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CREATING
LEARNING
OPPORTUNITIES
FOR PUBLIC
OFFICIALS

The

FRAMEWORK of

ROLES,

ACTIVITIES, and

COMPETENCIES

and everything else of FRACing



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CONTENTS

Executive Summary	5
List of Abbreviations	6
List of Figures, Tables and Boxes	7
Introduction to Mission Karmayogi and Competencies	8
The Framework of Roles, Activities, and Competencies (FRAC)	9
Competencies at the core of Mission Karmayogi	12
<i>Defining positions, roles, activities, knowledge resources, and competencies</i>	13
<i>The purpose of competencies</i>	15
<i>The FRAC document</i>	16
Section 1	
Role mapping: The FRACing process	17
Actors, tools, processes, and outputs	18
The FRACing process for MDOs	19
Short term: The competency-driven engagement (C-DE) process	20
Long term: The FRACing process	25
The FRACing process for individual officials	30
The FRACing process for CBP providers	30
Outputs: Dictionaries and directories	33
Section 2	
Measurement and learning on iGOT Karmayogi	44
Scoring on iGOT	44
Analytics from iGOT	47
Analytics in service of officials and their managers	48
Analytics in service of HR managers	50
Analytics in service of providers of competency building products (CBPs)	51
Section 3	
Application on the iGOT Karmayogi platform	53
The iGOT Karmayogi platform	53
The short-term Annual Capacity Building Plan	55
Section 4	
Promoting success	58
Conclusion	59
References	60
Appendices	
Appendix 1. Sample competency (Project administration)	61
Appendix 2. IFU team members	62
Appendix 3. CSP team members	66
Appendix 4. The Annual Civil Services Survey (ACCS)	70
Appendix 5. The Citizen Satisfaction Survey (CSS)	73

ACKNOWLEDGEMENTS

EXECUTIVE SUMMARY

This document provides an overview of the guiding principles of Mission Karmayogi, a common vocabulary and an overview of the FRACing process. The Framework of Roles, Activities and Competencies (FRAC), as termed within Mission Karmayogi's Integrated Government Online Training platform, is the mapping of three constructs (roles, activities, and competencies, supported by knowledge resources) for each individual position within all government ministries, departments and organisations (MDOs) at the national, state and local level. Through the example of Shanti, this document provides a common understanding of the key terms, details of the FRACing process, its linkages to the iGOT competency hub, and the analytics that the platform can make available in order to improve the execution capacity of the Indian state.

Competencies lie at the core of Mission Karmayogi. They serve four key purposes in this endeavour: role-mapping, measurement, learning, and application. Identifying competencies is a diligent task that requires understanding its key features to ensure the output is coherent and meets the purpose of the activity. As part of the upgrade to iGOT Karmayogi, it is proposed that every MDO is able to map its positions, roles, activities, and competencies. Dictionaries and directories of all participating stakeholders and of the numerous positions, roles, activities, and competencies must be developed.

One of the key objectives of this entire process is to test the competencies of officials and use the iGOT Learning Hub to close any competency gaps in a timely and efficient manner. The Learning Hub will have to have unique features in order to do so. Given the pace of change in the way work is organised, often due to technological advancements, it is imperative for MDOs to constantly take stock of their ability to manage themselves. The data and analytics generated through this process will be available for MDOs to benchmark their human resources outcomes on the platform, and improve their ability to reduce the competency gaps of their officials.

By utilising artificial intelligence (AI) and machine learning (ML), the platform can also spot duplicates in the data and suggest new entries in the directories and dictionaries. AI and ML will also be able to suggest courses based on expressed career goals as well as an individual's learning journey thus far.

This Framework is ever-evolving, capturing new competency needs as and when they arise. FRACing should be seen as an ongoing process that enables MDOs to build an accurate picture of their interrelationships as well as the full list of positions, roles, activities, competencies, and knowledge resources relevant to them.

Establishing a clear theory of change, initiating continuous sensitising and handholding, building a core group of reform champions, as well as a network of world-class universities, institutions and individuals, will be required to ensure the success of this endeavour.

¹ In this instance, the act of denormalisation (i.e. converting a noun into a verb) re-emphasises the fact that FRACing is an ever-evolving process, that captures new competency needs as and when they arise, linking it to activities, roles, and positions. The verb-ing of FRAC (i.e. FRACing) essentially validates the evolving and dynamic nature of the Framework.

² Details of building and rolling out of the platform, including the content strategy, delivery mechanisms, rollout stages and other related matters, are beyond the scope of this document. These details will be covered in subsequent publications at suitable points in time.

LIST OF ABBREVIATIONS

AI	artificial intelligence
ASK	attitudes, skills, knowledge
BDF	behavioural, domain, functional
CBC	Capacity Building Commission
CBP	competency building product
C-CS	CBP competency score
C-DE	competency-driven engagement
CML	competency mark-up language
CoD	competency-owning department
CP	competency passbook
CS	competency score
CSP	certified service provider
CTI	central training institute
DFT	departmental FRACing team
DoPT	Department of Personnel and Training
FRAC	Framework of roles, activities, and competencies
IFU	internal FRACing unit
iGOT	Integrated Government Online Training
ISTM	Institute of Secretariat Training and Management
MDO	ministry, department, organisation
ML	machine learning
MMO	means, motive, opportunity
NPCSCB	National Programme for Civil Services Capacity Building
NTP	National Training Policy
PIAA	proctored, independent, authorised, assessment
SCSR	State of Civil Services Report
SPV	Special Purpose Vehicle
SSC	Staff Selection Commission
STI	state training institute
TCS	testing competency score
UPSC	Union Public Service Commission
WAO	work allocation order
WAT	work allocation tool
WPCAS	workplace competency assessment score

LIST OF FIGURES, TABLES AND BOXES

Figure 1	The 21st century civil servant
Figure 2	What FRACing tries to capture
Figure 3	The key principles of Mission Karmayogi with competencies at the core
Figure 4	The purpose of competencies in Mission Karmayogi
Figure 5	The short and long-term processes for MDOs
Figure 6	Sample work allocation order
Figure 7	Summary of the C-DE process
Figure 8	Summary of the FRACing process for CBP providers
Figure 9	The competency hub
Figure 10	Key information fields in the dictionaries of positions, roles and activities
Figure 11	Key information fields in the dictionary of competencies
Figure 12	The competency passbook (CP)
Figure 13	The competency view for users showing all competencies linked to a specific position
Figure 14	The competency view for CBP providers showing all positions linked to a specific competency
Table 1	An overview of the types of competencies
Table 2	Actors, tools, processes, and outputs
Table 3	Structure of the DFT (IFU + CSP)
Table 4	Scoring on iGOT Karmayogi
Table 5	Thematic areas and number of questions of the ACSS
Box 1	Guiding principles for competency levels
Box 2	Differences between domain, functional and behavioural competencies
Box 3	Pricing of CBPs
Box 4	Using AI to prevent performance inflation
Appendix 1	Sample competency (Project administration)
Appendix 2	IFU team members
Appendix 3	CSP team members
Appendix 4	The Annual Civil Services Survey (ACCS)
Appendix 5	The Citizen Satisfaction Survey (CSS)



INTRODUCTION

Mission Karmayogi and Competencies

In India, every aspect of a relationship between the citizen and the state contains its own inbuilt mechanisms to ensure that the state upholds its responsibilities. Yet, as we all know from the many frustrations in our interactions with the state, the state's capacity to deliver against its promises is uneven. This raises the question that we have been asking for some time now: why, despite decades as a democratic republic with credible elections and significant material progress, is the Indian state unable to deliver against promises made by its elected officials – particularly those enshrined in our constitution – and what can we do about it?

Public servants are an important part of the state – they are both the agents of policymaking and the executive hand that delivers on the ground. Given their crucial role, it is necessary to centre the discussion around the officials that make up the Indian state and tackle issues of state capacity starting at the level of individual bureaucrats in the system.

The National Programme for Civil Services Capacity Building (NPCSCB), also called Mission Karmayogi, is designed to enhance governance through civil service capacity building. Mission Karmayogi aims to:

1. **Enable public servants to continuously learn, perform, and grow based on merit;**
2. **Enable government leaders to choose from public servants across the government and form high-functioning teams;**
3. **Enable public servants to collaborate and execute projects with high fidelity;**
4. **Enable leadership and Mission Karmayogi institutions to monitor and guide the execution capacity of ministries, departments, and organisations (MDOs); and**
5. **Empower citizens to provide actionable, real-time feedback about the coverage and quality of public service delivery.**

There are four key principles of Mission Karmayogi, at the core of which lie competencies. FRACing is the critical first step in establishing these principles.

The Framework of Roles, Activities, and Competencies (FRAC)

FRAC, or the Framework of Roles, Activities and Competencies, lies at the centre of Mission Karmayogi. The process of FRACing demystifies the roles, activities, and competencies a person is required to have so as to effectively deliver on the outcomes expected from them with respect to their current and future positions in government. In doing so, it makes it possible to establish arrangements to test the extent to which a person occupying a position has these competencies and consequently the competency gaps, if any, that should be addressed. On the one hand, this acts as an effective signal to the effort that individual officials and their managers should be putting in to build competent teams; on the other, it lays bare the opportunities available to entities that have the capability to offer competency building products (CBPs). The latter is accomplished by solving the information asymmetry that plagues the market for quality CBPs .

iGOT Karmayogi gives shape to the mandate of the 2012 National Training Policy (NTP) to use e-learning technologies to cover the training needs of a large number of officials who currently have little or no access to opportunities for quality training. Distance and e-learning provides “unparalleled opportunities for meeting the training needs of the large number of civil servants dispersed across the State in different cities, towns and villages” (NTP, 2012, p. 32). The NTP also talks of the need to match the competencies of the officer with those required for his/her role – “...essential to match the individual’s competencies with the jobs they have to do and bridge their competency gaps” (p. 2).

The iGOT Karmayogi platform is thus envisaged as a democratised, competency-driven solutioning space that all of government can access to enhance government execution capabilities. It makes possible the use of all aspects of the 70-20-10 model of learning and development (Lombardo and Eichinger, 1996). The platform allows the government to break silos and harness the full potential of public servants for solutioning rather than simply depending on the knowledge and skills of an individual official. It does so by providing resources across six hubs: Competency, Learning, Career, Discussion, Network, Events (detailed in Section 3). These hubs will be accessible to every public servant even before their MDO has onboarded onto the platform using their NIC-allocated email ID. As competencies are at the core of this solutioning space, this document will primarily examine the Competency Hub within which the process of FRACing resides, and the Learning Hub where competency-building products can be accessed.

For multiple reasons, governments in India often require their officials to take on responsibilities for which they do not have prior experience or knowledge. As tasks become more complex and citizen expectations go up, it is important that governments are able to improve their ability to reduce the competency gaps of their officials in relation to the roles and activities they are required to perform. In order to meet the challenges of the 21st century, the civil servant of today is envisioned to be as shown in Figure 1.

³In doing so, the expectation is that the iGOT platform will help to develop an efficient market for CBPs – one in which government training institutions, universities, research institutions, private providers, as well as retired and serving officials, can offer their products that will be assessed for their impact in the workplace.



FIGURE 1. The 21st century civil servant

Given the pace of change in the way work is organised, often due to technological changes and sometimes due to unforeseen events (such as the recent COVID-19 pandemic), it is imperative for governments and officials to constantly take stock of their ability to manage themselves. FRACing will help them do so. Let's take the example of Shanti to illustrate this.

Shanti has just been posted as a Director in the Department of Personnel and Training (DoPT), Government of India. The work allocation has been issued with the approval of the Secretary of DoPT. Shanti has been designated as the Director (Vigilance). Having moved from an entirely different department, she now needs to figure out what her new position entails. As Director, Shanti has many roles to perform- each of which involves many activities which in turn, require many competencies (behavioural, domain, functional or BDF). How will she identify the various roles, activities, competencies and knowledge resources required for this position? How will she identify her own competencies? How will she make up for the gaps in her competencies? Where will she go to get clear answers to these questions?

The FRACing process enables MDOs to build an accurate picture of the interrelationships and the full list of positions, roles, activities, competencies and knowledge resources relevant to them. Most importantly, it also enables officials like Shanti to understand the competencies required for their position and how they can acquire them (as shown in Figure 2 below). Competencies, thus, are the link between Shanti's career goals and the pathway to achieving them.

⁴ The 70-20-10 model is based on the principle that: 70% of learning comes from experience, experiment and reflection; 20% is derived from working with others; and 10% comes from formal intervention and planned learning solutions.

⁵ In the dictionary of positions, there is a base definition of Director (Vigilance). However, depending on who is occupying that position, depending on the competencies and effectiveness of that person, the HoD may choose to assign some of the roles of Director (Vigilance) to people holding other positions in that MDO.

By understanding what the above mentioned constituents are for every position – specifically competencies – FRACing allows for the position to evolve so that it better serves the interests of both the government and the citizens.

Benefits to the various actors include:

1. Government MDOs, who will be able to better communicate to officials what their expectations are from holders of each position, the roles and activities that they will be called upon to perform, and the competencies (BDF) they will need to have to be able to successfully execute against these roles and activities.
2. Managers and team members, who will be able to get a better sense of each other’s competencies. This is possible on iGOT because of the micro-question arrangements that will be in place to drive the 360-degree assessments as well as the authorised independent assessment centres it will offer.
3. Individual officials like Shanti, who will take responsibility for their own career development because of the newfound clarity around the competencies required for each position, and access the most impactful CBPs through iGOT – irrespective of whether they have the approval of their manager, and whether their MDO has onboarded onto the platform.

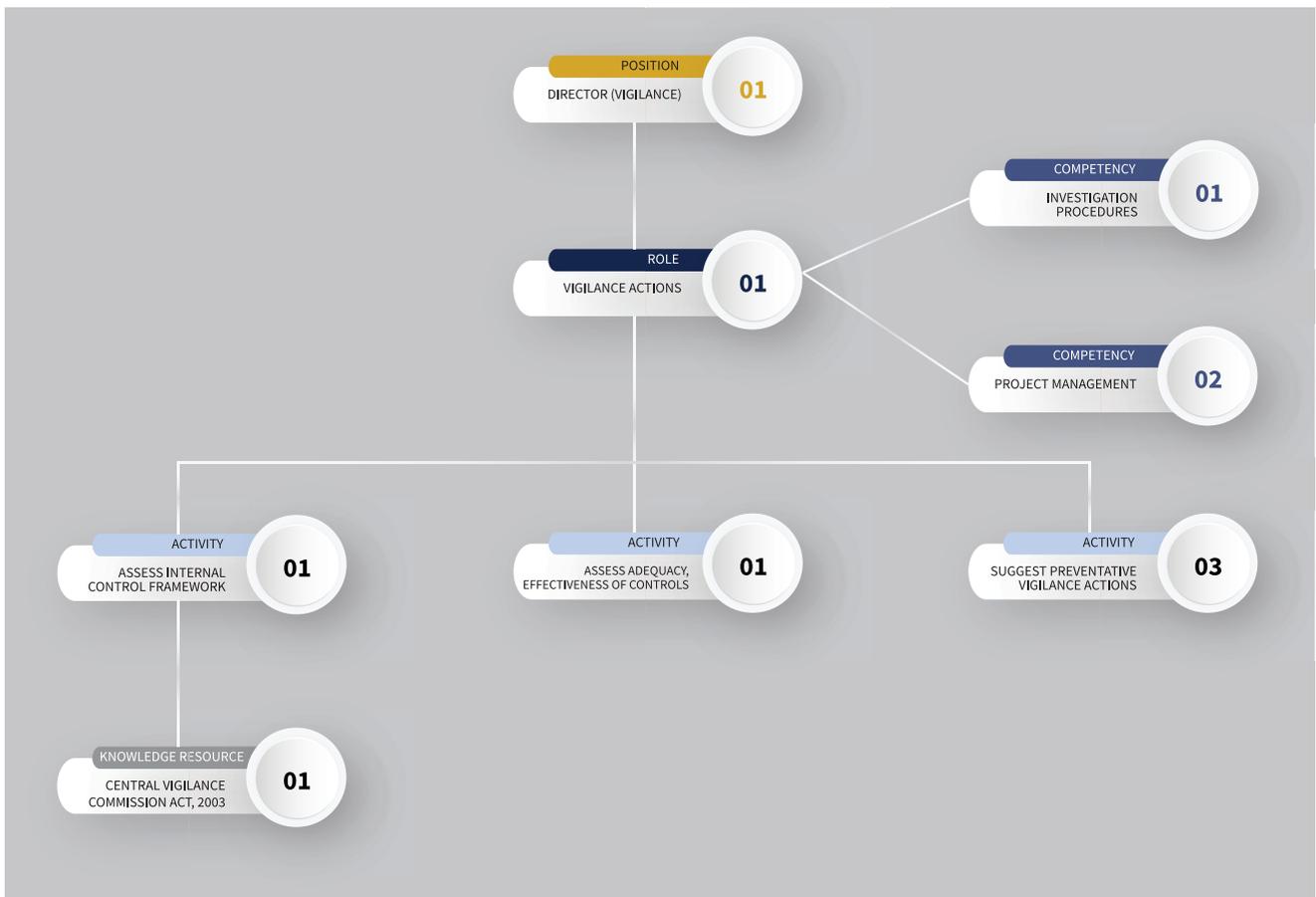


FIGURE 2. What FRACing tries to capture, adapted from DoPT (2020)

⁶ Each competency on iGOT will be assigned by DoPT to an MDO to be its owner. Competency-owning departments (CoDs) will have the responsibility to ensure the following with regards to each of the competencies assigned to them: 1) At least two high-impact CBPs are available for each level of each competency they own. They can do this by developing CBPs themselves, through their training institutions, or by fixing the price that providers can charge for CBPs that build competencies assigned to them; 2) Proctored, independent, authorised assessment (PIAA) capacity is available with a waiting time of less than 24 hours; and 3) Question banks, used for 360-degree assessments on iGOT and PIAA, yield results that are valid and reliable. The quality of these three will be ensured through quarterly score carding by iGOT’s Special Purpose Vehicle (SPV) of all CoDs – the results from which will be used on the PM dashboard and published in the annual State of Civil Services Report (SCSR).

⁷ These CBPs can be accessed at their own cost until their MDO has tagged competencies to roles linked to their position (i.e. through the preparatory FRACing steps or the FRACing process itself).

4. Providers of CBPs such as Central and State Training Institutions (CTIs, STIs), amongst others, who will be able to achieve excellence by getting a better sense of the nature and demand for CBPs, and the impact their course takers are having in the workplace. CBP providers will also be rewarded for excellence through better volumes (impact scores will be assigned to all CBPs on iGOT – see Table 4 for more information on scores).

What this means is that when every MDO goes through the full-fledged FRACing process and produces its own Figure 2 for all positions, it will directly benefit all the actors detailed above.

FRACing cannot be a one-time process. It has to be continuously updated so as to reflect the constant changes that occur when new work allocation orders (WAOs) are issued by re-tagging roles and activities with positions. Although most of the heavy lifting on this front will be done once every three years, the internal FRACing unit (IFU) will have to ensure that each time

- i. a new work allocation order is issued and/or the roles and activities associated with a position are tweaked, or
- ii. when a recruitment notice is put out or
- iii. indent placed to a recruitment agency like the Staff Selection Commission (SSC) or the Public Service Commission, it is always done via the relevant workflow on iGOT Karmayogi.

This will be possible only when an enforceable government order is issued that requires this. Only then will iGOT continue to remain functional and relevant by being the single source of truth for each position, and the linkage between each position and the roles, activities, competencies and knowledge resources related to it.

Competencies at the core of Mission Karmayogi

As mentioned above, there are four key principles of Mission Karmayogi, at the core of which lie competencies (see Figure 3).

Mission Karmayogi encourages **desiloisation**, so that MDOs can benefit from the insights and expertise of their peers across the government and work towards shared national goals; it will enable **role-specific training** that is measured through a triangulated set of assessments; it **harmonises capacity building**, defining the who, what, and how of capacity building; and it will **align the learning of officials with their career goals**.

Competencies, at the core of this endeavour, are the unifying language across all sectors and through the FRACing process will enumerate the standards of knowledge for each role, and define the who, what, and how of capacity building. They are the link between the individual goals of each official and the pathway to achieving them.

*Although an ongoing process, FRACing in its entirety must be repeated every fourth year (i.e. within the first quarter of the fourth year) or whenever there is a change in government – whichever is earlier.

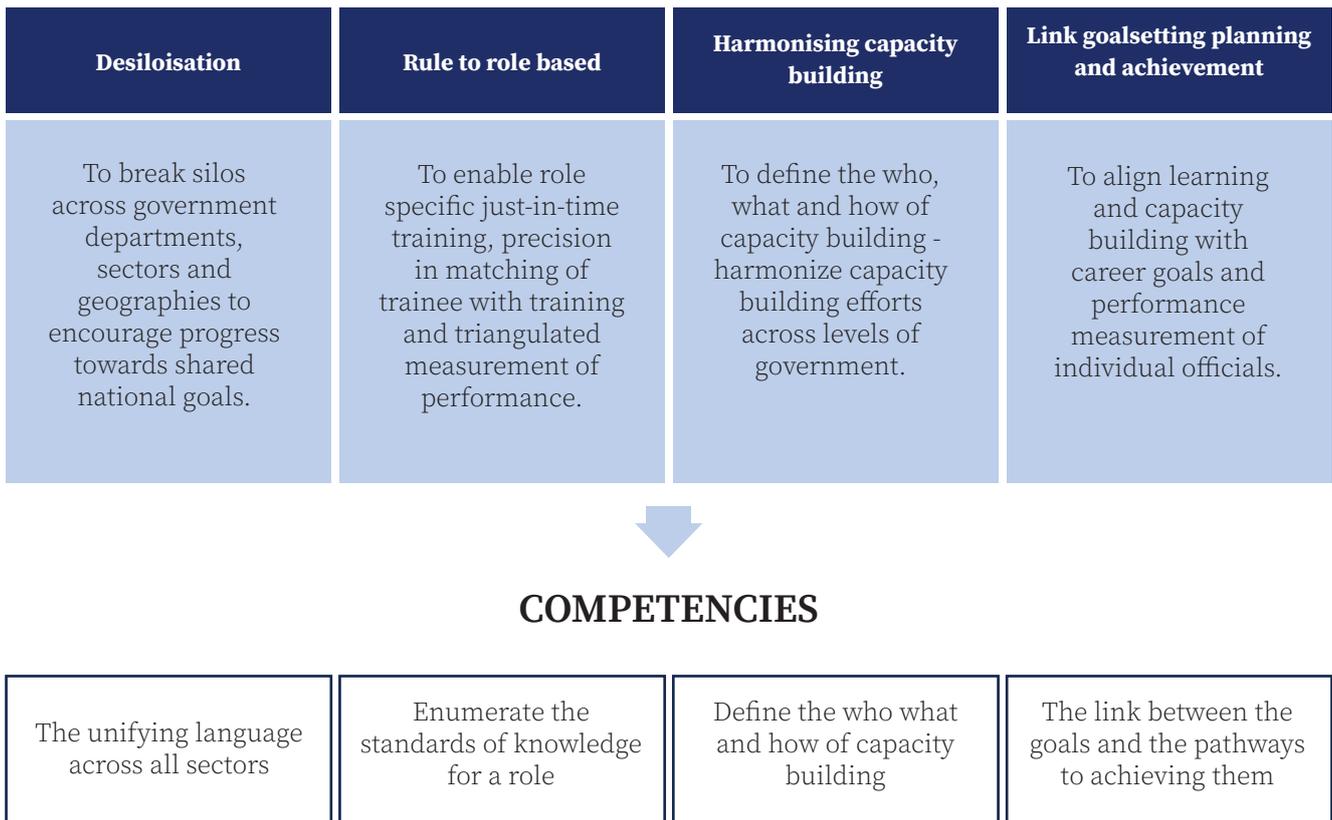


FIGURE 3. The key principles of Mission Karmayogi with competencies at their core

Defining positions, roles, activities, knowledge resources, and competencies

In order to be able to FRAC successfully, a common understanding of positions, roles, activities, knowledge resources and competencies must be established.

A **position** is defined as the place in which an individual is located in an organisation, entrusted with a set of roles and activities to be carried out. **Roles** are a related set of activities that are usually sequential and carried out to achieve an objective or milestone. Every individual **activity** within a role is thus an action taken to contribute towards this objective/ milestone. **Knowledge resources** are government artefacts (documents, software, etc.) that can be used (for justification or otherwise) to base a decision upon. These are always provided by MDOs for an individual to perform a certain activity, e.g. standard operating procedures, manual of procedures, legal policies (i.e. Acts), etc.

Finally, **competencies** can be defined as a combination of attitudes, skills and knowledge (ASK – see diagram below) that enable an individual to perform a task or activity successfully in a given job. There are three types of competencies: behavioural, domain and functional (BDF).

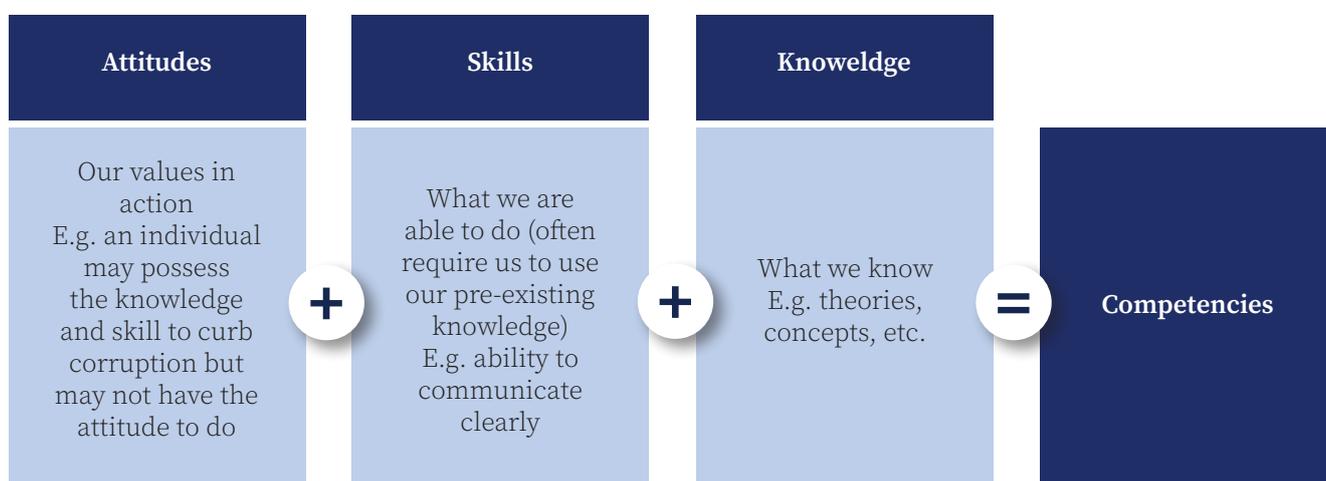
Typologies of competencies

Behavioural, domain, and functional competencies can be defined as follows (also see Table 1 for an overview of the types of competencies).

Behavioural competencies are a set of benchmarked behaviours that have been observed among a range of high performers. These capture competencies displayed (or observed/ felt) by these individuals across a range of positions, roles and activities within the MDO. These competencies also describe the key values and strengths that help an official perform effectively in a range of roles. Collectively, they can help an MDO plan their talent requirements. For her new position as Director (Vigilance), for example, Shanti may be required to have *problem solving*, *decision making and leading others* as core behavioural competencies.

Domain competencies are shared by a ‘family’ of related positions that have common roles and activities, and form a logical career path. These competencies are defined for a specific MDO (for example, the Ministry of Personnel or the Department of Biotechnology). Domain competency requirements may be concentrated in one specific MDO but that does not mean that others will not need them. While the Department of Personnel will require Shanti to display competence in *vigilance planning*, the Ministry of Health or Ministry of Human Resource Management may also require their Director (Training) to have the same competency.

Finally, **functional competencies** are common among many domains, cutting across MDOs, as well as roles and activities. For example, *project management*, *budgeting*, *communication* etc. are required for many roles across MDOs.



Although they may use slightly different terminology, other countries have used carefully researched and developed their understanding of competencies to improve their working. For example, the United Nations has listed eight core and five managerial competencies (UN, 2020); IAEA has four core and 11 functional competencies (IAEA, n.d.); OECD has 15 core and technical competencies (OECD, 2014); and the NeGD, Ministry of Electronics and Technology, Government of India has developed a set of e-governance competencies (NeGD, 2014). We anticipate that our understanding of competencies will both build on these existing frameworks as well as contribute to the existing body of literature.

Behavioural competencies	Knowledge-based competencies (domain and functional)
Benchmarked to high performing individuals	Benchmarked to threshold or minimum knowledge required to carry out the job/ task/ role/ activity in a satisfactory manner
A typical 'universal' behavioural competency dictionary document consists of a maximum of about 70 competencies	In an earlier time, these were called 'qualifications' – they are many in number, depending upon the number of 'professions/ guilds'
Behavioural competencies and their levels are very dependent upon the 'level' within the hierarchy, and can be similar across a wide range of positions carrying out a similar 'complexity' of role	Knowledge-based competencies will vary according to role and activities being carried out
Difficult to acquire (as most behaviours generally develop in the early years)	Easy to acquire
Documented in the Civil Services Competency Dictionary (DoPT, 2014)	Proposed to be documented through the FRAC process as domain and functional

TABLE 1. An overview of the types of competencies

The purpose of competencies

Competencies serve four primary purposes in this capacity building endeavour (see Figure 4). They help map the attitudes, skills, and knowledge required for each role (role mapping); provide information on individual abilities to learn and perform in a role (measurement); allow for targeted learning attached to specific levels of training needs (learning); and help organisations plan their capacity building activities (application). As will be elucidated in this document, it is the process of FRACing that allows for these purposes to be fulfilled. The subsequent sections of this document will cover these four purposes.

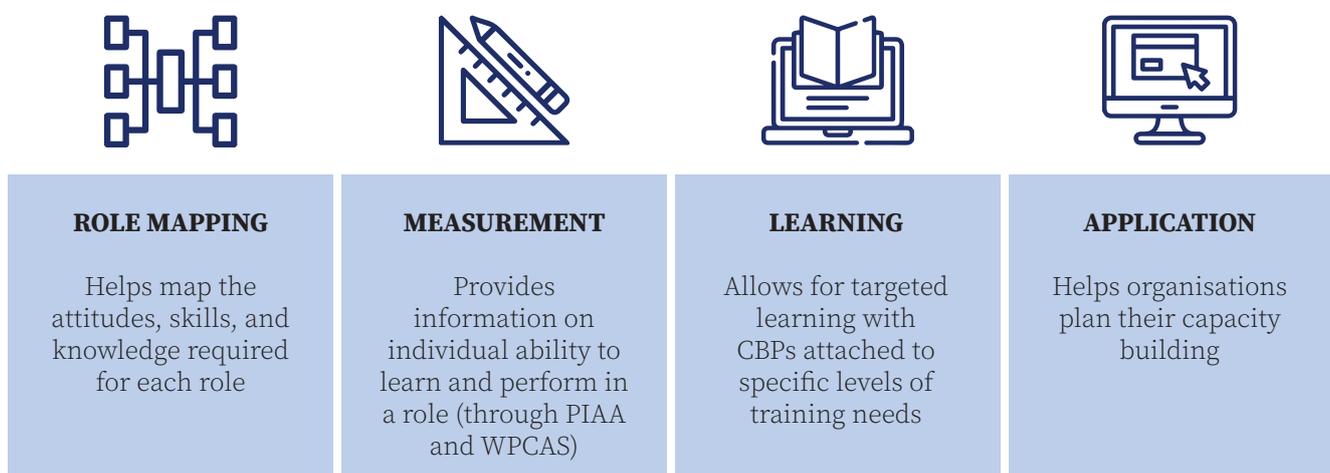


FIGURE 4. The purpose of competencies in Mission Karmayogi

The FRAC document

The FRAC document will be divided along the lines of the four purposes. Section 1 details the actors, tools, processes, and outputs of FRACing (i.e. how competencies are key to role mapping). Section 2 will cover how users will learn and how that learning will be captured on the iGOT platform (i.e. measurement and learning of competencies). And finally, Section 3 outlines how the application of competencies will help MDOs plan their capacity building activities (i.e. application).

Ways to read this document

To simplify reading this document, the table below lists the objectives and the corresponding sections. If, for example, I only want to read the document to understand the assessments and scoring system, I can click on the relevant link under Section 2.

Objective	Relevant sections
To develop an understanding of Mission Karmayogi and competencies	See: Introduction
To develop an understanding of the process of FRACing for various actors	See: Section 1: <ul style="list-style-type: none">• FRACing for MDOs• FRACing for individual officials• FRACing for CBP providers
To develop an understanding of the measurement and learning mechanisms on the iGOT platform (including scoring and analytics)	See: Section 2: <ul style="list-style-type: none">• Assessments and scoring on iGOT• Analytics from iGOT
To develop an understanding of how MDOs will plan their capacity building activities	See: Section 3



SECTION 1

Role mapping: The FRACing process

This section will outline the process of FRACing, covering the actors, tools, processes, and outputs.

As covered in the Introduction, going through the FRACing process – thereby developing an enhanced understanding of the roles, activities, competencies, and knowledge resources mapped to every government position – will benefit various actors in many ways:

- 1. MDOs** will be able to better communicate their expectations for each position vis-à-vis the roles and activities officials will be called to perform, and the competencies they are required to have in a given position;
- 2. Managers and their team members** will be able to get a better sense of each other's competencies;
- 3. Public servants** like Shanti will be able to take responsibility for her own career development, grow in her current role, and prepare for future positions; and
- 4. CBP providers** will be able to get a better sense of the nature and demand for their products, as well as the impact their alumni are having in the workplace, and be rewarded for excellence through the mechanism of impact scores.

The Mission Karmayogi team will launch a series of workshops and a certification programme on the FRACing process. Before any individual or entity can add to the dictionaries and directories through the various tools in the required format (as portrayed in Section 1), they must complete the course on FRACing and be appropriately certified. This is to ensure common understanding with regards to the processes and outputs.

Similarly, before any CBP provider can upload CBPs onto the platform, a representative in charge of uploading CBPs must complete the course on how to develop content for the iGOT Karmayogi platform and fulfil the quality requirements. This is to ensure common understanding with regards to the process of uploading content on the platform.

In order to ensure that FRACing has been adequately conducted, the final products of this process (i.e. entries in the dictionaries and directories) must be self-explanatory, unique, and fit-for-purpose for an array of actors such as the incumbent position holders, future position holders, HR managers, CBP providers, etc. All submissions into the dictionaries and directories from all entities will be screened by the Review Board before they are accepted. The Review Board is in charge of finalising, verifying, and accepting/rejecting all entries into the dictionaries and directories.

Actors, tools, processes, and outputs

As shown in Table 2 below, there are three actors that can go through the FRACing process: MDOs, individual officials, and CBP providers. All three actors will go through variations of the FRACing process, produce varied outputs, and add to the dictionaries and directories using three unique tools. No matter which actor is adding to the dictionaries and directories using which tool, all entries will end up in the same singular, interconnected, multidimensional, flexible registry.

The following subsections will go through the FRACing process for each actor, while the final subsection will cover the outputs – i.e. the dictionaries and directories of the iGOT platform.

No.	Actor	Tool	FRACing process	Output
1	MDOs (representatives / admins)	Work allocation tool (WAT)	Develop the roles, activities, knowledge resources, and competencies relevant to each position in the MDO through relevant documentation (including existing work allocation orders), and map elements to one another	<ul style="list-style-type: none"> • Entries in the dictionaries and directories of the iGOT platform • Work allocation orders (WAOs)
2	Individual officials (across different MDOs) and volunteers	FRAC tool	Develop the roles, activities, knowledge resources, and competencies that are relevant to their/others' positions through relevant documentation (including existing work allocation orders), and map elements to one another	<ul style="list-style-type: none"> • Entries in the dictionaries and directories of the iGOT platform
3	CBP providers	CBP Portal	Develop competencies using course descriptions, learning objectives, and other resources, as they upload courses on the portal	<ul style="list-style-type: none"> • Entries in the competency dictionary on the iGOT platform • Competencies tagged to their CBPs

TABLE 2. Actors, tools, processes, and outputs

The FRACing process for MDOs

The FRACing process for MDOs is divided into the short and long-term, and can be summarised as follows (also see Figure 5):

1. In the short term, MDOs will set up their departmental FRACing team (DFT) and go through the competency-driven engagement (C-DE) process. The C-DE process is only the mapping of roles, activities, competencies, and knowledge resources for all positions in the MDO (detailed below).
2. In the long term, MDOs will go through four phases of the FRACing process: setting up their DFT, organisational analysis and role clarification, iterative FRAC exercise, and audit and updatation. The C-DE process is subsumed within the iterative FRAC exercise.

The reason for introducing the C-DE process in the short term is to encourage MDOs to start thinking about mapping competencies and activities to their roles, ensuring that time is not lost while waiting for the full-fledged FRACing process to roll out. For both the short and long-term processes, MDOs will use the work allocation tool (WAT). While it is likely that before going through the long-term FRACing process an MDO has gone through the C-DE process, it may not always be the case. As a result of some MDOs having gone through the C-DE process, however, the dictionaries and directories will come with some pre-filled content.

Aside from entries in the dictionaries and directories, the FRACing process for MDOs will also result in a new work allocation order for each individual in said MDO. Work allocation orders (or WAOs) are documents which formally allocate the roles and accountabilities to every public servant, usually upon joining. These are allocated by the supervisor or Head of the MDO, and updated as and when necessary. Currently, there are many different templates of WAOs produced across the government. Going through the FRACing process via the WAT will ensure a uniform WAO for every position in the government (see Figure 6 for what this might look like). The C-DE process as well as the four phases of the FRACing process for MDOs is outlined below.

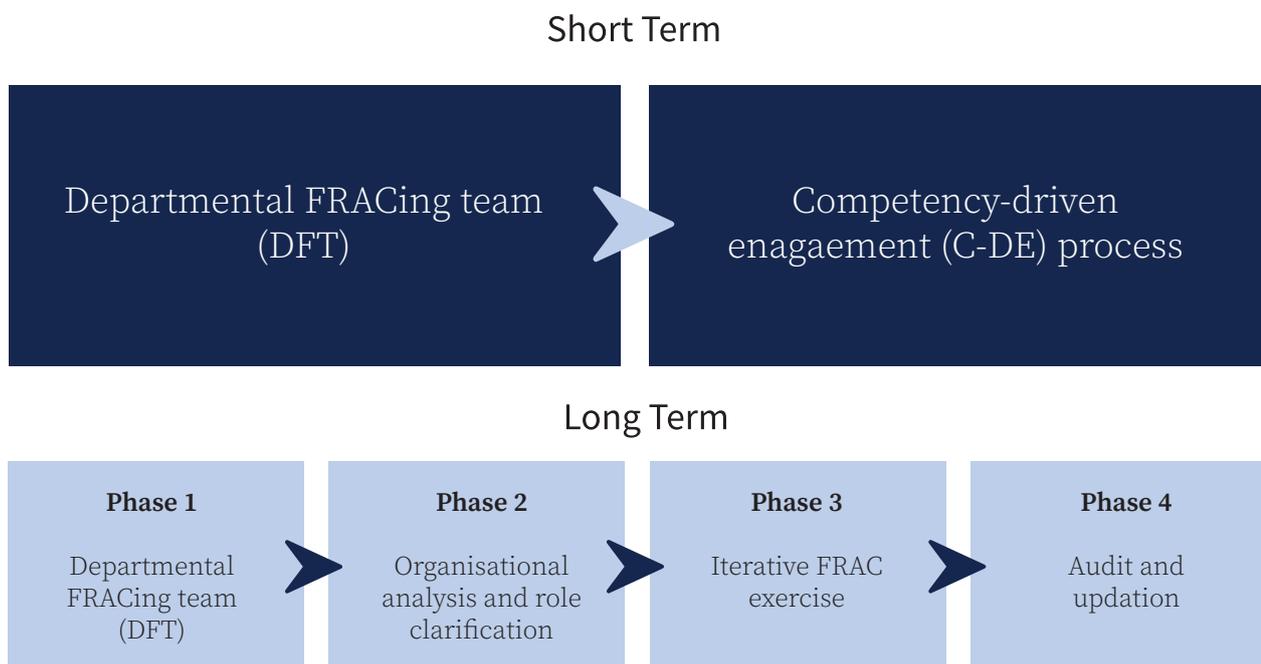


FIGURE 5. The short- and long-term processes for MDOs

Short term: The competency-driven engagement

(C-DE) process

Figure 7 summarises the steps of the C-DE process for MDOs, while the steps are outlined below. Note that these are recommended steps to the C-DE process – if an MDO wishes to conduct the mapping in a different way, they are free to do so as long as their final entries are of the desired quality in the required format. MDOs are also free to draft the elements independent of one another, if they so desire. For a detailed breakdown of these steps, as well as examples and tips, please refer to the accompanying documents.



FRAC Department

1/2

Work order - DoPT (draft for approval)
 Printed at 11:59 AM 07 Dec 2021

1 . Sanjeev S Assistant Section Officer			
Roles and competencies	Activities	Submit to	Submission from
Noting and drafting Communication Skills Attention to Detail	Write notes in accordance with guidelines listed in Manual of Office Procedures		
	Arrange papers in prescribed order		
	Drafting memos for internal and external stakeholders as per guidelines listed in the Manual of Office Procedures		
Stakeholder management Communication Skills Empathy	Coordinate and arrange for meetings among senior officers, between representatives of departments, various stakeholders, etc,		
	Draft minutes of meetings		
	Keep all stakeholders informed about approved course of action		
Maintenance of records Attention to Detail Organisational Awareness	Keep abreast of developments in the assigned field or area of work.		
	Ensuring that facts and figures mentioned in a record are correct and updated		
	Arrangement of records as per prescribed guidelines		

----- End of document -----

 Approved On

 Signature

FIGURE 6. Sample work allocation order

Delineate all roles, activities, and knowledge resources under each position	Develop competencies	Refine and upload entries
<ul style="list-style-type: none"> • Use key documentation (including existing work allocation orders) to list all positions and roles • Make a list of all the activities that come under each role • Make a list of all the knowledge resources that come under each activity (if any) 	<ul style="list-style-type: none"> • Describe the competencies required for each role • Identify the competency area, type, label, and levels 	<ul style="list-style-type: none"> • Refine all labels and descriptions based on their connected units (i.e. refine role labels based on activity descriptions) • Upload all entries via the work allocation tool (WAT)

FIGURE 7. Summary of the C-DE process

► Step 1. Draft your position label (Position Label)

Figure 7 summarises the steps of the C-DE process for MDOs, while the steps are outlined below. As mentioned earlier, these are just recommended steps and MDOs can conduct the mapping in their own way, following quality protocols.

Examples:

- *Director (Vigilance)*
- *Professor (Applied Economics)*
- *Assistant Section Officer (DoPT)*

Step 2. Create a list of role labels (Role Label)

► Role labels capture a related set of activities an individual may perform to complete a milestone in a process. Use relevant documentation to identify any roles one performs within a given position on a regular basis, and put these aside to be refined at a later stage. It is recommended to use nouns (3-5 words).

Examples:

- *Trainer*
- *Administrator*
- *Programme Director*

► Step 3. Make a list of all the activities that come under each role (Activity Description)

Activities are a set of sequential actions taken to contribute towards a role. List the steps (usually more than 1) to be carried out in a sequence, and answer the 'what', 'when' and 'how' for each role. For example, what are the different activities under Programme Director? It is recommended to use verbs (50 characters).

Examples:

- *Assess training needs as per the requirement of the course and the participants*
- *Manage administrative tasks pertaining to the programme*
- *Develop relevant and customised training material*

► Step 4. List all the knowledge resources pertaining to each activity (Knowledge Resources)

Knowledge resources are government artefacts (documents, software, etc.) that can be used (for justification or otherwise) to base a decision upon. These are always provided by the MDO/CTI/STI for an individual to perform a certain activity. For each activity, list all relevant knowledge resources (note that not all activities require knowledge resources, and some may require more than one). These will be added to the directory either as a URL or uploaded as a file.

Examples:

- *Standard operating procedures (SOPs)*
- *Manual of procedures/ policy manuals*
- *Legal policies (i.e. Acts)*

► Step 5. Use the activities under each role to formulate a role description (Role Description)

Role descriptions summarise the list of activities under each role label. They describe the overall objective of the list of activities. Add a description for each of the cluster of activities under each role, keeping the overall objective in mind (140 characters).

Examples:

- *Design and deliver customised course content and training material, and manage all administrative tasks related to the course.*

► Step 6. Use the role descriptions to further refine the role labels

The role label should succinctly capture the role description. Using the role descriptions created in the previous step, refine the existing role labels if necessary. It is recommended to use nouns (3-5 words).

Examples:

- *Trainer (**Programme**)*
- *Administrator*
- *Programme Director*

► Step 7. Use the roles and activities to describe each of the positions (Position Description)

Position descriptions describe why the position exists, what its overall objectives are, and how it goes about achieving those objectives. For each position, refer to the role labels, descriptions, and activities to understand its overall objectives, and summarise the collective role descriptions to arrive at the position description (keeping the overall objectives in mind) (140 characters).

Examples:

- *Manages delivery of courses, coordinates with internal and external stakeholders, and plans the programme in order to eliminate day-to-day issues and ensure timely optimisation of resources.*

► Step 8. Identify competency areas for each role (Competency Area)

Competency areas can be defined as the collection of competencies closely related to one another at a knowledge/subject level. Refer to the role label, description, and activities deployed in the earlier steps to identify key words that act as broad subject areas – these will be your competency areas (2-4 words).

Examples:

- *Project management*
- *Public administration*
- *Business development and strategy management*

► Step 9. Identify the competency label and type (Competency Label and Type)

Competency labels indicate what the competency is about and how it is commonly known. Competency labels nest within competency areas. Refer to the key words identified for the competency areas and think of possible labels that might nest within the areas (2-4 words). Also identify the competency type: behavioural, domain, or functional. In the case of the examples below, they are all functional competencies as they are applicable to and present across a wide range of organisations, functions, and positions.

Examples:

- *Functional competencies under the competency area of Project management:*
 - *Project administration*
 - *Project quality management*
 - *Project resource planning*

► Step 10. Describe the competencies (Competency Description)

The competency description covers the elements and the scope of the competency, as determined through:

1. **Recurring activities:** A competency description should indicate activities an expert in this competency would undertake (usually mentioned across a range of resources – WAOs, job descriptions, course objectives, etc.).
2. **Common objective, if any:** A competency description should indicate a common objective the competency is working towards.

Identify the recurring activities based on your resources and determine a common objective these activities work towards (280 characters).

Examples (colour-coded as above):

- *Project administration: **Planning, monitoring, and budgeting** the project to ensure **timely optimisation of resources (financial and Human)**, to deliver a successful outcome.*

Additionally, there may be times where the value added/created by benchmark activities towards a specific objective is also included in the competency description. In the example above, this would be 'to deliver a successful outcome'.

► Step 11. Add level descriptors for each competency (Competency Level Description)

Competency levels are defined as the proficiency level of the competency. It indicates the progressive nature and level of sophistication of the competency described. For example, Level 2 is a more sophisticated use of a particular competency when compared to Level 1, and so on. There should be between 3-5 levels for every competency.

The competency level description is an observable description of each level of a given competency. The higher the number of descriptors, the greater the understanding of the proficiency level. It is recommended to have a minimum of 3 observable descriptors per level (see Figure 11 and Appendix 1 for a full example of a competency).

► Step 12. Add level labels to each competency (Competency Level Label)

The competency level label provides an overview of the competency level and level description. This can be summarised in 2-6 words (see Figure 11 and Appendix 1).

When identifying competency levels, level labels, and defining each level with descriptors, MDOs can use the five level labels and guiding principles as specified in Box 1.

With this step ends the short-term FRACing process for MDOs. The outputs of these 12 steps can now be added on the iGOT platform via the work allocation tool.

BOX 1. Guiding principles for competency levels

Competency level labels and descriptors can broadly be categorised as follows:

- **Level 1 (Basic):** Possesses basic knowledge and skills related to some elements of the competency and is able to apply them with moderate supervision.
- **Level 2 (Proficient):** Able to demonstrate knowledge and skills related to most of the elements of the competency and apply them without need for constant supervision.
- **Level 3 (Advanced):** Possesses strong knowledge and skills required for the competency and demonstrates an understanding of the interlinkages between competencies. Acts as an advisor on the topic, often producing manuals/notes to support colleagues.
- **Level 4 (Expert):** Demonstrates excellence in all capabilities related to the competency compared to best industry benchmarks within the country. Is a person of authority on practices and/or systems related to the competency and is widely consulted on the same.
- **Level 5 (Ustad):** Demonstrates complete mastery of the competency and use of it in unprecedented ways. Has a fundamental, outsized impact on their field of knowledge with few other people having similar capabilities.

Ask yourself whether all the descriptors are observable by a third party. Note that while the above guidance can help, it is essential to be specific in each of the descriptors. The more specific these descriptors are, the more relatable they become by reducing ambiguity.

Once the descriptors are complete, stack them into buckets of complexity. These buckets of descriptors bunched together and stacked according to complexity from left to right gives us the proficiency level i.e. competency level.

Long term: The FRACing process

As depicted in Figure 5, the FRACing process for MDOs will consist of four phases. These are as follows:

► Phase I. Departmental FRACing team (DFT)

The first step in the FRACing journey for an MDO is to establish the departmental FRACing team (DFT). This consists of an internal FRACing unit (IFU) and certified service provider (CSP). The DFT have an important role to play in all aspects of Mission Karmayogi. Besides bringing in HR expertise, having external domain experts in the FRACing team (the CSP) will enable MDOs to get an 'outside-in' view of talent requirements (see Table 3 for details of the IFU and CSP team members).

An IFU (see Appendix 2 for details on the roles, activities, competencies and knowledge resources of IFU team members) – supported by the Special Purpose Vehicle (SPV) Karmayogi Bharat – will comprise of individuals from the MDO who wish to work on FRACing or any other aspects of iGOT Karmayogi.

With regards to CSPs, the iGOT SPV will empanel and publish price lists for CSPs whose members will be certified by the SPV (see Appendix 3 for details on the roles, activities, competencies and knowledge resources of CSP team members). The IFU can then select one of the empanelled CSPs to help them with FRACing and other iGOT processes. The structure of the CSP will depend on the competencies of the persons in the IFU.

► Phase II. Organisational analysis and role clarification

This phase will consist of finalising departmental goals for the next three years, conducting an organisational analysis (to suggest changes required to achieve said goals), and approving the new organisational design.

Mission Karmayogi seeks to transform HR practices in government. This cannot happen if MDOs focus only on business as usual, paying inadequate attention to the responsibilities given to it under the Government of India (Allocation of Business) Rules, 1961, and the three goals set for it by the departmental minister. The true potential of the Mission will be realised only when HR practices and internal processes are transformed by accounting for changes that are needed in both processes and talent to be better able to execute the goals set for it. This is why special emphasis has been placed on finalising departmental goals every three years (which is why FRACing in its entirety must be repeated every fourth year). In doing so, efforts will need to be made to consult NITI Aayog vision documents, election manifestos, budget announcements as well as tasks assigned by the Prime Minister's Office.

The three-year goals will be the starting point of organisational analysis. This exercise will help in identifying the gaps at an organisational level that need to be filled as well as the talent infrastructure required in order to achieve these goals. These gap-filling actions could range from infusion of technology, to additional schemes/ services/ goods being introduced, to a new set of delivery standards, to reconfiguring the team and their competencies, or any such large change in the expectations from the MDO.

It is also important to understand the dependence between the work, workforce and the workplace and build resilience by decoupling these if required, as was shown during the COVID-19 pandemic. The compulsory work-from-home status and the changes associated with it may become a regular option available to people. How MDOs cope will have a major influence on their ability to not only attract talent, but also be ready to deal with any crises. Practical steps for the decoupling of these constructs will need to be developed.

Once extensive analysis has been conducted, and a new organisational design has been put forward by the DFT that speak to the three-year departmental goals, approval from the relevant authority is required. Once the approval has been obtained, the mapping process can begin.

► Phase 3. Iterative FRAC exercise

With Phase 3 begins the iterative FRAC exercise, which is cyclical in nature. The DFT will first refer to the pre-existing dictionaries as populated during the C-DE process to: 1) identify what they can use; 2) identify what they want to modify; 3) identify what they want to remove; and 4) identify what they want to propose as new – all to ensure that there is completeness in the process.

Having made these decisions, the DFT will then attempt a draft of all dictionaries and their interrelationships ensuring that all the positions, roles, activities, knowledge resources, and competencies relevant to the MDO being FRACed are contained therein. To do this, the DFT can follow the same recommended steps of the C-DE process. The CSP's key role here is to challenge conventional wisdom and push the narrative away from 'these things don't work here'. This phase also includes:

1. Focus group discussions with internal and external experts:

The primary objective of this focus group discussion is: to finalise the list of competencies (BDF) that are required for each role, and the levels for the same; to ensure the competencies are aligned with the three-year goals set by the departmental minister; to allocate all competencies at the appropriate levels to all roles for each position; and to discuss the interrelationships between the various components.

One should ensure that outside experts are a part of this is to establish that there is a plurality of opinion and that a critically informed, forward-looking stance informs the discussion. The experts need to be globally recognised domain experts. At least one such expert should be brought in for each of the thrust areas of the MDO that is being FRACed. One may look for such experts from within the country or from abroad, from other parts of government or from the private sector. The quality of these experts will determine the quality of the competencies documented and the HoD must take personal interest in this selection. Any failure to bring in anything but the best will seriously impair the outcomes from FRACing.

The consolidated list of roles, activities, knowledge resources and competencies from this step as well as the various interrelationships between them will be shared with the senior leadership of the MDO being FRACed to agree/ change/ remove competencies from the list, eventually contributing to the dictionaries and directories.

2. A position, role, activity, competency and knowledge resources survey of all staff:

This is the stage where everyone in the entity being FRACed gets a chance to contribute to the FRACing process. Based on several rounds of discussions with key members of staff and domain experts from outside, the dictionaries and directories are updated. Once this has been done, all members of staff will be asked to use the dictionaries to draw out the roles, activities, competencies and knowledge resources relevant to them. In case the dictionaries do not have a role, activity, competency or knowledge resource that is relevant to them, they are invited to propose the same. All proposals for additions to the dictionaries are then gathered and analysed by the DFT for another revised draft.

► 3. Focus group discussions with division heads:

At this stage, the division heads review the revised draft of the dictionaries, interrelationships and rankings. They also focus on getting expectations from each other ratified and check if they have successfully incorporated them into their individual divisional dictionaries.

Thus, only once these are complete will we have the final draft of the dictionaries and directories.

No.	Position (DFT)	Position (MDO)	IFU/ CSP/ either	Part / full time	Remarks / criteria
1	Head of the DFT	CEO/ Secretary/ Joint Secretary/ DG (HoD)	IFU	Part-time	--
2	Project Leader	Head of HR/ CSP Partner	Either	Part-time	Must be from an HR background
3	Project Manager	Head of HR/ Division Head	IFU	Full-time	Could be from either the HR function or another user department; should have the credibility to ensure that meetings called for are attended and issues raised are promptly resolved
4	Team Member	Project Coordinator	IFU	Full-time	May need more than 1; HoD can add more basis workload and time pressure
5	Team Member	Functional Heads/ Head of the Wing/ Head of the Division	IFU	Part-time	All function heads must be represented here
6	Team Member	Head of HR/ Personnel/ Establishment	IFU	Part-time	If the Head of HR is Project Manager, then the next available senior officer must be appointed
7	Team Member	Partner/ Director/ Associate Director/ Senior Manager	CSP	Full-time	Senior member with HR background; previous work experience in designing and implementing competencies; experience in change management processes in a governmental context

8	Team Member	Senior Consultant (Domain)	CSP	Part-time	Needs to have background experience in respective domains in process re-engineering/ technology/ KPI setting/ performance improvement projects
9	Team Member	Head of HR/ CSP Partner	CSP	Part-time	All the critical core functions* must be represented; a technology expert who specialises in this particular domain must be represented
10	Team Member	Head of HR/ Division Head	CSP	Full-time	Assists consulting project manager; must have re-designed HR processes - particularly recruitment and L&D in large government or public/private organisations

TABLE 3. Structure of the DFT (IFU + CSP)

► Phase 4. Audit and updation

At this stage, the IFU takes charge and the entries are uploaded on the iGOT platform for a quality audit conducted by the iGOT SPV. The CSP continues to be available to work on any of the audit observations passed by the iGOT SPV's quality team.

Once the quality audit is complete by the iGOT SPV, the final dictionaries are shown to the HoD for approval. Thus, the HoD benefits from the advice of both the DFT and SPV. Finally, once the dictionaries are approved by the HoD, they are published on iGOT for all users to view.

In order to ensure that results from the FRACing exercise continue to remain relevant, a QR code and workflow must be created for the WAOs, as well as recruitment. HoDs are constantly changing the distribution of work among different members of staff so that load balancing as well as talent matching is accomplished. Once FRACing has been done and the platform updated, any subsequent changes to the tagging of roles, activities, competencies or knowledge resources to positions will have to be captured on the iGOT platform. This is best achieved by ensuring that all changes to the distribution of work are done using the workflow built for this purpose on the platform. This will require an enforceable government order which states that no orders with regards to the distribution of work will be valid unless it has been generated on iGOT Karmayogi. As evidence, the WAO should carry a unique QR code generated on the platform. The workflow for this will be built such that the tagging of roles and activities are updated before the order is printed.

The QR code requirement for recruitment will also have to be imposed via an enforceable government order as described.

This marks the completion of the long-term FRACing process for MDOs. As iterated earlier, the result of this process – entries in the dictionaries and directories, their interrelationships, and updated WAOs – must be adequate for the use of incumbent position holders, future position holders, HR managers, and CBP providers, for the process to be deemed successful.

It is also important to reiterate that FRACing should not be seen as a one-time activity, but rather an ongoing process. On the whole, it will enable government MDOs to build an accurate picture of the interrelationships as well as the full list of positions, roles, activities, competencies and knowledge resources relevant to them.

The FRACing process for individual officials

The FRACing process for individual officials is the mapping of roles, activities, competencies, and knowledge resources for a given position. Officials who wish to go through the process will use the FRAC tool. Before doing so, however, they must complete the course on FRACing and be appropriately certified to ensure common understanding with regards to the process and output.

If an official would like to go through the FRACing process for individual officials, they can go through the 12 recommended steps outlined under ‘Short term: The competency-driven engagement (C-DE) process’, and add new entries or tag existing entries to their position. Their submissions for new entries will be sent to the review board directly, and will not require MDO approval.

The FRACing process for CBP providers

Finally, the FRACing process for CBP providers is the development and tagging of competencies using learning objectives, course descriptions, and other resources, as courses are uploaded on the CBP portal. In order to successfully upload their course on the platform, providers must be able to identify the competencies their CBP addresses. Thus, every single CBP must be tagged to one or more competencies as declared by the provider. Figure 8 summarises the FRACing process for CBP providers.

Similar to MDOs and individual officials, representatives of CBP providers must complete the course on how to develop content for the iGOT Karmayogi platform – including going through the FRACing process, developing competencies as required, and tagging competencies to their course – before they can upload CBPs onto the platform.

Below are recommended steps to the FRACing process for CBP providers. Like other actors, providers are also free to develop and tag competencies using a different set of steps as long as their final output meets the desired quality in the required format. The most important resource to develop competencies is the course’s learning objectives, as those will guide the drafting process of all the key information fields.

► Step 1. Search the competency dictionary

Step 1 is to search the competency dictionary to identify if there are any competencies from the existing list that are being covered by the CBP in question. It is likely that more than one competency will be covered by the CBP – for example a CBP on GST is likely to cover domain competencies related to direct taxes, comparative tax regimes etc, as well as certain functional or behavioural competencies depending on how the course is designed. Go through the descriptions available and choose the ones that are likely to be covered by the course.

► Step 2. Identify the competency area, label, and type (Competency Area, Label, and Type)

In case there are missing competencies the CBP covers, you will be required to develop your own competencies. Begin with the competency label: the name of the competency, indicating what it is about and how it is commonly known. Use your course’s learning objectives and other documentation to identify labels of the competencies your CBP addresses. The question to ask is: once these learning objectives are achieved by the learner, what competencies will they be likely to demonstrate? Can they be observed by a third party?

Once you have a label (or labels), identify the competency area within which the label falls. Competency areas can be defined as the collection of competencies closely related to one another at a knowledge/subject level. There will usually be more than one competency that nests within a given competency area. Also specify the competency type (behavioural, domain, functional).

Examples:

- *Domain competencies under the competency area of Human Resource planning:*
 - *Workplace optimisation*
 - *Organisational design*
 - *Organisational strategy development*

Develop competencies	Develop competencies	Develop competencies
<ul style="list-style-type: none"> • Describe the competencies required for the CBP • Identify the competency area, type, label, and levels 	<ul style="list-style-type: none"> • Refine all information fields based on their connected units (i.e. refine competency description based on the levels) • Upload all entries via the CBP portal 	<ul style="list-style-type: none"> • Tag all relevant competencies to the CBP

FIGURE 8. Summary of the FRACing process for CBP providers

► Step 3. Add level descriptors for each competency (Competency Level Description)

Competency levels are defined as the proficiency level of the competency. It indicates the progressive nature and level of sophistication of the competency described. For example, Level 2 is a more sophisticated use of a particular competency when compared to Level 1, and so on. There should be between 3-5 levels for every competency.

The competency level description is an observable description of each level of a given competency. The higher the number of descriptors, the greater the understanding of the proficiency level. It is recommended to have a minimum of 3 observable descriptors per level (see Figure 11 and Appendix 1 for a full example of a competency).

► Step 4. Add level labels to each competency (Competency Level Label)

The competency level label provides an overview of the competency level and level description. This can be summarised in 2-6 words (see Appendix 1).

When identifying competency levels, level labels, and defining each level with descriptors, CBP providers can also use the five level labels and guiding principles as specified in Box 1 above.

► Step 5. Describe the competency (Competency Description)

The competency description covers the elements and the scope of the competency, as determined through:

1. **Recurring activities:** A competency description should indicate activities an expert in this competency would undertake (usually mentioned across a range of resources – course description, course objectives, etc.)
2. **Common objective, if any:** A competency description should indicate a common objective the competency is working towards.

Identify the recurring activities based on your course resources and determine a common objective these activities work towards (280 characters).

Example (colour-coded as above):

3. **Organisational design:** *Develop and facilitate the implementation of organisational design to ensure its effectiveness and alignment with stakeholders' priorities*

Additionally, there may be times where the value added/created by benchmark activities towards a specific objective is also included in the competency description.

With this step ends the FRACing process for CBP providers. The competencies developed using these five steps can now be added on the iGOT platform via the CBP portal. Once they have been reviewed, they can be tagged to the courses in question.

Outputs: Dictionaries and directories

This subsection lists the digital directories and dictionaries and their culmination into a registry on iGOT Karmayogi, and explains why the detailing of their interrelationships constitutes the end products of FRACing.

As a digital system, iGOT Karmayogi requires precision and consistency in the use of labels and descriptions. For example, the terms position, role and activities have unique meanings on iGOT because of which they cannot be used interchangeably however normal it may be to do so in our daily lives.

A directory on iGOT Karmayogi is bound together by a common identifier. For example, the directory of MDOs will contain a full list of all ministries, departments and organisations in the government with a unique code for each. On the other hand, dictionaries can be seen as a kind of registry. While directories contain only listings, dictionaries while being lists also contain a description of what each term relates to and its meaning. For example, a dictionary of positions will not only have a list of all positions, but it will also carry a short description of each of them. The same is true of the dictionary of roles and competencies.

While in a physical world, eight separate directories and dictionaries are required, in a digital world this will be bundled into a singular interconnected, multidimensional, flexible registry, nested within the competency hub (see Figure 9), providing us with a composite picture of the government. The power of the digital world allows this multidimensionality – with an infinite number of entries and an infinite number of relationships. These entries within the registry will then be grouped within different collections, which can be changed as and when required. A collection can be viewed as a dynamic rubber band that groups all variants of a position or role. For example, as earlier mentioned, there exists a base definition of Director (Vigilance) in our registry. However, the Secretary of DoPT may decide that two of the roles under this base definition should be taken away from Shanti (as she is overburdened) and be given to the Director (Administration). Thus, while we have a new variant of the Director (Vigilance) within the DoPT (which will receive a new name and code), this variant will still be a part of the Director (Vigilance) family. All variants of this position will constitute a collection. As dynamic entities, it is up to us to decide how to use collections – but the base definitions from all directories and dictionaries are irrefutable.

Given the significance of these entries in directories and dictionaries, it is imperative to maintain their sanctity. Due to the requirement for precision and consistency, only persons authorised within each MDO should be permitted to make entries in accordance with the process notified by the iGOT Special Purpose Vehicle (SPV) – Karmayogi Bharat. Once authorised, MDOs and officials can use the work allocation tool (WAT) or FRAC tool, respectively, to add to the dictionaries and directories (see above for more details on the processes). Only after going through a review process will the entries appear in the dictionaries and directories.

For a complex digital system such as the iGOT platform to become functional, the contents of these directories and dictionaries will need to be strung together in ways so that their meanings can be understood by a machine. This will be possible when a common grammar is used, what the platform calls a competency mark-up language (CML).

There are several of these directories and dictionaries as well as users and features – all of which interact with each other to produce nuanced insights (what has been called intelligence in other parts of this document).

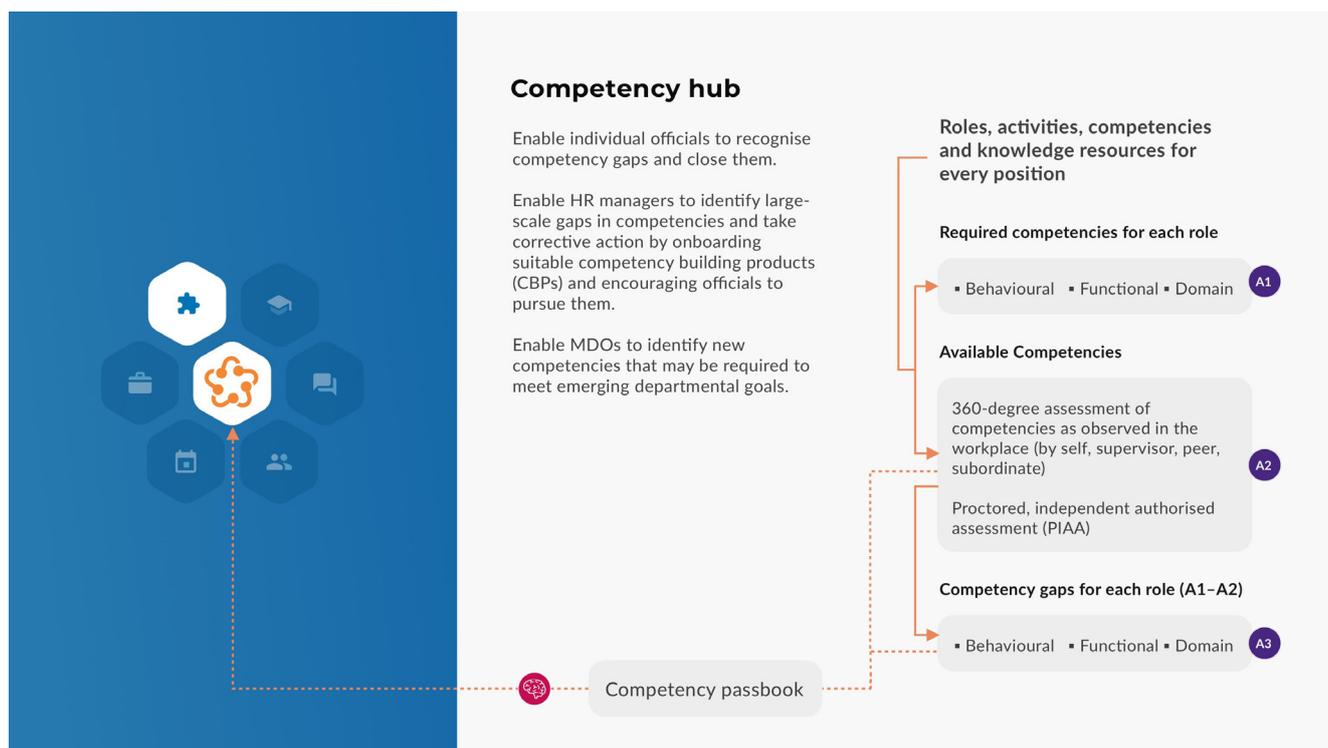


FIGURE 9. The competency hub

In order to manage the processes indicated as A1, A2 and A3 as well as B1, B2 and B3 in Figure 9, iGOT Karmayogi will have the following digital directories and dictionaries:

1. Directory of participating ministries, departments and organisations (MDOs)
2. Dictionary of positions
3. Dictionary of roles
4. Dictionary of activities
5. Dictionary of competencies
6. Directory of knowledge resources
7. Directory of users (with their competency and trust scores)
8. Directory of CBP providers (with their trust and impact scores)

The details of each of these dictionaries and directories are listed below.

1. Directory of participating ministries, departments and organisations (MDOs)

As the name suggests, this directory will contain a list of all entities that have registered their intent to onboard onto the iGOT platform and paid the per person annual subscription. Soon after, they will be provided support to go through the FRACing process so that their positions, roles, activities, competencies and knowledge resources can be onboarded after completing the iGOT Karmayogi due diligence process.

2. Dictionary of positions

This dictionary is a list of all positions along with a short description of the position. These positions will be recognised by their basic identity factors such as the position ID (PID), the MDO they represent and the name of the current incumbent (see Figure 10 for the key information fields).

It is possible that there are many positions that are identical in the same organisation – for example, an Assistant Section Officer (ASO) in more than one department in an organisation. In such cases, only one position is listed and the rest are differentiated by the name of the incumbent. A position will be considered different when it has at least two sets of roles and their corresponding activities are different from what is already listed in the dictionary of positions on iGOT Karmayogi. In this case, a codification schema will be used to differentiate the positions (e.g. with a separate PID).

It may so happen that a large number of positions may emerge from the FRACing process that are only slightly different from each other in terms of the roles and activities. If that were to happen, they could be listed as variants of the position already in the dictionary – for example PID432 and PID433 (or similar techniques that help in creating a unique code for it). The reason for identifying these differently is so that the incumbent and their training needs are adequately addressed. It also allows the HoD/MDO to allocate roles and activities to people who are most suitable according to the competencies they have been certified for in their competency passbook (CP). It will not be wise to insist that roles and activities related to a position be fixed forever as this will make it impossible for managers to assign roles and activities according to the competencies and motivation of each person.

Dictionary of positions		
PID432 Director (Vigilance) Department of Personnel and Training (DoPT)	Manages the vigilance process as per the laid-out rules and procedures; manages the team and allocates cases as per the procedures in order to ensure that the organisation maintains the standards of integrity and vigilance	Shanti

Dictionary of roles	
RID221 Vigilance actions	Interpret and process the vigilance report, and recommend vigilance actions according to the rules laid down

Dictionary of activities	
AID081	Take cognisance of the complaints, initiate the inquiry, and follow steps as required
AID082	Examine preliminary inquiry report, identify issues, and take necessary action

FIGURE 10. Key information fields in the dictionaries of positions, roles and activities

3. Dictionary of roles

A role is the first level of abstraction from activities. Most of the time, activities can be bunched together in a common thread. This bunching could be based on a common, larger objective: a logical end step to a workflow, or a discrete set of actions that convey the completion of a milestone in a process. This translates into a role.

This dictionary lists, describes and assigns a unique code for all roles that are distinctively described on the iGOT platform (see Figure 10 for the key information fields). Before suggesting a new entry in the dictionary of roles on the iGOT platform, it is important to ensure that a role being considered for entry is not already present under a different label. AI and ML can be very useful here. The codification schema will also be used to differentiate roles (e.g. with a separate role ID (RID)).

Competencies are tagged to roles so that it becomes easy for CBP providers and learners to understand the context in which a competency has to be exercised.

4. Dictionary of activities

As in the case of roles, it is important that activities are also uniquely listed and described on the platform (see Figure 10). These activities are actions or steps executed, conducted or processed in a logical sequence by the incumbent to achieve an objective. While sufficient amount of detailing needs to be done, care needs to be taken to ensure that they are not over-detailed.

Activities are the basic unit that emerge from the process, and are linked to roles. Like positions and roles, activities can also be mutated (i.e. we can change activities between roles, and roles between positions). Breaking down a position in terms of its activities and roles gives flexibility to HoDs to mix and match activities to positions so that the current incumbent competencies find

an appropriate match to the roles and thus the activities they need to perform. Moreover, as the nature of work changes, they start changing at the activity level. For example, the role of a cashier in a bank has changed significantly over the years. Depending upon the usage of technology in that particular bank, many activities have ceased to exist while some additional ones have been added.

As MDOs and officials go through the FRACing process, the dictionary of activities will populate on the platform. It is therefore important to ensure that the same activity does not get listed under a different name. Maintaining the uniqueness in the dictionary is going to be important. Again, AI and ML can help ensure this as well as the codification schema (i.e. activities ID (AID)).

5. Dictionary of competencies

Competencies are at the core of Mission Karmayogi. A competency dictionary consists of the labels of all competencies, their descriptions and the levels within them. This is required to build a common understanding amongst all users of the platform.

Competencies are directly linked to roles (see Figure 2); when specifying what competency is required for each role, the competency level must also be specified. Users will need it to assess the competencies required for their current position and for positions they aspire to hold in the course of their career. Similarly, CBP providers will use this dictionary for identifying and developing CBPs corresponding to specific competencies. A competency at a certain level can be linked to more than one role.

The DoPT Civil Services Competency Dictionary (DoPT, 2014) has a list of behavioural competencies. This will be expanded by the FRACing centre of excellence – the Institute of Secretariat Training and Management (ISTM) – to include the commonly used and widespread functional and domain competencies of the government. Alongside ISTM (an MDO), competencies can also be added to the competency dictionary by other MDOs, individual officials, and CBP providers via unique FRACing processes (see previous subsections).

The competency dictionary will consist of certain key information fields – see Figure 11 for an example of a complete competency.

BOX 2. Differences between domain/functional and behavioural competencies

One of the biggest differences between the behavioural competencies and the domain/functional competencies is that the latter (domain and functional) are discrete and therefore it is possible to distinguish clearly amongst the levels of sophistication (similar to class levels in a school). Just as the syllabus for each class is a construct created by the ecosystem of the users (kids, parents, teachers), the broad constructs for domain and functional competencies are created by the stakeholders. In contrast, behavioural competencies are generally accepted universally with cultural adaptations.

Domain or functional competencies are the knowledge and skills required to do an activity or a set of activities to achieve expected results. Therefore, activities are the bedrock on which domain and functional competency documentation is based on. Any change in the list of activities attached to a role and a position will mean that the competencies for that position will change.

Behavioural competencies, on the other hand, attempt to de-layer the personality of an individual. Deconstructing a personality is not easy, particularly when one aims to create mutually exclusive competencies. Moreover, competency levels are not discrete. The levels, so identified, are usually median points of a behaviour continuum, much like the notes of music. The continuum is artificially broken into levels at convenient points.

As the sophistication of a behavioural competency increases, one can notice that the intensity of intent or completeness of actions taken to carry out the intention increases. The complexity of the actions taken and the greater breadth of impact of such actions are associated with higher levels of the same competency (Spencer, 1993).

Thus, behavioural competencies straddle multiple roles and activities and cannot be limited to one set of roles and activities, unlike functional and domain competencies. For example, 'people first', a behavioural competency, may be linked to many roles and activities, whereas 'financial accounting standards' may only be required for those roles associated with financial and accounting related activities.



Dictionary of competencies	
Label	Problem Solving
CID#	CID282
Description	Understanding a situation by breaking it into smaller parts, organising information systematically, and setting priorities
Type	Behavioural
Area	Efficiency

Levels	
Level 1: Breaks down problems	<ul style="list-style-type: none"> • Breaks down complex issues into smaller parts for easier analysis • Collects and analyses related information from a variety of sources • Is able to effectively sift through information • Identifies the links between situations and given information
Level 2: Identifies basic relationships	<ul style="list-style-type: none"> • Identifies the cause-and-effect relationship between two aspects of a situation • Develops an action plan based on causal relations and pros and cons • Weighs pros and cons of different options
Level 3: Identifies multiple relationships	<ul style="list-style-type: none"> • Able to diagnose multiple cause and effect relationships in a problem (ability to see several potential causes of an event or several events) • Develops potential solutions and identifies risks involved
Level 4: Develops solutions to complex problems	<ul style="list-style-type: none"> • Ability to see the holistic picture • Identifies interdependencies between various components • Communicates complex problems in a simple manner • Develops a solution that attempts to address the complexities at different levels • Generates options to address the problem in its entirety • Creates solutions that address not only immediate issues (quick fixes) but also takes steps for medium to long-term impact of the solutions

FIGURE 11. Key information fields in the dictionary of competencies

6. Directory of knowledge resources

Besides the dictionaries described above, the iGOT platform will also carry several directories (or listings). One such is the directory of knowledge resources. These range from policies to software to legal frameworks to manuals. Linked to activities, they are provided by MDOs to assist officials in performing a certain activity. The directory of knowledge resources will be a collection of all these artefacts. The platform will allow for actors to upload these files and/or share suitable links. Once uploaded, these resources will be available to all across the iGOT Karmayogi platform (i.e. once uploaded, it will become a common resource).

7. Directory of users (with their competency and trust scores)

The directory of users consists of details of CBPs completed and certified as well as a user's competency score (CS). As one of the key principles of iGOT Karmayogi is the democratisation of access to high quality CBPs, individual officials such as Shanti will be able to get onboarded on the platform, even when her MDO has not onboarded, and start taking CBPs (at her own cost).

The CS of Shanti will be recorded in the CP. For every new position she will hold, a new 'page' in the passbook will be created for the CS (so there will be past competency scores and a current competency score). Ultimately, 25 million public servants will have a CP the same way they have an Annual Performance Appraisal Record (APAR). While every user will have a 'public' profile page, the CP will only be accessible to those with authorisation.

As shown in Figure 12, the CP will be made up of two components:

- 1. Competency Score (CS):** The competency score is calculated against the competencies a learner has been tested for. It is algorithmically derived by suitably weighting the following two scores:
 - Testing competency score (TCS): This combines the CBP competency score (C-CS), trust score of the CBP provider, PIAA score, and trust score of the PIAA provider. This will tell us whether Shanti knows what needs to be done (knowledge) and how to do it (skill) – i.e. Means.
 - Workplace competency assessment score (WPCAS): These reflect the 360-degree assessments done by self, peer, manager and subordinate by answering multiple choice questions (MCQs) posed to those who come into professional contact with Shanti. This will tell us whether she is using her knowledge and skill (i.e. Means) to be productive in the workplace. When the Means is there, both Motive and Opportunity will be required for this to happen. When fully developed, the WPCAS will pose 25 million questions to 25 million officials every day.
- 2. Competency gaps:** As shown in A3 of the competency hub of Figure 9, competency gaps are an important component of the equation. The CS should be seen as a timeseries rather than a snapshot – one that shows the increase/decrease in competency gaps over time vis-à-vis the roles Shanti is required to perform in her current position (provided she has held it for three months). This gap should be captured every six months (on the 1st of April and 1st of October) and every time an official completes a CBP.

Other than the CS, learners also accrue an engagement score while interacting with the platform, which reflect the engagement of the users on the platform. There are also karma points that help track the effectiveness of users' interactions with the platform and four of its six hubs (competency, learning, discussion and network).

A combination of all these user scores, alongside others, will be used to build an organisation score on the PM's dashboard and subsequently in the annual SCSR (see Table 4 for more information on this).

²⁵ If Shanti has not been in a position for three months prior to the 1st of April or 1st of October, then there will be no entry for competency gaps in her passbook. Only when she has completed her three months will the gap be recorded (i.e. if she joined on the 2nd of January, 89 days before the 1st of April, her gap will not be recorded on the 1st of April). An official should be given a minimum of three months to fill their competency gaps before being questioned about their gaps.

Buyers on the iGOT Karmayogi learning hub will fall into one of the following categories:

- i. A ministry, department or organisation wanting to purchase a CBP for all its employees
- ii. A manager paying for a CBP (using the iGOT Department Wallet (IDW) that will be allocated funds as per the annual capacity building budget) for one or more members of her team
- iii. A public servant purchasing a CBP to close her competency gap (using her iGOT Individual Wallet (IIW) that will be allocated funds as per the annual capacity building budget)
- iv. A public servant purchasing a CBP to obtain desired competencies (using her IIW that will be allocated funds as per the annual capacity building budget)
- v. A public servant purchasing a CBP from her pocket
- vi. A citizen purchasing a CBP because they feel the need to acquire a competency and signal its acquisition
- vii. A citizen or official taking a course that has no payable course fee

For all of the above, the impact scores for CBPs are going to be in the competency gap box below, it needs to be 'an official needs' (see Table 4 for more information).

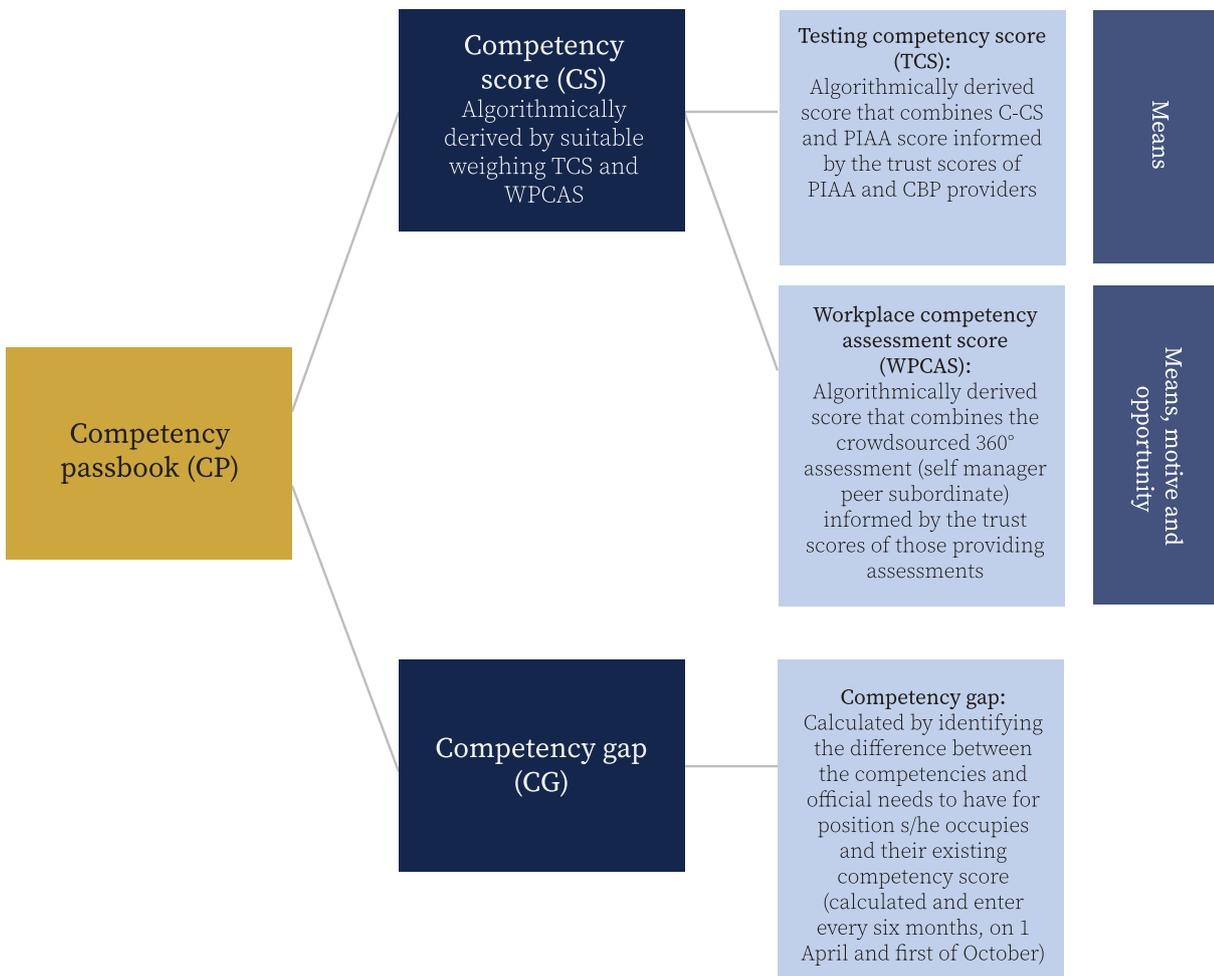


FIGURE 12. The competency passbook (CP)

¹¹ This should ideally be a conducive climate for philanthropies and CSR funds to invest in building new CBPs on iGOT.

8. Directory of CBP providers (with their trust and impact scores for their CBP)

The iGOT Karmayogi Learning Hub is designed for frictionless onboarding of CBPs on the basis of self-certification by the CBP provider. This is possible because all those transacting on the platform will have a trust score operating in real time. If a CBP provider entered the hub on the basis of a false declaration and it gets flagged by a user or the quality control team of the iGOT Karmayogi SPV, this will lead to a suspension of the content till investigations are completed. If it has been established that a false declaration was made, this will adversely affect the trust score of the CBP provider and, below a certain threshold, their self-certification rights will also be suspended.

It is for this reason and for managing the workflows on iGOT Karmayogi that the platform will build up a directory of CBP providers with the products they offer, alongside their trust and impact scores.

All CBPs put up on the platform will be stored in this directory in various languages along with various delivery mechanisms (text/ audio/ video), pricing, duration, taxonomies (user tags) and the competencies they help gain/ improve. The directory will be organised at four levels: the first and smallest is resources; a collection of resources make a module; a collection of modules make a course; and a collection of courses make a program. The directory will also store impact scores at the level at which the CBP provider is willing to unbundle and price. The impact score is determined on the basis of improvements that users who completed a CBP demonstrate in the workplace.

Thus, a comprehensive set of directories and dictionaries that culminate into a registry with various collections are essential for a digital system like iGOT Karmayogi. They are building blocks that are used to capture the dynamic interlinkages between positions, roles, activities, competencies and knowledge resources. Once the FRACing process is underway, the iGOT platform will have an up-to-date version of which position has the responsibility to execute on which role, which activity, and the competencies and knowledge resources needed for it – i.e. A1 in the competency hub of Figure 9.

BOX 3. Pricing of CBPs

How does one ensure that the pricing for CBPs on iGOT Karmayogi is appropriate? Can this be done on the basis of effort estimation and impact scores? Is there a scoring system that can determine the price algorithmically?

Pricing is a complex activity and perhaps there is no straightforward answer. Pricing should perhaps be left to the demand and supply conditions in the iGOT platform Learning Hub to determine. Since public servants and managers will have a limited iGOT wallet, and they will see competency building as a critical career building exercise, they should be having every incentive to optimise – buy the most impactful course at the cheapest price. Any attempt to administer prices of CBPs on the iGOT platform will be against the principles of the platform to seek out incentive-compatible ways to solve intractable problems and would attract either allegations of corruption or lead to low quality of CBPs because of undercutting by CBP producers. Another dimension can be pricing of a CBP as an annual subscription paid to a CBP producer that unlocks all courses by them. Other points to consider are implementing dynamic pricing similar to the likes of Uber or the air travel industry operates. An increase in demand for a particular CBP could be one factor. Another option is value-based pricing by linking it to impact scores of a CBP.

BOX 4. Using AI to prevent performance inflation

How do you prevent performance inflation on iGOT assessments? Will the iGOT Karmayogi micro-questions-based assessments at the workplace not descend into a I-scratch-your-back-you-scratch-my-back scenario? Everybody gains when everybody gets a high competency score. What is the incentive to be truthful under these circumstances? Why should an HoD not actively enforce a regime where everybody is given high scores by everybody else so that his/her department gets a high score in the PM dashboard and in the annual SCSR? How can trust scores of those scoring others be used to correct for performance inflation? Can strict quality control of the question banks used by the PIAA, by the iGOT Karmayogi SPV be used to detect performance inflation and through that assign trust scores to those who score others? Can random ground truthing of work done by those getting high scores be used to corroborate the competency score being given by each other and assign trust scores based on the validity and reliability of the scores?

Since most of these issues are related to leniency errors, some could be neutralized by 1) performance calibration through standardised formats and calibration (through trust scores) of those providing the evaluation, 2) defined rater accuracy meter (trust scores), and 3) using data to validate the scoring variance with other departments.

The answers or solutions would be multi-faceted. These would involve personal ownership, individual value systems, the behaviour of the team and its leader, performance-based evaluation mechanisms that are in place for that particular department, the policies around these and many other things. Of course, the platform itself has to be capable of handling misuse, abuse, potential fraud, misrepresentation, proxy usage (can be both manual and machine) and any other thing that can induce the performance inflation. AI can solve many of these problems and this would be a continuous journey. We would need to look at the best practices followed by the other learning platform leaders, learn, adopt and implement these solutions. Some potential solutions using AI are analysis of learning pace, spotting of anomalies in learning and assessment results (such as the PIAA and WPCAS scores), random capture of voice, etc.



SECTION 2

Measurement and learning on the iGOT platform

This section provides a systems view of iGOT Karmayogi and the manner in which proctored, independent, authorised assessments (PIAAs), as well as micro-question based continuous assessments, can generate a nuanced picture of the learning of users. Given that competencies are at the core of iGOT Karmayogi, it specifically details the kind of analytics that will be available for users whose competencies are being assessed, for those who are providing CBPs and for HR managers.

Additionally, this section will also detail how MDOs' capacity building efforts and CBP providers' content and impact will be measured through a variety of assessments.

Scoring on iGOT

Table 4 provides a basic overview of how learners, CBP providers, and MDOs will be assessed on the iGOT platform, resulting in a series of scores. The table includes a brief definition of the score, the subject of the assessment, and the conductor of the assessment.

²³ Note that these scores are constantly evolving as we move through the process of development. AI will be used to constantly discover anomalies using pattern recognition while comparing, for example, PIAA scores with WPCAS scores with C-CS scores. Such anomalies will be automatically added to a bin list for audit and automatically routed to audit parties who will have to attend to it in a first-in-first-out manner, inputting back their findings into the system so that the AI engine is able to validate and improve its pattern recognition features.

No.	Score	Subject of assessment	Conducted by	Definition
1	CBP competency score (C-CS)	Learner	CBP provider	This score will be given to a learner on the completion of a CBP and its corresponding assessments. It is based on the learner's performance on these assessments and contributes to the TCS (thereby the overall competency score of an individual).
2	Competency-owning department (CoD) score	CoD	iGOT system	This score will calculate whether each competency-owning department has fulfilled its requirements as CoD, as follows: <ol style="list-style-type: none"> 1. The number of CBPs available for each level of each competency owned (minimum requirement: 2 CBPs with a high impact score for each owned competency within 6 months of accepting ownership); 2. The percentage of individuals (who are required to have the competency vis-à-vis their position) who have taken the PIAA for each competency owned (minimum requirement: 90% of officials who are required to have this competency for their position must have taken the PIAA within the first three months of joining a new position). Based on this score, if lower than the stipulated minimum requirement, the CoD must submit a plan (as part of the capacity building plan) for how they intend to address this shortcoming.
3	Competency score	Learner	iGOT system	Maintained in the Competency Passbook (CP), the competency score is calculated against the competencies a learner has been tested for. It will be algorithmically derived by suitably weighting: the workplace competency assessment score (WPCAS) and the testing competency score (TCS).
4	Content quality score (CQS)	CBP provider	Aggregate of scores by multiple players	The content quality score is a combination of two scores: the first is provided through self-certification by the CBP provider on the quality of their product; and the second is the score as assigned by a learner and auditor (as appointed by the SPV) of the CBP based on their perception of the product.
5	Impact score	CBP provider	iGOT system	This score shows the impact of a CBP on the competencies (one or more) the CBP addresses. It is calculated by aggregating improvements in the competency scores of officials who have been certified on the completion of a CBP.

6	Karma points	Learner	iGOT system	Karma points reflect how a user interacts with the iGOT Karmayogi platform and four out of six of its hubs – i.e. how a learner engages on the Discussion Hub, Network Hub, as well as the Competency and Learning Hubs. It also quantifies how meaningful and impactful contributions are – are you helping others in a meaningful and effective way?
7	Engagement score	Learner	iGOT system	The engagement score measures the user's engagement with the platform. It directly correlates with platform acceptability and subsequent interaction with the platform. The score is calculated by measuring the behaviours users exhibit on the platform through their relationship with self, others and the content.
8	Organisation score of MDOs	Learner	iGOT system	The organisation score is a composite score of every MDO, drawing upon many of the above- and aforementioned scores in addition to a score from the SPV from the quality audits. Every MDO will have an organisation score on the PM dashboard.
9	Proctored, independent, authorised assessment (PIAA) score	Learner	PIAA provider	This score will be given to a learner taking the PIAA by the PIAA provider. It is comprised of two components: 1) the level at which the competency has been assessed (1-5); and 2) the proficiency within that level (e.g. within these levels, an individual is excellent, good, average, poor). Every official will have to complete the PIAA testing both within the first three months of them joining a new position for all competencies the position requires (if they have not already been tested for that competency in the last 5 years), and again every time the official completes a CBP funded by the government.
10	Special purpose vehicle (SPV) Karmayogi Bharat score	iGOT	iGOT system	The SPV score will be the average of all MDOs' organisation scores. The SPV exists to ensure the success of everyone else. The success of iGOT Karmayogi, therefore, is the success of its services (i.e. the SPV). This is the success of all the MDOs which, in turn, is the success of all the officials – when their competency gaps are narrowed, officials' trust scores are increasing, the trust score of the CBP and PIAA providers increase, the impact scores of the CBPs increase, and so on. When all these scores are impacted, the organisation score increases – and thus, the SPV score also increases.

11	Testing competency score (TCS)	Learner	Aggregate of C-CS and PIAA scores, informed by their trust scores	The TCS is an algorithmically derived score that combines C-CS and PIAA score, and is informed by the trust scores of the PIAA and CBP. Combined with the WPCAS, it contributes to the competency score.
12	Trust score	All users	iGOT system	The trust score is calculated on the basis of the accuracy of a stakeholder's claim using an accuracy meter. It is the extent to which claims made by a stakeholder are found to be accurate and are verified by the processes put into place by the iGOT platform. Trust scores will be calculated for an array of stakeholders: individual learners, HR managers, auditors, CBP providers, PIAA providers, etc.
13	Workplace competency assessment score (WPCAS)	Learner	Authorised and certified vendor	The WPCAS is an algorithmically derived score that combines the crowdsourced 360-degree assessment (self, manager, peer, subordinate) and is informed by the trust scores of those providing assessment. Combined with the TCS, it contributes to the competency score.

TABLE 4. Scoring on iGOT Karmayogi

Analytics from iGOT Karmayogi

The interaction between users and CBPs will produce analytics that can be useful to individual officers, managers and CBP providers. An example is that of data on the educational qualifications of users on iGOT. When a large number of data points on this is matched with:

- a. roles that people with a particular qualification or a combination of qualifications have, and
- b. the competencies associated with each role and the CBPs that each person with these qualifications have completed,

it is possible that the iGOT platform finds a statistically significant relationship showing that those certified by Annamalai University do better than those certified by the Harvard Kennedy School in the competency Macroeconomic Forecasting (provided they have a Masters in Economics from the Delhi School of Economics). The platform could also find, as would be expected, that a certification in Macroeconomic Forecasting does not have any relationship with improvements in the competency behind drafting of cabinet notes.

This is only one example. Several other insights may also emerge as the number of users grow and details about them and the CBPs they complete get richer.

Analytics in service of officials and their managers

As shown in Figure 9 in the previous section, A1 is the part of iGOT that outlines the competencies required for each role; A2 is the part that deals with the assessment of existing competencies of individual officials; and A3 is the part that delineates the competency gaps of individual officials vis-à-vis the roles they are currently required to perform (i.e. A1 minus A2).

With regards to A2, these assessments are sought to be accomplished in two ways. The first is through the cumulation of assessments made by those who observe each other's competencies and one's own self-assessment (360-degree, what we call workplace competency assessments). The second is the independent assessor arrangements that the owner department for each competency will put in place and notify on iGOT Karmayogi. While the latter will typically use computerised proctored, independent, authorised assessments (PIAAs), the former will require a set of micro-questions to be posed and answered that have the ability to capture all aspects of each competency. These micro-questions, which will be in yes/no and multiple-choice formats, will be periodically posed to officials both as part of their peer and self-assessment. Both will contribute to the competency score (CS) of an official (see Figure 12 for an illustration and Table 4 for a detailed description of the score).

The algorithms that build these competency scores will improve over time as they receive more anonymous data and therefore more scenarios and relationships to analyse. These insights, when used appropriately to generate organisation scores on the PM dashboard and when published annually in the State of Civil Services Report (SCSR), are expected to trigger substantial improvements in the way in which human resources are developed and deployed in government. At this point it is important to acknowledge that, although all of this can be expected to result in improvements in the means at the disposal of individual officials like Shanti, it is only when means, motive and opportunity (MMO) co-occur that one can expect the implementation capacity of the state to improve. Improvements in motivation will require reforms in the annual appraisal process as well as ways to foster intrinsic motivation; improvements in opportunities will require reforms in business process and expenditure architecture.

The following are therefore salient points to be kept in mind while trying to get a good understanding of the competencies of users:

- The micro-questions will need to capture all the nuances of a competency and will have yes/no and multiple-choice answers.
- The micro-questions will have to be periodically canvassed but in a way that it does not impose a load on officials.
- The PIAA will need to use question banks that produce assessments that are both valid and reliable.
- The responses need to be analysed with the help of AI and ML after taking into account the trust scores of those responding to produce a valid and reliable macro picture of the competencies of each of the users on iGOT Karmayogi as well as the impact score of the CBPs they have taken.
- The appropriate mechanisms for administering these questions (paper, email, surveys or a workflow on iGOT) will have to be worked out through an analysis of the user interface and their experience so as to reduce the friction for those who are called upon to provide answers to

¹³ This data will only be available with usage and will only be shared with appropriate groups (with appropriate data protection and anonymisation mechanisms in place).

¹⁴ The PM dashboard is envisioned to be an all-encompassing view of progress made by all MDOs with respect to Mission Karmayogi. It will capture key performance indicators (KPIs) across certain predefined thematic areas and display them in a way that will promote engagement on the platform – such that it advances the goal of making it possible for officials to perform well in each of the roles required by their respective positions. Various indicators are then clubbed together with differential weights so as to produce a ranking of all MDOs with respect to their human resource development practices.

¹⁵ The annual State of Civil Services Report (SCSR) will be a consolidated performance review of the civil services as a whole with a focus on achievements and contribution to national progress.

the micro-questions.

- The entire exercise will need to be sensitively carried out and the results used carefully.

An example of a set of micro-questions, answers to which should be able to produce a macro picture on a competency related to organising a meeting, could be:

- Was the agenda circulated in advance of the meeting?
 - Did the agenda have notes that clearly described the background and the decision being sought?
 - Did the agenda contribute to a successful outcome of the meeting?
- Another example of a set of micro-questions on a competency related to presiding over a meeting could be:
- Did all those who could make a contribution to the meeting get a chance to share their views?
 - Were contrasting/dissenting opinions/suggestions heard with respect and noted for follow up?
 - Were the conclusions reached clear?
 - Were the minutes of the meeting circulated within a week?
 - Did the minutes capture all the decisions taken?
 - Did the minutes clarify who had to do what by when?

From the above, it is clear that the micro-questions associated with each competency will have to be built from a good understanding of the description of that competency in the competency dictionary. The same will be true for the PIAAs as well. The responsibility for building the question banks for both the micro-question as well as the PIAAs is of the GoI department which has been notified by the DoPT as the owner of each competency (i.e. the CoD).

In the case of domain competencies, the question of which department is the best owner will be quite clear. In the case of functional competencies, which have wide inter-departmental utility, those will need to be assigned to a department. In the case of behavioural competencies which will be required by almost all departments, the DoPT is likely to be the natural owner.

Taken together, the above insights are expected to provide users, managers and providers of CBPs a nuanced understanding of where each of them stands vis-à-vis their expectation about themselves and what others expect of them.

The relationship between positions and competencies

In addition to the abovementioned insights, Figure 13 below (to be read only from left to right) is also in service of officials such as Shanti and their managers who are registered on iGOT Karmayogi. It presents a view of the relationship between positions and competencies, showcasing all of the competencies linked to a position. While it shows all the roles linked to the position and the activities linked to these roles, it may not show all the roles linked to each activity. For the sake of depiction, two different roles and their activities have been taken up to show all of the BDF competencies that are linked to this position. Here the view is of all competencies linked to these roles and therefore this position. When one views these roles and activities independently, one finds that a number of domain and behavioural competencies are repeated (as can be seen in Figure 13).

Once an MDO has completed its FRACing, this view will help officials of that MDO to understand all the roles and activities they are required to undertake as well as the competencies they need to have to perform them well.

Besides, once competency assessments at the workplace begin and those who have completed CBPs offered on the iGOT platform get their competency tested, the Learning Hub will begin to reflect the impact scores of their CBPs on offer. This will allow Shanti and her manager to make the right choice based on the cost and impact score of a CBP.

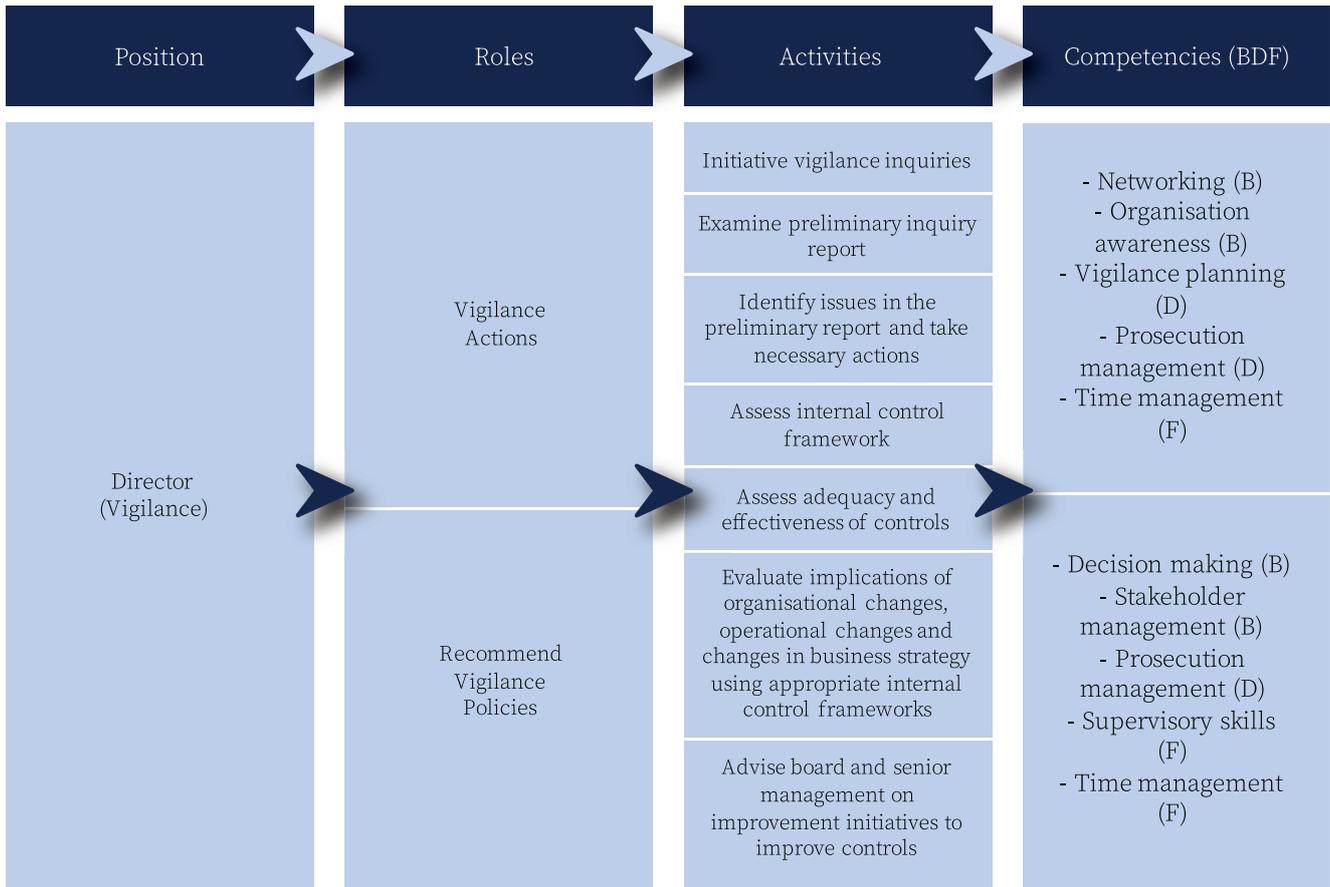


FIGURE 13. The competency view for users showing all competencies linked to a specific position

Analytics in service of HR managers

As the person who is responsible for the competency owned by their MDO, HR managers will be tasked with ensuring that CBPs of adequate quantity and quality for their owned competencies are available on the iGOT learning hub. The platform will provide them with the information on which competencies are not adequately covered or are poorly covered by CBPs, thus enabling them to fill these gaps. HR managers are also responsible for onboarding PIAA providers. Most importantly, however, the platform allows HR managers to observe the competency gaps that exist in their MDO and rectify the problem.

With regards to the hiring process, HR managers will also get analytics on the quality of recruitment of their own recruitment activities, of others that recruit on their behalf such as the Union Public Service Commission (UPSC) or the SSC, and even of external manpower agencies they have retained for

recruitment purposes. Once hired, HR managers will have access to the competency passbooks (CPs) of individuals, using which they can make decisions on what roles and activities they can assign to an individual based on their prior experiences. This will also allow them to see the individual's growth and competency journey over time; emerging patterns will therefore help them ascertain which agencies provide them with the best talent.

Over the years, the GoI has seen an increase in contractual workers (e.g. data entry operators, multitasking staff, taxi drivers, etc.) – individuals who are not employees of any MDO but whose services are regularly required on a short-term, intermittent basis. CPs will exist not only for public servants like Shanti but also for anyone who has worked either directly or indirectly on a government assignment (either through their organisation or as an individual). Using this information, HR managers will be able to make informed procurement decisions and identify the organisations that provide better quality workers.

When HR managers, especially those who work as Cadre Controlling Authorities (CCA), need to make decisions regarding officials deployed from the cadre they control to different MDOs, the CP will enable them to figure out which cadre members are better suited to which MDO.

Finally, fresh government recruits usually go through a probation period after which they are confirmed in service. Their competency assessments and learning journey over the probation period will be available to HR managers – these analytics can be factored in coming to a decision of whether the individual on probation should be confirmed. At a later stage, if the government so chooses, they can also be used to determine promotions and empanelment within the government.

Analytics in service of providers of competency building products (CBPs)

For the purpose of analysis, providers of CBPs (Figure 9, B1) must have access to aggregated anonymous data from the iGOT platform of those who have been certified by them so that they can experiment with ways to improve the workplace impact of their CBPs and thereby improve the impact scores of their CBPs. They should also be encouraged to provide 'after sales service' to those who complete their CBPs so that performance improvements can continue. Providing opportunities for collaboration between those who completed a CBP at different points of time would also be useful.

The availability of insights from the above interactions, suitably anonymised for CBP providers, can encourage the generation of a new class of CBPs that are finetuned to the needs of different kinds of users.

CBP providers will need to develop a nuanced understanding of the learning hub and the impact of their CBPs if the hub is to function well. This will become possible when they have access to:

- 1. Anonymised data from (A1) competencies and the roles, activities and positions associated with each of them as well as the number of positions that require each competency;**
- 2. Anonymised data from (A2) competency assessments of those who have been certified by each CBP provider following successful completion of CBPs offered by them on or through iGOT Karmayogi (A2 will also help them see**

the impact that their CBPs have on the users as assessed in their workplace and the impact this (A2) has on the impact score of their CBPs (B2); and

3. Anonymised data from A3 (competency gaps, A1 minus A2) for each role, showing the increase/ decrease in competency gaps over time.

The relationship between competencies and positions

Figure 14 (also to be read only from left to right) presents a view of the relationship between one competency and the activities, roles and positions associated with it (these definitions will come from the dictionaries outlined in Section 1). This view is in service of the providers of CBPs in the iGOT Karmayogi Learning Hub. Such a view allows the providers of CBPs to understand the range of activities and roles that a certain competency is linked to; it also shows the positions that require these competencies and the activities and roles associated with it (note, however, that competencies are directly linked to roles, not activities). Furthermore, it provides the full list of MDOs where these positions exist and also the total number of people who are current incumbents within these positions. This information is important for the iGOT Karmayogi Learning Hub for CBPs to grow and flourish. Only when this is known can providers of CBPs grasp the kind of product they need to develop and price their product on the basis of volumes they can target.

As you move from left to right, Figure 14 shows all the roles linked to the competency of vigilance planning (which therefore cover a number of activities), and its related positions.

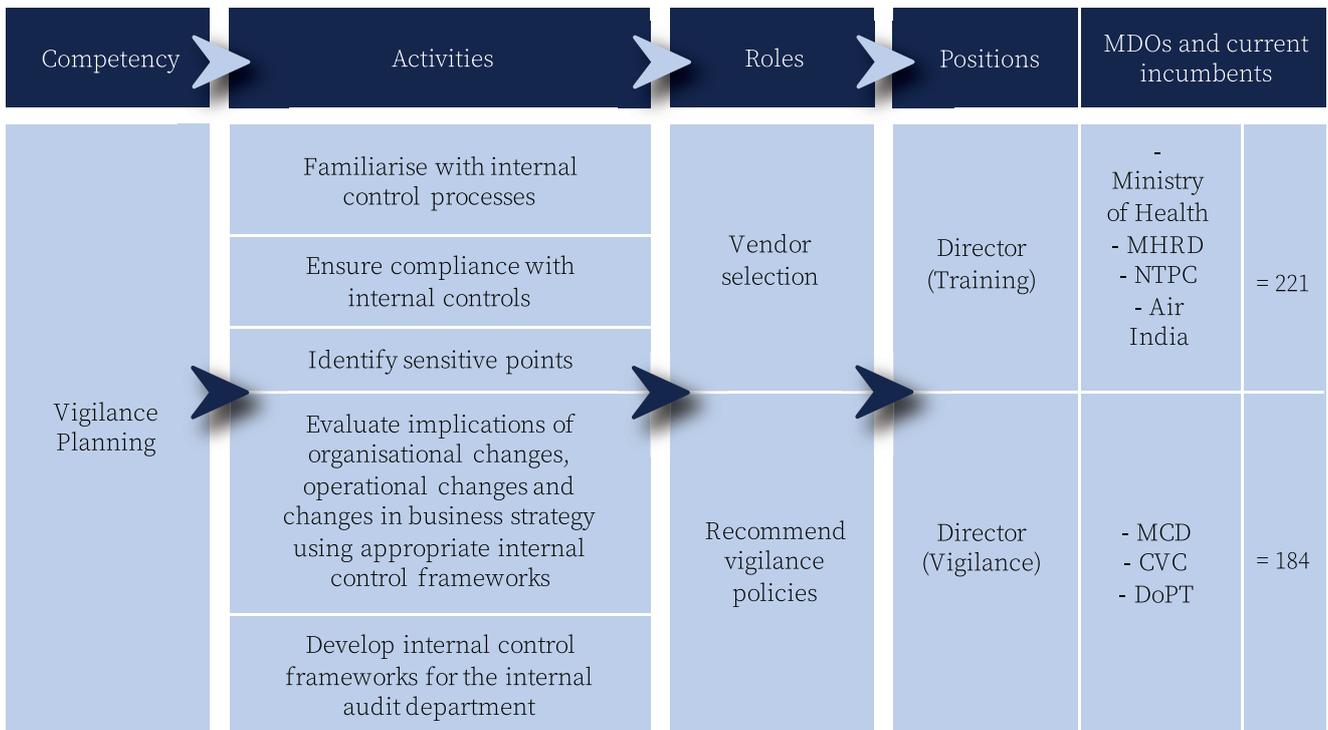


FIGURE 14. The competency view for CBP providers showing all positions linked to a specific competency



SECTION 3

Application on the iGOT Karmayogi platform

This section will cover how MDOs will plan their capacity building activities. In the short term, this translates to building the capacity to use the iGOT Karmayogi platform and its various components. The following subsection outlines the six hubs in more detail, followed by the short-term capacity building plan.

The iGOT Karmayogi platform

The iGOT Karmayogi platform is envisaged as a solutioning space with six hubs:

- 1. A competency hub**, which will essentially be a repository of roles, activities, competencies and knowledge resources for each position in the government, thereby improving the understanding of what it will take for officials like Shanti to pursue a career path of their choice and do well in the current position. The hub will:
 - a. Enable Shanti to recognise her competency gaps and close them;
 - b. Enable her to credibly signal the extent to which her competencies match the requirements for existing and future vacancies;
 - c. Enable her to take charge of her life goals with respect to attitudes, skills and knowledge (ASK) acquisition;
 - d. Enable HR managers to identify large-scale gaps in competencies and take corrective action by onboarding suitable CBPs and encouraging officials like Shanti to pursue them; and
 - e. Enable MDOs to identify new competencies that may be required to meet emerging departmental goals as and when they emerge
- 2. A Learning Hub**, which will facilitate competency building by providing a ‘marketplace’ for CBPs. These CBPs could be courses, workshops, learning events, training programs or other services or products that enable an individual to address the competency gap. These can be delivered digitally, face-to-face, blended or in any new form that may emerge. The providers of these CBPs could be: government organisations such as CTIs, STIs; academic organisations such as universities, research institutes; not-for-profit and for-profit agencies such as ed-tech companies, NGOs, philanthropies; and individuals such as retired officials, celebrity coaches etc. Every single CBP will be tagged to one or more competencies as declared by the provider. It will be against these declarations made by the providers that the impact on the

¹⁶ This will happen because as new activities are identified and assigned to existing or new positions, the distribution of work order will get modified. Since this can be done only on the iGOT platform and this requires linking of competencies to the new activity, the IFU will be forced to define new competencies that will immediately show up in the iGOT Karmayogi learning hub.

¹⁷ CBP providers should take extreme care to ensure that their products are tagged to the correct competencies (using the competency dictionary on the iGOT Karmayogi platform). In case there is no competency in the competency dictionary that covers their CBP, CBP providers will be able to add to the dictionary themselves (see ‘The FRACing process for CBP providers’ in Section 1). Inappropriate tagging could result in their CBP ending up with a low impact score despite being impactful. This is because the iGOT Karmayogi platform will calculate the impact score based on the PIAA score, C-CS, and the 360-degree workplace competency assessment score (WPCAS) of the competency that was tagged by the CBP provider. However, when there is a pattern that the AI engine is able to recognise – showing that competencies other than those tagged by the CBP provider are showing a positive/negative impact consequent upon certification by a CBP provider – the provider will be informed of the same. This fact will also be surfaced to the SPV for suitable analysis.

workplace of those who have completed a CBP and been certified for it will be assessed. These competency assessments at the workplace will be used to build the impact score of a CBP. It is therefore of great importance that declarations by CBP providers are appropriate and workplace assessments of competencies are both reliable and valid. CBPs can be made available for consumption by public servants without having to go through a complicated procurement process that often compromises quality in the name of low cost.

3. **A Career Hub**, which will enable the government to solve the complex problem of encouraging lifelong learning, and finding the right person for the right job. The hub will:
 - a. Enable individual officials like Shanti to understand the extent to which different positions in the government match their current competencies and their future competency acquisition plan; and
 - b. Help HR decision makers in the government identify officials who have matching competencies for vacancies they are looking to fill.
4. **A Discussion Hub**, which will provide Shanti with an opportunity to benefit from insights from previous discussions and to trigger new conversations around particular queries she may have.
5. **A Network Hub** that will enable Shanti to discover others in the government who, given past experiences, recognised competencies and contributed to previous discussions on the platform, and who may be in a position to help her solve a problem.
6. **An Events Hub**, which will provide Shanti with the opportunity to share ideas, interact with, and learn from others through in-person and live online events.

Additionally, the iGOT Learning Hub will need to have:

1. The best of what India and the world has to offer in one place.
2. The ability to aggregate individual and departmental requirements so the buying power of government can be optimally deployed.
3. Low barriers to entry so that certain CBP providers (private providers whom MDOs have either sourced or negotiated with, or in-service officials) can offer their resources after self-certification using the content quality toolkit on the platform. Other than these, all other types of CBP providers will need to be registered with and approved by the Capacity Building Commission (CBC) before they can onboard content. Clear criteria will be set by the CBC that CBP providers must meet, after which they are free to onboard content. They can then showcase the impact that their offerings have had on the workplace assessment of participating officials and the price point they are willing to offer it for.
4. The power to solve for the information asymmetry that exists in markets for CBPs by surfacing the workplace impacts of each resource, module, course and program.

In a traditional setup, feedback given by participants on the completion of a CBP, such as a course or a workshop, is what drives its ratings. This overlooks the

¹⁸ Although CoDs will continue to be responsible for sourcing and onboarding CBP providers, they will need the approval of the CBC before content from a provider can be used. This will work through a list of empanelled providers for which the CBC will be the custodian. The CoD does not have to seek the approval of the CBC until it has been constituted.

¹⁹ All CBP providers should be asked to renew their status as an approved provider every five years.

²⁰ Despite low entry barriers, quality will not be compromised. Periodic audit by the quality team will be encouraged, as well as crowd sourcing of inappropriate, poor quality content and instances of false certification. The consequences of any of the above will be quite costly for the provider because it will have a direct impact on trust score of the provider. Once the trust score falls below a certain threshold their uploading privileges will be restricted and will require prior quality audit by the

impact a CBP may or may not have on the participant’s competencies once they apply the ASK acquired following the completion of a CBP. The iGOT platform solves this by assigning impact scores to CBPs by looking at the improvement in competencies as assessed at the workplace and through independent testing.

This is why FRACing is the key process for Mission Karmayogi. It identifies competency requirements and matches them to high impact CBPs. It suggests adjacent CBPs which help to build the next level of competency and displays what others similarly placed are consuming.

The short-term Annual Capacity Building Plan

In order for officials to develop their capacity to execute, they first need to develop their capacity to use the iGOT Karmayogi platform and its various components. Thus, this version of the plan will ask MDOs to detail how they intend to build the capacity of their officials to use the iGOT Karmayogi platform. Additionally, this plan will recommend the rolling out of two surveys to gather baseline data. The short plan consists of four steps outlined below.

► Step 1. Conduct the Annual Civil Services Survey (ACCS)

In order to fulfil Mission Karmayogi’s mandate of efficiency, transparency, and accountability, the capacity building team (CBT) of every MDO will conduct a survey of all officials – the Annual Civil Services Survey (ACSS). Using the results of this survey and as part of their annual capacity building plan, all MDOs will be asked to submit an essay outlining how they will increase the engagement and well-being of their officials. The top ten MDOs based on their ranking on the PM’s Dashboard will be asked to share what approaches they took and the outcomes they experienced. Table 5 shows the thematic areas of the ACSS and the number of questions in each area. The full survey can be found in Appendix 4.

No.	Thematic areas	No. of questions
1	My work	5
2	Organisational objectives and purpose	2
3	My manager	10
4	My team	3

²¹ The survey questions are adapted from the United Kingdom’s Civil Service People Survey (CSPS).

5	Learning and development	5
6	Inclusion and fair treatment	4
7	Resources and workload	6
8	Pay and benefits	3
9	Leadership and managing change	9
10	Employee engagement	5
11	Taking action	2
12	Organisational culture	5
13	Future intentions	1
14	Discrimination, bullying and harassment	8
15	Subjective well-being	4
Total		72

TABLE 5. Thematic areas and number of questions of the ACSS

► Step 2. Conduct the Citizen Satisfaction Survey (CSS)

After conducting the ACSS, it is also important to understand what the citizens' perceptions are of the functioning of a given MDO i.e. how satisfied are citizens with the government. Every MDO will be required to conduct the CSS to better understand the perceptions of citizens (see Appendix 5). Collecting this data will also help hone the survey further for future years. Using the results of this survey, all MDOs must submit an essay outlining how they intend to improve their execution capacity as perceived by citizens. In their essays, MDOs will be asked to provide strategies for improvement under the following areas: Access, User-Centred Service Delivery and Responsiveness, Reliability and Quality of Service Delivery, and Public Sector Integrity.

²¹ The survey questions are adapted from the United Kingdom's Civil Service People Survey (CSPS).

► Step 3. Plan to build the capacity of officials to use the iGOT Karmayogi platform

The third step requires MDOs to outline how they intend to build the capacity of officials to use the iGOT Karmayogi platform. Under the MMO framework, using the platform could be interpreted as follows:

- **Means:** Is the individual capable of using the iGOT Karmayogi platform?
- **Motives:** Does the individual want to use the iGOT Karmayogi platform?
- **Opportunity:** Does the individual have an opportunity to use the iGOT Karmayogi platform?

MDOs must therefore think along these lines when proposing how they intend to build the capacity of their officials to use the platform. An example for the competency hub would be:

Organise a two-day workshop on Mission Karmayogi to understand the competency-driven engagement (C-DE) process. This workshop will end with appropriate assessment to determine if officials are now equipped to map their positions and contribute to the competency hub of the platform.

Note that given Mission Karmayogi is still in its early stages, the proposed course of action can also pertain to developing infrastructure to use the platform – e.g. providing access points to online learning.

► Step 4. Address the competency-owning department (CoD) score

Finally, certain MDOs are also competency-owning departments (CoDs). As outlined in Table 4, the CoD score will calculate whether each competency-owning department has fulfilled its requirements as CoD. In particular, it will gather:

1. The number of CBPs available for each level of each competency owned (minimum requirement: 2 CBPs with a high impact score for each owned competency within 6 months of accepting ownership);
2. The percentage of individuals (who are required to have the competency vis-à-vis their position) who have taken the PIAA for each competency owned (minimum requirement: 90% of officials who are required to have this competency for their position must have taken the PIAA within the first three months of joining a new position)

If an MDO's CoD score is lower than the stipulated minimum requirement (i.e. 2 CBPs with a high impact score and 90% of officials having taken the corresponding PIAA for owned competency within 3 months), then officials will have to submit a plan for how they intend to address this shortcoming.

With this step, we come to the end of the short-term annual capacity building plan.



SECTION 4

Promoting success

The success of FRACing will depend upon a number of factors – some are detailed below.

Start simple: Although the platform is not yet perfect, it must not be a reason for further delays. By not utilising what is good, we are losing an opportunity to benefit from what we have. Therefore, we must not wait for the best before we start utilising these services. Starting simple does not mean we will remain simple – as more data comes in, as our algorithms improve, as our definitions get refined, as our processes become better, the good will become better, and better will become best. We must not let the best be the enemy of the good.

Establishing a clear theory of change: Government entities who are embarking on the iGOT Karmayogi journey will need to have a clear idea on what they hope to achieve through it – in particular how they would like to leverage the opportunities on the platform to transform how they build their human resources and encourage them to pursue lifelong learning. iGOT Karmayogi will only be as good as the ability and motivation of its participating entities.

Sensitisation and handholding: Building a common understanding on all aspects of iGOT Karmayogi, including FRACing, is going to be important. This will be more effective if it is done through a continuous sensitisation and capacity building process. A strong outreach and a well-designed campaign should therefore be an integral part. Both at the rollout and maturation phases there will be many doubts, questions, and difficulties that people face. A support team to handle these queries and handhold IFUs and individual officials will be needed.

Building a core group of iGOT Karmayogi evangelists: Given that the goal is to transform capacity building practices in all government MDOs at the central, state and local level, it will be important to build and sustain a large group of core supporters from all walks of life; HR professionals, CSPs, PIAAs and CBP suppliers are going to be important. At the same time, the prestige and brand of iGOT Karmayogi will need to be built which will require a sound media and social media strategy, including the ability to monitor social media chatter on iGOT Karmayogi. Workshops, seminars, competitions etc. may be needed for this. This will also require a strong pool of expert HR professionals/ organisations, both Indian and global.

Network of world-class universities, institutions and individuals who can participate on the iGOT Learning Hub for CBPs: While independent and private CBP providers will be part of the solution, it is important that steps are taken to bring on board global and domestic institutions as CBP providers.



CONCLUSION

Mission Karmayogi and Competencies

Over the years, it has become increasingly apparent that public servants like Shanti in India often lack the key competencies required to fulfil a role – due to either lack of quality training opportunities or the fact that they are required to take on responsibilities for which they do not have prior experience or knowledge. Often, despite wanting to do so, many are unable to thus improve their competencies. As tasks become more complex and citizen expectations go up, it is imperative that governments are able to address these competency gaps and provide opportunities to reduce them

As an initiative designed for the future, iGOT Karmayogi will be a self-sustaining platform that will mark the beginning of an era of transformative change in lifelong learning and capacity building in the government. Through the mapping of the three constructs (roles, activities and competencies), as well as knowledge resources, for each individual position within all government MDOs at the central, state, and local level (i.e. FRACing), the process will enable the government to reduce the competency gaps of their officials in relation to the roles and activities they are required to perform.

This document outlines the key terms of the process, emphasising the need for a common understanding, specifies the preparatory steps to the FRACing process, explains its linkages to the iGOT Competency Hub, and describes the analytics and data the platform can make available.

It is anticipated that the launch of Mission Karmayogi and the Framework of Roles, Activities and Competencies will contribute significantly to the execution capacity of the Indian state.

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APPENDICES

Appendix 1. Sample competency (Project administration)

- **Competency Label:** Project Administration
- **Competency Description:** Understand, maintain, and handle the administrative functions of a project to deliver a successful outcome.
- **Competency Type:** Functional
- **Competency Area:** Project Management

Competency Level and Level Label	Competency Level Description
Level 1: Basic knowledge of project administration	<ul style="list-style-type: none"> • Understands and locates project administration responsibilities within broader project management concepts, processes, and life cycles • Scopes project requirements in terms of functions, deadlines, and outcomes • Supports project planning by preparing agenda, taking minutes, and drafting follow-up notes
Level 2: Maintains project documentation	<ul style="list-style-type: none"> • Interprets project budget using project administration resources (timesheets, timeframes, workflows) • Maintains project documentation library, including budgets, project expenditures, stakeholder engagements, and calendars • Schedules regular meetings, followed by communicating key decisions and actions items
Level 3: Drafts project budget through necessary documentation	<ul style="list-style-type: none"> • Drafts project budget to optimise resources that will achieve a successful outcome within the expected time requirements, project specifications, and budget • Monitors project documentation to identify bottlenecks and evaluate resource utilisation • Provides necessary documentation to internal and external stakeholders
Level 4: Oversees administrative functions	<ul style="list-style-type: none"> • Reviews project budget, keeping in mind timeframes and long-term objectives • Conducts risk analysis using project documentation, historical patterns, and forecasting insights • Liaises with external stakeholders to assess project status in terms of timelines and resources • Assists project manager in overseeing administrative functions of the project
Level 5: Advises project manager on timelines and project plan	<ul style="list-style-type: none"> • Finalises and manages project budget based on long-term objectives • Resolves project bottlenecks through relevant forums and stakeholders • Advise project manager on project procedures, resources optimisation, risk management tactics, and timelines • Oversee project timeline and plans, with the goal of tracking steps towards a successful outcome

Appendix 2. IFU team members

For the time being, it is inferred that the knowledge resources required for all IFU team members will be key documents related to Mission Karmayogi.

Project Manager

Position	Roles	Activities	Competencies		
			Domain	Functional	Behavioural
Project Manager	Project Management	Deploy detailed project management plans	Project management	Principles of advanced project management	Information seeking
		Control project plans to manage project schedule and deliverables	Sector/ industry process breadth (as against dept of one or more processes)	Types of phases of a project lifecycle	Conceptual thinking
		Manage projects costs	MS project; primavera of similar PM tools (for which MDO already has licenses)	Work breakdown structure (WBS)	Initiative and drive
		Assess potential project issues		Key project performance measurements	Planning and coordination
		Manage project contingencies			Communication skills
		Report on project progress to senior executives			
	Manage Project Teams	Allocate roles and tasks to project members	Target setting		Leading others
		Monitor contributions by each member		Methods of project communication	Organisational Awareness
		Help team members overcome roadblocks			Commitment to organisation
		Mentor and coach external experts on ways of the MDO			Self- confidence
	Project Issue Resolutions	Track issues regularly	MS Project; primavera of similar PM Tools	Methods of project risk assessment	Consultation and consensus building
		Create an issue resolution plan and monitor effectively		Methods of project communication	Decision making
		Escalate issues in a timely manner			Delegation
	Project Risk Assessment	Identify risks for each specific functional area	Organisation HR processes	Methods of project risk assessment	Attention to detail
		Perform risk assessment as required	Change management techniques	Risk recording and reporting structures and processes	Taking accountability
		Report assessment outcomes to relevant stakeholders		Types of risk assessment matrices to follow	
		Adopt risk control measures to ensure impact is controlled		Principles of crisis management	

Project Coordinator

Position	Roles	Activities	Competencies		
			Domain	Functional	Behavioural
Project Coordinator	Project Management	Create and update project management plans	Project management	Project administration	Information seeking
		Timely reminders on deliverable schedules expected	Working knowledge of MS project; primavera of similar PM tools (for which MDO already has licenses)	Creating a work breakdown structure	Initiative and drive
		Keep detailed project costs incurred			Planning and coordination
		Report on project progress to Project Manager			Communication skills
		Other project coordination activities			
	Project Teams Coordination	Regular task updation for all project members	Drafting of minutes of the meeting	Drafting and sending emails (as per Project Manager's instructions)	Organisational awareness
		Meeting notes and communication	Note-taking and filing - electronic and physical (if needed)		Commitment to organisation
		Administrative works related to external experts			Self-confidence
	Project Issue Resolutions	Use issue tracker regularly	MS project; primavera of similar PM tools		Attention to detail
		Create agenda for approval of Project Manager			
		Identify issues to be highlighted			
	Project Risk Assessment	Identify risks for each specific functional area	Organisation HR processes	Methods of project risk assessment	Attention to detail
		Perform risk assessment as required	Change management techniques	Risk recording and reporting structures and processes	Taking accountability
		Report assessment outcomes to relevant stakeholders		Types of risk assessment matrices to follow	
		Adopt risk control measures to ensure impact is controlled		Principles of crisis management	
				Relevant regulatory requirements and guidelines	

Functional Heads

Position	Roles	Activities	Competencies		
			Domain	Functional	Behavioural
Functional Head	Identify trends in the domain over the next 5 years	Work closely with domain expert in bringing up-to-date on context	Known expert in the domain (global level expertise)	Workshop facilitation skills	Information seeking
		Communicate clearly the objectives of the assignment	Strong advocate of use of technology in own domain	Report writing and presentation skills	Conceptual thinking
		Identify communication means that best suit the key influencers and use it consistently	Strong expertise in adjacent domain areas (e.g. for health education – EdTech; HRD can be considered adjacent domains)		Initiative and drive
					Leading others
					Consultation and communication building
					Taking accountability
					Innovative thinking
	Building Domain Competencies				Problem solving
					Leading others
		Draw down domain trends to each affected function within the MDO	Deep understanding of the FRAC process		
		Showcase how the roles across hierarchy will change over time with evidence	Usage of FRAC templates and methodologies	Methods of project communication	Organisational awareness
	Project Contribution	Identify domain competencies of future that the above roles require			Commitment to organisation
		Identify CBP providers that currently enable building competencies			Self-confidence
		Understand project strategy	MS project; primavera of similar pm tools	Methods of project risk assessment	Consultation and consensus building
		Identify risks early and communicate with project manager		Methods of project communication	Decision making
		Identify dependencies with other functions and track them closely			
	Identify key actors within function to help facilitate change				
	Escalate issues and seek resolution in a timely manner			Delegation	

HR Head

Position	Roles	Activities	Competencies		
			Domain	Functional	Behavioural
HR Head	Identify impact of FRAC on HR processes	Work closely with HR domain expert (if needed) to identify changes required	HR processes and policies	Change management	Information seeking
		Build a case for change in HR policies	Trends in HR technology	Communication and presentation	Conceptual thinking
		Identify impact of changes on other HR policies: leave, entitlements, etc.	Deep understanding of the FRAC process		Initiative and drive
					Leading others
					Consultation and communication building
					Taking accountability
					Innovative thinking
	Recruitment Workflow Modifications	Suggest changes in the workflow as per iGOT recommendations	Deep understanding of the FRAC process	Methods of project communication	Problem solving
		Present internal approval note for change of recruitment procedures	Usage of FRAC templates and methodologies		Leading others
		Create a policy for using iGOT assessment processes	Assessment technologies and processes		Organisational awareness
					Commitment to organisation
	Project Contribution	Understand project strategy	MS project; primavera of similar PM tools	Methods of project risk assessment	Self-confidence
		Identify changes risks early and communicate with project manager and HoD	Change management	Methods of project communication	Consultation and consensus building
		Create a change management strategy along with HoD and project manager			Decision making
		Identify dependencies with other functions and track them closely			
		Identify key actors within function to help facilitate change			
		Escalate issues and seek resolution in a timely manner			Delegation

Appendix 3. CSP team members

For the time being, it is inferred that the knowledge resources required for all CSP team members will be key documents related to Mission Karmayogi.

Project Manager

Position	Roles	Activities	Competencies		
			Domain	Functional	Behavioural
Project Manager	Project Management	Deploy detailed project management plans	Project management	Principles of advanced project management	Information seeking
		Control project plans to manage project schedule and deliverables	Sector/ industry process breadth (as against dept of one or more processes)	Types of phases of a project lifecycle	Conceptual thinking
		Manage projects costs	MS project; primavera of similar PM tools (for which MDO already has licenses)	Work breakdown structure (WBS)	Initiative and drive
		Assess potential project issues		Key project performance measurements	Planning and coordination
		Manage project contingencies Report on project progress to senior executives			Communication skills
	Manage Project Teams	Allocate roles and tasks to project members	Target setting		Leading others
		Monitor contributions by each member		Methods of project communication	Organisational Awareness
		Help team members overcome roadblocks			Commitment to organisation
		Mentor and coach external experts on ways of the MDO			Self-confidence
	Project Issue Resolutions	Track issues regularly	MS Project; primavera of similar PM Tools	Methods of project risk assessment	Consultation and consensus building
		Create an issue resolution plan and monitor effectively		Methods of project communication	Decision making
		Escalate issues in a timely manner			Delegation
	Project Risk Assessment	Identify risks for each specific functional area	Organisation HR processes	Methods of project risk assessment	Attention to detail
		Perform risk assessment as required	Change management techniques	Risk recording and reporting structures and processes	Taking accountability
		Report assessment outcomes to relevant stakeholders		Types of risk assessment matrices to follow	
		Adopt risk control measures to ensure impact is controlled		Principles of crisis management	

Domain Expert

Position	Roles	Activities	Competencies		
			Domain	Functional	Behavioural
Domain Expert	Identify trends in the domain over the next 5 years	Understand the client's current landscape, context and brief history	Deep knowledge of processes in own function	Project management	Information seeking
		Coach the expert with current and approved strategy			Conceptual thinking
		Translate MDO goals to functional goals			Initiative and drive
		Identify areas of change along with expert			Leading others
		Finalise a report for HoD/minister's approval			Consultation and communication building
					Innovative thinking
	Building Domain Competencies	Identify changes in roles and create a phase-wise change plan	Deep understanding of the FRAC process	Methods of project communication	Leading others
		Modify roles and activities for affected positions	Usage of FRAC templates and methodologies		Organisational awareness
		Identify domain competencies of future that the above roles require			Commitment to organisation
		Identify CBP providers that currently enable building competencies			Self-confidence
	Managing Change	Identify change strategy and get approval from HoD	Understanding of critical roles and bottlenecks in current operations	Change management strategies	People first
		Build consensus within the domain among key stakeholders			Strategic thinking
		Identify communication means that best suit the key influencers and use it consistently			Empathy
	Project Contribution	Understand project strategy	MS project; primavera of similar PM tools	Methods of project risk assessment	Consultation and consensus building
		Allocate adequate resources to ensure project success			Methods of project communication
		Identify risks early and communicate with Project Manager			Decision making
		Escalate issues and seek resolution in a timely manner			Delegation

Senior Consultant (Domain)

Position	Roles	Activities	Competencies		
			Domain	Functional	Behavioural
Senior Consultant (Domain)	Domain Competency Writing	Understand current processes and tech used	Project management	Project administration	Information seeking
		Understand current tech changes (if any)	Working knowledge of MS project; primavera of similar PM tools (for which MDO already has licenses)	Creating a work breakdown structure	Initiative and drive
		Conduct organisation analyses exercise to identify gaps in talent	Depth of knowledge of current domain processes	Workshop facilitation skills	Planning and coordination
		Conduct functional gap analyses and facilitate change strategy acceptance	Process re-engineering in own domain		Conceptual thinking
		Work with domain expert to translate changes to roles and activities			Communication skills
		Work with domain expert to translate roles and activities to competencies			Problem solving
	Project Teams Coordination	Regular task updating for all project members	Drafting of minutes of the meeting	Drafting and sending emails (as per Project Manager's instructions)	Self-confidence
		Meeting notes and communication	Note taking and filing – electronic and physical (if needed)	Workflow diagrams	
		Identify change issues in process changes suggested Identify change risk mitigation steps		Presentation skills	
	Project Issue Resolutions	Use issue tracker regularly	MS project; primavera of similar PM tools		Attention to detail
		Create agenda for approval of Project Manager Identify issues to be highlighted			
	Project Risk Assessment	Identify risks for each specific functional area	Organisation HR processes	Methods of project risk assessment	Attention to detail
		Perform risk assessment as required	Change management techniques	Risk recording and reporting structures and processes	Taking accountability
		Report assessment outcomes to relevant stakeholders		Types of risk assessment matrices to follow	
		Adopt risk control measures to ensure impact is controlled		Principles of crisis management	
				Relevant regulatory requirements and guidelines	

HR Process Expert

Position	Roles	Activities	Competencies		
			Domain	Functional	Behavioural
HR Process Expert	Identify impact of FRAC on HR processes	Work closely with HR head to identify changes required	HR processes and policies	Change management	Information seeking
		Identify impact of changes on other HR policies: leave, entitlements, etc.	Trends in HR technology	Communication and presentation	Conceptual thinking
		Build a case for change in HR policies	Deep understanding of the FRAC process	Drafting note as per MDO's practice	Initiative and drive
		Build case for HR process automation (as per MDO's agreed policy)			Leading others
					Consultation and communication building
					Taking accountability
					Innovative thinking
	Recruitment Workflow Modifications	Suggest changes in the workflow as per iGOT recommendations	Deep understanding of the FRAC process	Methods of project communication	Problem solving
		Draw up change note for HR head's approval	Usage of FRAC templates and methodologies		Leading others
		Identify assessment processes for adoption by MDO's recruitment	Assessment technologies and processes		Organisational awareness
					Commitment to organisation
	Project Contribution	Understand project strategy	MS project; primavera of similar pm tools	Methods of project risk assessment	Self-confidence
		Identify changes risks early and communicate with Project Manager and HR head	Change management	Methods of project communication	Consultation and consensus building
		Identify dependencies with other functions and help HR head navigate these changes			Decision making
		Escalate issues and seek resolution in a timely manner			Delegation

Appendix 4. The Annual Civil Services Survey (ACCS)

No.	Thematic area	Question	Scale
A1	My work	I am interested in my work	Strongly Agree; Agree; Neither Agree nor Disagree; Disagree; Strongly Disagree
A2		I am sufficiently challenged by my work	
A3		My work gives me a sense of personal accomplishment	
A4		I feel involved in the decisions that affect my work	
A5		I have a choice in deciding how I do my work	
B6	Organisational objectives and purpose	I have a clear understanding of [my organisation's] objectives	
B7		I understand how my work contributes to [my organisation's] objectives	
C8	My manager	My manager motivates me to be more effective in my job	
C9		My manager is considerate of my life outside work	
C10		My manager is open to my ideas	
C11		My manager helps me to understand how I contribute to [my organisation's] objectives	
C12		Overall, I have confidence in the decisions made by my manager	
C13		My manager recognises when I have done my job well	
C14		I receive regular feedback on my performance	
C15		The feedback I receive helps me to improve my performance	
C16		I think that my performance is evaluated fairly	
C17		Poor performance is dealt with effectively in my team	
D18	My team	The people in my team can be relied upon to help when things get difficult in my job	
D19		The people in my team work together to find ways to improve the service we provide	
D20		The people in my team are encouraged to come up with new and better ways of doing things	
E21	Learning and development	I am able to access the right learning and development opportunities when I need to	
E22		I am able to access the infrastructure required for digital learning	
E23		Learning and development activities I have completed in the past 12 months have helped to improve my performance	
E24		There are opportunities for me to develop my career in [my organisation]	
E25		Learning and development activities I have completed while working for [my organisation] are helping me to develop my career	
F26	Inclusion and fair treatment	I am treated fairly at work	
F27		I am treated with respect by the people I work with	
F28		I feel valued for the work I do	
F29		I think that [my organisation] respects individual differences (e.g. cultures, working styles, backgrounds, ideas, etc.)	
G30	Resources and workload	I get the information I need to do my job well	
G31		I have clear work objectives	
G32		I have the skills I need to do my job effectively	
G33		I have the tools I need to do my job effectively	
G34		I have an acceptable workload	
G35		I achieve a good balance between my work life and my private life	
H36	Pay and benefits	I feel that my pay adequately reflects my performance	
H37		I am satisfied with the total benefits package	
H38		Compared to people doing a similar job in other organisations I feel my pay is reasonable	
I39	Leadership and managing change	[Senior managers] in [my organisation] are sufficiently visible	
I40		I believe the actions of [senior managers] are consistent with [my organisation]	

I41		I believe that [the executive team has] a clear vision for the future of [my organisation]	
I42		Overall, I have confidence in the decisions made by [my organisation's senior managers]	
I43		I feel that change is managed well in [my organisation]	
I44		When changes are made in [my organisation] they are usually for the better	
I45		[My organisation] keeps me informed about matters that affect me	
I46		I have the opportunity to contribute my views before decisions are made that affect me	
I47		I think it is safe to challenge the way things are done in [my organisation]	
J48	Employee engagement	I am proud when I tell others I am part of [my organisation]	
J49		I would recommend [my organisation] as a great place to work	
J50		I feel a strong personal attachment to [my organisation]	
J51		[My organisation] inspires me to do the best in my job	
J52		[My organisation] motivates me to help it achieve its objectives	
K53	Taking action	I believe that [senior managers] in [my organisation] will take action on the results from this survey	
K54		Where I work, I think effective action has been taken on the results of the last survey	
L55	Organisational culture	I am trusted to carry out my job effectively	
L56		I believe I would be supported if I try a new idea, even if it may not work	
L57		In [my organisation], people are encouraged to speak up when they identify a serious policy or delivery risk	
L58		I feel able to challenge inappropriate behaviour in the workplace	
L59		[My organisation] is committed to creating a diverse and inclusive workplace	
M60	Future intentions	<i>Which of the following statements most reflects your current thoughts about working for [your organisation]?</i>	Select one statement
M60.1		I want to leave [my organisation] as soon as possible	
M60.2		I want to leave [my organisation] within the next 12 months	
M60.3		I want to stay working for [my organisation] for at least the next year	
M60.4		I want to stay working for [my organisation] for at least the next three years	
N61	Discrimination, bullying and harassment	Have you been discriminated against at work, in the past 12 months?	Yes, while working for my organisation; Yes, while working for another Civil Service organisation; Yes, while working for a non-Civil Service organisation; No
N62		Have you been bullied or harassed at work, in the past 12 months?	
N63		Did you report your experience of bullying and/or harassment?	Yes, I raised a formal complaint; Yes, I reported it in another way, through less formal means; Yes, I confided in someone (e.g. a colleague); No
N64		How would you describe your situation now? Appropriate action was taken to address the behaviour I experienced	Multiple selection allowed Yes; No
N65		How would you describe your situation now? The bullying and/or harassment has stopped	
N66		How would you describe your situation now? The culture in my area allows this kind of behaviour to continue	
N67		How would you describe your situation now? I moved to another team or role to avoid the behaviour	

N68		How would you describe your situation now? I felt like I was punished for reporting the incident	
O69	Subjective well-being	Overall, how satisfied are you with your life nowadays? [0: Not at all satisfied, 10: Completely satisfied]	1-10
O70		Overall, to what extent do you feel that the things you do in your life are worthwhile [0: Not at all worthwhile, 10: Completely worthwhile]	
O71		Overall, how happy did you feel yesterday? [0: Not at all happy, 10: Completely happy]	
O72		Overall, how anxious did you feel yesterday? [0: Not at all anxious, 10: Completely anxious]	

Appendix 5. The Citizen Satisfaction Survey (CSS)

No.	Area	Question	Scale
A1	Respondent information	Gender	Male; Female; Other; Prefer not to say
A2		Year of birth	
A3		Highest educational attainment	Primary education; Secondary education; Short-cycle tertiary education (e.g., higher technical, community college, technician-level training, and advanced/higher vocational training—usually two years of postsecondary education); Bachelor’s degree or equivalent; Master’s degree or equivalent; Doctoral degree or equivalent
A4		Professional status	Working (full-time, part-time, or self-employed); Homemaker; Retired; Unemployed; Student; Other (please specify)
A5		Annual income before tax (in INR)	0-2.5 lakh; 2.5-5 lakh; 5-7.5 lakh; 7.5-10 lakh; 10-12.5 lakh; 12.5-15 lakh; above 15 lakh
A6		Postal code	
A7		Recent interactions with public agencies and officials: Over the past 12 months, have you come into contact with any government agency either for your own purposes or on behalf of someone else, whether in person; by phone, mail, or email; or on a website?	Yes; No
A8	Type of interaction with public agencies or officials: Why did you come into contact with this agency?	I was searching for information; I wanted to submit a question, suggestion, or complaint; I was looking for a public service. In all cases, elaborate:	
	Access	Finding the relevant contact information	
B9		How satisfied were you with the ease of finding the correct website/address/contact person?	Very dissatisfied; Dissatisfied; Satisfied; Very satisfied; Do not remember
B10		Did you approach another government agency before finding the one that could actually deal with your enquiry?	Yes; No; Do not remember
B11		If the answer to 2.1.2 is yes, How many different agencies did you approach before you found the one that could actually deal with your enquiry?	1; 2; 3; 4; 5+
		Choosing the most convenient access channel	
B12		When you looked for information or came into contact with the agency, which of the following means of interaction did you use? Select all that apply.	In-person, face-to-face contact with public official; Posted letter and/or facsimile; Telephone (fixed line or mobile); Email; Website; Tablet/smartphone applications; Social media
B13	If you were to come into contact with the agency again in the future, what would be your preferred channel to interact? Select one.		

		Getting in touch with the administration	
B14		<i>After you identified the correct website/address/contact person, how satisfied or dissatisfied were you with the following?</i>	Very dissatisfied; Dissatisfied; Satisfied; Very satisfied; Do not remember
B14.1		-! Ease of contacting the government entity	
B14.2		-! Overall waiting time to get your query answered (e.g., on the phone, at the facility, or to receive a response by mail or email)	
B14.3		-! Number of public servants required to resolve your request	
B15		<i>If your contact was in person/face-to-face, how satisfied were you with the following?</i>	
B15.1		-! Opening hours	
B15.2		-! Time it took you to reach the facility	
B15.3		-! Physical layout of the facility	
B15.4		How many public servants did you interact with?	1-2; 3-4; More than 4; Do not remember
		Using e-government/digital procedures	
B16		<i>If you did not check the boxes for "email," "website," "tablet/smartphone applications," or "social media" in question B10.1</i>	
B16.1		-! Why have you not used email, websites, tablet/smartphone applications or social media to contact public agencies or officials? Check all that apply.	I was unaware of the relevant website or online service; I do not know how to use/am not familiar with online tools; I prefer personal contact; Things get done more easily and/or more quickly through other channels; I am worried about the protection and security of personal data on the Internet; The relevant services will require personal visits or paper submission anyway; Other (please specify)
B16.2		-! If it were possible, would you like to do everything with the agency online?	Yes; No
B17		<i>If you checked "website" and/or "tablet/smartphone applications" in question B10.1: Thinking of the most recent contact you had online using a personal computer, laptop, mobile device, or tablet, what was your level of satisfaction/dissatisfaction with the following?</i>	Very dissatisfied; Dissatisfied; Satisfied; Very satisfied; Do not remember
B17.1		-! Ease of navigating website/application	
B17.2		-! Presentation of website/application	
B17.3		-! Ease of downloading material	
B17.4		-! Information/documents available on website	
B17.5		-! Clarity of online forms	
B17.6		-! Instructions, support, and/or help functionalities	
B18		Did you encounter any technical problems while using the website/application?	Yes; No; Do not remember; If yes, please explain
B19		To what extent do you agree or disagree with the following: I am confident that any personal data I provide to government agencies is securely managed/properly protected.	Strongly disagree; Disagree; Agree; Strongly agree
	User-Centred Service Delivery and Responsiveness	Receiving personalised service	
C20		<i>To what extent do you agree or disagree with the following statements?</i>	Strongly disagree; Disagree; Agree; Strongly agree
C20.1		-! The service I received took into account my individual circumstances and preferences.	
C20.2		-! Based on my most recent interaction, I would say that public services are attentive to their users' needs.	
C20.3		If you checked "disagree" or "strongly disagree" in question C20.1 or C20.2: Why were you dissatisfied? Check all that apply.	The government agency offered you a generic solution that did not match your specific circumstances; The government agency failed to