



Malaysian Science and Technology Information Centre (MASTIC)
Ministry of Energy, Science, Technology, Environment and Climate Change

Session 2: Survey Planning & Management

February 2019

NATIONAL SURVEY OF RESEARCH and DEVELOPMENT (R&D) IN MALAYSIA 2017

PE Research

Planning & Economic Consultants

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Outline - Survey Planning & Management

01

PROJECT MANAGEMENT & SURVEY PLANNING

1. Project Management
2. Survey Planning
3. Stages of Survey Planning
4. Team Structure

02

SURVEY MANAGEMENT

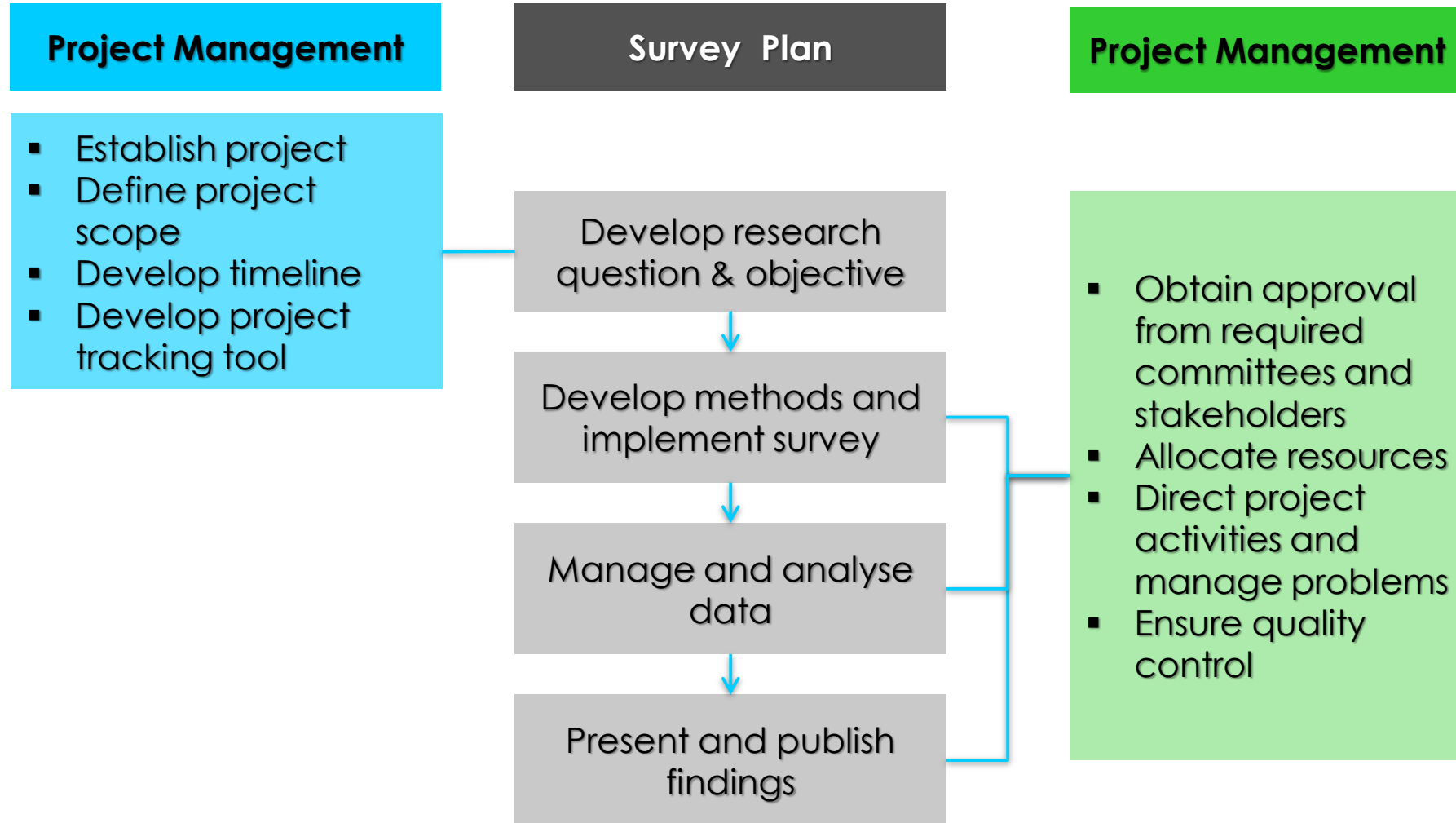
1. Recruitment
2. Training
3. Call Centre Setup
4. Timeframe – Survey Response Target
5. Survey Team Management



PROJECT MANAGEMENT & SURVEY PLANNING

1. **Project Management**
2. Survey Planning
3. Stages of Survey Planning
4. Team Structure

Plan your project & survey...

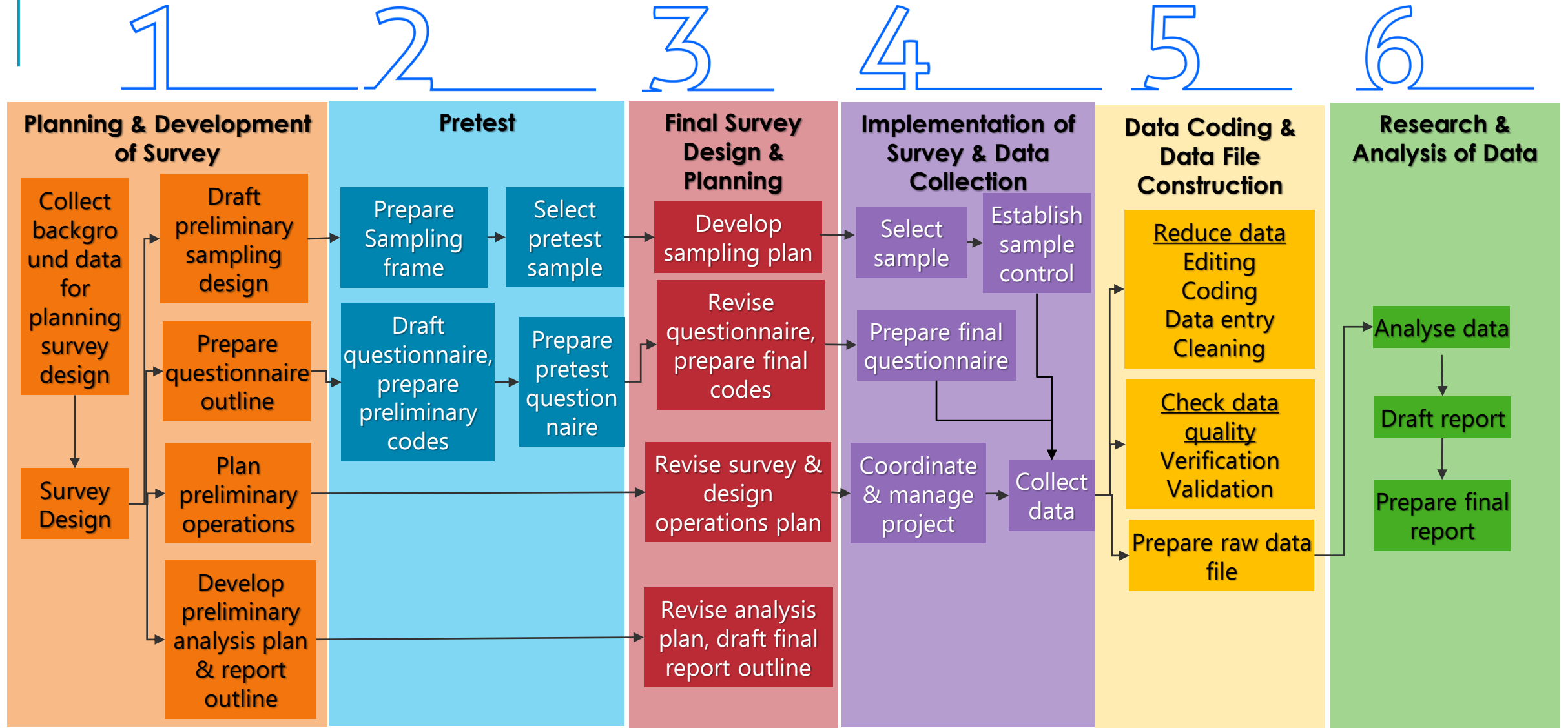




SURVEY PLANNING

1. Project Management
- 2. Survey Planning**
3. Stages of Survey Planning
4. Team Structure

An overview of a Survey Process

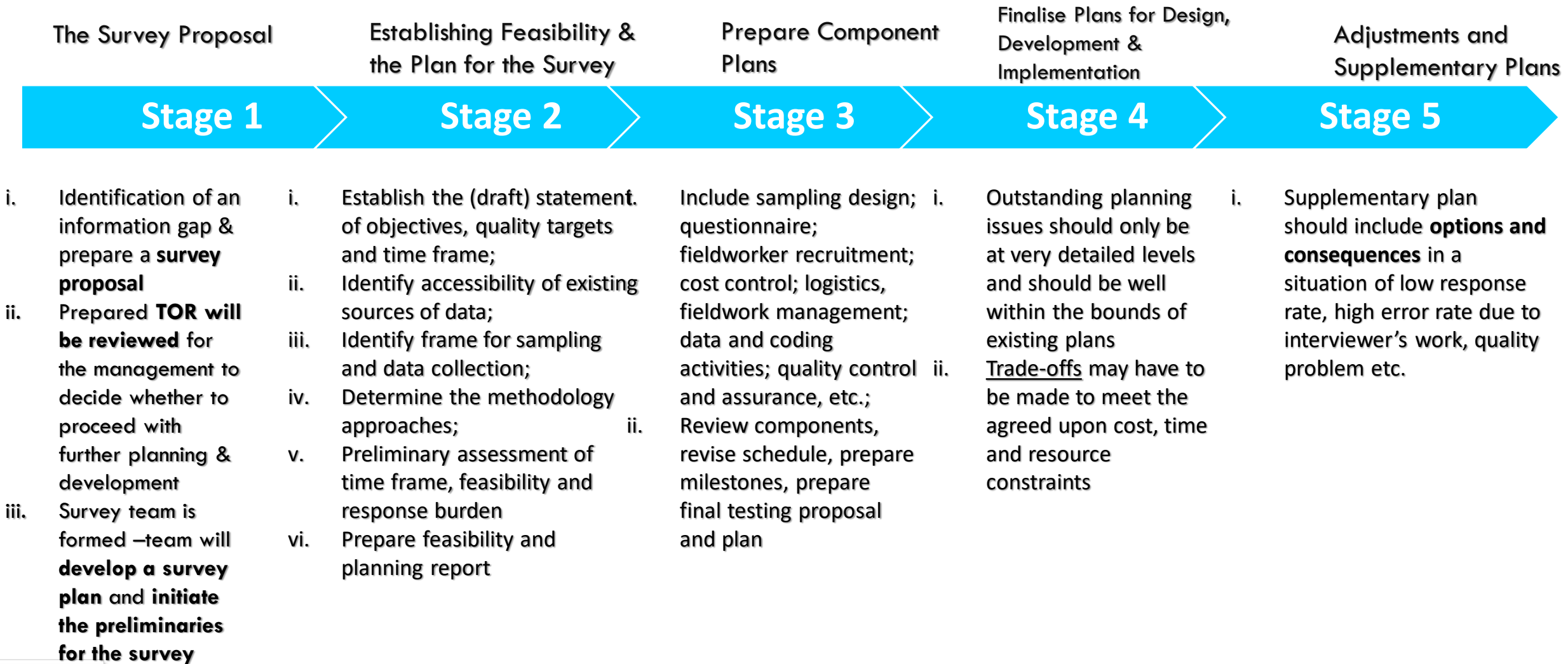




SURVEY PLANNING

1. Project Management
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- 3. Stages of Survey Planning**
4. Team Structure

Stages of Survey Planning





SURVEY PLANNING

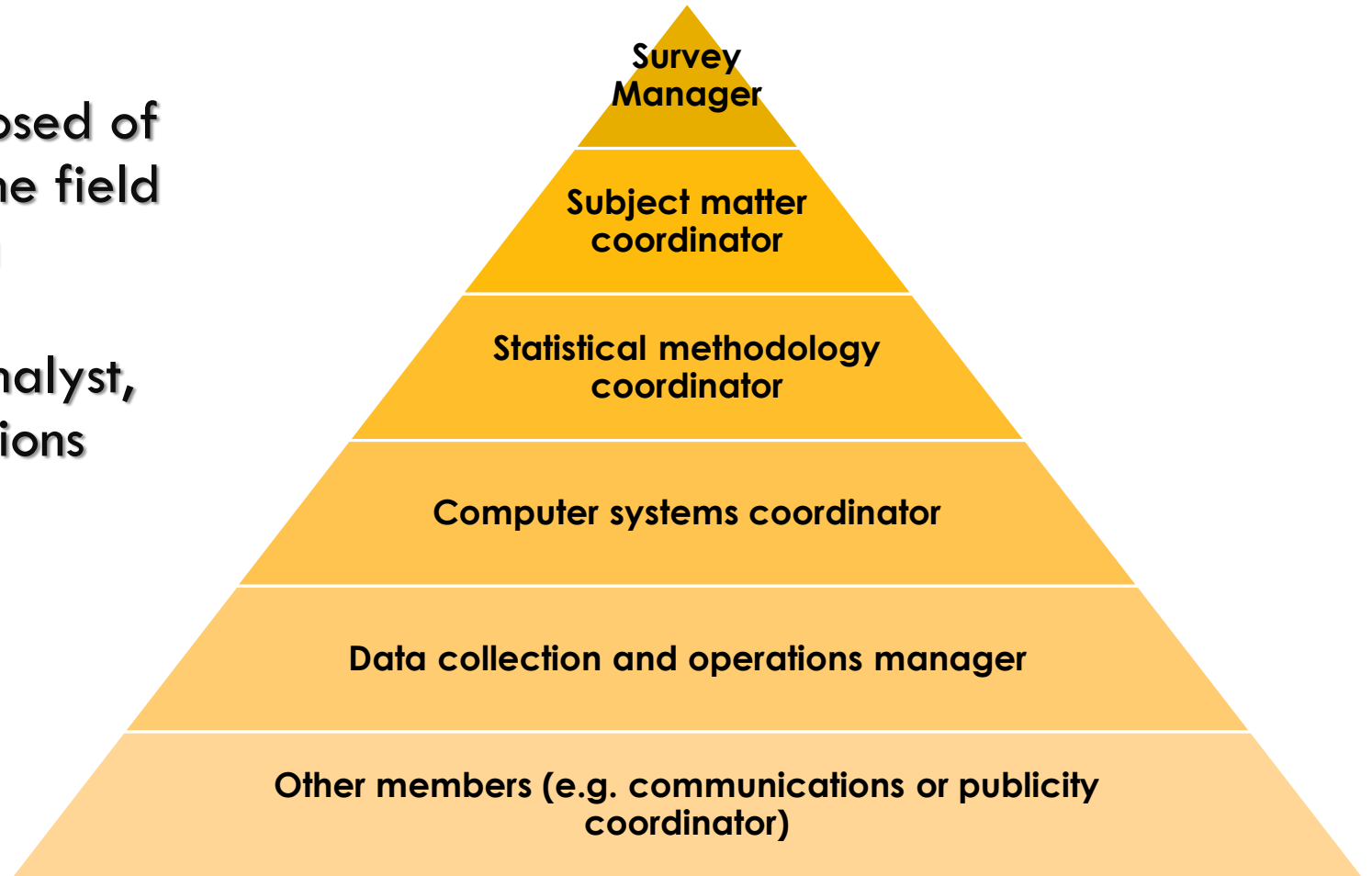
1. Project Management
2. Survey Planning
3. Stages of Survey Planning
- 4. Team Structure**

A commonly used and effective framework for survey planning and management is a project **team structure**

- Often, an interdisciplinary **survey team** is given **responsibility for the planning, design, implementation, and evaluation of the survey** and of its planned products.
- It is composed of members having **different technical skills** required to plan and implement the survey.
- All members of the survey team plan, manage and coordinate activities within their scope of expertise and responsibility.
- They also co-ordinate these activities with all other activities within the survey

Example of a **team structure**

Survey teams are typically composed of a survey manager, an expert in the field of study covered by the survey (a subject matter expert), a survey statistician, a computer systems analyst, and a data collection and operations expert.



Role of **Survey Manager**

- **Determining the required resources** for the survey
- Developing a **preliminary plan**
- **Co-ordinating** the preparation & updating of the plan
- Preparing the **budget** and **monitoring** resource utilisation & progress



- **Liaises** with, and **reports** progress to, senior management & the client
- **Ensures adherence** to departmental legal, legislated & regulatory commitments & to departmental policies, standards, guidelines and regulations



- Presides over team meetings and is the representative of the client on the team, regardless of the survey manager's functional or organisational relationship to the client



Role of Subject Matter Co-ordinator

- Responsible for the **content** of the survey
- When more than one field of study is involved, the coordinator manages the activities and inputs of the subject matter participants who are not members of the survey team



- Through discussions with the client and the team, Subject matter co-ordinator is responsible for **ensuring a clear and appropriate representation of the subject matter** and intended uses of the data in the statement of objectives, design and implementation



- Conducts or co-ordinates the preparation of definitions and concepts, the collection and analysis of relevant historical data (for planning & development), content development and testing of the questionnaire, preparation of all subject matter reliant data collection and processing specifications, design of statistical outputs, development and implementation of data analysis and preparation of the analytical text

- Co-ordinates the validation or certification of survey results and provides subject matter expertise for the evaluation of data quality and preparation of related subject matter documentation



Role of **Statistical Methodology Co-ordinator**

- Conducts and co-ordinates the design and development of the statistical methodology to be used



- Responsible in particular, for the sample design, weighting and estimation, design of quality control methodologies, data quality evaluation designs and measures, the design of edit and imputation mechanisms or strategies, and statistical aspects of data dissemination and analysis

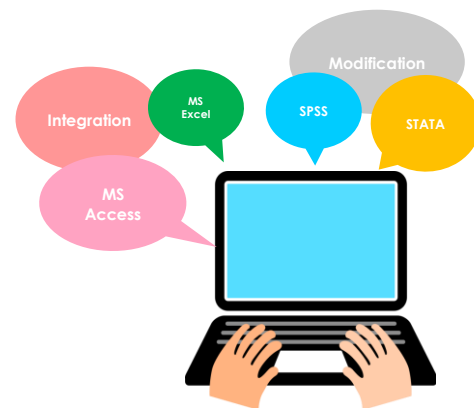


- Acts as a **consultant and adviser** to all other members of the survey team **on matters of statistical methodology**, and ensures adherence to the use of sound and efficient statistical methods



Role of **Computer Systems Co-ordinator**

- Responsible for the design and development of the computer systems and programs, as well as the identification, integration and modification of existing or commercial software that are required to conduct the survey



- Acts as a **consultant and adviser** to all other members of the survey team **on matters of computing**, and ensures adherence to the use of sound, compatible, verifiable and efficient methods throughout



Role of **Data Collection and Operations Manager**

- Responsible for development of **data collection, capture and coding specifications and procedures**



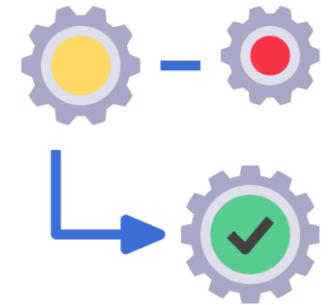
- Responsible for **planning and co-ordinating the recruitment, training, monitoring and control of data collection staff** such as interviewers and supervisors, as well as data capture and coding staff, if applicable



- Responsibilities includes the development, implementation and management of collection operations and public relations programs, preparation of material (e.g., manuals and maps) and logistical support requirements



- Acts as a **consultant and adviser** to all other members of the survey team **on operational matters** related to his or her expertise and ensures the specifications and requirements developed by other team members – e.g., interviewer edit and follow-up specifications – are properly built into the procedures

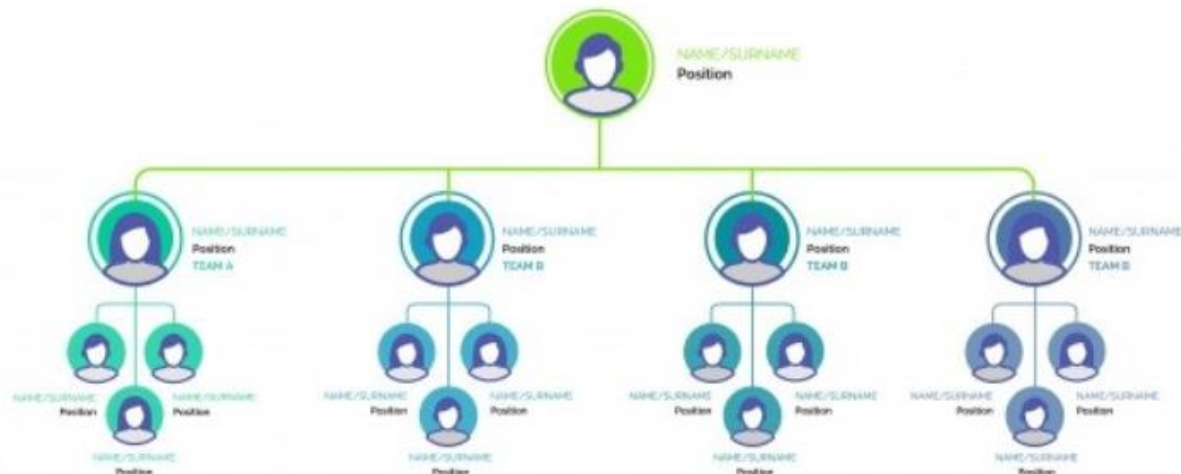


Role of **other members**

- For large projects, **separate managers** may be assigned for communications or publicity, geographic inputs and outputs (associated with the frame, and geographic variables and products), and survey products.

- Large surveys or censuses may also be **sub-divided into particular tasks** (e.g., questionnaire design and development, data collection, edit and imputation) and sub-tasks (e.g., collection quality control, coding, etc.).

- Each task and sub-task has its own team. Such teams may differ in the nature of their membership, but each has a manager reporting to a manager in the next level up in the survey team structure





SURVEY MANAGEMENT

1. **Recruitment**
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Recruitment, selection and appointment of survey team members



RECRUITMENT OF CALLERS / ENUMERATORS

Callers / Enumerators play a critical role in surveys, as they implement the survey design

In both telephone & face-to-face surveys, the callers / enumerators has to contact the respondents, explain the purpose of the study, motivate the respondent to participate, ask questions in the required manner, put the respondent at ease, and accurately record the respondent's answers as well as any other required information

- **Confident and articulate callers / enumerators and supervisors who are able to negotiate and interact with senior staff of companies, organisations/institutions**
- **Recruited based on language and numeric skills, as well as logical and critical thinking skills**
- **Should have at least a diploma or are university graduates**

**R&D Survey
interviewers
requirement**



Estimating the number of interviewers needed for a study

Example

The **average number of hours worked per week** is the same for all interviewers

01

The **expected number of completed interviews** is 2000

02

The estimated **Hours Per Interview (HPI)** is 1

03

The projected data collection period is 8 weeks

04

Each interviewer is expected to work **40 hours per week**

05

Calculations

Total hours to complete the study =
(2000 interviews * 1 HPI) = 2000 hours

01

Average interviewer hours per week =
(2000 total hours / 8 weeks) = 250 hours per week

02

Number of interviewers needed =
(250 hours per week / 40 hours per interviewer per week) = 6 interviewers

03

* No. of headcount needed usually is double up to cater the number of interviewer due to the MC / emergency / unplanned leave taken



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R&D Survey training for all callers / enumerators and supervisors



- Callers / Enumerators and supervisors need to be very familiar with the study's protocols and questionnaire in order to carry out their tasks.
- Both newly hired & experienced interviewers require training specific to the study at hand.

Survey training – conducted in 2 phases

1. Technical training

- Survey background – objectives of the study, survey methodology
- Survey sampling – sectors involved (BE, HLI, GRI, NGO), sector coverage
- Understanding R&D – definition (Frascati), 5 core criteria for R&D, types of R&D, definitions of concepts and terms used, explanation on the flow and logic of Questionnaire, data collection



2. Practical training

- Conduct in classroom type
- Mock interview - demonstration on how to conduct the interview



A complete guide of Survey training manual is provided as reference to Supervisors and Enumerators



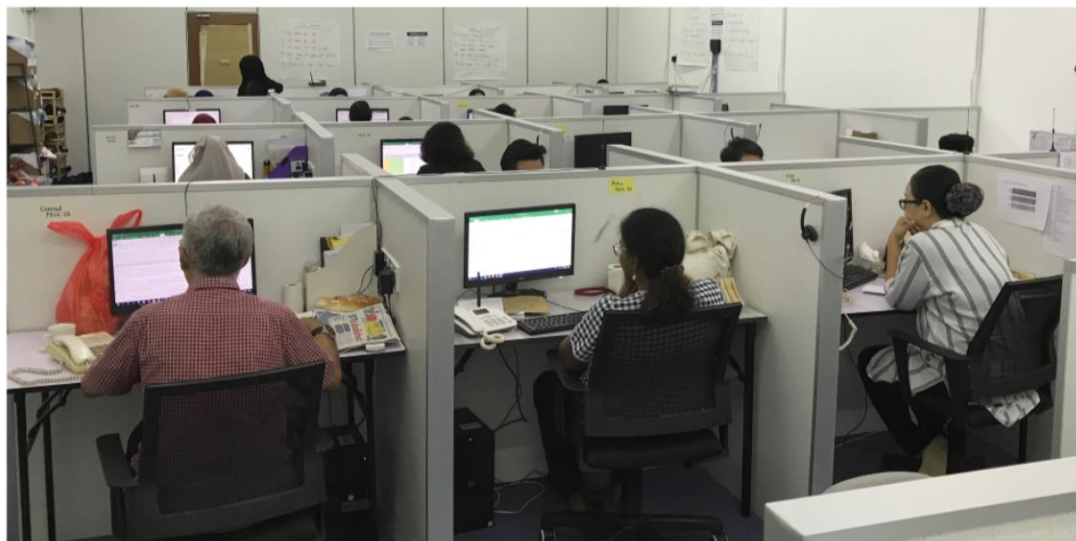
Survey training manual is used to standardise the training and to ensure all the team members have the same understanding of the survey rationale and the manner for soliciting quality data.



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Call Centre setup at PE Research Sdn Bhd - A helpline & call centre is set up to provide assistance to respondents if they have questions or need guidance to fill the e-form and to conduct phone interviews.





SURVEY MANAGEMENT

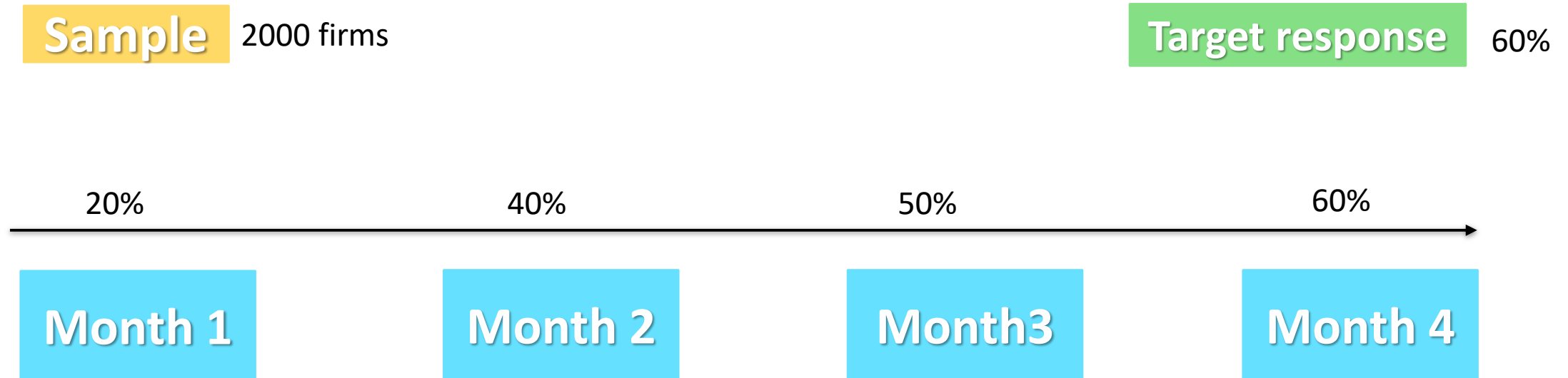
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Timeframe — Survey Response Target

is used to ensure that the survey results are representative of the target population

- Survey response target can be planned ahead before the survey started and included as part of survey planning

Example:



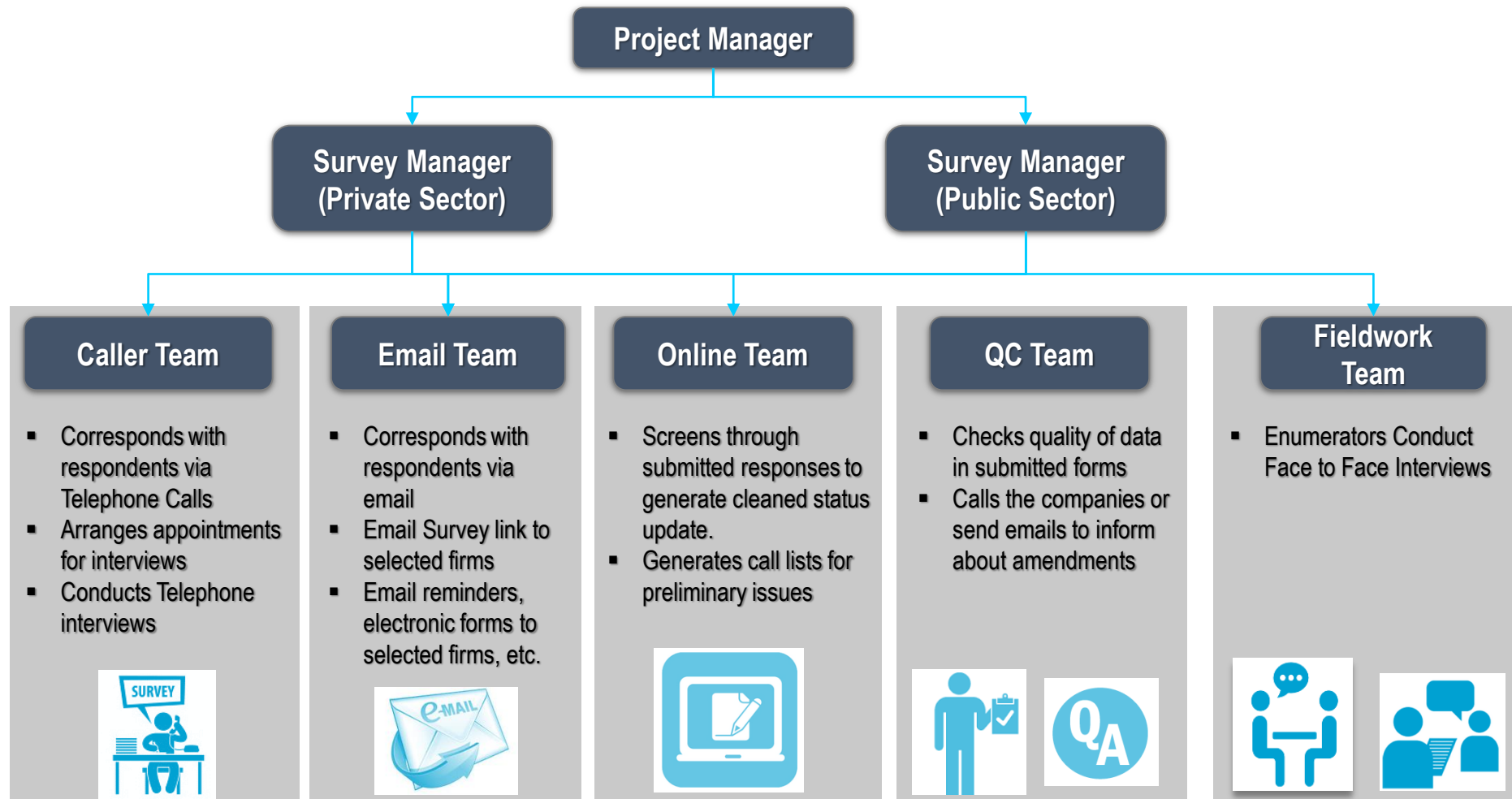


SURVEY MANAGEMENT

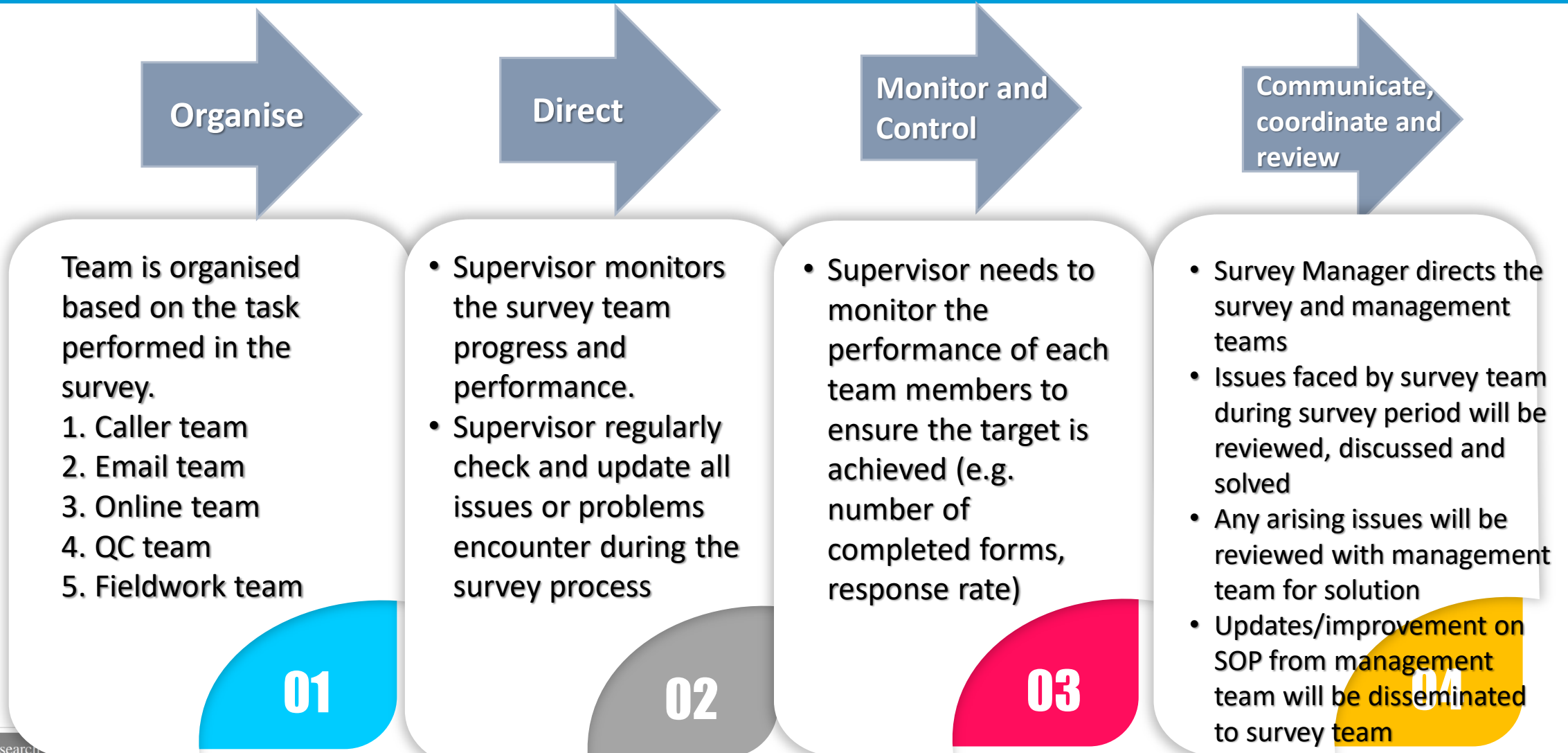
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Set up survey team:

R&D Survey Team is led by a Project Manager and two Survey Managers (Private & Public sector), assisted by five teams. The progress is monitored by the team to ensure quality



Survey Management



Management of Survey Team

Team Briefing

- ✓ Check team attendance (i.e. MC / EL) to ensure daily headcount is sufficient
- ✓ Discussion on any arising issues / problems
- ✓ Update team on SOP or any new info related to survey

Task assigned

- ✓ Delegate task according to the team
- ✓ Assign callers to attend to urgent request or email received from respondents

Monitoring

- ✓ Monitoring involves team monitoring as well as survey progress monitoring
- ✓ Team monitoring – ensure team is completing the task assigned
- ✓ Survey monitoring – ensure the survey target is achieved based on no. of completed forms received, completion of QC work, etc.

Progress update

- ✓ Update Management on the survey progress

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End of Session 2

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