promoting project and wider successes.

E12345682 / Gemeente Gelukkigestad (GG) / Netherlands / Rotterdam / Municipality

GG is a municipality which is responsible for all secondary, technical and vocational schools in the administrative district which it governs. Responsibilities extend to the provision of secondary education, including buildings and infrastructure, as well as and for all aspects of pupil and teacher development, which also extends to the use of recommended teaching methods and digital technologies. GG is responsible for providing continuing training for teaching staff, working in partnership with universities and other institutions to provide the necessary capacity-building. GG is also responsible for career transition and the provision of career guidance and information services, with each school expected to have a named individual or team dealing with career transition and guidance issues. GG relies on a large team of qualified staff, many having direct teaching experience and connects with more than 2000 educators operating in small, medium and large-sized institutions across the whole district.

E12345683 / Make It Happen (MIH) / Cyprus / Limassol / SME

MIH is a commercial marketing agency with a renowned experience and a wide international customer base in the field of advertising, communication and promotion. The company has high-level clients in many European countries and across the world and has a solid history of designing and delivering targeted advertising (and related consultancy) campaigns, helping to promote business and product growth and to engage and attract new markets. MIH operates in all commercial industries and sectors and has a wealth of experience in the engineering and construction sectors. Among the tasks and activities that we deliver, we include: event hosting and management; network building and industry collaboration; corporate engagement and CSR; product branding and design; and strategic communications.

Tasks and Responsibilities

Task allocation builds on each partner's strengths and expertise to help in successfully delivering the project and its outputs.

SFAA is an experienced coordinator, having implemented more than 100 European projects since its inception. SFAA will oversee management and coordination and ensure that the project is implemented efficiently, whilst also being responsible for quality assurance. SFAA has direct access to core beneficiaries and can help to engage key target audiences and to promote the end project results among local stakeholder communities.

DEI brings digital entrepreneurship and company training expertise to the consortium, providing specialist insights into the targeted domain and having access to a network of stakeholders that can help in local dissemination and end user engagement.

LTPSP has direct access to the core target audience for STEAM-AHEAD, including staff with specialised knowledge in science, technology and engineering as well as teaching, training and curriculum development.

AD has significant expertise in the development of innovative educational models and practices and will contribute to the design and development of the training modules. AD has a strong network of educational stakeholders at national and European levels including schools, universities and public institutions ensuring that the core target audience can be reached and engaged whilst actively promoting key outputs and deliverables.

GG is a governmental public body with responsibility for secondary education, and with key expertise in policy development, institutional governance and capacity-building for staff. GG has access to a wide range of educational stakeholders, which can help in promoting the project and its goals.

MIH brings specific experience in advertising, communication and promotion and can help to ensure that key messages are promoting at relevant stages in the project lifetime. MIH brings a non-educational perspective to the project, and will help to ensure that dissemination practices are on-trend and align with current best practices.

Cooperation, Coordination and Communication

We recognise the importance of effective cooperation, coordination and communication and specifically envisage the following mechanisms:

PARTNER MEETINGS: online/virtual progress review and planning meetings will be held every 6-8 weeks depending on partner availability and the pace of activity. These meetings will involve all project partners; additionally, we will hold annual face-to-face partner meetings at the start, mid-stage and end stage of the project (M1, M12, M23) allowing for a more intense exchange of ideas and practices among partners and helping to build trust.

DIGITAL CHANNELS: partners will adopt and use a variety of digital communication tools, and channels to actively engage partners and promote intra-partner and intra-project communication. Specific tools and platforms (email, shared drives, digital apps) will be agreed on during the face-to-face partner meeting in M1.

PROJECT HANDBOOK: a dedicated project handbook will be created and will provide all partners with guidelines for internal cooperation and external communication, whilst also detailing project objectives, activities and timelines and confirming the roles and responsibilities of each partner.

PROJECT MANAGEMENT PLATFORM: dedicated project management software will be used to facilitate communication, share documents, manage schedules and track progress and achievement. A decision on the final software choice (e.g. Basecamp, AdminProject) will be taken by SFAA and communicated to partners during the face-to-face partner meeting in M1.

STEERING COMMITTEE: a steering committee will be formed specifically for this project and will be oversee progress and ensure active and effective communication and coordination; the steering committee will be responsible for taking key decisions on the direction of the project and will play an active role in resolving any emerging conflicts.

IMPACT

Achievement of Objectives

STEAM-AHEAD will develop an Impact and Achievement Plan which will focus on measuring and recording the outcomes and impact of the project, comparing these to the wider project goals and ambitions. Key performance indicators are embedded within individual work packages and task leaders will be responsible for reviewing and reporting on progress and achievement of the targeted actions and levels of end beneficiary and wider stakeholder engagement. Beyond this, we will assess the outreach and impact of the project, building on the existing Impact+ methodology, as developed by the European Commission, and developing specific measurement and reporting tools for partners to use. For outcome and impact measurement, our actions will centre on four main phases: PLANNING (confirming goals and delivering an impact and achievement plan; identifying targets, metrics and indicators that are specific and relate clearly to the overall project goals and objectives); DATA COLLECTION (harvesting data on events, activities and outputs, as well as levels of beneficiary and stakeholder engagement and the reported use of core deliverables); ANALYSIS (assessing, identifying and recording impact and achievements relating to specific beneficiary and stakeholder audiences, as well as evaluating the effectiveness and efficiency of the project overall); PROMOTION (sharing outcomes, impact and achievements with wider stakeholder audiences). In terms of audiences, we will reflect on impact and achievement at four distinct levels to cover: learners (pupils), staff (educators), partners and systems (wider school education stakeholders, including at policy level), using the Impact+ methodology to help in determining impact and achievement indicators. In preparing the current proposal, we already anticipated the following quantitative and qualitative targets and indicators:

- Online Survey: 400 invitations; 200 unique responses; 50% response rate
- Focus Groups: 10 events; 5 countries; 100 participants
- Modules: 2 modules; 30 notional learning hours each; challenge-based learning included
- Guides: 1 multi-language mentor guide; 1 multi-language educator guide (EN-EL-FR-ES-NL)
- User Testing: 20 educators; 5 countries; 250 pupils; 100% feedback; 70% satisfaction
- Role Models: 25 role models; 5 countries; multi-language portfolio (EN-EL-FR-ES-NL)
- Mentoring: 25 mentor-mentee pairs established; 100% feedback; 70% satisfaction
- Digital Platform: 1 multi-language digital platform; 70% satisfaction
- Multiplier Workshops: 5 events across 5 countries; 150 participants; 70% satisfaction.

Sustainability and Continuation

STEAM-AHEAD has already discussed the concept of sustainability, reflecting on how the targeted actions and outputs might continue to be accessed, used and impactful beyond the lifetime of the project. Sustainability planning builds on the following five steps: PLANNING (development of a sustainability plan, detailing which actions and outputs will be maintained beyond the project lifetime and what partner resources might be needed to facilitate this); PROMOTION (continued dissemination and outreach to raise awareness of the developed resources, promoting continued and wider use by relevant stakeholders within and beyond the participating countries; use of partner and wider networks for continued promotion); ACCESS (continued, free and open access to the developed resources through plans for maintaining the digital learning platform for a period of 3 years beyond the funding period); REVIEW (annual meeting of partners to reflect on currency and validity of emerging resources and to consider options for updating and/or renewal); and USAGE (continued use of the developed programmes/resources by educational partners for at least 3 additional years).

Wider Impact at Local, Regional, National and European Levels

STEAM-AHEAD has the potential to leave a strong legacy not only within the participating organisations but on wider educational practitioners and stakeholders at local, regional, national and European levels. Examples of the potential for wider impact and related beneficiary audiences include: FEMALE STUDENTS (outreach to wider audiences of female pupils beyond those in the participating countries and regions, through active promotion and free, open and continued access to the developed resources, and with a view to improving their competence, confidence and motivation to pursue a career in STEAM sectors and industries; EDUCATORS (outreach to wider audiences of educators through active promotion and free, open and continued access to the developed resources, and with a view to increasing knowledge and understanding of the potential for more fully addressing and promoting STEAM career pathways for female pupils; POLICY ACTORS (providing a means of directly addressing female underrepresentation in STEAM through better motivating female pupils to consider these sectors and industries for viable and sustainable career pathways; encouraging policy actors to undertake positive and targeted promotion of STEAM sectors and industries to female pupils specifically, and to highlight past successes, including through the engagement of successful female role models and mentors); INTERNATIONAL STAKEHOLDERS (using partner networks to promote take-up and use of the developed resources, additionally highlighting the achievements of the STEAM-AHEAD project).

Sharing and Promotion

STEAM-AHEAD envisages an active promotion and engagement strategy in which project goals and ambitions are promoted to relevant stakeholder and beneficiary audiences at key stages in the project lifetime and through which, emerging results are made openly and freely accessible online. In all cases, we anticipate internal and external outreach in order to assure the widest possible take-up and use of the developed resources. Among the stakeholder audiences that will be addressed by targeted promotional activities, we include: partners and their staff; educators and managers in participating and wider secondary schools; policy makers with responsibility for secondary education; teacher training institutions; guidance counsellors and other professionals providing information, advice and guidance services; local communities and the wider public.

The following tools, platforms and approaches are envisaged as a means of achieving active and continuous promotion: WEBSITE AND DIGITAL LEARNING PLATFORM (a dedicated web space will be created and will serve to promote the original goals and objectives of the project, highlighting progress and achievement and providing free, open and continuing access to the developed resources); SOCIAL MEDIA (partners will use existing social media profiles and accounts with a dedicated hashtag for analytics); EVENTS (a series of five national multiplier workshops will be hosted towards the end of the project, to present emerging resources and key project successes to local and national stakeholder audiences); PARTNER NETWORKS (partners will use existing networks to present emerging resources and successes to key stakeholder audiences, either digitally or through attendance at key events); POSITIVE PROFILING (we have included a partner with significant experience in marketing and promotion and we will use this expertise to conceptualise and deliver a positive marketing strategy through which STEAM sectors and career pathways are able to be actively and strategically marketed towards female pupils specifically); and PUBLICATIONS (digital newsletters and publications will be used to raise awareness of project successes and achievements, including articles and posts in relevant educational journals).