Smart Health for Smart Living:

Towards
Better Healthcare for all Thai Citizens

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Outline

- **Goal**

- **Challenges**

- **Solution Roadmap**

- **Key Success Factors**

- **Conclusion**

Goal: Healthy Thailand

Good Health for All
With Better Services
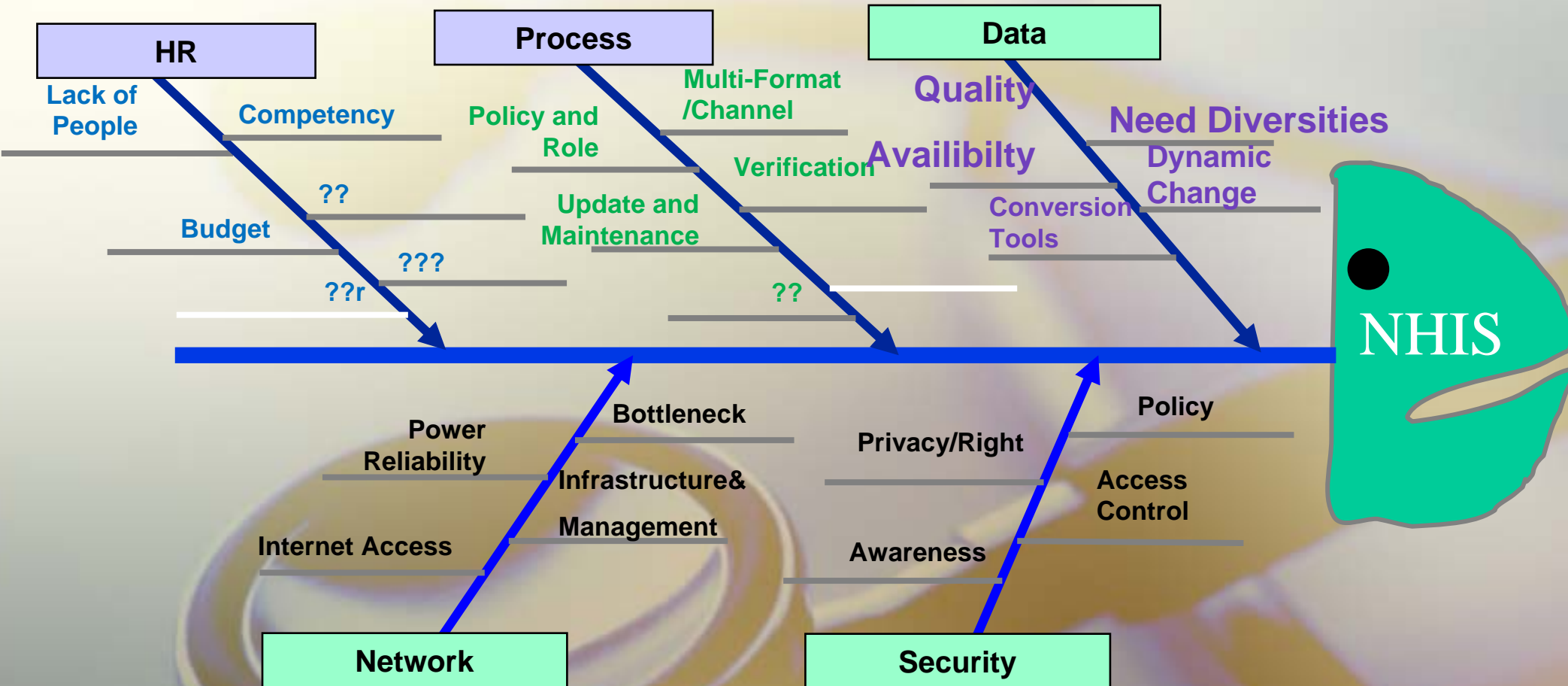## &
More Preventive

Challenges

- Budget Planning
- Disease management
- Health Care Service Divide
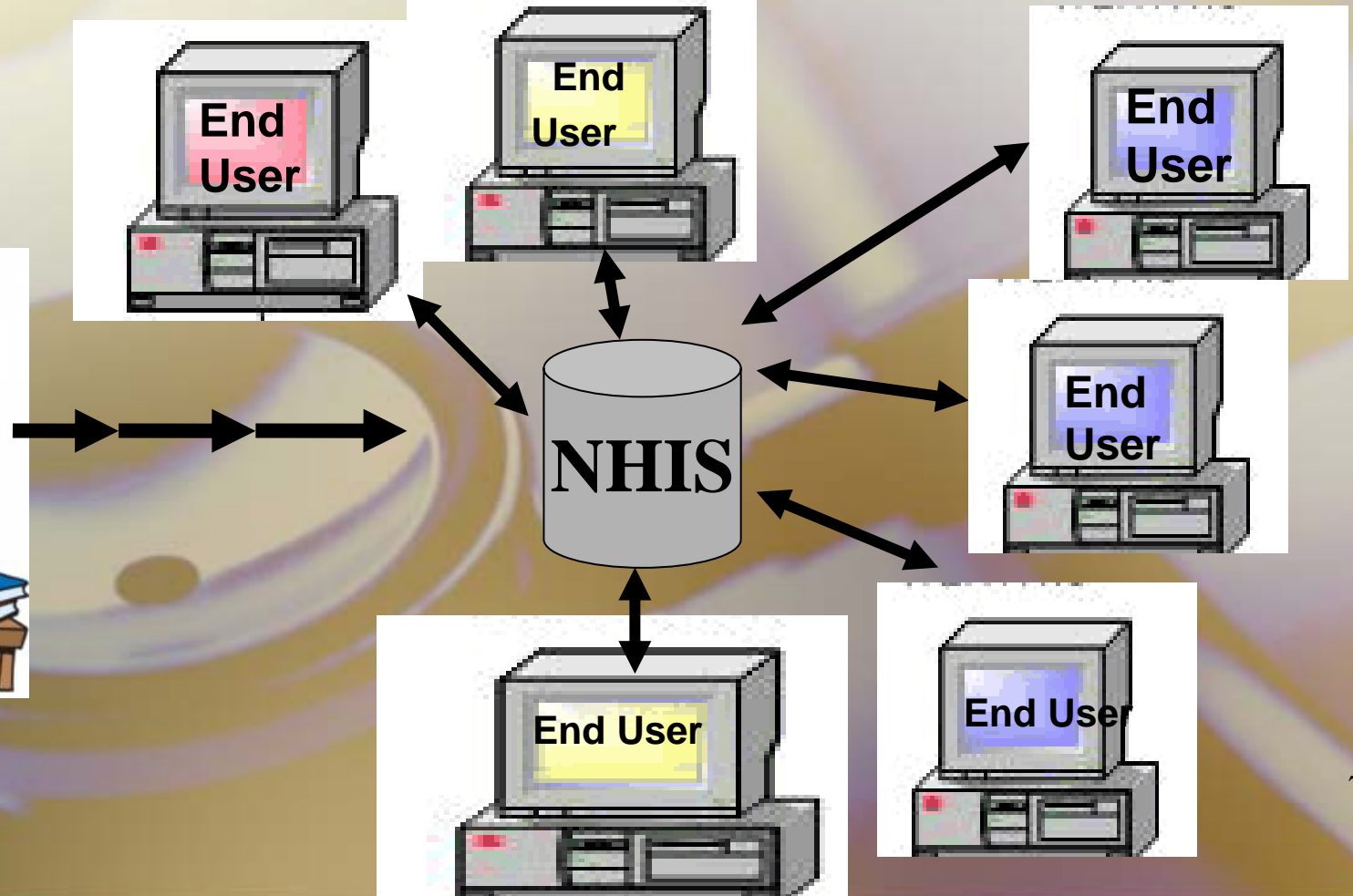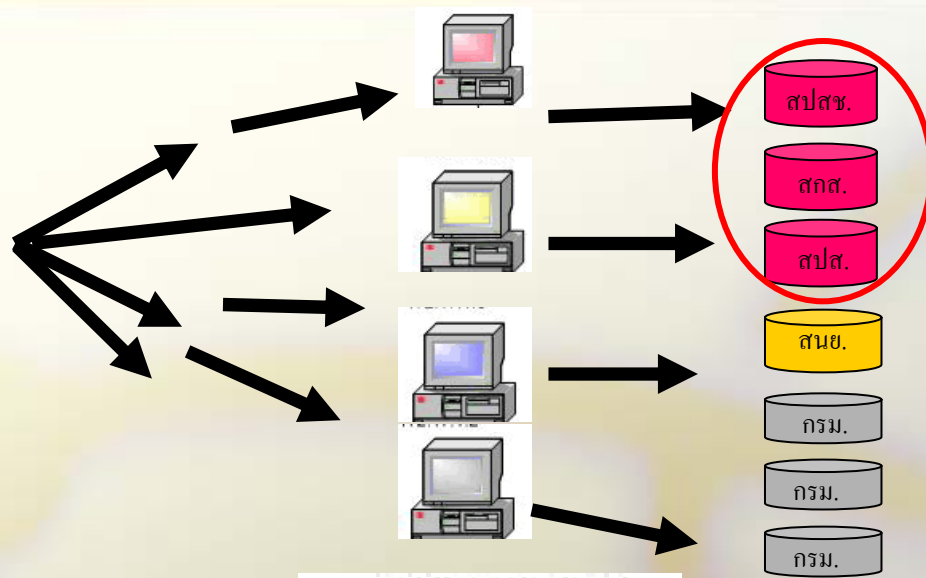- Senior Citizen Society with smaller families

Solution Roadmap

- **First and Important Step**
  - National Health Information System with High Quality Data
- **Planning Step for the near Future**
  - Smart Health Care Services with innovation process and technologies
  - Smart Home for I-Living with Integrated Technologies

Before: NHIS

HR
- Lack of People
- Competency
- ??
- Budget
- ???
- ??r

Process
- Policy and Role
- Update and Maintenance
- Multi-Format /Channel
- Verification
- ??

Data
- Quality
- Availibilty
- Need Diversities
- Dynamic Change
- Conversion Tools

Network
- Power Reliability
- Bottleneck
- Infrastructure& Management
- Internet Access

Security
- Privacy/Right
- Policy
- Access Control
- Awareness

NHIS

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กรม.

End User

End User

End User

End User

NHIS

End User

End User

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First Step

NECTEC & Teams

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Data Schema

Meta Data Broker

Data Flow And Quality Control Process

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NHIS Minimum Data Core Set & Standard By 2009

Data Security

Network/ Infrastructure model

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Standardization

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Minimum Data CoreSet

Standard

Metadata Broker

Data Quality Control Process

Data Security
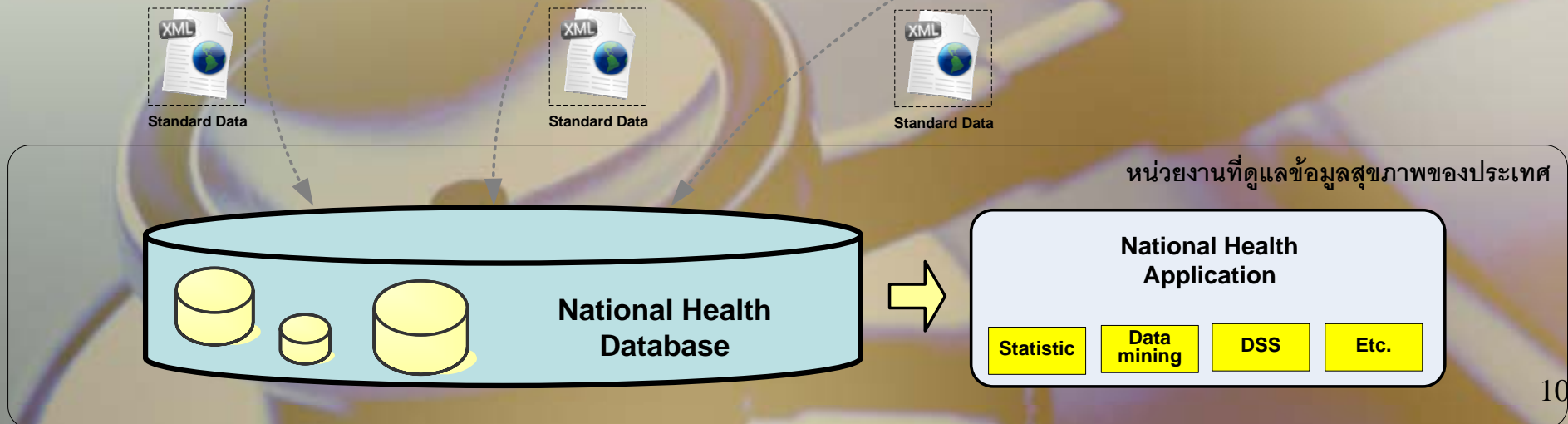
Networking Performance
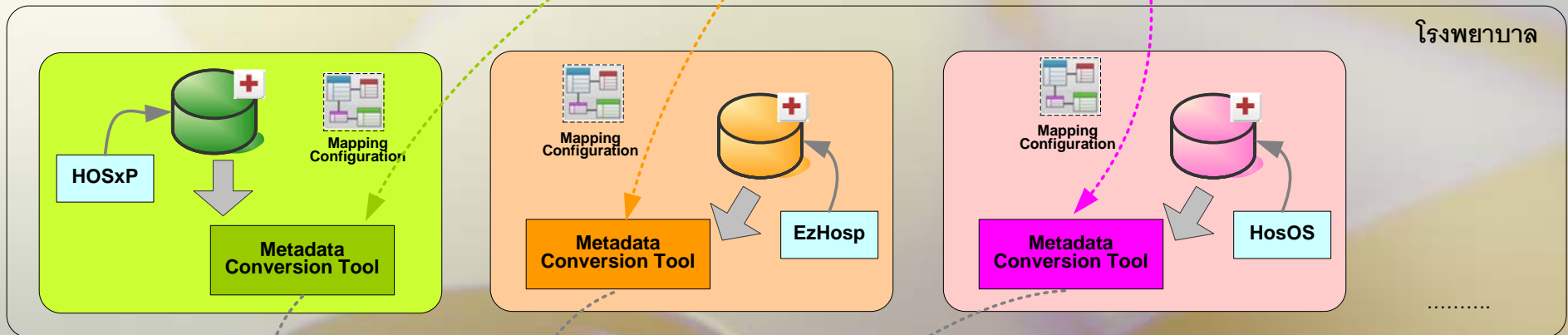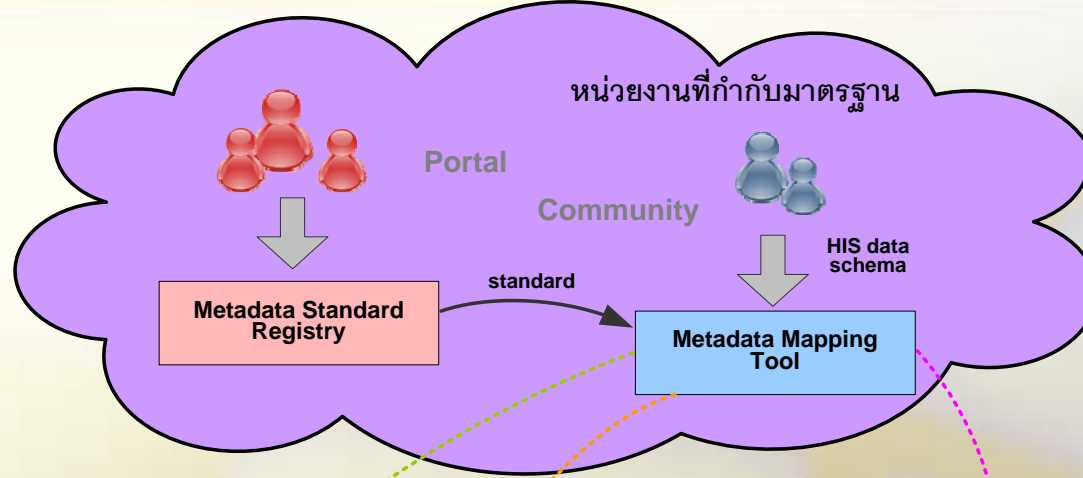
Standard Process for Health Data Managment

National Health Information System

Data Ware House

End-users

Data Collections

standard metadata

Data Mart
Data Mart
Data Mart
Data Mart
Data Mart

Data Mining Engine

Payment System

Diagnosis

Prevention

Treatment

Policy Maker

Medical People

Patient
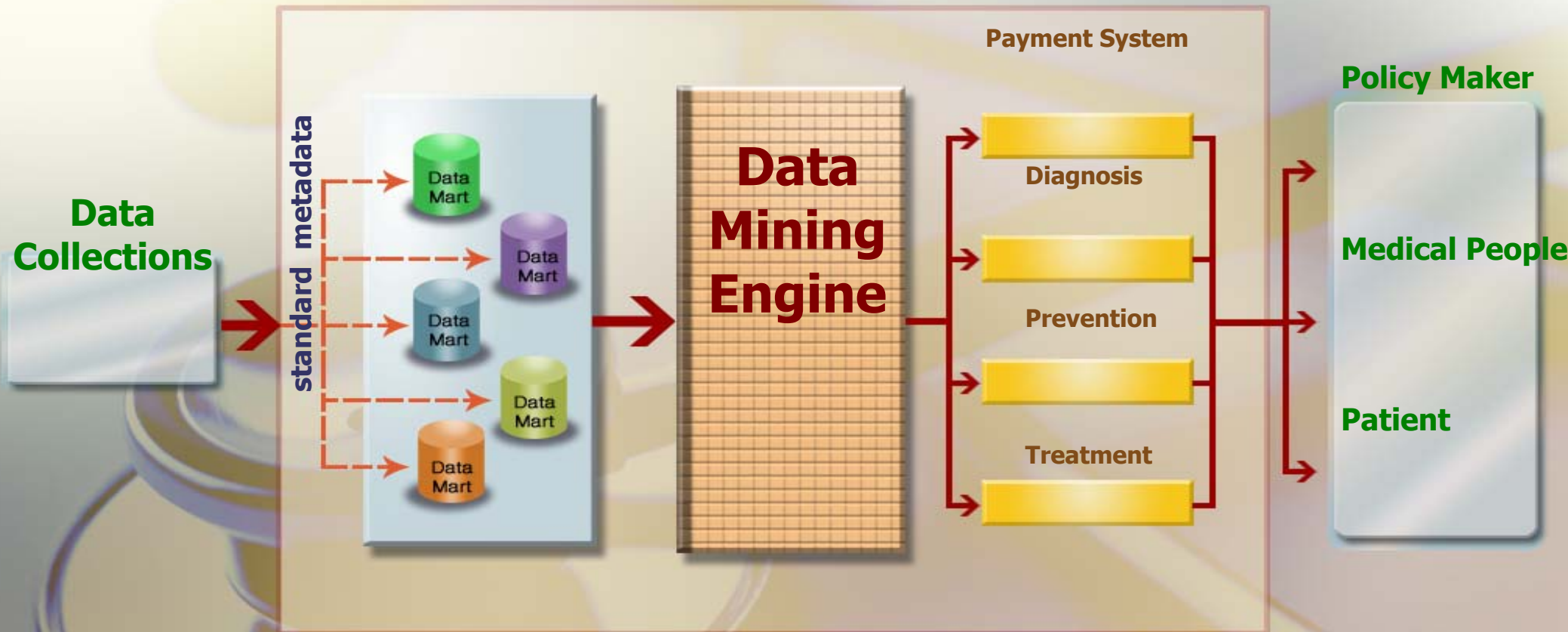
Planning Step : Smart Health Smart Living

Smart Health's Roadmap

Smart Health

- Intelligent System for Emergency Call Center
- Expert System for Risk Management
- National Health Information System (NHIS)
- Wearable Health Devices
- Technology – Assist for Smart Healthcare System
- Smart Home
- Preventive Care Services
- Tele – Health Care Services

Healthy Thailand

Smart Health - Smart Living

2561	**High Quality Data & Information (NHIS)**	**Smart Home for i-Living**	**Smart Health Care Services**
	Chance Discovery & Knowledge Discovery	Intelligent Portable Devices / Wearable Health Devices	Expert System Preventive Care Sevices Early Cancer Detection
2556	Intelligent Medical Record Processing	Diagnosis and Reminder System	Tele Health Care Services
2555	Speech Processing Text Processing	Emergency Call Center	
2554	Image Processing Knowledge Representation	Body Area Network	Risk Screening
2553	Data Mining Meta Data Broker and tools	Microalbuminuria Sensor	
2552	Data Standardization & Data Quality Control Process	Cholesterol / Triglyceride Sensor	
2551	**Data / Knowledge / Software Engineering**	**Integrated Technologies / Devices**	**Applications / Services**

Infrastructure

Key Success Factors

- Collaboration with Right Stakeholders

- Communication: Requirement, Awareness and Change management

- Continuous Improvement with Right Technologies

Conclusion

- **Good Data → Good Policy, Good Plan and Good Decision Making**

- **More Knowledge → More Preventive**

- **Good Health → Creative Economy with Smart Living**