Training SMEs for the Digital Decade[1]

D4.2 Project Management Handbook

Abstract:

This deliverable describes the Data Management Plan of the SME4DD project, providing for the handing of data for the duration of the project and after the project ends. Based on inputs collected from all consortium partners the document expands on the types of data that will be collected, processed and/or generated by partners, providing additionally for the management of pilots' data. The deliverable discusses whether and how the data reported will be made findable, accessible, interoperable, and reusable, as well as how the overarching project objectives are served. Further updates concerning partners' individual data management plans that may occur during the project will be addressed under the main project reports.

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1.0	30.06.2023	EITD	Ramona Oros	

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Executive Summary

The twin transition to a **green** and **digital** Europe is the defining challenge of this decade. Building on the Strategy on Shaping Europe's Digital Future, in March 2021, the European Commission presented a vision for Europe's digital transformation by 2030. This vision revolves around four main pillars: 1) skills, 2) government, 3) infrastructure and 4) business, all areas being part of the **EU Digital Compass.**

The EU Digital Compass is designed to translate the European Union's digital ambitions for 2030 into concrete terms. The vision for Europe's digital transformation also considers the significant changes introduced by the Covid-19 pandemic, which has consistently accelerated the use of digital tools. The pandemic outbreak has provided European citizens with a clear demonstration of the opportunities offered by digital tools in daily life and business However, at the same time, it highlighted the vulnerability of our society to new digital inequalities. On this topic, in January 2022, the European Commission proposed an inter-institutional solemn declaration on digital rights and principles for the digital decade, providing a reference framework for citizens on their digital rights and guidance for the EU Member States and companies when dealing with new digital technologies.

The plan for digital transformation by 2030 is crucial to ensure the transition towards a climate-neutral, circular, and resilient economy. Furthermore, it highlights the **EU's ambition to be digitally sovereign** in an open and interconnected world and pursue digital policies that empower people and businesses to seize a human-centred, sustainable, and more prosperous digital future[2]. This includes addressing vulnerabilities and dependencies as well as accelerating investment.

As part of the new EU's long-term budget for 2021 to 2027 of €1.2 trillion, the **Digital Europe Programme** will provide funding supporting projects in five key capacity areas: 1) supercomputing, 2) artificial intelligence, 3) cybersecurity, 4) **advanced digital skills**, and 5) ensuring a wide use of digital technologies across the economy and society, including through Digital Innovation Hubs. As Europe sets off on its path to recovery, the need to **upskill the current workforce** is of utmost importance. The shortage in staff mastering the required digital skills is one of the main obstacles to new investment for businesses and represents a substantial barrier to both national and European competitiveness.

When looking at the digital skills of the current workforce, only 65% has digital skills which are "above basic". According to Eurostat, more than 50% of companies trying to recruit ICT specialists reported problems filling vacancies[3]. Significant barriers to filling vacancies included lack of relevant qualifications and lack of experience. These are just some examples of the available statistics and evidence which strongly focus the EU policy agenda on the importance of digital education, knowledge, and skills[4]. The shortage of digital skills at the European level raises concerns about the future of work in Europe, especially considering that the pandemic accelerated the existing trends in remote work, e-commerce, and automation, with up to 25% more workers than previously estimated potentially needing to switch occupations[5]. **Digital upskilling** is crucial in this context and more important than ever before. At present, the European Union struggles to keep the pace with the demands of the labour market for:

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[2] Codagnone, C., Liva, G., Gunderson, L., Misuraca, G., Rebesco, E. (2021). Europe's digital decade and autonomy. European Parliament's committee on Industry, Research and Energy. European Parliament. https://www.europarl.europa.eu/RegData/etudes/STUD/2021/695465/IPOL_STU(2021)695465_EN.pdf

[3] Eurostat. (2020). Tertiary education statistics. online source code: educ_uoe_enrt04. Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Tertiary_education_statistics&oldid=507549

[4] Woessmann, L., The Economic Case for Education, EENEE Analytical Report No. 20, Ifo Institute and University of Munich, 2017. http://www.education-economics.org/dms/EENEE/Analytical_Reports/EENEE_AR20.pdf

[5] McKinsey Global Institute (2021). The future of work after COVID-19. https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-after-covid19.

- **ICT specialists**: EU Member States face a critical shortage of digital experts[6]. This is slowing the development, uptake, and use of emerging key digital technologies. The EU is also facing a severe gender imbalance, with only one in five ICT specialists and one in three STEM graduates being women. It impacts the way digital solutions are devised and deployed.
- **Users of advanced digital technologies**: Europe has a highly educated labour force, which often misses sufficient digital know-how. A recent report[7] shows that around two-thirds of existing digital workers in the US (those who possess high-in demand tech skills, such as AI, machine learning, cloud, and cybersecurity) moved into their current role from a different occupation. These are hybrid profiles that combine digital skills related to advanced technologies and more traditional skills.
- **People with "above basic" digital skills**: Less than one-third of individuals in the EU have "above basic" digital skills. Overall, only 20% of the EU enterprises provided digital training for their personnel. The leaders in this domain are Finland (38%) and Belgium (33%)[8]. A sizable portion of middle-skilled employment now requires the ability to use basic information technology tools, standard health monitoring technology, computer numerical control equipment, basic enterprise management software, customer relationship management software like HubSpot, or spreadsheet programmes like Microsoft Excel.

The aim of SME4DD is to deliver short-term training courses in three strategic digital technologies for Europe: 1) **AI**, 2) **Blockchain**, 3) **Cybersecurity**. The short-term training courses will be designed based on the needs of companies - especially **SMEs** - and will increase the number of men and women able to design, develop and deploy digital solutions in the economy and across sectors.

Introduction

Structure of the document

This handbook describes the overall Project Management of SME4DD to document the procedures to be adopted for its effective management. The handbook contains the project management structure and procedures, partner contact information, document review and submission procedures, procedures for dispute
resolution and reporting procedures. It may also qualify the way in which these processes are applied and define project-specific information such as responsibilities.
The next section gives an overview of the project objectives and goals.

Project Objectives

The **general objectives** of SME4DD are:

- To support the development of advanced digital skills of the EU workforce, with a special focus on SMEs.
- To design and deliver short-term training courses for upskilling SME professionals (owners, managers and employees).
- To provide affordable access to high-quality, specialised training courses to SME professionals, reflecting the latest developments in 3 key capacity areas: AI, Blockchain, and Cybersecurity.
- To contribute to reinforcing and securing the digital technology supply chain in the EU.

[6] Digital Economy and Society Index 2021 (2021). https://digital-strategy.ec.europa.eu/en/policies/desi.
[7] Information Technology & Innovation Foundation (2021). Assessing the State of Digital Skills in the U.S. Economy.
[8] Digital Economy and Society Index 2021 (2021). https://digital-strategy.ec.europa.eu/en/policies/desi.

To operationalise these objectives addressing the scope of the call and contributing to the overall Digital Europe Programme strategic objectives, SME4DD specific objectives are:

Specific Objective 1. To enable specific knowledge to be developed and deployed about three key digital technologies - AI, Blockchain, and Cybersecurity - and their applications through practical hands-on courses, including a focus on green application and the environmental impact of these technologies.
Alignment with Call DIGITAL-2022-TRAINING-02-SHORT-COURSES. The courses delivered by SME4DD partners will be *"practical and provide specific knowledge about key digital technologies and their applications, for example: AI, cybersecurity, microelectronics, internet of things, 3D printing and modelling, cloud and software, data, or blockchain"* and will provide particular attention to *"aspects such as green application and environmental impact of these technologies".* Alignment with Digital Europe Work Programme 2021-2022. SME4DD courses will "*provide education and training opportunities for the future experts in key capacity areas like data and ethical AI, cybersecurity* "and will "*accelerate the uptake of blockchain in Europe".*
Specific Objective 2. To develop and deploy courses for SME leaders or managers to acquire advanced digital skills and competences related to AI, Blockchain, and Cybersecurity and how this technology can be deployed to innovate and expand their businesses.
Alignment with Call DIGITAL-2022-TRAINING-02-SHORT-COURSES. SME4DD will support *"the development of advanced digital skills of people in the labour force, with a focus on SMEs, by providing affordable access to high-quality specialised training courses, reflecting the latest developments in key capacity areas such as Cybersecurity and AI".* The SME4DD training offer will be designed considering *"SMEs owners, managers and employees"* as part of the target audience so that they *"will have the possibility to attend high-class digital training that larger companies can more easily afford".* The courses for business' leaders or managers will allow them to *"acquire advanced digital skills and competences related to digital technologies and how they can be deployed to innovate and expand their businesses".* Alignment with Digital Europe Work Programme 2021-2022. SME4DD targets "*upskilling of the existing workforce through short-term trainings reflecting the latest developments in key capacity areas*" and will boost "*the competitiveness of the European industry, in particular SMEs*".
Specific Objective 3. To develop and deploy online courses for SME professionals and jobseekers to acquire advanced digital skills and competences related to AI, Blockchain, and Cybersecurity.
Alignment with Call DIGITAL-2022-TRAINING-02-SHORT-COURSES. SME4DD will deliver "*courses for employed people or job seekers to acquire advanced digital skills and competences related to a specific aspect of digital technologies"* and will offer SMEs employees "the *possibility to attend high-class digital training that larger companies can more easily afford".* Alignment with Digital Europe Work Programme 2021-2022. SME4DD will focus on "*key capacity areas like data and ethical AI, Cybersecurity*" and contribute to the EU strategy related to "*advanced digital skills and deployment activities for the best use of these technologies"*
Specific Objective 4. To develop and deploy seminars and workshops on specific business cases and aspects of AI, Cybersecurity and Blockchain for high-skilled workers in SMEs.

Alignment with Call DIGITAL-2022-TRAINING-02-SHORT-COURSES. The SME4DD course portfolio will include *"Intensive seminars and workshops on specific business cases and aspects of certain digital technologies for high-skilled workers in SMEs",* either as standalone workshops or as part of short-term courses.

Alignment with Digital Europe Work Programme 2021-2022. Thanks to their short duration, the seminars and workshop delivered by SME4DD partners will facilitate the expansion of "*the existing offer for training and retrain existing workforce, with a particular focus that enables to meet the needs of SMEs*" and "*increase the number of men and women able to design, develop and deploy digital solutions in the economy and across sectors*".

1. Implementation plan

The SME4DD implementation plan is sketched in Figure 1. The project is organised around **four blocks**, which are reflected in **four different Work Packages** (WPs):

1. The first block will focus on understanding the general upskilling needs of enterprises, especially SMEs, in Europe and the specific upskilling needs in the four SME4DD focus countries: France, Hungary, Italy, and Sweden.
2. The second block will focus on building and deploying short-term training programmes in three key capacity areas for Europe: AI, Blockchain, and Cybersecurity. Each training provider will focus on one of these three topics and will deliver the training programmes mainly in one of the four SME4DD focus country, but with possibilities of delivering most of training programmes also across Europe. The topic specific courses will be afterwards harmonised in an EU professional master programme
3. The third block will provide the required marketing, promotion, communication, and dissemination activities needed to support the identification of the current needs of the SMEs in terms of upskilling in the three key capacity areas, to attract the target audience to participate to SME4DD short-term training programmes as well as maximise the impact and outreach of SME4DD activities.
4. The abovementioned blocks will be complemented by a fourth block on project management, which will facilitate successful project execution, and ensure the project will deliver high-quality deliverables and outcomes.

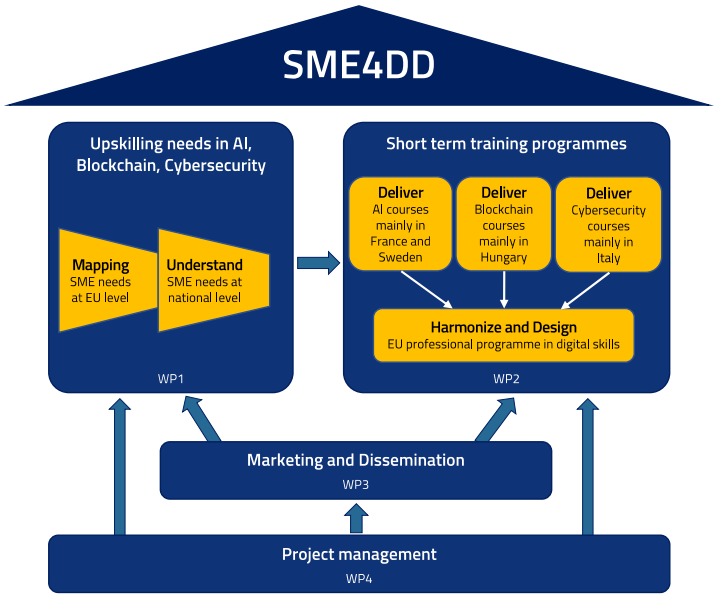

Figure 1. SME4DD implementation plan.

2. Project management

SME4DD implementation work plan requires **effective project management** to deliver **high quality results**. The project management approach chosen guarantees transparency and commitment to all partners and facilitates successful project execution. Consortium bodies and key actors in the management structure are depicted in the figure below.

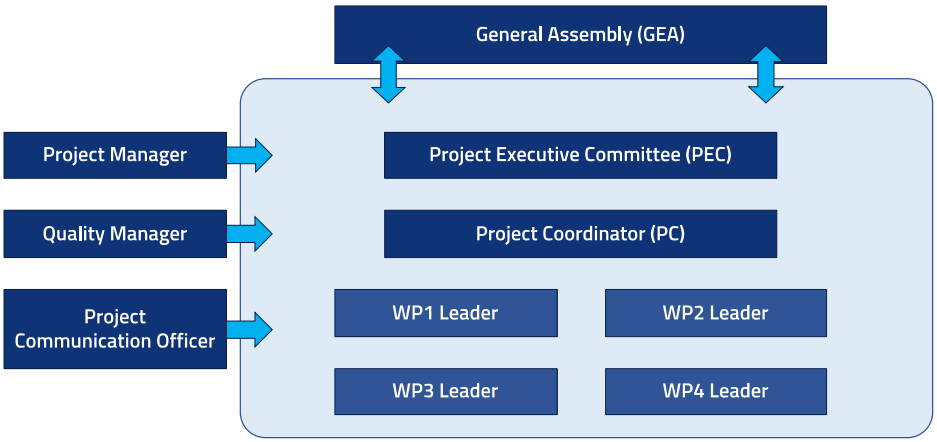

Figure 2. SME4DD Project Management Structure

Duties, responsibilities, and rights are codified and agreed in the project Consortium Agreement.

Key roles	Acronym	Definition
General Assembly	GEA	Composed of consortium members; responsible for the project, including any significant changes.
Project Executive Committee	PEC	Composed of PC and WP Leaders, responsible for technical and operational management, quality, risk mitigation and progress tracking.
Project Coordinator	PC	Responsible for overall coordination, content management and liaisons with EC. Ms. Felicia Cutas (EITD) will serve as the project coordinator.
Project Manager	PM	Supporting the PC, responsible for administrative and financial progress reporting. Dr. Ramona Oros (EITD) will serve as the project manager.
Quality Manager	QM	Responsible for Quality Plan creation and implementation and risk management. Mr. Asja Kamenika (EITD) will serve as the quality and risk manager.
Work Package Leader	WPL	Responsible for planning and progress in a WP and contributing to the PEC.
Task Leader	TL	Responsible for the planning and deployment of the specific actions defined under the task
Project Communication Officer	PCO	Responsible for external communication activities. Olivia Pantea (EITD) will serve as the project communication officer.

Table 1. Key roles and definitions

General Assembly (GEA). The GEA consists of management level representatives of all consortium partners, each having one vote. This is to ensure ownership of the results and to prove the commitment on all sides. It is chaired by the Project Coordinator. The GEA is the highest decision-making body in the project. It will assume overall responsibility for project conformance to the contract. The GEA deals with contractual issues escalated to it, or issues requiring GEA confirmation and/or voting according to the consortium agreement. The GEA ensures that the partners give continued support and adequate resources to the project; promotes the results of the project and acts as the final level of escalation, should serious conflicts arise during the project. In particular, the GEA is responsible for:

- Major changes to the consortium, work plan or budgets, especially if requiring EC approval.
- Review, quality check and approval of project deliverables and, more in general, of all public output issued by the project (via the work of the Quality Experts).
- Guaranteeing confidentiality of internal project results and project output designated as restricted to the consortium.
- Establishing a controlling and reporting system for resource consumption and progress against schedule.
- GEA delegates, as representatives of contractors, are responsible for:
- Submission of correct financial and administrative data to the Project Coordinator.
- Commitment of their own organisations, including financial matters and management of their internal resources.

The role, decision responsibilities and powers of the GEA are specified in the Consortium Agreement

Project Coordinator (PC) and Project Manager (PM). The PC will cooperate and exchange information with the project management (PM).

The **Project Coordinator (PC)** is responsible for the management and coordination of the entire project. The PC also chairs and ensures proper operation of the key consortium bodies GEA and PEC. The PC reports to the GEA. Responsibilities include:

- Execution of all project obligations vis-à-vis the Agency, including submission of project deliverables.
- Acting as the intermediary between the partners and the EC / Project Officer (PO).
- Calling PEC / GEA meetings, informing and chairing PEC and GEA.
- Resolution of financial and contractual issues.
- Overseeing the implementation of administrative processes.

As the official interface between the consortium and the EC, the PC monitors project activities, maintains an up-to-date view of progress and will, where appropriate, suggest changes to the original work plan to ensure achievement of project objectives. The PC will be supported by the PM in ensuring all administrative objectives and obligations are met. In order to meet the scientific and technical goals, the PC is supported by WP Leaders in the context of the PEC.

The **Project Manager (PM)** will work closely together with the PC function and ensures that the Project Coordinator receives all necessary support in coordination matters and in particular regarding annual cost statements, payments, budget allocations and audit certificates from each partner at the time of financial reporting. In addition, the PM is responsible for the following activities:

- Dealing with all administrative issues arising in the project including data collection from partners
- Preparing meetings with the project consortium, ensuring minutes are taken and approved.
- Supporting the communication with the EC in general, and with respect to the preparation of review meetings, and the submission and approval of deliverables.
- Financial Control: monitoring Financial Statements, feedback to the partners and the PC.
- External relations: receive external requests and questions on project, provide interested parties with information issued by the project, follow-up on cooperation with other projects, track events connected with relevant stakeholders and international forums.

Project Executive Committee (PEC): the PEC is the project's driving force for project activities. It is chaired by the PC, reports to the GEA and is composed of WPL. WP Team members, QM, IM and the Quality Experts will be invited, in case their expertise is required. The PEC oversees project progress and in particular:

- Implementation of all action plans.
- Coordination of work package dependencies.
- Maintaining communication and ensuring reporting.
- Providing guidance on Intellectual Property issues.
- Supporting implementation of the quality assurance system.
- Ensuring guidance on ethical and (legal) data protection issues is followed.
- Creation of efficient team structures.
- Establishing flexible effective communication and an appropriate meeting schedule.

The **Quality Manager (QM)** is responsible for the definition of the Quality Assurance Plan ant its implementation by all partners. The QM will manage and coordinate the procedures to assess the quality of project deliverables and learning content for the short-term training programmes, appointing peer reviewers from the partners' staff to support the process.

Work Package Leaders (WPL). Work Package Leaders are responsible for managing their WP as a self-contained entity, as well as managing interfaces to other WPs through the PEC. WPL coordinate, monitor, and assess the

progress of the WP to ensure that output performance, budget, and timelines are met. Their responsibilities include:

- Production of project deliverables according to defined quality processes including review, modification and approval.
- Identifying risks to report to the Project Manager and complying with risk mitigation plans.
- Reporting quality issues and status to the Quality Manager.
- Achievement of the technical objectives of the project in their domain.
- Ensuring conformance of WP results with requirements of succeeding work packages.
- Maintaining confidentiality of processes and results, as appropriate.

The WP Leaders report to the PEC and are ultimately responsible to the GEA

Task Leaders (TL). Task leaders are responsible for managing their tasks as a self-contained entity, and in relation to other tasks part of the Work Package and of the project. Their responsibility include:

- Plan and deploy the activities related to the task in accordance with the project timeline.
- Contribute to the deliverables connected to their tasks.
- Identify and flag to the WPL any task related risks while proposing mitigation actions.

Project Communication Officer (PCO) will manage and coordinate all dissemination and outreach activities within SME4DD project. The PCO will act as the single point of contact for partners for communication-related topics and will lead the communication and update meetings with partners to align on dissemination activities.

3. Risk management strategy

SME4DD partners will define an effective quality monitoring system since the early stage of the project. This system will allow 1) to monitor the phases of the project, 2) to understand if the project is proceeding as planned, and 3) to anticipate problems instead of solving them afterwards.

The Project Manager will continuously monitor resources and technical progress respectively, versus the plans described in the technical and financial annexes to the EC Grant Agreement. Corrective actions will be taken when necessary. Root causes for deviations in costs, resources and schedules shall be identified, recorded, and used as input for continuous improvement. Possible impact of schedule changes on the budget and resources of the project and on the quality of the work should be determined and communicated immediately to the Project Coordinator. The main areas of potential risks for the project include:

- Operations: Detecting internal obstacles and external obstacles (e.g. COVID-19 pandemic) against meeting WP objectives and the actions needed to overcome obstacles. Detecting human resources and other time/budget allocations required to perform the work that should be adjusted to reach the interim objectives.

- Budget: Identifying and mitigating the consequences of any new budget demand due to unexpected changes in the environment and/or partners' planned allocations for costs.

- Time/scheduling: Spotting any change or delay in producing the deliverables and assessing the impact on the overall schedule of project deliverables. Spotting the organizational changes involved to deal

efficiently with any delays. Managing any possible amendment needed to modify a project-related result or event.

- Performance and competencies: Identifying and proposing solutions to under-performing partners and/or mitigating the consequences of any changes to key personnel involved in tasks to make sure deadlines are met.

- Consortium composition: incapacity of a partner to deliver the planned work.

Following the internal communication protocol and Quality Management Plan, these risks will be continuously assessed by each WP Leader, who will then provide early warning signs of risk to the Project Manager. Discussions on how to mitigate any specific risk will take place via specially invited video conferences or regular project meetings, depending on the gravity of the problem. The PEC will take the final decision regarding actions, drawing on the contingency planning designed in the Quality & Risk Management Plan, see below.

Risk Number	Description	Work Package No(s)	Proposed Mitigation Measures
1	Key deliverables, milestones delayed due to disagreement on scope, purpose	WP4, WP3, WP2, WP1	The Description of Actions to be performed is drafted in the clearest way in the Grant Agreement. In case of disagreement, a conflict resolution process is initiated (see Section 2.3.3)
2	Failure to recognise linkages between tasks, and critical paths.	WP4, WP3, WP2, WP1	Regular online meetings within and between WPs are planned to ensure that linkages are identified and strengthened.
3	To produce high-quality results, the consortium will have to dedicate more efforts than the project budget	WP4, WP3, WP2, WP1	Advanced monitoring mechanisms will be put in place by the Project Manager to track the resources spent. All consortium partners are experienced in this field, being used to work efficiently in organisations that have sufficient resources to predict the amount of work to perform within the time limit of the project.
4	During the mapping of upskilling needs, the information retrieved from multiple internal and external sources cannot be categorised in an effective manner.	WP1	Before starting the information search, retrieval and categorisation, a full taxonomy is designed, in line with descriptors and categories to normalise every document uploaded into the shared project repository.
5	The understanding process of digital upskilling needs of SMEs with survey and workshops does not	WP2	The approach integrates various methods and diverse sources to analyse relevant literature and gather data from SMEs. In case that one of the methods does not provide the required information, they will complement with each other. As an extreme measure,

	provide enough significant information.		a second survey with different requests will be dispatched or a new round of workshops will be executed.
6	Lack of participation to some of the short-term training programmes in AI, Blockchain and Cybersecurity.	WP2	Thanks to the work carried out in the context of WP1, the short-term training programmes will be very well aligned with the needs of SMEs, especially the ones from the four SME4DD focus countries. Compared to a very low fee for participation (maximum 500 EUR/ participants) the programme will be highly relevant and attractive for companies, especially SMEs. As an extreme measure, the fees will be significantly reduced or even lifted to attract more participants. Thanks to the work carried out in the context of WP1, the short-term training programmes will be very well aligned with the needs of SMEs, especially the ones from the four SME4DD focus countries. Compared to a very low fee for participation (maximum 500 EUR/ participants) the programme will be highly relevant and attractive for companies, especially SMEs. As an extreme measure, the fees will be significantly reduced or even lifted to attract more participants.
7	Key deliverables and milestones related to the deployment of courses delayed due to external factors such as health crisis.	WP3	All training providers in the consortium are available to adjust the course format. To achieve the desired impact, the delivery of the courses will be done in fully online.
8	Marketing and promotion campaigns does not allow to reach the target audience and generate new leads.	WP3	A multi-channel marketing strategy will be put in place, involving coordinated promotion activities from all partners, especially the business/professional associations. This strategy will allow to understand which channels are most effective to reach the target audience. These channels will be prioritised, while channels that will be underperforming over time will be discontinued.
9	Lack of consortium consensus in the approval of a decision.	WP4	An effective decision-making system will be put in place since the early stage of the project, so that a clear process is available whenever a decision should be taken.

Table 2. List of critical risks and mitigation measures

3.1 Consortium management and decision-making processes

Decision processes: Decisions will be taken by the responsible team members, and organisation bodies based on the Description of Action (DoA) to be performed, as stated in the Grant Agreement, the Consortium Agreement, the DoA and the individual Work Package plans. In case there is a dispute between two or more team members, an agreement will be sought by informal communication. If no agreement is reached, the conflict resolution procedure will be resorted to.

Management meetings: GEA and PEC will meet jointly at the beginning of the project for detailed strategy and planning. Thereafter, monthly PEC teleconferences (TCs) ensure a constant flow of information about progress and exchange on development and deployment issues. Formal GEA meetings for decision-making will occur at appropriate intervals, at least annually. PEC face-to-face meetings could happen every six months or upon request from the PC. Meetings with the EC, expert working groups and audit meetings will be scheduled and prepared as required. WPL will agree on meetings to deal with issues at the WP level, where possible, aligned with PEC meetings. Other project meetings will be aligned, e.g., workshops or key conferences in the field, to minimise the use of resources for such meetings.

Conflict resolution: Agreement on any issue with divergent views usually is to be reached through informal contact. This is to be followed by confirmation via email or in agreed written minutes for substantial issues. In some cases, the agreement may take the form of a short statement or report signed by those responsible. Technical issues/conflicts within given contractual commitments that do not involve a change of contract, a change of budget and/ or a change of resources/ overall focus will be discussed/ solved at the WP level first. Where a potential conflict is identified, the appropriate WPL will attempt to mediate between the parties. The PC must be informed if the solution affects the work plan and expected results or if no resolution is reached. In the latter case, the PC will make every effort to mediate, if necessary, involving other members of the PEC. Should the PEC not solve the conflict, the issue is referred to the GEA. The GEA will attempt to reach a unanimous decision in all cases. Should a consensus not be achieved, decisions will be reached by a simple majority vote, each delegate having one vote. Should a conflict not be resolved by this mechanism, the project coordinator will make a final decision on the matter after coordination with the EC PO. GEA delegates will ensure that decisions taken at the GEA are carried out by the participant they represent.

Project communication and progress monitoring: WPL active work packages regularly report to the PEC. Reports make clear statements on work package progress, signal any potential threat to meeting objectives, and raise any resource issues from the point of view of work package objectives and deliverables. Minutes of PEC meetings are distributed to the PEC for approval without delay and distributed to GEA delegates. The progress of the project in terms of achieving objectives and resource consumption at the participant level is constantly monitored by the PC, assisted by the PM. Electronic mail is the standard means of communication, including alerts and results delivery. Documents may be exchanged by email or placed in the common shared repository in the agreed location. Rules and procedures for the formats of documents ensure their easy exchange and efficient handling.

4. Quality assurance, monitoring and evaluation strategy

The project deliverables are a central focus of quality assurance and control within the project. The Quality Manager is accountable to the GEA and works closely with the PC and PEC, responsible for the adherence to agreed QA procedures. The generation of deliverables to specification and schedule is the responsibility of each WP Leader. Deliverables are subject to review and acceptance by the consortium and the EC. The quality assurance process for deliverables is executed through peer review and approval at the project level. Within or

external to the project, two peer reviewers are appointed by the Quality Manager to review key deliverables. All partners provide experts to support the peer-review process. On receipt of the deliverable, the peer reviewers review and check the document for the overall quality of contents, presentation, comprehensiveness, etc. and its adherence to the requirements stipulated in the Grant Agreement. The formal approval of the deliverable by the Consortium is documented at a GEA meeting.

With regards to quality assurance and monitoring, the Quality Manager (QM) will be responsible for establishment and guiding implementation of quality assurance procedures. Quality processes include the timely completion and review of all technical achievements (deliverables, milestones) compared to the original time plan, as described in the Grant Agreement contract, and learning content for the short-term training programmes.

The QM will ensure that the periodic activity, deliverable, management and final project reports are completed and of high quality in accordance with the work plan. Additionally, the QM will keep the PEC informed on the status of all active quality processes and raise any issues requiring remedial action. As required, the QM takes part in PEC meetings as required and reports directly to the GEA.

Additionally, the QM will ensure that the learning content used by the training providers is of high quality. The QM will keep the relevant WP Leaders and Task Leaders updated on the development status of the short-term training programmes from each training providers and raise any issues requiring urgent action.

The definition of an effective quality monitoring system and mechanism will allow to monitor the phases of the project, to understand if the project is proceeding as planned and to anticipate problems instead of solving them afterwards. The quality control mechanism will overlook the project deliverables production and learning content production, relying on the expertise of the QM.

The procedure that will be followed for the preparation of deliverables and production of the learning content will be agreed at the very beginning of the project. Before submission or publication, each project deliverable and learning content will be reviewed by the QM. When appropriate, the document/material will also undergo an English check by a native speaker.

5. Document management

For an efficient and effective collaboration, keep work organized and to speed up joint working in SME4DD we have selected SharePoint tool hosted by EIT Digital

The Project Coordinator will be responsible for maintaining the following on the server:

- Quarterly reports
- Cost Claims
- Meeting Minutes/Action Items
- Teleconference Meeting Minutes
- Annual Project Reports
- Contractual Documentation
- Deliverables

Language

The official document and emails language will be English. In case of official deliverables, effort shall be made to have a native English speaker review the deliverables when possible.

Website and Social Media

The website will be hosted by EIT Digital. The domain name registered for the project is https://www.eitdigital.eu/eu-collaborations/sme4dd/ where official project communication will be issued. Public deliverables and reports will be available under this website after the official submission and validation of the funding authority.

Further social media dissemination includes Twitter, Facebook, LinkedIn posts under EIT Digital and project partners accounts.

Document Templates

The Project Coordinator will create templates for different usage within the project. For all documents such as deliverables Microsoft Word templates will be provided. Templates can be found in the project Share Point respectively.

For the case of project deliverables, it is the responsibility of the task and WP leaders to merge different sources together and provide the deliverables in the PDF forms.

Furthermore, for project-related presentations in external events as well as internal meetings, a Power Point template will be created. It can be found in file WP#-WPNAME-yyyy-mm-dd-LOCATION-PARTNERNAME.pptx in the Shared Point repository.

Finally, the Project Coordinator will provide a template reporting form for financial data, which will be used by the consortium partners to report on their progress on a 6-months basis. These reports will be annually compiled by the Coordinator into the project progress report. The reporting form template is in Excel format template.

6. Communication

Ensuring good communication among project partners and towards outside entities represents a key of success for the project and a fundamental practice to manage the project properly. The establishment of a fast, reliable, and easily accessible communications infrastructure is vital to the proper operation of a European project. This can only be achieved through the proper use of electronic communications (e.g., email, web based exchanges). A project web-site will also be used to enable fast and efficient exchanges of information.

The main communication channels of SME4DD are:

- Email (Email mailing lists),
- Web-based chats,
- Synchronized file repository,

- Bilateral telephone/VoIP calls,
- Telephone conferences,
- Voice teleconferences (VTC) supported by desktop sharing tools
- Physical face-to-face meetings.

Internal and External Communication

The internal communication includes physical quarterly meetings, starting with a two day kick-off meeting to guarantee in-depth knowledge exchange.

Meetings are accompanied by monthly teleconferences to discuss project progress and to take decisions. Also, SME4DD heavily relies on the exchange of emails and use of the project Confluence repository for document collaboration and other tasks.

As already said the main collaboration tools will be Teams and MS Share Point. The advantages of these tools lie in their functions of allowing the sharing of documents, contact details, white boards, discussion rooms et,

External communication includes the dissemination of all project results through publications, a project website, conferences, events, the EAB, and the establishment if links to related projects and SME associations. It is well known that systematic and timely implementation of information flow is essential for any consortium based project. Nevertheless, information overload should obviously also be avoided. The communication flow between SME4DD members will be implemented by:

- Periodic meetings of the Management Board
- Individual working meetings of members of each WP, resp. tasks
- Phone and email interchanges (day to day cooperative working infrastructure)

The Project Coordinator will be in a day-by-day communication, and has the duty to communicate on a systematic and frequent basis. All ordinary messages related to a certain work package will be communicated among all partners involved in that work package. Any special issues or problems within the frame of a WP are going to be forwarded to the WP leader and to the Management Board.

Of course, this formal and detailed hierarchical communication flow, does not exclude by any means ad-hoc direct communication between any partner participants, whenever this is important for the project success. The experience in running research projects, the good relationships, and mutual knowledge of the partners as well as the previously working together successfully, almost ensures the avoidance of problems regarding communication and information flow along the development of the SME4DD Project.