AMR EDUCare

Monitoring and Evaluation Framework

D6.1.

Co-funded by the European Union

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Project information:

Name of the project: Education on antimicrobial resistance for the health workforce

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Executive Summary

This protocol describes the Monitoring and Evaluation (M&E) Framework of the AMR EDUCare, a project envisioned to fight antimicrobial resistance (AMR) by enhancing knowledge and skills in responsible antimicrobial practices within clinical and non-clinical healthcare workforce.

Scope and Purpose of the M&E Framework

The AMR EDUCare Monitoring and Evaluation Framework (D6.1.) equips stakeholders with effective tools for progress monitoring, impact assessment, and informed decision-making. It consolidates methodologies, indicators, procedures, templates, and supportive documents that are visually appealing and simplify the M&E processes. These will enable M&E experts and partners to monitor project performance and impact, detect and address deviations, and ensure the project's effective execution.

This document serves as a guide to the AMR EDUCare Consortium, offering assistance with monitoring and evaluation queries.

Finally, the M&E framework ensures accountability and compliance, by verifying that tasks are executed as agreed and in line with established standards, promoting transparency and accountability among the consortium, funders and other stakeholders involved (IFRC, 2011, p6).

Intended users of the M&E framework

The intended users of this protocol are the AMR EDUCare partners. Other key stakeholders interested in this protocol are: the European Commission, project participants, and other stakeholders interested in developing similar projects and interventions.

Structure of the protocol

This protocol is structured in two parts. The first part focuses on the practical implementation of the AMR EDUCare Monitoring and Evaluation activities. It provides a concise overview of the project's theory and logic, and outlines the specific approaches, tools, and actions that will be used to drive and execute the M&E efforts.

The second part is theoretical in nature and describes in detail the Half Double Methodology (HDM) - the theory that informs the design of this project's M&E framework. It provides templates and practical examples to assist the reader in understanding and applying the methodology effectively, and it is a great resource for all partners and stakeholders eager to further explore this methodology.

Project's Theory and Logic

The Half Double Methodology informs the design of this M&E Framework. HDM is grounded in three principles: 'reduce time to impact', 'keep the project in motion' and 'promote leadership of people rather than management of deliverables' (Rode & Svejvig, 2021, p15; Half Double Institute, n.d.-a).

In AMR EDUCare, we focus on the first two principles, while adopting a Half Double mindset for project leadership. This involves engaging stakeholders for early impact design through rapid prototyping, early learning, and customer insight (Impact Solution Design). This process is closely monitored, with continuous reflection and reporting.

The dynamic and interactive nature of the Impact Solution Design allows us to refine strategies in real time, ensuring intended impacts are achieved.

Key Monitoring and Evaluation activities in the project cycle

The AMR EDUCare combines traditional and innovative M&E activities, to ensure the effective and timely implementation and evaluation of the project.

The traditional M&E activities include the following components: *Initial needs assessment, logframe and indicators, M&E planning, baseline study, mid-term evaluation and reviews, final evaluation,* and *dissemination and use of lessons* (IFRC, 2011, p10).

The innovative M&E activities reflect the HDM and comprise WP-specific Impact Cases, Impact Tracking, Impact Case Reports, Pulse Checks, Pulse Check Reports, and Rhythm in Key Events. These activities will be conducted during each Impact Case cycle.
The AMR EDUCare project contains three Impact Case cycles (M8-M13; M14-M19; and M20-M24).

Monitoring Approach

The AMR EDUCare adopts a comprehensive approach to project monitoring, encompassing multiple types of monitoring, including results, process (activity), compliance, context and beneficiary monitoring.

The HDM Impact Tracking is the AMR EDUCare's main monitoring framework, and the Pulse Check tool is used to monitor and evaluate key stakeholders' satisfaction.

Evaluation Approach

The evaluations will be conducted internally by EQuiP and will include both formative and summative evaluations, concerning the implementation rate and the impact of the intervention.

AMR EDUCare aims to evaluate whether:

- the intended AMR learning outcomes and the new expected skills and competencies were successfully obtained by training participants;
- there is a reduction in the volumes of antimicrobials prescribed;
- attitudes, behaviours, and healthcare practices regarding antimicrobial practices have undergone changes.

Data collection methods

Our monitoring and evaluation design employs mixed-methods research and triangulation of diverse data sources (e.g. participants, records, web analytics) to improve result quality and validity, and attain a thorough understanding of the project's characteristics.

Monitoring and Evaluation Questions

The key monitoring questions we will consider in our M&E activities will be closely connected to the project's logic model (theory of change) and to the co-created Impact Cases, and will be inspired by the key monitoring questions proposed by IFRC (2011, p11).

The evaluation questions will be inspired by Saunders et. al (2005) and will be developed around the following elements that influence projects' implementation: *context, reach (participation rate), dose delivered, dose received, fidelity and recruitment* (Saunders et. al., 2005).

Fiinally, stakeholders' satisfaction will be assessed and monitored using Pulse Checks (six-question surveys).

Data knowledge management

To enhance data handling, information sharing, and decision-making, we have implemented a knowledge management strategy by linking a Miro board with the Intranet and Google repository. This strategy allows us to safely and efficiently organise, share, and store all AMR EDUCare documents. The access to these data is restricted.

Ethical considerations

We pledge ethical M&E conduct with participant respect, informed consent, and confidentiality. We will mitigate risks and ensure unbiased data collection. Our data use will be responsible and transparent, and the reporting will be accurate and objective. Finally, we commit to disclosing conflicts of interest.

Chapter I.
AMR EDUCare Monitoring and Evaluation Plan

A practical guide for implementers, M&E professionals, and stakeholders for effective project assessment

1. Project Description

The AMR EDUCare project aims to combat antimicrobial resistance (AMR) by enhancing knowledge and skills in responsible antimicrobial practices within the healthcare workforce. The project aims to improve awareness, enhance communication, and drive behavioural change to combat AMR effectively.

Aligned with the World Health Organization's Global Action Plan on AMR, our project develops a comprehensive training program. Divided into three courses, the program empowers healthcare professionals (both clinical and non-clinical staff) with tools for optimising antimicrobial prescribing practices, waste reduction, and effective patient communication.

Each course integrates digital health and behavioural change components, acknowledging the evolving healthcare landscape and enabling professionals to utilise digital tools and promote behavioural change among peers and patients.

The project's target audiences include medical doctors in primary care, nurses, community pharmacists, and health managers in secondary care settings. By engaging these stakeholders, the project aims to create a network of knowledgeable professionals actively contributing to the fight against AMR.

Finally, by providing accessible, self-paced e-learning courses, which will also serve as the foundation for national-level Continuous Professional Development (CPD) and microcredit earning courses, our objective is to ensure the long-term use and sustainability of our training modules.

2. Project's Theory and Logic

In AMR EDUCare we acknowledge the dynamic nature of the world and embrace the inevitability of plan adjustments in our project. Our commitment is to ensure timely project implementation and the delivery of high-quality outputs.

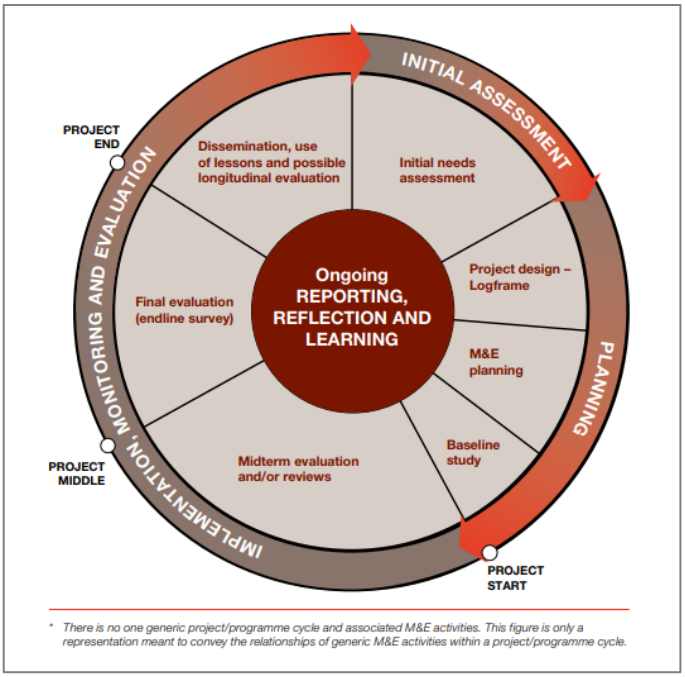
To achieve this, we adopt the Half Double Methodology to guide the design of our M&E framework, shaping its structure for effective monitoring and evaluation. Moreover, we combine classical linear M&E activities with the dynamic Half Double approach, allowing us to iteratively fine-tune strategies and ensure the attainment of intended impacts.

The insights derived from these efforts will empower project and work package leaders, enabling them to make well-informed decisions, enhance strategies, and refine plans to achieve the envisioned impact.

Key Monitoring and Evaluation activities in the project cycle

The AMR EDUCare project incorporates both traditional and innovative M&E activities, the two approaches being harmoniously combined to support the effective and timely implementation and evaluation of the project.

Traditional M&E activities



The traditional monitoring and evaluation activities included in our project cycle are inspired from the IFRC (2011) and provided in Diagram 1. "Key M&E activities in the project/programme cycle" below.

These activities have a linear progression and encompass the following components: *Initial needs assessment, logframe and indicators, M&E planning, baseline study, mid-term evaluation and reviews, final evaluation,* and *dissemination and use of lessons.* These concepts are briefly explained in Appendix 1.

Diagram 1. Key M&E activities in the project/programme cycle (ICRF, 2011, p10).

These M&E activities are accompanied by ongoing reflection, reporting. and learning during the entire project duration (Ibid). This principle aligns with the Half Double Methodology (see Chapter II.), which emphasises the role of continuous reflection and learning in attaining project success.

The linear progression of the traditional M&E project cycle may present a limitation in today's dynamic environment, where changes and refinements may be needed as the project unfolds.
To overcome this weakness, in AMR EDUCare, we employ the Half Double approach to the planning and execution of both traditional and innovative M&E activities. As such, our commitment extends beyond maintaining ongoing monitoring, reflection, and reporting throughout the process. We actively cultivate a culture of learning, facilitating agile adjustments to plans and deliverables, all while remaining firm on pursuing our intended impacts (Rode & Svejvig, 2021, p17, 19, 20).

Innovative M&E activities

The innovative aspect is given by the more agile approach, proposed by the HDM.

Impact Case Cycles

In the period October 2023 (M8) – February 2025 (M24), together with key stakeholders, we will co-create Impact Cases at WP level (T6.3.). In alignment with the HDM, we have divided this period into two six-month cycles and one five-month cycle, where we aim to initiate sprint planning and create value (impact) earlier and at multiple points within the process.

These Impact Case (IC) cycles will be developed as follows:

- IC Cycle 1: October 2023 (M8) to March 2024 (M13)
- IC Cycle 2: April 2024 (M14) to September 2024 (M19)
- IC Cycle 3: October 2024 (M20) to February 2025 (M24)

Each IC cycle will be divided in three phases, namely:

- ➢ *The Impact Case Workshops phase* - the workshops will be conducted in the first 6 weeks of the IC cycle;
- ➢ *The Impact Tracking & Pulse Check phase* - conducted from the second month of the IC cycle until the end of the cycle; and
- ➢ *The Reporting phase* - the reports will be developed in the past 6 to 8 weeks of the cycle, and updated continuously until the end of the IC cycle.

Impact Cases

Every cycle will focus on creating value in each work package (WP), by designing WP-specific Impact Cases for the specific cycle.
We will closely monitor these impact objectives using the Impact Tracking tool (provided in Appendix 2) and make necessary adjustments if required to ensure the intended impacts are achieved. At the end of each cycle, all findings and activities will be summarised in an Impact Case report.
An example of an Impact Case and Impact Tracking is illustrated in Diagram 2.

Pulse Checks

"*Stakeholder satisfaction is the ultimate success criterion*" in HDM (Half Double Institute, n.d.-b). Thus, to ensure this criterion is met, we will regularly conduct Pulse Checks to assess and monitor stakeholders' contenment in real time, so that we can take action and adjust processes in a timely manner.
The Pulse Checks will be disseminated online using SurveyXact, and will be conducted on a bimonthly basis (every second month), with the possibility of adjusting frequency, if more frequent checks are deemed necessary.
The findings will be presented in the Pulse Check Reports and shared with consortium members, the PMO, upper management and funders. A real example of such a report is provided in Appendix 3.

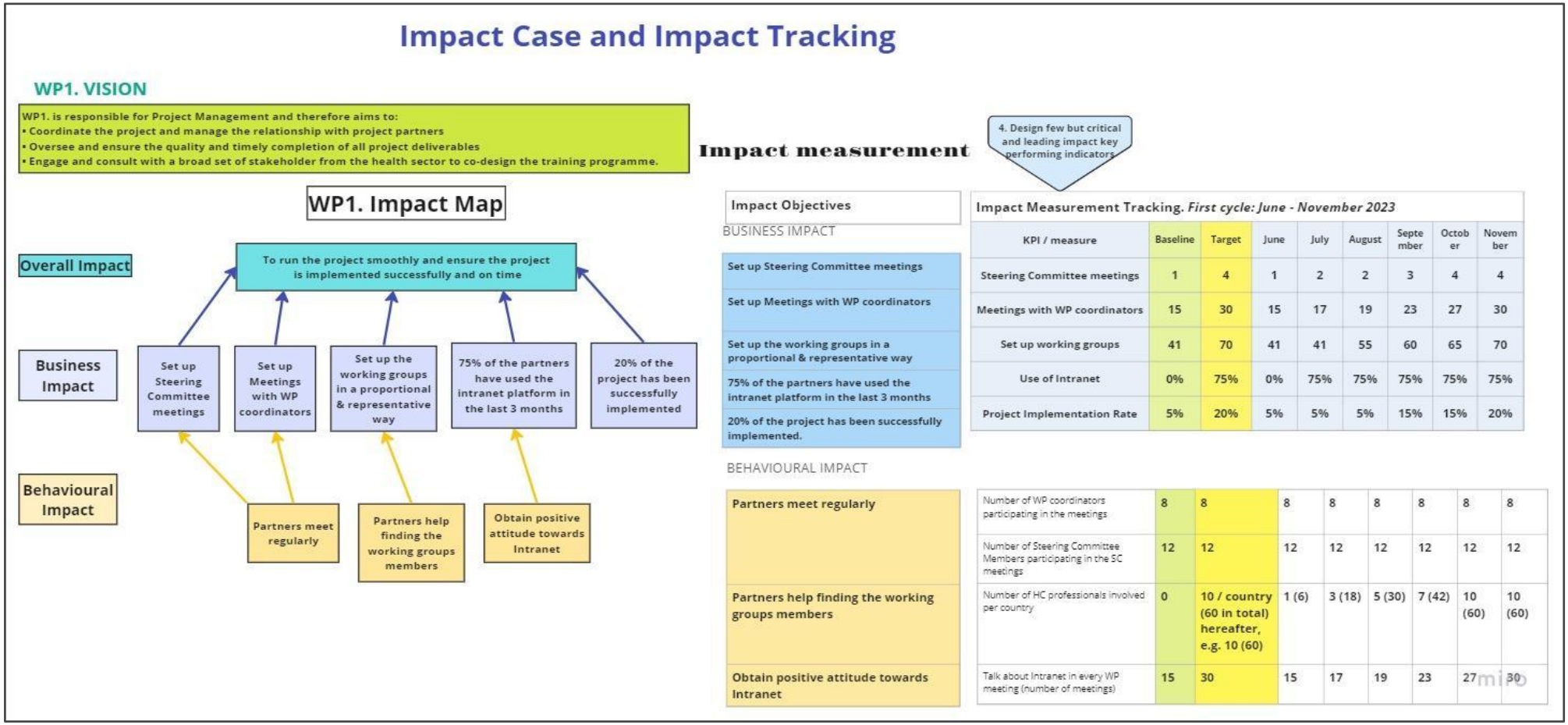
The Pulse Check questions were formulated by the Half Double Institute (n.d.-b) and they are as follows:

1. Are you confident that your current work is creating impact for the project?
2. Do we deliver and collaborate effectively in the project?
3. Are you having fun and feeling energetic about working in the project?
4. Are you getting the support & feedback you need?
5. Are you developing personally and professionally while working on the project?
6. All in all: Are you convinced that this project is executed more effectively and with more focus on impact than other projects you have been part of?

Feedback, comments or suggestions?

Diagram 2. Example of an Impact Case and Impact Tracking

Diagram 2. presents the Impact Case (Impact Map) and Impact Tracking for WP1., serving as an example for the co-creation of other Impact Cases.



Example of an Impact Case and Impact Measurement Plan. Retrieved from AMR EDUCare's Miro board.

Rhythm in Key Events

Establishing a fixed project heartbeat and rhythm in key events significantly improves efficiency and quality, and leads to early value creation. The rhythm in key events tool (explained in depth on page 42) facilitates frequent and active interaction among key stakeholders and ensures weekly progress, maintaining everyone committed and motivated throughout the process.

Furthermore, establishing a rhythm in key events offers the added benefit of closely monitoring the progress of each work package, identifying potential risks or opportunities, adjusting plans, and keeping everyone up to date.

Thus, in AMR EDUCare, we will secure key stakeholders' participation in these meetings (key events) as follows:

At project level:

- On demand project management meetings.
- Regular Steering Committee meetings (their frequency will be defined later).

At work package level:

The specific planning of the key events will be done by each WP team together with the PMO and the subject matter experts.

We recommend the rhythm presented below, but each work package has the flexibility to select the rhythm that suits best their needs. Thus, the rhythm in key events may differ between work packages.

- Weekly meetings with the team members (WP leader, task leaders and team members).
  Focus: sprint planning (once a month), weekly solution feedback, planning next week and daily visual status*.
  **Daily visual status is provided in the MIRO board, which is AMR EDUCare's space for co-location.*
- Biweekly meetings with the WP leader and the project coordinator.
- Biweekly meetings with the team members and the subject matter experts (including the M&E experts).

3. The AMR EDUCare Logic Model and Indicators

The Logic Model

To provide a clear and structured framework of the underlying rationale, intended outputs and outcomes, and the interrelationships of the AMR EDUCare project, we have created the project's Logic Model (presented in Figure 1.).
Its purpose is to help stakeholders, including implementers, funders, and participants, to understand how the project works, the resources required and the expected results. Moreover, the Logic Model assists the M&E professionals in monitoring and evaluating the project, and it may support and guide partners in the co-creation of the Impact Cases.

The Key Performance Indicators

We monitor and evaluate the performance of the AMR EDUCare project using various Key Performance Indicators (KPIs).

The KPIs defined in the project proposal, will be used to track and evaluate the project's implementation and outcome. They comprise of both qualitative and quantitative indicators, and are structured as *output, outcome*, and *impact indicators*. They are presented in Table 1.

Furthermore, a set of Impact KPIs will be co-created together with our partners when developing the WP-specific Impact Cases and planning the WP-specific Impact Tracking. These Impact KPIs will be used to monitor and assess the attainment of the intended impact objectives established for the specific Impact Case cycle.

The Competencies Framework (D6.3.) will be developed by ISCTE and partners, and will outline the essential knowledge, skills, and competencies that healthcare professionals should possess after going through each of the training modules to effectively address and combat AMR, and which are expected to be gained by the AMR EDUCare training participants.
The Competencies Framework will be used as a KPI for assessing participants' acquisition of the intended AMR learning outcomes and expected competencies. The KPI will be assessed per training module.

Finally, communication activities will be monitored and evaluated using the KPIs presented in Figure 2.

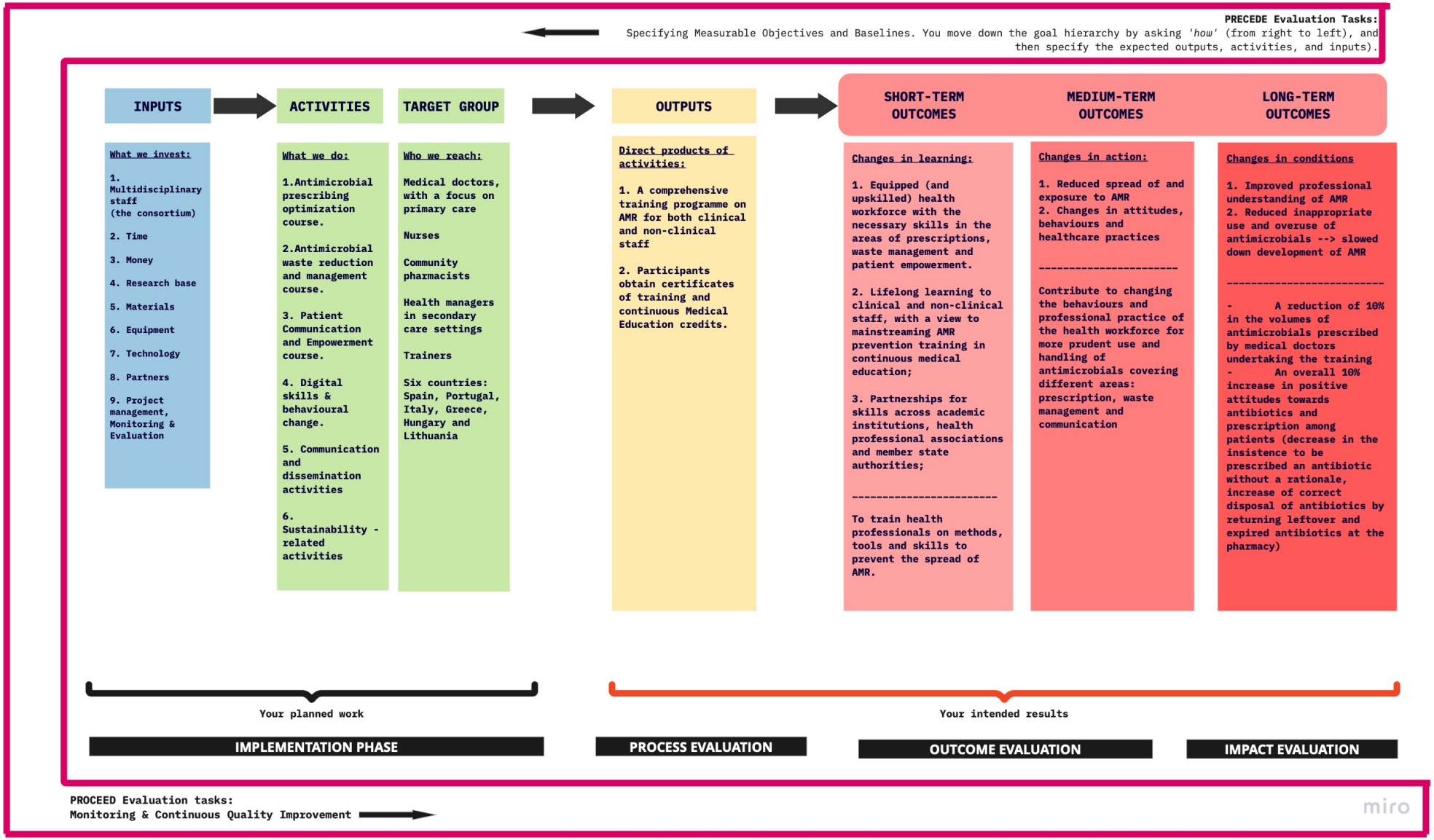


Figure 1. The AMR EDUCare Logic Model

Table 1. AMR EDUCare Key Performance Indicators

OUTPUT / OUTCOME / IMPACT OBJECTIVES	KEY PERFORMANCE INDICATOR	UNIT OF MEASUREMENT	BASELINE	TARGET
Output Objectives and their KPIs				
- Trainers receive specific training	Number of trainers receiving specific training	Number of training participants	0 (zero)	36
- Targeted professionals complete the training; - Targeted professionals complete digital skills courses; - Targeted professionals complete training on specific themes: AMR prescription, AMR waste management, and communication skills on AMR and antibiotic use.	- Number of persons who complete the training; - Number of persons who complete the digital skills courses; - Number of persons who complete training on specific themes: AMR prescription, AMR waste management, and communication skills on AMR and antibiotic use.	Number of training participants completing the training	0 (zero)	4,150, of which* (see below)
		Per Group: 1. Medical doctors 2. Nurses 3. Pharmacists 4. Health Management Professionals	0 (zero)	1. 1,850, i.e.≈ 45% 2. 1,390, i.e.≈33% 3. 590, i.e.≈14% 4. 320, i.e.≈ 8%
		Per Category: 1. Clinical staff 2. Non-clinical staff	0 (zero)	1. 3,830 i.e.≈ 92% 2. 320 i.e.≈ 8%
		Per Gender: 1. Male 2. Female	0 (zero)	1. ≈1500 (33,33%) 2. ≈3000 (66,67%)

		Per Age: 1. 18-30 2. 30-50 3. >50	0 (zero)	1. ≈2000, i.e. 45% 2. ≈2000, i.e. 45% 3. ≈400, i.e. 10%
		Per Country: 1. Spain (ES) 2. Portugal (PT) 3. Italy (IT) 4. Greece (GR) 5. Hungary (HU) 6. Lithuania (LT)	0 (zero)	1. 950 i.e.≈23% 2. 200 i.e.≈5% 3. 850 i.e.≈20% 4. 650 i.e.≈16% 5. 850 i.e.≈20% 6. 650 i.e.≈16%
- Participants obtain continuous Medical Education credits	Number of participants who obtain continuous Medical Education credits	Number of participants obtaining the continuous Medical Education credits	0 (zero)	3,830, of which: - medical doctors: 1,850, i.e.≈ 48% - nurses: 1,390 i.e.≈36% - pharmacists: 590 i.e.≈16% (see below)

Target group:	In ES	In PT	In IT	In GR	In HU	in LT
1. Medical doctors	1. 500	1. 100	1. 500	1. 250	1. 250	1. 250
2. Nurses	2. 200	2. 40	2. 150	2. 250	2. 500	2. 250
3. Pharmacists	3. 200	3. 40	3. 150	3. 100	3. 0	3. 100

- Certificates of training issued according to developed microcredentials are obtained by participants	Number of certificates of training obtained by participants issued according to developed microcredentials	Number of training certificates issued according to developed microcredentials	0 (zero)			320, of which * (see below)		
			In ES	In PT	In IT	In GR	In HU	In IT
			50	20	50	50	100	50
- Trainees are satisfied with the training	Satisfaction rate of participants of the training	% of participants' satisfaction rate	0 (zero)			75%		
Short-term Outcome Objectives and their KPIs								
- Increased understanding of responsible antibiotic prescription	% of training participants reporting increased understanding of responsible antibiotic prescription	% of training participants	68% of medical doctors answering correctly the 7 ECDC knowledge questions on AMR			20% increase		
- Increased understanding of responsible antimicrobial procurement and waste management	% of training participants reporting increased understanding of responsible antimicrobial procurement and waste management		40% health management professionals answering correctly the 7 ECDC knowledge questions on AMR			20% increase		
- Increased communication skills and experience in managing patient interactions	% of training participants reporting increased communication skills and experience in managing patient interactions		55% of prescribers or dispensers report providing advice on prudent antibiotic use to patients			10% increase		

Medium-term Outcome Objectives and their KPIs				
- Medical doctors in target countries change their prescription habits	% of medical doctors in target countries reporting a change in their prescription habits	% of training participants	To be established at the outset through pre-training surveys	10% increase in prudent antibiotic prescription practices
- Health management professionals in target countries change their waste management practices	% of health management professionals in target countries reporting a change in their waste management practices			10% increase in improved antimicrobial waste management practices
- Medical doctors, nurses and pharmacists in target countries change their communication style and approach with patients	% of medical doctors, nurses and pharmacists in target countries reporting a change in their communication style and approach with patients	% of training participants who report changes in patient behaviour	To be established at the outset through pre-training surveys	10% increase
- Patients show more prudent attitudes and behaviours on antibiotic use	% of patients who show more prudent attitudes and behaviours on antibiotics use			
Long-term Outcome (Impact) Objectives and their KPIs				
- Reduced volume of antimicrobials prescribed by medical doctors undertaking the training	% of reduction of antimicrobials prescribed among training participants	DDD (defined daily dose) / 1000 inhabitants	To be defined through pre-training surveys	10% reduction
- An increase in positive attitudes towards antibiotics and prescription among patients	% of decrease in the insistence to be prescribed an antibiotic without rationale	To be defined		10% decrease
	% of increase of correct disposal of antibiotics by returning leftover and expired antibiotics at the pharmacy			10% increase

Instruments What is the product delivered?	Reach Key performance indicator	Target audience Who do we want to reach?
3 Press releases	Press release picked up by at least 3 media outlets	Policymakers, academics, journalists, health managers, health system administrators
6 Project Newsletters	400 subscribers	Health professionals (doctors, nurses, pharmacists, health management professionals), academics, health system administrators
20 newsletter articles in the newsletters of project partners and multiplier stakeholders	35,000 readers	Health professionals (doctors, nurses, pharmacists, health management professionals), academics, health system administrators
4 articles in health professional journals / media outlets	60,000 viewers	Health professionals, health system administrators, academics
2-3 articles in scientific journals	1,500 viewers	Academics, health professionals
10 presentations at third party events	800 participants	Health professionals, health system administrators
20 social media posts shared via partners' social media channels	400,000 persons reached	Health professionals, patients, the general public
Project website	400 page views/month after M16	Health professionals, academics, general public

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Figure 2. Monitoring of Communication Activities in AMR EDUCare

4. Monitoring Approach

AMR EDUCare Types of Monitoring

The AMR EDUCare adopts a comprehensive approach to project monitoring, encompassing multiple types of monitoring, namely: results, process (activity), compliance, context and beneficiary monitoring. A description of these and other various types of monitoring is provided in Appendix 4. Common Types of Monitoring.

AMR EDUCare Project Monitoring Framework

To systematically track progress, identify challenges and deviations, and to facilitate informed decision-making throughout the entire project duration, we will use the Half Double Impact Tracking tool as the project's monitoring framework, and the Pulse Check as the monitoring tool for stakeholders' satisfaction.

The Impact Tracking tool will be used for tracking both the Impact Cases and the project's objectives, by following up the co-created Impact Case KPIs and the predefined communciation, output, outcome and impact indicators.
It will allow us to take timely corrective actions and thus reduce time to impact (value creation).

We implement this framework within Miro, enabling real-time visualisation and updates of progress within each work package. This data is accessible to all WP leaders, task leaders and upper management.

The effectiveness of Impact monitoring will be strengthened through the integration of risk assessments and the development of risk action plans. The template and the steps needed to conduct risk assessments and risk action plans are presented in chapter two of this protocol, under *'Visual Planning*' (page 41).

Data Collection and Data Reporting Plan

The monitoring of AMR EDUCare starts from the early implementation of project activities and continues throughout the entire project, until its completion.

A significant element in the monitoring process is the co-creation of Impact Cases (Task 6.3), as these will define the work package objectives and the key performance indicators (KPIs) that will lead to early value creation within the project. Once these Impact Cases are created, the *impact (case) monitoring* process commences.

In AMR EDUCare, data collection is ongoing, and reporting occurs regularly at the end of each Impact Case cycle, and at M14, M26 and M30 (through evaluation reports). A more detailed plan of the Data Collection and Reporting is provided in Table 2.

Table 2. AMR EDUCare Data Collection and Data Reporting Plan

General M&E Activity	Data source (source of information)	Tools / Procedures	Timing of Data Collection	Data Analysis or Synthesis	Frequency of Reporting
Impact Case Tracking	Work Package leaders	Self-reported progress in the WP-specific live Impact Tracking template (in Miro)	WP leader report weekly	Descriptive Analysis	At the end of each IC cycle
Pulse Check	Consortium members	The Pulse Check tool	Bi-monthly	Descriptive Analysis	Following every Pulse Check
Baseline Surveys	Training participants	Online survey	Pre-training	Quantitative analysis	Once
Midterm Impact Evaluation	Training participants & WP leaders	WP leaders will be responsible for capturing change in behaviours and healthcare practices through post-training surveys that will be shared immediately after the training is completed. Phone interviews with training participants can complenent surveys, if relevant.	Ongoing, during the entire implementation of the training intervention. Post-training surveys will be shared immediately after the training is completed.	Quantitative & Qualitative Analyses	Once, M14
Evaluation of Intervention Implementation	Academic partners	Self-reported check lists and observation with checklist	During the training delivery – until the end	Quantitative & Qualitative (for observations) Analyses	Bi-weekly, M26

Assessment of Competencies	Training participants and their employees / employers Aggregation of Assessment of Competencies	Phone interviews & Embedded Assessment Assessment of the performance in modules	Post-training	Quantitative & Qualitative Analyses	The frequency should be at two levels: 1) by the end of the training module 2) after 6 months of ending the training module (or another period, to be decided on the workshop in October in Lisbon)
Final Evaluation	Training participants WP leaders Aggregation of Assessment of Competencies	WP leaders will be responsible for capturing change in behaviours and healthcare practices through post-training surveys that will be shared immediately after the training is completed. Phone interviews with training participants can complenent surveys, if relevant.	Ongoing, during the entire implementation of the training intervention., & Post-training surveys will be shared 6 months after the training delivery.	Quantitative & Qualitative Analyses	Once, M30
Communication Activitities	MEMT	Self-reported progress in the WP7 live Impact Tracking (in Miro)	Ongoing, throught the entire project duration.	Quantitative	Twice, M14 & M30.

5. Evaluation Approach

Evaluations within AMR EDUCare

To enhance performance, evaluate compliance, and assess overall effectiveness and impact, AMR EDUCare will utilise both formative and summative evaluations, focusing on the implementation rate and impact of the intervention. These evaluations will be conducted internally, and the responsibility for these tasks lies with EQuiP.
The general plans of these evaluations are depicted in Table 3.

Table 3. Evaluations to be conducted within AMR EDUCare.

	Type	**Purpose**	**Indicators**	**Methods**	**Delivery date**	**Responsible parties**
Evaluation of Intervention Implementation	Formative	- Evaluate the implementation rate of the intervention among academic partners. - Monitor progress in the delivery of the training to ensure that the targeted numbers of health professionals trained will be met.	The action-level indicators (KPIs) outlined in Table 1.	Mixed-methods	M26	EQuiP Academic partners will support the task leader (EQuiP) in collecting information.
Impact Evaluation	Formative (Midterm) & Summative (Final)	To evaluate the impact of the intervention.	The long-term impact of the intervention will be measured through the impact and outcome indicators outlined in Table 1.	Post-training surveys & Phone interviews	M14 M30	EQuiP; WP leaders will be responsible for capturing change in behaviours and healthcare practices

Assessment of Competencies	Summative	Evaluate if the intended AMR learning outcomes and new expected competencies included in the overall Competencies Framework (D6.3) were successfully obtained by training participants. To measure the success of the modules in assuring the desired competencies are gained.	The overall Competencies Framework.	Embedded assessments of the performance of modules & Phone interviews	M30	ISCTE EQuiP
Note! The assessment of the performance of the modules in providing the idealised competencies will be aggregated in T6.4. (Aggregation of Assessment of Competencies), and will be included in the Final Evaluation report delivered in M30 and conducted by EQuiP.						

Data collection methods for evaluation

Because different methods may lead to different conclusions (e.g. questionnaires vs. interveiws) (Saunders et al., 2005), for the evaluation design we decided to use mixed-methods (quantitative and qualitative methods) and triangulation of multiple data sources (participants, records, web analytics etc).

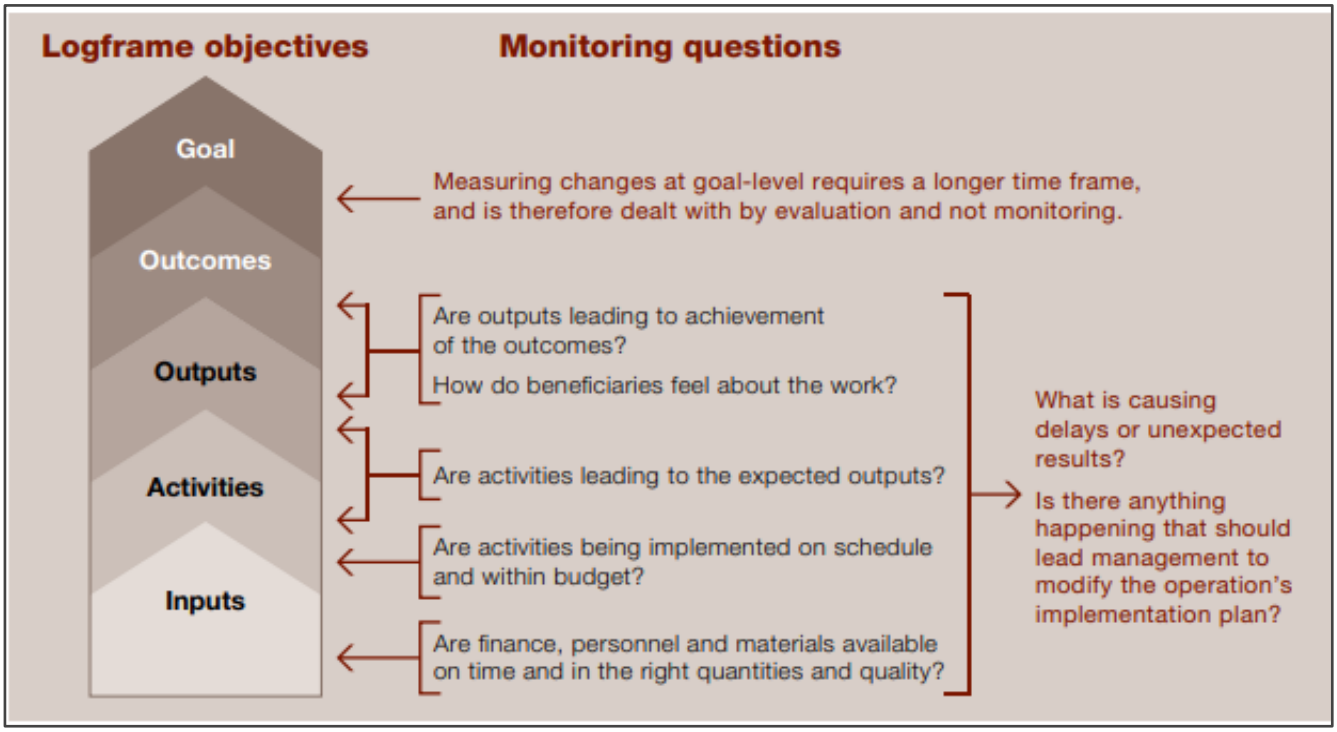
This approach to data collection has the advantage of generating a more nuanced understanding of the project's characteristics, leading to increased validity of the results (Bartholomew, p242).

6. Monitoring and Evaluation Questions

Key monitoring questions

The key monitoring questions we will consider in our M&E activities will be closely connected to the project's logic model (theory of change) and will be guided by the Diagram 3 below.
These monitoring questions will be also used as a guide for monitoring the Impact Case objectives (business and behavioural impacts).

Diagram 3: Monitoring questions and the Logic Model (retrieved from IFRC (2011, p11)).



Evaluation questions

The evaluation questions will be developed using the key performance indicators, and by taking into account the following elements that influence projects' implementation: *context, reach (participation rate), dose delivered, dose received, fidelity and recruitment* (Saunders et. al., 2005). The purpose and applications of these components are clearly presented in Table 4.

Furthermore, Table 5. comprises some evaluation questions that will be considered during the M&E of the project. Formulated by Schwandt (2015, p21), these resources serve as valuable tools to assist evaluators in M&E activities, helping them to differentiate between the monitoring and the evaluation questions.

Fiinally, as previously mentioned, the stakeholders' satisfaction will be assessed using the Pulse Checks (six-question survey).

Table 4. Elements of a Process-Evaluation Plan, with Formative and Summative Applications (Saunders et al, 2005).

TABLE 1
Elements of a Process-Evaluation Plan, With Formative and Summative Applications

Component	*Purpose*	*Formative Uses*	*Summative Uses*
Fidelity (quality)	Extent to which intervention was implemented as planned.	Monitor and adjust program implementation as needed to ensure theoretical integrity and program quality.	Describe and/or quantify fidelity of intervention implementation.
Dose delivered (completeness)	Amount or number of intended units of each intervention or component delivered or provided by interventionists.	Monitor and adjust program implementation to ensure all components of intervention are delivered.	Describe and/or quantify the dose of the intervention delivered.
Dose received (exposure)	Extents to which participants actively engage with, interact with, are receptive to, and/or use materials or recommended resources; can include "initial use" and "continued use."	Monitor and take corrective action to ensure participants are receiving and/or using materials/resources.	Describe and/or quantify how much of the intervention was received.
Dose received (satisfaction)	Participant (primary and secondary audiences) satisfaction with program, interactions with staff and/or investigators.	Obtain regular feedback from primary and secondary targets and use feedback as needed for corrective action.	Describe and/or rate participant satisfaction and how feedback was used.
Reach (participation rate)	Proportion of the intended priority audience that participates in the intervention; often measured by attendance; includes documentation of barriers to participation.	Monitor numbers and characteristics of participants; ensure sufficient numbers of target population are being reached.	Quantify how much of the intended target audience participated in the intervention; describe those who participated and those who did not.
Recruitment	Procedures used to approach and attract participants at individual or organizational levels; includes maintenance of participant involvement in intervention and measurement components of study.	Monitor and document recruitment procedures to ensure protocol is followed; adjust as needed to ensure reach.	Describe recruitment procedures.
Context	Aspects of the environment that may influence intervention implementation or study outcomes; includes contamination or the extent to which the control group was exposed to the program.	Monitor aspects of the physical, social, and political environment and how they impact implementation and needed corrective action.	Describe and/or quantify aspects of the environment that affected program implementation and/or program impacts or outcomes.

NOTE: Adapted from Steckler and Linnan (2002a) and Baranowski and Stables (2000).

Data retrieved from Saunders et al. (2005)

Table 5. Example of questions for Monitoring and Evaluation of Outputs, Process and Outcomes.

Coverage	Monitoring Questions Examples	Evaluation Questions Examples
Outputs (Products, Services, Deliverables, Reach)	***How many*** people or communities were reached or served? Were the targeted numbers reached?	***How adequate*** was the program reach? Did we reach *enough* people? Did we reach the *right* people?
Process (Design and Implementation)	How was the program implemented? Was implementation in accordance with design and specifications?	***How well*** was the program implemented? *Fairly, ethically, legally, culturally appropriately, professionally, efficiently?* For outreach, did we use the best avenues and methods we could have? How well did we access hard-to-reach and vulnerable populations? Did we reach those with the greatest need? Who missed out, and was that fair, ethical, just?
Outcomes (things that happen to people or communities)	**What has changed** since (and as a result of) program implementation? How much have outcomes changed relative to targets?	***How substantial and valuable*** were the outcomes? How well did they meet the most important needs and help realise the most important aspirations? Should they be considered truly impressive, mediocre, or unacceptably weak? Were they not just statistically significant, but educationally, socially, economically, and practically significant? Did they make a real difference in people's lives? Were the outcomes worth achieving given the effort and investment put into obtaining them?

Data retrieved from Schwandt (2015, p21).

6. Data and knowledge management

AMR EDUCAre relies on data and knowledge management to shape its operational practices. In this context, a *Miro* board has been strategically designed to facilitate online co-location activities and foster frequent interaction among partners.

By linking the *Miro* board with the intranet and the Google repository, we have employed a knowledge management strategy, establishing a centralised hub for organising, sharing and depositing all AMR EDUCare documents. These combined efforts contribute to effective data handling, efficient information sharing, and collaborative decision-making, aligning with data management and knowledge dissemination principles.

In addition to using these online tools, the project members will interact on a regular basis in online and physical meetings to discuss and give updates on the project/work packages status.

7. Ethical considerations

We commit to conduct our M&E activities with respect for participants, obtaining informed consent and ensuring confidentiality, unless otherwise required by law. Moreover, we will identify and address potential risks to participants, project implementers and the wider community during the monitoring and evaluation planning, taking actions to mitigate harm and negative consequences.

To ensure the accuracy, validity and reliability of our data, we will ensure that the data collected represents the target population and remains unaffected by bias or external factors. Furthermore, we commit to make use of our data in a responsible and transparent manner.

Finally, we pledge to report the results of our monitoring and evaluation activities objectively and accurately, and to openly share conflicts of interest in the research, evaluation and dissemination process.

Chapter II.
The Half Double Methodology

Deliver impact from the very beginning of the project

Presenting the Half Double Methodology

The Half Double Methodology (presented in Figure 3.) is a dynamic and hybrid model that combines the best of the traditional and agile project methodologies, focusing on three core elements: 'reduce time to impact', 'keep the project in motion', and prioritise people's leadership over technical deliverables' management (Rode & Svejvig, 2021, p15; Half Double Institute, n.d.-a).

Each core element introduces a guiding principle for leading work packages, which is closely linked to a corresponding method (an approach, procedure or process) to put the principle into practice. Furthermore, each method is supported by a tool - an instrument specifically tailored to support and facilitate effective implementation (Rode & Svejvig, 2021, p15).

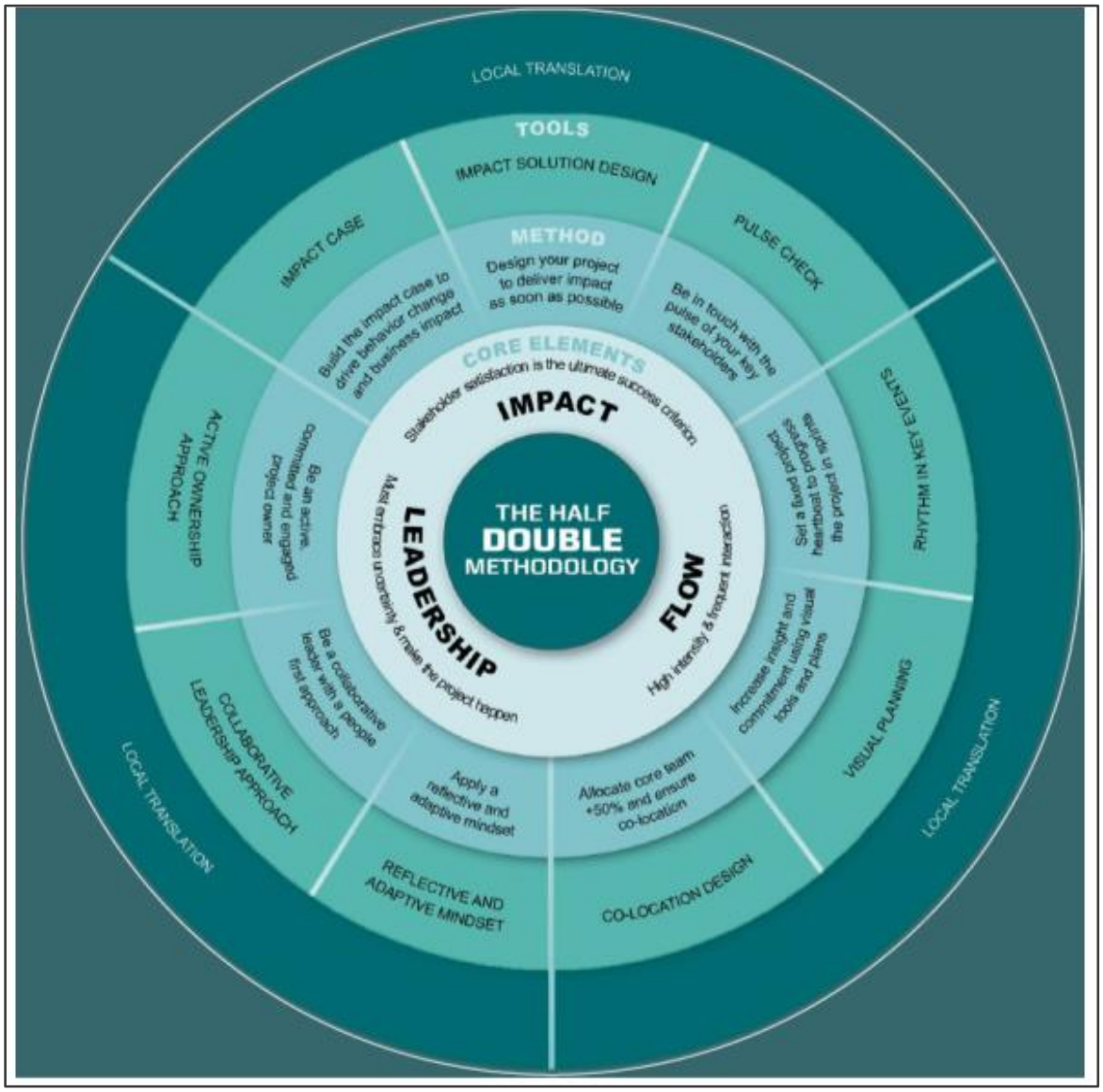


Figure 3. The Half Double Methodology (Rode & Svejvig, 2021, p16).

The following subchapters will present the HDM methods and tools, with emphasis on *Impact* and *Flow*.

I. Impact

Unlike classic project management approaches where impact is typically tied to the final delivery of outcomes, HDM highlights a continuous flow of impact across the project's entire lifecycle. It recognises the ability to define impact from the project's inception and achieve it at various stages, emphasising that in this context, impact corresponds to value creation (Half Double Institute, n.d.-a; Rode & Svejvig, 2021, p17).

Project success depends on strategic implementation for early impact and thoughtful engagement with diverse stakeholders, prioritising their satisfaction. Impact redirects focus from technical deliverables to ensuring stakeholder contentment throughout the project's entire duration. The involvement of users and regular pulse checks are pivotal factors in driving progress (Rode & Svejvig, 2021, p17).

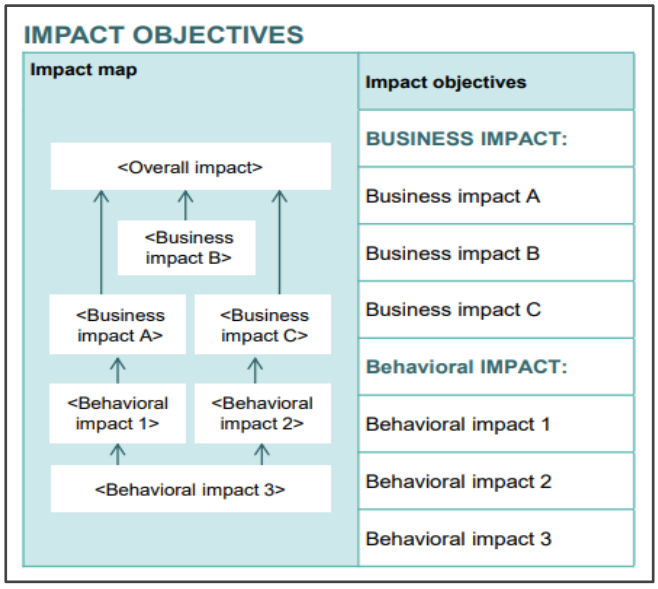
Therefore, to attain project success, we will apply the HDM and will:

1. Define a detailed impact goal (Impact Case);
2. Design the project to deliver impact quickly and consistently throughout the project;
3. Continuously monitor stakeholders' satisfaction.

These actions will be supported by the following methods and tools that the HDM provides to realise impact in practice:

1) The Impact Case and Impact Tracking

The 'Impact Case' (presented in Figure 4.) is a HDM tool used to drive behavioural change and value creation.



It outlines, prioritises, and visually represents the intended impact objectives (business and behavioural impacts) that the project/work package aims to generate.

The process of developing impact objectives is a collaborative effort, engaging key stakeholders and subject matter experts. This collaboration ensures alignment with project goals and a comprehensive perspective.

Figure 4. Impact Case Template

Once the impact objectives are established, they are subsequently refined into measurable Key Performance Indicators (KPIs) to drive the project forward. The impact case and its

associated KPIs are used for monitoring the project progress, allowing for adapting plans and efforts to enhance stakeholder satisfaction (Rode & Svejvig, 2021, p17).

Cyclical creation of Impact Cases

A noteworthy feature of the Impact Case is its cyclic nature. Impact Cases are created multiple times during the project's life cycle, each time marking the beginning of a new phase.

Dividing the project into smaller cycles, enables us to focus on creating value and ensuring stakeholders satisfaction within each period. This approach ensures a continuous flow of impact (value creation), reduces time to impact, and enables us to identify and address potential challenges and opportunities to enhance stakeholder satisfaction and achieve the desired impact.

Crucial alignment and understanding

It is crucial that all parties involved are aligned and have a mutual understanding of the specific project/work package. Therefore, when defining the project / work package's impact objectives, a first step is to have an initial discussion to ensure absolute clarity among all parties involved (Half Double Institute, n.d.-b).
The discussion focuses on addressing the following questions:

1. Who are the project/WP's key beneficiaries?
2. Who are the end users?
3. What creates value for the target group? (Ibid).

The Process of Co-creating Impact Cases

Once all parties are aligned and have a clear understanding of the project / work package, the project coordinator, along with selected subject matter experts and key stakeholders, meet and set the following process in motion.

1. Develop an objective hierarchy with purpose, success criteria and main tasks and deliverables; stakeholder satisfaction is the ultimate success criterion. The Call's Expected Impact may be included in the hierarchy if they are directly connected to the specific WP.
   An example of an objective hierarchy template is provided in Diagram 4.

2. Identify business impact objectives using the objective hierarchy and by asking:
   What business effect (created value) is needed?

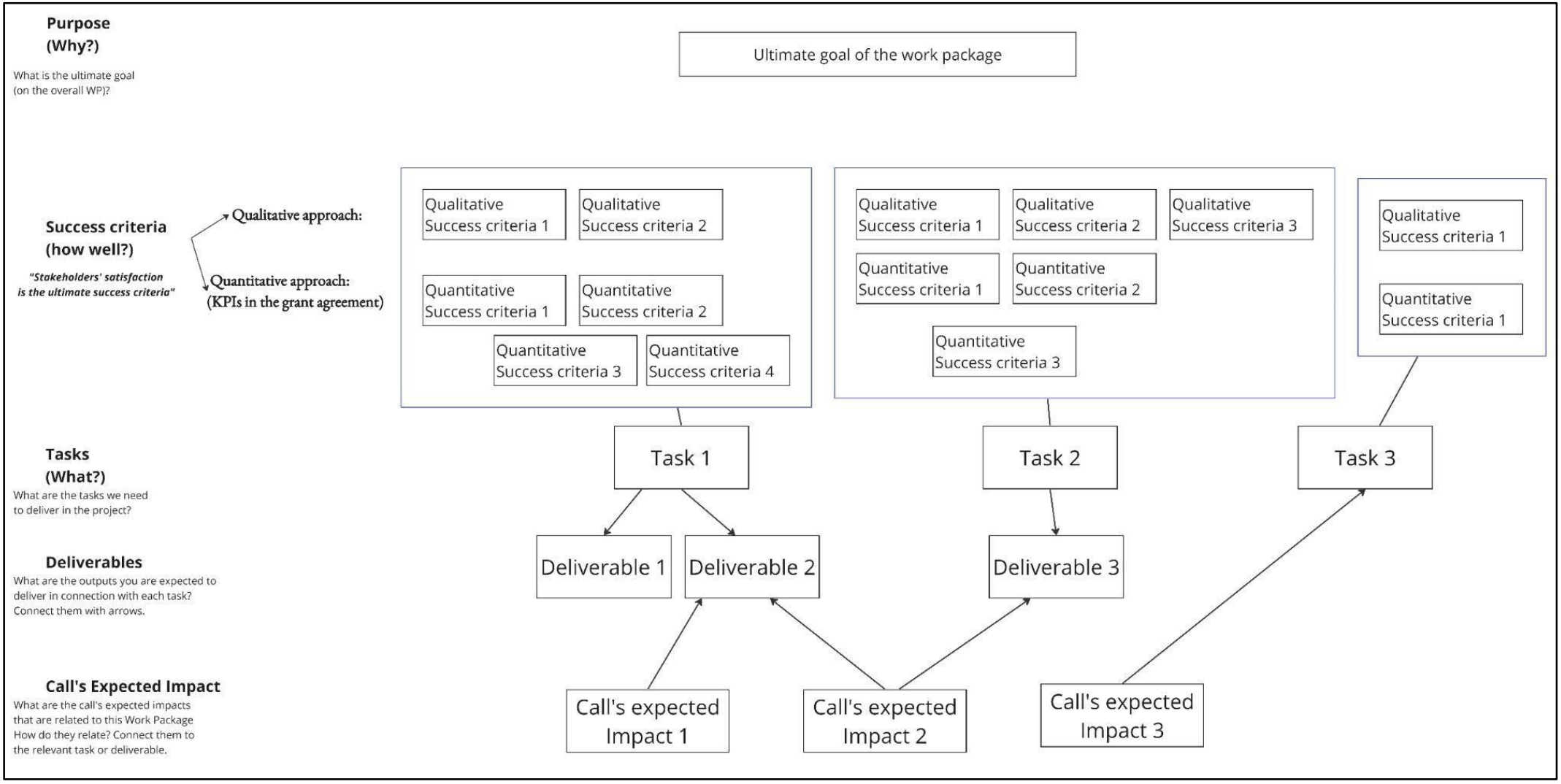
3. Identify necessary behavioural changes to realise the intended business impact(s) by asking:

   a. *What are the required or desired attitudes, skills, and behaviours that staff and project workers should possess to achieve the business objectives?*
   b. *What will leaders, partners and/or target groups be doing differently/better afterwards?*

4. Design few but critical and leading impact key performance indicators (KPIs).
5. Gain commitment with the Steering Committee.
6. Use KPIs to adjust for early impact realisation and follow up on them on a biweekly/monthly basis, using the KPI tracking tool. (Half Double Institute, n.d.-b).

Note! The Impact Case serves as a map outlining our desired impact and how we can measure the project's success in achieving that impact. However, to ensure that impact is achieved, the Impact Case workshop must be followed up by meetings where the project owner, the work package leader(s), project workers and other stakeholders will collaboratively design and implement an action plan to meet the targets outlined in the Impact Case. This will be done during the Impact Solution Design workshops, which will be described next.

Diagram 4. Objective Hierarchy Template (based on HDM and customised for local translation).



2) The Impact Solution Design

The Half Double mindset focuses on driving early value creation and early outputs, and accelerating impact throughout the process. (Rode & Svejvig, 2021, p17).

The proposed tool is the *Impact Solution Design*, which is a comprehensive map of the project/work package 's value creation from start to finish.

It describes the approach used to realise impact (create value) as early as possible, identifies strategies to involve end users from the beginning, and depicts methods to capture insights and learning throughout the project.

By utilising key insights and learnings, we can adapt our approach to the dynamic environment and the needs of our key stakeholders (Rode & Svejvig, 2021, p17).

The impact solution design is created collaboratively with partners, users, and key stakeholders; ensuring high stakeholder satisfaction and impact-driven solutions (Half Double Institute, n.d.-b;). It is a five-step human-centred, learning focused and hypothesis - driven process that encourages early involvement and support from all parties, helping AMR EDUCare to achieve early impact, reduce uncertainty, and demonstrate the project's value (Ibid). In **AMR EDUCare**, the Impact Cases and the Impact Solution Designs are developed at work package level.

The five-step process is described below and presented in a visual form in Diagram 5.

1. **Initiate start-up (4 hours)**
   During this first session, the participants (the WP leader and the project coordinator) will meet and set the WP's objectives hierarchy, co-create the initial impact case, and plan the process, along with booking necessary time slots (Half Double Institute, n.d.-b).

2. **Impact definition (6 hours)**
   The second session gathers together the project leader, the WP leader and the key people within the work package. Together, they will build upon the initial impact case and create the final one, decide the overall impact solution design, review key stakeholders, and form and organise the team (Ibid).

As soon as the objectives hierarchy and the impact case are developed, the work package is conceptualised and analysed to establish the actual impact solution design (Rode & Svejvig, 2021, p17).

3. **Impact Solution Design sprint 1 (6 hours)**
   The third session marks the first Impact Solution Design sprint and involves the active participation of the project coordinator, the WP leader, the solution team and user representation (when relevant). In this session, the focus is to develop the impact solution design in-detail, emphasising detailed insights into the desired impacts (business- and behavioural impacts), deliverables, work plan, risk assessment and benefits (Half Double Institute, n.d.-b). In this first sprint, the aim is to design the core

idea for early value creation, by generating multiple ideas and solutions and visualising or describing what the solutions would look like, while considering these three key areas: product, process and people (Ibid):
Product - clarify what is the core use of the intended product/service/system/process and identify what could be the minimum viable product, with the possibility to expand and improve upon it later.
Process - explore how the process can be broken down into manageable segments, and if it is possible to deliver a part or half of the process in the given impact case cycle.
People - prioritise specific segments, countries or key beneficiaries that would have the highest impact, and target them with the initial release (product or process) to accelerate value creation (Ibid).

4. **Impact Solution Design sprint 2 (4 hours)**
   The second impact Solution Design sprint involves the same individuals like the first sprint.
   The purpose of this workshop is to discuss and analyse the impact solution design in-depth, with a detailed cost (resources) overview, analyse insights and make necessary adjustments, plan the organisation needed to realise the desired impacts, and prepare the work package charter (Half Double Institute, n.d.-b).
   "Remember to draw upon and include methods such as prototyping, fast prototyping, early learning loops and customer insights in the plan." (Ibid).

5. **Concluding start-up (2 hours)**
   In the final session, the work package leader and the solution team meet with key management stakeholders (including the project owner, project leader and the PMO) to present their findings and conclusions, make informed decisions, outline the next steps, and collect valuable insights to accelerate execution (Ibid).

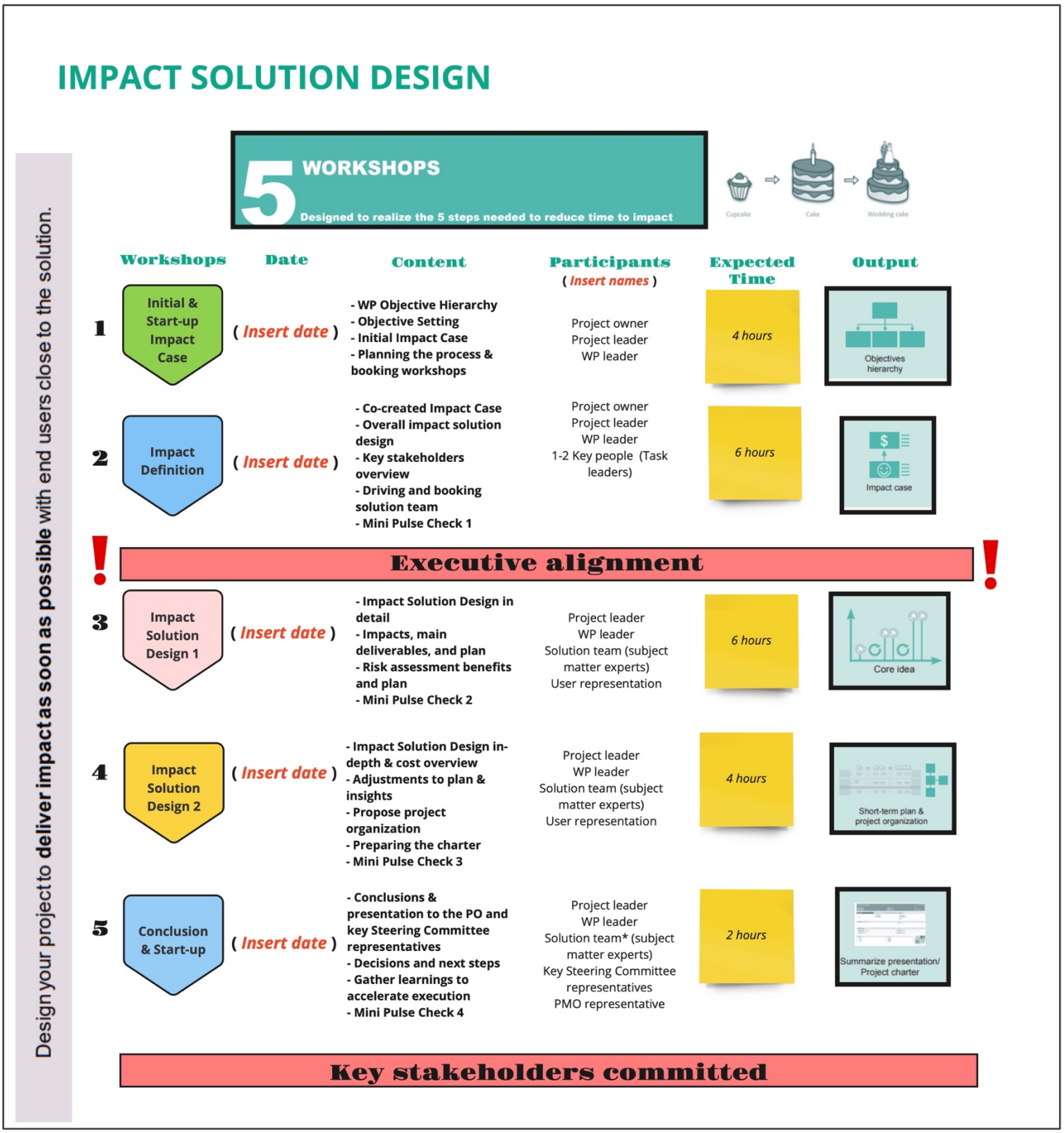
The five-step process is finalised with a Mini Pulse Check (described in detail in Diagram 5.).

Note! The estimated time for each impact solution design session should be used only as a general guideline. Each project and work package are unique, and the workshops' duration may vary depending on factors such as project/work package complexity and encountered challenges. Thus, some workshops may take longer or shorter than initially anticipated.

These additional guidelines will help AMR EDUCAre to successfully develop the project's impact solution design:

- Identify key stakeholders to engage in the Impact Solution Design process.
- Use the process to develop the core idea for early impact creation and build the Impact Solution Design around this concept.
- Employ fast prototyping, early learning, and customer insight to support the process.
- Recognise that the Impact Solution Design process is not a rigid, linear sequence of steps, but a dynamic set of interconnected 'spaces' which may be revisited multiple times. (Half Double Institute, n.d.-b).

Diagram 5. The Impact Solution Design Process



**The Solution team* refers to the group of people working together on the particular task or work package. They typically work on one task or output at a time.

3) The Pulse Checks

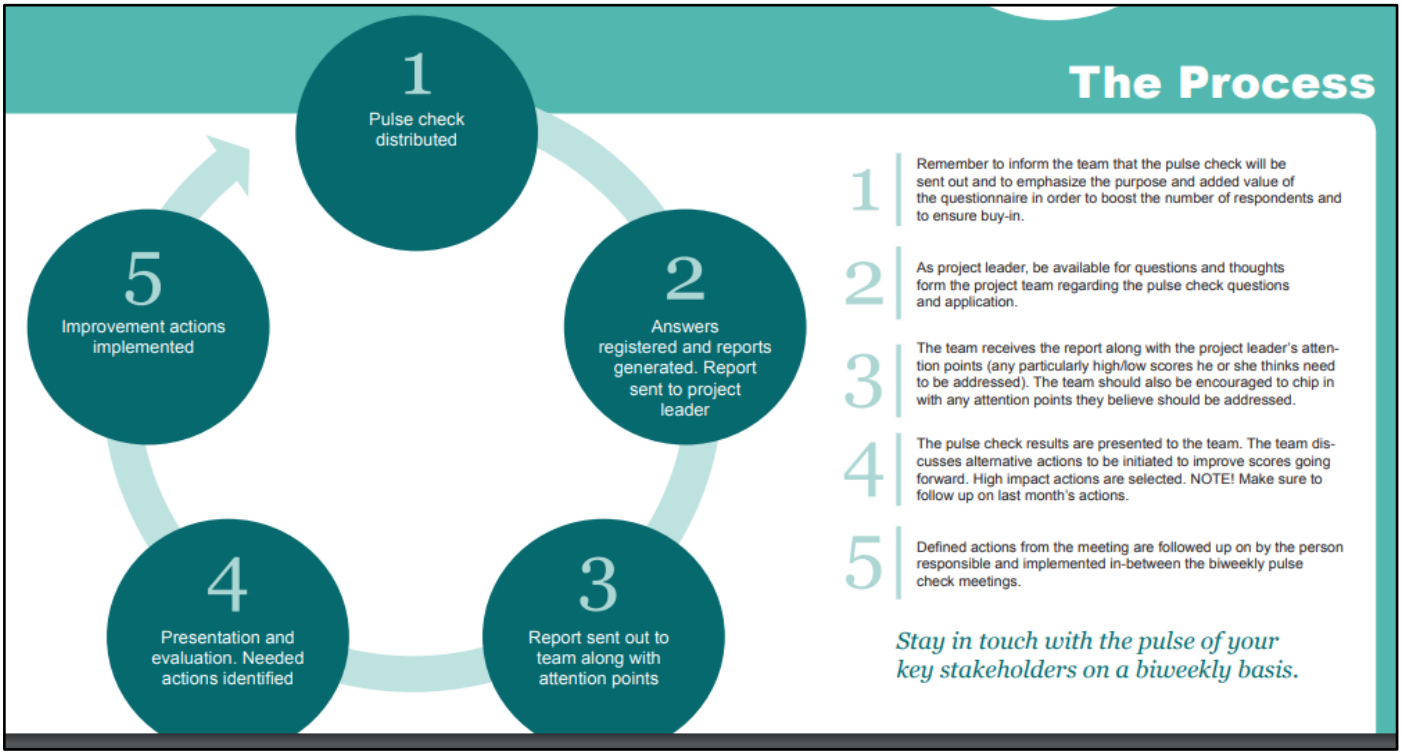
Different stakeholders demand different impacts, and these impacts are achieved at different points in the project process. Thus, it is of paramount importance that we continuously check the pulse of selected stakeholders. Monitoring our key stakeholders' satisfaction in real time enables us to take action and adjust processes on a regular basis.

The HDM provides the Pulse Check tool, a six-question survey that provides the basis for an ongoing feedback dialogue (Rode & Svejvig, 2021, p17).
The six questions are presented in section IV. (Monitoring Approach), under "*Key monitoring questions concerning stakeholders' satisfaction*".

According to the Half Double Institute (n.d.-b), the specific guidelines for Pulse Check are:

1. Identify and group key stakeholders.
2. Customise questions to align with the organisational culture and respondent groups.
3. Design the pulse check process to synchronise with the project heartbeat and the rhythm in key events.
4. Obtain buy-in and communicate the purpose, the tool, and the process to key stakeholders at an early stage.
5. Initiate the Pulse Check process depicted in Diagram 6.
6. Continuously reinforce the process and monitor participants' engagement. (Half Double Institute, n.d.-b.).

Diagram 6. The Pulse Check Process (retrieved from The Half Double Institute, n.d.-b).



Pulse Checks create the insights to data-driven dialogue needed amongst key stakeholders to ensure continuous focus on impact energising working conditions, collaboration, and personal development on the project (Rode & Svejvig, 2021, p17).

Data generated from Pulse Checks will provide insights to key stakeholders about effective practices and areas for improvement in the AMR EDUCAre project/work packages.

They will update and inform the Executive Board regarding the monitoring and assessment of the stakeholders' satisfaction and their perceived impact of the project. Furthermore, this data is anticipated to shape the upcoming Impact Solution Designs.

II. Flow

The second core element of the Half Double method is Flow.

Flow is defined as: "*a project state in which the people involved find themselves in a state of high intensity, frequent involvement, energised focus and enjoyment in the process they are currently engaged in*." (Half Double Institute, n.d.a).

By ensuring the flow of the project, we prioritise the project's speed and progression and reduce focus on optimisation of resources. We do this by using three methods that facilitate high intensity and frequent interaction: *co-location design, visual planning,* and *rhythm in key events* (Rode & Svejvig, 2021, p18; Half Double Institute, n.d.a).

These three methods will be presented below.

1) Co-location design

Co-location and highly allocated core team resources are essential to enhance productivity and reduce lead time. Co-location is about building the appropriate working conditions for high intensity and accelerated learning loops, helping the project to reduce issues with time and space and focusing on important tasks and activities (Rode & Svejvig, 2021, p18; Half Double Institute, n.d.a).

To enhance productivity, we highly recommend our partners to allocate core team members who work intensively (+50% of their time) on this project, and ideally no more than two projects at the same time, as this was proven as the most efficient way of working with development (Half Double Institute, n.d.a).

2) Visual planning

Visual tools and plans provide a quick overview of complexity, making them ideal to enhance stakeholders' commitment and alignment, and to reach a common understanding of the matter. Visuals can be used to describe plans and to explain how each activity is connected with the overall idea, or to facilitate group sessions and sprint planning (Half Double Institute, n.d.-c; Rode & Svejvig, 2021, p18).

The Half Double methodology proposes the Visual Sprint Plan as a tool for team work coordination, tracking progress and improvement ideas (Ibid). The visual sprint plan is a short-term breakdown of the impact solution design (or overall milestone plan) leading to a tangible project output to create value (business impact). It includes a sprint risk assessment, a risk action plan and sprint improvement ideas (Half Double Institute, n.d.-d).

The steps to create the Visual Sprint Plan are:

1. Gather the core team and share the project overview on the left side of the poster (board).
2. Determine the sprint output to create value in the short term.
3. Each team member breaks down activities for each day/week and shares it with the rest of the team to coordinate efforts.
4. Define simple Team Performance Indicators to follow up on progression e.g. # of activities completed per week.
5. Brainstorm and evaluate possible project risks and define actions to mitigate (develop a risk action plan).
6. Brainstorm and identify sprint improvement ideas related to project output, process or people.
7. Wrap-up: Conclude on actions and structure for weekly status meetings in the sprint (Ibid).

In AMR EDUCAre, we encourage partners to use the Visual Sprint Plan for detailed planning of the sprint (usually 4 weeks in duration).
It is the work package project leader's and the co-leader's responsibility to ensure that the visual sprint plan is filled in and updated on a weekly basis by the team members, as this will contribute to frequent interaction and to constant and intense progress in their work package and the project.

A template of the Visual Sprint Plan, Sprint Risks and Risk Action Plan and the steps to create them are provided in Figure 5. These visual tools will be used in AMR EDUcare for monitoring and assessing project activities.

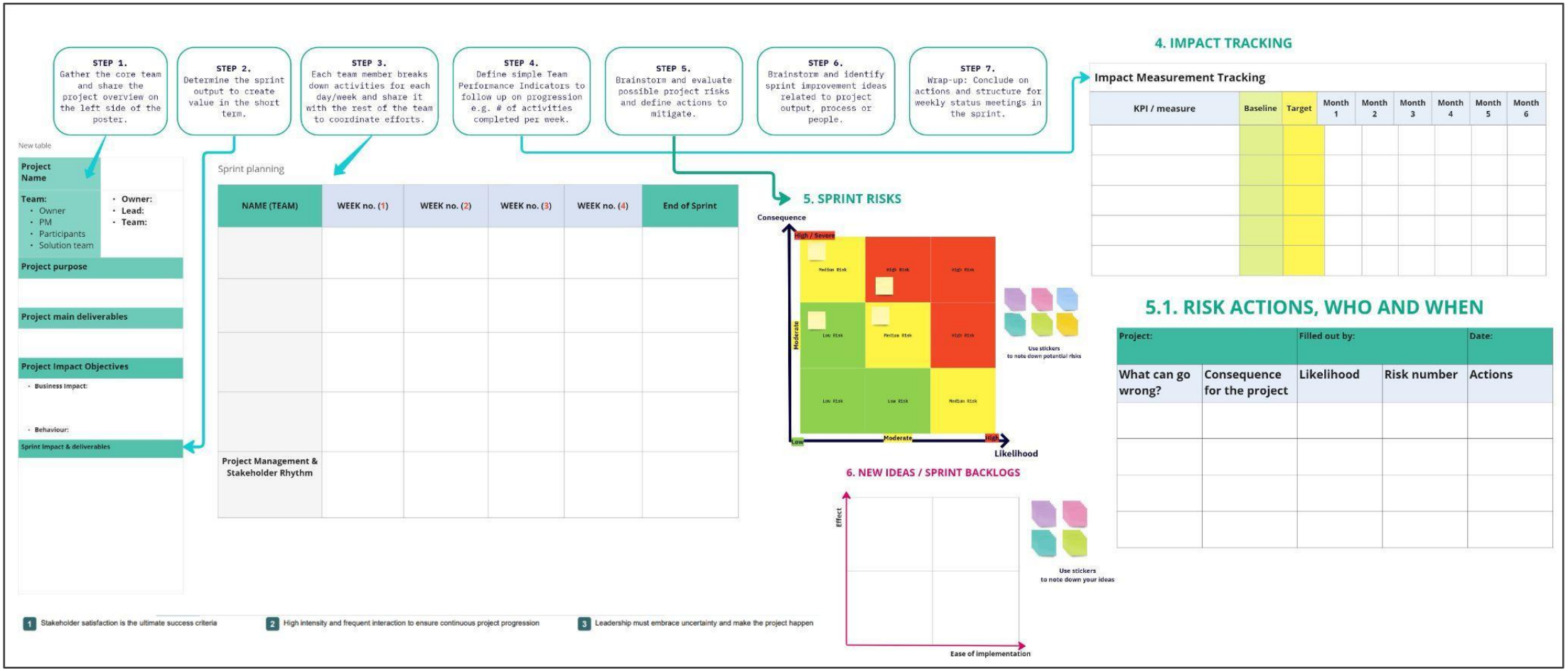


Figure 5. Visual Sprint Plan and related actions

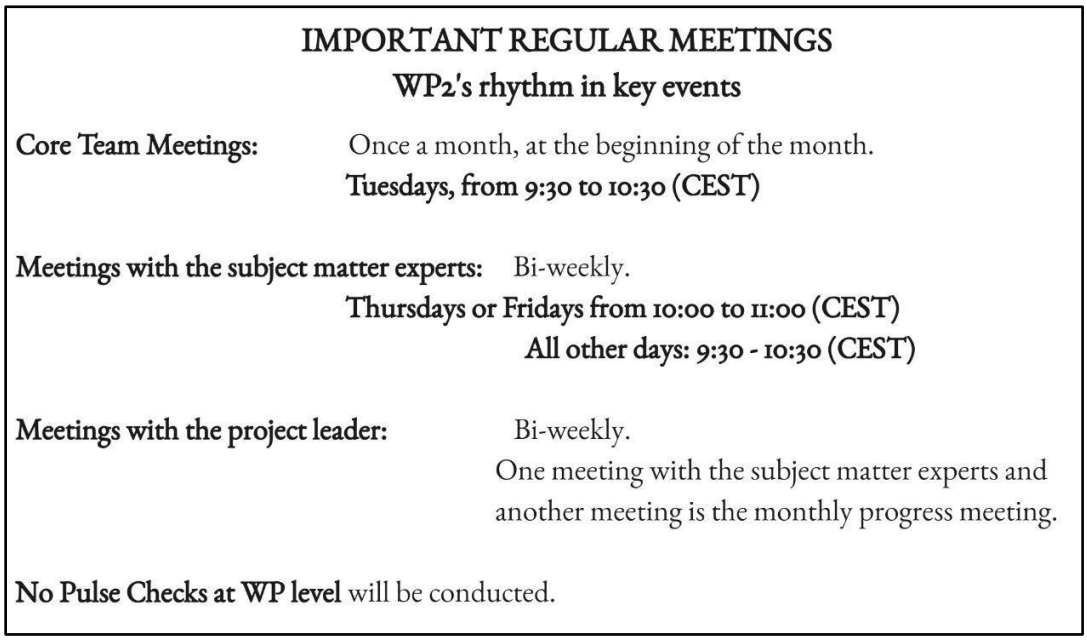
3) Rhythm in key events

Establishing a fixed project heartbeat and rhythm in key events is crucial for any project, as these create higher energy, improved efficiency, better quality, and faster development speed (Rode & Svejvig, 2021, p18).

The rhythm in key events tool will facilitate frequent interaction and will support project and work package coordinators and team members to stay engaged, focused and active throughout the project. The high intensity of these events will ensure weekly progress in the project, leading to early value creation (reduced time to impact) (Half Double Institute, n.d.-d).

The project heartbeat should be designed around six key events, namely: sprint planning, daily visual status, weekly solution feedback, planning the next week, review sprint solution and pulse check feedback (Half Double Institute, n.d.-c; Rode & Svejvig, 2021, p18).

An example of a potential Rhythm in Key Events at work package level is provided below.



IMPORTANT REGULAR MEETINGS

WP2's rhythm in key events

Core Team Meetings: Once a month, at the beginning of the month.
Tuesdays, from 9:30 to 10:30 (CEST)

Meetings with the subject matter experts: Bi-weekly.
Thursdays or Fridays from 10:00 to 11:00 (CEST)
All other days: 9:30 - 10:30 (CEST)

Meetings with the project leader: Bi-weekly.
One meeting with the subject matter experts and another meeting is the monthly progress meeting.

No Pulse Checks at WP level will be conducted.

Figure 6. Example of Rhythm in Key Events at WP level.

III. Leadership

The Half Double methodology identifies three behaviours that project / work package leaders should embrace for projects to be successful: active ownership behaviour, reflective and adaptive behaviour, and collaborative leadership behaviour (Rode & Svejvig, 2021, p19).

In AMR EDUCare, we recognize the pivotal role of individuals in the project, and prioritise the team and stakeholders by nurturing a sense of purpose, autonomy and expertise.

Leadership involves driving the project forward with a shared vision, energising partners and stakeholders, and guiding the team towards optimal contributions.

We anticipate our partners' firm commitment and active engagement in realising the project or work package desired impact on an ongoing basis. Leaders are expected to be reflective in action and swiftly adapt to encountered changes. This involves embracing the evolving environment ("*say yes to the mess*"), understanding stakeholder actions, and learning from outcomes.

Ultimately, in AMR EDUCare, the focus of our leadership centres on driving impact and value creation while being adaptable with deliverables.

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Appendices

Appendix 1. Key traditional M&E activities in the project cycle and their practical application within the AMR EDUCare project

Initial needs assessment

The *initial needs assessment* has been already conducted in the initial phases of the project planning, when the project owners have determined the need of the project and informed its planning.

Logframe and indicators

The *logframe and indicators* are developed to inform the reader on the operational design of the project, and its objectives, indicators, means of verifications and assumptions. These are included in this M&E protocol, in the next subchapter (3. The AMR EDUCare Logic Model and Indicators)).

M&E planning

The *M&E planning* refers to the practical planning to monitor and evaluate the logframe's objectives and indicators, as well as the Impact Cases' KPIs.

Baseline studies

The *baseline studies* will be used to measure the initial conditions (appropriate indicators) before the start of the project, and will be conducted only for specific indicators. The need for baseline studies is specified in Table 1., in the 'Baseline' column.

Midterm evaluation and reviews

The midterm evaluation and the reviews are essential events to reflect on, evaluate, and inform the ongoing implementation of the project / training. The data will be presented to key stakeholders through the Impact Case reports and the process evaluations.

Final evaluation

The final evaluation will occur at the end of the project and will assess how well the project achieved its intended objectives and evaluate its impact.

Dissemination and use of lessons

Dissemination and use of lessons is another key event in the M&E project activities, as lessons learnt contribute to the ongoing program refinement. The lessons learnt presented at the project's completion can be used for future recommendations and as a starting point for future projects and interventions.

Reflection, reporting. and learning

Finally, *reflection, reporting. and learning must* persist during the entire project duration, and therefore, these components have been positioned at the diagram's core.

NOTE: Adapted from IFRC (2011, p10-11).

Appendix 2. The HDM Impact Tracking Tool

Impact Measurement Tracking

IMPACT MAP
(insert picture of Impact Case)

Impact Objectives	Impact Measurement Tracking								
IMPACT:	KPI / measure	Baseline	Target	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
Impact 1									
Impact 2									
Impact 3									
Impact 4									
Impact 5									
BEHAVIOURAL IMPACT:									
Behavioural Impact 1									
Behavioural Impact 2									
Behavioural Impact 3									
Behavioural Impact 4									
Behavioural Impact 5									

Appendix 3. Pulse Check Report

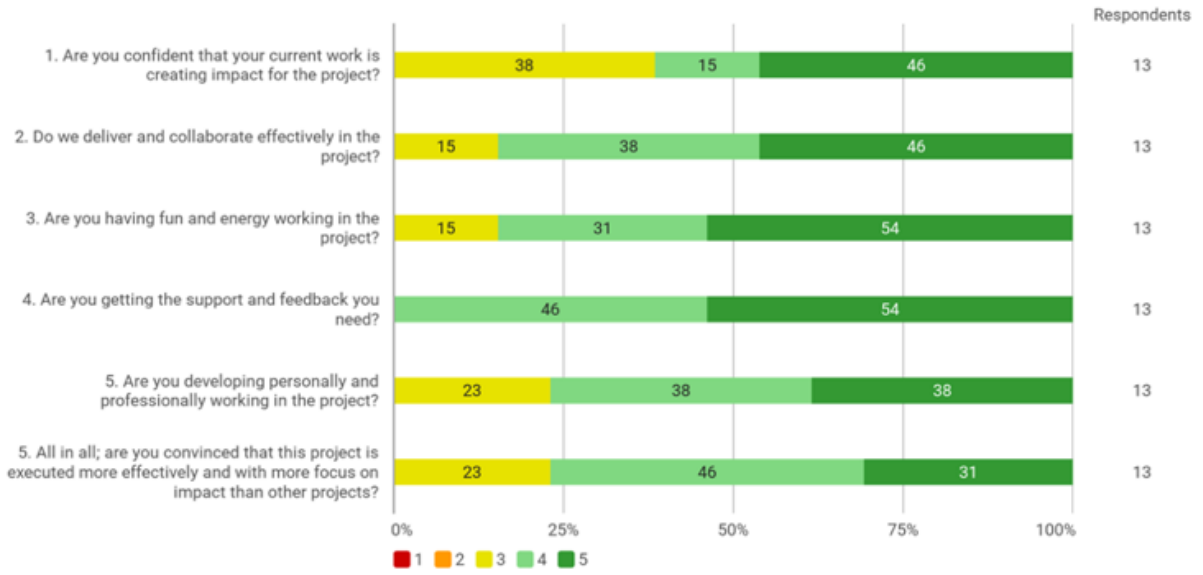
AMR Pulse Check, July 2023

Overall Status

	Percent	Respondents
New	0.0%	0
Distributed	46.2%	18
Partially Complete	10.3%	4
Complete	33.3%	13
Rejected	10.3%	4
Total	100.0%	39

Your primary work packge

	Percent	Respondents
WP1: Project Management	5.9%	1
WP2: Antimicrobial Prescribing Optimization	23.5%	4
WP3: Antimicrobial Waste Reduction and Management	17.6%	3
WP4: Patient Empowerment	5.9%	1
WP5: Digital Health Skills and Behavioural Change	5.9%	1
WP6: Monitoring and Evaluation	5.9%	1
WP7: Training and Communication	23.5%	4
WP8: Sustainability	11.8%	2
Total	100.0%	17



	Observed minimum	Observed maximum	Average	N
1. Are you confident that your current work is creating impact for the project?	3.00	5.00	4.08	13
2. Do we deliver and collaborate effectively in the project?	3.00	5.00	4.31	13
3. Are you having fun and energy working in the project?	3.00	5.00	4.38	13
4. Are you getting the support and feedback you need?	4.00	5.00	4.54	13
5. Are you developing personally and professionally working in the project?	3.00	5.00	4.15	13
5. All in all; are you convinced that this project is executed more effectively and with more focus on impact than other projects?	3.00	5.00	4.08	13

Other feedback, comments or suggestions?

A monthly/regular whole-consortium or WP leaders/co-leaders meeting could be useful to not loose sight of how the project is progressing and ensure that we are on track. It would also help to create synergy between WPs.

Appendix 4. Common Types of Monitoring

TABLE 1: Common types of monitoring
Results monitoring tracks effects and impacts. This is where monitoring merges with evaluation to determine if the project/programme is on target towards its intended results (outputs, outcomes, impact) and whether there may be any unintended impact (positive or negative). **For example,** a psychosocial project may monitor that its community activities achieve the outputs that contribute to community resilience and ability to recover from a disaster.
Process (activity) monitoring tracks the use of inputs and resources, the progress of activities and the delivery of outputs. It examines how activities are delivered – the efficiency in time and resources. It is often conducted in conjunction with compliance monitoring and feeds into the evaluation of impact. **For example,** a water and sanitation project may monitor that targeted households receive septic systems according to schedule.
Compliance monitoring ensures compliance with donor regulations and expected results, grant and contract requirements, local governmental regulations and laws, and ethical standards. **For example,** a shelter project may monitor that shelters adhere to agreed national and international safety standards in construction.
Context (situation) monitoring tracks the setting in which the project/programme operates, especially as it affects identified risks and assumptions, but also any unexpected considerations that may arise. It includes the field as well as the larger political, institutional, funding, and policy context that affect the project/programme. **For example,** a project in a conflict-prone area may monitor potential fighting that could not only affect project success but endanger project staff and volunteers.
Beneficiary monitoring tracks beneficiary perceptions of a project/programme. It includes beneficiary satisfaction or complaints with the project/programme, including their participation, treatment, access to resources and their overall experience of change. Sometimes referred to as beneficiary contact monitoring (BCM), it often includes a stakeholder complaints and feedback mechanism (see Section 2.2.8). It should take account of different population groups (see Section 1.9), as well as the perceptions of indirect beneficiaries (e.g. community members not directly receiving a good or service). **For example,** a cash-for-work programme assisting community members after a natural disaster may monitor how they feel about the selection of programme participants, the payment of participants and the contribution the programme is making to the community (e.g. are these equitable?).
Financial monitoring accounts for costs by input and activity within predefined categories of expenditure. It is often conducted in conjunction with compliance and process monitoring. **For example,** a livelihoods project implementing a series of micro-enterprises may monitor the money awarded and repaid, and ensure implementation is according to the budget and time frame.
Organizational monitoring tracks the sustainability, institutional development and capacity building in the project/programme and with its partners. It is often done in conjunction with the monitoring processes of the larger, implementing organization. **For example,** a National Society's headquarters may use organizational monitoring to track communication and collaboration in project implementation among its branches and chapters.

Original table retrieved from the IFRC (2011, p12).