



EBOLA- *“THEN; NOW and FUTURE”*
SIERRA LEONE

APHL ANNUAL CONFERENCE 2016

IMPACT

- Sierra Leone's first cases of Ebola Virus Disease (EVD) occurred in the Eastern region of the country
 - By March 2015, all 14 districts had been affected
 - 8,700+ confirmed cases
 - 3,600+ Reported deaths
 - 4000+ Survivors
- Health Care Delivery
 - 23% decrease in institutional deliveries;
 - 39% decrease in children treated for malaria,
 - 21% decrease in children receiving a basic immunization (penta3).
 - post-Ebola levels of under-five mortality have returned to 1990 levels.

IMPACT on HEALTH CARE WORKERS

- System Input
 - Identification and laboratory confirmation delays of cases
 - inadequate implementation of Infection Prevention and Control (IPC)
 - Unpreparedness and lack of resources
- Impact
 - 296 EVD infections among health care workers with 221 deaths,
 - **11 among specialized physicians.**
 - **12 laboratorians**
 - **4 - Directly from Ebola specimen collection –Northern Region**
 - **8 - unprotected health services outside duties - Eastern Region**

Ebola laboratory RESPONSE:

To attain the shortest possible TAT for prompt and efficient actions:

- *THEN: Segregate and Treatment*
- *NOW: Monitor Survivors and prevent*
- *FUTURE : Prevention and Preparedness*

THEN!! CHALLENGES

Limited leadership- oversight of laboratory pillar at the planning stage to be part of decision making

UNPREPARED

Policy- Lack of harmonised process

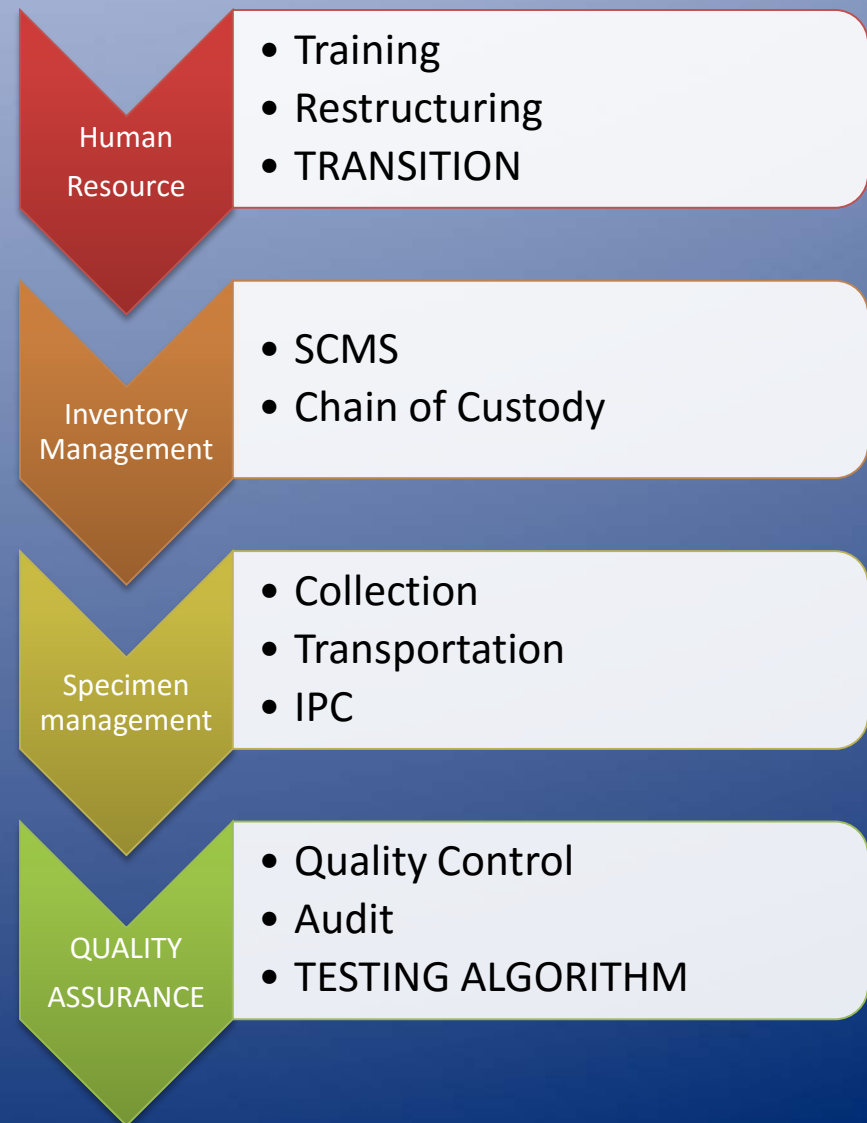
Coordination

LIMITED Resources- Human and stocks and systems tools

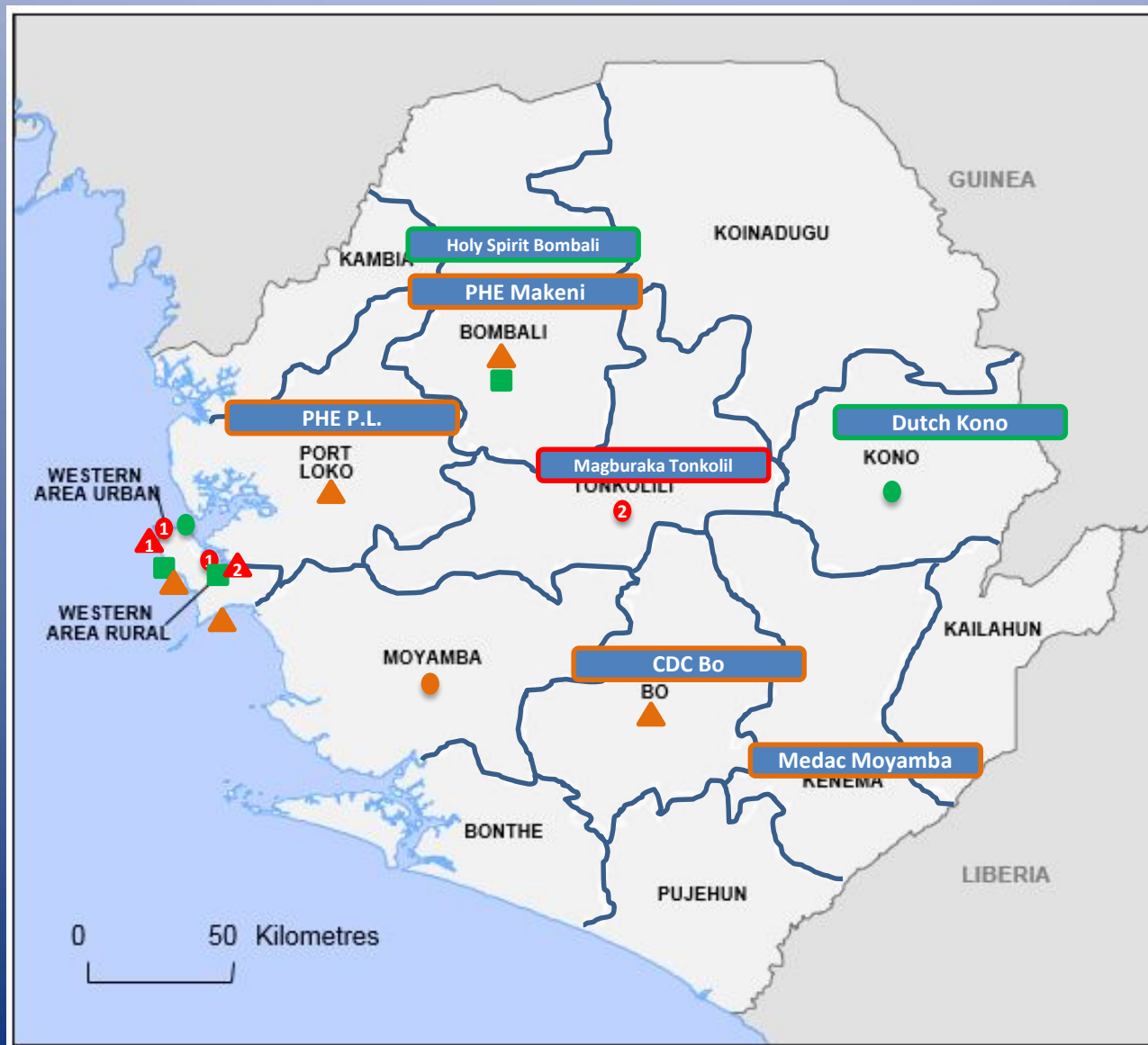
Collaboration

Establishment of a Central Coordinating Core Organ- National Laboratory Technical Working Group

- The key to coordination is a national ownership through the convening of a National led Technical working group with a defined Operational Manual ;
- The key advantage is their knowledge and understanding of the health dynamics but this needed coordination

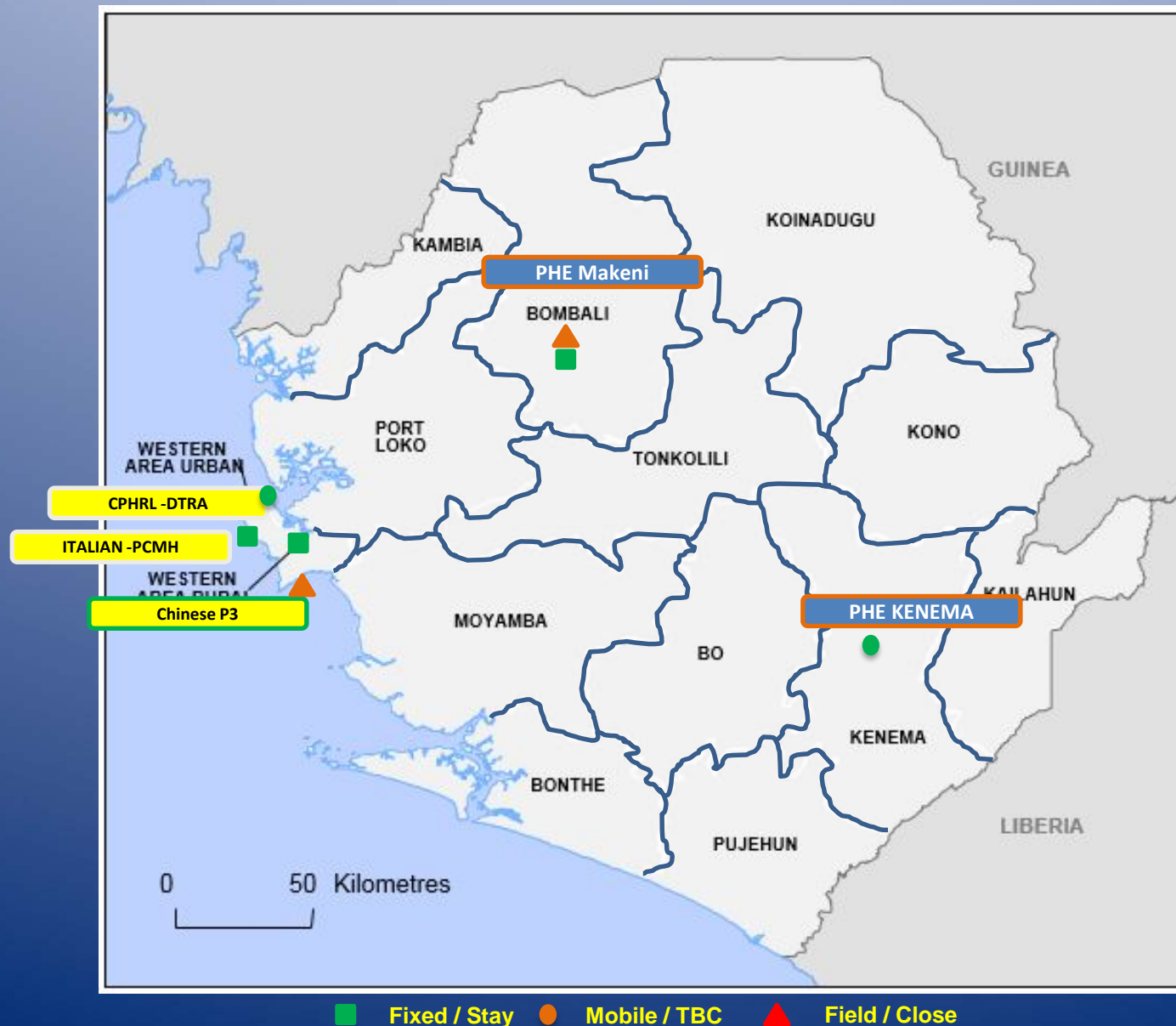


EVD Coverage



■ Fixed / Stay ● Mobile / TBC ▲ Field / Close

CURRENT EVD Capacity



INTEGRATION INTO HEALTH SECTOR PLAN for SUSTAINABLE
OUTBREAK RESPONSE

SUCCESSIONS FOR SUSTAINABILITY IS A TRANSITION PLAN

Examples of Systems



HOT LAB Examples



END-STAGE CHALLENGES

COORDINATION

PREPARED ???

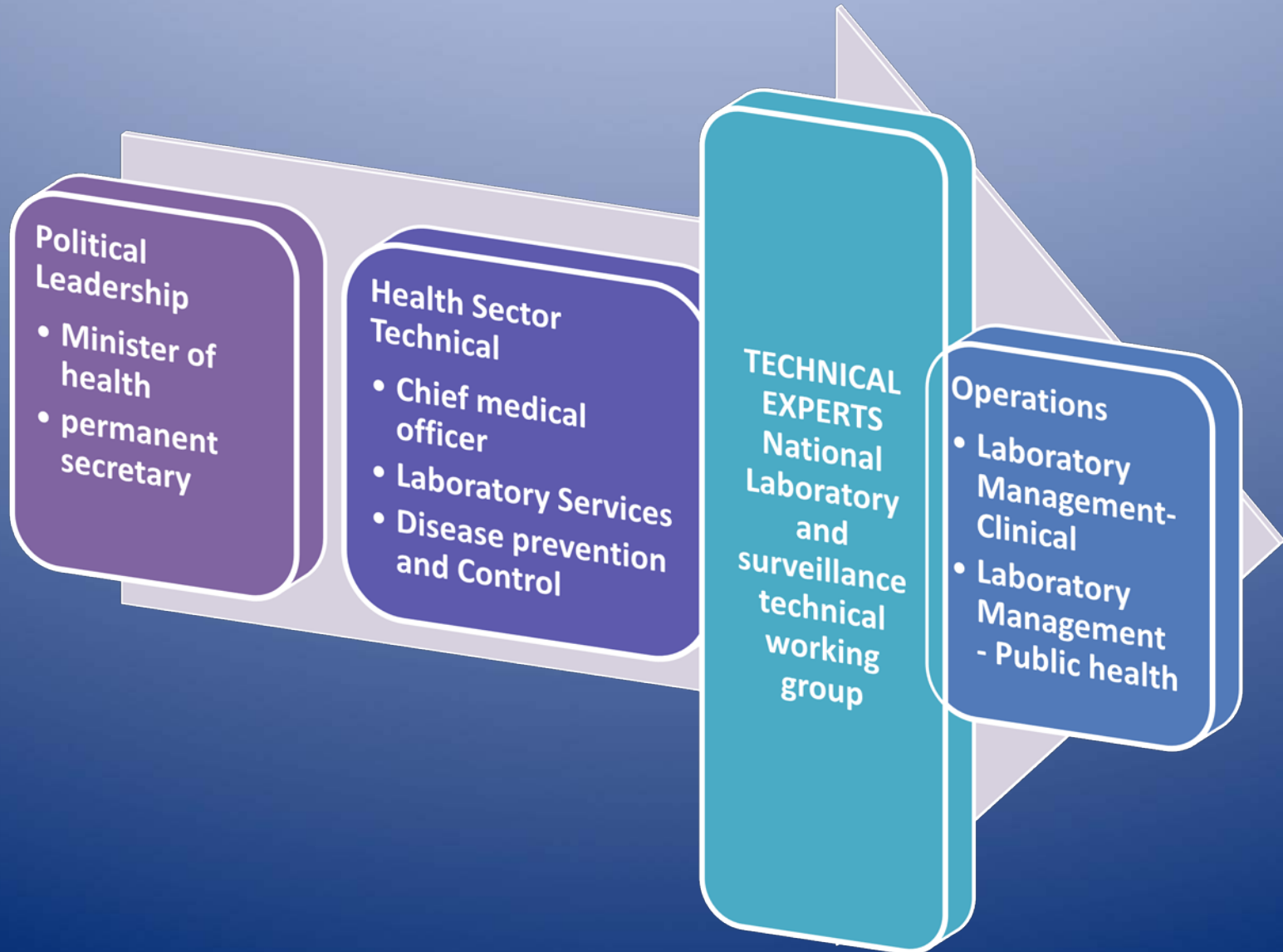
LIMITED PARTNER
TRAINING FOR TRANSITION

SOME LABORATORY
SUPPORT IS RESOURCE
INTENSIVE

LIMITS WITHIN AWARDS

Collaboration

LEADERSHIP



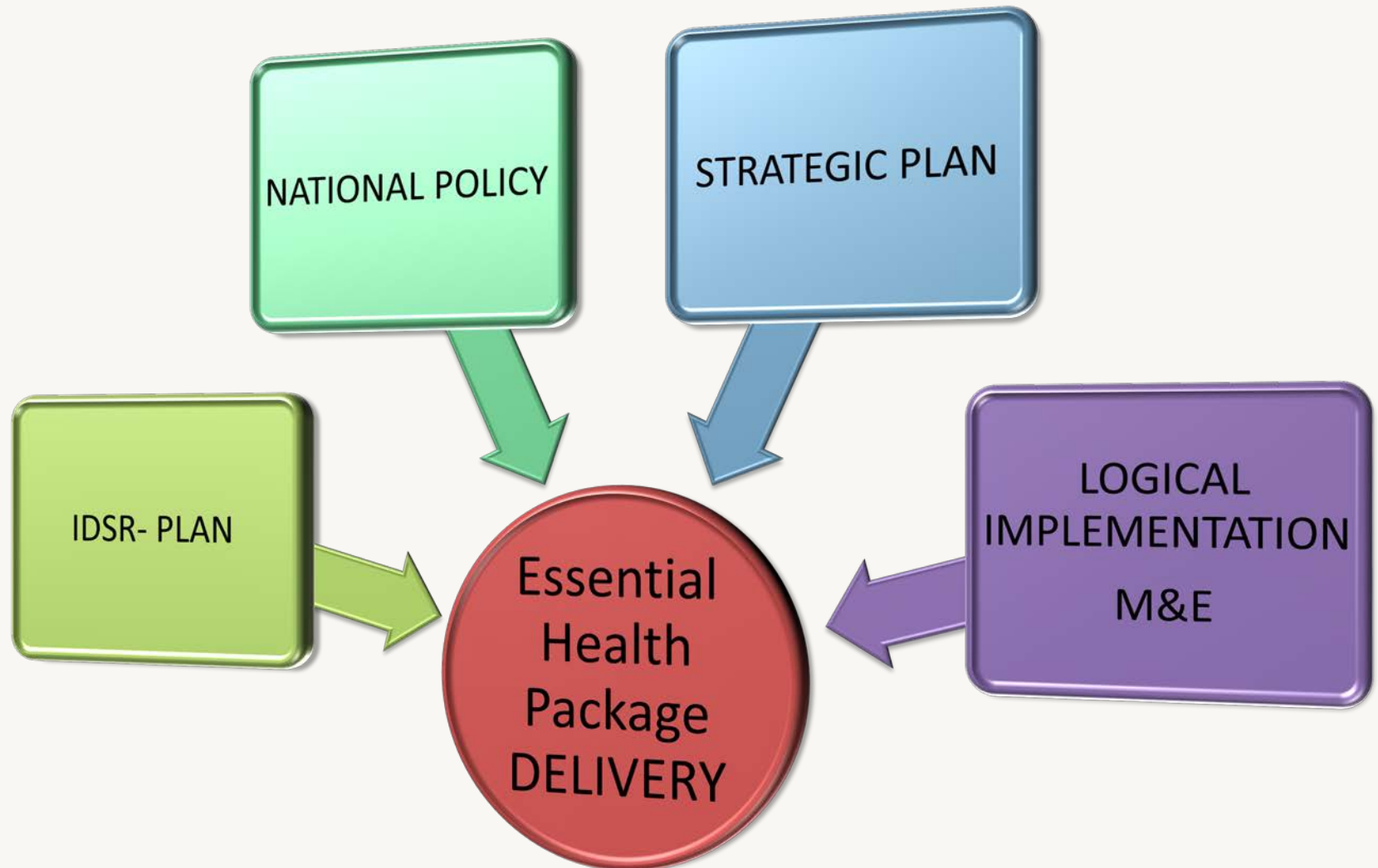
Critical Transition Consideration Outline

1. Geographic coverage
2. Transition of infrastructure – (minimum standards)
 - a. Technology suitability
 - a. Defining testing algorithm – RDT/PCR
 - b. Cost implication- **(UTILITIES AND CONSUMBALES)**
 - c. Sustainability (, maintenance)
3. Transition- Human Resource Capacity Building -
 - a. Recruitment of national team to increase pool
 - b. Training plan
4. Quality Assurance

NOW and Future GOAL: LABORATORY FOCUS

- **LABORATORY RESPONSE TO SUPPORT QUALITY HEALTH SERVICE DELIVERY ARE:**
 1. **To ensure a prompt Quality-Assured laboratory diagnosis for action**
 2. **To support laboratory-based surveillance for early epidemic threat detection for action**
 3. **To support outbreak with prompt and accurate result for immediate action**

GUIDING TOOLS



OVERVIEW OF LABORATORY SERVICES SIERRA LEONE

2010-2015 – TIMELINE COMPLETED (3 of 5
years achieved due to Cholera and EVD)

- Network of lab- is within 4 tier systems defined by the BPEHS
 - *Public health Laboratories Regional : 3 Centers of excellence plus 2 Referral*
 - *District level: 14 district hospitals*
 - *PHU: 155 estimated functional*

A pyramid diagram with four levels, representing a hierarchy of public health labs. The levels are: Public Health (top, red), Regional Reference 5 (second, brown), Secondary Districts - 14 (third, olive green), and Primary PHU labs - 155 (bottom, green). The pyramid is centered on a white background.

Public
Health

Regional Reference 5

Secondary Districts - 14

Primary PHU labs - 155

NOW!! CHALLENGES

Parrallel ACTION plans



Envisaged Challenges

- Support to Leadership at central and districts
- Coordination of Program staff
 - Competency assessment
 - Redeployment logistics
- Coordination of Partner support
 - Program Led by Policy versus laboratory systems professionals
 - Prescribed Agenda
 - Lack of use of relevant GOSL documents to define focus.

Guiding Principles

- **Ownership:** Working within the National Health Sector Strategic Plan – Government leadership to honour BPEHS
- **Inclusiveness:** All stakeholders are involved as per level
- **Participation:** Every relevant group participates meaningfully throughout the process
- **Consultation:** Relevant individuals, government departments, nationals are meaningfully consulted including international partners as needed in the process
- **Transparency:** Lack of hidden agendas and conditions, accompanied by the availability of full information required for collaboration, cooperation, and collective decision making.

RECONSTRUCTION of LABORATORY SYSTEMS

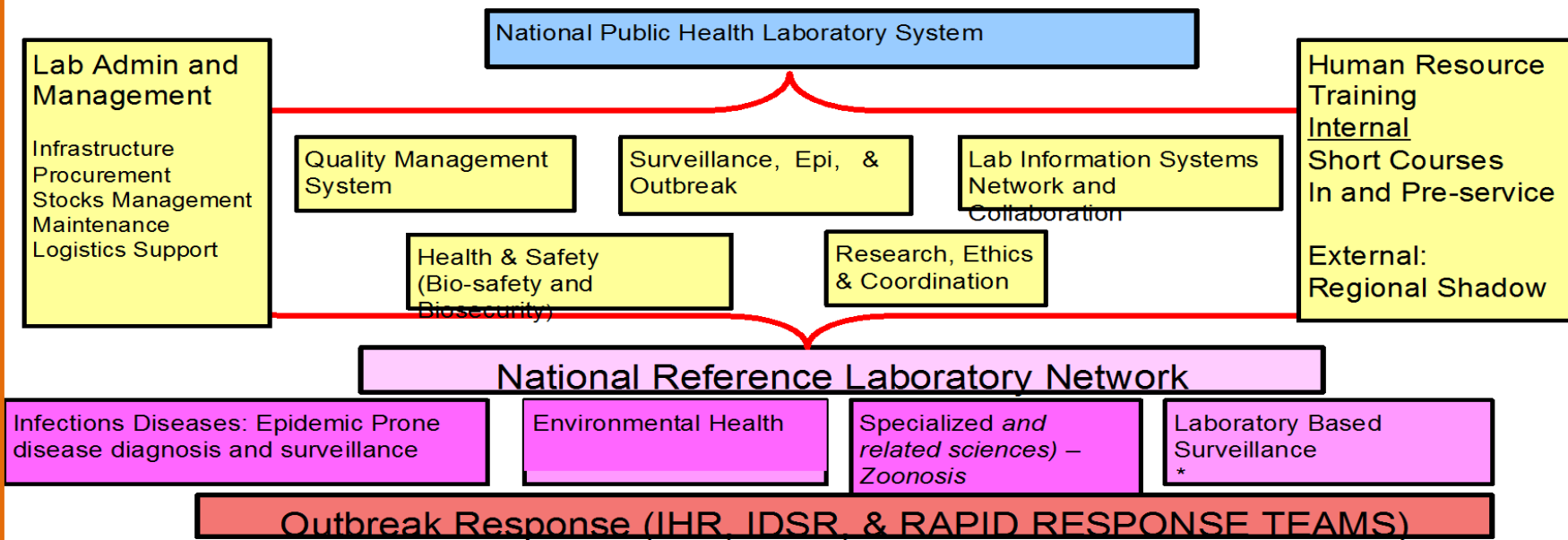
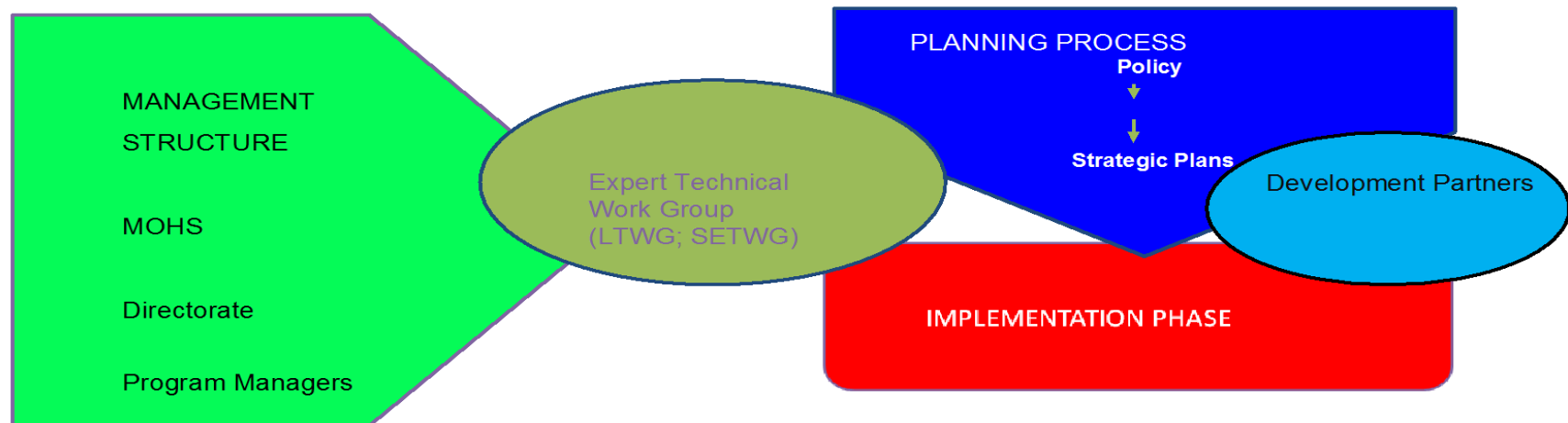
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2016-2020 PRIORITY THEMES

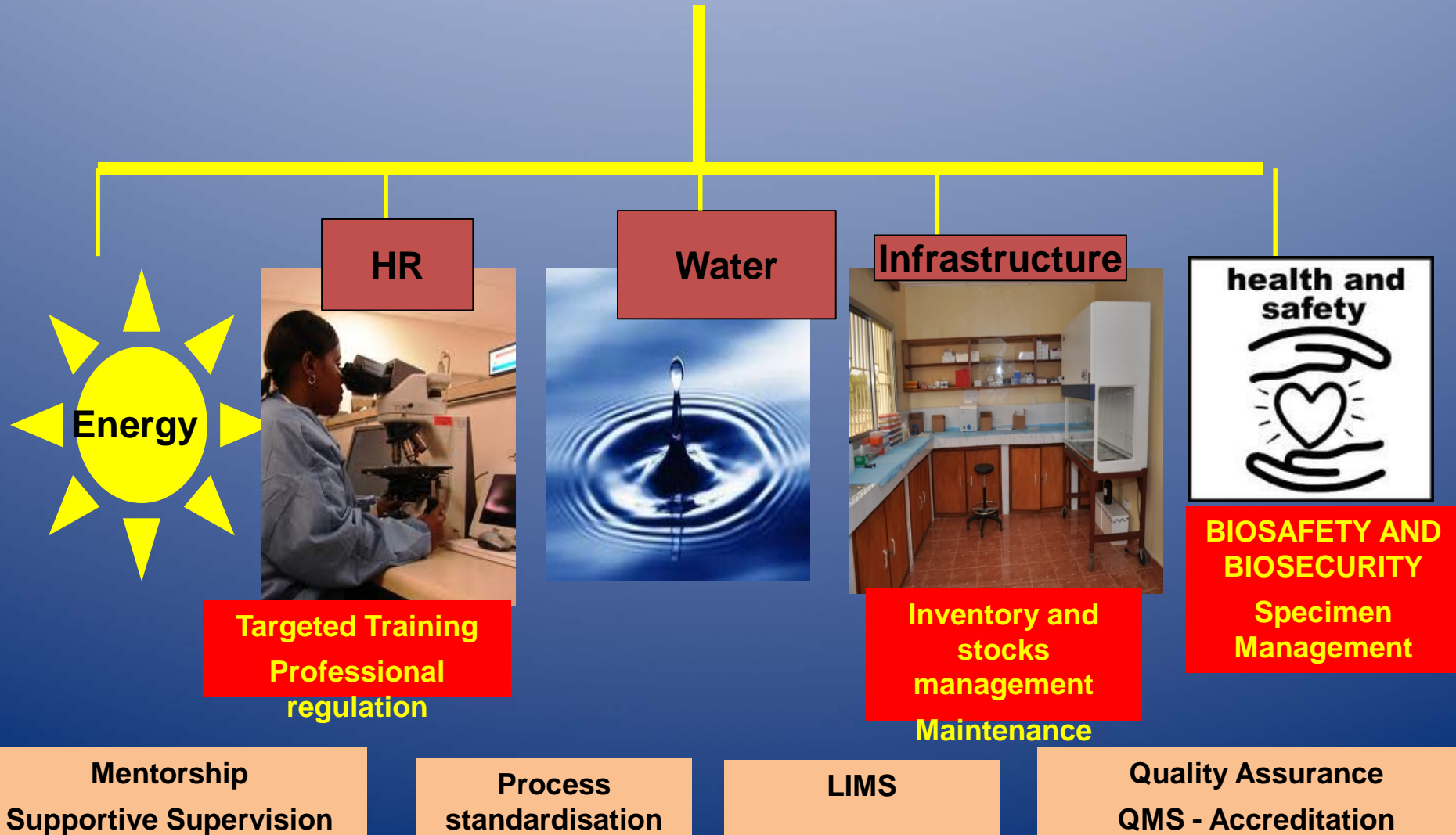
No.	Themes	MOH Directorate
1	Governance	Directorate of Hospital and Laboratory Services and Directorate of HSS and Planning
	Ethics	
2	Human Resource Management	Directorate of Training and Directorate of DPC
3	Laboratory Services & Support Systems: Logistics & Management System	National laboratory Services, and Blood Services, National Malaria , TB and HIV program
4	Information Management Systems	Directorate of HSS and Planning
5	Infrastructure and Equipment	National laboratory Services and LTWG
6	Health and Safety, Bio-Risk Management	
7	Emergency Preparedness and Response	DCMO and EOC
8	Total Quality Management Systems	National Laboratory Services
9	Partnership & Linkages	LTWG
10	Research & Development	Directorate of HSS and Planning and Research and Training

COMPREHENSIVE One health PACKAGE

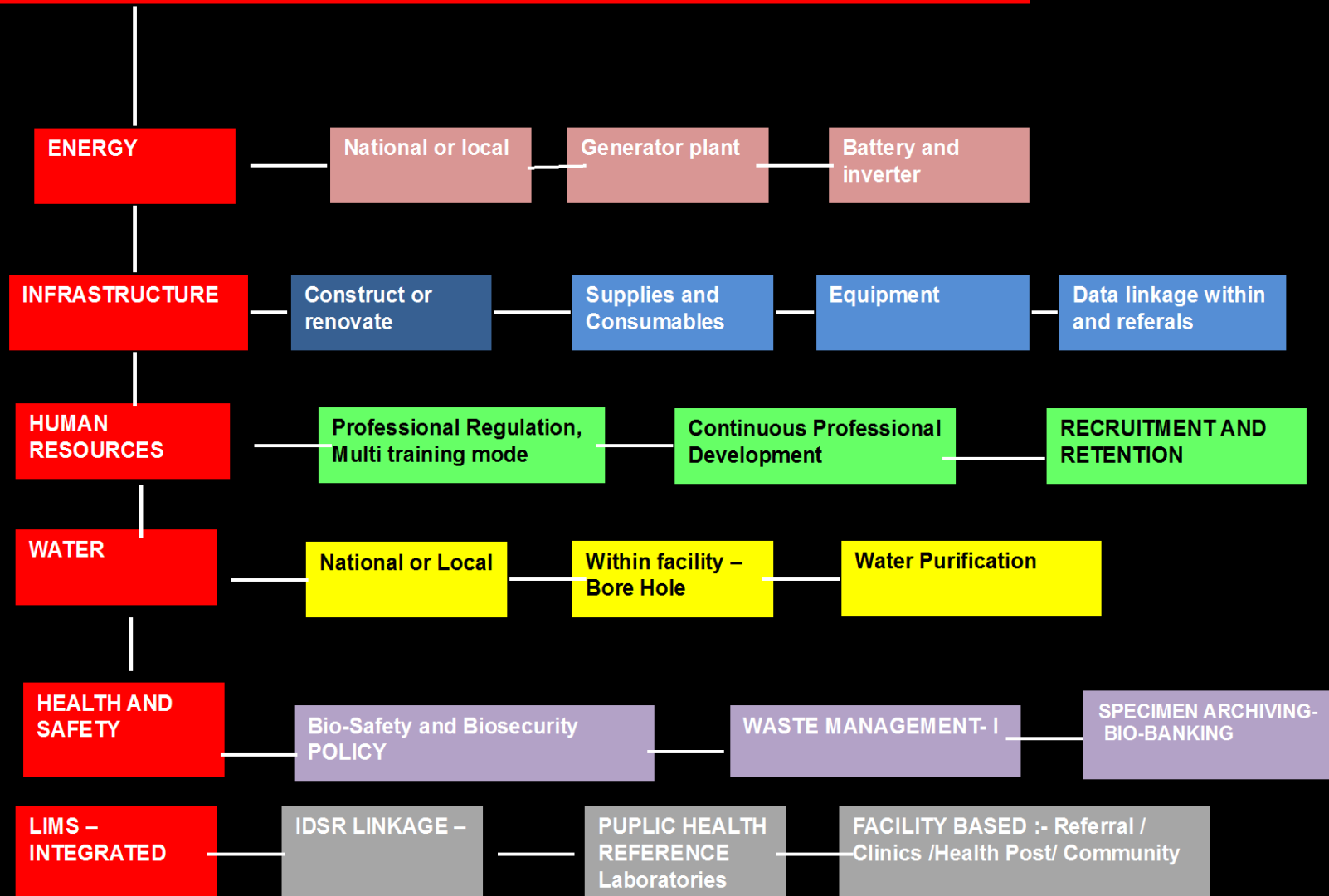


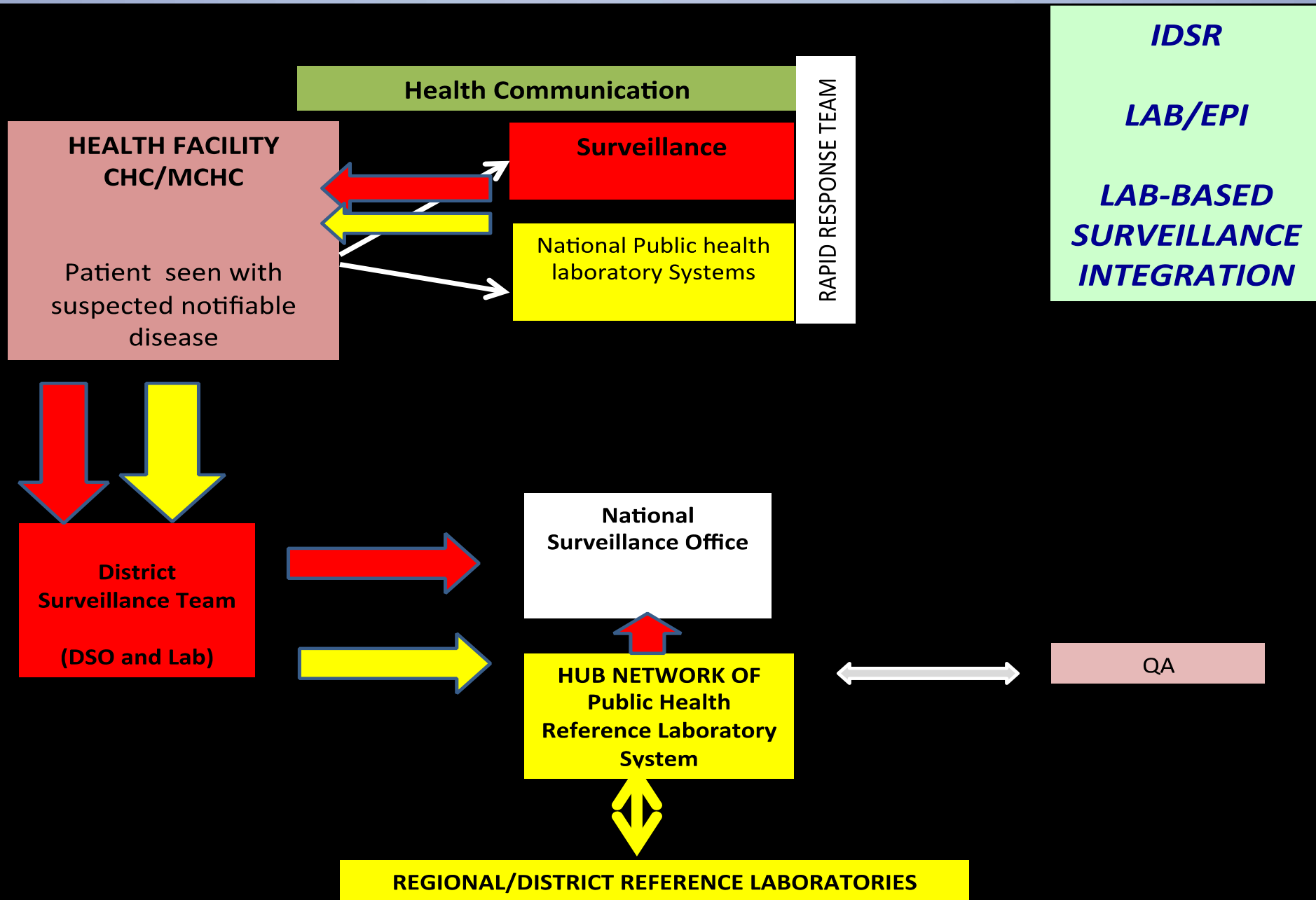
Sustainable Reconstruction Frame work

Core Systems and structures set at minimum standards for Laboratory Services to achieve goal



Sustainable Reconstruction framework





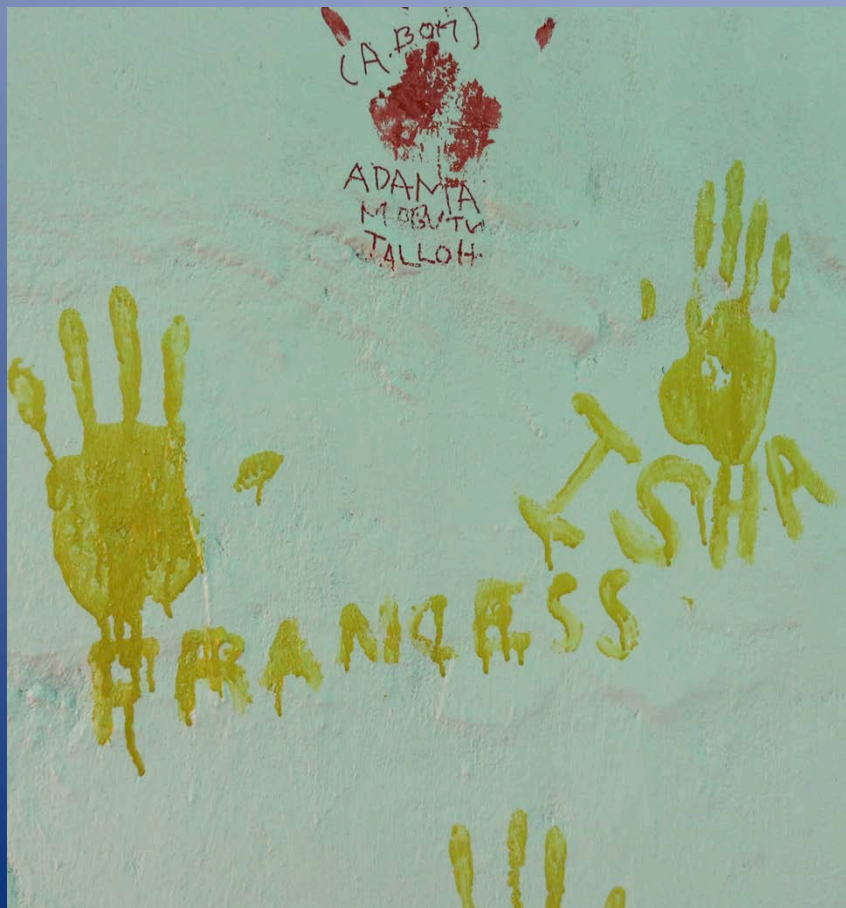
Systems tools in Place

- Strategic plan
 - 10-24 month action plan (presidential monitoring)
- National testing Menu algorithm
 - Test package for each level of lab
 - Equipment and supplies list
- Health and Safety Policy
 - Health and Safety Manual
- Emergency Response manual
- Human Resource training log book
- Laboratory Medicine Training lab within the University

Quality Laboratory Service should be the first critical pillar to be established in Ebola outbreak as it is pivotal in directing the outbreak containment and prevention program.

DEDICATED TO SURVIVORS

HANDS OF TIMES AUGUST 2014



HANDS OF TIME DECEMBER 2014



THANK YOU