



# Strategic Innovation: Converging Themes

in

# Auto ID Sensor Networks

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# Innovation Strategy

Systems-based problems  
(not "tool" driven)

*A hammer only looks for nails!*



# Auto-ID Sensor Networks

ASN is a broad spectrum ICT platform that has the depth and breadth to enhance applications where auto id and sensing contributes to decision support systems for real-world problems.

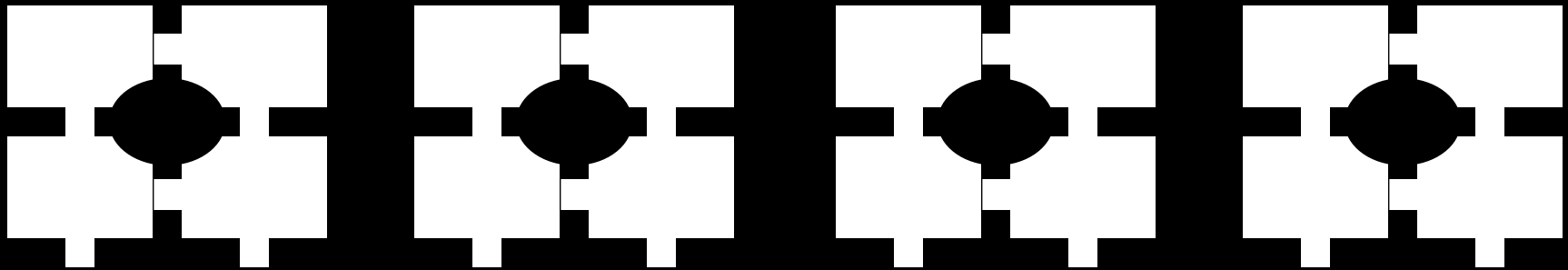


# Auto-ID Sensor Networks

In this strategy the objective is not to use any one specific tool but to improve the decision making process in systems where confluence of multiple technologies (auto id using various types of RF and remote sensing) offers value and may help create innovative products, services, applications.



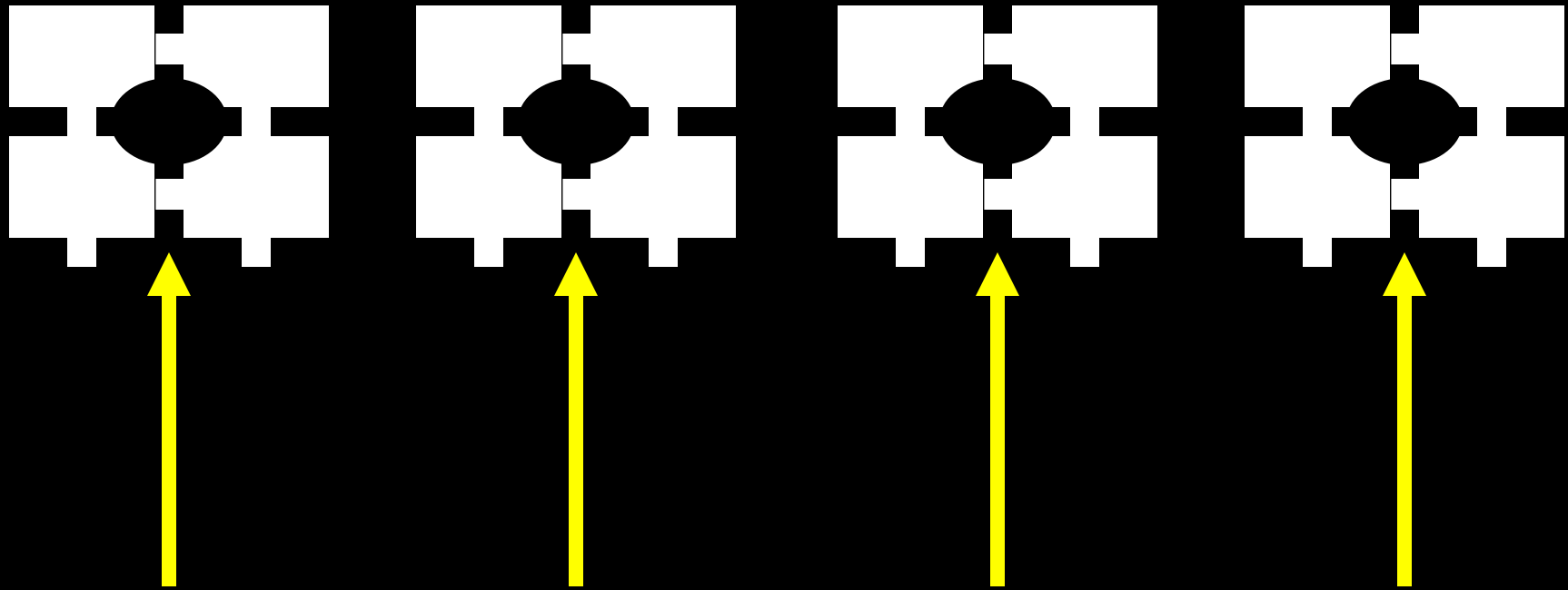
# ASIN



*A Systems Approach*



# Auto-ID Sensor Networks



Vertical Areas of Application



# Auto-ID Sensor Networks

Vertical Areas of Application

*Common Horizontal Functions*



# Auto-ID Sensor Networks

Manufacturing

**MANUFACTURING**





# Auto-ID Sensor Networks

Manufacturing

Energy

A large, stylized graphic of the word "ENERGY" in bold, black, sans-serif capital letters. The text is set against a background of four horizontal stripes in green, yellow, orange, and cyan. The letters are slightly offset from the stripes, creating a layered effect.

**ENERGY**

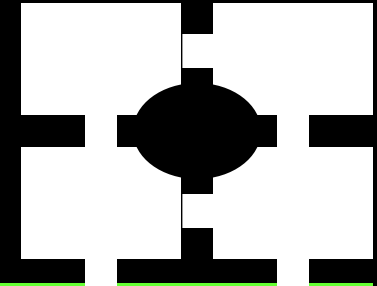


# Auto-ID Sensor Networks

Manufacturing

Energy

Security



**SECURITY**



# Auto-ID Sensor Networks

Manufacturing

Energy

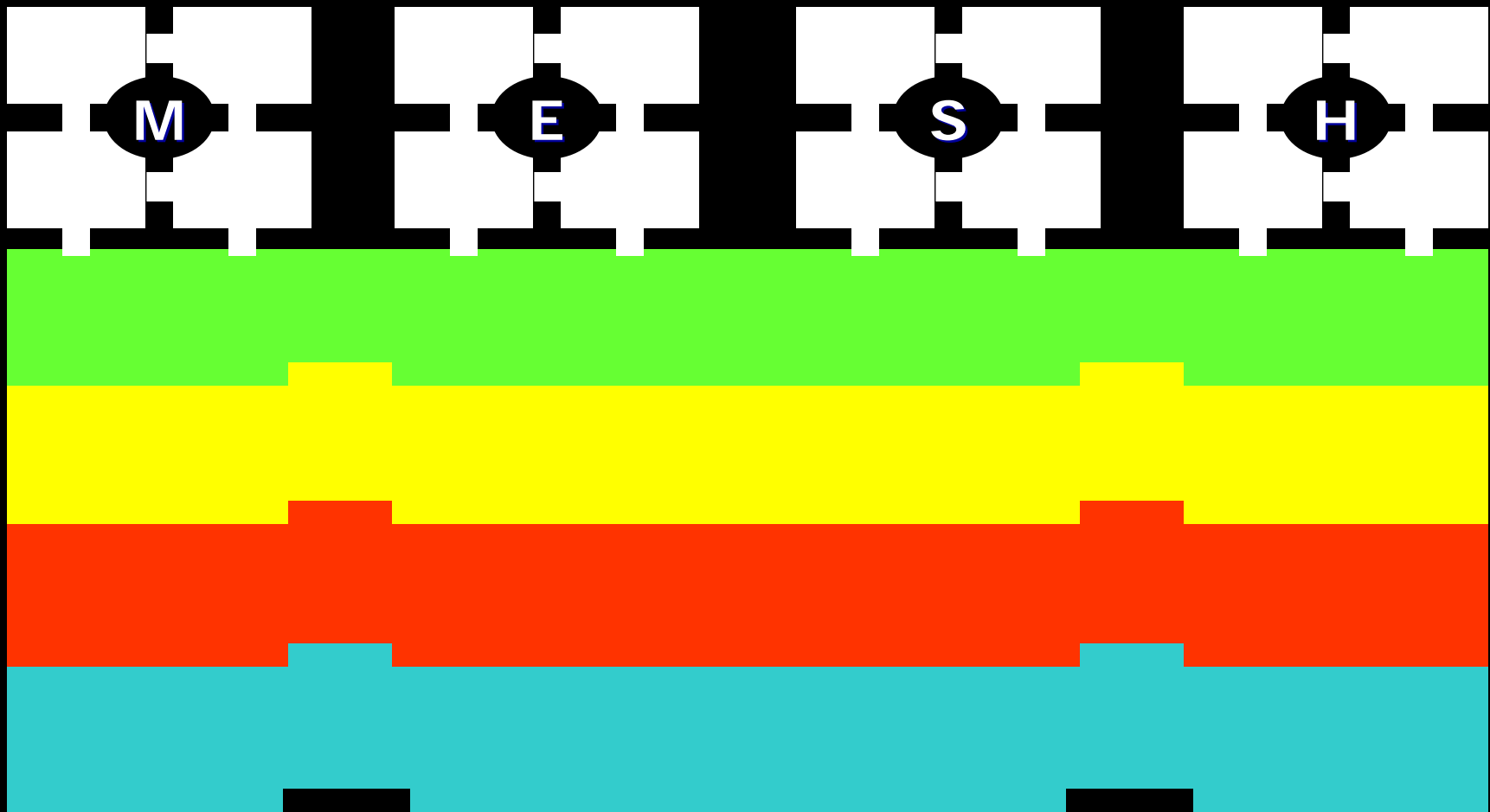
Security

Healthcare

**HEALTHCARE**

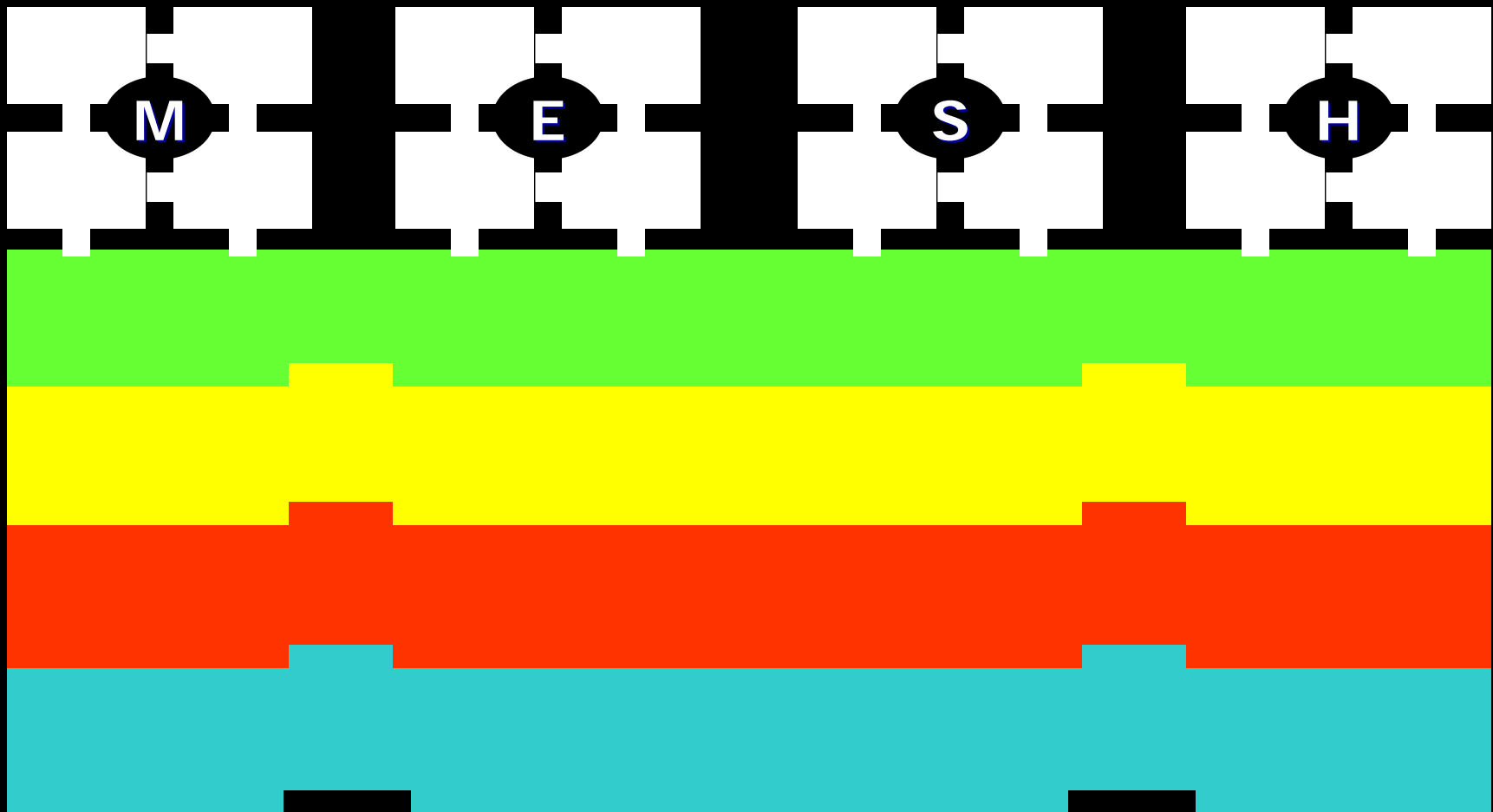


# Auto-ID Sensor Networks



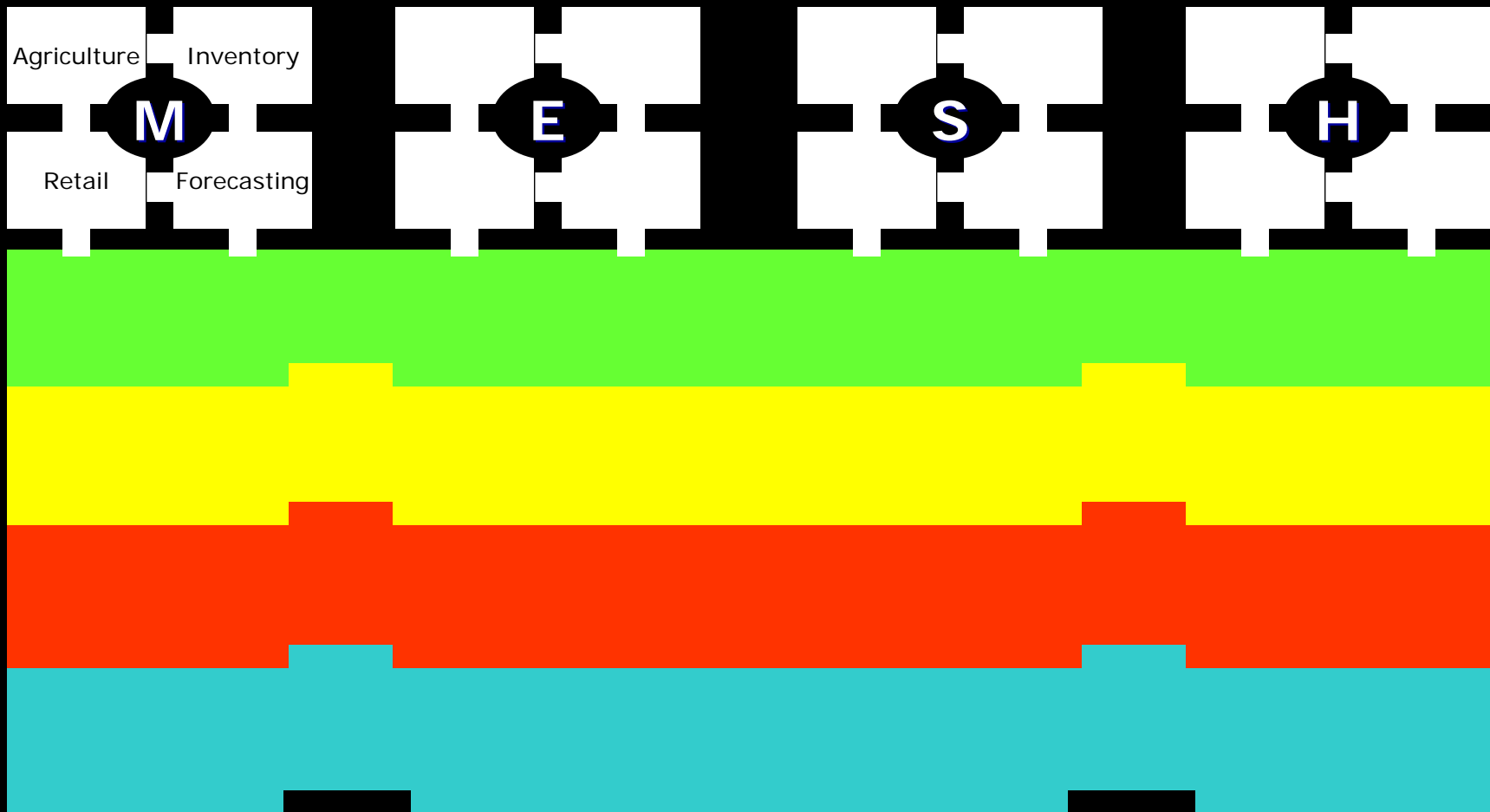


# Auto-ID and Sensors in Mesh Networks



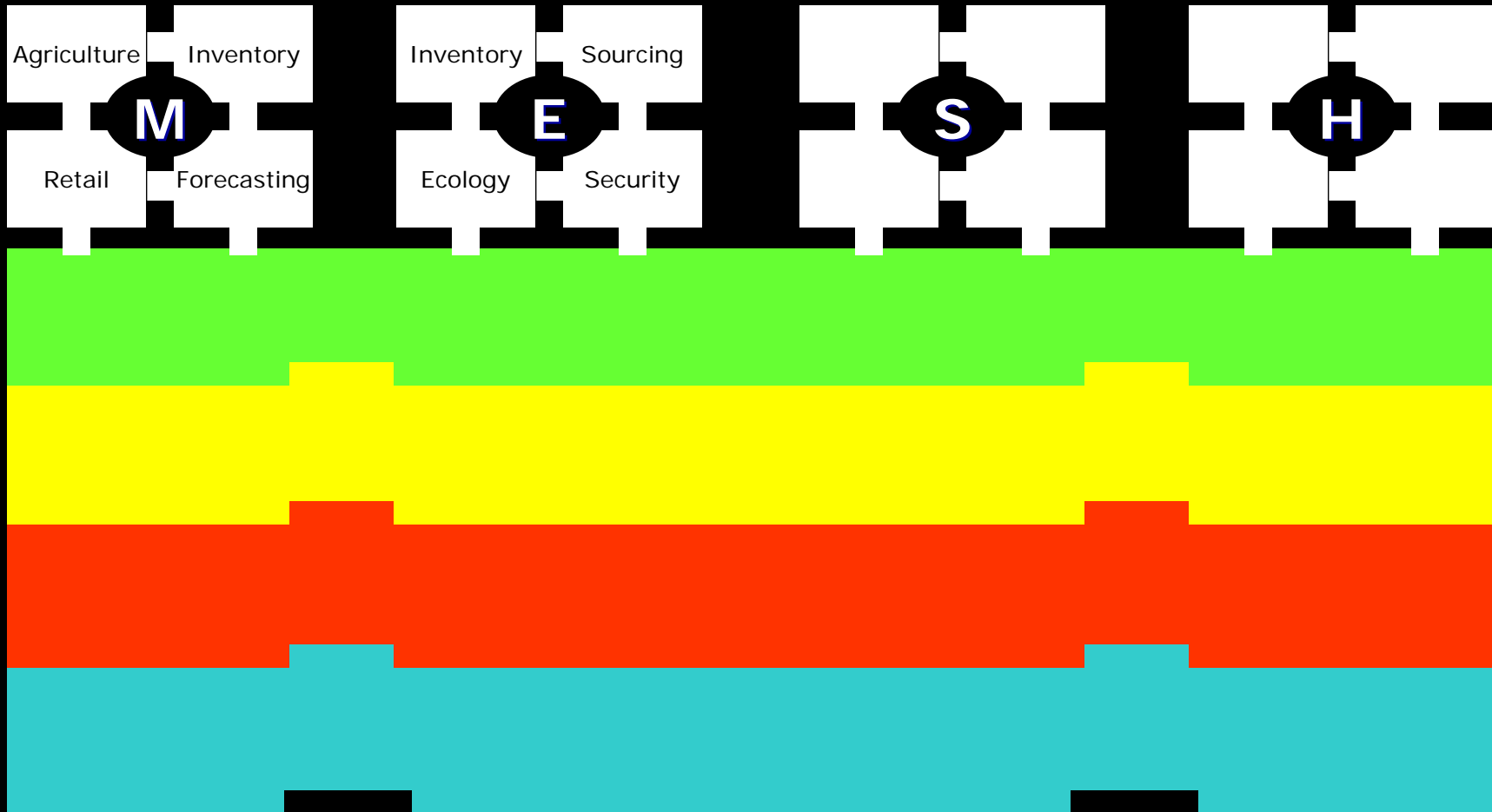


# Auto-ID Sensor Networks



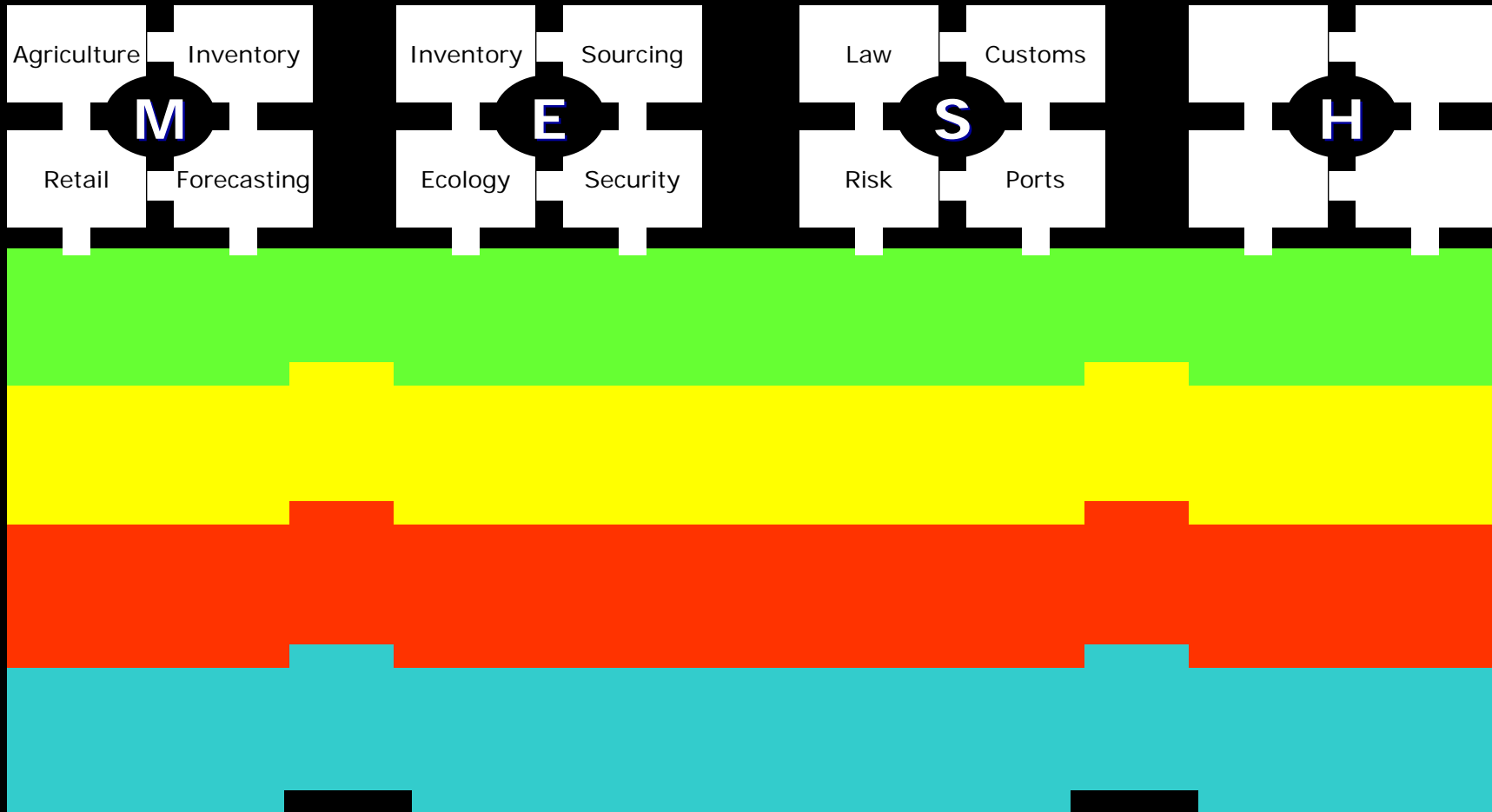


# Auto-ID Sensor Networks





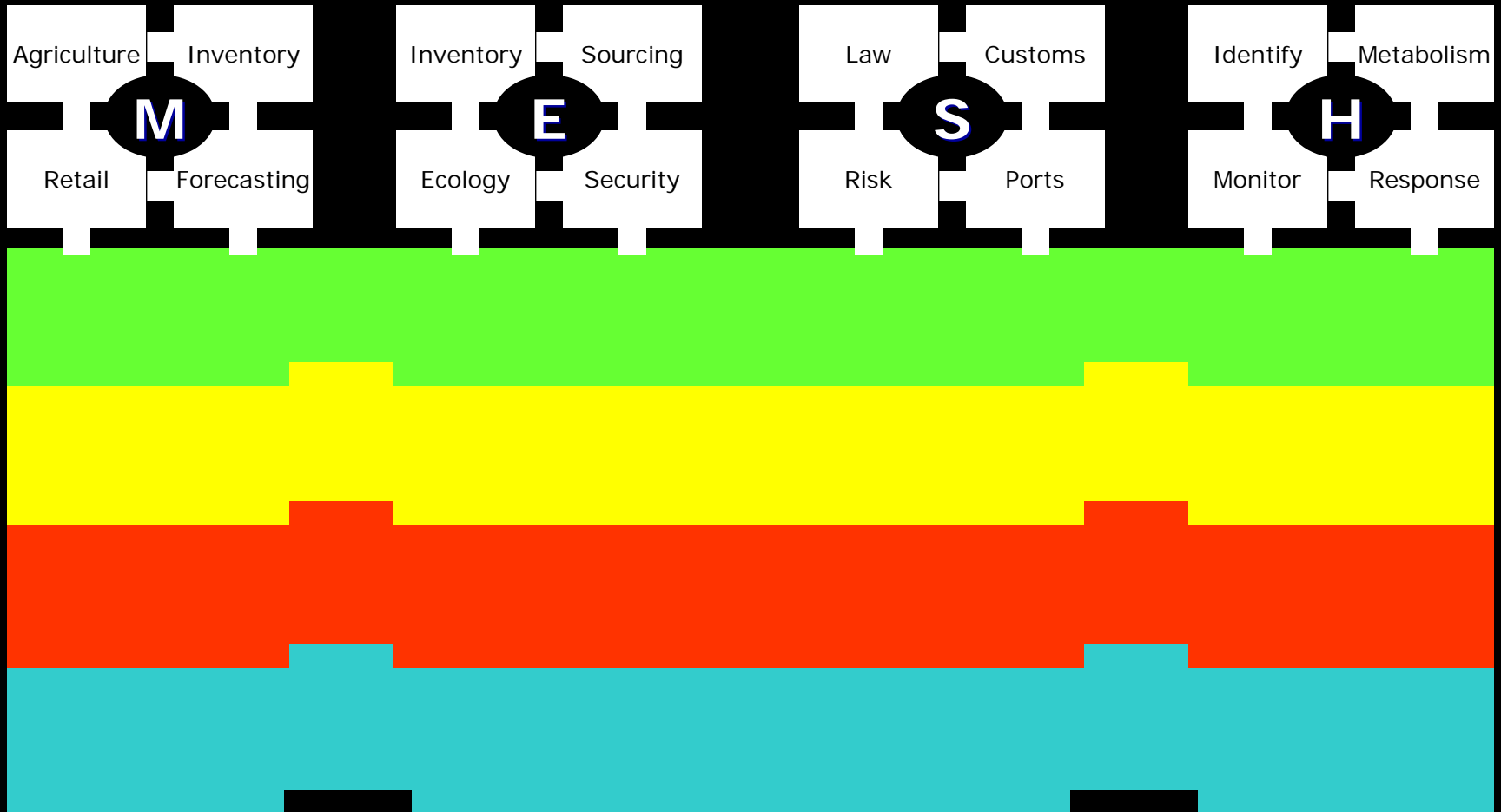
# Auto-ID Sensor Networks





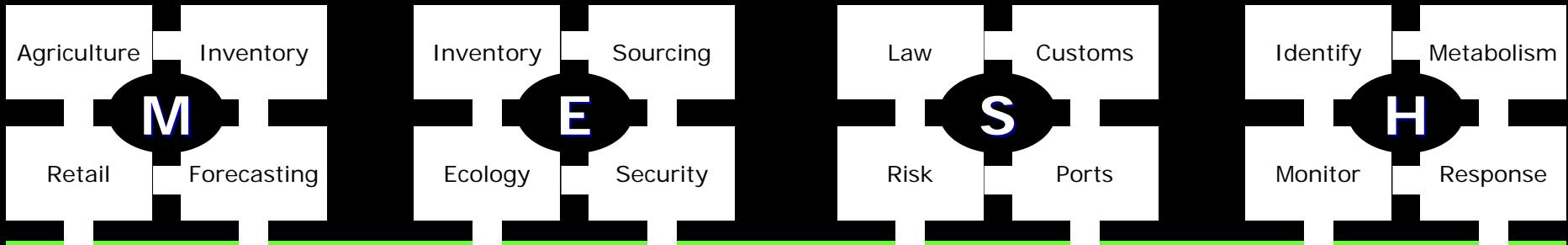


# Auto-ID Sensor Networks





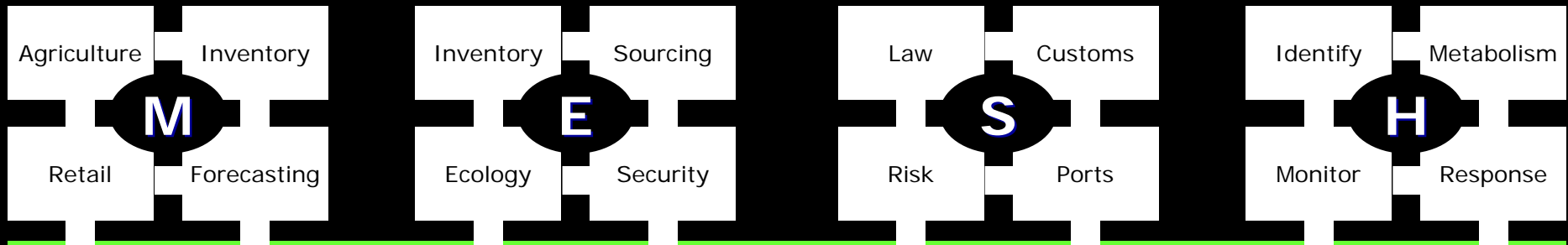
# Auto-ID Sensor Networks



Value Chain Network



# Auto-ID Sensor Networks

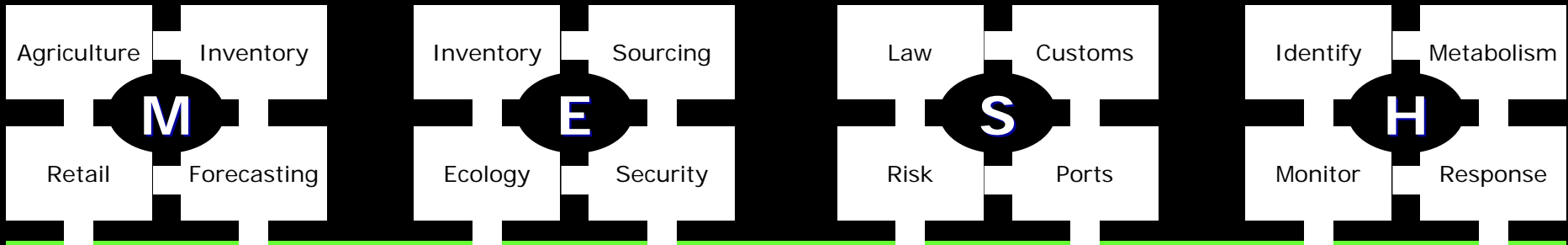


Value Chain Network

Supply Chain and Logistics Operations



# Auto-ID Sensor Networks



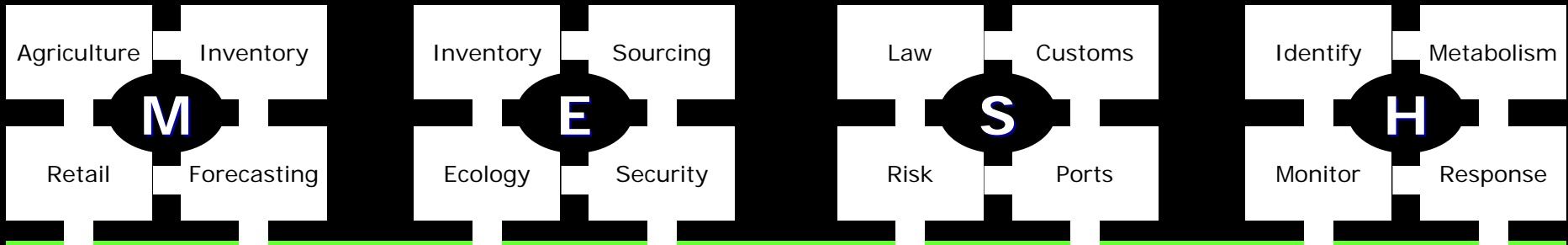
Value Chain Network

Supply Chain and Logistics Operations

Intelligent Decision Support



# Auto-ID Sensor Networks



Value Chain Network

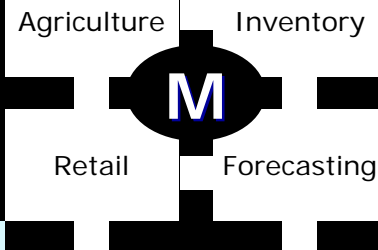
Supply Chain and Logistics Operations

Intelligent Decision Support

Enterprise Systems

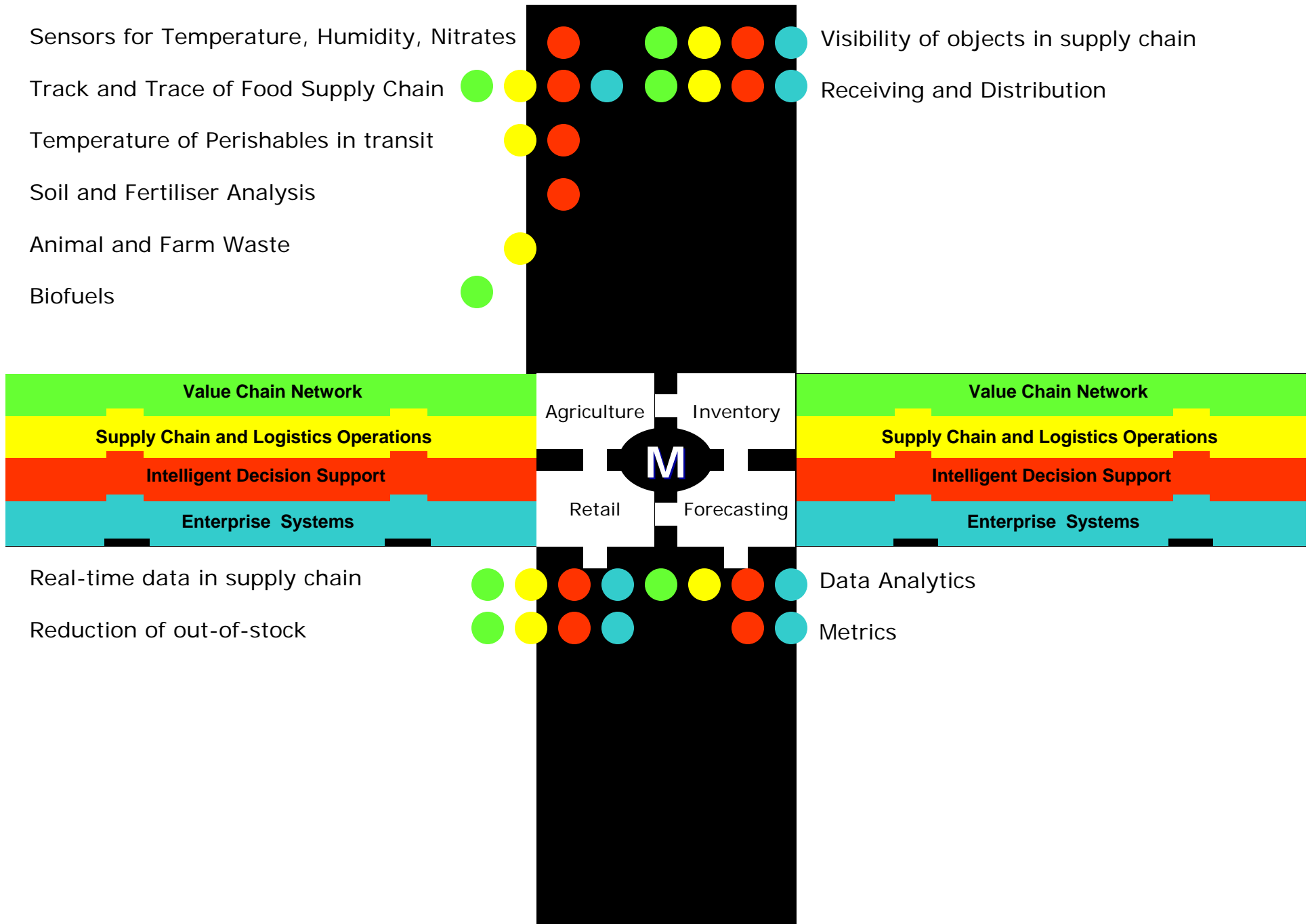
Sensors for Temperature, Humidity, Nitrates  
Track and Trace of Food Supply Chain  
Temperature of Perishables in transit  
Soil and Fertiliser Analysis  
Animal and Farm Waste  
Biofuels

Visibility of objects in supply chain  
Receiving and Distribution



Real-time data in supply chain  
Reduction of out-of-stock

Data Analytics  
Metrics



Optimizing inventory to demand

Biofuels: Biodiesel, Ethanol, Methane  
Retrobiosynthesis of Pentanol  
Metabolic Engineering

Inventory

Sourcing

E

Ecology

Security

Environmental Monitoring:

[1] Sensors: Water Quality, Leachate, Dumps

[2] Biosensors: microbial flora in water

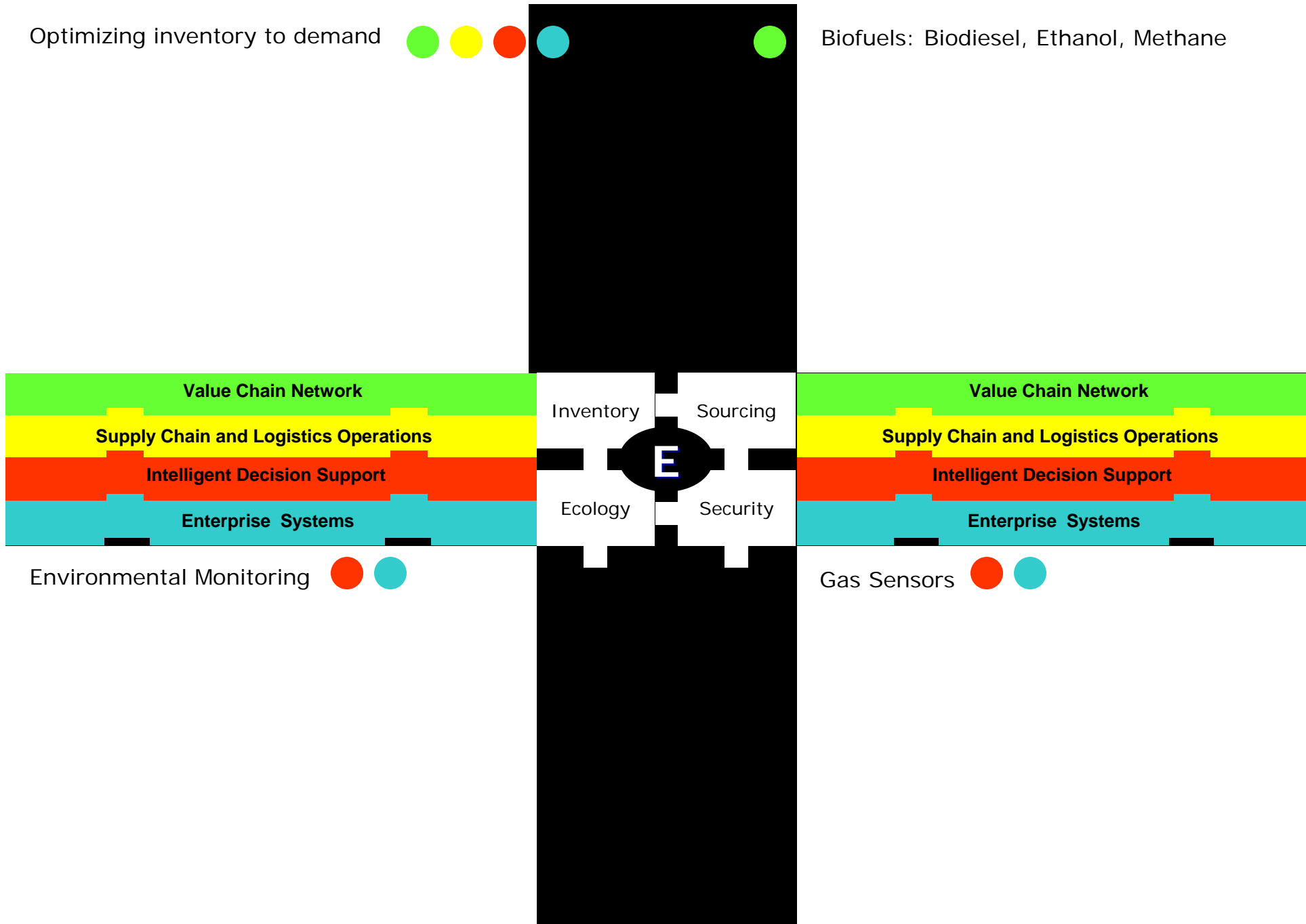
Gas Sensors



Optimizing inventory to demand



Biofuels: Biodiesel, Ethanol, Methane



Environmental Monitoring



Gas Sensors



Real-time law enforcement

Advance Shipping Notice

Bill of Loading Manifest

Inspection

Law

Customs

S

Risk

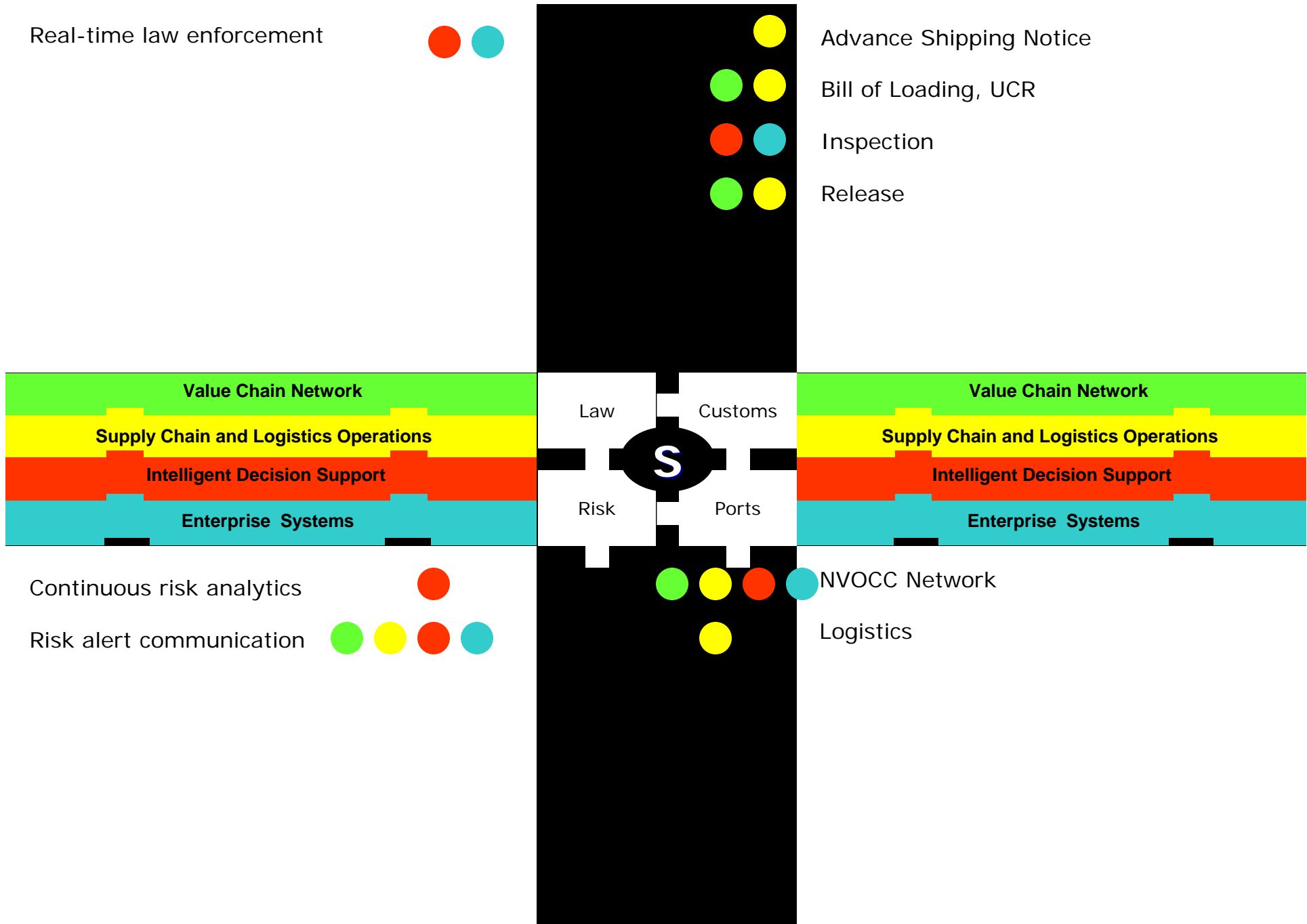
Ports

Continuous risk analytics

Risk alert communication

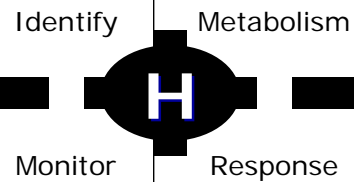
NVOCC Network

Logistics



Asset ID  
Patient ID  
Prescription ID  
Pharmaceutical ID

Real-time Remote Sensing  
Metabolomics Assessment

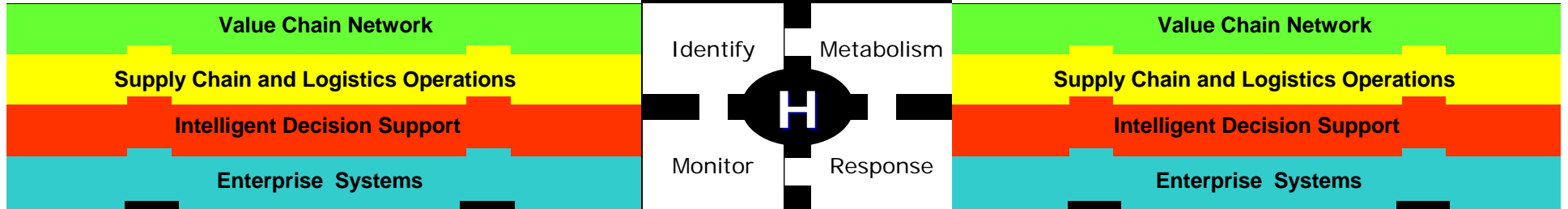


Patients  
Emergency  
Ambulatory Support

Nurse-Physician Network  
Hospital-Home Communication  
Real-time Sense and Respond System

- Asset ID      ● ● ● ●
- Patient ID    ● ● ● ●
- Prescription ID ● ● ● ●
- Pharmaceutical ID ● ● ● ●

- ● ● Real-time Remote Sensing
- ● Metabolomics Assessment

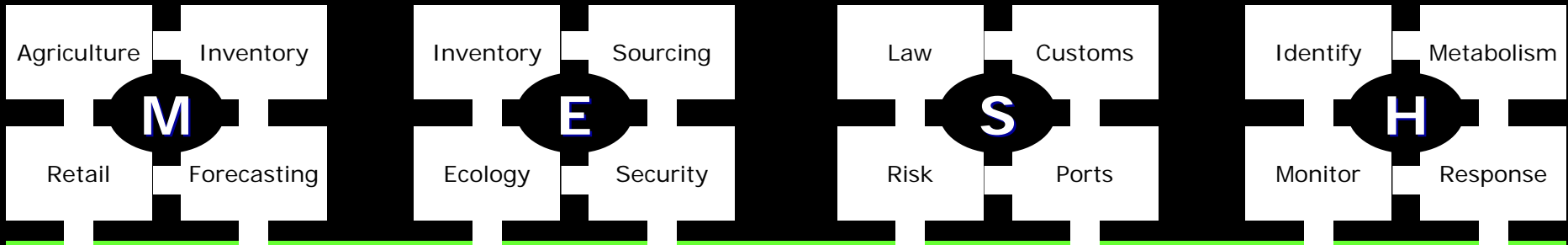


- Patients      ● ● ● ●
- Emergency    ● ● ● ●
- Ambulatory Support ● ● ● ●

- ● ● ● Nurse-Physician Network
- ● ● ● Hospital-Home Communication
- ● ● ● Real-time Sense and Respond System



# Auto-ID Sensor Networks



Value Chain Network

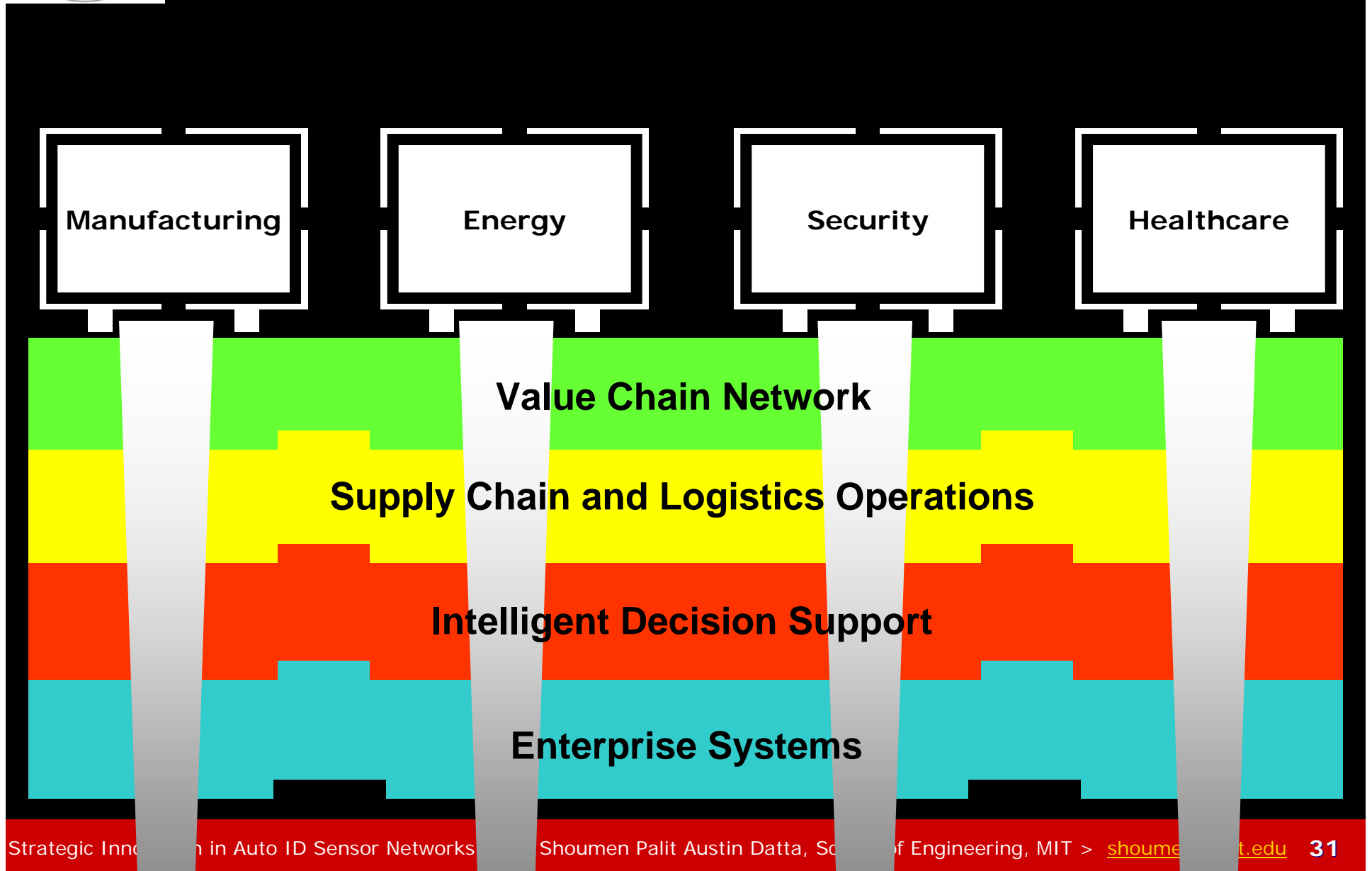
Supply Chain and Logistics Operations

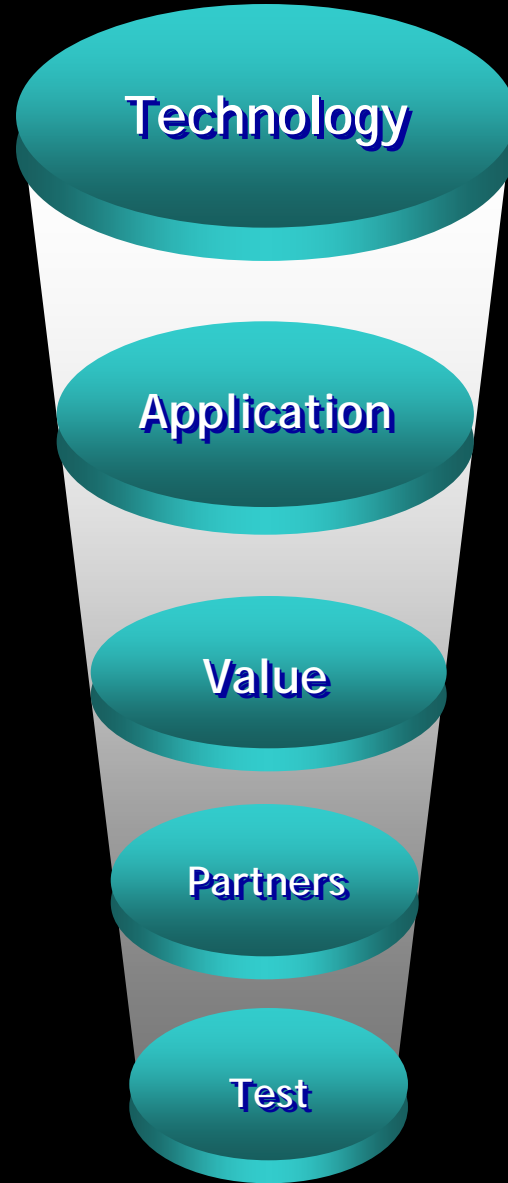
Intelligent Decision Support

Enterprise Systems



# Auto-ID Sensor Networks

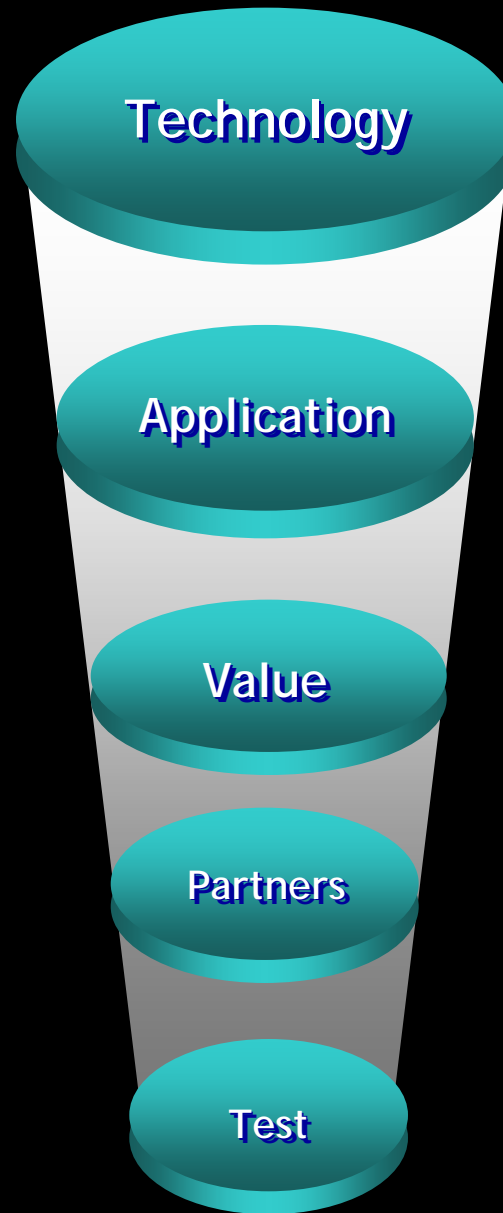








# Auto-ID Sensor Networks



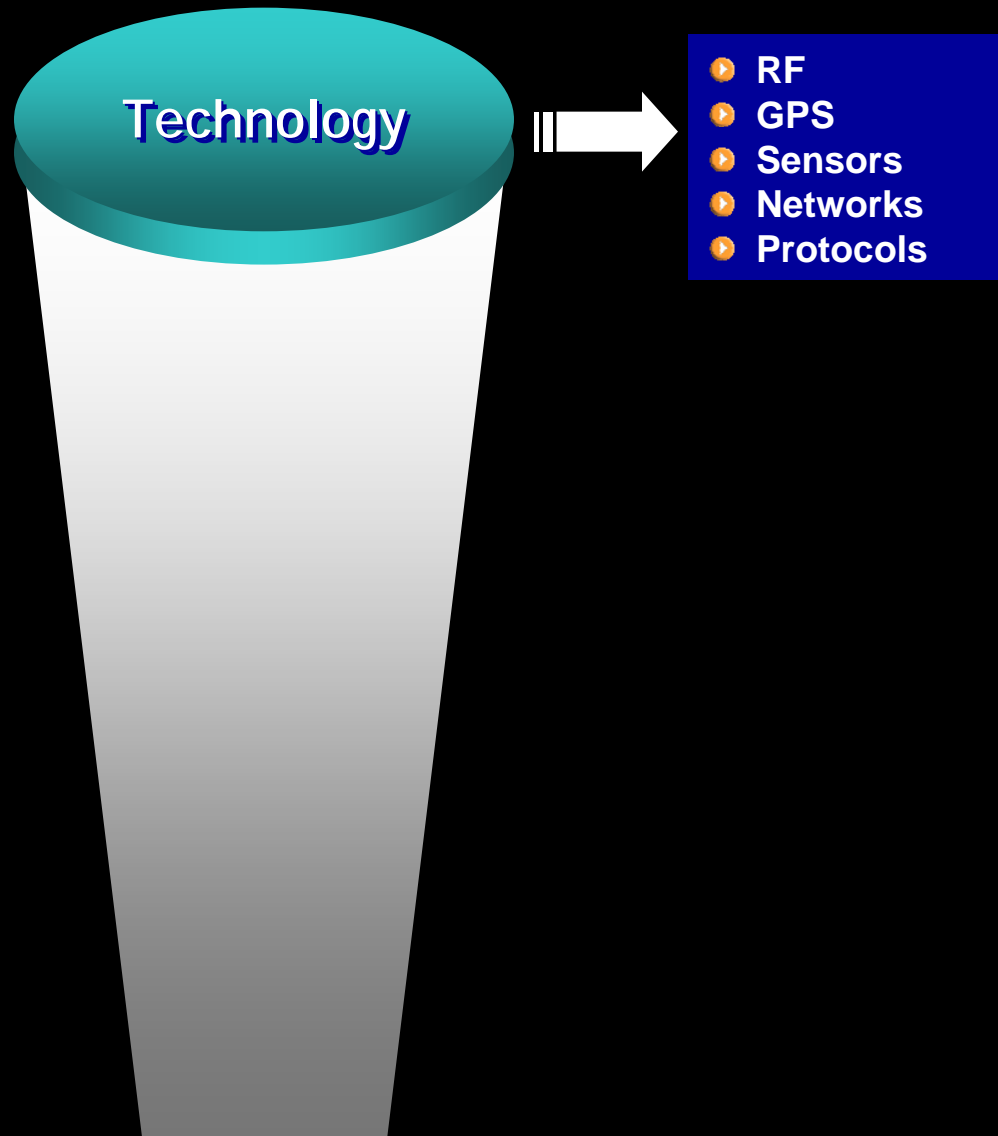


# Auto-ID Sensor Networks

Technology

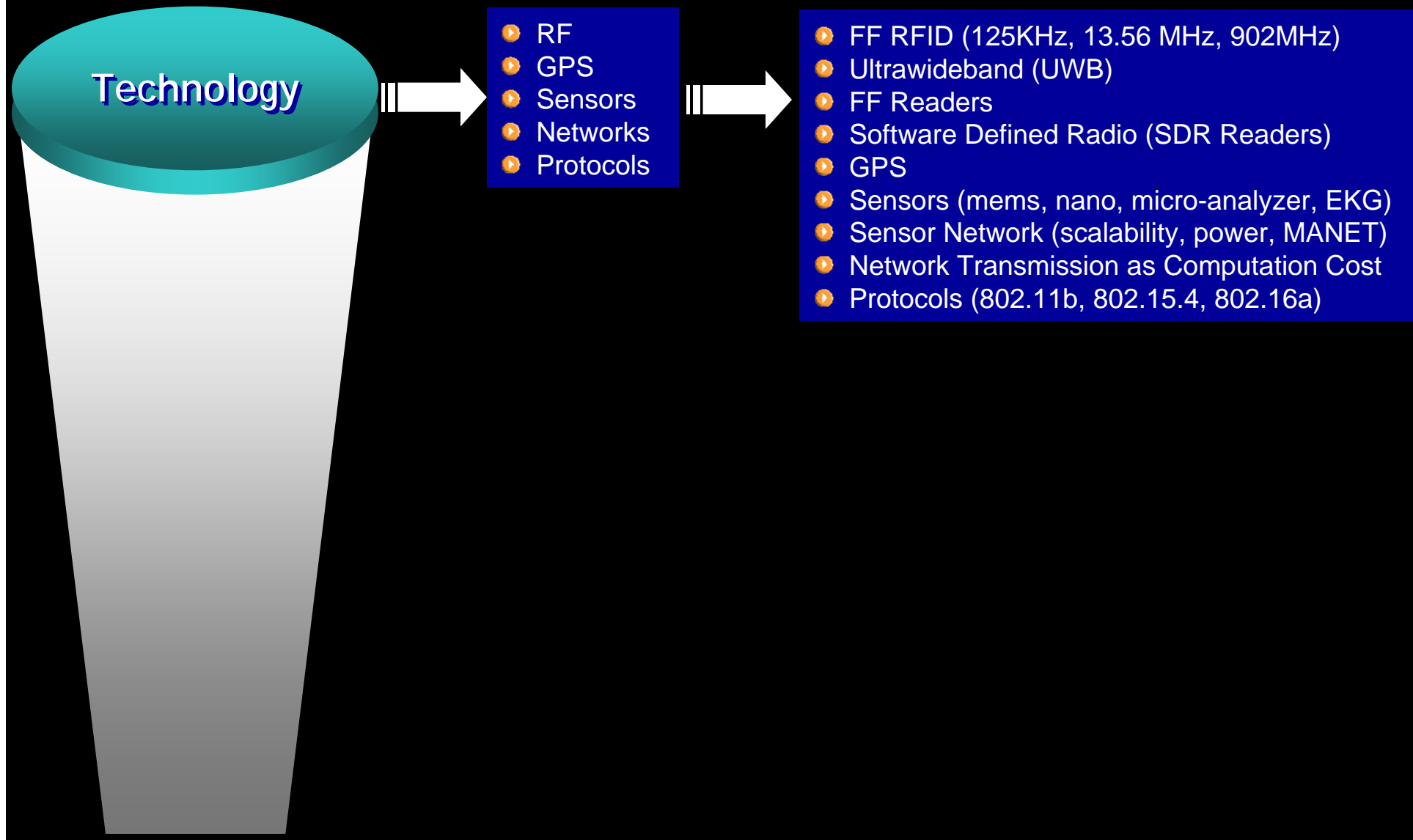


# Auto-ID Sensor Networks



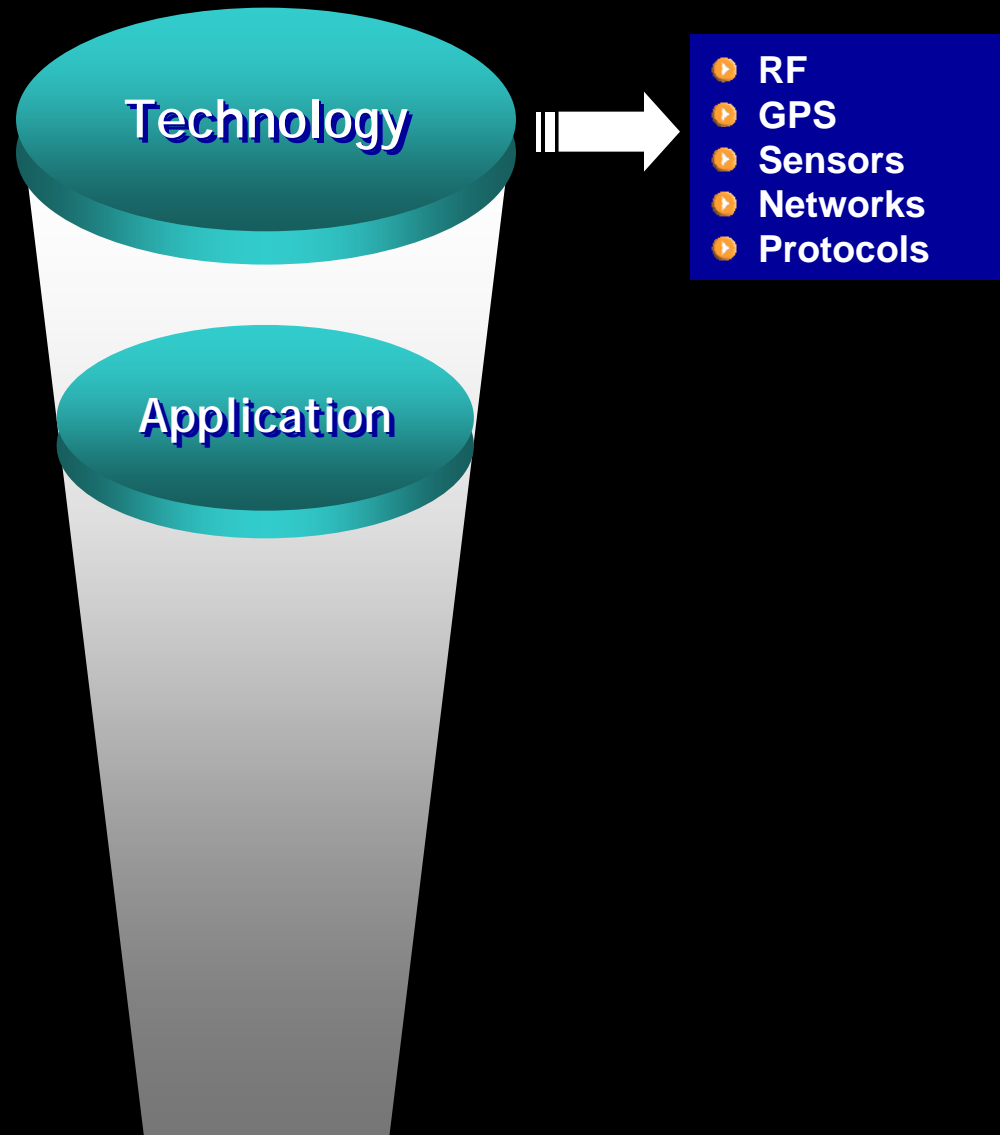


# Auto-ID and Sensors: Technologies



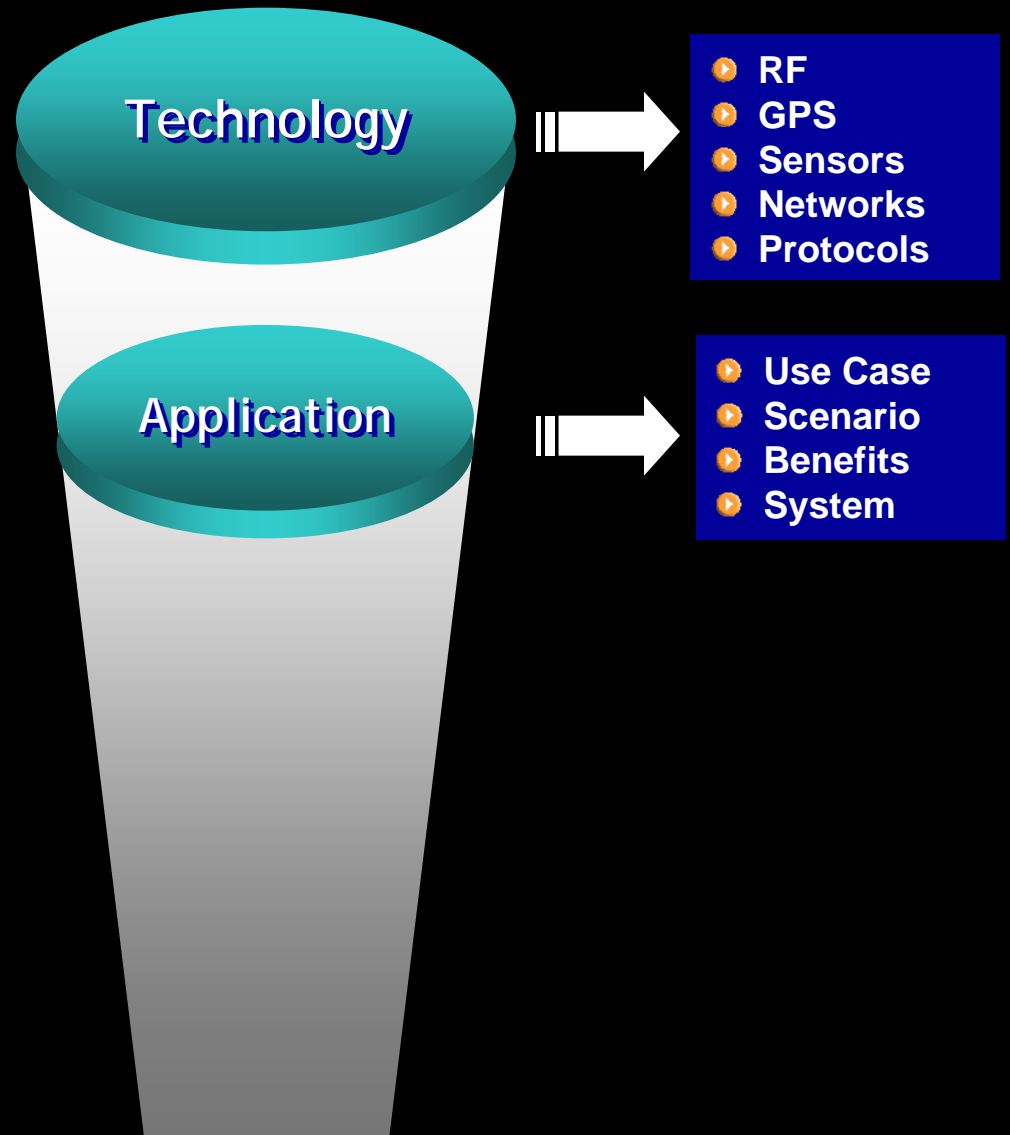


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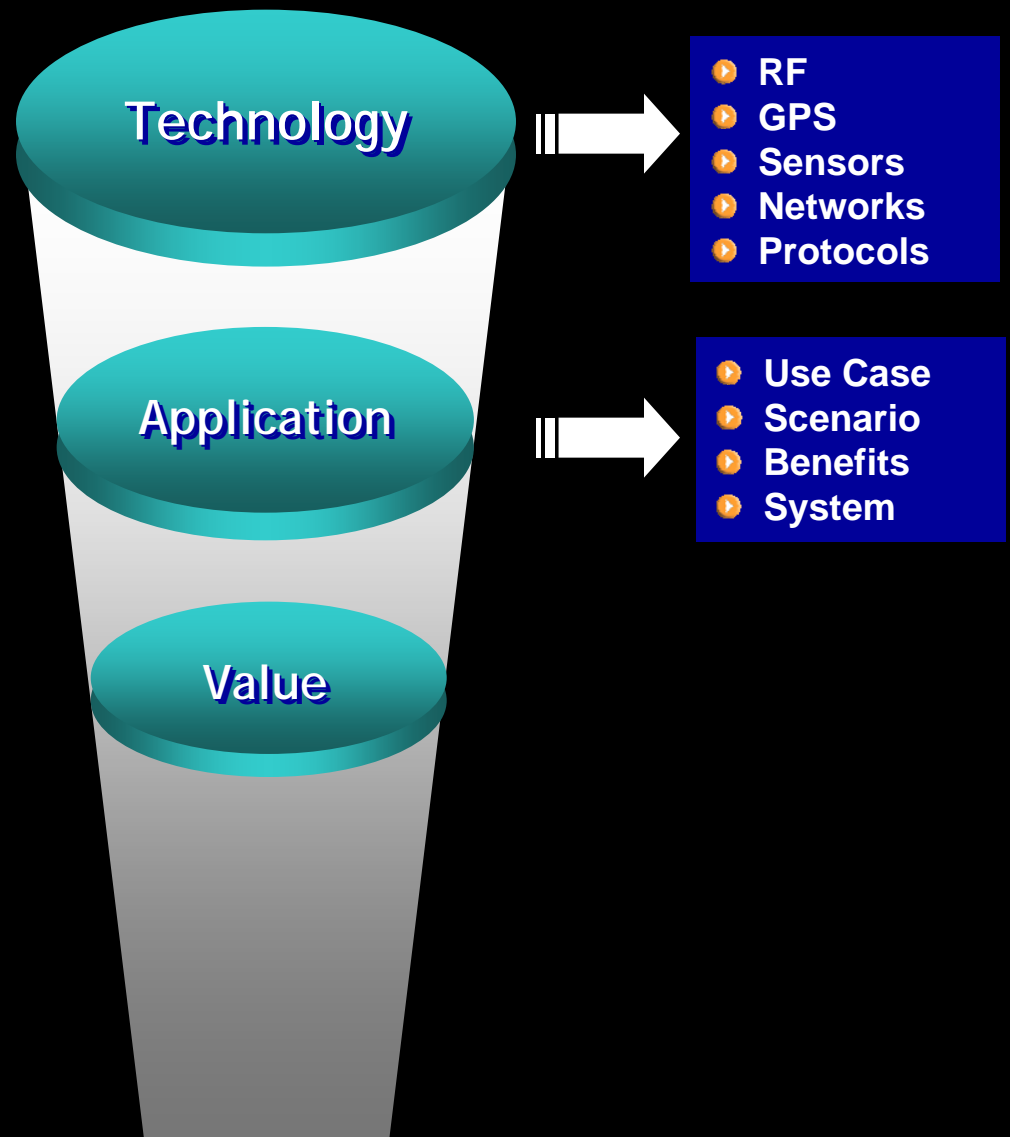


# Auto-ID Sensor Networks



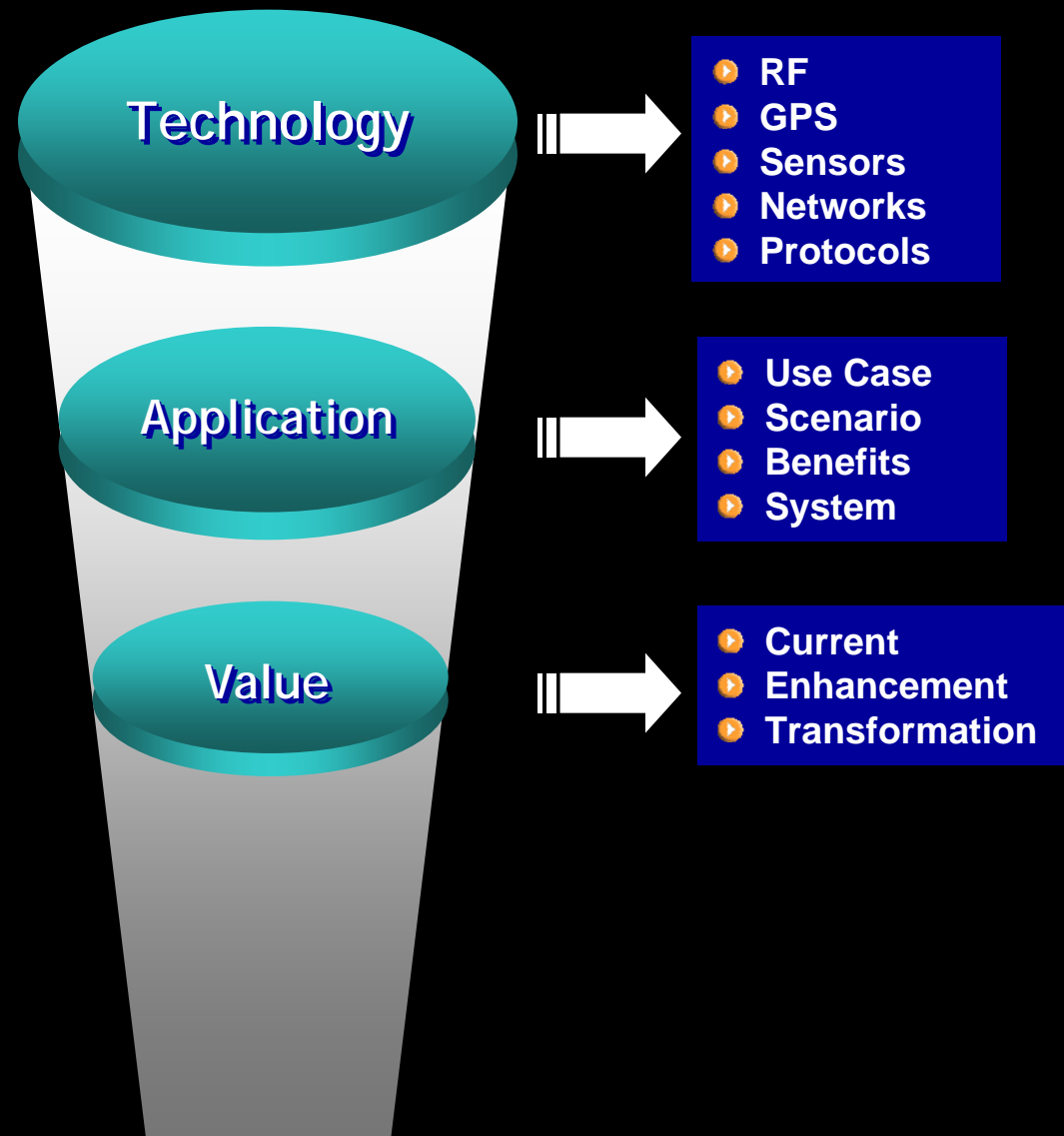


# Auto-ID Sensor Networks





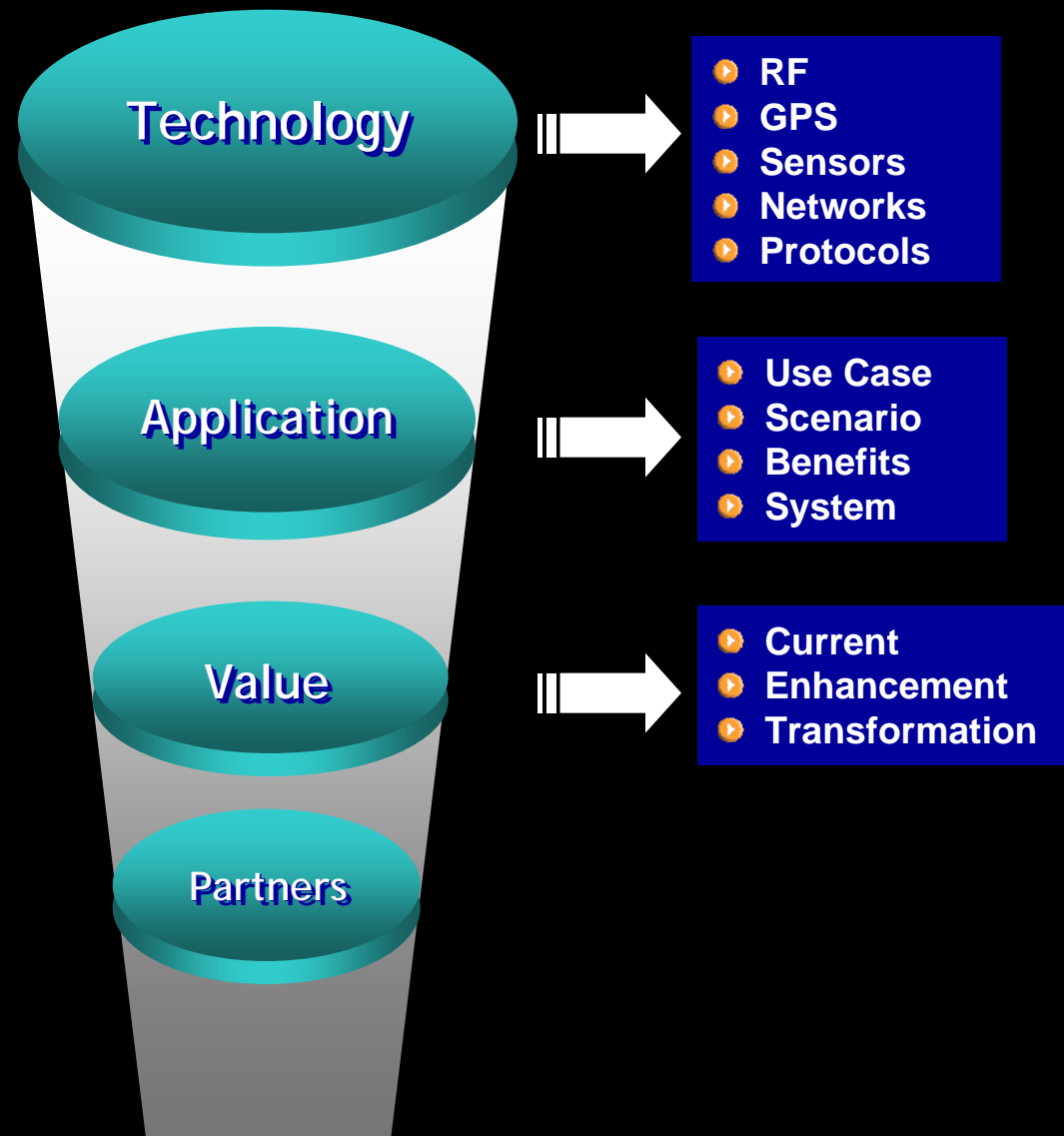
# Auto-ID Sensor Networks





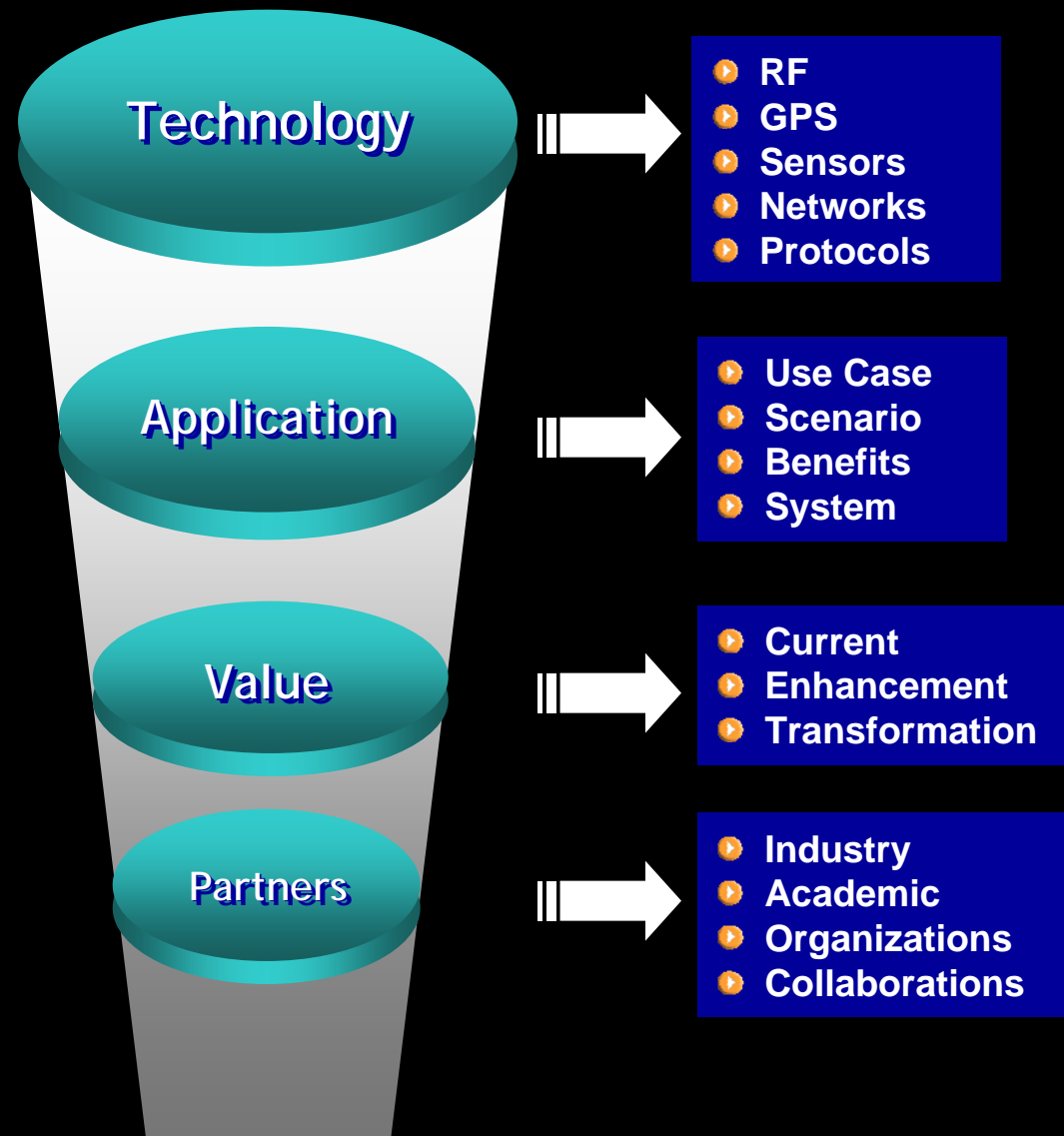


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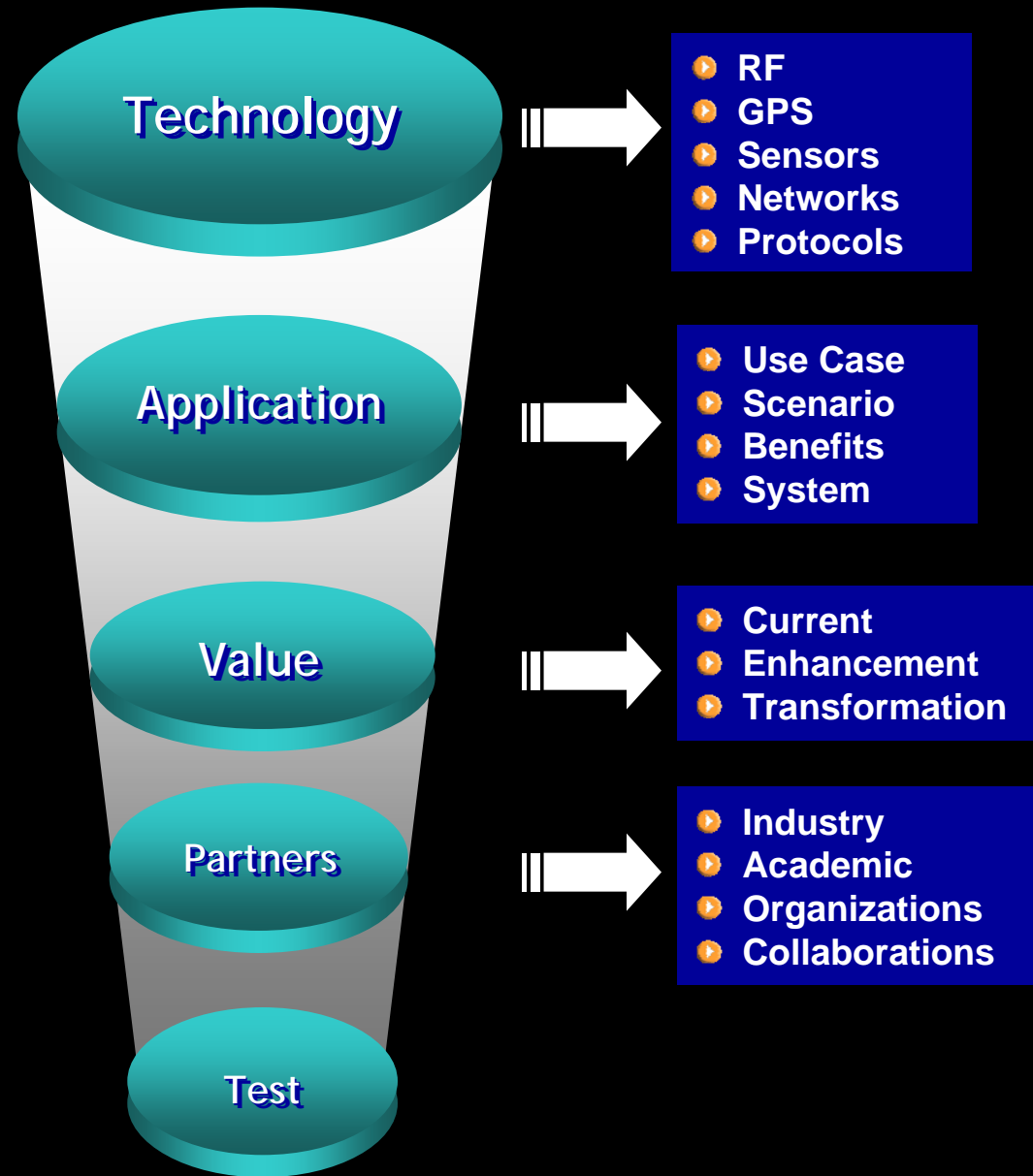


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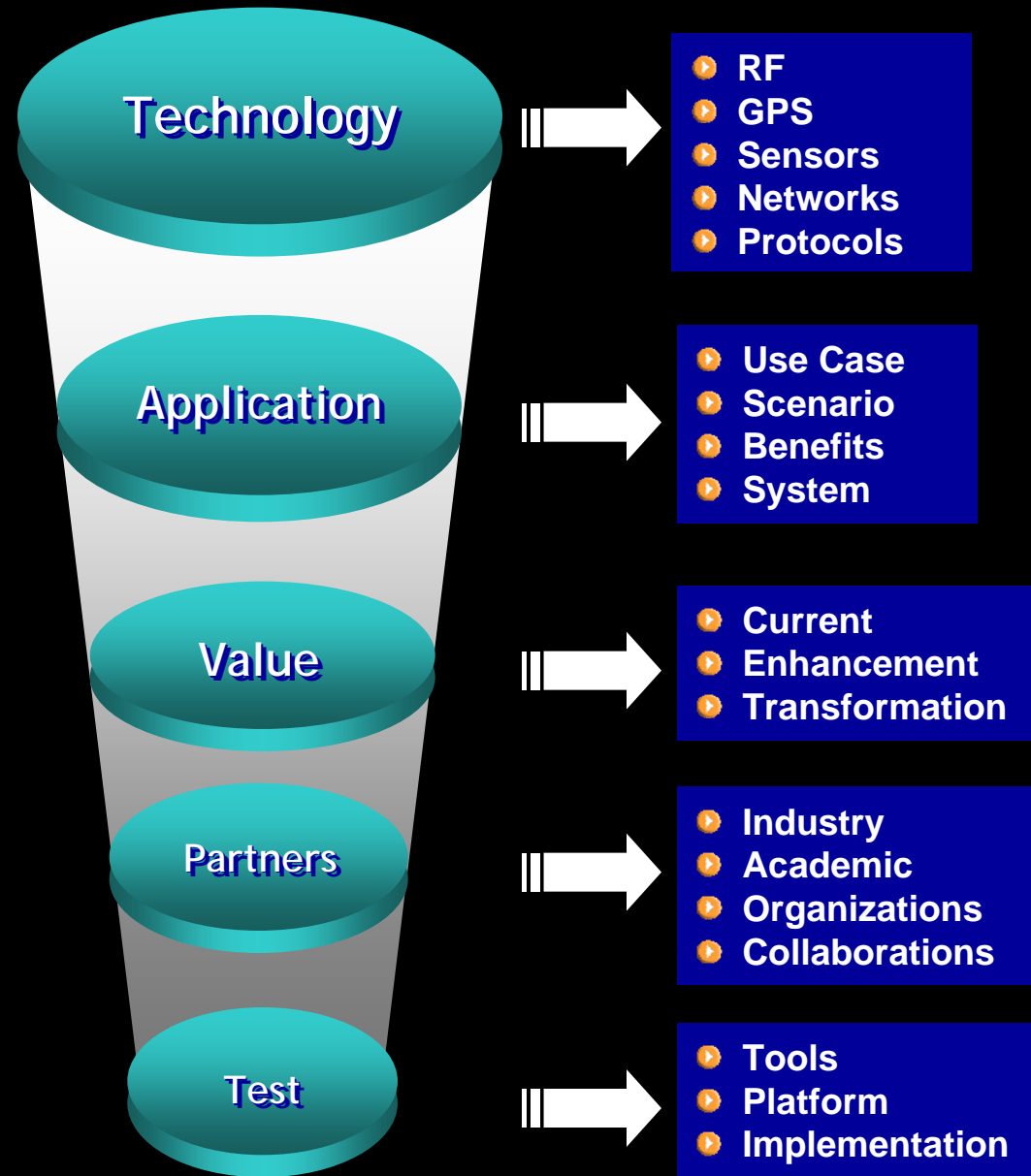


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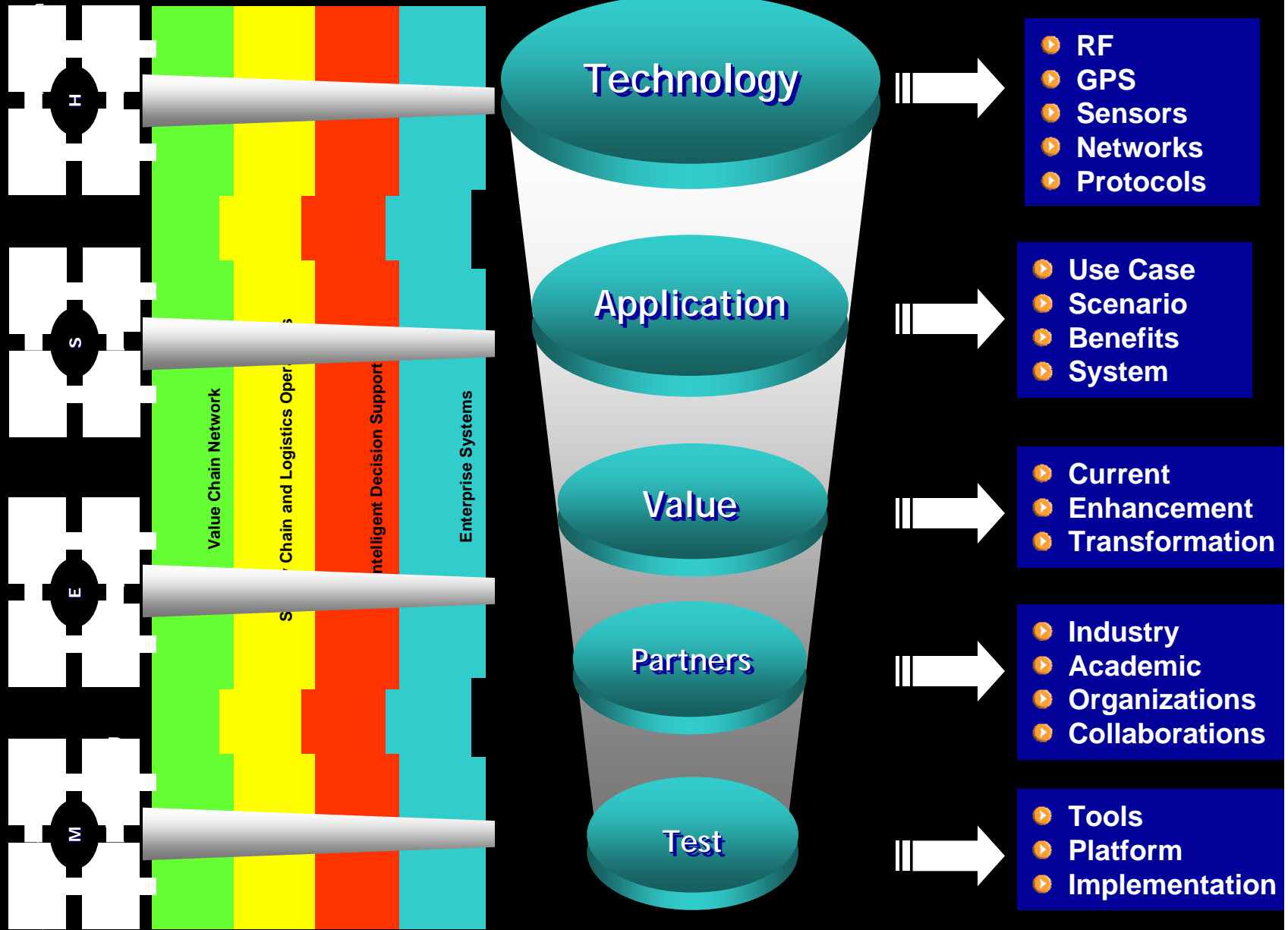


# Auto-ID Sensor Networks





# Auto-ID Sensor Networks





# Additional Information

- <http://groups.google.com/group/shoumen/files?hl=en>

See items

- ❖ 01
- ❖ 02
- ❖ 03
- ❖ 04
- ❖ 19
- ❖ 20
- ❖ 21
- ❖ 42
- ❖ 48
- ❖ 52
- ❖ 60
- ❖ 61

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