HR PACK – PROGRAM DATA MANAGEMENT FOR HUMANITARIAN AID AND INTERNATIONAL DEVELOPMENT CSOs

STRUCTURING PROGRAM DATA MANAGEMENT RESPONSIBILITIES WITHIN YOUR ORGANISATION: 5 "TYPICAL CASE" SCENARIOS

cartong

CARTONG

Created in 2006, CartONG is a French H2H/support NGO specialized in Information Management. Our goal is to put data at the service of humanitarian, development and social action projects. We are dedicated to improving the quality and accountability of field activities, in particular through better needs assessments and monitoring and evaluation. We act as a multidisciplinary resources and expertise centre, accompanying our partners' strategies and operations. Our staff and volunteers also support the community as a whole by producing documentation, building capacities and raising awareness on the technical, strategic and ethical challenges of digital technologies.

ACKNOWLEDGMENT

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1. WHY REVERT TO A SCENARIO-BASED APPROACH?

This document outlines the options for sharing program data management responsibilities[1], by specifying "traditional" roles, their functions, and by describing the ties that exist between these roles. A scenario-based approach thereby helps to link an organisation's context, objectives, priorities and constraints to its program data management organisation chart.

The skills and know-how required to ensure that the responsibilities incumbent upon each role are detailed in the document created to help you implement the most suitable scenario for your organisation[2], drawing the link between the document *The professional frame of reference put into practice: a detailed overview of program data management skills to help frame your HR needs* and the present document.

Although the ideas and scenarios put forward in this document are intended to serve as examples, it is worth noting that they do not reflect the overall realities of civil society organisations as a whole and that this document does not purport to be exhaustive. The ideas and scenarios listed below are indicative and may be considered adjustable and used as groundwork for reflection.

1.1. COUNTER-EXAMPLES THAT SHOULD BE AVOIDED

The purpose of this document is also to initiate discussion on the models presented in order for francophone CSOs to avoid creating "counter-productive" scenarios. Amongst these:

- Technical or performer profiles supervised by a person lacking the necessary skills to provide guidance on methodological and strategic issues.
- Absence of clear roles and/or skills in terms of data quality and protection, even though sensitive data is collected.
- Concentration of responsibilities and skills at the level of a single person, whereas grounds of intervention are numerous (i.e., understaffing issues).

The scenarios put forward therefore make it possible to develop certain examples in the form of standard ideals, as a guide to good practices in the organisation of program data management responsibilities, and to avoid the above-mentioned pitfalls.

1.2. WHO CAN USE THESE SCENARIOS? AT WHAT POINT?

These scenarios can be used by both **headquarters** and **field teams**, whether by a **person involved in program data management** or by an **HR department** who wants to understand how program data management skills and responsibilities can be distributed between different roles or positions within a team.

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[1] Also referred to as Information Management – for more information on the use of these terms, see the study <u>Program data: The silver bullet of the humanitarian and development sectors?</u>, CartONG, September 2020
[2] See: "A tool to implement the most suitable scenario for your organisation: which skills are needed for which positions?"

Among other things, these scenarios can be particularly useful when:

- Thinking strategically about the distribution of program data management responsibilities and associated competencies within an organisation or team.
- Thinking about the scope of roles or positions that have a program data management component and how they are supervised and supported.

These scenarios are found to be most helpful when used in conjunction with other documents of the HR pack:

- The professional frame of reference put into practice: a detailed overview of program data management skills to help frame your HR needs
- A tool to implement the most suitable scenario for your organisation: which skills are needed for which positions?

2. HOW TO INTERPRET AND UNDERSTAND THESE SCENARIOS?

Each "typical case scenario" includes:

1. **A definition of the context**, to understand in which case the application of said scenario is recommended.

2. **A description of a typical case organisational scenario**, detailing the responsibilities of each "role" within the organisation and the relationships between them, including two parts:

   a. A concise visualisation of the scenario (diagram and table)

   b. A detailed description of the responsibilities associated with each role

Responsibilities are not assigned to specific positions but to "roles" in program data management, on the understanding that job titles, and maybe even the jobs themselves, are not always harmonised between, or even within, the various Humanitarian Aid and International Development organisations.

For each scenario, the organisation at headquarters that seems most appropriate to oversee these responsibilities in the field is also described.

All of the scenarios below have been designed for application to a CSO having both headquarters and a number of initiated projects in various countries (also known as missions below), each country having national coordination and local entities for project implementation. Where CSOs are conducting operations in a single country, the scenarios described below remain valid, and the concepts of headquarters and coordination are considered to be equivalent.

3. **A summary of benefits, limitations and risks**, to understand whether the scenario is the one that best fits the organisation in accordance with its needs and priorities, and the risks associated with choosing an inappropriate scenario.

4. **A few ideas for adapting scenarios**, in order to support adjustment of the typical case scenario to different contexts.

Please not that some adaptations, see below, are generic and therefore applicable to any typical case scenario:

Skills and responsibilities that evolve in an environment: the program data management, M&E and IT triptych

The responsibilities related to program data management evolve in an environment surrounded by posts with complementary skills and responsibilities; this is true for instance of teams charged with Monitoring and Evaluation (M&E), but also of IT teams (or even ICT4D or innovation)[3].

The responsibilities (and consequently the necessary associated skills) of the people in charge of program data management are thus dependent on their environment. For instance, if an organisation has no IT department, then the role responsible for program data management shall also have to take an interest (and have the associated skills) in IT-related aspects of program data management. Conversely, if the organisation's IT department is highly developed, the person in charge of program data management will likely have reduced responsibilities and limited space for manoeuvre, being under the constraint of strong IT policies; however, said person will still need to have certain skills so as to engage in dialogue with the IT teams – or even, where necessary, to influence IT policies. The same is true for M&E, program data management responsibilities are determined on the basis of the scope of responsibilities held by the M&E teams.

In some cases, program data management responsibilities are held by those in charge of M&E, a combination that, at times, is deemed logical and useful. This approach is thus reiterated in certain scenarios put forward in this document whilst underlining its limits, given the difficulty of finding a person having these dual skills. It is hence important to recall that the responsibilities and by association the skills covered by both M&E and program data management are quite distinct and that the scenarios presented below only focus on skills inherent to program data management.

The DPO's role

Since the advent of the GDRP – General Data Protection Regulation – organisations have an obligation to recruit a Data Protection Officer responsible for ensuring respect of the legal framework, including compliance with the protection and application of security safeguards with respect to personal data, and for communication in the event of data breaches or risk of exposure. In practice, the scope – and above all the intervention capacities – of the DPO varies from one organisation to another, particularly when dealing with project data. Nonetheless, all organisations do not – yet – have a formal liaison with the DPO within missions, departments or projects. As such, the other posts or roles in charge of program data management are more or less concerned by strategic responsibilities for data protection on the basis of existing organisational arrangements on data protection.

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[3] For more information on the use of these terms see the study Program data: The silver bullet of the humanitarian and development sectors?, CartONG, September 2020

3.   WHAT SCENARIO WOULD BE BEST?

The purpose of this section is to describe the various key elements that allow us to quickly identify and distinguish the five typical case scenarios. In the following five sections, each of the scenarios will then be presented in detail in order to help organisations orient themselves towards the scenario that is best suited to their context.

SCENARIO A: LIMITED RESPONSIBILITIES, DISPERSED AMONG EACH PROJECT (PAGE 6)

- Poorly articulated projects at organisational or mission level
- Each project has its own organisation in data management
- Data analysis needs are limited to operational decision-making and reporting (lack of general visualisation)
- No complex needs (such as case management) or sensitive data.
- Small amount of data to be processed (i.e., tables with less than 10,000 inputs)

SCENARIO B: TECHNICAL RESPONSIBILITIES APPLIED TO AN INTERVENTION (PAGE 10)

- Highly specialised organisation in a particular subject area
- Existence of technological solutions specific to the sector of intervention (e.g., health or water)
- A technological solution that plays a central role in the organisation's intervention modalities (e.g., patient monitoring software)
- Training of specialised personnel in the data management solution (or easy implementation); existence of dual expertise (sectoral and program data management)

SCENARIO C: COORDINATED GENERAL RESPONSIBILITIES (PAGE 14)

- Need for coordinated management of program data (common strategy at national level or by multi-zone project)
- Projected or implemented deployment of M&E teams
- No complex needs (such as case management) or sensitive data
- Data volume remains rather low
- Data analysis needs limited to operational decision-making and reporting. Lack of complex visualisation, it is therefore not necessary to deploy a multitude of technical tools (e.g., 1 MDC solution with Excel is enough for management and analysis)

SCENARIO D: TECHNICAL, SPECIALISED AND COORDINATED RESPONSIBILITIES (PAGE 18)

- Need for coordinated management of program data (common strategy at national level or by multi-zone project)
- Longitudinal data collection and analysis on an ad hoc basis
- Collection of sensitive data
- Significant amount of data
- Involvement of a few external players in data management (e.g., partners, open data)
- Complex and frequent needs for data analysis (maps, qualitative analyses, various graphs), involving a greater diversity of technical solutions.

SCENARIO E: SPECIALISED AND CENTRALISED RESPONSIBILITIES WITHIN A DEPARTMENT (PAGE 24)

- Need for coordinated management of program data (common strategy at national level or by multi-zone project)
- Involvement of a few external players in data management (e.g., consortium)
- Data management features as a strong component of a program, which may involve one or more sectoral data management solutions
- Significant amount of collected data
- Complex data collection needs (such as case management) or large-scale collection of sensitive data
- Frequent needs for automatically updated analyses and visualisations (dynamic maps, dashboards)
- Wide variety of technical solutions (e.g., multiple MDC tools powering multiple management and visualisation tools)

4. SCENARIO A: LIMITED RESPONSIBILITIES, DISPERSED AMONG EACH PROJECT

4.1. BACKGROUND DESCRIPTION

Environment within the organisation (structure, project type, etc.)

Projects are not specifically coordinated or articulated among themselves, at least from a data management perspective. Each project may have its own information management process, according to its needs (own tools and data models, etc.) since the data does not need to be frequently aggregated or harmonised at a global level.

This type of background is often that of CSOs working in a development context, managing project portfolios rather than missions. Project managers are very autonomous and may have their own tools and methods, which do not necessarily need to be harmonised at the organisational level.

Needs around data

The information required is simple to collect, manage and analyse. This for instance does not apply to case or sensitive data management, to indicators requiring longitudinal analysis or complex calculations. There is a small amount of data to process (table with less than 10,000 inputs): process automation is thus not necessarily synonymous with greater efficiency.

Analysis needs are limited to operational decision-making and possibly simple reporting, thus requiring no extensive expertise around analysis (e.g., statistics) or data visualisation (absence of spatial analysis and dashboard). From a strategic point of view, the needs are fairly basic and boil down to ad hoc, circumstantial and selective choices of data management tools and methods.

4.2. DESCRIPTION OF THE ORGANISATIONAL SCENARIO

In this scenario, responsibilities are shared between the roles of manager and technical and methodological support: responsibilities are dispersed at project level and the technical and methodological support role provides support only when necessary and/or requested.

Figure 1: Structure of the roles and responsibilities of scenario A
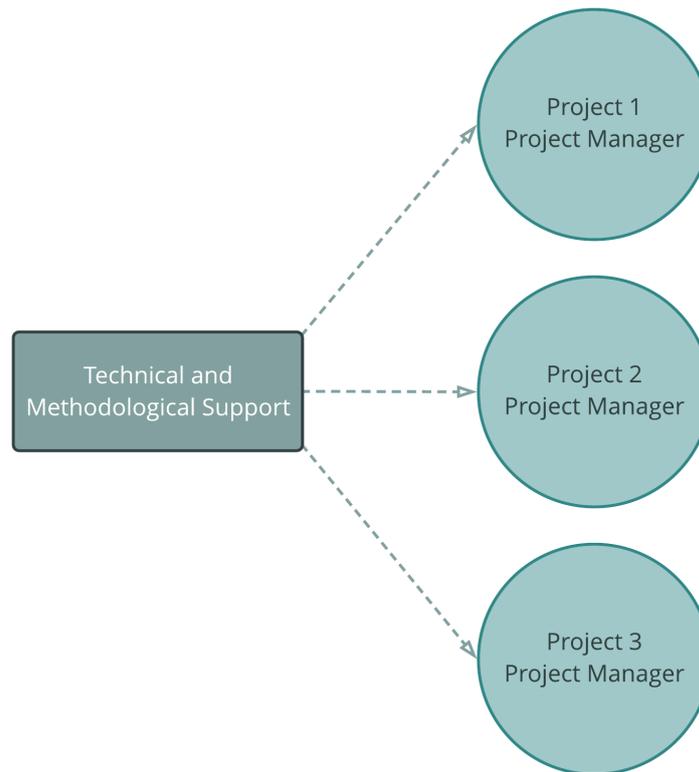
Project Manager role	Technical and Methodological Support role
Depending on the needs of each project, the level of responsibilities related to program data management may vary slightly but remains concentrated around direct execution tasks. If strategic responsibilities are needed, they are confined to each project. The job description is not exclusively devoted to program data management but for it to contain assigned responsibilities is rather useful.	In this scenario, the responsibilities related to program data management technical support may be fulfilled by a person at headquarters or in coordination/capital, or even directly in the intervention area (for example a technical referent). The location of the post (headquarters/capital/field) will depend first and foremost on the number and size/complexity of projects to be supported and on whether remote monitoring is possible.
These responsibilities may be exercised directly by the Project Manager or distributed amongst the Project Team (lead, assistant).	It is not mandatory for the job description to be purely devoted to program data management but for it to contain assigned responsibilities is rather useful.

The **Project Manager's role** in this scenario consists, from a methodological point of view, in preparing the data management plan for the project in question: assess and anticipate data collection, process, analyse and protect needs during the project cycle, and select appropriate tools. This role is also responsible for the preparation and maintenance of the databases, from organising data collection to preparing the questionnaire and finally, to exporting the data. The Project Manager is also directly responsible for data analysis and for realisation of the analytical visuals (graphic or simple map). Finally,

the person occupying this role is required to guarantee application of the organisation's directives in terms of data protection (e.g., password protection).

Project Manager roles can receive **technical and methodological support**, from one or several referent persons, more experienced and competent in data management. Said support can be methodological (analysis of collection needs throughout the project cycle) or technical (collection, database management, production of analyses and visuals). Support should also be able to provide basic guidance elements (e.g., data protection or quality, drafting of procedures, etc.).

Headquarters' involvement: The crucial involvement of headquarters in this scenario lies in the provision of technical and methodological support to accompany the data management processes in the field. If such post is not provided for at headquarters, it is necessary to either provide a budget to outsource this function (c.f. Possible adjustments section) or ensure that people in the field have the minimum skill levels (c.f. Risks section).

4.3. BENEFITS, LIMITATIONS AND RISKS

The **advantage** of this scenario is that it is flexible and easy to implement, allowing managers a broad margin for manoeuvre, as the latter can benefit from specific or ad hoc support when needed.

This scenario undoubtedly has its **limits** for an organisation, particularly for a humanitarian NGO, which must compile data and provide said data responsively to enable good coordination in response to crisis. Indeed, this scenario makes it impossible to operate efficiently when it comes to harmonising and aggregating data, given that each project manages its data independently. It also requires recruiting project managers or project teams with a fledgling interest for data management, which is not always feasible. Nor is this scenario appropriate when an organisation wishes to have aggregated data on which to demonstrate its impact as an organisation (OSC data driven) or document its advocacy.

The associated **risks** are above all failing to provide an organisation-wide vision because of a project-centric analysis that is not necessarily transposable on a macro level. This could lead to erroneous aggregation of data (e.g., using non-compatible data formats).

A lack of capitalisation and defined data management policy in an organisation such as this can lead to the loss of effective working methods in the event of employee turnover since processes are left to the discretion of project managers.

More generally, particularly if the technical and methodological support role is not available, there is a high risk of technical and methodological errors (erroneous analysis, non-protection of personal data etc.). As data management skills are increasingly complex and diverse, it is indeed becoming more difficult, if not impossible, to find project managers with sectoral, project management and cross-disciplinary (such as in data management) skills. Without adequate support, the organisation must also be prepared to endure recurrent setbacks (inappropriate choice of tools, data loss, etc.) or even to endanger certain populations or players, in the event

for instance that said organisation is not conscious of storing sensitive data without adequate protection.

4.4. POSSIBLE ADAPTATIONS OF THE SCENARIO

Possible variations occur mainly around the types of posts that concentrate responsibilities and skills, depending on the need for technicality but also on available profiles:

Adaptation 1 – Addition of an M&E/program data management focal point at the project role level

Instead of being at the heart the project, and especially where there is more than one project on the same theme, an M&E role independent of the project team can focus the greater part of the program data management skills mentioned above, in coordination with the project team, on methodological responsibilities.

This could provide an alternative to technical support, especially when more advanced technical and methodological execution skills are needed at field level. Similarly, if multiple projects are implemented in the same area, this allows for skills to be concentrated into a single post. It is however necessary for the person recruited to this end to have sufficient program data management capabilities that fall within the scope of the above-mentioned responsibilities.

Adaptation 2 – Case management or sensitive data collection

Case management, i.e., longitudinal follow-up via the repeated collection of data from the same individual or regarding the same entity (ex: monitoring of water points), calls for advanced skills in the preparation and maintenance of databases, the organisation of said collection – particularly in the selection of suitable software – but also as regards quality and traceability of the data. Similarly, in the case of personal and sensitive data collection (medical data, activists' data, etc.) it is absolutely necessary that data protection-specific qualifications be demonstrated.

More broadly, complex treatments such as case management or sensitive data collection require more accomplished methodological planning. Therefore, in most configurations, scenarios B or C are recommended, subject to risk and error.

Adaptation 3 – Outsourcing of certain technical skills

Instead of having a methodological and technical support function in coordination or at HQ, the latter could potentially be outsourced, particularly in the event of ad hoc and advanced technical needs. This is particularly the case for data visualisation responsibilities, such as mapping or the creation of complex dashboards.

5. SCENARIO B: TECHNICAL RESPONSIBILITIES APPLIED TO AN INTERVENTION SPECIALITY

5.1. BACKGROUND DESCRIPTION

Environment within the organisation (structure, project type, etc.)

This scenario mainly corresponds to organisations whose activities focus on an area of intervention in which they have an established expertise, such as strengthening health systems, combating deforestation, etc. This case is particularly relevant to organisations involved in development, but also to thematic humanitarian organisations.

The organisation uses either its own technical solution (developed especially for it) or a solution that is specific to the area of intervention, such as DHIS2 (health) or mWater (WHS). This solution can be developed directly by the organisation or provided by an external provider. The organisation's means of intervention are then coordinated around the technical solution used (for instance, in the case of patient management software) and the latter forms an integral part of the organization's intervention logic.

Teams are often made up of technical experts in the field of expertise (e.g., doctors, agronomists, hydraulics) and their members may also have data management skills, such as dual data processing skills. In this respect, experts in program data management with sector-based specialisations do exist on the labour market.

Needs around data

As data management is part of the organisation's intervention logic, the volumes to be managed are significant and the needs complex, both in terms of collection (longitudinal monitoring for instance) and analysis and processing (cross-referencing numerous data sources, dynamic visualisations, amongst others).

5.2. DESCRIPTION OF THE ORGANISATIONAL SCENARIO

In this scenario, the responsibilities pertaining to methodological planning, data collection and management, as well as the processes guaranteeing their quality, are central. The importance of responsibilities in favour of visualisation and data protection varies from one organisation to the next, depending on the area of intervention and the type of data collected. Globally, in this scenario, expectations in terms of technical skills are high. As in the previous scenario, responsibilities are present at two main levels: technical support, which corresponds to a technical support and training role and project, which nonetheless comprises several roles: (i) a management role, there to define needs and guidance (ii) a technical role in program data management and (iii) possibly a complementary M&E role with limited but necessary data management skills.

Figure 2: Structure of the roles and responsibilities of scenario B
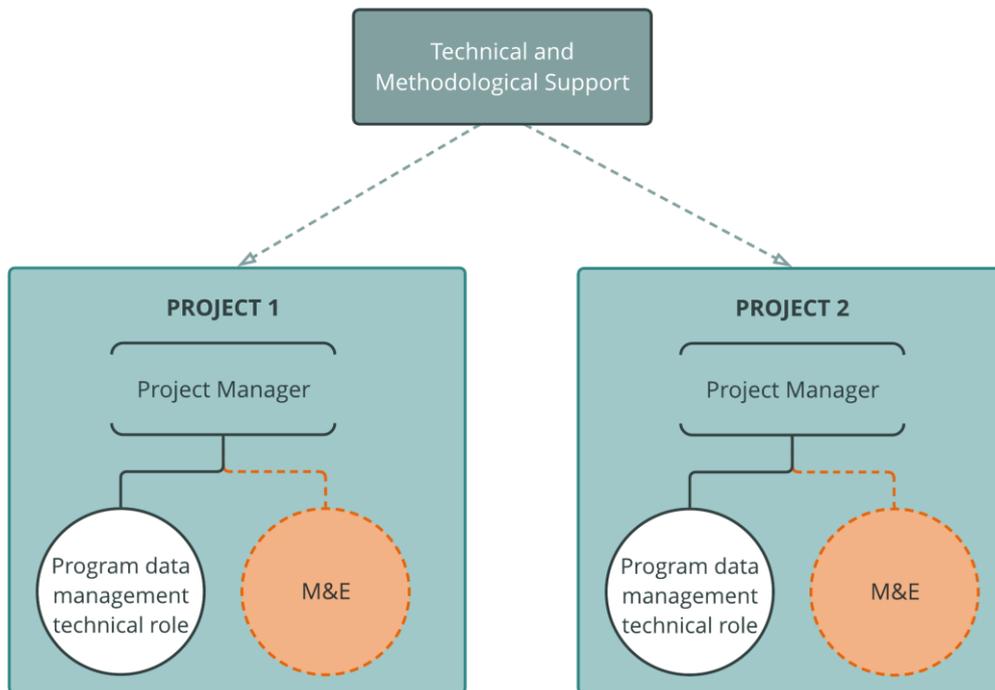
Technical and Methodological Support role	Project Manager role
In this scenario, the responsibilities related to the technical and methodological support of teams may be fulfilled by a person at headquarters or in coordination/capital, or even directly in the intervention area. This role can for instance be held by a technical referent.	In this scenario, the Manager role refers to the responsibility for consistency of program data management processes that can be achieved by guiding the strategy, based on the technical skills of the colleagues that the role is managing. These responsibilities may be carried out directly by the Project Manager.
Program data management technical role	**M&E role (optional)**
The level of responsibility and the type of technical skills required for this role will vary from one project to the next depending on the needs (e.g., spatial visualisation or not). Ideally, this role should be held by a dedicated project team member such as a program data management specialist or manager (i.e., a cartographer, a health database manager, etc.)	Here, the M&E role refers to the responsibilities and competencies linked to the "simple" tasks of managing data related to the Monitoring and Evaluation plan, such as data collection or aggregation for indicators. The purpose of this role is to facilitate collaboration with the program data management specialist. This role is held by the project M&E Manager or by a member of his/her team.

The **Project Manager role** is central to data management in this scenario. Strategically, it is indeed essential that the technical role be supervised by someone capable of understanding the basic issues surrounding data management. The Project Manager provides the person taking on the technical responsibilities with guidance on data management and contributes his/her expertise to both activities and M&E. He or she determines the strategic orientations (priorities, resources allocated) and handles the program data management technical role.

The person who holds the **Program Data Management Technical Role** is responsible for day-to-day data management, from collection to analysis. This role must execute requests made by the project manager, whilst guiding him/her towards program data management best technical and methodological practices. He/she escalates the issues that he/she encounters and popularises them to help the project manager make the best decisions.

The **M&E role** is optional in this scenario, according to needs. If the technical role focuses too much attention on day-to-day activities surrounding data, he/she may be less available to support ad hoc monitoring and evaluations (surveys, etc.). It is therefore important that the M&E teams are able to either collect and manage their own data for monitoring and evaluation, or to collaborate appropriately with the technical role. In both cases, the M&E role should have at least some basic skills in data collection and management, but above all good knowledge of the issues concerning data and the ability to anticipate the data management needs of the Monitoring and Evaluation plan.

The **technical and methodological support role** should be filled by one or several persons with proven experience in data management. It is, above all, a role meant to provide advice on data management strategy and determination of data quality. Its added value also concerns the responsibilities that come with (i) training specific technical teams and (ii) cross-training all teams in order to reinforce a data-driven culture within the organisation.

Headquarters' involvement: When the Technical Support and Training collaborator is based at the organisation's headquarters, he/she may collaborate with one or with several different services (operations, quality, IT, innovation...), and one or several persons may fill the role depending on the areas of intervention. An IT-specific role may also be necessary to manage purely IT aspects and/or the relationship with the operator providing the tool, for instance if a solution requires managing a server at the corporate level.

5.3. BENEFITS, LIMITATIONS AND RISKS

This scenario has the **advantage** of being flexible, allowing the project managers a great margin of manoeuvre. It allows for **very specialised and project-specific technical skills** to be provided and for a thorough response to be given to said projects.

This scenario does, however, have its **limitations** for an organisation, such as a humanitarian NGO (that must compile data, provide said data in a reactive manner to enable good coordination in response to a crisis) or for a multisectoral CSO (that in this case has to manage very specialised approaches from one sector to another). Indeed, this scenario makes it impossible to operate

efficiently when it comes to harmonising and aggregating data, given that each project and sector manages its data independently. It also requires recruiting project managers or project teams with a fledgling interest for data management, which is not necessarily common.

In fact, if the project manager struggles to understand the issues around data management, the **risk** of developing inappropriate or inefficient schemes is high. The lack of methodological and strategic guidance dedicated to the program data management technical role, which does not necessarily have an overall vision, leaves the latter room for much flexibility.

More generally, particularly if the project manager does not have the necessary methodological skills, there is a high risk of methodological errors (erroneous analysis, non-protection of personal data, etc.). Moreover, as data management skills are increasingly complex and diverse, it is becoming all the more difficult, if not impossible, to find project managers with a combination of sectoral, project management, and cross-disciplinary (such as in data management) skills.

5.4. POSSIBLE ADAPTATIONS OF THE SCENARIO

Adaptation 1 – Projects that are less program data management-oriented than others

Within the same organisation, each project may have different data management needs. Not all projects will necessarily need a program data management technician; so, within the same country or organisation it is possible that scenarios A and B coexist.

Adaptation 2 – A project manager with no program data management skills

If the project manager, who should naturally assume the role of data management manager, has only a weak data culture and few methodological or strategic skills, it is important that a third party fill that role. This can be endorsed by another person on the project team, or a single person may fill both the roles of Data Management Manager and Program Data Management Technician. It is then necessary that this person possess all the skills related to both roles, which is generally unusual and therefore represents a risk. The involvement of the technical and methodological support role henceforth becomes crucial.

Adaptation 3 – A need to aggregate data, via internationally shared indicators

In this case, the technical support should provide specific information and guides for collection and training to ensure harmonisation and consistency of data. In this scenario, outsourcing technical support makes little sense.

6. SCENARIO C: COORDINATED GENERAL RESPONSIBILITIES

6.1. BACKGROUND DESCRIPTION

Environment within the organisation (structure, project type, etc.)

The coordinated management of program data at national level (mission) is necessary and warrants the development of a common strategy: for instance, the same program is implemented in different areas and requires the implementation of identical program data management processes or an integrated and promoted multi-sectoral approach, requiring the interoperability of data collected by different sectors/projects. Data management needs remain impelled by situations in projects and areas of intervention, but the strategy is first and foremost coordinated at the national level.

Needs around data

The need to harmonise data models between projects or areas further increases the need for data traceability and quality. The collected data is primarily used for operational decision-making and Monitoring and Evaluation, without the need for extensive data visualisation skills (e.g., dynamic or spatial visualisation).

The technical solutions used to manage these needs remain simple and limited in number. For instance, a mobile data collection solution combined with spreadsheet software and a GPS point visualisation solution is enough to manage and analyse all of the data.

Data protection responsibilities depend on the type of data collected, though minimum awareness of standards is nonetheless required.

6.2. DESCRIPTION OF THE ORGANISATIONAL SCENARIO

In this scenario, the methodological and technical skills primarily related to execution are concentrated in the "M&E-Program Data Management Manager" role, whilst the national data management strategy is concentrated in the "General Coordination" role, preferably in a specialised post, such as M&E coordinator. Project managers are also involved to better understand the implication of program data management and to cooperate with the M&E – Program Data Management role to ensure proper implementation of the national strategy in terms of program data management for their project / area. The technical and methodological support function is also involved.

Figure 3: Structure of the roles and responsibilities of scenario C
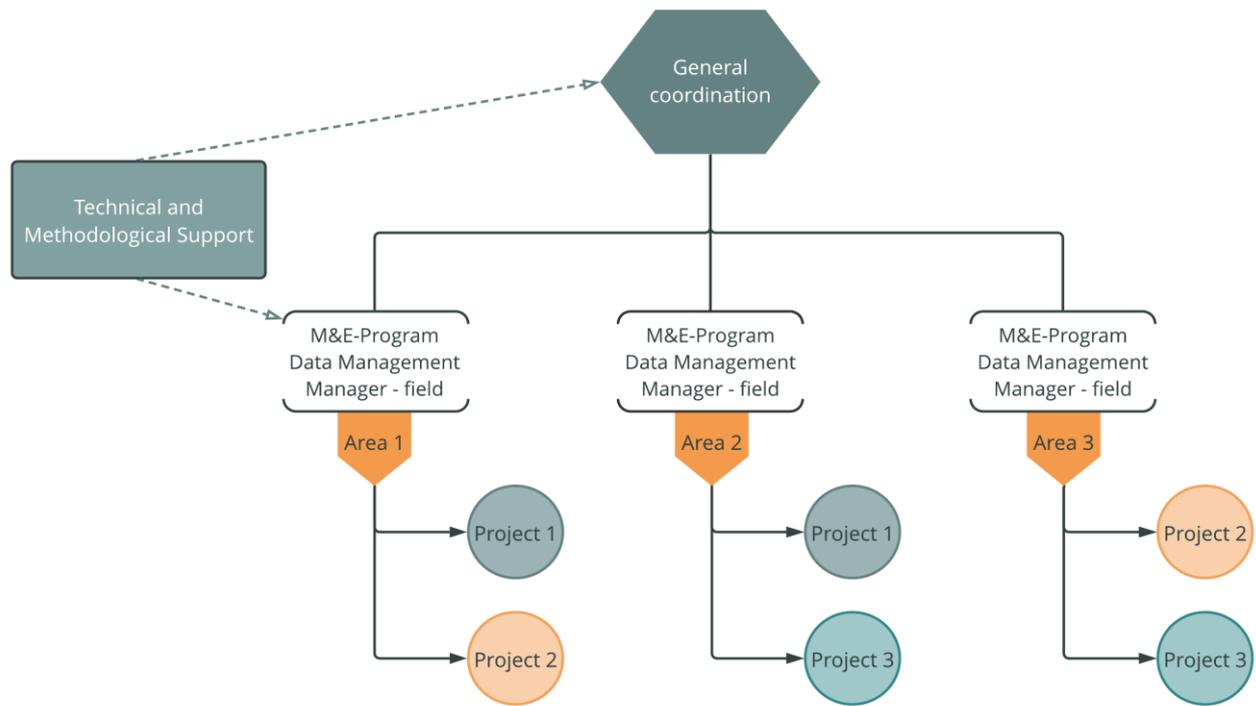
General Coordination role	M&E-Program Data Management Manager role (field)
At the coordination level, data management responsibilities are primarily strategic and methodological. They should be used to guide the action of roles with technical expertise on the projects.

It is not mandatory for those persons with such skills to have a job description devoted to data management, they can for instance be an M&E Coordinator (or failing that, a Program Coordinator). | At M&E level, the competencies held are above all related to the direct implementation of data management processes.

This role can be filled by either the M&E Manager or his/her teams in each intervention area. |

Technical and Methodological Support role
In this scenario, the responsibilities related to technical and methodological support of the teams can be exercised at headquarters.

This role can for instance be filled by a technical referent in information management.

The purpose of this role is to provide technical and methodological support to program teams, inter alia, in data management aspects, but it generally does not have a direct hierarchical link. |

The **general coordination role** has a strategic and methodological advisory function, to guide the persons occupying M&E-Program Data Management roles in each of the areas/projects towards good data management practices (drafting framework documents, dissemination etc.). Its main objective is to create a coherent management and analysis system between areas and projects, enabling aggregation and harmonisation of data (data flow management, standardisation of tools etc.). He or she should be able to compare the setting of collection and Monitoring & Evaluation plan goals with the data harmonisation strategy at national level. This role is also responsible for overseeing data management platforms, including access administration.

The **M&E-Program Data Management Manager role** can be organised in such a way that there is either one person in each area, such as an M&E Manager, or an entire team. This choice depends first and foremost on the Monitoring & Evaluation needs for each area (not covered in this document).

The purpose of this role is to provide programs with support on certain "common" methodological aspects: identification of collection needs throughout the project cycle, preparation of data collection and development of analysis plans.

From a technical point of view, the person filling this role codes the collection questionnaires. He or she creates, adapts and manages databases. He or she performs the analyses and associated visualisations and is able to provide a basic interpretation.

He/she is also responsible for the implementation of data processing processes in his/her area, henceforth ensuring traceability, reliability and data quality (such as data preparation, cleansing, triangulation and validation). He/she is also the guarantor of the application of data protection directives provided by the coordination or headquarters and needs to be familiar with basic good practices (framework, data to be protected, current data protection practices).

This role does not always have a strategic choice of tools to use but adapts them to meet the needs of each project, while ensuring the possibility of compiling data at a higher level (harmonisation).

The **technical and methodological support role** should be filled by one or several persons with proven experience in data management. It is, above all, a role meant to provide advice in data management strategy and determination of data quality. Its added value also concerns the responsibilities that come with (i) technical training of teams specialised in program data management and (ii) cross-training all teams in order to reinforce a data-driven culture within the organisation.

Headquarters' involvement: The involvement of headquarters in this scenario lies in the provision of technical and methodological support to accompany the data management processes in the field. If such a post is not provided for at headquarters, it is necessary to allocate a budget to outsource this function or ensure that people in the field have the necessary skills.

6.3. BENEFITS, LIMITATIONS AND RISKS

This scenario has the **advantage** of introducing a structure, from a data management point of view, when needs remain simple (no case management, no dashboard, limited mapping). It allows for consideration of a simple data management strategy with the M&E resources serving a mission.

However, this scenario remains **limited** to situations where needs are simple because it cannot meet very specific demands. Otherwise, it would be absolutely necessary for managers to have highly developed program data management skills. But it is, in fact, very difficult, if not impossible, to recruit a profile with advanced skills in both these areas.

The lack of adequate skills entails the **risk** of reducing Monitoring & Evaluation to data management. It is therefore essential to reflect on the distribution of M&E and program data management responsibilities when defining a job description to ensure that the needs in both areas are met.

There is also a risk that the technical skills of M&E-Program Data Management Managers will exceed those of the coordination role, without necessarily having any strategic or overall vision. This could lead to the deployment of poorly considered tools, devoid of overall logic, and eventually become counter-productive.

This scenario is preferred by numerous organisations, but is not recommended in many cases, as it is quite common for data management needs to actually be more complex than those envisaged (poor baseline assessment, medium-term evolution of the context).

6.4. POSSIBLE ADAPTATION OF THE SCENARIO

Adaptation – Outsourcing of visualisation skills

If needs for analyses and advanced visualisation (mapping, dashboards) are required on an ad hoc basis, it is possible to adapt the scenario by outsourcing the skill and calling upon an external resource. This resource may be located at headquarters or be an external consultant.

➔ In the case of an external consultant, it is necessary for a person within the structure to have the necessary skills to guide the provider and be able to prepare the data and describe the need.

If these needs are more frequent or even permanent, it is recommended to transition towards scenario D.

7. SCENARIO D: TECHNICAL, SPECIALISED AND COORDINATED RESPONSIBILITIES

7.1. BACKGROUND DESCRIPTION

Environment within the organisation (structure, project type, etc.)

Coordinated management of program data at national level (mission) is necessary and warrants the development of a common strategy: for instance, the same program is implemented in different areas and requires the development of identical program data management processes, or the program is built around an integrated multi-sectoral approach, requiring the interoperability of data collected by different sectors/projects. Similarly, the organisation can work with several partners, such as local partners, requiring guidance on the collection, management and use of program data.

On an ad hoc basis, projects led by the organisation may include the need to follow people or infrastructures at different points in time (longitudinal analyses, such as Knowledge, Attitudes and Practices – KAP investigations).

Similarly, the nature of the projects implies that the organisation frequently collects personal and/or sensitive data from populations.

Needs around data

The volume of data collected is significant and comes from a variety of sources. The need to aggregate data from several intervention areas requires harmonisation of data models, and thus upstream preparation, as well as traceability and increased data quality. It is useful to apply standard workflows.

The organisation wants to be able to easily integrate and analyse partner data, which involves backing them in the management of their data.

The type of data collected is varied, resulting in analyses which in themselves are very diverse (map, statistics, graph, lexicometrics) without necessarily resorting to automatic integration into a visualisation system (e.g., dashboard or dynamic map).

To meet this need, a patchwork of technical solutions is used. The use of these analyses is broad, going beyond operational decision-making or M&E, and can be shared externally for coordination, communication, or advocacy.

Since the data collected may be sensitive and/or personal, it is essential to implement good data protection practices in a systematic and coordinated manner, be they proportionate and adapted to the operational context.

7.2. DESCRIPTION OF THE ORGANISATIONAL SCENARIO

In this scenario, the methodological and technical responsibilities, mainly related to execution, are concentrated in the "Program Data Management Manager" role, whilst the data management strategy is concentrated in the Program Data Management Coordination role. A coordinator and performers with expertise in program data management are preferred in this scenario because data-related needs require advanced skills. A scenario with non-dedicated positions, assuming non-technical profiles but

also less time for program data management, could lead to quality problems, failure to meet needs, and a significant risk for data protection.

Here, M&E responsibilities are in the hands of roles that are separate from those who bear program data management responsibilities. This provides assurance that each part can focus on its own responsibilities. M&E roles are not represented here, it is nonetheless essential to ensure coordination and collaboration between both types of activities.

Figure 4: Structure of the roles and responsibilities of scenario D
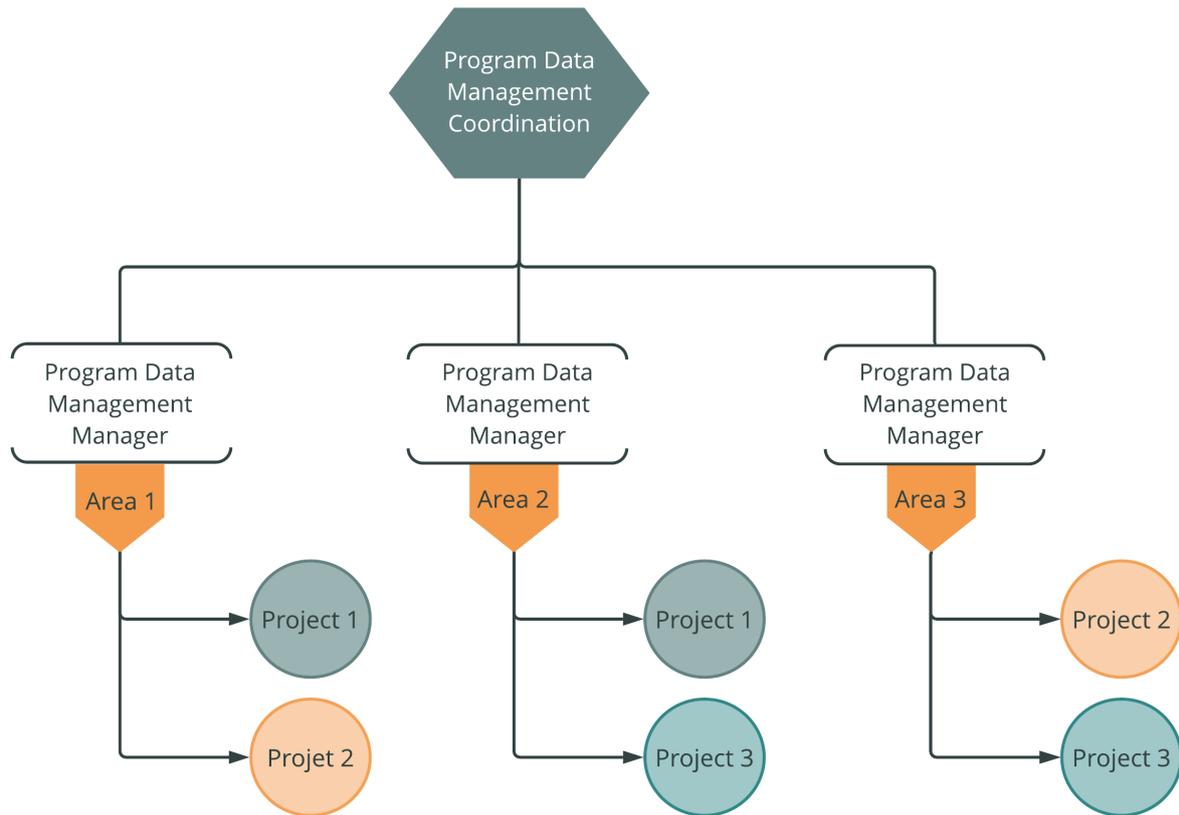
Program Data Management Coordination role	Program Data Management Manager role
At the coordination level, data management responsibilities are primarily strategic and methodological. They should be used to guide the action of roles with technical expertise on areas of intervention and projects. The person in this role is involved in all matters related to program data management, leading teams with advanced technical skills in the areas of intervention, and therefore needs a thorough understanding of issues surrounding the data.	The main responsibilities of this function above all cover pursuance of the strategy and the direct implementation of data management processes. The Program Data Management Manager is capable of responding to fairly advanced technical requests on intervention areas and to support project teams in managing their data.
The person taking on these responsibilities must have a job description devoted to data management, such as a Program Data Management Coordinator.	This role should be filled by a post entirely dedicated to data management, such as a Program Data Management Manager or officer.

The purpose of this role is to provide technical and methodological support to program teams, inter alia, in data management aspects, but it generally does not have a direct hierarchical link.

The relationship between these two roles can be either hierarchical or functional, depending on the organisation's structuring model.

The **Program Data Management Coordination role** has strategic and methodological responsibilities first and foremost. Its main objective is to create a coherent and functional program data management system between areas and projects, while needs around the data are clearly complex. This position ensures the consistency of data models and tools, good management of information flows and the aggregation of data. The person filling the coordination role chooses the technical tools to be used and manages access to data collection/management platforms. He/she prepares good practice framework documents and ensures their dissemination. He/she ensures a clear understanding of data issues through ad hoc training and coaching, helping to improve the data culture both within the structure and with the partners. He/she provides guidance, at least functionally, to Program Data Management Managers, and methodological support to partners.

At the same time, the coordination role is the guarantor of responsible data management. He/she must thus ensure that the principles, legislations and best practices of the sector are implemented, both in terms of data protection and security. He/she must also be able to raise awareness among his/her colleagues and identify areas of improvement.

The person in charge of coordination may be required to perform ad hoc analyses/visualisations, aggregating data from several areas. This should not however take up the majority of his/her schedule, given that strategic and methodological support to the Program Data Management Manager remains his/her priority in this scenario.

The **Program Data Management Manager's role** is above all a technical profile in charge of execution in data management within his/her intervention area or project. His/her responsibilities focus on managing data collection, structuring, production, analysis and visualisation activities. Regarding structuring and collection, the Program Data Management Managers encode data collection questionnaires, and provide technical support to enumerators. The person filling this role is also responsible for creating or adapting and managing databases, mastering the use of data management platforms. He/she also implements data processing processes ensuring traceability, reliability and quality (such as data preparation, cleansing, triangulation and validation). **From an analysis point of view**, teams should be able to interpret the program's information needs in terms of analyses and perform visualisations, going beyond simple analyses on Excel, on several types of data. They also can be experts in a particular tool (ex: QGIS for map making). They are able to provide an interpretation of the analyses carried out and guide the use of the data.

At the same time, this function is also responsible for supporting programs and the M&E department on certain small-scale methodological aspects, such as identifying collection needs at project start-up and thus preparing data harvesting, management and analysis plans. The Program Data Management

Manager should be able to identify the technical implications of data management related to the needs expressed by the program or the M&E teams. The person filling this role should make recommendations for the calculation of indicators and the Monitoring & Evaluation plan.

This post should in no way replace the M&E role. Program Data Management technically supports M&E but cannot substitute a person with technical responsibilities and skills for Monitoring and Evaluation, since these are clearly distinct from program data management.

From a data protection and security standpoint, the Program Data Management Manager is responsible for seeing to it that the directives issued by coordination are properly followed. He/she also raises awareness among all teams in his/her area of good data protection and security practices.

The recruitment of highly technical data management personnel in the field inevitably implies the presence of a role to supervise these teams (i.e., the coordination role) and to guide them via the development of a strategy. This person must therefore possess a solid set of skills, specialised in program data management.

Headquarters' involvement: This scenario is advantageous when the organisation's headquarters have little to no structure in project management. Field teams are autonomous and competent, requiring moderate involvement from headquarters. However, if the program data management activities implemented for the mission significantly exceed the skills of collaborators at headquarters, this may result in:

1. A lack of interest in the subject and lack of capitalisation, preventing the reuse of program data management methods and tools in other missions.

2. The adoption of processes and procedures relating to program data management or particularly outdated and inappropriate tools, leading to frustration among the teams.

3. The inability of the coordination role to communicate with a referent in his/her organisation, which may also lead to frustrations, loss of information etc.

When this type of scenario becomes frequent in an organisation (the case repeats itself over the course of several missions), it may then be interesting for headquarters to structure itself in order to make relevant strategic decisions to improve overall program data management within the organisation (e.g., choice of tools, protocols, harmonised methods).

7.3. BENEFITS, LIMITATIONS AND RISKS

The **benefits** of this scenario are, among other things, having people who are dedicated to data management. This enables work on complex issues such as harmonising data models from multiple sources, longitudinal analyses, and providing high-quality visual representations.

In addition, the presence of a dedicated Program Data Management Coordination role allows for technical profiles to be properly supervised in each intervention area, guided by a clear strategy and methodological advice. To achieve this, the person in charge must be able to understand the technical challenges and opportunities of the solutions proposed by the field. This also represents a major advantage when few program data management resources are available at headquarters, with field teams being autonomous.

Finally, the clear separation of M&E and program data management responsibilities into distinct roles helps ensure that everyone can focus on their own responsibilities, thus guaranteeing a higher quality of activities and the ability to recruit profiles with in-depth expertise in their respective areas.

This scenario, on the other hand, may have certain **limitations**. Where the coordination role is to perform a number of technical tasks (administration of the management platform, aggregation of databases, conduct of analyses and creation of visuals on aggregated data), these can overlap the time needed for coordination and reflection with a view to elaborating a substantive data management strategy. As such, if highly technical achievements are needed, it may be beneficial to transition towards Scenario E, or to outsource said achievements.

This scenario is not appropriate either when case management is an essential component of projects (e.g., patient data management in the case of a medical intervention). In this scenario, there are not enough human resources to manage this at the mission level; and more technical support may be required to support Program Data Management Managers in the field.

The major **risk** of this scenario stems from the challenge of conceiving workflows between program data management roles and M&E roles, which can lead to some complexity in delineating the boundaries of each individual's responsibilities. It is therefore essential to reflect on the distribution of activities between the two roles, both at the coordination and implementation levels.

7.4. POSSIBLE ADAPTATION OF THE SCENARIO

Adaptation – Different levels of needs from one area to another

In some missions, needs may not be equivalent from one intervention area to another, from a data management perspective: some areas do not necessarily require a Program Data Management Manager, but the presence of an M&E manager is paramount. Finally, some organisations do not always have the financial resources for both posts to be present in each intervention area.

It is thus possible to be in a mixed scenario with Program Data Management Managers and M&E-Program Data Management Managers according to priorities and areas.

➔ The choice between an M&E manager and a Program Data Management Manager is not always easy to determine; a number of important elements need to be taken into consideration. For example, if the sector is very technical and well-managed, it may be more advantageous to recruit a Program Data Management Manager, as Monitoring & Evaluation will be carried out by the program teams themselves. Whereas if the sector requires an in-depth reflection on M&E, it is essential to have a profile that is geared towards this field, especially if the volume and use of data is limited.

8. SCENARIO E: SPECIALISED AND CENTRALISED RESPONSIBILITIES WITHIN A DEPARTMENT

8.1. BACKGROUND DESCRIPTION

Environment within the organisation (structure, project type, etc.)

Coordinated management of program data at national level (mission) is necessary and warrants the development of a common strategy: for example, the same program is implemented in different areas and requires the implementation of identical program data management processes or an integrated multi-sectoral approach, requiring the interoperability of data collected by different sectors/projects. The organisation works with many partners in consortium-type projects, where data is an essential part of the collaboration.

The organisation's intervention revolves around one or several particular themes, where the data collected represents a strong component of the program, used in the very implementation of activities by project teams and even recipients – such as patient registration and monitoring by physicians –. This may involve the use of several combined data management solutions. Projects carried out by the organisation include the need to follow people or infrastructure at different points in time (e.g., case management). Sensitive and/or personal data make up a substantial part of the data collected. This scenario is also recommended when a large number of geographic data is collected, and mapping is useful for implemented projects.
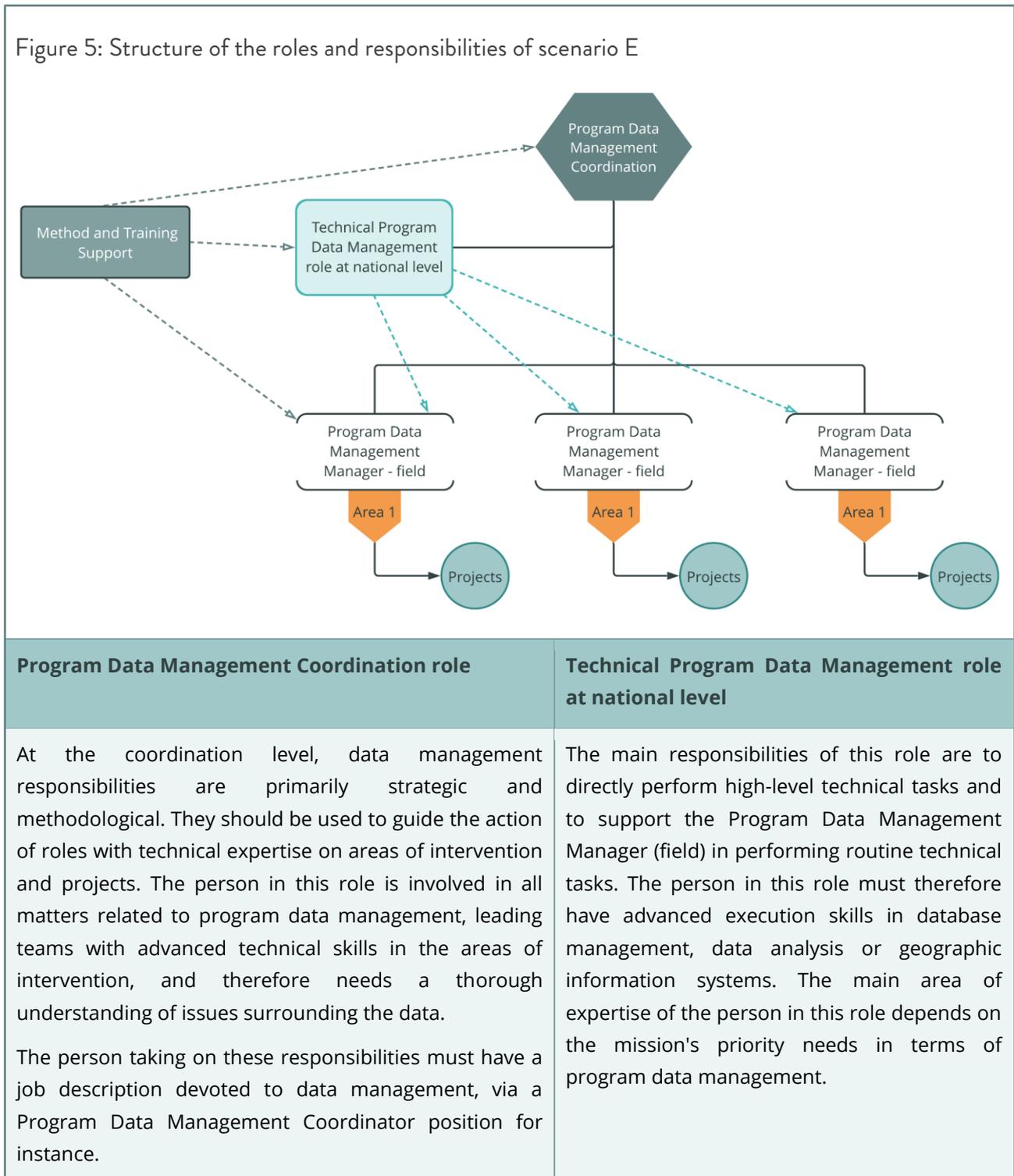
Needs around data

The volume of collected data is significant and comes from a variety of sources, the organisation wants to be able to aggregate data from different actors in a constant and automatic way. Several different tools are necessary for data collection, management and analysis. This requires the establishment of standard workflows and the harmonisation of data models.

The Monitoring & Evaluation system of programs is complex, involving, for instance, frequent collection, updates of information on the same subject, numerous aggregated indicators, regular calculations and inducing complex workflows. There is a need to ensure interoperability of data from local and international partners, using various tools and data models. It is also a matter of regularly supporting them in managing their data. Data is used by project teams and/or shared on a broader scale (coordination with other actors, free sharing of data). Analyses and visualisations are widely disseminated externally and used in operational decision-making, representing a challenge of external credibility. The forms of analyses are varied and complex, such as dynamic visuals, fed and updated automatically (e.g., dynamic dashboards, maps).

Since much of the data collected may be sensitive and/or personal, it is necessary to implement good data protection practices in a systematic and coordinated manner, be they proportionate and adapted to the operational context. It is also relevant for all teams to be able to identify risks and be aware of good practices.

8.2. DESCRIPTION OF THE ORGANISATIONAL SCENARIO

In this scenario, the "Program Data Management Coordination" role guides and coordinates the program data management strategy. He/she is supported in this task by one or several sectoral technical Program Data Management roles at the national level (e.g., Database Manager – DD, or Geographic Information Systems Manager – GIS), responsible for providing technical guidance and overseeing all achievements in his/her area of expertise. In intervention areas, "Program Data Management Managers" are responsible for performing data management tasks. In parallel, all roles may be supported by a method and training support – a flying trainer – present in the region, deployed in the event of one-off needs.

Figure 5: Structure of the roles and responsibilities of scenario E

Program Data Management Coordination role	Technical Program Data Management role at national level
At the coordination level, data management responsibilities are primarily strategic and methodological. They should be used to guide the action of roles with technical expertise on areas of intervention and projects. The person in this role is involved in all matters related to program data management, leading teams with advanced technical skills in the areas of intervention, and therefore needs a thorough understanding of issues surrounding the data. The person taking on these responsibilities must have a job description devoted to data management, via a Program Data Management Coordinator position for instance.	The main responsibilities of this role are to directly perform high-level technical tasks and to support the Program Data Management Manager (field) in performing routine technical tasks. The person in this role must therefore have advanced execution skills in database management, data analysis or geographic information systems. The main area of expertise of the person in this role depends on the mission's priority needs in terms of program data management.

Program Data Management Manager role (field)	Method and Training Support role
The main responsibilities of this role above all cover pursuance of the strategy, and the direct implementation of data management processes. The person filling this role is capable of responding to fairly advanced technical requests on intervention areas and to guide and support project teams in managing their data.	In this scenario, there may be a great number of technical training needs because of the mission's technical requirements. It is hence essential that the person filling this role be mobile and quickly deployed if need be. Consequently, it may be appropriate to base this role at the regional office level.

The **Program data management coordination role** includes strategic and methodological responsibilities first and foremost. Its main objective is to create a coherent and functional program data management system between areas and projects, while needs around the data are clearly complex. The person occupying this position ensures the consistency of data models and tools, good management of information flows and aggregation of data. He/she chooses the technical tools to use and manages access to data collection/management platforms, prepares good practice framework documents and ensures their dissemination. This function ensures a clear understanding of data issues through training and coaching. The coordinator provides guidance, at least functionally, to Program Data Management Managers, and methodological support to partners. This helps to improve data culture within the mission and with partners. He/she is also able to carry out a diagnosis of the mission in terms of data management and to identify priority action points.

At the same time, the **coordination role** is the guarantor of responsible data management. He/she must thus ensure that the principles, legislations and best practices of the sector are implemented, both in terms of data protection and security, and decide which strategy is best in terms of securing data. He/she must also be able to raise awareness among his/her colleagues and identify areas of improvement.

The **Technical Program Data Management role at national level** supports program data management coordination by carrying out technical achievements related to his/her area of expertise. Also, the responsibilities that come with the role may vary depending on the individual.

- These may include, for instance, support for database management; this role primarily focuses on responsibility for the proper management of databases and workflows around the data. To do so, it is essential that the person filling the role contribute to the preparation of the collection and provide methodological guidance for data model construction, manage access to data collection/management platforms, and control data aggregation at the national level.
- This role may also assume the responsibilities related to data analysis and visualisation, which are necessary from a mission perspective. This therefore includes the need to aggregate data and perform overall analysis and visuals, such as dynamic dashboards.
- The role could also be dedicated to the management of geographic information systems. In which case, the person filling the position is primarily responsible for retrieving and aggregating geographic data in order to make static or dynamic maps.

The Program Data Management Manager's role refers first and foremost to a technical profile in charge of execution in data management in his/her intervention area or project. His/her responsibilities focus on managing data collection, structuring, production, analysis and visualisation activities. Regarding structuring and collection, the Program Data Management Managers encode data collection

questionnaires and provide technical support to enumerators. The person filling this role is also responsible for creating or adapting and managing databases, mastering the use of data management platforms. He/she also implements data processing processes ensuring traceability, reliability and quality (such as data preparation, cleansing, triangulation and validation). From an analysis point of view he/she should be able to interpret the program's information needs and perform visualisations, going beyond simple analyses on Excel, on several types of data. He/she also can be an expert in a particular tool (ex: QGIS for map making). He/she is able to provide an interpretation of the analyses carried out and guide the use of the data.

At the same time, this role is also responsible for supporting programs and the M&E department on certain small-scale methodological aspects, such as identifying collection needs at project start-up and thus preparing data harvesting, management and analysis plans. He/she should be able to identify the technical implications of data management related to the needs expressed by the program or M&E teams. The person filling this role should make recommendations for the calculation of indicators and the Monitoring & Evaluation plan.

This role should in no way replace the M&E role. Program Data Management technically supports M&E but cannot substitute a person with technical responsibilities and skills specific to monitoring and evaluation, clearly distinct from program data management.

Regarding data protection and security, the Program Data Management Managers are responsible for seeing to it that the directives issued by coordination are properly followed. They also raise awareness among all teams in their intervention area of good data protection and security practices.

The **purpose of the methodology and training support role** is, above all, to train the teams, as well as to help the mission structure itself and improve its strategy and workflows. The person in this role must be able to quickly identify weaknesses and strengths to provide external support. This position must be filled by a person with experience in data management.

> 📌 **Headquarters' involvement:** This scenario is advantageous when the organisation's headquarters have little structure in program data management. Field teams are autonomous and competent, requiring minimal involvement from headquarters. However, if the program data management activities implemented for the mission entirely exceed the skills of collaborators at headquarters, this may result in:
>
> 1. Lack of interest in the subject and lack of capitalisation, preventing the reuse of program data management methods and tools in other missions.
>
> 2. The adoption of processes and procedures relating to program data management, or completely outdated and inappropriate tools, leading to frustration among the teams.
>
> 3. The inability of the coordination role to communicate with a referent in his/her organisation, which may also lead to frustrations.

When this type of scenario becomes frequent in an organisation (several missions), it may then be interesting for headquarters to structure itself in order to make relevant strategic decisions to improve overall program data management within the organisation (e.g., choice of tools, protocols, harmonised methods).

8.3. BENEFITS, LIMITATIONS AND RISKS

This scenario, the most comprehensive of all, has the **advantage** of mobilising many specialised resources dedicated to program data management. The presence of technical resources at national level (therefore neither by area nor by project) helps to ensure that the coordination role focuses primarily on strategic and methodological orientations.

In a manner consistent with the previous scenario, the presence of a dedicated Program Data Management Coordination role allows for technical profiles to be properly supervised in the intervention areas, guided by a clear strategy and methodological orientation. To achieve this, the person in charge must be able to understand the technical challenges and opportunities of the solutions proposed by the field. This also represents a major advantage when few program data management resources are available at headquarters. Finally, field teams are autonomous.

However, this may also have some **limitations** and result in the adoption of workflows that are difficult to reconfigure, due to the higher number of levels as compared to other scenarios.

With such a large department, one of the major **risks** is that the program data management department fully absorb resources and that it will hence be difficult for an M&E department to grow in parallel. As with previous scenarios, responsibilities and mechanisms for cooperation between the two departments should be formalised as much as possible. It is essential to question the weight and precedence of one department over another, and to measure the relevance of such a large investment against potential benefits, especially vis-à-vis other departments.

8.4. POSSIBLE ADAPTATIONS OF THE SCENARIO

Adaptation 1 – Different levels of needs from one area to another

In some missions, needs may not be equivalent from one intervention area to another, from a data management perspective: some areas do not necessarily require a Program Data Management Manager, but the presence of an M&E manager is paramount. Finally, some organisations do not always have the financial resources for both posts to coexist in each intervention area.

It is thus possible to have a mixed scenario with Program Data Management Managers and M&E-Program Data Management Managers according to the areas.

➔ The choice between an M&E manager and a Program Data Management Manager is not always easy to determine, a number of important elements need to be taken into consideration. For example, if the sector is very technical and well-managed, it may be more advantageous to

recruit a Program Data Management Manager, as Monitoring & Evaluation will be carried out by the program teams themselves. Whereas if the sector requires an in-depth reflection on M&E, it is essential to have a profile that is geared towards this field, especially if the volume and use of the data is limited.

Adaptation 2 – A reinforced field structure

When the needs of an area or project are highly developed, it may be necessary to reinforce teams by multiplying program data management positions, for instance by adding a survey and field data collection focal point, a person dedicated to the management of platforms and databases in the area, a data visualisation specialist. In that case, the Program Data Management Manager's role – like the coordination role – in the area becomes that of coordinating the various elements of his/her team. This structure is adapted when the number of surveys and the volume of collections are significant, as well as the needs for analysis and visualisation (for example if there are many partners in a given area, or on a particular project).

Adaptation 3 – A trainer in the country of intervention

When multiple partners need to be trained, or when the level of the teams is insufficient (weak data culture in the country of intervention, or due to recruitment difficulties, or to a high turnover), it may be relevant to have a full-time trainer based in the country. This would enable regular training, the reinforcement of local partners' national capacities, and for mission data culture to be improved. This solution may be of short- or long-term duration.