



Kingdom of Saudi Arabia

المملكة العربية السعودية

The National eHealth Program

البرنامج الوطني للصحة الإلكترونية

Ahmed Balkhair , MD

**The director of the National eHealth strategy
and change management office**

الدكتور / احمد محمد بلخير

مدير مكتب الإستراتيجية الوطنية للصحة الإلكترونية وإدارة التغيير

MOH Vision



Provision of the integrated comprehensive health care service delivery model in accordance with the highest international levels of quality.



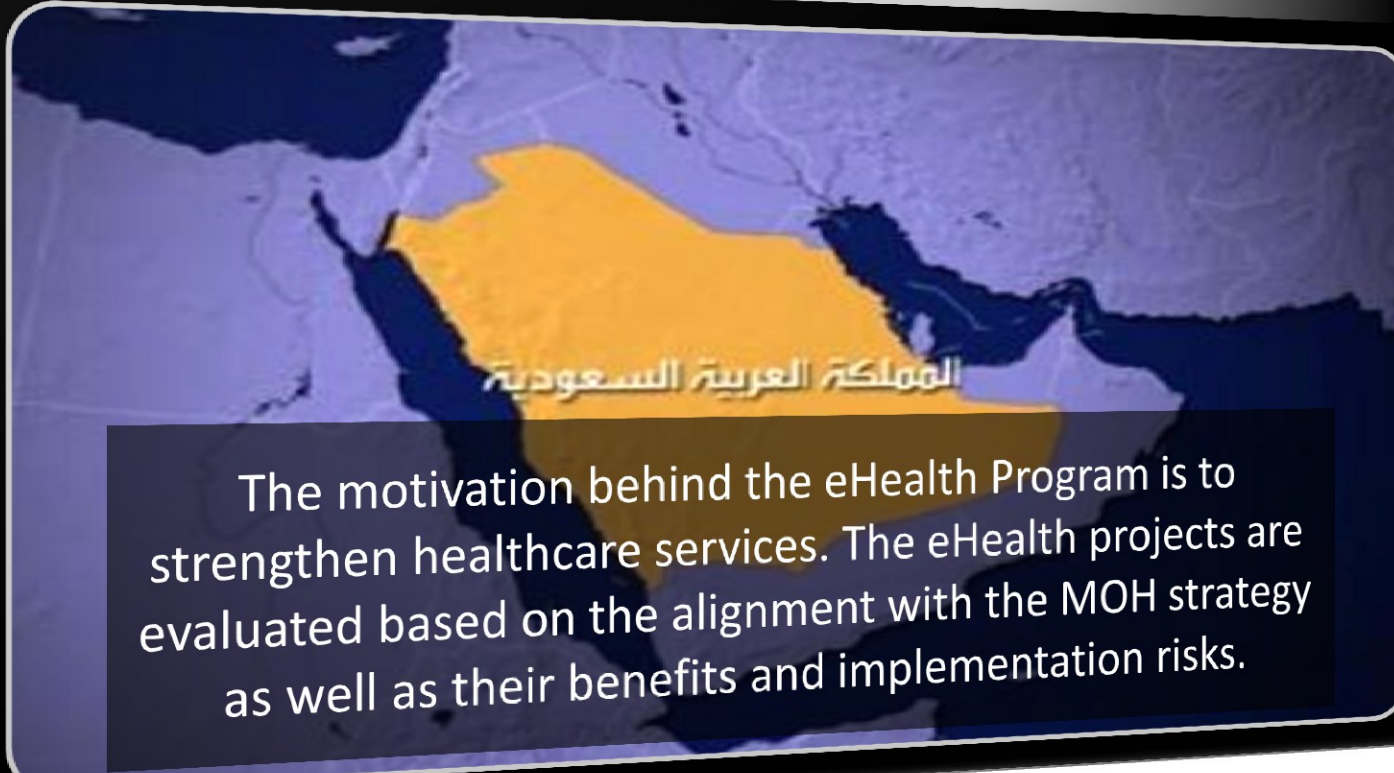
Mohammed Alyemni, DrPH
Deputy Minister for Planning and Health Economics

The MOH is the Ministry - ...
The MOH is the Ministry - ...
The MOH is the Ministry - ...

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eHealth Program



The motivation behind the eHealth Program is to strengthen healthcare services. The eHealth projects are evaluated based on the alignment with the MOH strategy as well as their benefits and implementation risks.



Dr Abdullah Alwehaibi
Advisor to the Minister and
General Supervisor of ICT

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eHealth Vision

المملكة العربية السعودية

A Safe, Quality Health System, based on
Patient Centric Care,
guided by standards, enabled by eHealth.



Dr Ahmed Balkhair
The Director of the National eHealth
Strategy and change Management Office

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Agenda

MOH Challenges in Saudi Arabia

Healthcare Resources

MOH Strategy (Vision/Mission/Objectives)

MOH National eHealth Strategy

Some Lessons learned



Challenges of Ministry of Health in Saudi Arabia



Area of Saudi Arabia 2.27 million m²

150 Cities

More than 2000 villages

Vast distances between cities

Population of more than 27 million

Population growth rate 3.19%

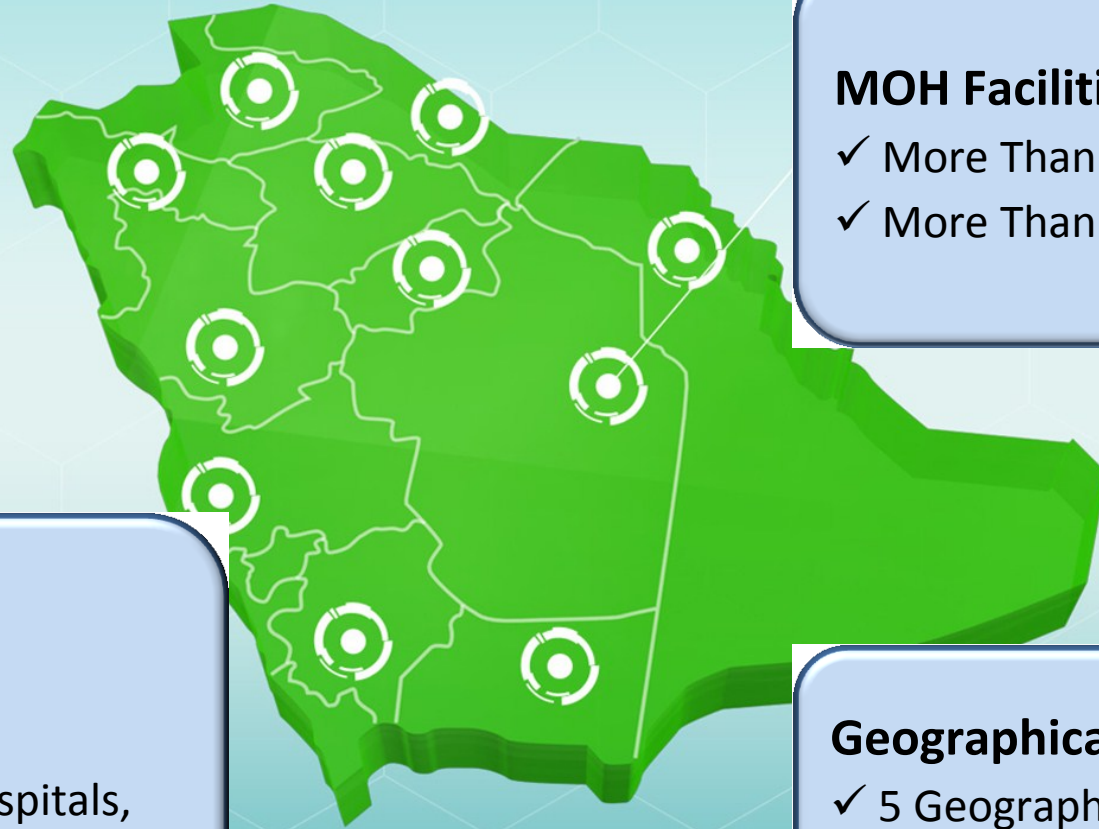
Birth rate 23.3 per 1000 people

Annual number of births 513.000

**Proportion of the population 15 years and less
%42.49**

**Proportion of the population above 15 years
%57.51**

Ministry of Health Challenges in Saudi Arabia



MOH Facilities

- ✓ More Than 2094 PHCs
- ✓ More Than 249 Hospitals

MOH Healthcare Organization

- ✓ 20 Directorates
- ✓ Including PHCs, Hospitals, Labs, Pharmacies, and Allied Health

Geographical Distribution

- ✓ 5 Geographical Zones
Urban and Remote

Ministry of Health Challenges for the Next Five Years

The RUMSEY strategy corresponds to the action pillars that the General Authority of Civil Aviation will adopt in the process of managing, developing and evaluating the activity, operations or levels of the effectiveness and quality of services, administration, management and financial systems, human resources and customer service.

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Current	After 5 Years
34,000 Beds	66,000 Beds
250,000 Employees	400,000 Employees
249 Hospitals	370 Hospitals

It is about in drawing into these technological dimensions... where all the human operations are supported by advanced infrastructure, technology and comprehensive control other software and database solutions in the field of civil aviation.

The M in the RUMSEY reflects the growing systemically nature of the General Authority of Civil Aviation which aims at providing quality services and other pillars of the Ministry through the integration of its capabilities, human and the development of financial resources and technology in line with the RUMSEY strategy.

The R in the RUMSEY reflects the growing systemically nature of the General Authority of Civil Aviation which aims at providing quality services and other pillars of the Ministry through the integration of its capabilities, human and the development of financial resources and technology in line with the RUMSEY strategy.

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75%

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Healthcare Resources In MOH

Total Workforce In MOH	
Physicians	31,516
Nurses	75,978
Pharmacists	1,790
Medical Support Staff	40,110
Other	100,606
Total	250,000



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Healthcare Resources in Saudi Arabia

Number of Beds by Health Sector in Saudi Arabia	
Ministry of Health	34,370
Other Government Sectors	10,939
Private Sector	12,817
Total	58,126

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Patient Visits



Visits to PHCs: 54.95 Million

Visits to Outpatient Clinics: 11.45 Million

Total Visits to All Healthcare sectors: 130 Million

Inpatients and Surgeries



Number of Inpatients in MOH Hospitals:
1,700,820

Total Number of Surgical Procedures
Performed in MOH Hospitals: 450,183

Total Number of Surgical Procedures
Performed in All Saudi Hospitals: 942,609

Number of Hospitals in Saudi Arabia

The MOHSEF strategy corresponds to the sector pillars that the General Authority of Food Safety will adopt in the process of managing, developing and evaluating the safety operations in terms of the effectiveness and quality of services, administration, management and financial systems.

The MOHSEF

Number of Hospitals in Saudi Arabia		
Health Sector	Current	In 5 Years
MOH	249	370
Other Government Sectors	39	50
Private Sector	127	200
Total	415	620

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What We Want to Achieve?

The 2009-10 strategy corresponds to the action plans that the General Assembly of the Republic will adopt in the process of managing, financing and evaluating the primary, secondary, tertiary and specialized care.

- Interoperable Electronic Health Record (iEHR) for All Patients.
- Patient Health Information Available to Clinicians in All Health Facilities.
- Provide an Efficient System to Transfer Patients Between Health Facilities.
- Deliver Electronic Services to All Health Facilities.

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eHealth Strategy development project Introduction:

- eHealth is a trend that is growing across the world, all countries especially those with more advanced health care systems are adopting eHealth to improve the delivery of care and increase effectiveness
- In Saudi Arabia eHealth has been identified as a strategic objective for the ministry, giving ICT a mandate to implement a program
- This strategy is the start of that program and of the transformation in the health care in Saudi Arabia as we adopt eHealth
- Over the last 6 months we have developed the strategy with our consultants and involving people from across the MOH
- The project is structured with 3 work streams, Strategy, Governance and Technology
- It has been supported by an Executive Steering Committee chaired by Dr Koshaim, National and International advisors as well as task groups working with each work stream

The strategy has been developed through a collaborative process with MOH

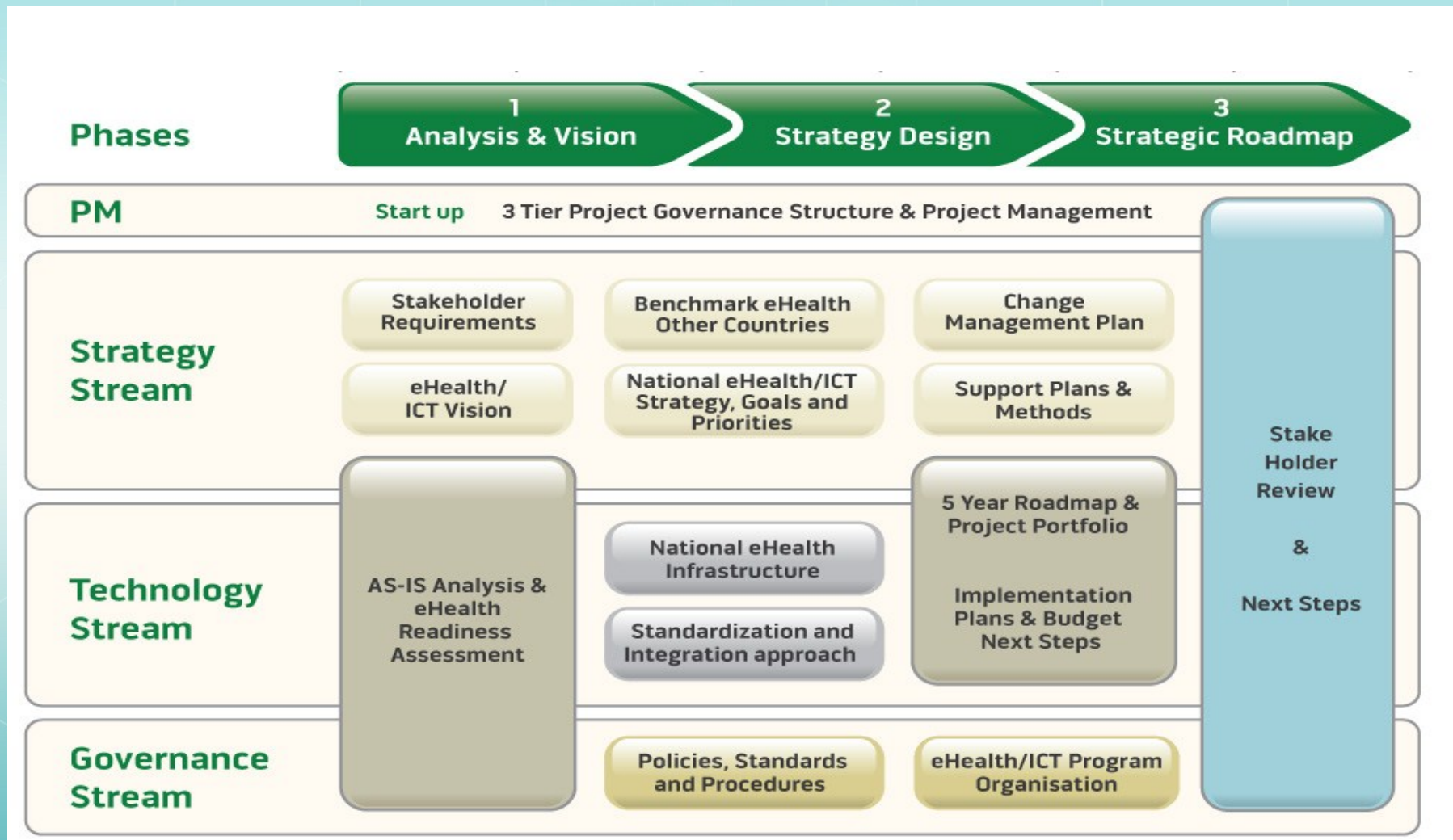
The RISE 2030 strategy corresponds to the action pillars that the General Authority of Food Safety will adopt in the process of managing, developing and evaluating the safety, operations or levels of the effectiveness and quality of services, administrative, technological and financial systems.

The RISE 2030

Key meetings and events	
Executive Steering Committees	Chaired by Dr Koshaim
Reviews with National and International reviewers	2 sessions in Riyadh with 7 days of discussion and collaboration
Site visits	To Hospitals and PHCs, blood bank, medical supply and Labs across the Kingdom.
Workshops	A total of 16 workshops with the 3 workstreams, each workshop has involved up to 12 people and lasts 4 – 6 hours
Data Gathering	Questionnaires and briefings with all the regions
Meetings with other organisations	Council of Health Services Saudi Food and Drug Agency STC Saudi Red Crescent Armed Forces Hospital NGHA CBAHI

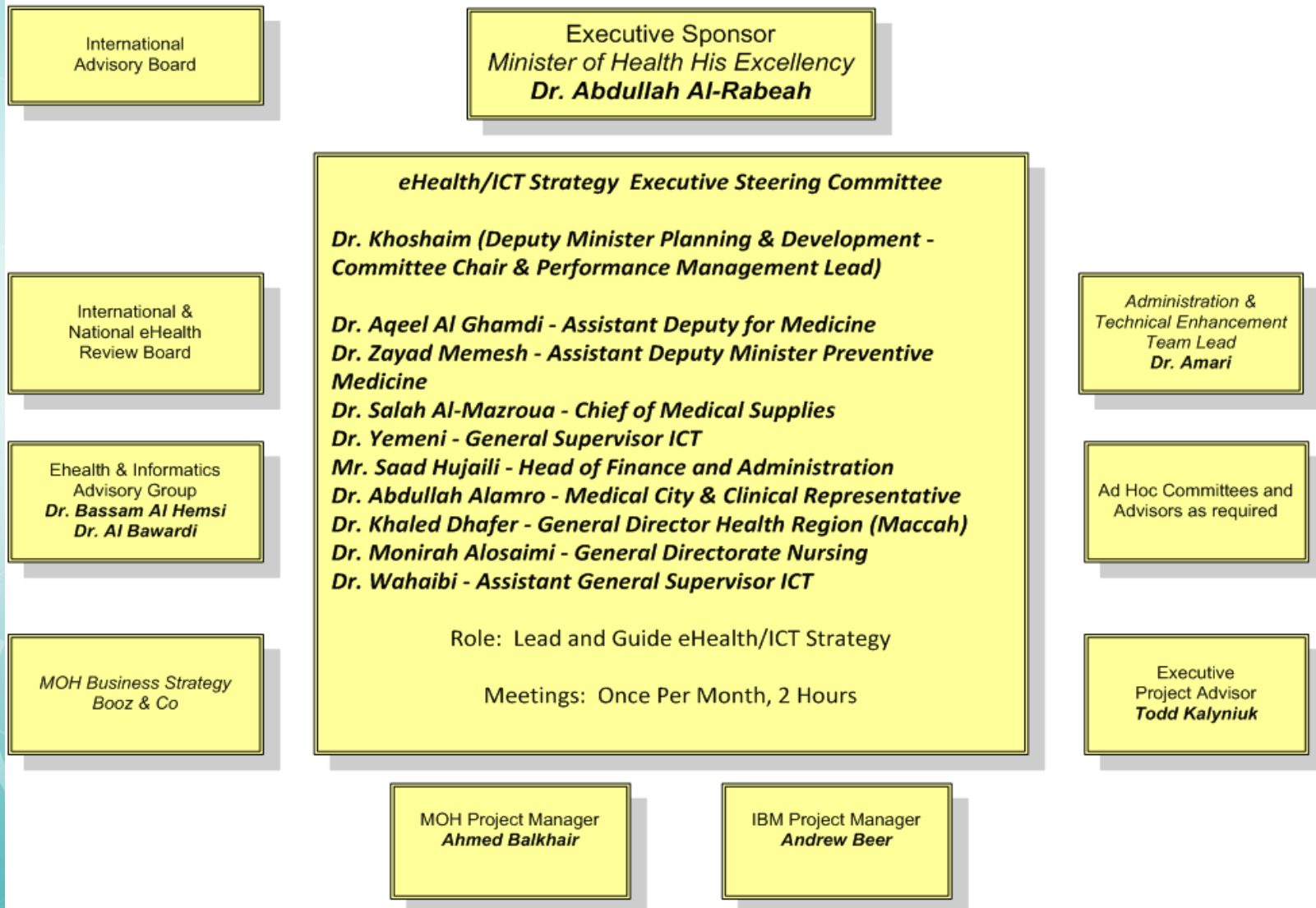


The eHealth Strategy project has completed the three phases with the Strategy, Technology and Governance Streams



eHealth / ICT Strategy Project Organization

Executive Steering Committee



eHealth Strategy

eHealth/ICT Project Reviewers

The KHS&T strategy corresponds to the sector pillars that the General Authority of Social Assurance will adopt in the process of managing, developing and evaluating the activity, operations or levels of the effectiveness and quality of services, administration, management, and financial systems, human resources and customer service.

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- Eng Hamed Al Daej, CIO KFSH & RC



- Eng Khalid Al Salamh, CIO KFMC



- Dr Mohammed Al Qasem, Advisor to the Minister, MCIT



- Dr Saad Al Qasabi, IT Consultant



- Dr Khalid Al Ghonaim, CEO AI-ELM



- Len Lerer, MD, MBA, France



- Prof Stephen Walston, Member IAB, USA



- David Garrett, SVP HIMMS, USA



- Ed Percy, Orion Healthcare, UK



- Trevor Hodge, SVP Health Infoway, Canada

National

International

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eHealth Strategic Framework



MOH Strategy

MOH Vision

“Provision of the integrated comprehensive healthcare service delivery model in accordance with the highest international levels of quality”

MOH Mission

“Providing healthcare at all levels, and promote public health, disease prevention, and development of laws and regulations governing the health sector and public sectors, and monitor performance with more focus on research and academic training and areas of health investment”

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eHealth Vision

The eHealth strategy corresponds to the action pillars that the General Authority of Social Assistance will adopt in the process of reorganizing, developing and evaluating the activity, operations or levels of the effectiveness and quality of services, "administration, management" and financial systems, human resources and customer service.

The eHealth strategy corresponds to the action pillars that the General Authority of Social Assistance will adopt in the process of reorganizing, developing and evaluating the activity, operations or levels of the effectiveness and quality of services, "administration, management" and financial systems, human resources and customer service.

A Safe, Quality Health System, based on Patient Centric Care, guided by standards, enabled by eHealth

It refers to the process of developing and implementing the business operations and resources for advanced infrastructure, technology and comprehensive caring with efficiency and effective solutions in the field of social assistance.

The W in the eHealth strategy reflects the following components: safety of the General Authority of Social Assistance, which will be achieved through the integration of the information systems and the management of financial resources and human resources, the development of services and the integration of the information systems and the management of financial resources and human resources.

The W in the eHealth strategy reflects the following components: safety of the General Authority of Social Assistance, which will be achieved through the integration of the information systems and the management of financial resources and human resources.

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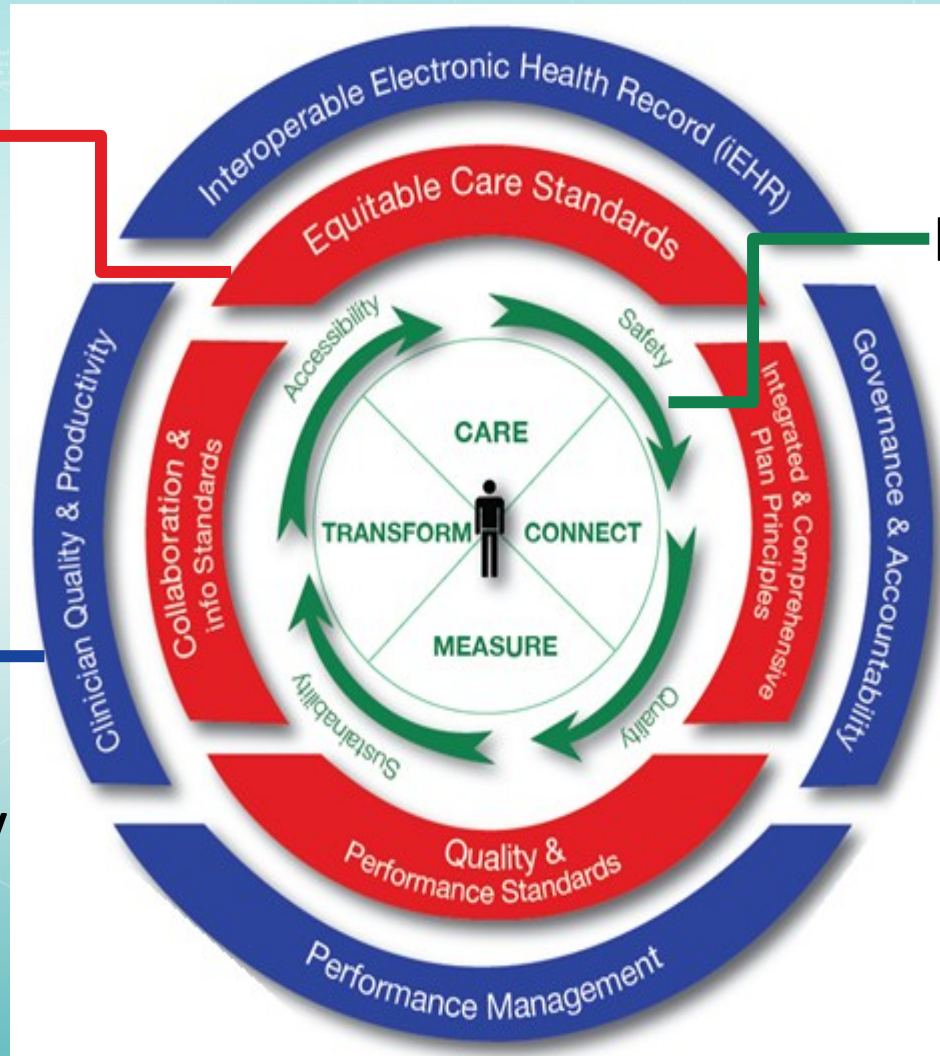
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Guided by Standards



A Safe, Quality Health System, based on Patient Centric Care

Enabled by eHealth



MOH 5 Year Business Plan and requirements

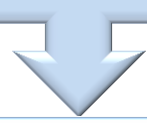
MOH Strategic Objectives	Activities
1. Adopt the integrated and comprehensive health care plan (ICHCP) with attention to research and education	<ul style="list-style-type: none"> • Implement ICHCP 8 Initiatives • Support Preventive Care and improve overall health • Support Healthcare Research
2. Raise the level of health care quality and support institutional performance improvement	<ul style="list-style-type: none"> • Support institutional Strategic Planning and Performance Management • Develop administrative systems, Rules and Programs for Institutional Work • Develop a comprehensive program for quality of care and Total Quality Management • Develop an Internal and External Communications Strategy • Develop strategic partnerships (public private) and collaborate with stakeholders
3. Attract qualified personnel and develop human resources	<ul style="list-style-type: none"> • Enhance MOH capacity to attract and employ qualified personnel and Staff Development • System for Human Resource Planning
4. Develop eHealth, ICT and management information systems	<ul style="list-style-type: none"> • Develop eHealth Strategy and Roadmap • Develop healthcare technology Infrastructure • Develop a unified electronic management system MIS (e-gov) • Attract and retain qualified ICT Staff
5. Health Economics and Health Care Financing for optimum resource use	<ul style="list-style-type: none"> • Rationalize capital & operational costs • Undertake analysis of Health System Financing Studies and Models

eHealth Strategic Framework

Provision of the integrated comprehensive health care service delivery model in accordance with the highest international levels of quality



A Safe, Quality Health System, based on Patient Centric Care, guided by standards, enabled by eHealth



MOH Strategic Objectives

ICHCP, Public health/Prevention , Research & Education

Performance, Quality & Collaboration

Human Resource Development

eHealth & ICT

Optimize MOH Resources & HC Economics



eHealth Strategic Objectives

Care for Patient

Measure & Collaborate

Transform Workforce

Connect & Integrate

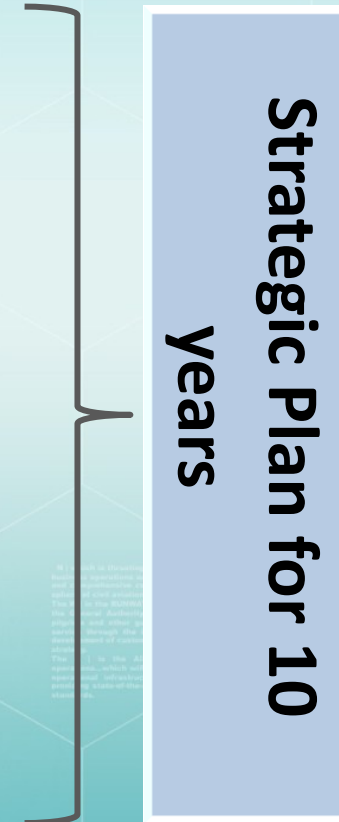
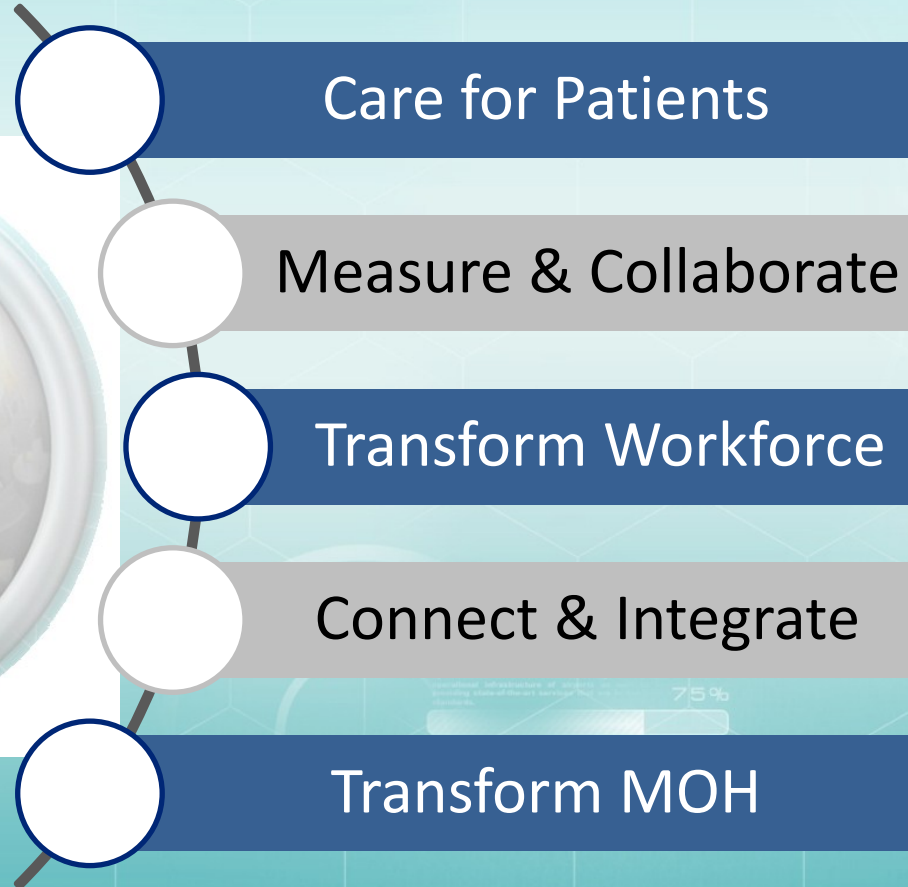
Transform MOH

eHealth Strategy

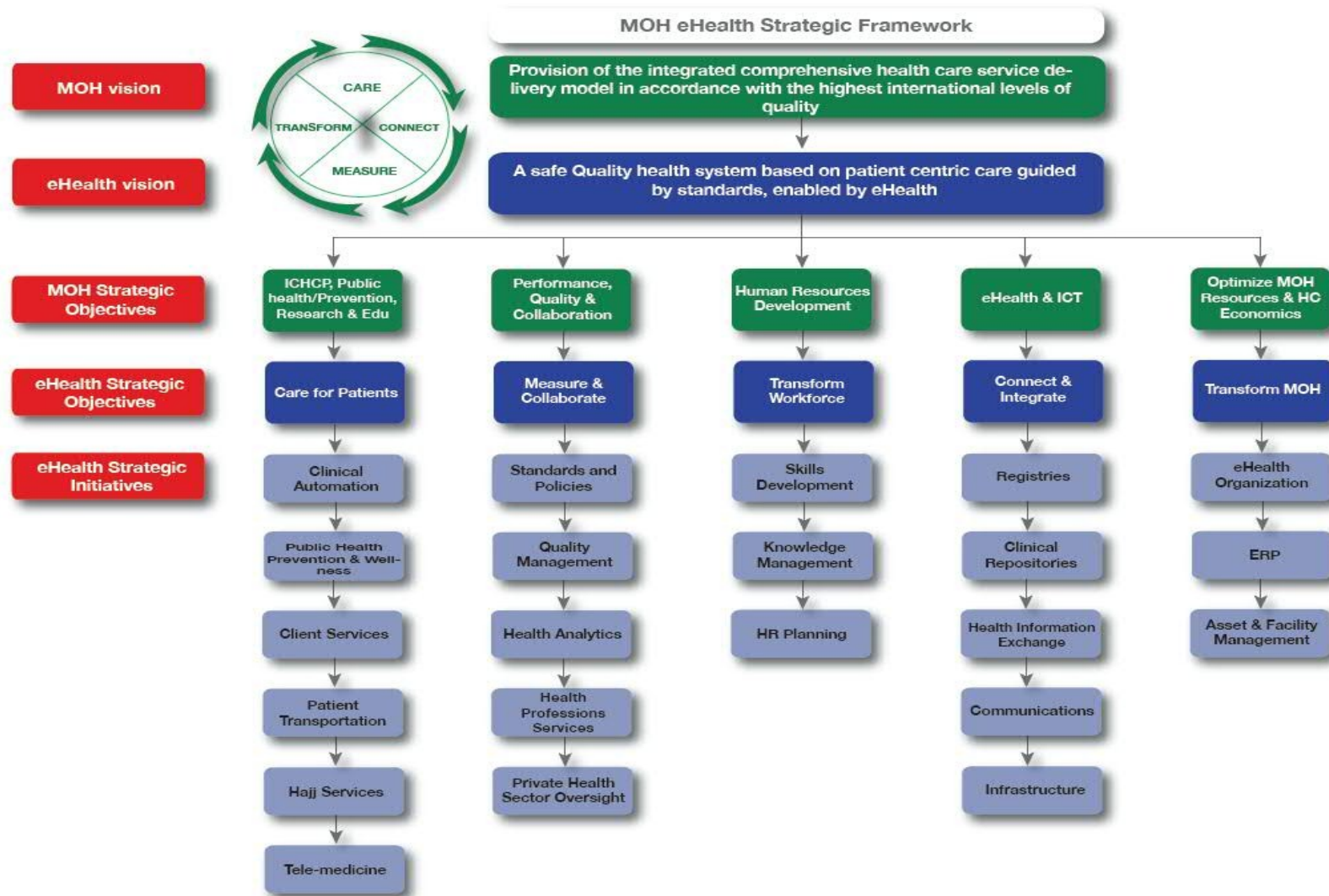
eHealth Strategic Objectives

The Ministry strategy corresponds to the sector pillars that the General Authority of Food & Drug Administration will adopt in the process of examining, approving and evaluating the safety, efficacy, quality of the effectiveness and quality of services, administration, management and financial systems, human resources and customer service.

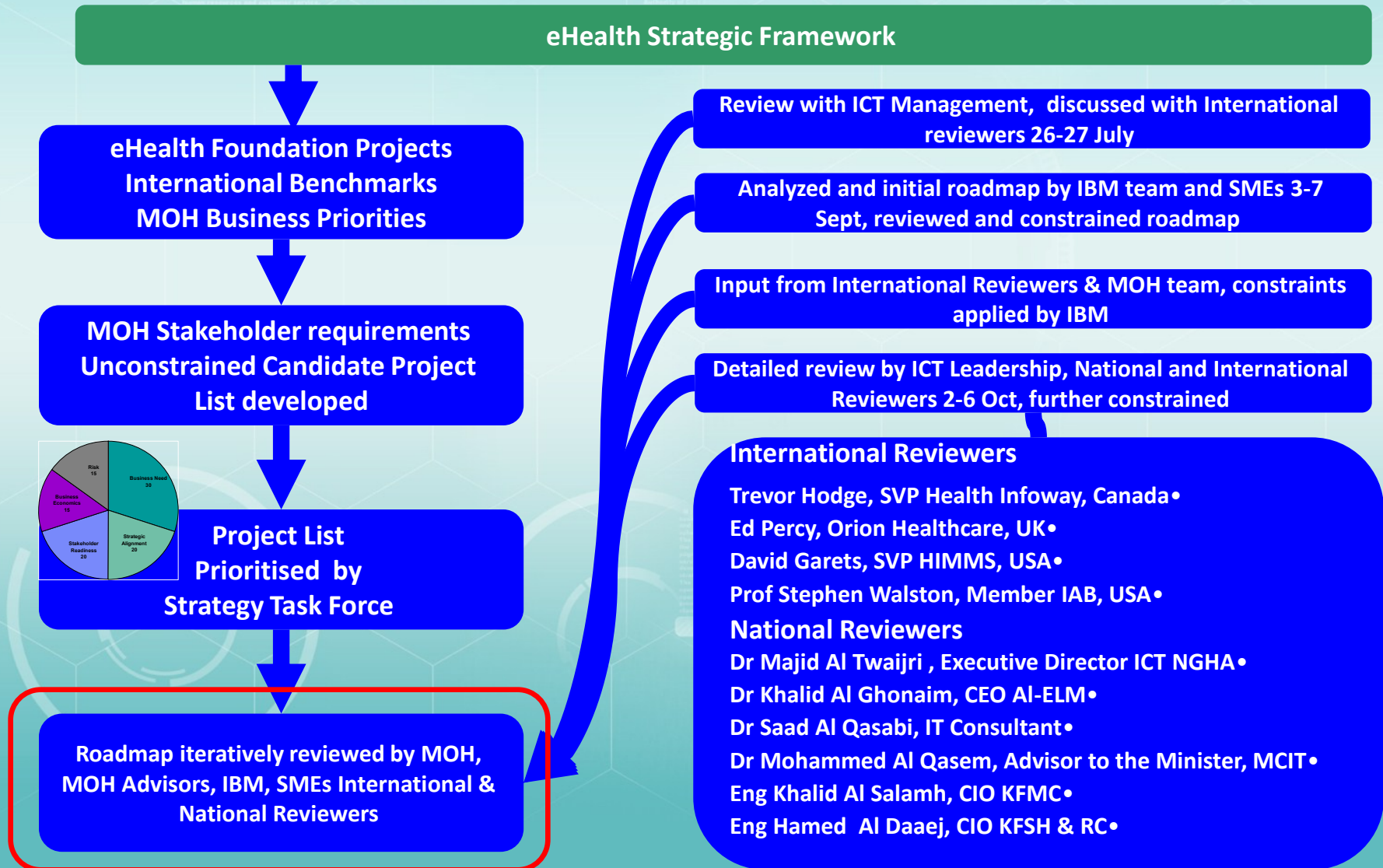
The Ministry strategy corresponds to the sector pillars that the General Authority of Food & Drug Administration will adopt in the process of examining, approving and evaluating the safety, efficacy, quality of the effectiveness and quality of services, administration, management and financial systems, human resources and customer service.



MOH eHealth Strategic and Initiatives



The roadmap was based on the Strategic Framework and developed through a consultative, analytical and review Process



Roadmap Guiding Principles

Align eHealth Projects with MOH Business Needs

- Enable MOH Business Transformation with eHealth
- Prioritize and sequence eHealth projects within strategic initiatives, and integrate
- Establish standard phases, gates and planning mechanisms for individual projects

Quick Win Projects Rapid Time to Clinical Value

- Create a solid foundation that meets current & future business requirements
- Quickly deploy projects with high clinical value to stakeholders in Facilities
- At onset provide basic EHR at point of service

Protect Technology Investments

- Where possible, build on existing platforms
- Share services, components and expertise
- Accommodate standards compliant stand alone existing solutions
- Buy proven, Build when buy not available, anticipate advanced future technology

Manage Change & Reduce Adoption Risks at Project

- Imbed Change Management into every projects
- Stagger implementation of new functionality and adoption of new platforms
- Bundle services & Incrementally add advanced functionality

Provide Flexibility Reduce Total Cost of Ownership

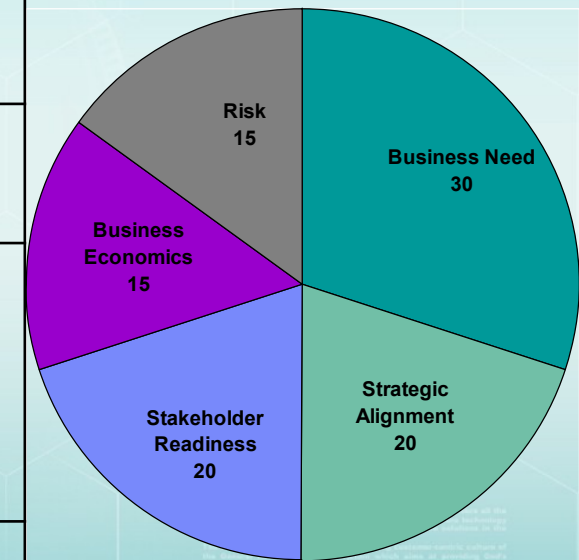
- Standardize components, provide options when needed
- Common Clinical and Business requirements will drive implementation models
- Deploy shared services on standards based MOH technology

Develop Internal Capability in Core Competencies

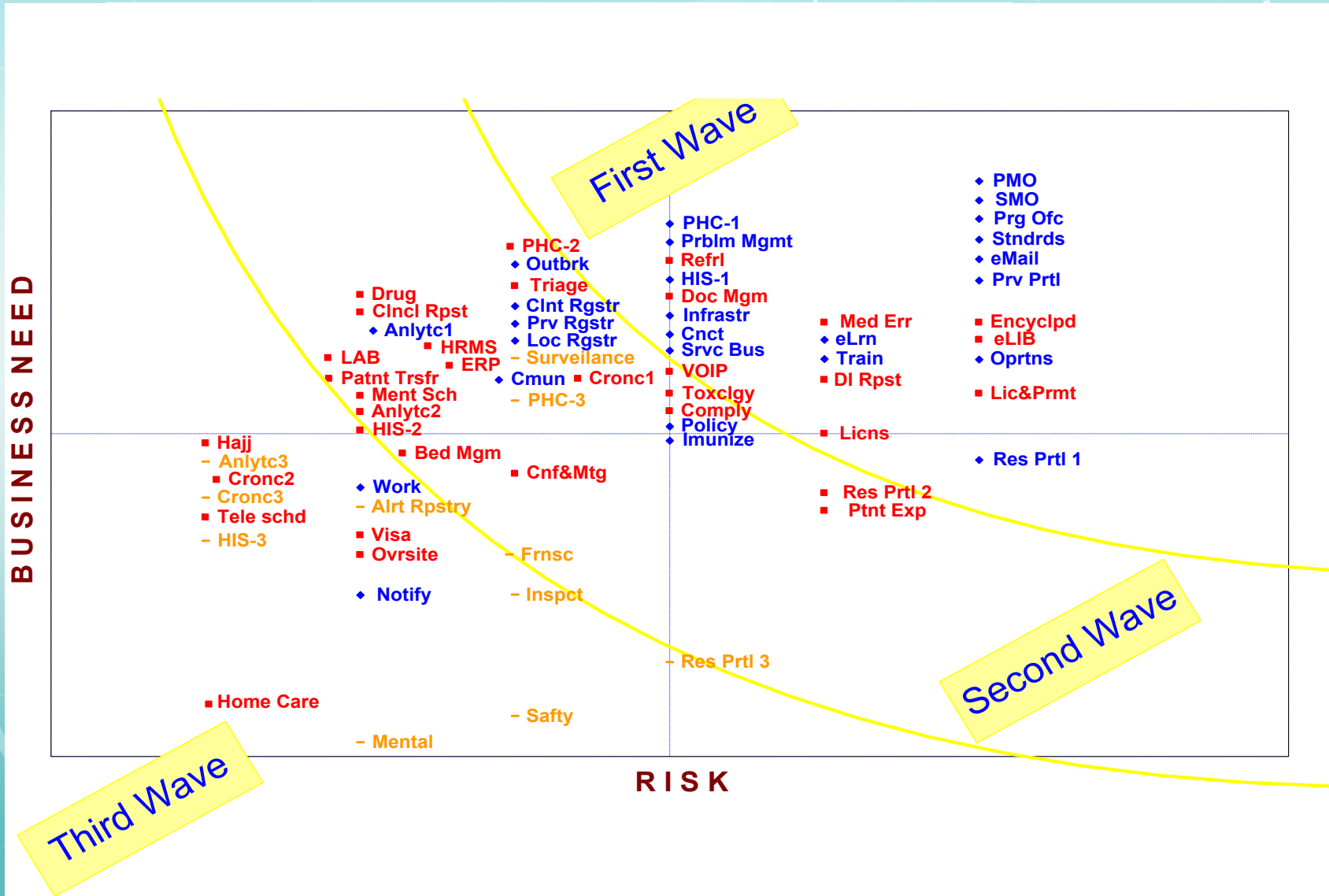
- Create a learning culture, reward skills development
- Create resource pools for standardized components
- Cannot execute everything at once, align internal skills development with needs

The potential projects were prioritised by the MOH Strategy Task force, prior to being added to the roadmap

Category of Scoring	Definition	Weight
Business Need	Assess the project in terms of business intensity to MOH and the overall clinical value and clinical safety this project brings to MOH specific business functions, or the value of the information provided in managing MOH, Regions or facilities.	25%
Strategic Alignment	Assess the project alignment with MOH business strategy. Is it strongly aligned with an MOH Strategic Objective?	20%
Stakeholder Readiness	Assess stakeholder readiness from the perspective of project implementation and adoption. Do end users of the project understand the value, and are they ready to adopt such a system? Will it be visible to patients and/or MOH employees? How much training do users need?	20%
Business Economics	Assess the impact of project cost and the time to realize benefits. Does this project deliver benefits quickly, or over a longer period?	15%
Risk	Assess the risk of undertaking this project, from low to high risk. Is this project doing something new, that has never been done before (high risk) or is it a proven initiative (low risk)?	20%

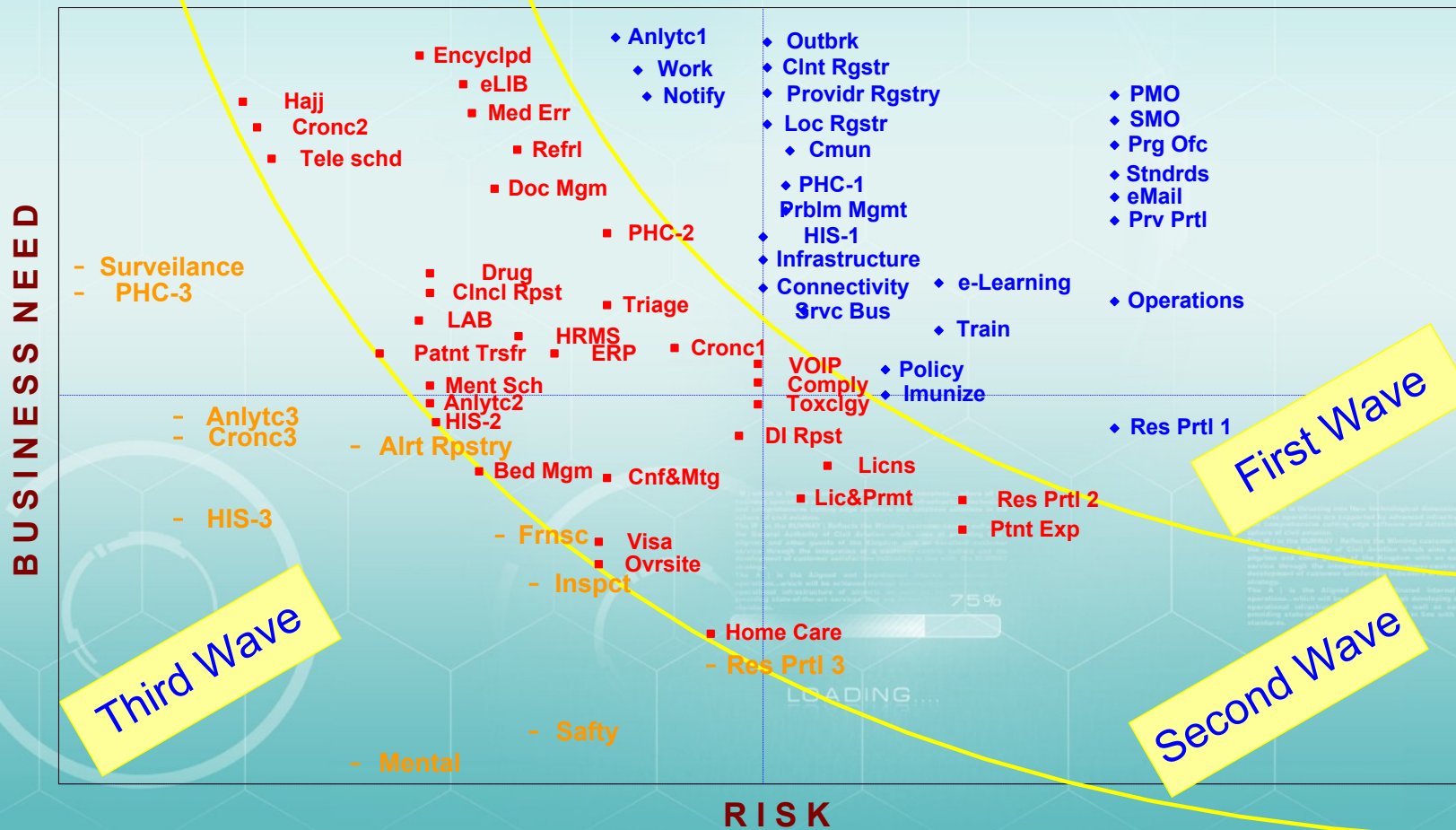


Once the projects were evaluated they were plotted to show low risk have value projects for the first wave



Projects were reviewed and adjusted to complete the prioritisation

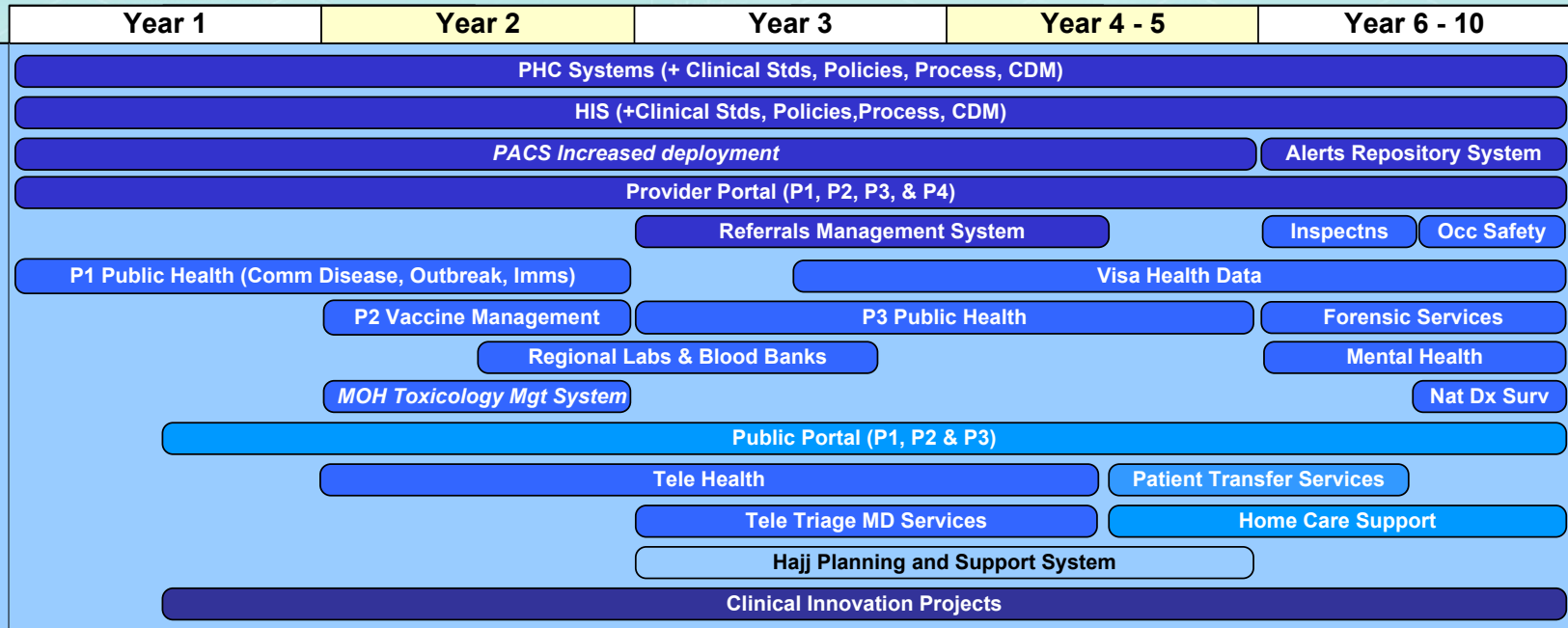
Projects Prioritization Final – All Waves



Care for Patients Projects

The Ministry strategy encompasses the urgent pillars that the General Authority of Civil Aviation will adopt in the process of managing, developing and evaluating the safety operations in terms of the effectiveness and quality of services, administrative, management and financial systems.

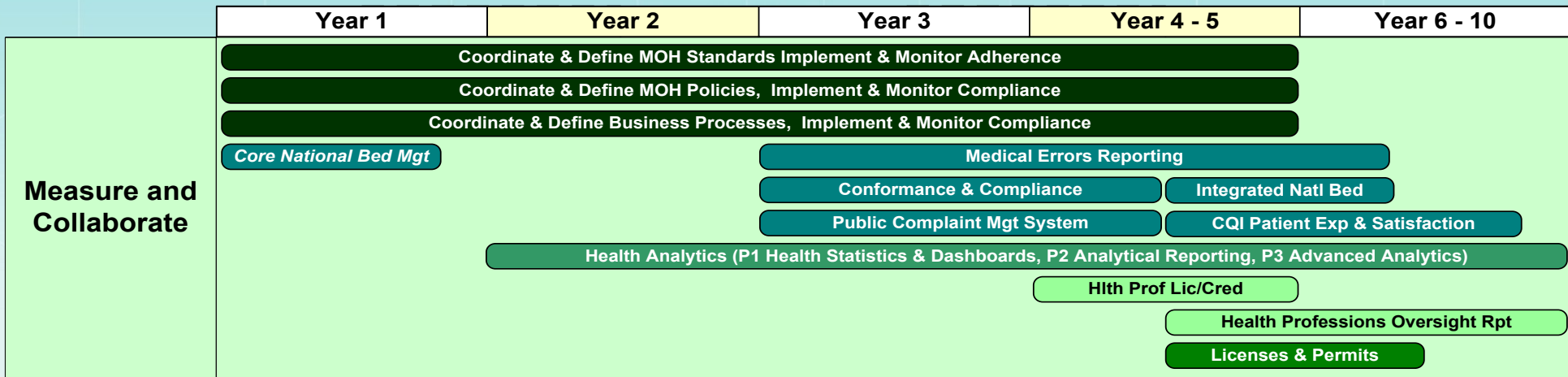
The Ministry



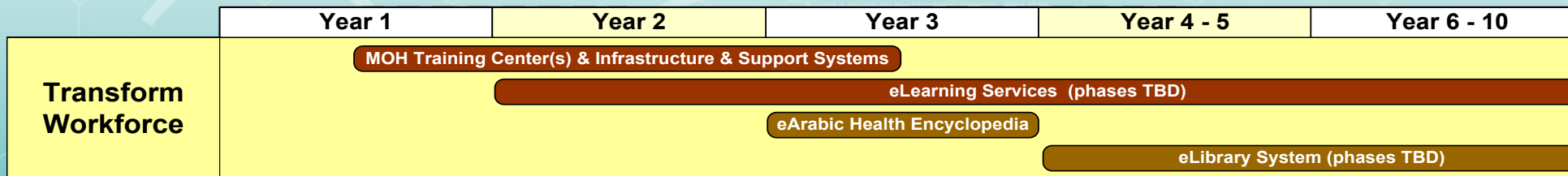
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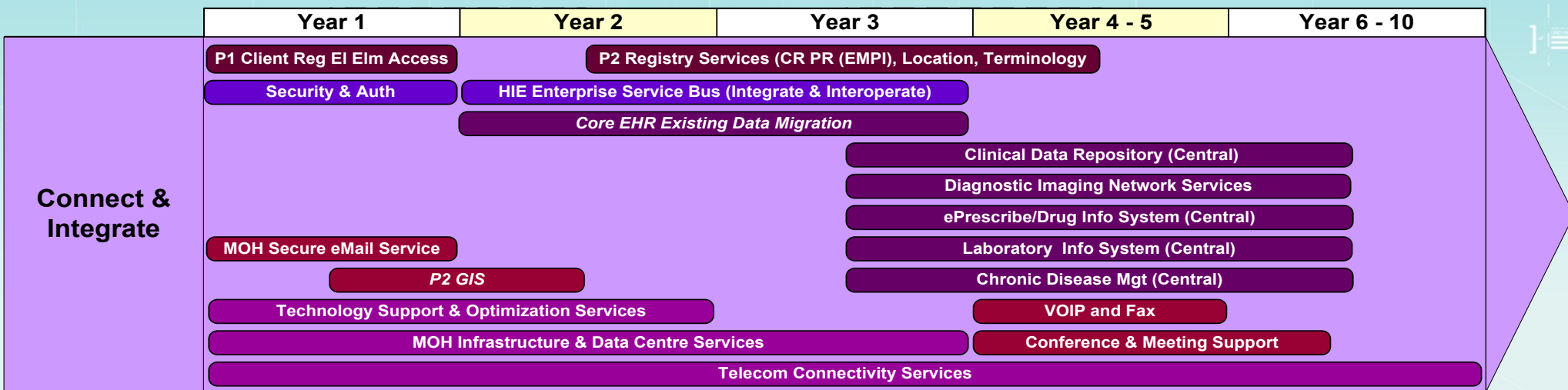
Measure and Collaborate



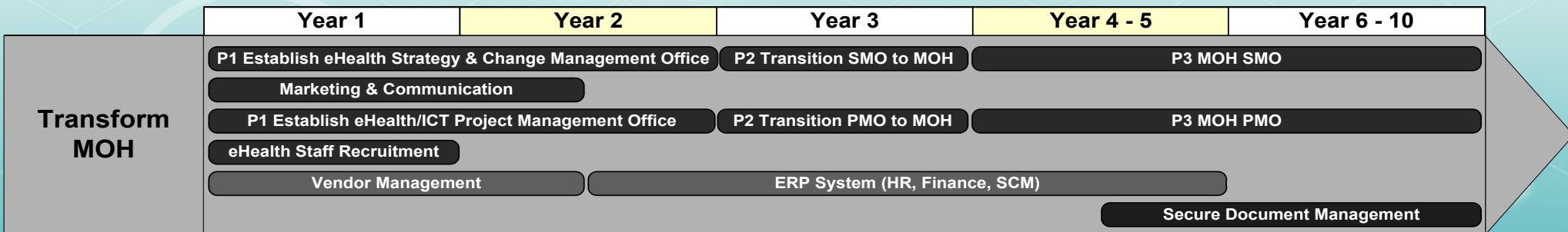
Transform Workforce



Connect and Integrate



Transform MOH



eHealth Strategy Target State

Kingdom of Saudi Arabia MOH eHealth Strategy Target State

Year 1

Core

Year 3

Basic

Year 5

More Advanced

Year 10

	Year 1	Year 3	Year 5	Year 10
Care for Patients Yr 1-3 Priority	Clinical Automation	iEHR	iEHR	
Measure & Collaborate	Enterprise Standards & Policies	Quality Analytics	Clinician Quality & Productivity	
Transform Workforce	Skills Development	Internal Capability	Performance Culture	
Connect & Integrate Yr 1-3 Priority	Connectivity & Data Centres	Integration	Vertical Integration	
Transform MOH	Resource Management	Resource Optimization	Health Economics	

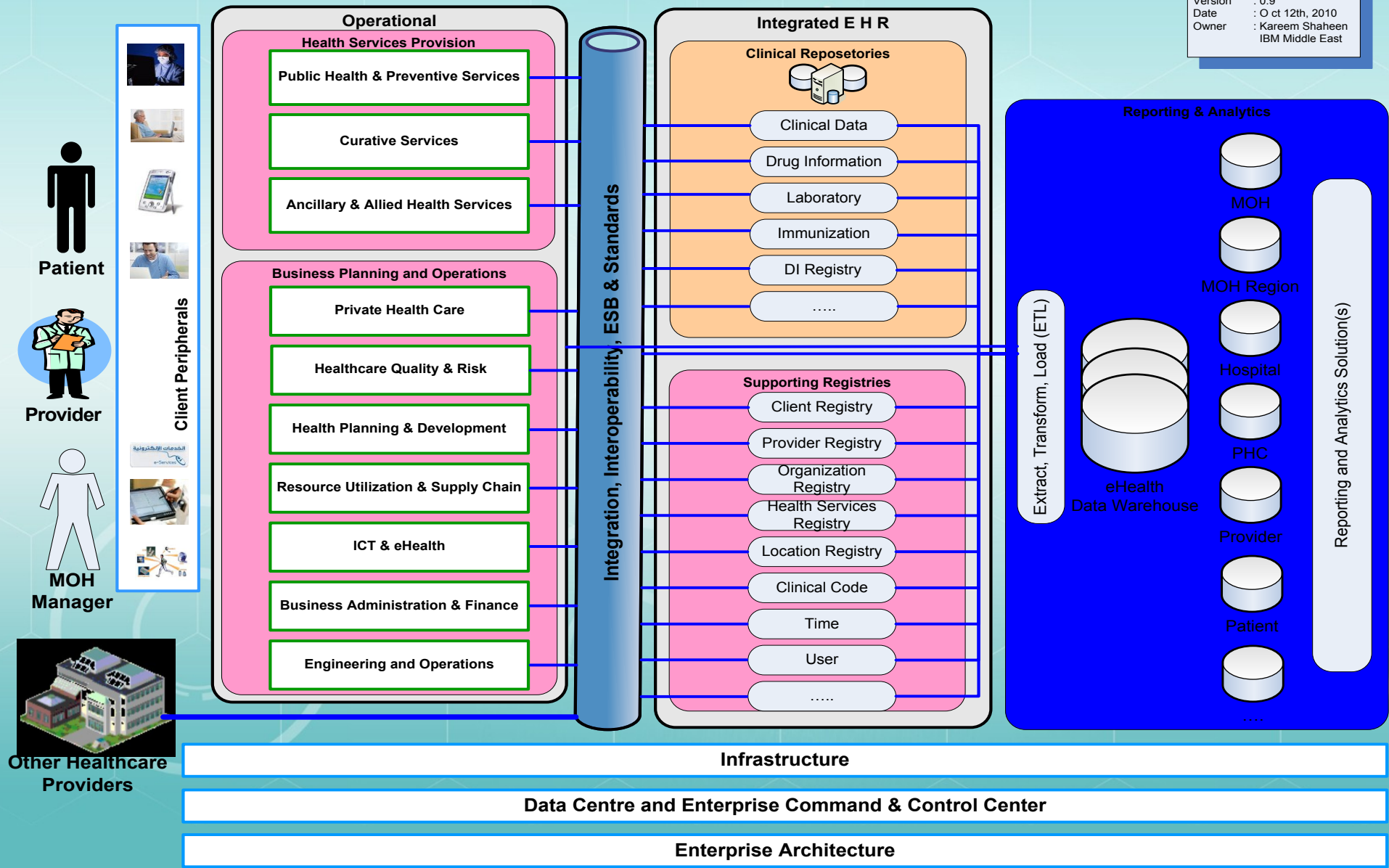
Key Recommendations from the International Review 5-6 October 2010

- Initial roadmap too ambitious, other countries have been working on eHealth for 20 years
- The roadmap should be realistic and achievable by MOH
- Projects must have a senior executive business sponsor who 'owns' the Project and Business Case
- For the HIS and PHC solutions implement a limited number of modules first then add more. Go broad then deep, do not customize, remain as “off the shelf” as possible.
- Identify visible champions to support clinical automation
- Provide incentives for clinical groups that have the potential of being change champions.
- Do not underestimate the importance of change management, Canada Health Infoway allocates 15 to 30 % of projects budget to change management.
- The scale of the change in clinical automation is unprecedented – challenges will be substantial.
- Communications and Marketing is very important, Canada Health Infoway has a team of 20 dedicated resources
- Include a Clinical Innovation project to fund and leverage innovative ideas.
- Introduce KPIs to evaluate the strategy, its progress and achievements.

eHealth Conceptual Architecture

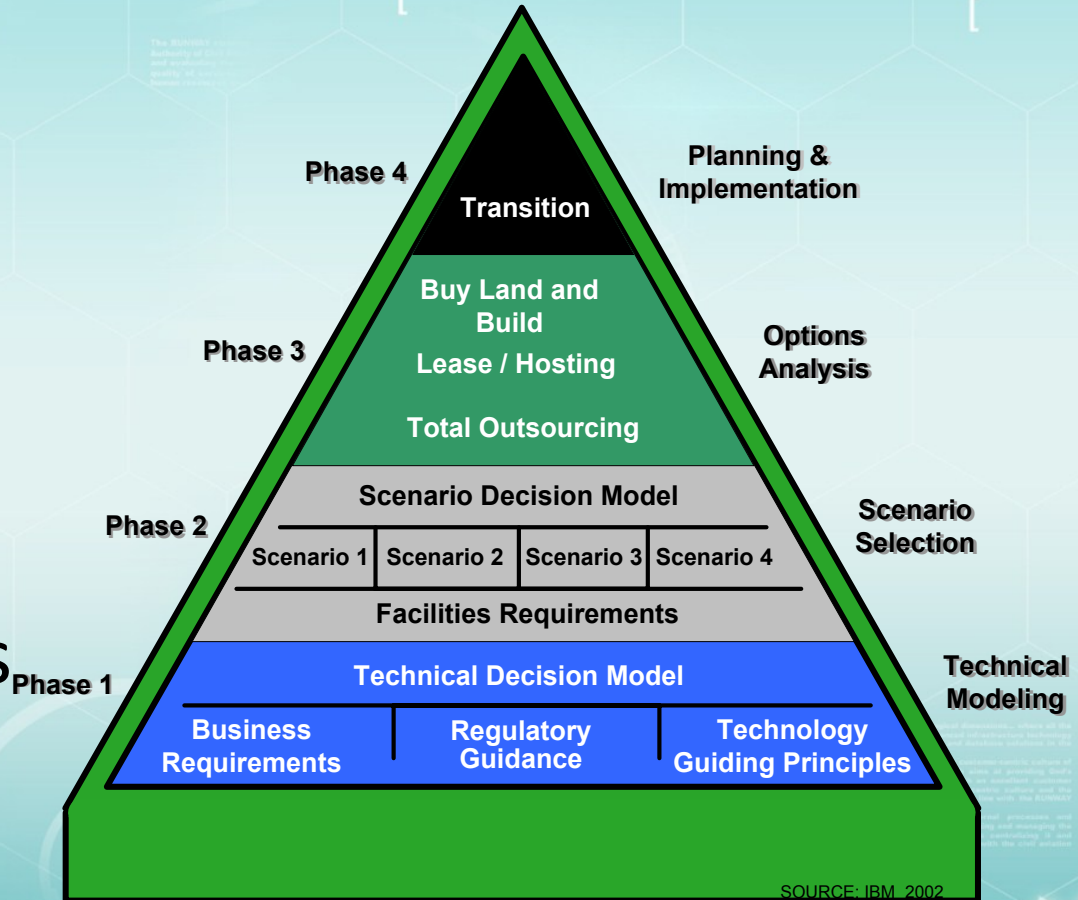
eHealth Conceptual Architecture

Version : 0.9
 Date : Oct 12th, 2010
 Owner : Kareem Shaheen
 IBM Middle East



Data Center Strategy Framework

The “Data Center Strategy Framework” guides through a structured methodology to focus the diverse thoughts and theories concerning the Operations model,



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Data Center Strategy Recommendations and Plan

1

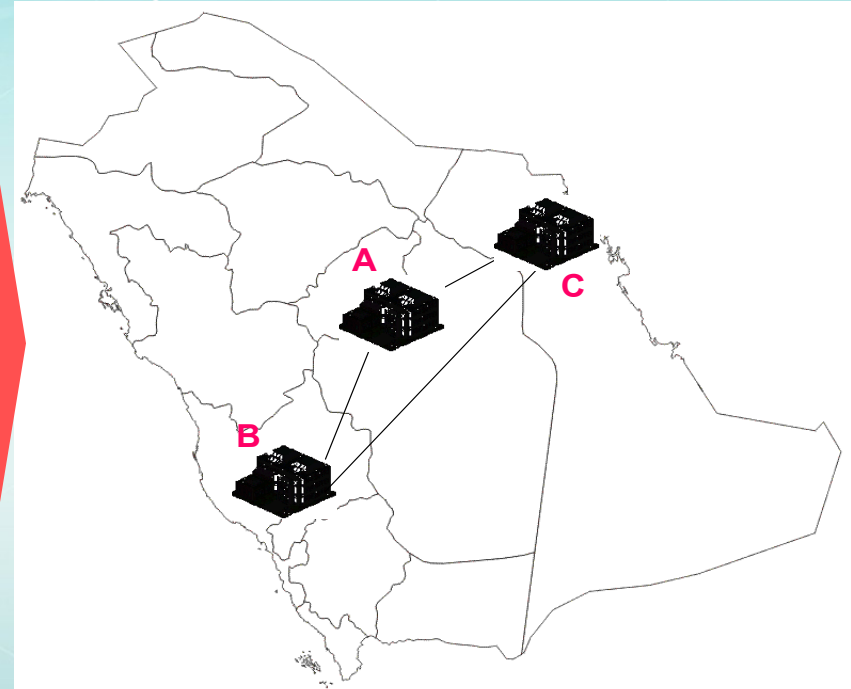
MOH HQ existing Data Center will be sufficient for the next 12 months and needs to be utilized as the primary Data Center for MOH

2

MOH needs to outsource STC Tier 4 Data Center in Jeddah and it will be the Backup / Disaster Recovery Site

3

MOH needs to build its own Data Center in Riyadh



2011

2012

2013

2014

2015

2016 - 2020

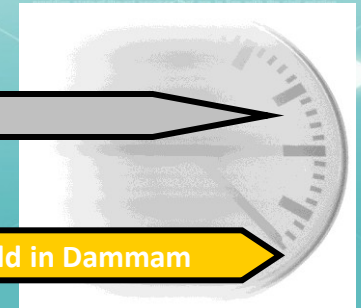
MOH HQ Existing DC

Outsourcing – STC Jeddah Data Center

Buy Land and Build – MOH DC in Riyadh

Buy Land and Build in Dammam

75%



Connectivity (Telecommunication) Strategy Recommendations and Plan

1

MOH should use multiple WAN technologies for each site

2

MOH seek alternative telecommunication service provider for each node

3

Service Level Agreement (SLA) for RTO & RPO are met and HA & DR are assured

Availability %	Downtime per year	Downtime per month	Downtime per week
95%	18.25 days	36 hours	8.4 hours
98%	7.30 days	14.4 hours	3.36 hours
99.95%	4.38 hours	21.56 minutes	5.04 minutes
99.99% ("four nines")	52.6 minutes	4.32 minutes	1.01 minutes

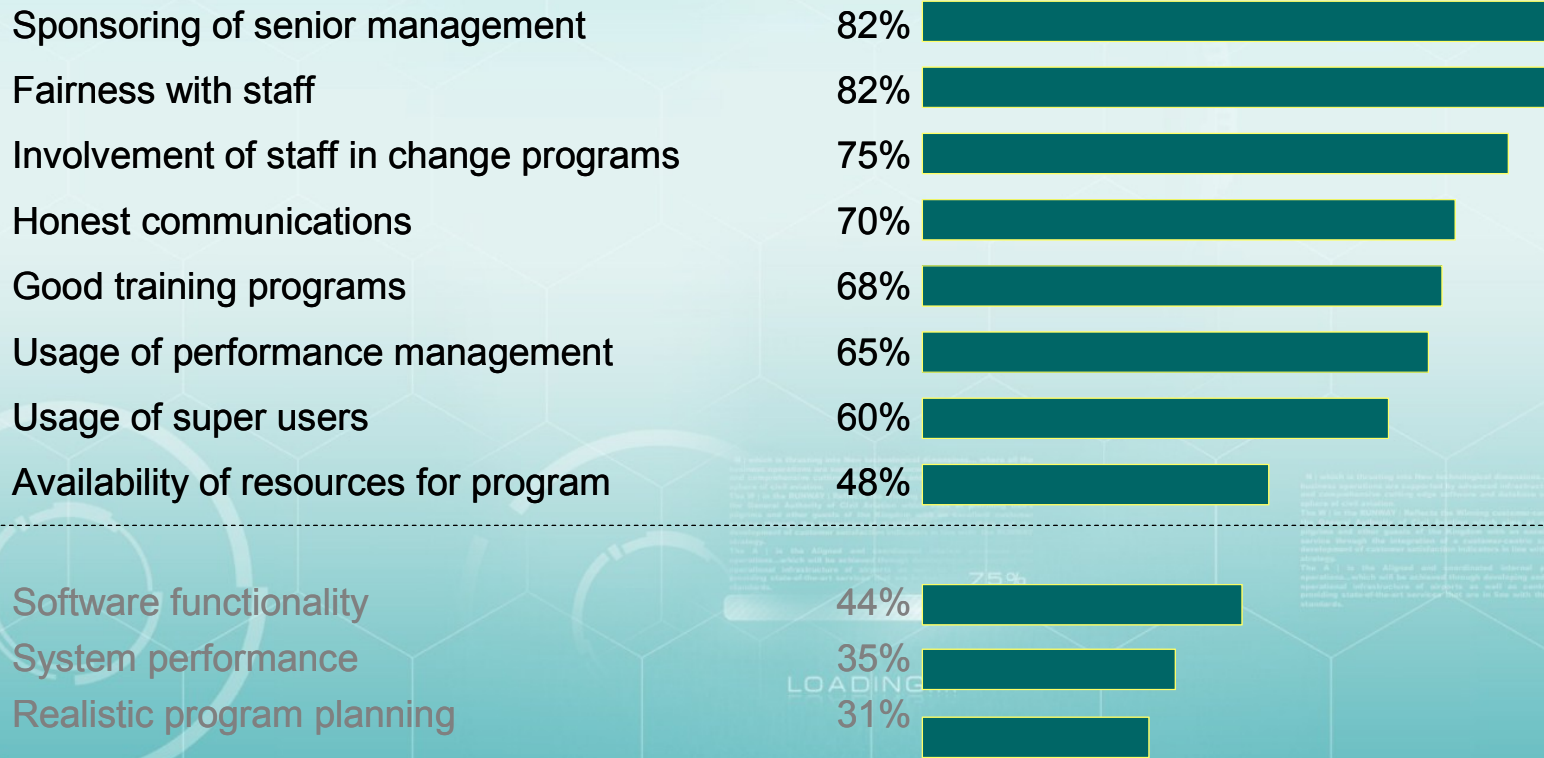
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Case for Change

The key success factors for transformation are organizational rather than technical

Change Management is a key driver of success



Better Change Methodology

The BEMSEY strategy corresponds to the action pillars that the General Authority of Civil Aviation will adopt in the process of managing, developing and evaluating the activity operations in terms of the effectiveness and quality of services, administration, maintenance and financial systems, human resources and customer service.



The BEMSEY strategy corresponds to the action pillars that the General Authority of Civil Aviation will adopt in the process of managing, developing and evaluating the activity operations in terms of the effectiveness and quality of services, administration, maintenance and financial systems, human resources and customer service.



Change Management Guiding Principles

Central Transition Office with Standard Tools & Methods

- Establish SCMO, single point of accountability
- Use Common methods and apply lessons learned from other eHealth Programs
- Deliver standardized Change Services in an effective and consistent manner

Business Process Focus

- Establish single point of contact, and use a common replicable approach, clinician led
- Develop reusable toolkits and templates with business processes, rules, standards and policies included
- Harvest effort and lessons and apply to next rollout

Coordinate Implementations

- Coordinated EHR Services implementations to user communities
- Sequence and bundle activities, minimize disruption to operations
- Coordinate multiple projects and activities for integration and to reduce change fatigue

Manage Change & Reduce Adoption Risks at Project

- Imbed Change Management into every projects
 - Stagger implementation of new functionality and adoption of new platforms
 - Multi discipline teams
 - Phased Incremental functionality, provide training just in time by role

Engage Stakeholders, Peer to Peer Teams, & Showcases

- Segment stakeholders in a meaningful way
- Engage clinical champions early, Use peer to peer teams and shadowing and showcase implementations
- Obtain user input and feedback on a regular basis

Market & Communicate Consistently & Often

- Develop enterprise wise marketing & communications strategy
- Brand eHealth, Sponsors
- Target consistent messages to stakeholders
- Multi channel strategy

Change Management Services

The 2020-2027 strategy corresponds to the action plans that the General Assembly of the eHealth Unit will adopt in the process of managing, monitoring and evaluating the activities, operations, results of the different services and quality of services, training, dissemination, transfer of knowledge and technical systems, human resources and marketing services.

**eHealth
Executive Board
Executive Sponsors**

**eHealth Advisors
& Advocates**

Project Management Office Project Leaders & Sponsors

Program Level

- Project Leadership
- Project Deployment Strategy
- Core Project Management Methodology
- Project Frameworks
- Project Resources
- Project Knowledge Repository
- Project Team Leadership Coordination (e.g., HIS, PHC, Public Health, Infrastructure)
- Input from Project Teams, Clinical Users Working Group and Project Review Committee

Project Specific - SHARED

- Co-Plan and coordinate Change Management Services with Project Deployment
- Project Resource Planning
- Project Champions, Sponsors
- Peer to Peer Members
- Test & Train technical environment
- Communications & Marketing Liaison
- Training & Skills Development Liaison

Training & Skills Development T&S Manager

Program Level

- Training Coordination
- Roadmap Alignment
- Training Services
- Role & Skills Profiles
- Training Methods
- Training Content
- Training Channels
- Training Resources
- Training Platforms
- Module Management
- Scheduling
- Training & Knowledge Repository

Project Specific

- Skills Assessment & Planning
- Plan & Provide Training Resources & Materials
- Configure Toolkits
- Curriculum Content
- Schedule & Certification
- Facility Training Platform
- Train staff, champions, peers, super users, support
- Release & Refresh Course
- Knowledge Repositories & eLearning

Communications & Marketing C&M Manager

Program Level

- eHealth Brand
- Roadmap Alignment
- C&M Stakeholder segmentation
- Content Management
- C&M Channel Strategy & Management
- Messages & Themes
- C&M Resources, tools,
- Campaign Management (Soft, Hard Launches)
- Press & Publications
- Knowledge Repository

Project Specific

- Campaign & Communications Management
- Channels
- National, Region, Facility communication coordination
- Awareness and Orientation Sessions
- Champions and Advocates
- Evaluation of Marketing Campaign
- Hotline and Support

Strategy & Change Management Office Change Leaders & Champions

Program Level

- Change Leadership and Strategy
- Roadmap Alignment
- Core Change Management Methodology
- Stakeholder segmentation
- Frameworks, Toolkits
- Budget & Planning
- Resources
- Communications, Marketing, Training & Skills Development
- Change Knowledge Repository
- Input from all Working Groups
- Clinical Integration, Policy & Standards, Architecture Review Board, Human Resources

Project Specific - SHARED

- Provide Change Management Methodology, Toolkits and frameworks integrated with Project Deployment Model
- Change Management Services
- Scheduling
- Change Resource Planning
- Peer to Peer Network Champions
- Communications & Marketing Management
- Training and Skills Development Management

EHealth Adoption Barriers

Clinical Staff Adoption Barriers

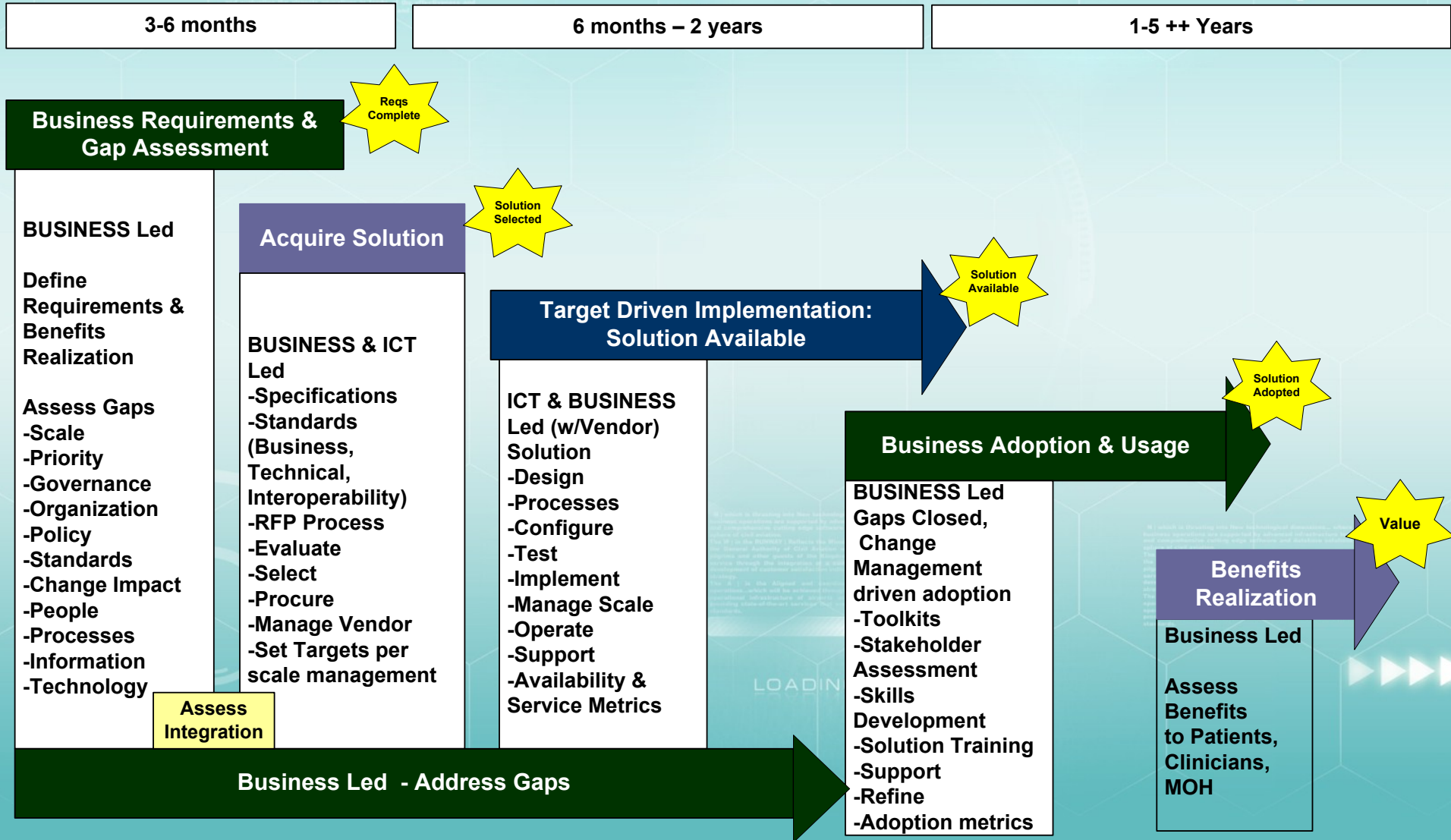
- Experience a loss of Personal Control
- Lack confidence in new systems or ability to learn new skills, low levels of computer literacy
- Have anxiety around KPIS and transparency iEHR creates in clinical practices
- Fail to see value in eHealth solutions
- Associate eHealth enablers with Performance Management

Patient Adoption Barriers

- Lack confidence in eHealth tools
- Have concerns about reassigned to physicians and not have access to physicians known to them
- Not trust e-services which replace face to face encounters with administrative and clinical staff (ebooking for example)
- Have concerns about limitations on facility choices
- Concerns about inappropriate information protection and sharing

Project solution availability, adoption and usage model

(Project) Solution Availability, Adoption & Usage Model



Implementation Target of Clinical Automation

" Basic Automation and phased deployment of HIS, PHC, Clinical Solutions and EHR to thousands of PHC and Hospital facilities, kingdom wide "

MOH National Role	Medical City Role	Health Region Role	Health Facility Role
<ul style="list-style-type: none"> • Accountable • Top Down (Directive) • Change Sponsors and Champions • Define or Adopt Standards • Define Business and eHealth Policies, Rules, Procedures • Specify Requirements • Certify Vendors & Best Pricing • Funding 	<ul style="list-style-type: none"> • Clinical Leadership • Center of Excellence • Change Leaders and Champions 	<ul style="list-style-type: none"> • Mid Level Coordination • -Coordinate RFPs for Region Solutions based on national standards • Provide training and technical resources for implementation • Change Agents and Champions 	<ul style="list-style-type: none"> • Coordinate RFPs for Facility solutions based on National Standards • Responsible for Adoption of policies, standards and solutions • Bottom Up Center of Excellence • Change Agents and Champions • Select solutions • Design processes & workflows • Configure • Training

In this technological dimension, there is the potential for advanced manufacturing, including robotics and additive production. In the Health System, which leads in providing care for the population, we see an opportunity to use these technologies to improve the quality and safety of a patient's care, reduce the environmental footprint of our work, the cost of our operations, and enhance our ability to meet our obligations to our patients. We are committed to using these technologies in a responsible and ethical manner to improve the lives of our patients and the community.

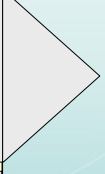
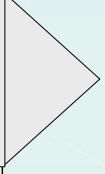


MOH eHealth Strategy Change Management Activity Template (Modify by Facility Class/Solution)

	Month 1-2	Month 2-3	Month 4-5	Month 6	Month 7+
Communicate, Engage & Prepare Stakeholders	Raise Awareness & Orient What, Why, When, Who & Feedback Activity, Timing, Progress, Milestone	Reinforce Benefits What, Why, When, Who & Feedback Activity, Timing, Progress, Milestone	Survey Satisfaction What, Why, When, Who & Feedback Activity, Progress, Milestone		
Identify Change Agents	MOH Executive Sponsors, Business Owner & Facility Executive Sponsors				
	External Clinical Champions & Advocates		Internal Clinical Champions & Advocates		
	Peer to Peer Peer Networks				
	Internal Trainers, Super Users, Support				
Assess Stakeholders	Readiness Assessment using Role based templates -Management & Clinical Staff -Health Records -IT Staff	Address Gaps using Toolkits for Awareness, Knowledge, Training, Skills Build Knowledge Repository			Survey & Monitor Staff Development, Satisfaction & Address Gaps
Train, Develop Skills & Knowledge	Bundle Driven Training Platform Define Skills Profile per Role Design Training Modules per Role	Assess readiness Gaps	Provide Training Platforms (classroom, virtual etc) Provide Skills Development Services per Role Deliver Training Modules per Role Grow Knowledge Repository	Assess readiness Gaps	
Support Users	Local Facility Support				
	MOH Region/Help Desk				
	MOH National/Help Desk/Change Resources, Templates & Toolkits				
	Vendor & Partners				
Measure Effectiveness	Conduct Baseline on Change, Knowledge & Attitudes	Assess Gaps re Staff Attitudes vs vision	Evaluate Peer Networks & Communications Evaluate Change Methods, Toolkits, Templates Evaluate Training & Skills Development	Assess Staff Satisfaction & Progress	Org Development Adoption & Usage Rates Assess Skills KPIs

MOH eHealth Strategy Communication Plan (Tailor to Segment)

	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Year 2+
Communicate	Who, When, What, How & Feedback				
Public (Communicate to General Public)	Soft Launch Orientation eHealth Benefits Patient Impact Changes	-Hard Launch New Facility & e-Services (Tactical campaign) Strategy Benefits	Public and Patient Advocate Focus Groups for Awareness & Needs -Survey Public subsets	Hard Launch using multi channels Public e-Services (portal etc) Facility Events	Stagger Soft and Hard Launches of new public services & facility openings & Progress & results
MOH (communicate across MOH HQ, Regions & Facilities & Staff)	Soft Launch using 2 channels (MOH+e) Strategy Orientation New Gov Committees Roadmap Benefits	Hard Launch – multi channel Gov Meetings Roadmap, New facility Resource Pool	MOH Focus Groups for Awareness Progress Reporting Anticipated Benefits Assess and add Channels	Hard Launch Strategy Impact Roadmap Rollout Plan Resource Pool	Stagger Soft and Hard Launches of new services & facility openings & Roadmap Progress & results
Health Region (communicate to all facilities & staff in Region)	Orientation Strategy Impact Governance Region Impact Joint Planning	Hard Launch – multi channel Facility Opening Roadmap impact Rollout Plan Resource Pool	Region Focus Groups for Awareness Progress Reporting Anticipated Benefits Assess and add Channels	Hard Launch – multi channel Local Facilities Activities E-Services	Stagger Soft and Hard Launches of new services & facility openings & Region Progress & results
Facility (communicate to facility staff & community it serves)	Soft Launch using 2 channels (MOH+e) Orientation HIS/PHC Plans Earliest Adopter Rollout Schedule	Hard Launch multi channel announce New Facility -Champion & Sponsor & Peer to Peer Roles -Open Schedule	Facility Focus Groups for Awareness Progress Reporting Milestones Anticipated Benefits Add Channels	Hard Launch for New Facility opening -Champion & Sponsor -Events	Stagger Soft and Hard Launches of new services & facility openings & Facility Progress & results
Providers (communicate within Provider networks across MOH)	Soft Launch using 2 channels (MOH+e) Orientation and GP& Medical Specialties target messages	Local Focus Groups Survey Attitudes & Knowledge & Needs	Hard Launch using multi channels & Prof Peers, Forums Education re New Skills & Incentives	Hard Launch -multi channel New Facilities Provider Portal Peer to Peer Networks	Stagger Soft and Hard Launches of new services for providers (portal etc), Progress & results

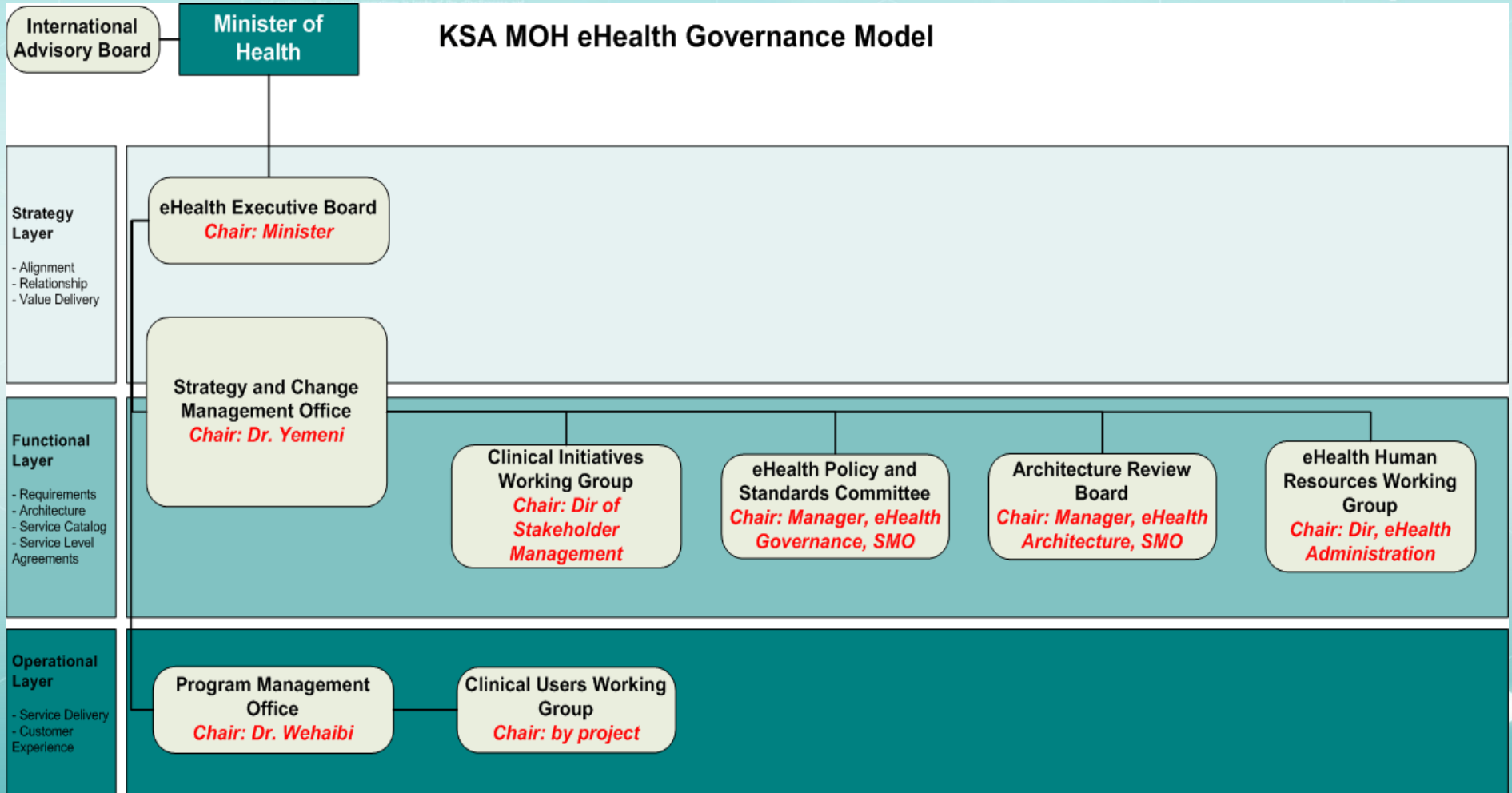


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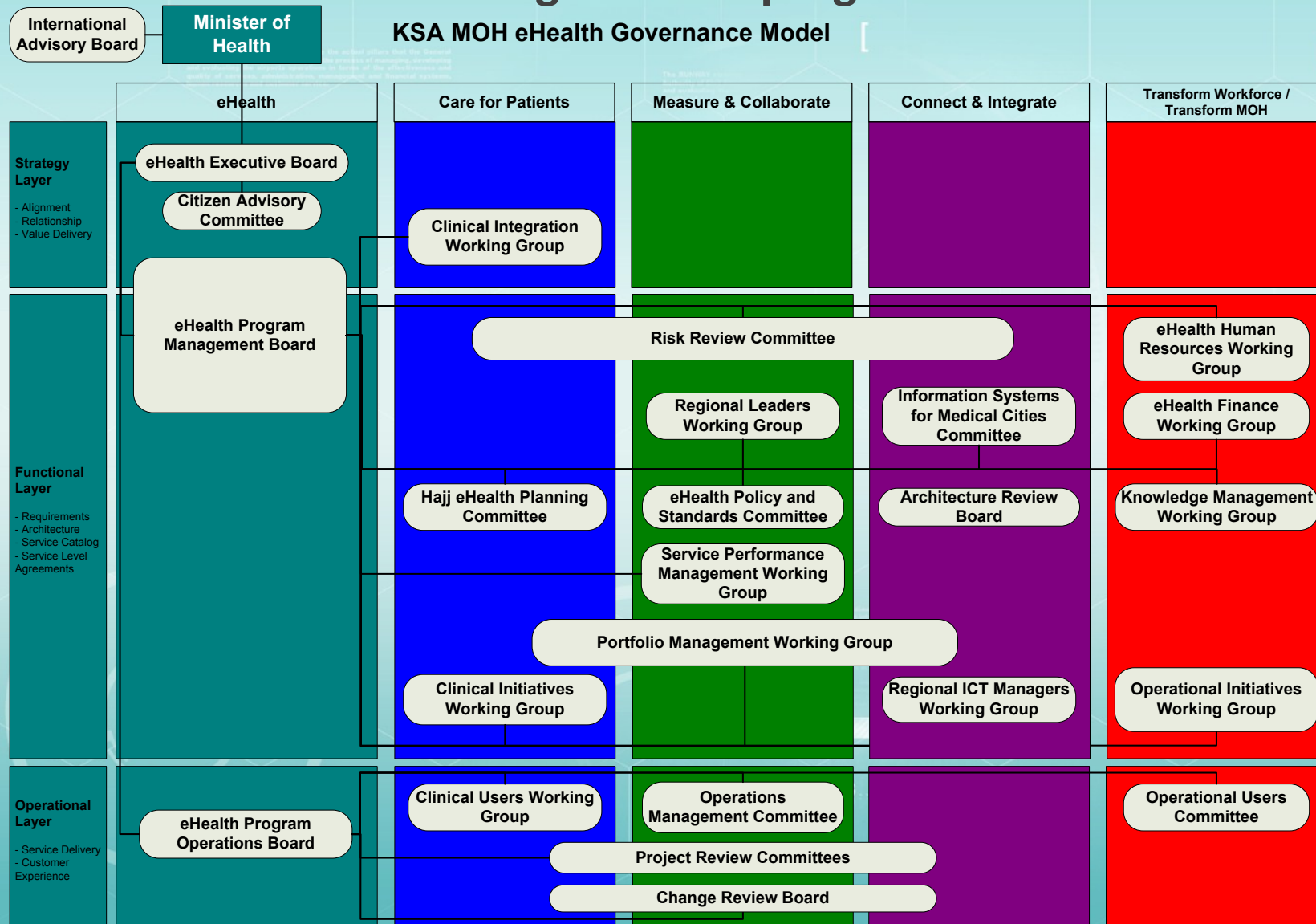


Governance Model - Initial

The 2020-27 strategy envisaged by the cabinet offers that the General Authority of eHealth will adapt to the process of planning, developing



Over time the governance model will evolve to what is expected to manage the full program.



Some Lessons Learned

Importance of Adopting a National Strategic Plan for eHealth

- Feedback from strategy reviewers.
- Benchmark Studies of Other Countries.
- Alignment with the National Healthcare Plan.
- Establishment of Strategy and Change Management Office (SCMO).

Patience in Implementation Projects

- Commitment to the Implementation of Projects in Aligned to the Strategic Plan.
- Starting with Projects having Quick Results (Short-Term Implementation with Significant Impact).

Implementation of Major National Projects in Several Stages While Engaging Stakeholders to Ensure Successful Implementation and Acceptance

- Implementation on a Broad Scope but with Limited Number of Systems.

Some Lessons Learned

Adoption of National-Level Strategies for Change Management and Allocating Adequate Financial Support

- Do not Underestimate the Extent of Change Resistance from System Users.
- Many Studies show that the Biggest Reasons for Failure are People-Related and not Technology-Related.

Simplifying Implementations by reducing the number of Health Information Systems thereby reducing Interdependence and Integration

Usually Health System Vendors Paint an Unrealistic Picture over Simplifying the Challenges

Identification and Engagement of the Recipients of the Systems (Business Owners) is an essential factor of success

- The Formation of Project Steering Committees
- The Active Participation of the main stakeholders at the beginning of determining the Project Requirements

The RUMSEY strategy corresponds to the action pillars that the General Authority of Civil Aviation will adopt in the process of managing, developing and evaluating the activity operations in terms of the effectiveness and quality of services, administration, management and financial systems, human resources and customer service.

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Thank You ...

It is a pleasure to have you with us in this technological dimension, where all the human operations are supported by advanced infrastructure, technology and comprehensive control and security systems in the field of civil aviation.

The RUMSEY strategy reflects the growing technological culture of the General Authority of Civil Aviation, which aims at providing high-quality and other services of the highest quality to our customers through the integration of a customer-centric service and the development of human resources and technology in aviation.

The RUMSEY strategy is the aligned and coordinated internal processes and operations, which will be achieved through developing and managing the human infrastructure of aviation in order to ensure the highest state-of-the-art service that we provide to our customers.

75%



LOADING...

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