USAID GLOBAL HEALTH SUPPLY CHAIN PROGRAM

PROCUREMENT AND SUPPLY MANAGEMENT

Guideline For Developing National Health Digital Supply Chain Strategy And Architecture

Draft Version 1

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USAID
FROM THE AMERICAN PEOPLE

Contents

Acronyms

GHSC ..... Global Health Supply Chain
GS1 ..... Global Standards Organization
GTIN ..... Global Trade Item Number
HIS ..... Health Information System
MOH ..... Ministry of Health
PSM ..... Procurement and Supply Management
SCOR ..... Supply Chain Operations Reference
USAID ..... U.S. Agency for International Development
SCIS ..... Supply Chain Information System
SCISMM ..... Supply Chain Information System Maturity Model

1. Executive Summary

Health supply chains play a critical role in ensuring availability of medicines to patients. A well-coordinated supply chain is vital to saving lives. Given the number and diversity of partners involved in today's highly networked world, the complexity of managing health supply chains has exponentially grown. Timely access to information is essential to ensure an uninterrupted distribution of medicines through these complex supply chains. Streamlined flow of information across the entire supply chain is needed to ensure consistent delivery of medicines on time. Information and the ability to act based on the information will enable supply chain leaders to respond to emergencies rapidly. Adoption of technologies in a holistic manner can ensure availability of relevant information to the right people at the right time helping them respond to supply chain needs proactively.

However, supply chains in low- and middle-incomes countries (LMIC) have adopted technology in a fragmented pattern. Investments in supply chain information systems (SCIS) have focused on a specific process without considering the impacts or interdependencies on other processes and systems. Consequently, multiple systems have been deployed that are overlapping and burden supply chain personnel with duplicative processes.

SCIS functions such as warehouse management and order management have been misrepresented as logistics management resulting in systems that support neither warehouse operations nor order management adequately. This is contributing to system capabilities that deviate from benchmarked and standardized supply chain functions.

A guiding strategy and architecture that is holistic in nature is needed to ensure SCIS investments are effective. This document aims to provide a guideline for countries in developing a holistic digital supply chain strategy and architecture. This document will help supply chain leaders and executives in government organizations such as Ministry of Health in establishing a blueprint for supply chain digitalization.

2. Digital Supply Chain Overview

Digital Supply Chain (DSC) is a key enabler for public health supply chain organizations to consistently deliver quality medicines and services on time, at the right place, in the right quantity and at the right cost to patients and consumers. DSC ensures this by providing a digital ecosystem that supports collaborative processes across all systems including supply chain, health management and regulatory. A digital ecosystem is realized when advanced automation-driven supply chain processes are integrated to interoperate with each other and with other ecosystems. DSC, thus ensures availability of real-time data providing end-to-end visibility and enhanced decision making.

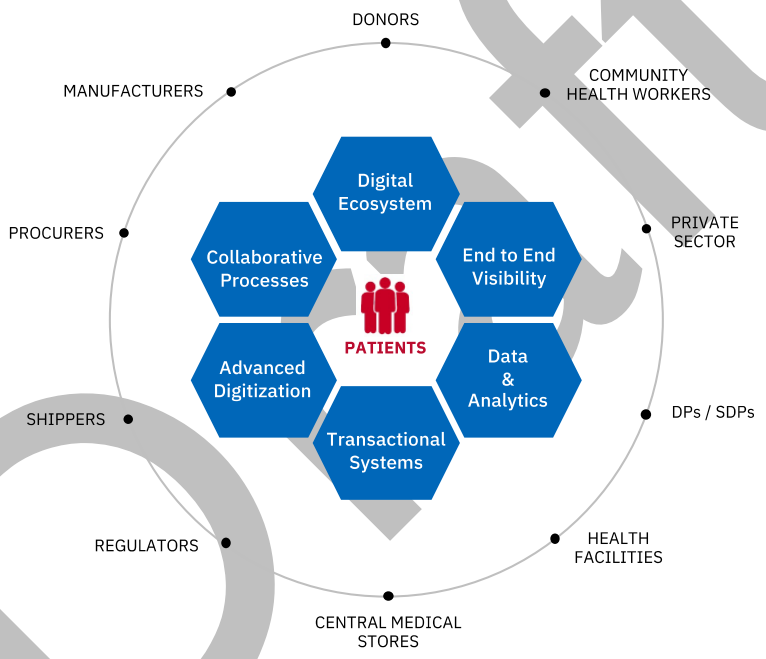


Figure 1 – Digital Supply Chain

DSC should be considered in the overall context of 'digital health'. USAID's *Vision for Action in Digital Health (2020-2024)*[1] document defines digital health as '*the systematic application of information and communications technologies, computer science, and data to support informed decision-making by individuals, the health workforce, and health institutions, to strengthen resilience to disease and improve health and wellness for all*'. Within the draft

[1] *USAID, "A Vision for Action in Digital Health, 2020-2024", 2020, (https://www.usaid.gov/sites/default/files/documents/USAID-A-Digital-Health-Vision-for-Action-v10.28_FINAL_508.pdf)*

WHO 2020–2024 Global Strategy on Digital Health[2] the term 'digital health' refers to 'the field of knowledge and practice associated with any aspect of adopting digital technologies to improve health,'. WHO, within the Classification of Digital-Health Interventions[3], has grouped digital technologies by primary target user-groups. One of them is Manager-oriented technologies, which includes technology that support the management of supply chains.

Within the context of digital health, digital supply chain is defined as adopting digital technologies to support and improve, specifically, the supply chain aspect of public health. Taking a patient or end-user centric perspective, this implies that application of digital technologies needs to ensure that right products such as medicines are procured and dispensed to the right patient or consumer at the right time, at the right cost and at the right place. While doing this, digital technologies need to empower individuals and health organizations as well as associated processes with data and the ability to make effective decisions to respond to continuously evolving changes in the supply chain.

2.1 BENEFITS OF DIGITAL SUPPLY CHAIN

Progressively adopting automated transactional systems that capture and exchange real-time data with one another, enables collaborative processes and end-to-end visibility, ultimately improving supply chain efficiency that enhances quality of service, trust & safety leading to better health outcomes for satisfied patients & end consumers.

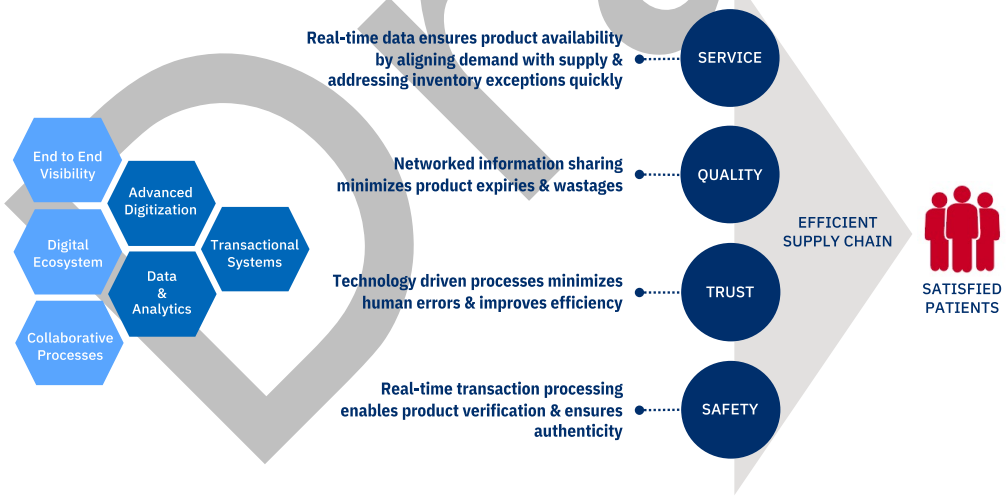


Figure 2 – Benefits of Digital Supply Chain

[2] *WHO, "Global Strategy on Digital Health 2020-2024," 2019, 2, (https://extranet.who.int/dataform/upload/surveys/183439/files/Draft%20Global%20Strategy%20on%20Digital%20Health.pdf)*

[3] *World Health Organization (WHO), "Classification of Digital Health Interventions, v1.0," 2018, (https://apps.who.int/iris/bitstream/handle/10665/260480/WHO-RHR-18.06-eng.pdf?sequence=1)*

2.2 DSC BASED ON BENCHMARKS

The primary objective of digital supply chain is to support supply chain activities. It is thus important to identify and categorize the activities that digital supply chain should enable. This document leverages the maturity based SCIS capabilities defined in 'Supply Chain Information System Maturity Model'[4] (SCISMM) to categorize supply chain activities. SCISMM is designed using Association of Supply Chain Management's (ASCM) Supply Chain Operations Reference (SCOR) model principles. SCOR model helps organize the activities around primary management processes of Plan, Source, Deliver, Return and Enable[5]. In the SCISMM, while the processes are categorized using the SCOR model, they have been contextualized to represent activities specific to public health.

Figure 3 identifies various supply chain processes that digital supply chain should address. It categorizes these processes according to SCOR model's primary management processes.

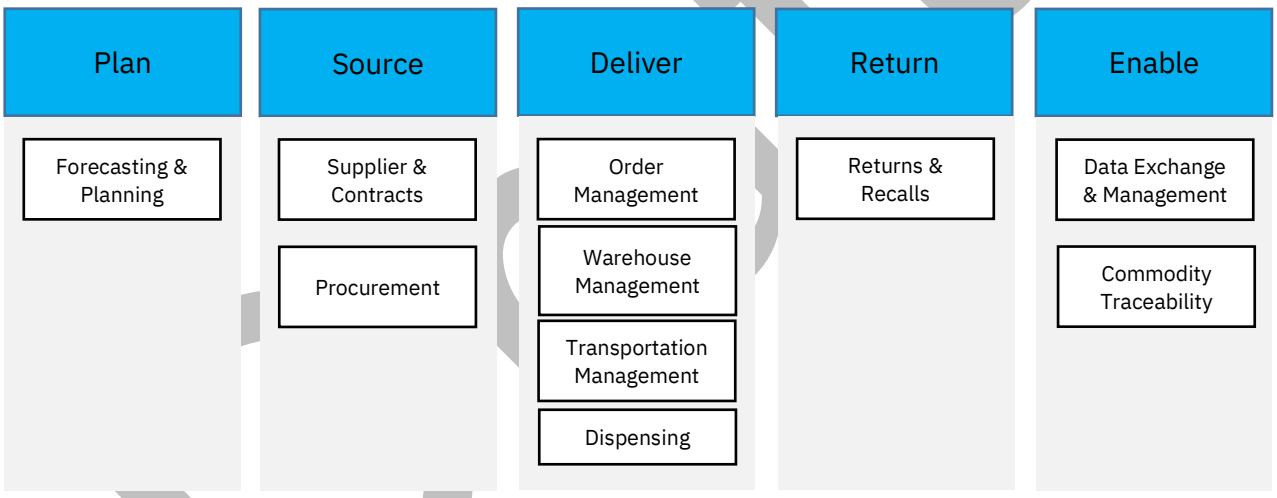


Figure 3 – Supply Chain Processes

About SCISMM Framework

The USAID Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project developed the SCISMM framework to help countries analyze their current supply chain systems holistically and plan their investments in supply chain information systems accordingly. The SCISMM is a guiding tool to aid supply chain actors,

[4] *GHSC-PSM, "Supply Chain Information Systems Maturity Model, Version 2.0", Mar 2021, (https://www.ghsupplychain.org/supply-chain-information-systems)*

[5] *ASCM, "SCOR Quick Reference Guide, Version 12.0", (http://www.apics.org/docs/default-source/scor-p-toolkits/apics-scc-scor-quick-reference-guide.pdf)*

including governments, donors, and implementing partners/procurement agents, in planning and strategizing around future SCIS investments to enhance the functionality of supply chain operations. The model can be used to evaluate current capabilities or to target priority areas for improvement or development, as in the case of its application in Nepal, Pakistan, and Rwanda.

2.3 TARGET MATURITY

SCISMM defines supply chain information system capabilities such as planning, order management, and warehouse management, as well as foundational capabilities like data management, across five maturity levels. Figure 4 shows these five maturity levels that organizations can choose to move to based on where they currently are. As defined in 'The Principles of Donor Alignment for Digital Health'[6], countries should adopt "*Systems at a level appropriate to the country's progress along the digital health maturity continuum*".

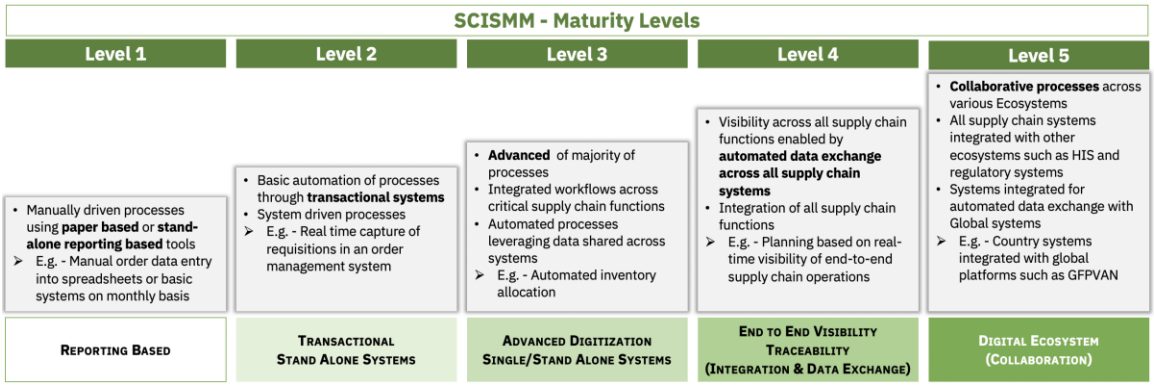


Figure 4 – Supply Chain Information System Capabilities Maturity Levels

This document provides guidance to countries that are planning to move from,

- SCISMM Level 3 to Level 4 or
- SCISMM Level 4 to level 5

If organizations that are still assessed at SCISMM Level 2 want to move to SCISMM Level 3, they can refer to 'Guideline for Achieving Supply Chain Information Systems Maturity Model (SCISMM V2.0) Level 3' document available on GHSC-PSM website.

SCISMM Level 4

SCIS that are interoperable and integrated to provide end to end visibility by exchanging data across are considered to be at SCISMM level 4. For example, forecasting and planning systems

[6] *Digital Investment Principles, "The Principles of Donor Alignment for Digital Health", Oct 2018 (https://digitalinvestmentprinciples.org/)*

at level 4 will have visibility to future demand based on consumption data from dispensing systems and inventory data from warehouse management systems and projected supply based on inbound order data from procurement systems. With this extent of end to end visibility systems will be able to forecast and plan at a much higher accuracy levels.
SCISMM level 4 aligns with the OpenHIE architecture where foundational components such as registry services are important to ensure interoperability across systems. Master data management such as product master data is critical at this maturity level and should ensure adoption of standardization such as GS1. Level 4 maturity also ensures adoption of Automated Identification and Data Capture (AIDC) based processes such as use of standardized barcodes to automate warehouse processes.

SCISMM Level 5

SCIS at mautiry level 5 not only interoperate with each other but also integrate and collaborate with systems from other digital health ecosystems such as health information systems (HIS), regulatory systems and financial systems. For example, procurement systems at level 5 will collaborate with regulatory systems to ensure streamlined importation process, dispensing systems will share data with HIS to enable analyses such as drug efficacy etc. Countries planning to enhance their SCIS to level 5 should ensure that necessary foundations defined in level 4 such as interoperability and master data management are achieved.

3. Guideline for Developing DSC Strategy

Existing strategy documents should be a key input to defining National Health DSC strategy.

Figure 5 – Approach to developing National DSC Strategy

Key strategy documents that should guide DSC strategy are National Supply Chain Strategy and National Digital Health Strategy. If the country has defined a National Traceability Strategy then it should be considered as a key input too. In the absence of any of these documents, countries can leverage available strategy artefacts while considering current situational analyses of SCIS, supply chain challenges and any existing supply chain assessments. DSC strategy should clearly guide whether a country should pursue achieving SCISMM Level 4 or Level 5 depending on existing maturity level of SCIS.

DSC strategy should be patient focused while enabling supply chain efficiency to deliver enhanced services and quality products to patients. Countries should develop a vision to guide DSC strategy implementation. Targeted use cases should be developed that highlight the underlying SCIS implementation needs to achieve DSC's strategic objectives. Illustrative examples are outlined here as a reference.

Illustrative DSC Vision

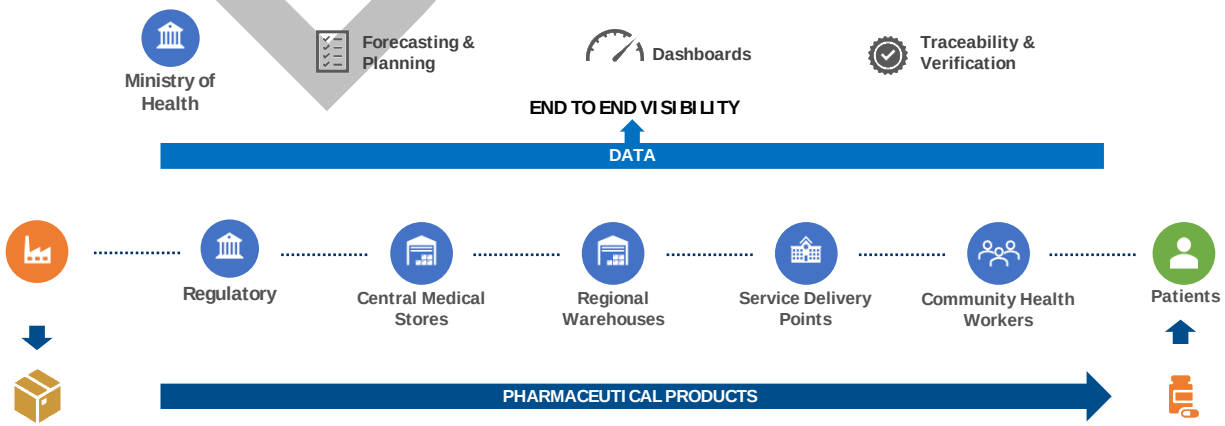


Figure 5 – Illustrative DSC Vision

Illustrative DSC Use Cases

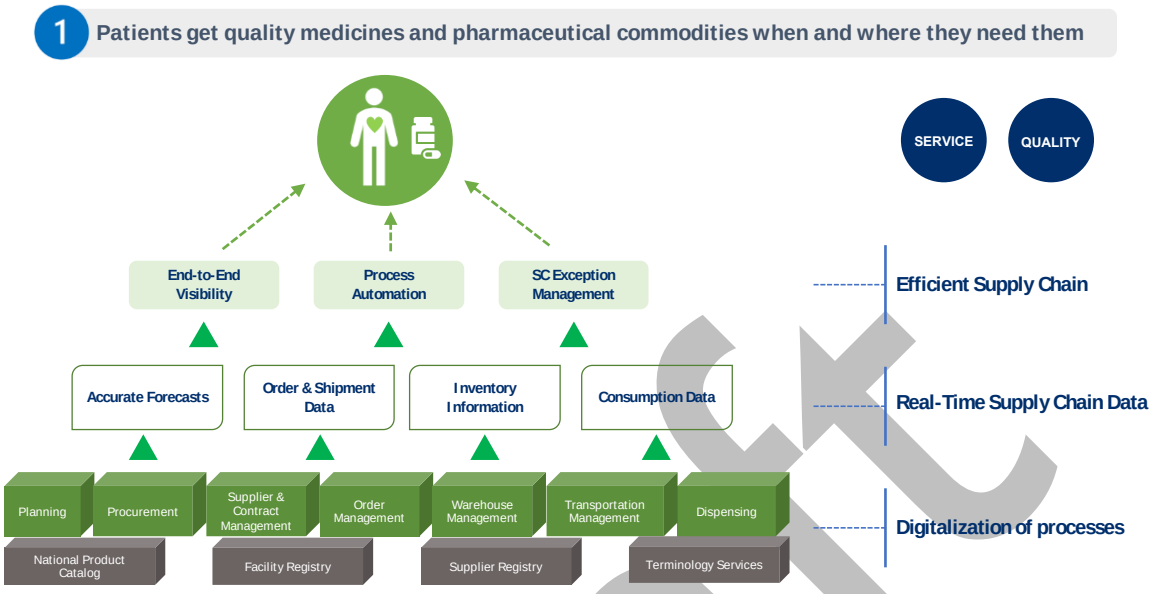


Figure 6 – Illustrative DSC Use Case 1

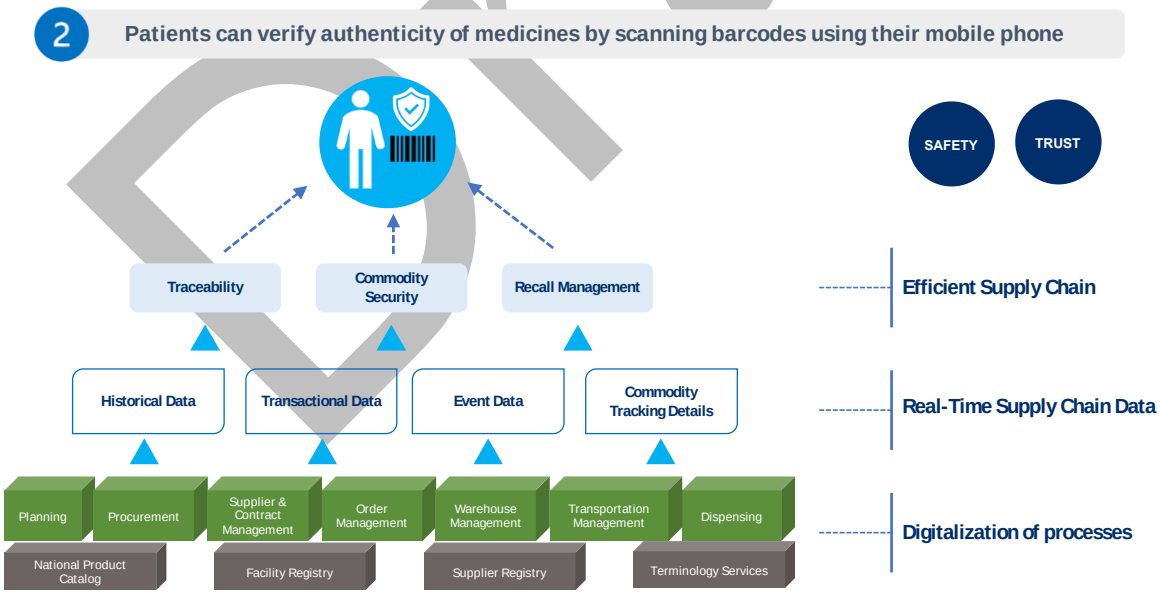


Figure 7 – Illustrative DSC Use Case 2

4. Guideline for Developing DSC Architecture

DSC strategy and SCISMM assessment outputs should be key inputs to defining DSC architecture. The architecture should help define implementation activities and prioritize them based on importance and need to support critical supply chain operations. The prioritized activities then feed into a comprehensive multi-year roadmap to implement all the components of DSC architecture.

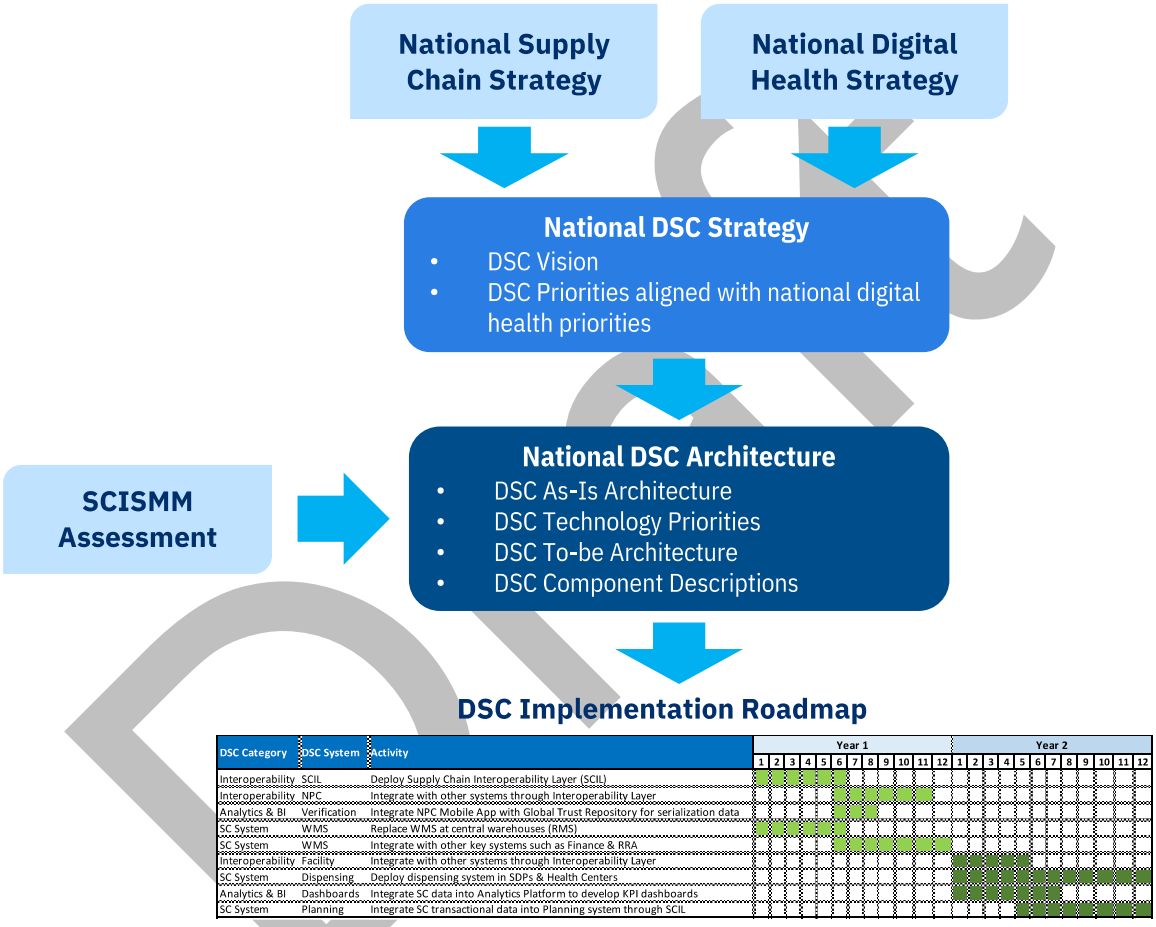


Figure 8 – Approach to developing National DSC Architecture

DSC architecture should be based on OpenHIE[7] framework to ensure streamlined data exchange across all supply chain systems. The architecture should incorporate dedicated interoperability layer that orchestrates data sharing and transformation across systems. The architecture should categorize systems as foundational and transactional to ensure that

[7] *OpenHIE Architecture, (https://guides.ohie.org/arch-spec/architecture-specification/overview-of-the-architecture)*

systems are implemented and organized according to the category they belong to. This helps take a holistic and a comprehensive approach to implementing DSC. Foundational systems ensure that all supply chain organizations and processes are speaking the same language thus eliminating unnecessary manual efforts to translate data. Foundational components should incorporate global data standards such as GS1 for master data management such as product master to enable interoperability across systems. National Product Catalog (NPC[8]), which is based on GS1 and helps manage and link standardized product identifiers to country identifiers can be a reference for foundational components.. The transactional components should promote adoption of Automated Data Identification and Capture (AIDC[9]) to enable process automation.

4.1 TARGET MATURITY BASED ARCHITECTURE

The target maturity level should determine the appropriate DSC architecture to choose.

SCISMM Level 3 to Level 4

If countries are moving from SCISMM Level 3 to Level 4, they should define the architecture that helps them achieve end-to-end visibility through integration of all SCIS.

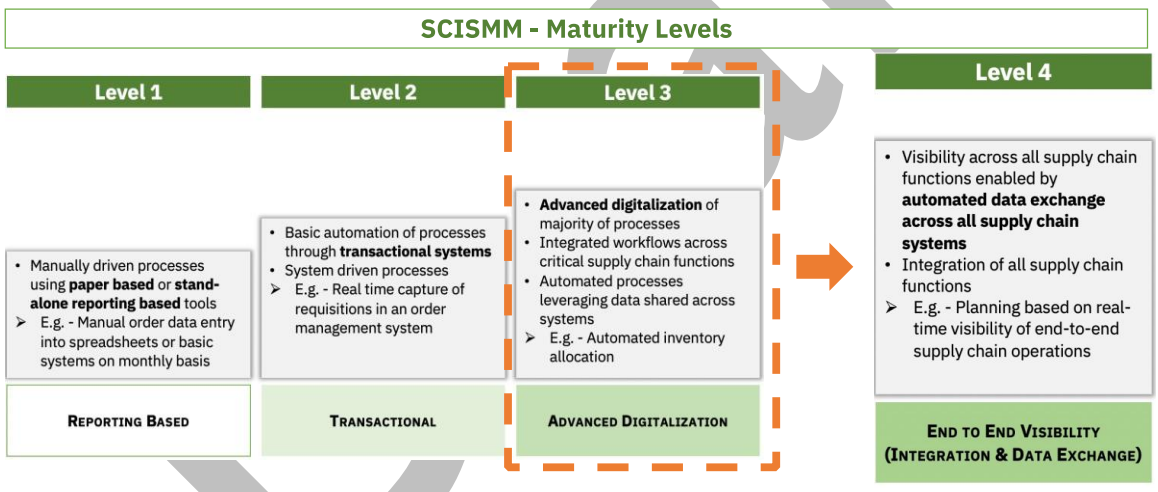


Figure 9 – SCISMM Level 3 to Level 4

The architecture should identify systems that facilitate supply chain operations based on SCISMM framework categorizations along with other architectural layers dedicated to interoperability, foundational components and analytics and business interlligence, as illustrated in Figure 10. The analytics layer should have a scalable data warehouse to

[8] *National Product Catalog, (https://www.ghsupplychain.org/node/1504)*
[9] *GS1, "AIDC Healthcare Implementation Guideline", July 2015 (https://www.gs1.org/docs/healthcare/GS1_Healthcare_Implementation_Guideline.pdf)*

aggregate data to facilitate traceability, recall management and product verification in addition to dashboards and reports. The dedicated interoperability layer should provide data transformation and orchestration services to enable seamless data exchange.

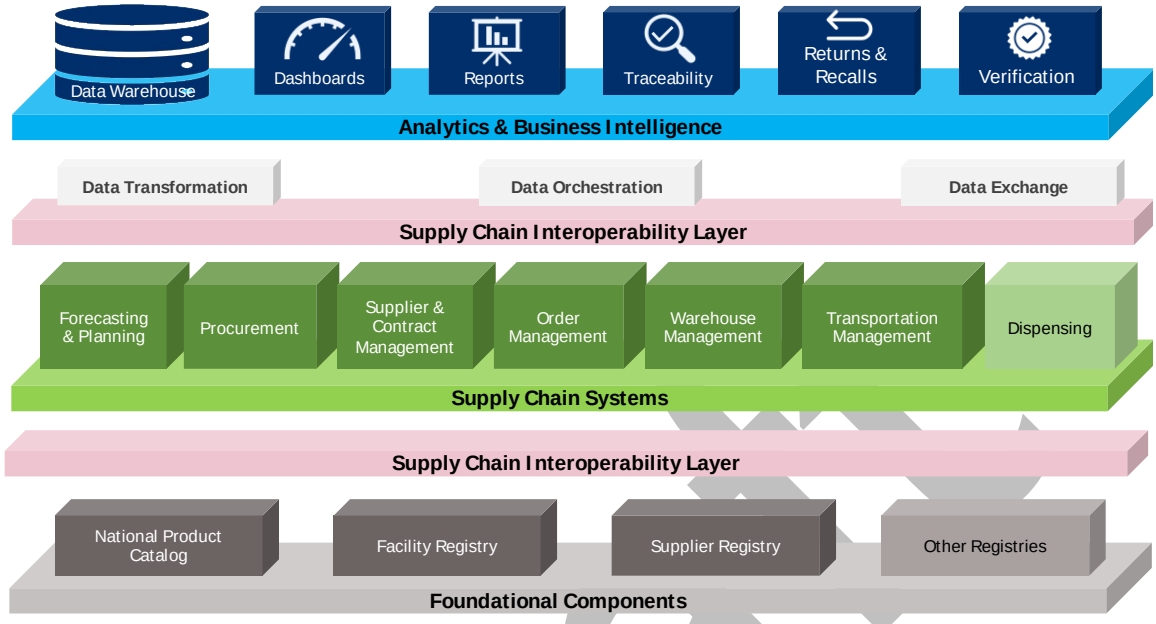


Figure 10 – Illustrative National DSC Architecture for SCISMM Level 4

SCISMM Level 4 to Level 5

If countries are moving from SCISMM Level 4 to Level 5, they should define the architecture that helps them achieve a digital ecosystem where SCIS interoperate with other information systems such as Regulatory systems, Health Information systems, Financial systems and Insurance systems.

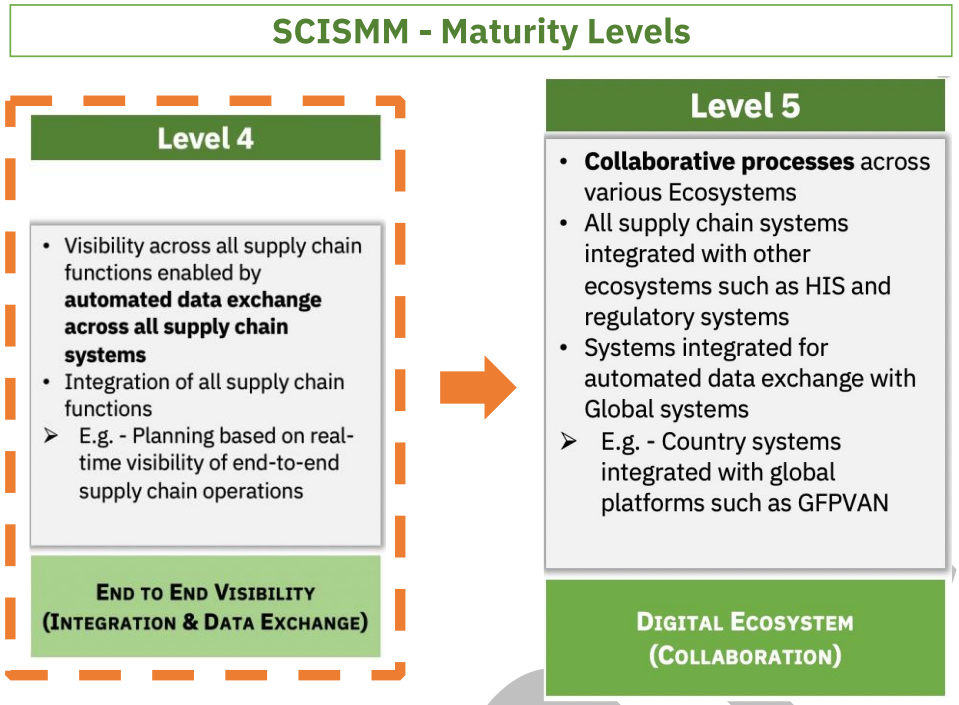


Figure 11 – SCISMM Level 4 to Level 5

The architecture to transition to SCISMM level 5 should enable interoperability across various ecosystems as well as between country systems and global systems, as illustrated in Figure 10. SCISMM Level 5 architecture should facilitate collaboration of various supply chain processes with other health, regulatory, insurance and financial processes. The architecture should enable an infrastructure that can easily integrate with global and local systems including private sector systems when required.

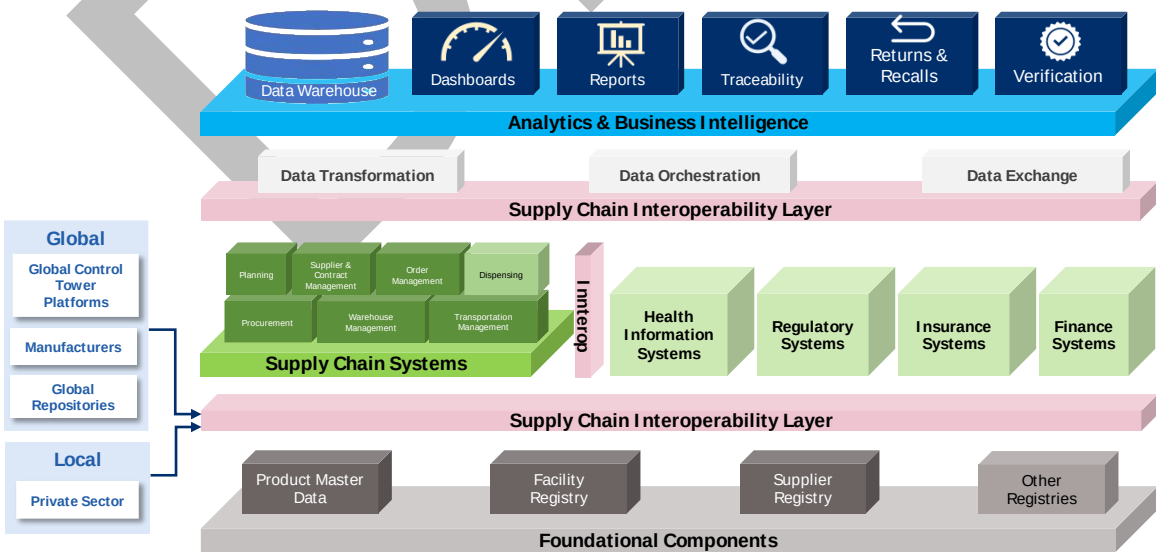


Figure 12 – Illustrative National DSC Architecture for SCISMM Level 5

5. Key Considerations

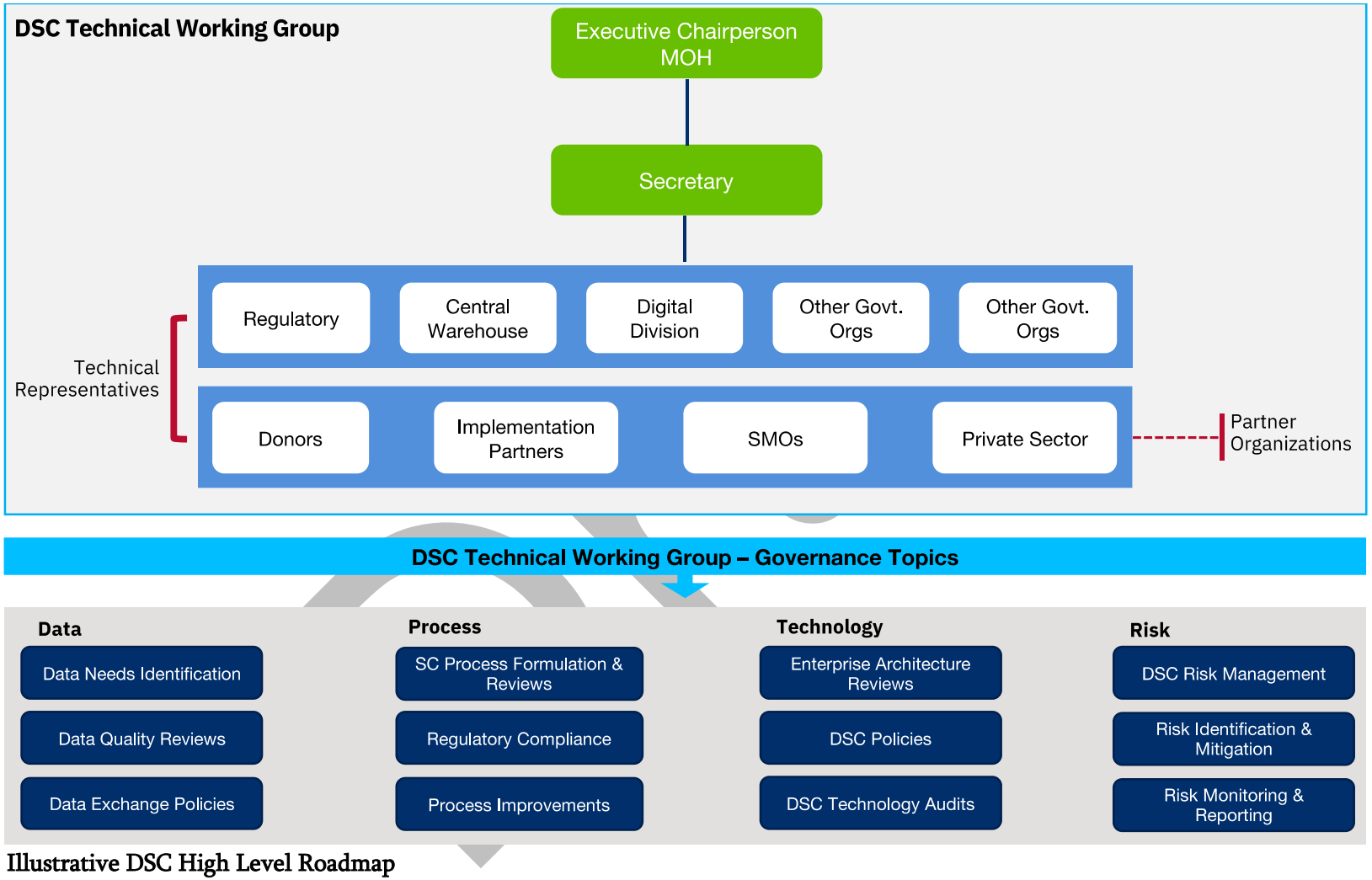
Other key complementary priorities that should be considered for DSC transformation are summarized below.

- People
    - Leadership – Key supply chain and digital leadership positions should be established and filled, such as supply chain leaders, technical or IT leaders/enterprise architects, that can guide and monitor DSC investments. Established leadership positions should be accountable for implementation progress and have authority over regular performance monitoring.
    - Workforce capacity – Similar to leadership positions, workforce capacity should be built to use, maintain and sustain DSC tools and processes. This should be done such that transitioning in and transitioning out workforce resources are streamlined without disrupting DSC operations. This should be achieved by developing Standar Operating Procedures (SOP), re-usable training materials and providing exposure to latest technology trends.

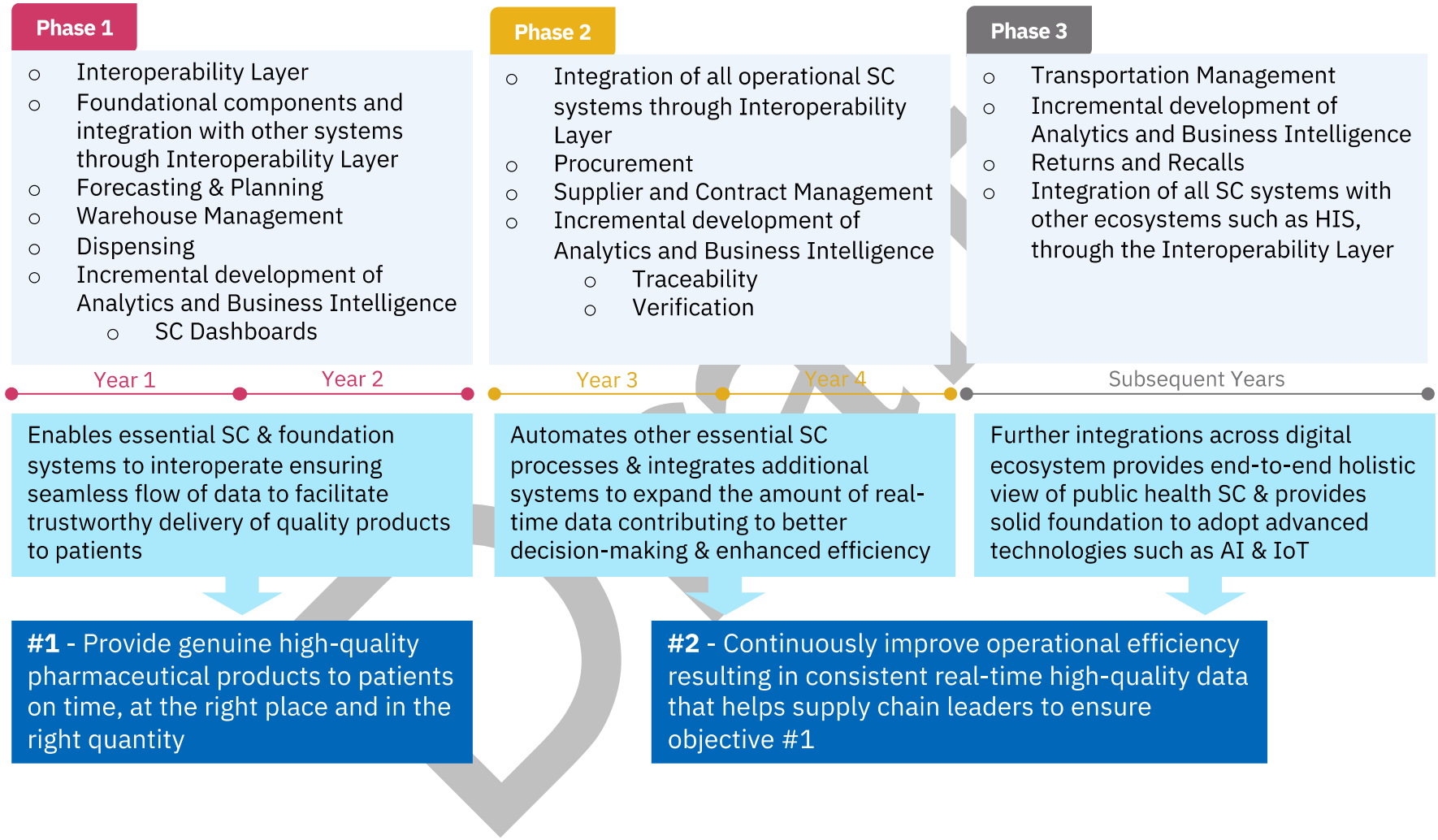
      A list of potential DSC roles, including leadership and technical along with responsibilities is provided in the Appendix. This can be used as a reference while determining workforce needs for different DSC implementation phases.
- Policy
    - Appropriate policy and contractual framework around DSC should be formalized to facilitate data sourcing from supply chain partners such as manufacturers, logistics providers, procurers and private sector players. Policy should also establish guidance and timeline for adopting recommended data and technology standards such as standards-based data carriers and product identifiers, Global Positioning System (GPS) based tracking and Radio-frequency Identification (RFID) enabled technology.
- Governance
    - A DSC enterprise architecture team or technical working group should be established so that all information technology (IT) activities and improvements are reviewed to ensure alignment with digital health and DSC architecture.
    - Governance should encompass data, process, technology and risk management. To ensure that these are appropriately covered, sub-workstreams should be created within the workgroup. A separate workstream for data, process, risk and technology each can review and monitor those respective aspects of DSC as implementations progress. An illustrative governance framework is provided in the Appendix as a reference for the working group structure and governance focus areas.

6. Appendix

- **Illustrative DSC Governance Framework**

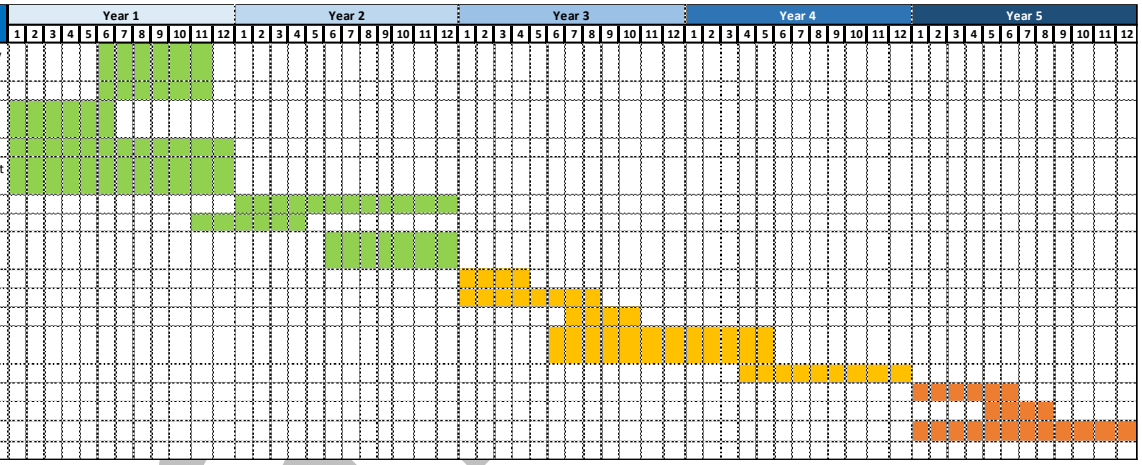


- **Illustrative DSC High Level Roadmap**



- **Illustrative DSC Detailed Roadmap**

DSC Category	DSC System	Priority	Activity
Foundation	NPC	High	Incorporate MHPR and Integrate with other systems through Interoperability Layer
Foundation	Dispensing	High	Integrate eHIN with OpenLMIS to exchange inventory and transaction data
Interoperability	Interoperability	High	Deploy a functional Interoperability Layer with connectivity between NSCIS & FSCIS
SC System	WMS	High	Implement automated WMS processes at central warehouses
SC System	OMS	High	Implement a comprehensive automated ordering management processes that can integrates with upstream fulfillment systems such as CMST's WMS
SC System	Facility Registry	High	Integrate with other systems through Interoperability Layer
Analytics & BI	SC Dashboards	High	Integrate SC data into Analytics Platform (DHIS2) to develop KPI dashboards
SC System	Forecasting & Planning	High	Implement new forecasting & planning system
SC System	WMS	Medium	Integrate with OMS
SC System	Procurement	Medium	Implement automated procurement system
SC System	WMS	Medium	Integrate with procurement system
Analytics & BI	Traceability & Verification	Medium	Integrate transactional data into Analytics platform to implement traceability & verification solutions
SC System	Supplier & Contract	Medium	Implement supplier & contract management system
SC System	Transportation	Low	Implement Transportation System
Analytics & BI	Returns & Recalls	Low	Implement a solution to manage Returns & Recalls
Interoperability	Interoperability	Low	Integrate SC data with HIS, Regulatory & Other systems



- List of DSC Roles and Responsibilities

Role Category	Roles	Phase Required In		Position Type	Skillsets	Responsibilities
		Deployment	Operation			
Leadership	Chief Technology Officer / Chief Information Officer / Chief Digital Officer	Y	Y	Permanent	- Leadership skills - ability to manage multiple IT teams & provide guidance on digital initiatives - Strategy skills - ability to perform strategic planning for IT initiatives & provide oversight to ensure strategic objectives are met - Technology skills - knowledge of latest technologies & trends, understanding of enterprise architecture & data management - Interpersonal skills - communication & presentation skills, relationship & team development skills	- Liaise with senior technical leadership across different organizations to facilitate IT work planning & budgeting - Facilitate approvals of workplans, budgets & funding requests - Develop & implement IT policies & standards - Manage multiple IT teams including implementation teams, infrastructure personnel & IT manager - Oversee key IT initiatives & ensure successful deployments in line with strategic objectives - Lead vendor management

Leadership	Information Technology Manager	Y	Y	Permanent	- Leadership skills - ability to manage technical teams - Strategy skills - ability to support strategic planning for IT initiatives - Technology skills - knowledge of existing technologies used in-country & latest trends, understanding of data management & application support needs - Interpersonal skills - communication & presentation skills, relationship & team development skills	- Liaise with senior leadership to facilitate IT work planning & budgeting - Implement IT policies & standards - Manage IT personnel - Oversee day to day operations of IT tools - Identify IT improvement opportunities - Liaise with IT vendors when required to facilitate troubleshooting or enhancements
Leadership	Project Manager	Y	N	Contracted/ Temporary	- Understanding of business requirements & high-level IT architectures/solutions - Project management skills such as planning, budgeting, risk management, team management & time management - Experience in various project management methodologies such as agile, waterfall & software development lifecycle - Ability to coordinate with & manage multiple stakeholders - Interpersonal skills such as communication, presentation & team development	- Set project objectives & charter - Develop project plan to manage resources, timeline within the allotted budget - Regularly provide status updates to team & senior leadership - Identify & assess risks & develop mitigation strategies - Coordinate efforts of all team members to meet project objectives - Monitor & manage project performance & progress

Leadership	Solution Architect	Y	N	Contracted/ Temporary	- Knowledge of various technology options & trends such as cloud services, software as a service, open source etc. - Experience in software design & architecture - Knowledge of IT infrastructure - Technical leadership skills such as providing technical guidance & vision - Ability to understand business requirements & map it technology solutions - Understanding of best practices in software development, architecture & IT deployments - Analytical & problem solving skills	- Gather business requirements to define scope & develop technology solutions & architecture to satisfy requirements - Prepare technology specifications to implement, utilizing best-practices - Analyze existing systems & identify improvements & integration requirements - Guide technical team members in implementation of technology solutions - Coordinate with various technical teams such as integration specialists, infrastructure specialists & QA personnel to guide on various aspects of IT implementation - Coordinate with senior leadership to communicate on technology options, cost impact & budget needs
Technical	Business Analyst	Y	N	Contracted/ Temporary	- Analytical & problem solvking skills - Writing & communication skills - Ability to understand & gather business requirements - Knowledge of supply chain processes - Interpersonal skills such as coordination across various teams & stakeholders	- Gather & analyze business requirements & map business processes - Collaborate with technical teams to translate business needs into technical requirements - Develop use case or user stories to convey business needs to technical teams - Coordiante with QA team to ensure test cases to validate technical solutions are developed according to business needs - Collaborate with multiple technical & business teams - Collaborate with QA & training teams to prepare test cases & training material

Technical	Developer / Programmer	s	N	Contracted/ Temporary	- Knowledge of & experience in various programming languages such as Java, Python, C++ etc. - Knowledge of & experience in various technology options such as relational databases, web frameworks, object oriented development etc. - Ability to understand business requirements & develop programs to meet requirements - Interpersonal skills such as coordination with various technical & process teams - Analytical & problem solving skills - Experience in developing software solutions using open source tools	- Design & develop software programs that meet business requirements - Deploy the developed software across multiple environments such as test, staging, production - Troubleshoot & fix bugs in software programs - Collaborate with QA & training teams to prepare test cases & training material
Technical	Integration Specialist	Y	N	Contracted/ Temporary	- Knowledge of & experience in ETL (Extract, Transform & Load) tools - Knowledge of & experience in SQL - Knowledge of & experience in service oriented architecture - Knowledge pf & experience in various data transfer protocols, schemas & formats - Knowledge of available data transformation & interoperability tools and experience in at least 2 tools	- Design integration solutions to utilize interoperability features across multiple systems - Develop integration standards & protocols - Coordinate with implementation team members such as architects & programmers to develop application integrations - Maintain the developed integrations & troubleshoot issues
Technical	Database Administrator	Y	Y	Permanent	- Knowledge of various database tools - Data modeling - Database management, including performance monitoring, optimizing & tuning - Database backup & recovery - Data security	- Advise on relevant database (DB) tools to use - Support database activities such as data modeling, performance monitoring, data cleansing & tuning - Monitor databases to ensure timely backup & recovery when required - Ensure security of databases & administer relevant access to appropriate users - Coordinate with various IT tools' deployment teams to support DB activities

Technical	Infrastructure Specialist	Y	Y	Permanent		
Leadership	QA/Test Manager	Y	N	Contracted/ Temporary	- Knowledge of software implementation methodologies including agile, waterfall. - Knowledge of & experience in various automated testing tools - Experience in testing large scale IT tools, managing test teams & troubleshooting test scenarios & technical issues - Experience in various testing phases such as system testing, performance testing, user acceptance testing & integration testing - Experience in test case development, test results reporting and stakeholder management - Experience in & knowledge of various defect tracking tools such as JIRA	- Manage testing teams to perform different test scenarios such as system testing & user acceptance testing etc. - Develop & guide the team to develop test cases & scripts based on business requirements - Develop test management plans that includes resource plan, risk management, timeline & scope - Coordinate across multiple teams such as development team, infrastructure team etc to manage testing of IT tools at different intervals of the implementation - Monitor testing progress and provide status reports to senior leadership
Technical	Test Analyst	Y	N	Contracted/ Temporary	- Knowledge of software implementation methodologies including agile, waterfall. - Knowledge of & experience in various automated testing tools - Experience in testing large scale IT tools & troubleshooting test scenarios & technical issues - Experience in various testing phases such as system testing, performance testing, user acceptance testing & integration testing - Experience in test case development & test scripting - Experience in & knowledge of various defect tracking tools such as JIRA	- Develop test cases & scripts based on business requirements - Conduct testing across different phases such as system testing, performance testing & user acceptance testing and capture test results - Coordinate across multiple teams such as development team, infrastructure team etc to manage testing of IT tools at different intervals of the implementation
Technical	System Administrator	N	Y	Permanent	- Experience in IT tools's system, network & database administration - Knowledge of, experience in & certifications in various operating systems - Experience in various system administrative tools	- Support installation of IT tools/software & hardware (servers etc.) - Monitor performance of systems & ensure uptime - Manage various servers, networks & other

					such as virtualization, Vmware etc. - Experience in networking (WAN/LAN), hardware & scripting tools (Python, Perl etc) - Experience in & knowledge of IT helpdesk activities such as data security, user management - Troubleshooting skills	technology tools to maintain operations of IT applications - Monitor for technical issues & troubleshoot - Ensure data security by adding/modifying/deleting user accounts & providing users with appropriate access to adata - Apply version updates, hot fixes & any other software/hardware revisions required for all the applicable tools
Technical	Support Engineer	N	Y	Permanent OR Contracted/ Temporary	- Knowledge of & experience in supply chain softwares - Knowledge of networking & hardware setp - Experience in software support activities such as troubleshooting, coordinating with users & vendors, applying fixes - Proficiency in remote setup/virtual tools to troubleshoot technical issues - Knowledge of various defect tracking tools such as JIRA	- Providing day-to-day support to users of software tools in troubleshooting any issues - Monitoring performance of software tools & ensuring uptime - Providing regular maintenance of software tools & applying version updates, hot fixes etc. - Capturing technical issues & resolutions for status reporting
Technical	Super User / Trainer	Y	Y	Permanent	- Knowledge of supply chain processes & features within relevant software tools - Experience using 2 or more supply chain software tools - Experience training end users	- Train end users on various functionalities & features in supply chain software tools - Assist users in system administrative activities that can be managed by end users such as password change etc. - Perform simple & basic configuration of systems where applicable to enhance or add features to software tools