



Mahidol University  
*Wisdom of the Land*



# Health supply chain capacity strengthening

13th Annual Conference on Health & Humanitarian Logistics

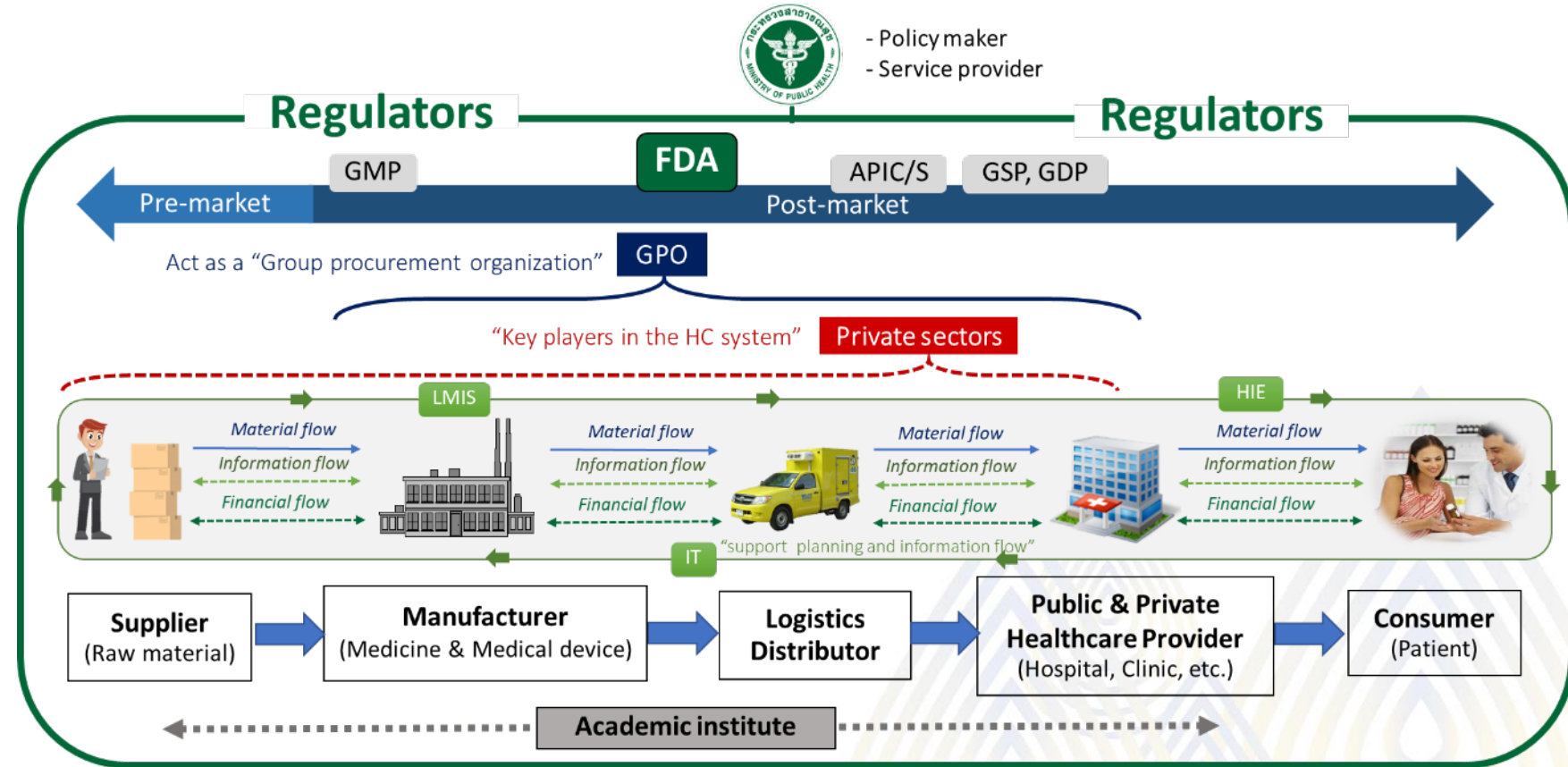
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*Rawinkhan Srinon, PhD.*  
*Cluster of Logistics and Rail Engineering (CLARE)*  
[Rawinkhan.sri@mahidol.edu](mailto:Rawinkhan.sri@mahidol.edu)

# Health Supply Chain Ecosystem



Building blocks of a health system, WHO

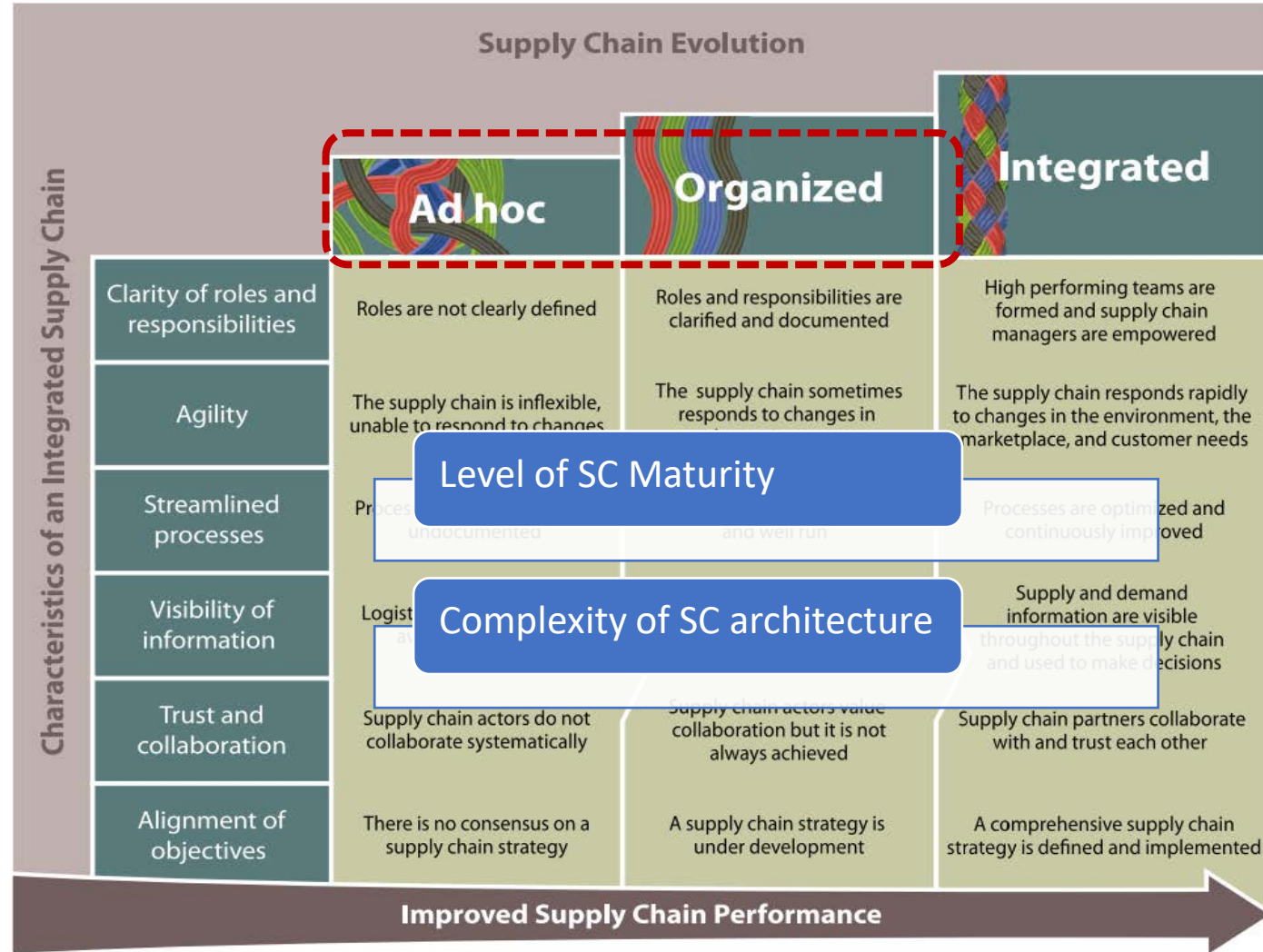
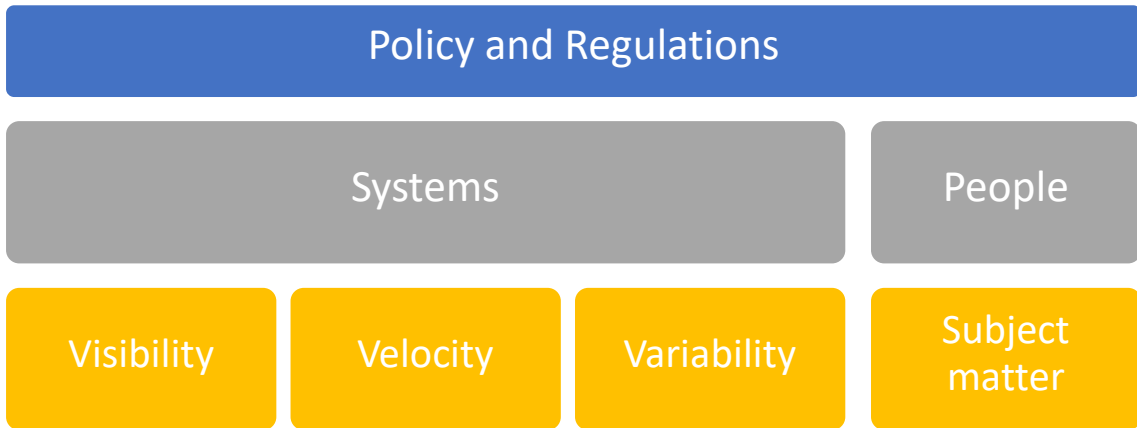


“Commodities are available at service delivery points to meet needs in the most cost effective way possible”

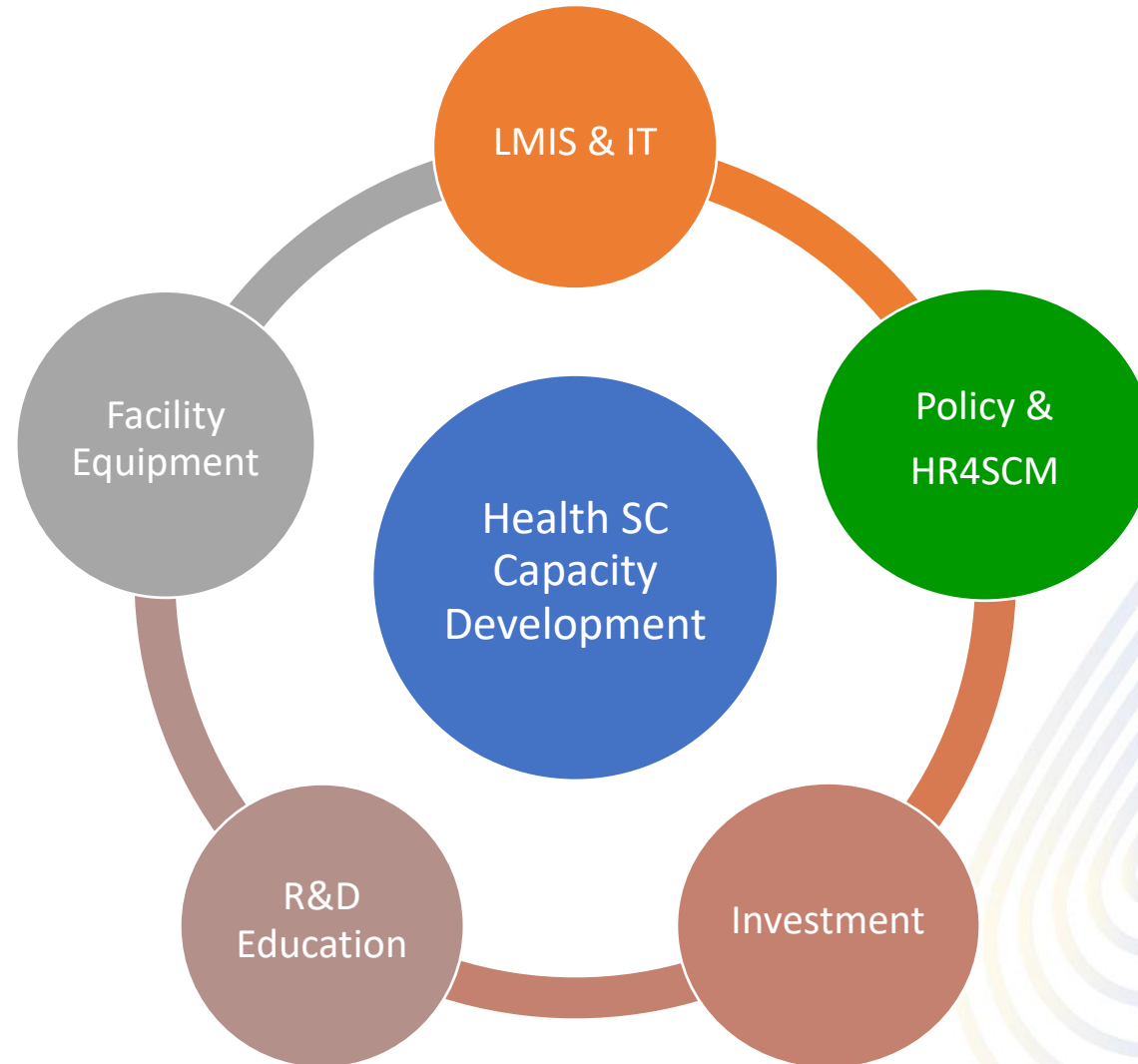
➔ Better Health outcomes

Source: Building Human Resources for Supply Chain Management Theory of Change

# Element in Supply Chain



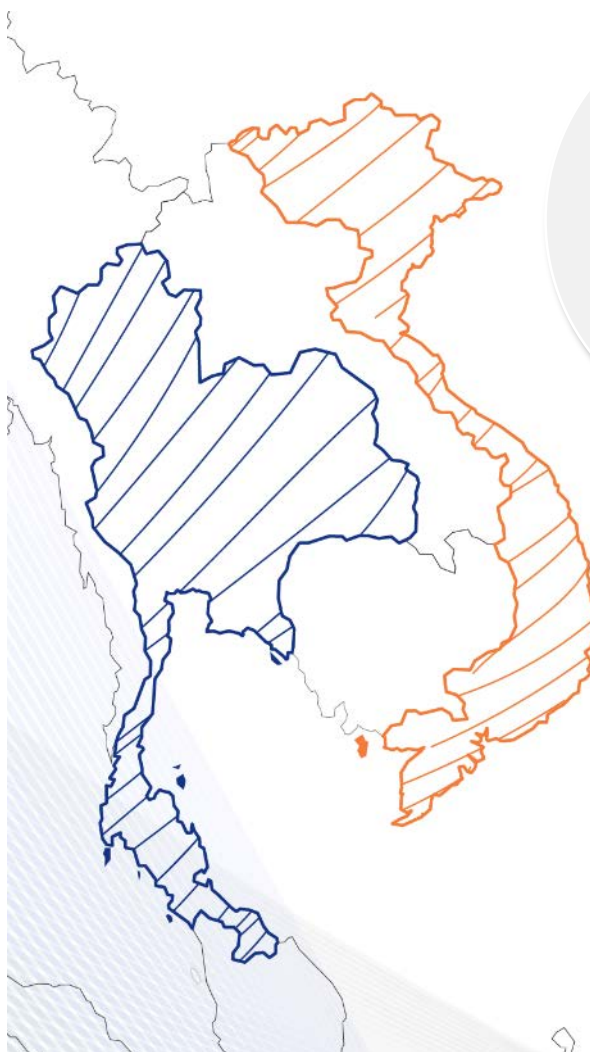
Source: The JSI Framework for Integrated Supply Chain Management in Public Health





# Human Resources for Supply Chain Management Theory of Change Rapid Assessment and Training Needs Analysis

# Study overview



**PEOPLE THAT DELIVER**



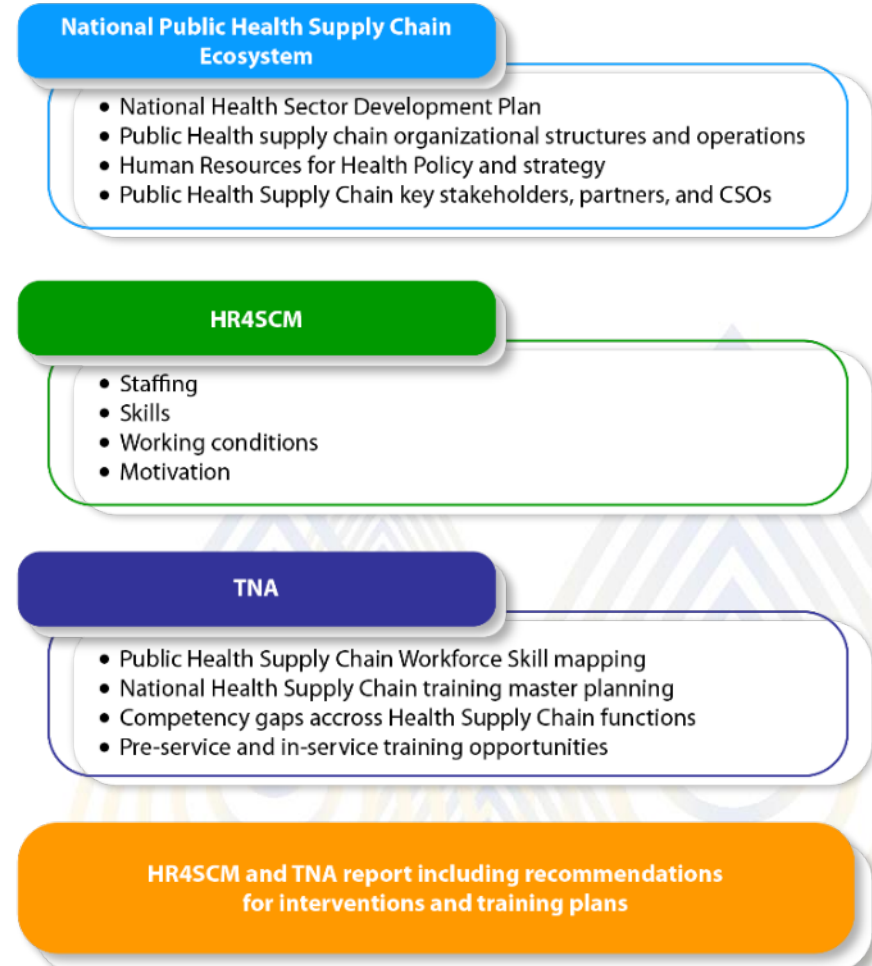
**HR4SCM**  
Theory of Change  
(ToC) Rapid Tool

**unicef** 

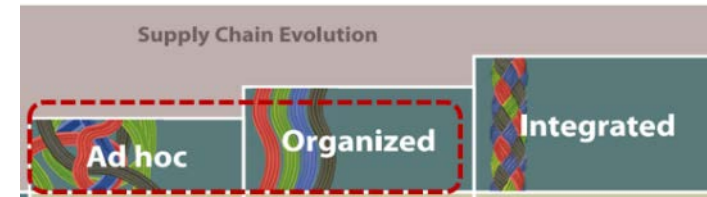
for every child

**Training Needs  
Analysis (TNA) Tool**

The study generated key evidence on **the need to strengthen the institutional, organizational, and individual capacities** for skilled and empowered public Health supply chain personnel



# Key findings of HR4SCM



## ❖ **Articulation** of the health supply chain system and health priorities

- MOPH is the main key player.
- There are 5 Health Priorities.
- **Current SCM is between Ad hoc and organized stages.**

## ❖ **Capacity** for planning and managing human resources for health

- **There is a People Excellence Strategy.**
- **No specific plan or management on HR4SCM**
- **No specific mention on workforce for supply chain**

## ❖ **Level of investment** made for effective HR4SCM and competency-based training

- 4 Excellence Strategies from MOPH
- **No** evidence on expenditure of health workforce in SCM
- **No** evidence of competency-based trainings
- **No** reference to any health SC competency framework

## ❖ **Training needs and training capacity** in country to improve supply chain performance

- Trainings and degrees (HA and Mahidol University),
- Short-terms and long-terms programs (NVI and LogHealth)

## Government-led

### National

- Aware of the importance of logistics but **still manual**
- About to move forward to systematic management but **no fully support logistics HR department, No tools**

### Sub-national

- GOV owned organization tend to be aware of but **no action plan**
- **No supply chain position**, OJT, work overload, classic problems in inventory and transport

### District and Health Facilities

- **Professional skills**, e.g. nurse, pharmacist, need to play logistics role
- HR4SCM is available at **unit own expenses**

## Private sector

### Private Sector

- **Awareness is evidenced** and OJT and action plan are provided
- **HRD is necessary**





# Key factors to consider

## Critical gaps

- **National Logistics and SC strategy is mainly focused on industrial sector but not on healthcare sector**
- **Fragmented** supply chain system across the various health programs
- There is certain level of central coordination unit but not focus on health supply chain
- **In healthcare system, there are only strategy and policy to support HRH but not HR4SCM**
- **No HR4SCM plan – no Health SC positions in the public health system**
- No Health supply chain professionals
- Public health supply chain training is available, but the expenses are on the hospital's own expenses

## Opportunities

- Development partners and stakeholders **acknowledged the importance of a strong supply chain system**
- Global health security requires robust supply chain – Covid-19 pandemic
- **Local champions** in Thailand: Mahidol University, and MOPH

## The current status (Driving to the plans)

1

**A MOPH committee in health IT** which logistics in one of the backbones.

2

**A Research program** enforcing healthcare logistics by National Research Council of Thailand (Research to policy)

3

- **A healthcare logistics training program with certificate** by Healthcare Accreditation Institute, MOPH
- **MAHIDOL curriculum in healthcare supply chain**

4

**No health industry** in the National Logistics Masterplan

## The strategic move and actions toward the goal

Take this pandemic crisis as the opportunity to propose logistics policy, specifically in medical products distributions, **and deploy it cross-functionally**



**TEMPORARILY  
OUT OF STOCK**

1

**Create a logistics steering committee for health supply chain**

2

**Propose health logistics and supply chain to be put in the National Logistics masterplan**

(in the dimension of logistics capacity building)

**Stakeholder Mapping**

**Build network and cooperation among SC Stakeholders**

1. Create a functional network among SC stakeholders
2. Collaborate public sector, educational institute, and professional org.
3. Build cluster and knowledge sharing
4. Promoting...

**Optimize policies and plans**

1. Review and...
2. Develop...
3. Integrate...
4. Develop...

**Promote sustainable workforce development**

1. Conduct HR4SCM rapid assessment, perform a workforce optimization exercise and review existing SOPs for SC activities
2. Review and clarify current job descriptions and add logistic and SC position where applicable
3. Improve the data for each job description to ensure the data is obtainable
4. Develop a... programs for SCM and establish new organizational culture

**Increase performance and retention**

1. Develop a... compendium for SCM
2. Review JD for SCM, available courses, and develop education and training plan
3. programs with MOPH hospitals and healthcare industry

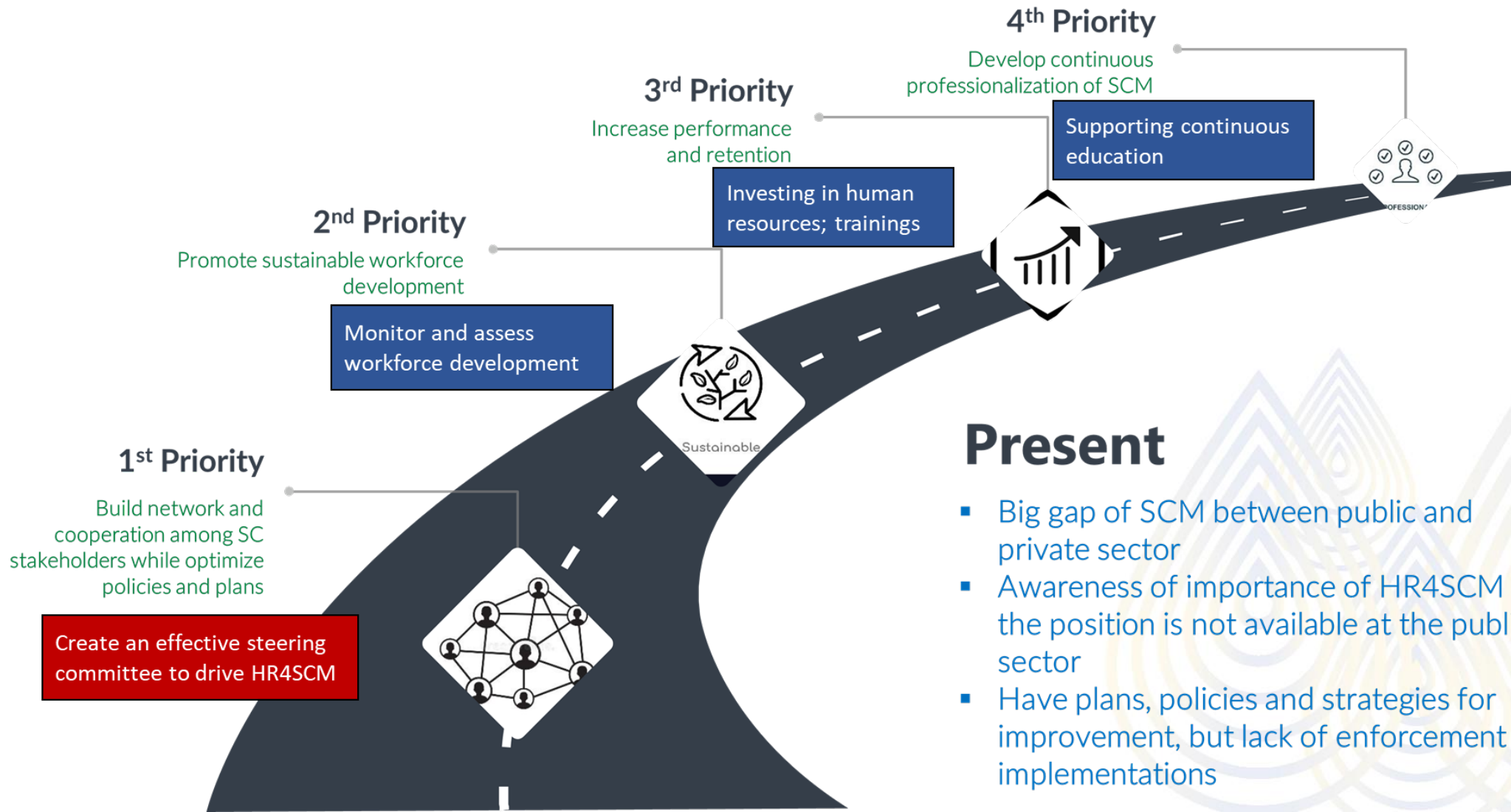
**Develop continuous professionalization**

1. Support and encourage health workforce continuous education
2. Create a platform for updating policies and strategy on supply chain
3. Create a social network / forum for SC workforce to share ideas, experience, which help to enhance the SC performance

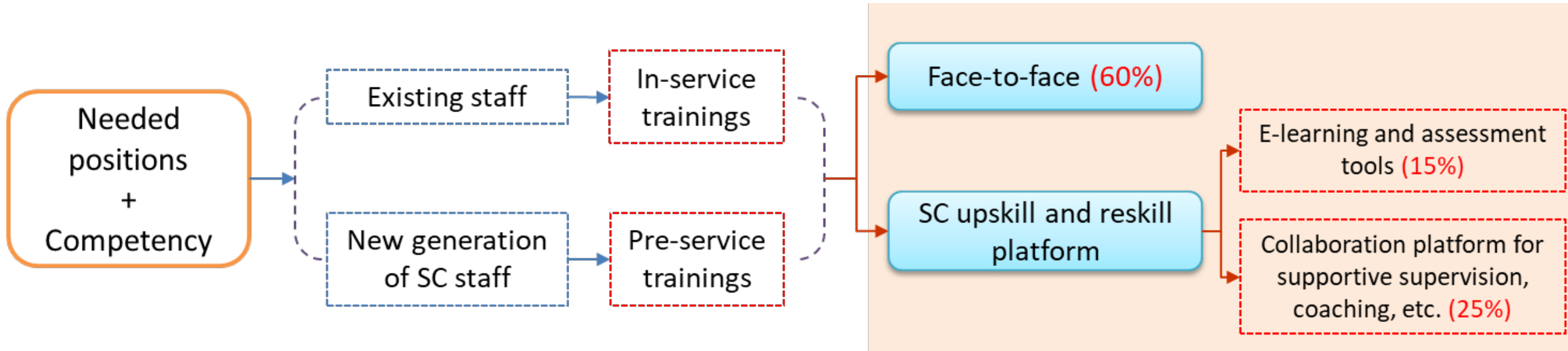
**HR4SCM Steering Committee**

**Health SCM Professional organization**

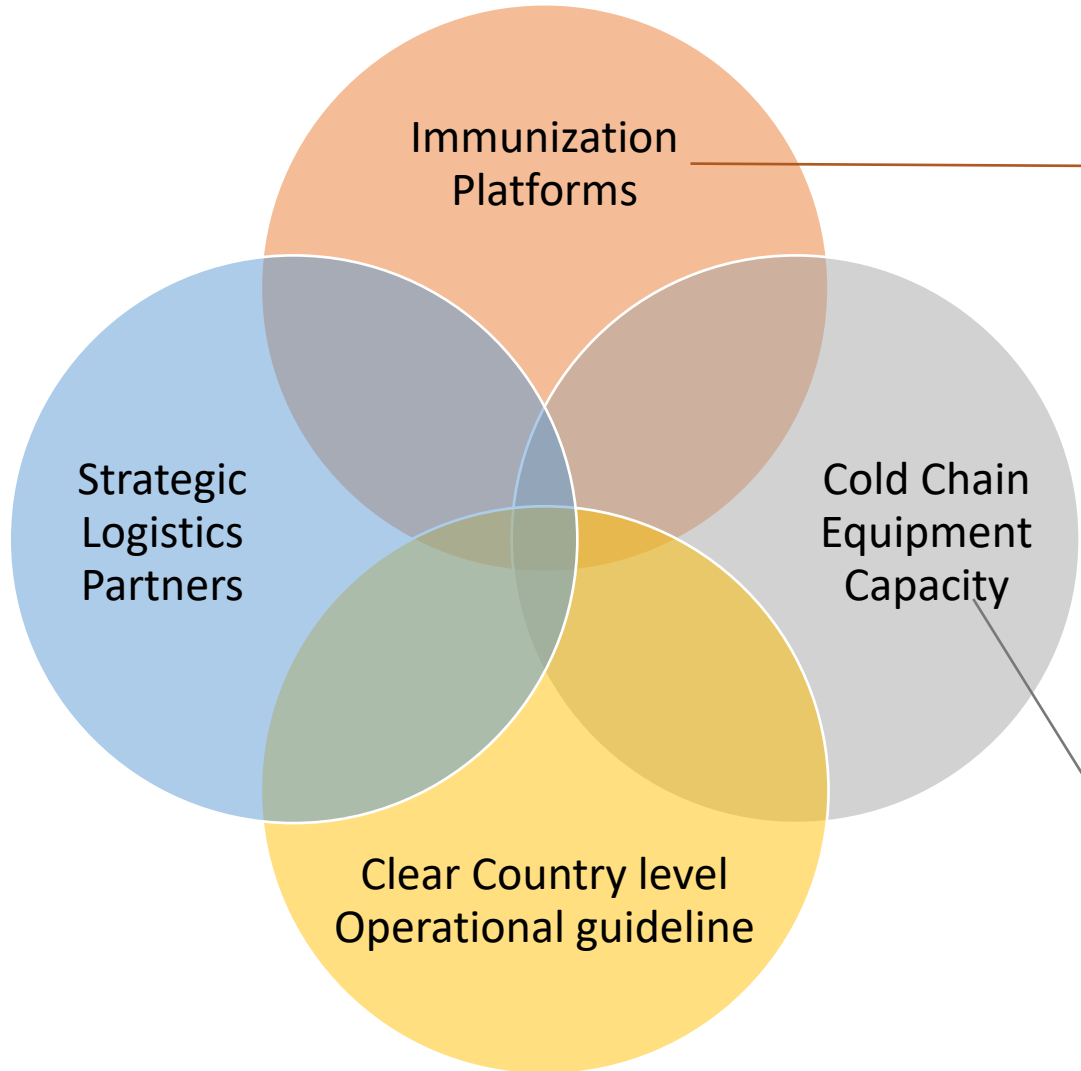
# Proposed Roadmap



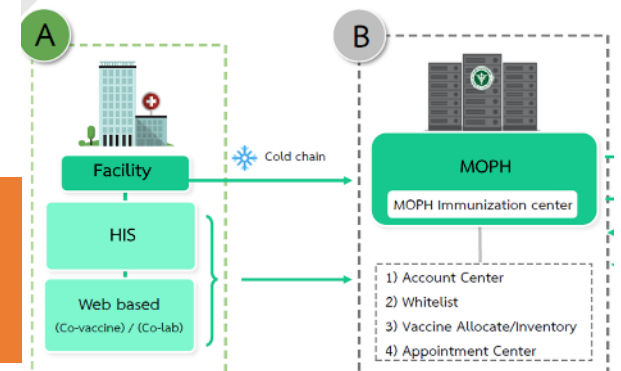
# Training Strategy



# Health SC Capacity Strengthen for Mass Vaccination



**“Visibility”**  
- Centralized Gov-led  
- Research Innovation



ระบบติดตามตรวจสอบย้อนกลับโซ่ความเย็นวัคซีนโควิด-19  
COVID-19 Vaccines Track and Traceability Platform for Cold Chain and Patient Safety

| Import                  | Distributor Warehouse  | Distributor Delivered   | Hospital Storing       | Hospital Vaccinated     |
|-------------------------|------------------------|-------------------------|------------------------|-------------------------|
| Quantity (Dose): 30.37M | Quantity (Dose): 7.66M | Quantity (Dose): 22.71M | Quantity (Dose): 6.28M | Quantity (Dose): 22.46M |
| MKT Temp (°C): 4.67     | MKT Temp (°C): -18.1   | MKT Temp (°C): 5.2      | MKT Temp (°C): 5.2     | Hospital: 1,542         |
| Min Temp (°C): -20.30   | Min Temp (°C): -81.0   | Min Temp (°C): 2.2      |                        | First Dose: 17.2M       |
| Max Temp (°C): 10.38    | Max Temp (°C): 7.6     | Max Temp (°C): 7.4      |                        | Second Dose: 4.8M       |
|                         |                        |                         |                        | Third Dose: 457.7K      |
|                         |                        |                         |                        | Fourth Dose: 133.0      |

**Data Freshness**  
 Import: Aug 5, 2021  
 Warehouse: Aug 11, 2021, 9:57:00 AM  
 Delivered: Aug 12, 2021, 12:00:00 AM  
 Storing: Aug 9, 2021, 4:50:00 AM  
 Vaccinated: Aug 10, 2021, 9:00:00 AM

Readiness and Upgrade



# Key challenges in SC Capacity Strengthening



- Work toward increasing Supply Chain maturity level
- Health SC Ecosystem
  - People
    - Lack of Health **Policy** focusing on developing Health SC
      - **HR4SCM** with clear workforce development, JD, and career path
    - Health SCM Professional organization
  - Systems
    - Infrastructure and facility readiness and capacity
    - Advancement of Information Technology
    - Training platform

Supply Chain Evolution

|                                       | Ad hoc   | Organized   | Integrated   |
|---------------------------------------|--|---|--|
| Clarity of roles and responsibilities | Roles are not clearly defined                                | Roles and responsibilities are clarified and documented               | High performing teams are formed and supply chain managers are empowered                             |
| Agility                               | The supply chain is inflexible, unable to respond to changes | The supply chain sometimes responds to changes in the environment     | The supply chain responds rapidly to changes in the environment, the marketplace, and customer needs |
| Streamlined processes                 | Processes are undefined and undocumented                     | Processes are defined and well run                                    | Processes are optimized and continuously improved  |
| Visibility of information             | Logistics information is not available or shared             | Essential logistics data are collected and reported                   | Supply and demand information are visible throughout the supply chain and used to make decisions     |
| Trust and collaboration               | Supply chain actors do not collaborate systematically        | Supply chain actors value collaboration but it is not always achieved | Supply chain partners collaborate with and trust each other  |
| Alignment of objectives               | There is no consensus on a supply chain strategy             | A supply chain strategy is under development                          | A comprehensive supply chain strategy is defined and implemented                                     |

Improved Supply Chain Performance →

**National Public Health Supply Chain Ecosystem**

- National Health Sector Development Plan
- Public Health supply chain organizational structures and operations
- Human Resources for Health Policy and strategy
- Public Health Supply Chain key stakeholders, partners, and CSOs

