



SKILLS - FORMATION LTD.



Service Resilience Capability Assessment Tool

Minimum Viable Product (MVP)

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Agenda

1 Welcome and Introduction to the Meeting

2 Pre-Qualification Toolset

3 Self-Assessment Toolset

4 Performance Management Toolset

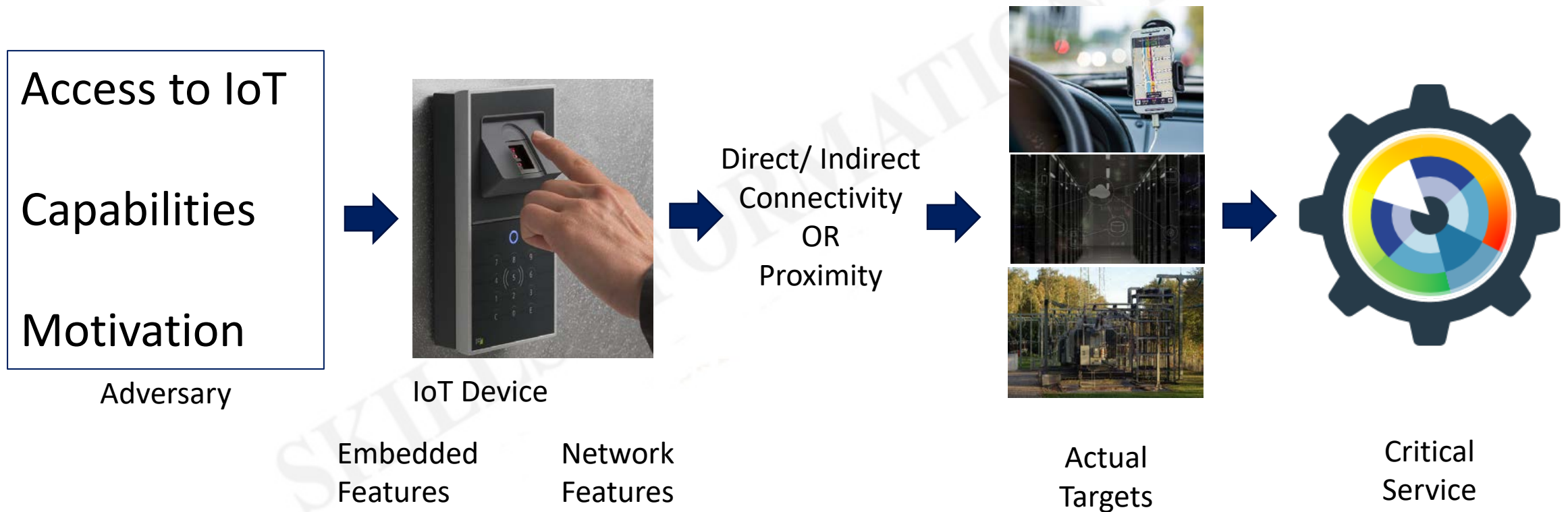
5 Conclusion

6 Questions and Next steps



1. Welcome and Introduction to the meeting

Cyber attacks on IoT devices



Example of an attack and Investigative queries

Automated Tank Gauges (ATGs) are used to monitor fuel tank inventory levels and raise alarms (e.g., fuel spill). ATGs can be controlled remotely and monitored.

In 2015 Trend Micro demonstrated that an adversary can remotely prevent the use of the fuel tank by changing its access settings, simulating false conditions or triggering a manual shutdown

- Who is responsible for the service disruption?
- Who is accountable for the loss of revenue and other cascading harmful impacts?
- Where is the evidence and is it legally valid?

- Who is accountable for assessing the cybersecurity and cyber resilience risks within the business case, PO and supplier contracts ?
- Who can be penalised if the due diligence on potential service disruptions was not done?

What is the problem in managing these risks?

A typical Example of NCSC guideline from NCSC Capability Assessment Framework

D1. Principle- Response and Recovery planning

Requirement: Ensure You have an up-to-date incident response plan that is grounded in a thorough risk assessment that takes account of your essential function and covers a range of incident scenarios.

Achieved when: The incident response plan is based on a clear understanding of the security risks to the networks and information systems supporting your essential function.

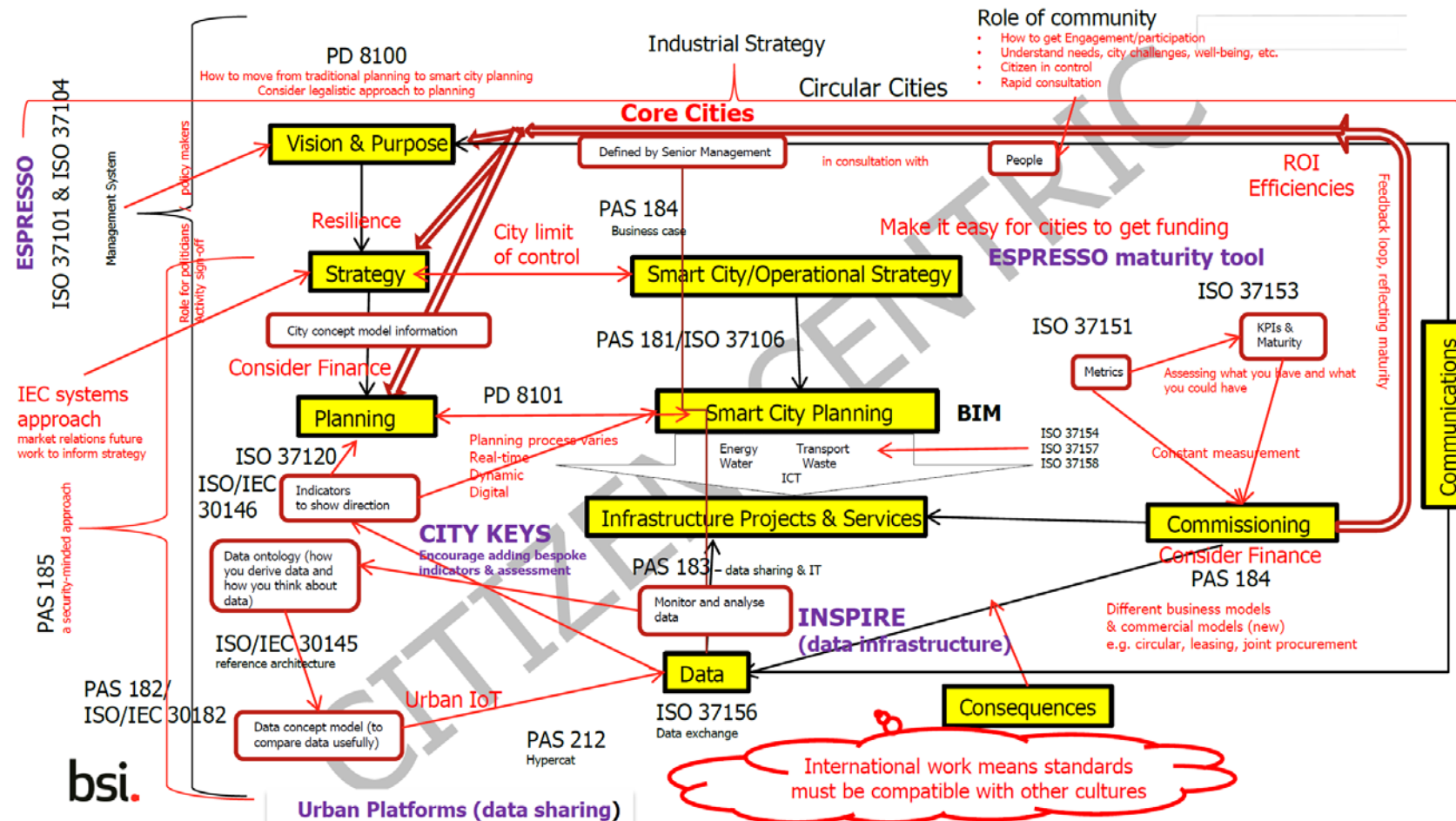
A typical example of a council procurement contract may call for the vendor to comply with:

Cyber Essentials / Plus	Surveillance Camera Code of Practice
ISO27001	W3C Web Content Accessibility Standards
PCI DSS	
ID Assurance Framework	Data Security & Protection Toolkit

and may state that “contractors, at their own cost, to conform to the relevant identified standard described, within 12 months of the contract commencement date”

Council officers need to translate the guideline into concrete requirements, assessment questions and easy to evaluate that confirms to industry standards which is simple to implement and reduces their effort.

We need to understand which Standards and Guidelines are applicable



There's a well known saying about a tourist who asks one of the locals for directions. The local replies:

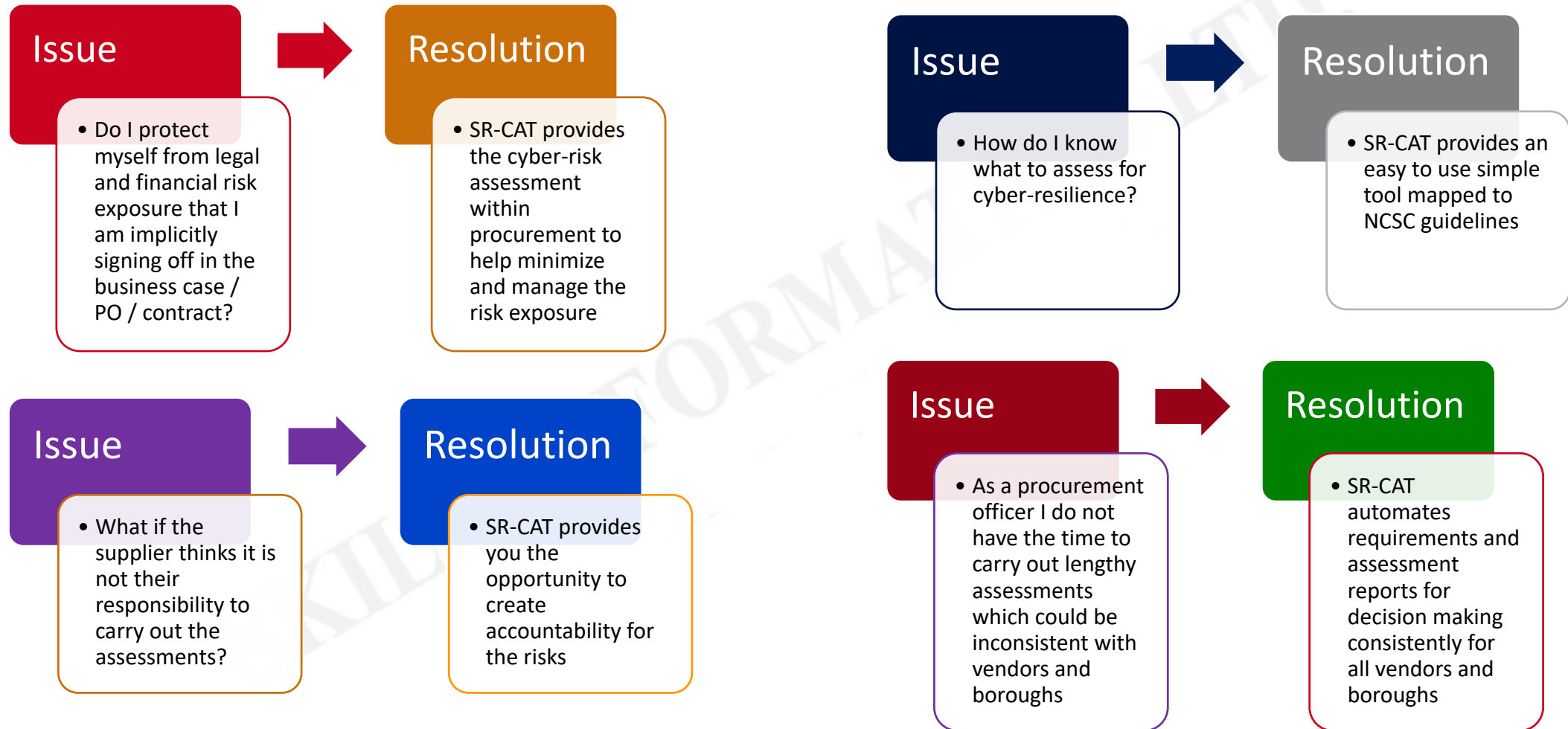
"Well sir, if I were you, I wouldn't start from here"

SR-CAT solution

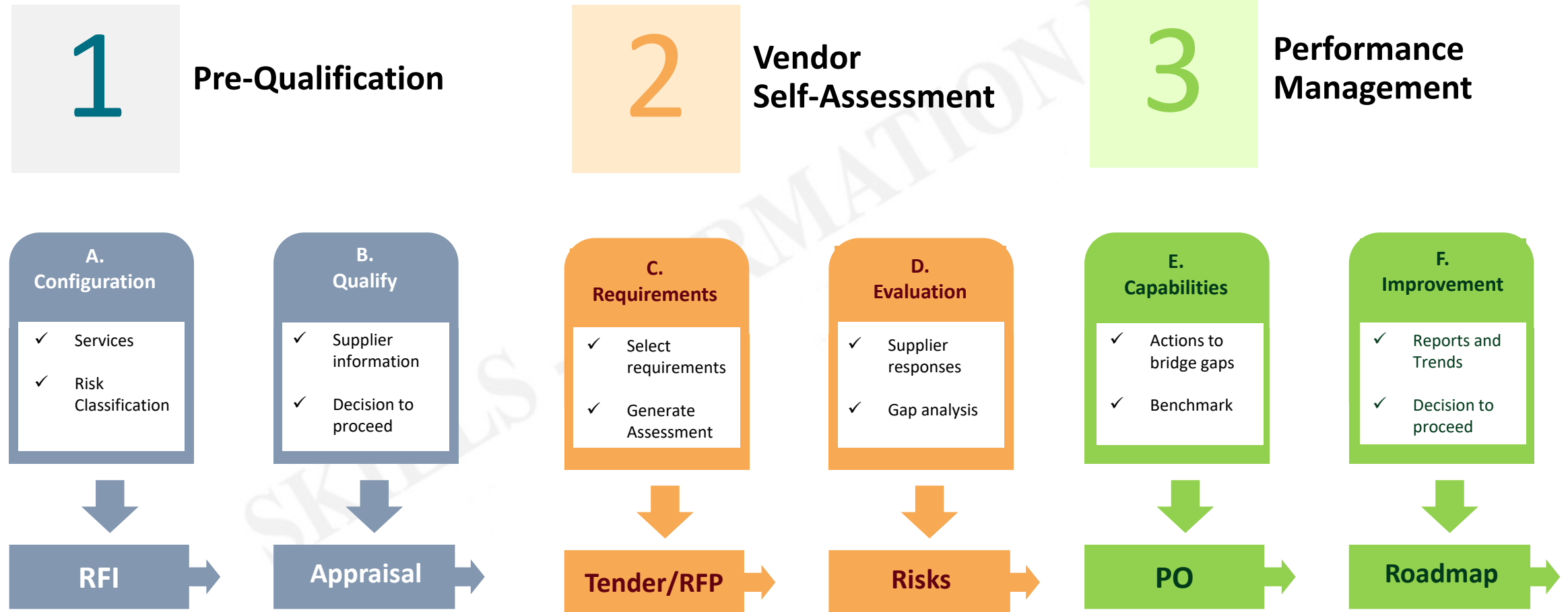


- Describe a framework to create 10 steps of cyber resilience of smart services that sits within the procurement framework of IoT based smart services.
- Demonstrate a self-assessment tool for suppliers to meet the requirements set within the 10 steps of cyber resilience.
- Explain the mechanism to take manual decisions to understand and assess business risks against the cyber resilience gaps
- Manage and enhance supplier capabilities right from pilot stage

How does SR-CAT really help me?

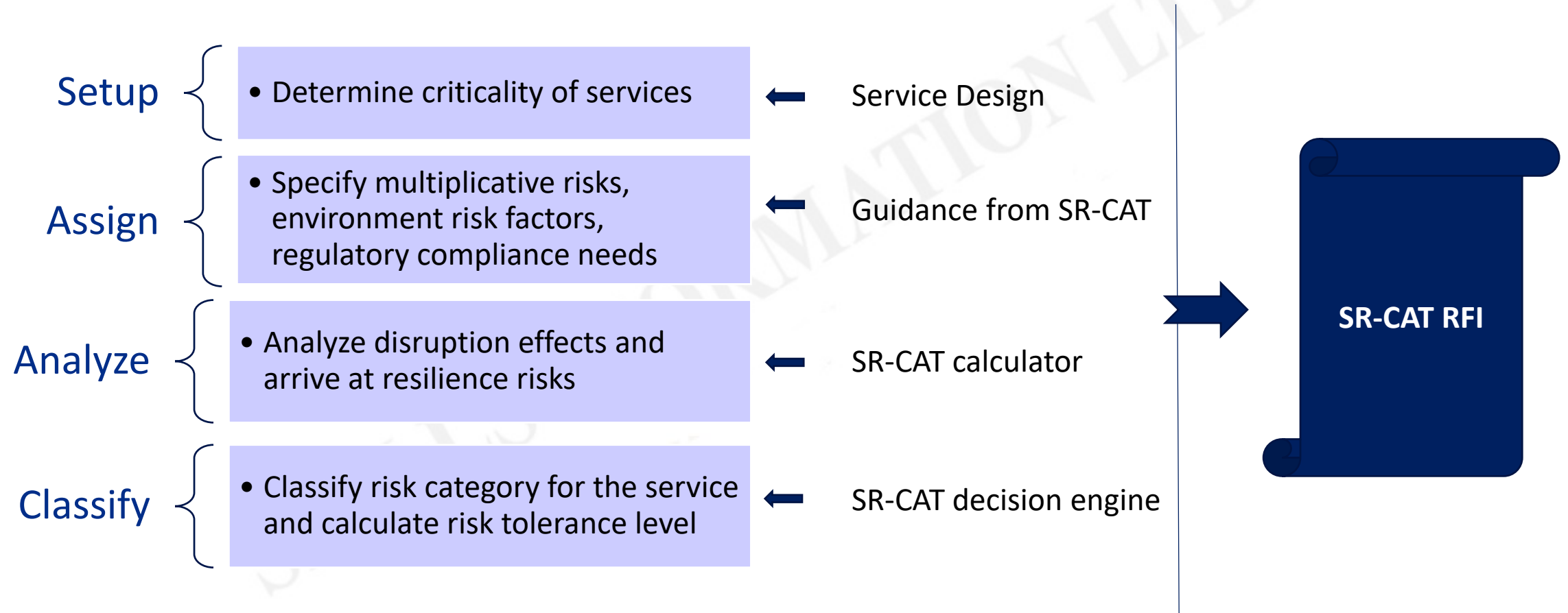


SR-CAT Core Toolsets

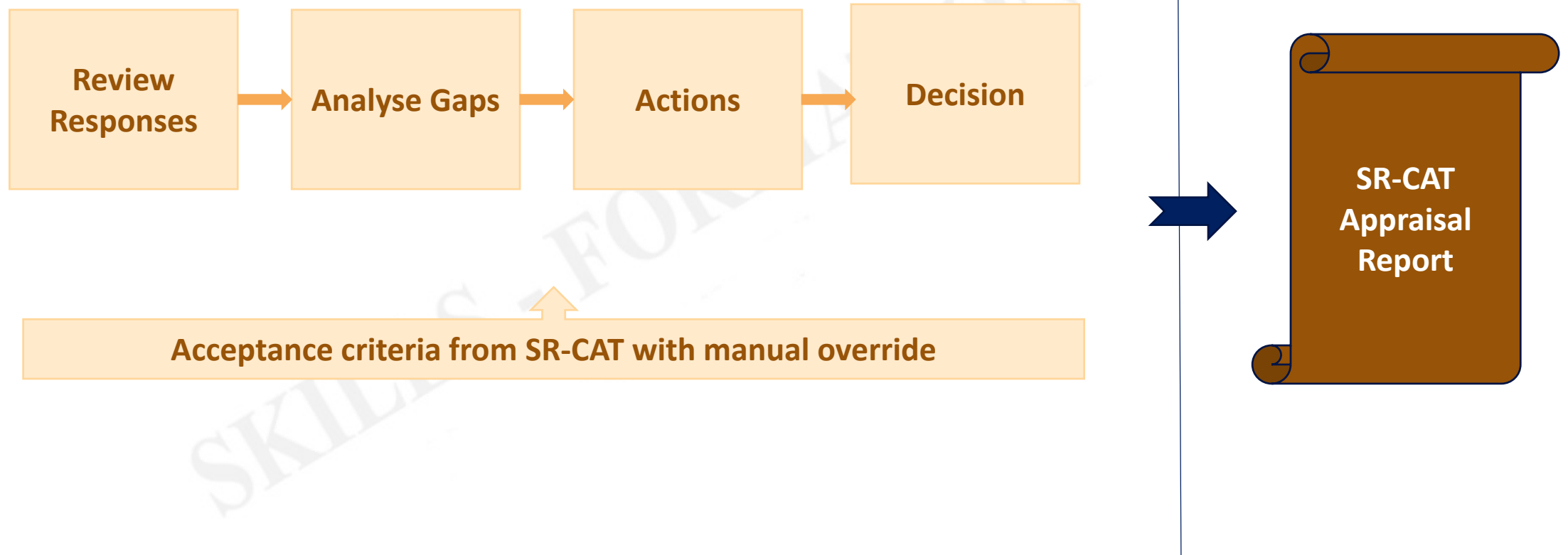


2. Pre-Qualification Toolset

A. Configuration



B. Qualify



DEMO

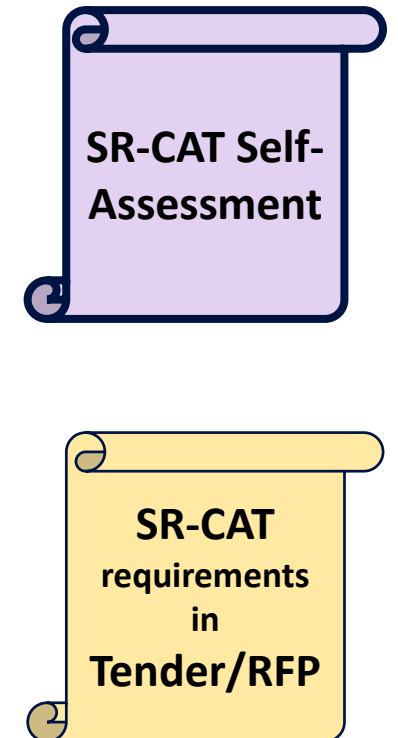
Pre-Qualification Toolset

3. Vendor Self-Assessment Toolset

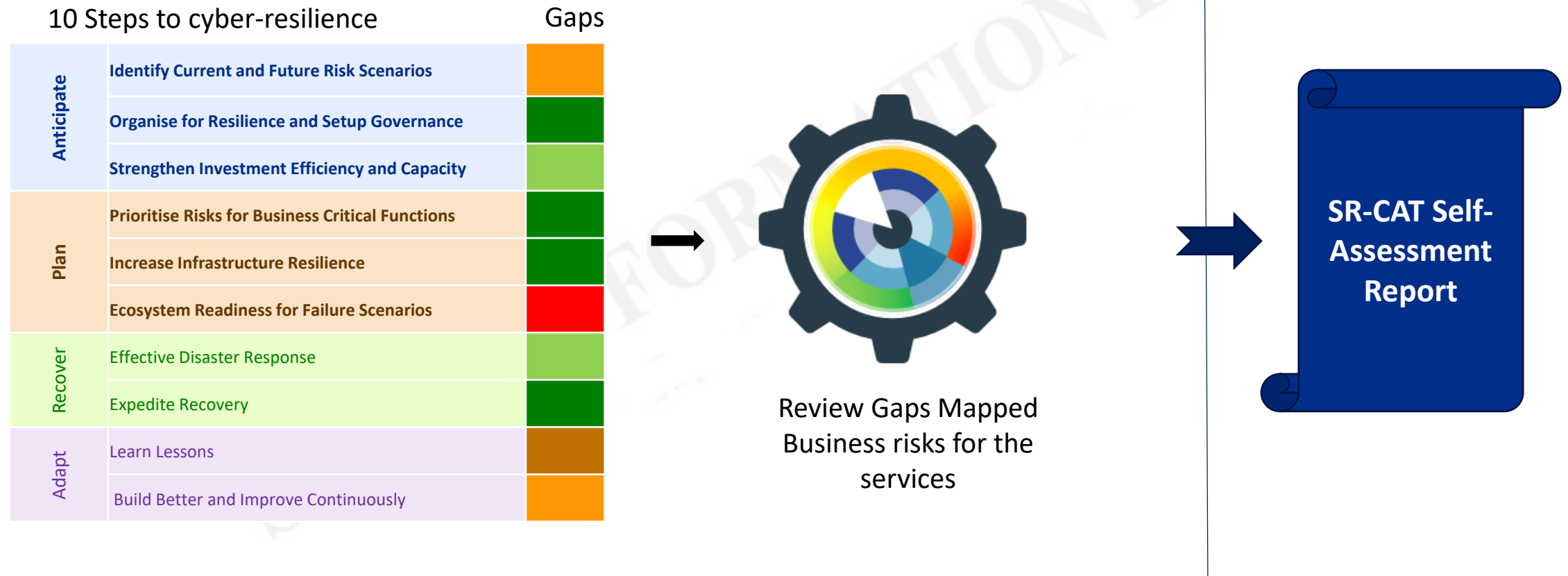
C. Requirements

- ✓ SR-CAT generates the assessment sheet with questions based on the risk category of the service and type of assessment
- ✓ Assessment questions can be manually added through configuration

- ✓ SR-CAT generates cyber-resilience requirements to be added in the Tender / RFP
- ✓ A link to self-assessment questionnaire will be added for the supplier to review and respond



D. Evaluation

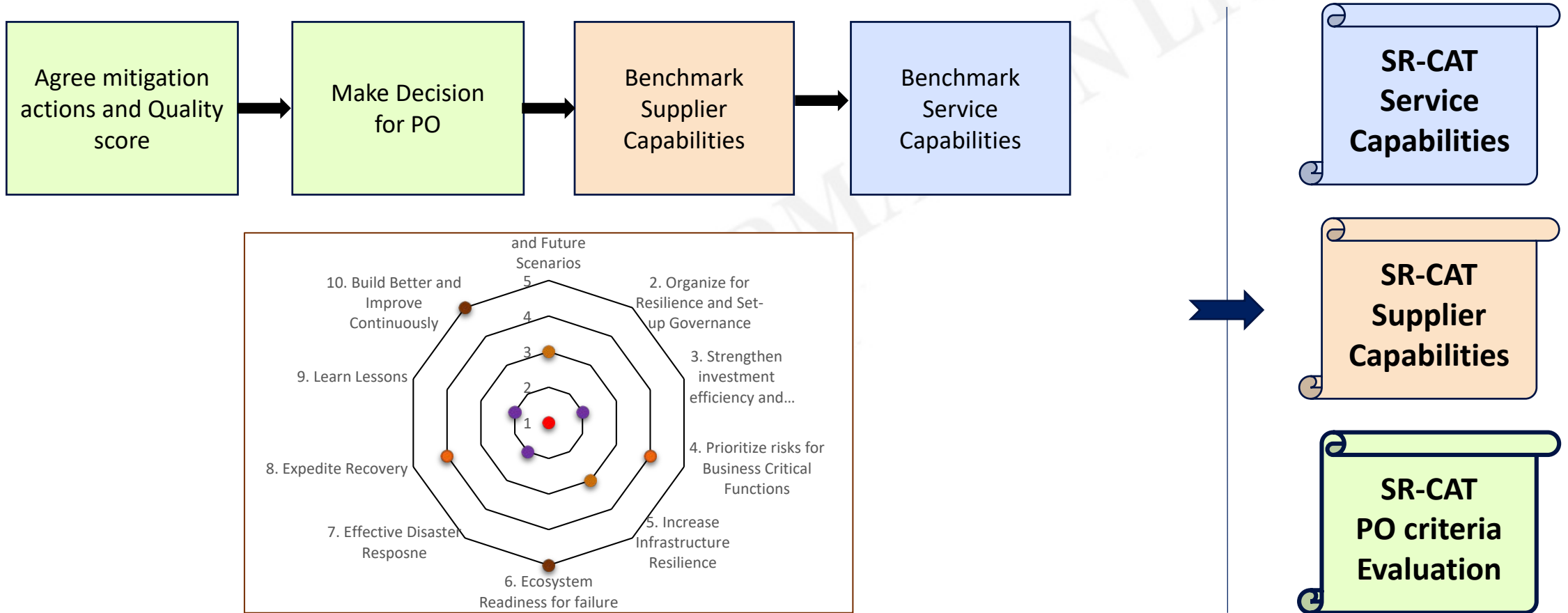


DEMO

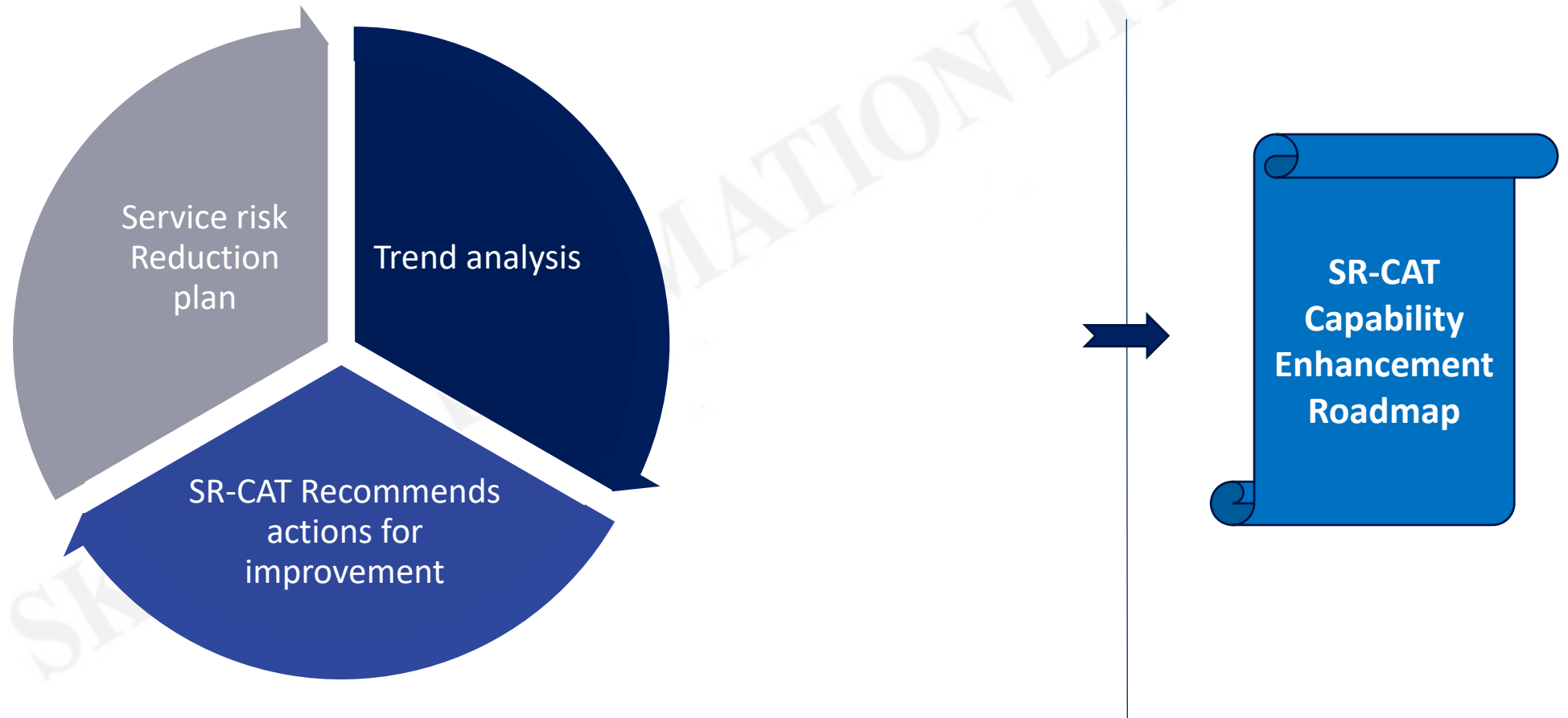
Vendor Self-Assessment Toolset

4. Performance Management Toolset

E. Capabilities



F. Improvements



DEMO

Performance Management Toolset

5. Conclusion

SR-CAT builds an industry standard mechanism

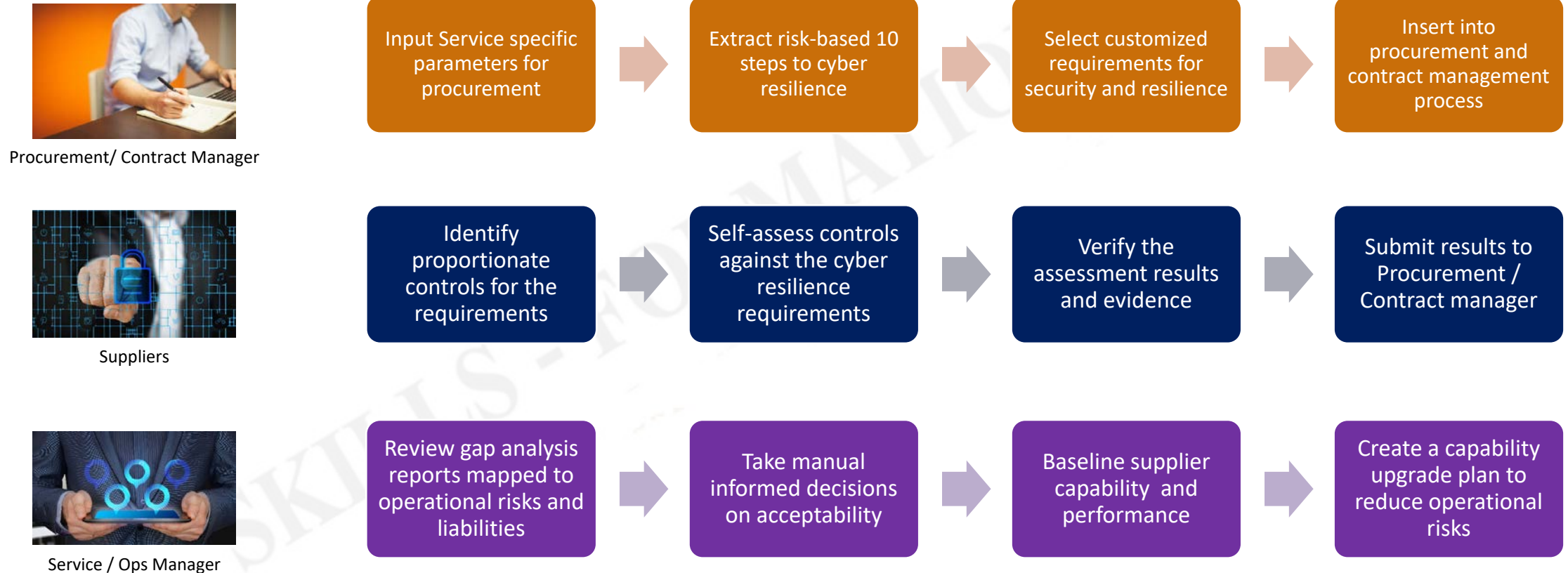
Framework

- Standard service definitions
- Translation of NCSC guidelines into an approved method to assess cyber resilience risks using standard controls
- Standardised way to appraise risk of activities (internal and supplier) consistent across the city
- Roles and Responsibilities i.e. what you need to do and what supplier needs to do
- A mechanism to upgrade supplier capabilities in a standard manner within procurement process right from pilot stage

Service

- Incorporate a smart mechanism to demand cyber resilience measures within procurement process
- Take manual decisions to understand and assess business risks against the cyber resilience gaps
- Implement Risk Assessment method based on the framework
- Risk Catalogue based on criticality of services
- Demonstrate a self-assessment tool for suppliers to meet the requirements set within the 10 steps of cyber resilience.
- Guide, manage and enhance supplier capabilities right from pilot stage

SR-CAT Procurement Assurance Cuts through complexity



Inputs, Guidance and Oversight by IoT consultants, Service Designers and Experts in each local authority

SR-CAT Features

	SR-CAT	Existing assessment tools
Risk based resilience assessment for smart services	✓	✗
10 achievable cyber-resilience steps for procurement framework	✓	✗
Gap analysis mapped to business risks	✓	✗
Prioritised appropriate and proportionate cyber resilience recommendations	✓	✗
Creates an Industry agreed framework in absence of agreed standards and regulations	✓	✗
Guidance for assessments for non-technical audience	✓	✓
Based on multiple international standards	✓	✓

Market Validation

Incorporated in MVP

- Assessment specific to the business service
- Flag compliance needs upfront
- Be able to review the assessment
- Map to business risks at the time of procurement
- Create an Excel version as MVP prior to software version with automation

To be incorporated in the framework

- Create Assessment principles
- Create flow diagrams
- Get Market endorsement through SR-CAT board's governance

To be incorporated in the software based solution

- Delta Assessment
- Flag conflicting information
- Measure Impact



Benefits



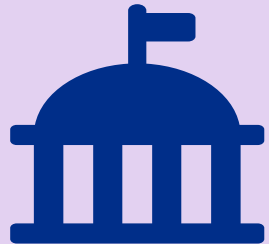
City Authority officer

- Smart city authorities empowered to procure resilient services
- **Potentially saves upto US\$250k per incident**



IoT Consultants

- **Effective cyber resilience risk assessment method for business risks**
- Expand the framework for cyber security risks



Standards,
Frameworks

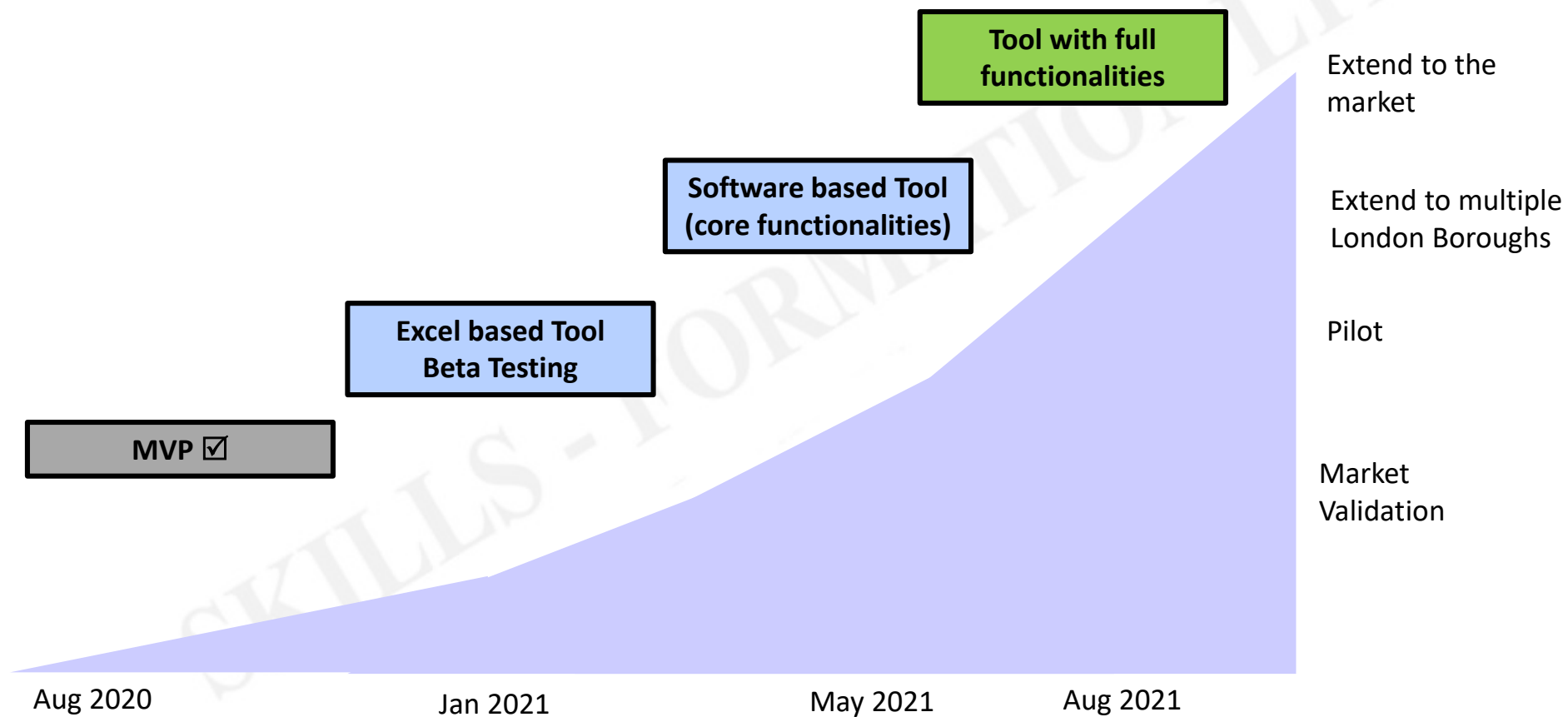
- **Service continuity, Reduced national security risks**
- Build standards & regulations
- Improved capability maturity



IoT suppliers
OT/IIoT service providers

- **Claim cyber resilient products and services**
- Prioritise investment
- **Improved market penetration**

SR-CAT Operationalisation Roadmap



Key Messages

1

We can provide a cyber-resilience assurance framework within procurement based on international standards

2

We can provide an assessment tool to review supplier capabilities against procurement requirements

3

We can work with you to accelerate your journey by building resilience and minimizing operational and liability risks

Contributions by: Derek Tam, David Ryder and Marco Franken

6. Questions and Next-steps

About Skills-Formation Ltd

Who are we?

We are specialists in Smart Services Cyber Resilience for connected devices. We aim to enable the transformation of skills and capabilities to build resilient cities of the future. Our Mission is to Lead the way for global cyber resilience of connected smart services

What do we provide?

We are the creators of Service Resilience - Capability Assessment Tool  , an assurance framework for 10 steps to cyber resilience

Why are we Different?

Our comprehensive range of services focus on integration with existing business processes, ease of adoption and cutting through complexity. Our unique market leading cost-effective solution will be reviewed with NCSC and is delivered in partnership with public, private, academia and standards body. We pride ourselves on our ability to contribute to the sustainable resilient global smart city initiatives and deliver a cutting-edge solution that meets the real-world needs of the security of important city services for the citizens.

THANK YOU

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