HOW CORPORATE FORESIGHT CAN HELP DEVELOPING INSTITUTIONS MANAGE KNOWLEDGE

Prof. Dr. René Rohrbeck

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DEPARTMENT OF MANAGEMENT
AARHUS UNIVERSITY

EXECUTIVE SUMMARY

For a Prosperous, Inclusive, Resilient, and Sustainable Asia Pacific we need to build…

- **Thought Leadership**, through **combining** knowledge on new needs, new technologies and local expertise
- **Agenda shaping capability**, through **sharing** knowledge from different regions and domains
- **Ability to execute**, knowledge to reduce technology development costs and promote innovative solutions

Firms drive **development** through three key strategic foresight tools.

- **Scenarios** are built collaboratively to consolidate knowledge and create shared visions for development fields. (Example, Siemens “Pictures of the Future”)
- **Radars** permanently scan and monitor drivers of change to create a stable, shared and actionable future outlook. (Example: DHL “Logistics Trend Radar”)
- **Platforms** permanently scan and monitor drivers of change to create a stable, shared and actionable future outlook. (Example: GSMA “Global Mobile Radar”, 3 min video)

Proposing a reference model, designed on the basis of best-practices from the private sector

- **ADB**, promotes knowledge sharing and **orchestrates first development steps**
- **ADB HLTF** promotes **new technologies**
- Most **mature member countries** volunteer to **pilot new solutions**
- **Other member countries join** implementation **at own pace**

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CORPORATE FORESIGHT BENCHMARKING

Since 2006

450+
benchmarked companies

50+
top management workshops

25+
implementation projects

RESEARCH TEAM

mgmt.au.dk/strategicforesight

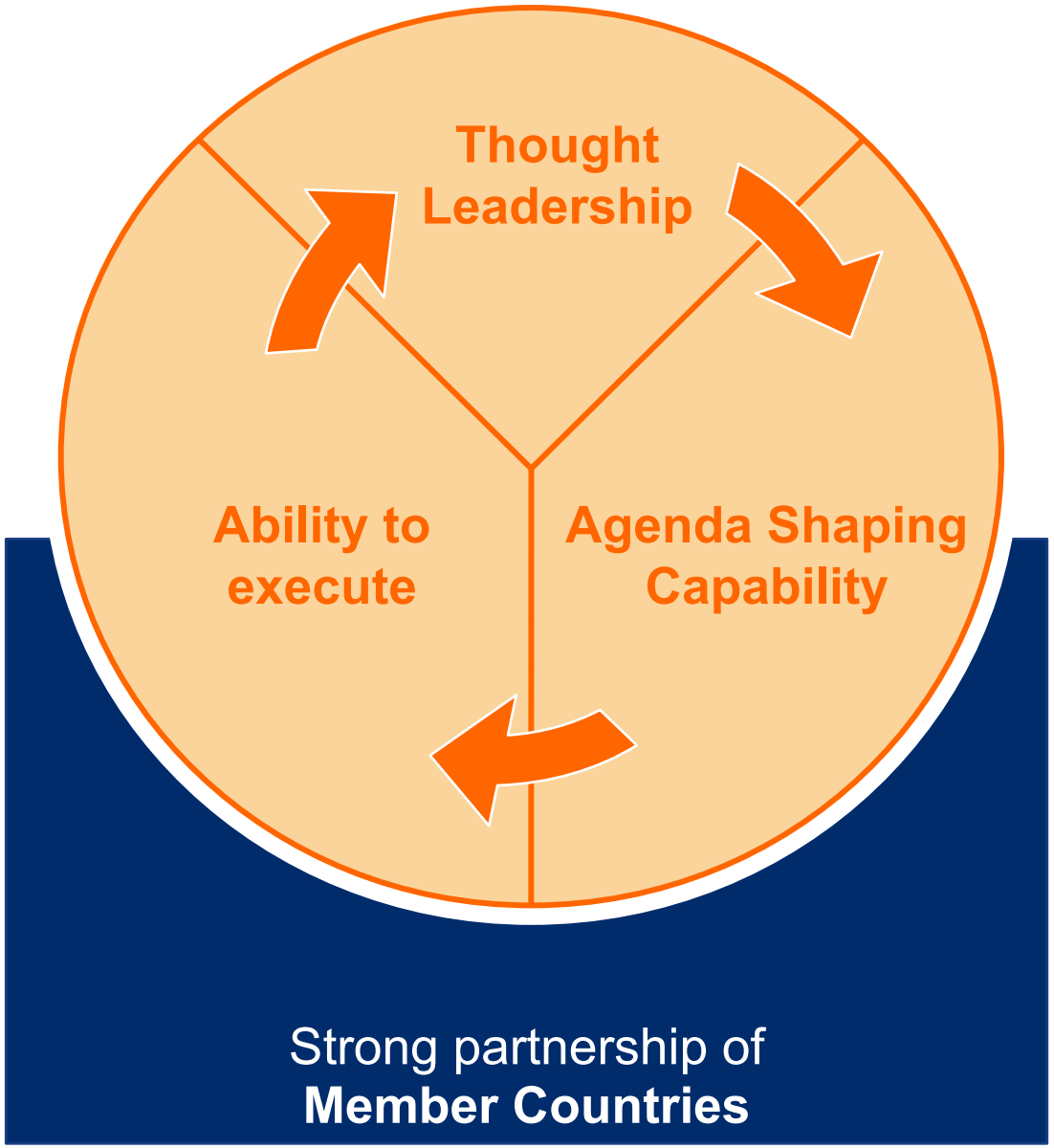
PROJECTS AND EMPLOYMENT (selection)

rohrbeckheger.com

KNOWLEDGE MANAGEMENT, KNOWLEDGE SHARING, WHY?

TO WHAT ENDS?

KNOWLEDGE SHARING ONLY PAYS OFF THROUGH EXECUTION...



Traditional instruments

Public Private Partnerships

HLTF

Asian Development Outlook (ADO)

Operational Priorities

HOW DO FIRMS GO ABOUT MANAGING THEIR KNOWLEDGE,...

FIRMS DRIVE DEVELOPMENT THROUGH THREE KEY STRATEGIC FORESIGHT TOOLS.

SCENARIOS

are built collaboratively to consolidate knowledge and create shared visions for development fields.

Scenarios provide powerful **mental images** (visions) that provide guidance for **continuous development**.

TODAY

Digital assistants for manual driving

Greener and more autonomous cars

GREAT

Individual and shared mobility

HOW TO ADAPT?

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RADARS

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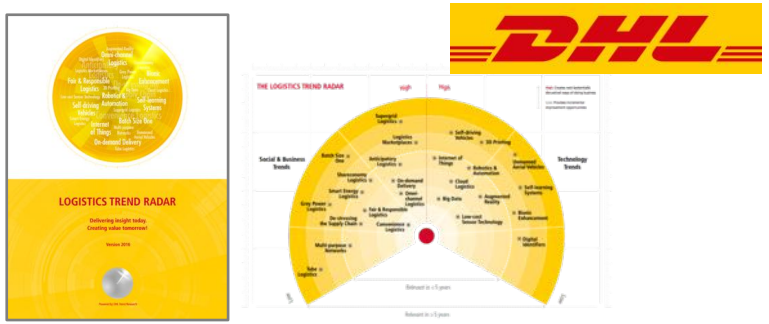
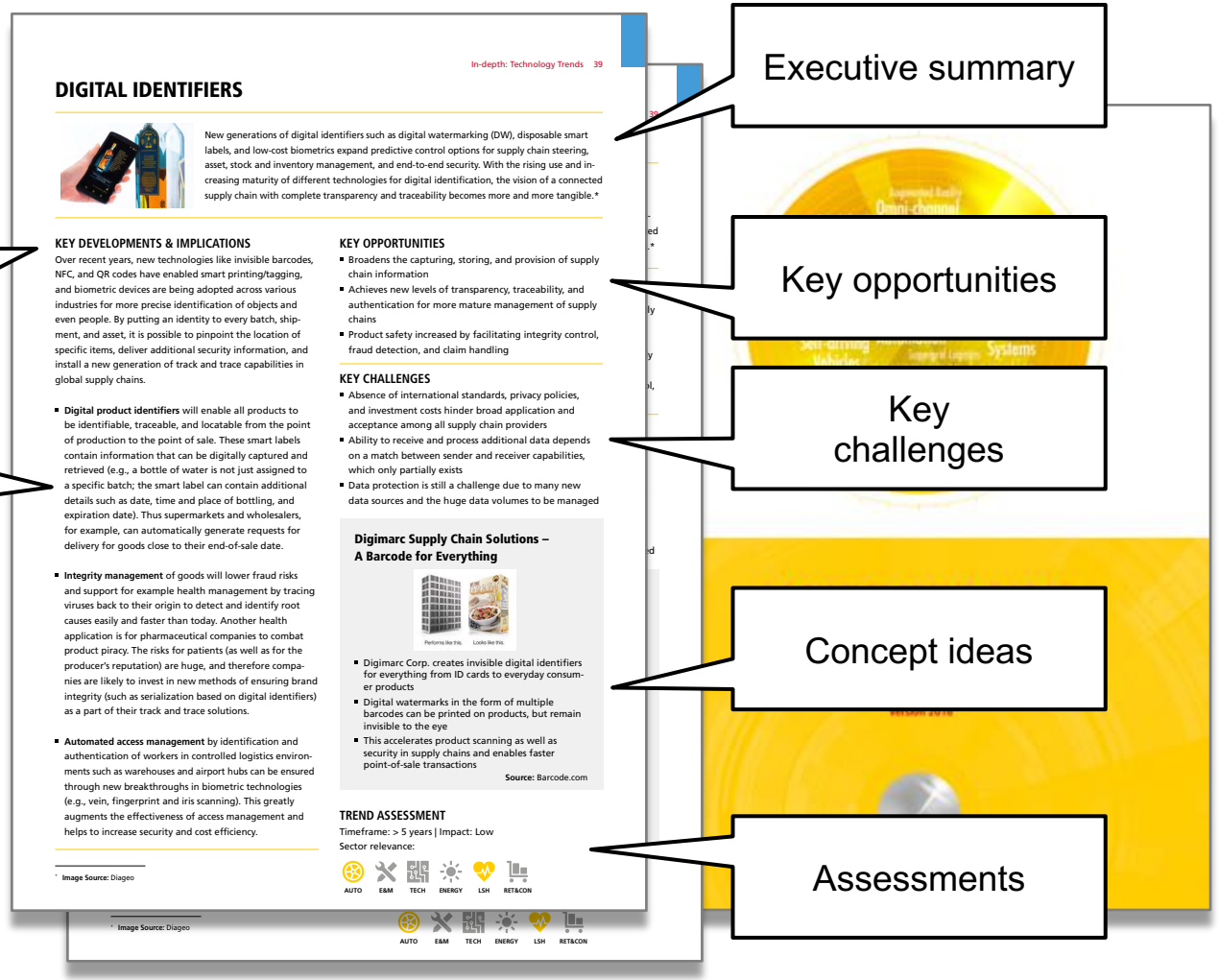


Radars continuously scan, monitor and report on drivers of change to create a agile, shared and actionable

Key developments

Implications for DHL



In-depth: Technology Trends 39

DIGITAL IDENTIFIERS

New generations of digital identifiers such as digital watermarking (DW), disposable smart labels, and low-cost biometrics expand predictive control options for supply chain steering, asset, stock and inventory management, and end-to-end security. With the rising use and increasing maturity of different technologies for digital identification, the vision of a connected supply chain with complete transparency and traceability becomes more and more tangible.*

KEY DEVELOPMENTS & IMPLICATIONS

Over recent years, new technologies like invisible barcodes, NFC, and QR codes have enabled smart printing/tagging, and biometric devices are being adopted across various industries for more precise identification of objects and even people. By putting an identity to every batch, shipment, and asset, it is possible to pinpoint the location of specific items, deliver additional security information, and install a new generation of track and trace capabilities in global supply chains.

- **Digital product identifiers** will enable all products to be identifiable, traceable, and locatable from the point of production to the point of sale. These smart labels contain information that can be digitally captured and retrieved (e.g., a bottle of water is not just assigned to a specific batch; the smart label can contain additional details such as date, time and place of bottling, and expiration date). Thus supermarkets and wholesalers, for example, can automatically generate requests for delivery for goods close to their end-of-sale date.
- **Integrity management** of goods will lower fraud risks and support for example health management by tracing viruses back to their origin to detect and identify root causes easily and faster than today. Another health application is for pharmaceutical companies to combat product piracy. The risks for patients (as well as for the producer's reputation) are huge, and therefore companies are likely to invest in new methods of ensuring brand integrity (such as serialization based on digital identifiers) as a part of their track and trace solutions.
- **Automated access management** by identification and authentication of workers in controlled logistics environments such as warehouses and airport hubs can be ensured through new breakthroughs in biometric technologies (e.g., vein, fingerprint and iris scanning). This greatly augments the effectiveness of access management and helps to increase security and cost efficiency.

* Image Source: Diageo

KEY OPPORTUNITIES

- Broadens the capturing, storing, and provision of supply chain information
- Achieves new levels of transparency, traceability, and authentication for more mature management of supply chains
- Product safety increased by facilitating integrity control, fraud detection, and claim handling

KEY CHALLENGES

- Absence of international standards, privacy policies, and investment costs hinder broad application and acceptance among all supply chain providers
- Ability to receive and process additional data depends on a match between sender and receiver capabilities, which only partially exists
- Data protection is still a challenge due to many new data sources and the huge data volumes to be managed

Digimarc Supply Chain Solutions – A Barcode for Everything

- Digimarc Corp. creates invisible digital identifiers for everything from ID cards to everyday consumer products
- Digital watermarks in the form of multiple barcodes can be printed on products, but remain invisible to the eye
- This accelerates product scanning as well as security in supply chains and enables faster point-of-sale transactions

Source: Barcode.com

TREND ASSESSMENT

Timeframe: > 5 years | Impact: Low
Sector relevance:

AUTO E&M TECH ENERGY LSH RET&CON

Executive summary

Key opportunities

Key challenges

Concept ideas

Assessments

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NOVEMBER 2018 | RENÉ ROHRBECK
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FIRMS DRIVE DEVELOPMENT THROUGH THREE KEY STRATEGIC FORESIGHT TOOLS.

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RADARS

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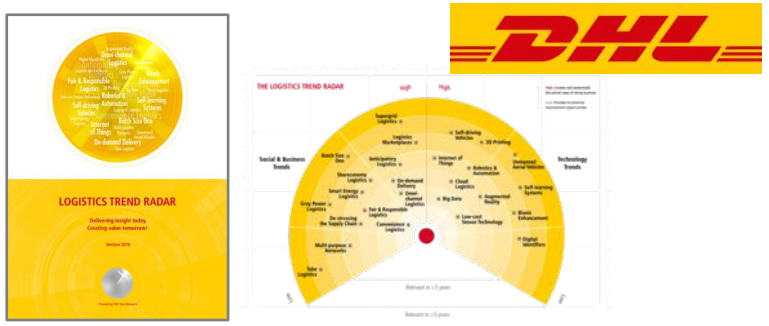

PLATFORMS

permanently scan and monitor drivers of change to create a stable, shared and actionable future outlook.

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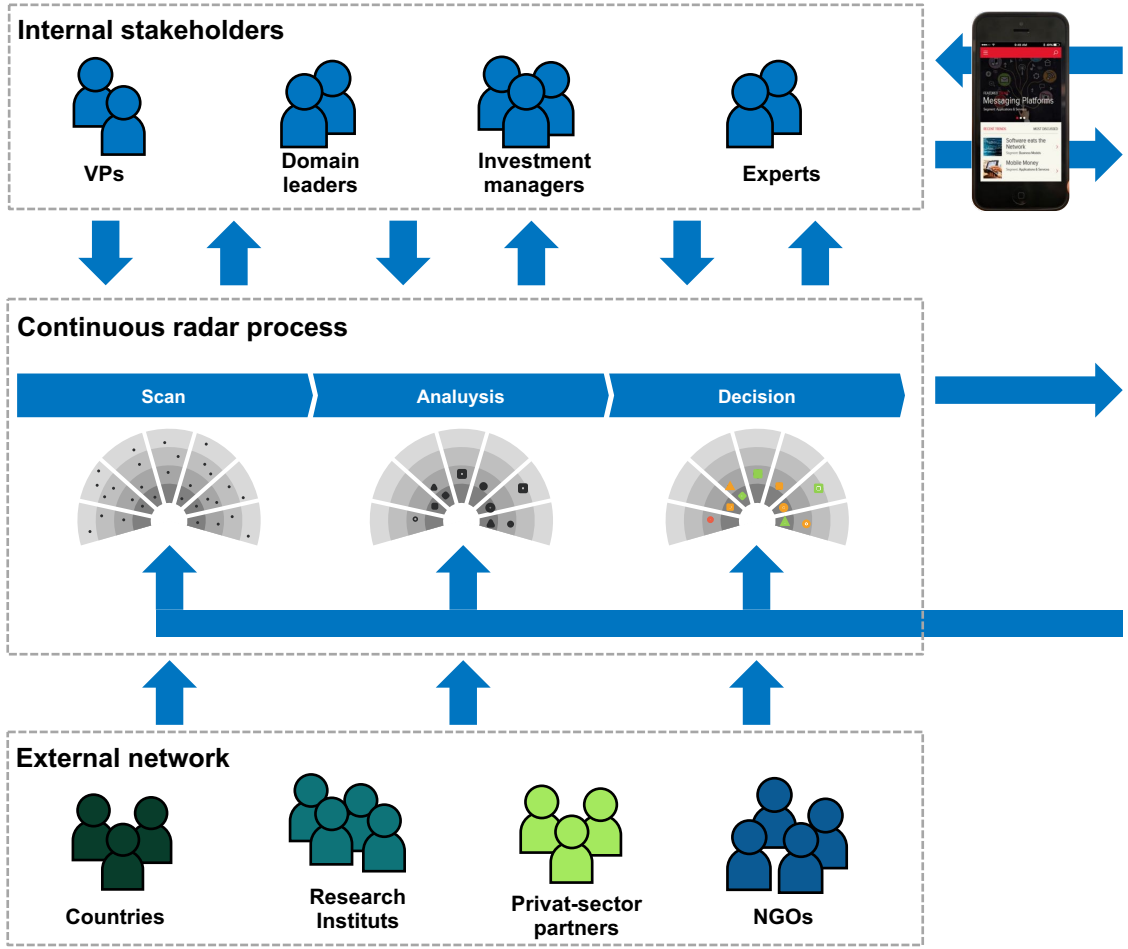
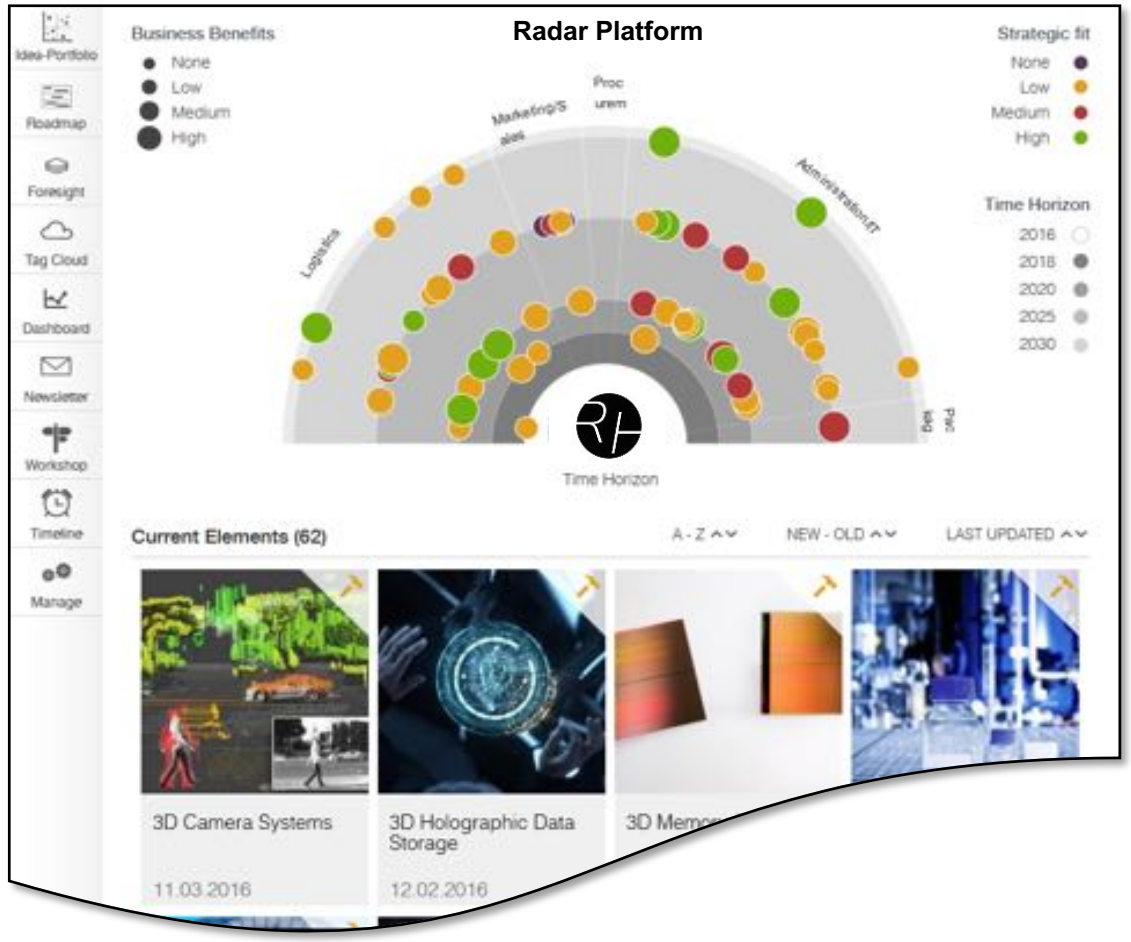




FROM KNOWLEDGE TO IMPACT,...

PROPOSING A REFERENCE MODEL

DESIGNED ON THE BASIS OF BEST-PRACTICES FROM THE PRIVATE SECTOR.

Smart water system to reduce leakage

Members volunteer for piloting solutions

Member countries join at their own pace

Private sector contributes

HLTF promotes new technologies

Co-Creation with Member Countries

ADB Knowledge Platform

Ability to execute

Agenda shaping

Thought Leadership

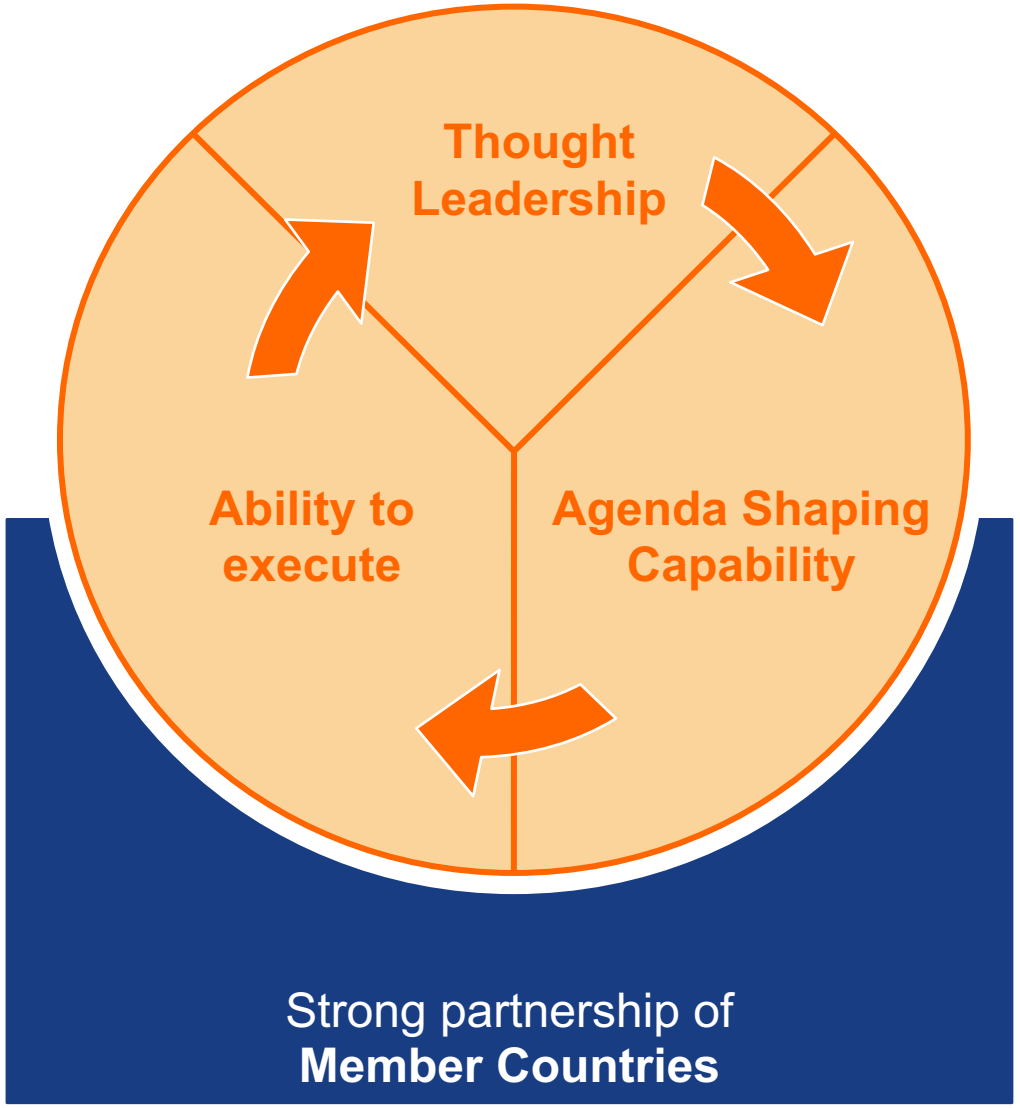
Orchestrates knowledge

KEY MESSAGES

Decompose large reports into radars with **actional insights**

Use scenarios to create **regionally-adaptive vision**

Use platforms for **real-time knowledge sharing**



THANK YOU!

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