

# Leading the Quantum-safe Transition: A Growth Stages Approach

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## Goal of this Session

- To share research findings on the growth model
- To identify the pathways (sequence of actions)
- To discuss transition leadership











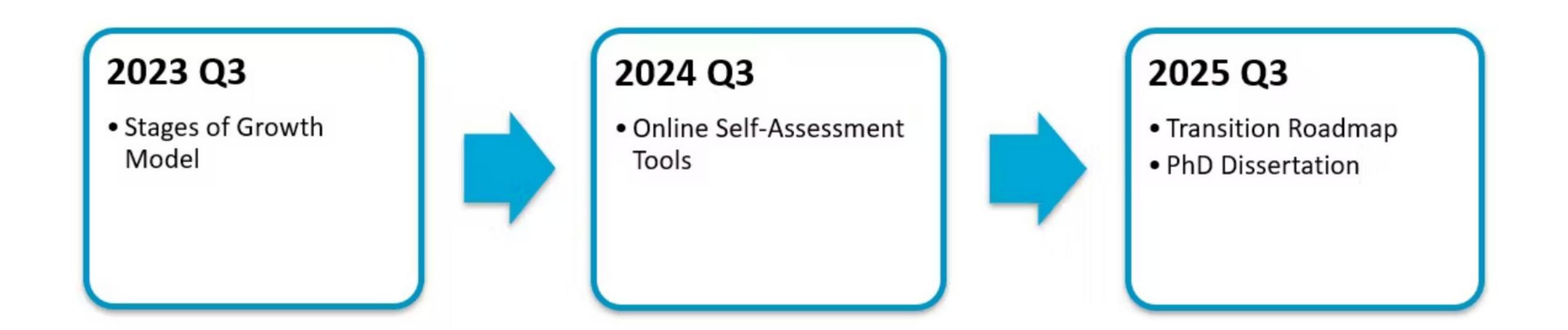






Hybrid Approach for quantum-safe Public Key Infrastructure Development for Organizations

The HAPKIDO Project



**Research Deliverables** 

-Identified QS Transition Challenges in Literature

#### Published:

Kong, I., Janssen, M. & Bharosa, N. (2022). Challenges in the Transition towards a Quantum-safe Government. -PhD Research Proposal & Research Overview

#### Published:

Kong, I., Janssen, M. & Bharosa, N. (2022). Transition towards Quantum-safe Government: Examining Stages of Growth Models for Quantum-safe Public Key Infrastructure Systems. -Empirically validated practical challenges that organizations may encounter

-Included Institutional & organizational aspects of QS transition

#### **Publication In-Progress:**

Kong, I., Janssen, M. & Bharosa, N. (Forthcoming, 2023). Realizing Quantumsafe Information Sharing: Implementation & Adoption Challenges & Policy Recommendations for Quantum-safe Transition. -Identified Driving & Dependency Power of QS Transition Challenges using ISM-MICMAC Analysis

#### Published:

Kong, I., Janssen, M. & Bharosa, N. (2023). Analyzing Dependencies among Challenges for Quantum-safe Transition. -Developed Stages of Growth Model for QS transition

#### Publication In-Progress:

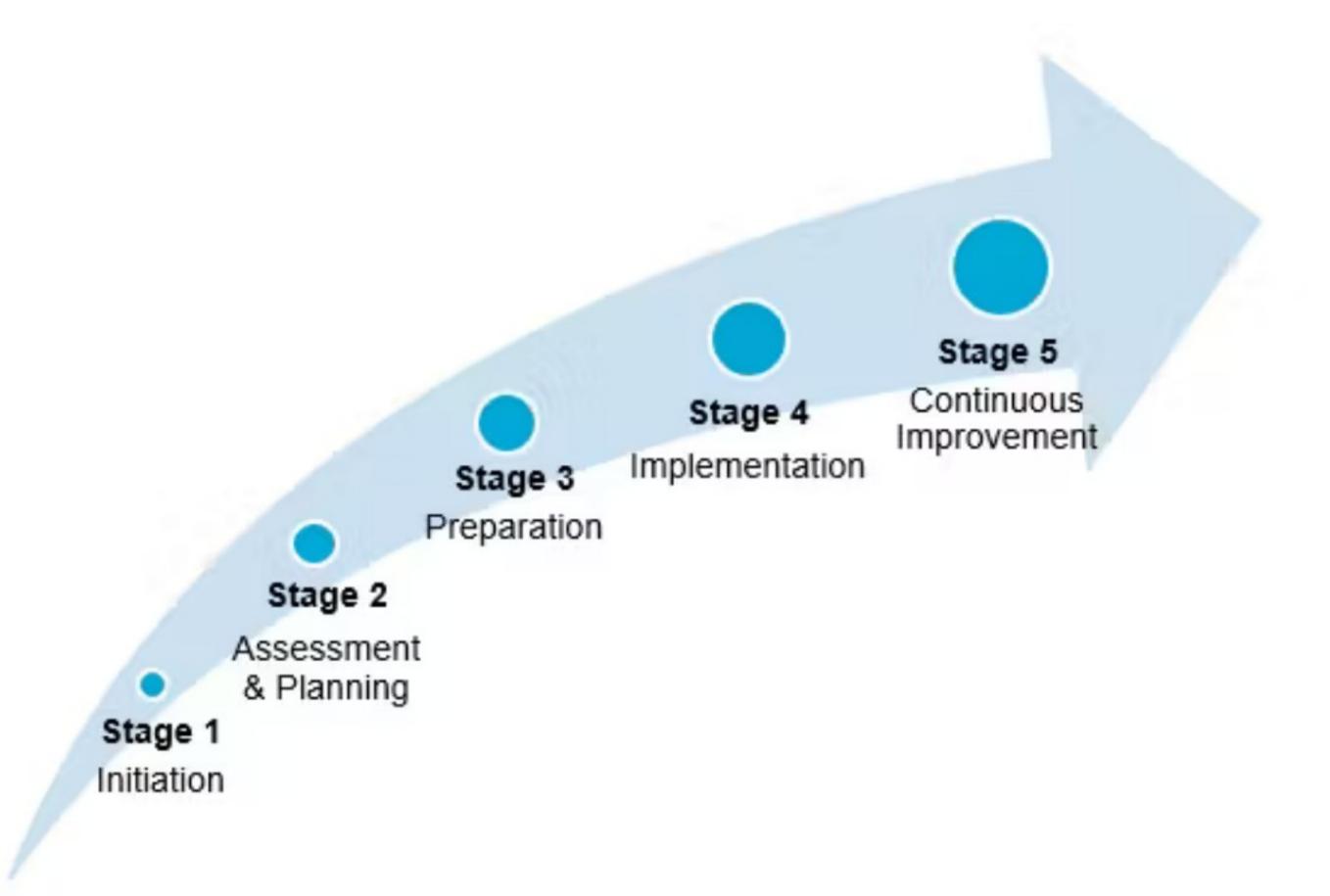
Kong, I., Janssen, M. & Bharosa, N. (Forthcoming, 2024). Navigating Uncertainties of Quantum-Safe Transition: Stages of Growth Model Approach.



### PhD Research Progress

| Stage 2 Assessment & Planning | 1.2 Communication & Monitoring  Organization has communication channels in the ecosystem and monitors the transition. But, there is no shared vision or common goals in the ecosystem. | 2.2 Governance Structure  Organization recognizes the need for governance in the ecosystem and establishes a formal structure  | 3.2 Awareness & Assessment  Organization gathers insights on QS transition. There are emerging discussions on QS solutions in the ecosystem.                               |
|-------------------------------|--|--|--|
| Stage 1<br>Initiation         | 1.1 Disengagement  Organization is disengaged in the ecosystem. Organization is disconnected and not actively involved.  | 2.1 Governance Vacuum  There is a lack of formal governance for transition in the ecosystem. There is no guidelines, rules or mechanisms for decision-making, coordination and accountability. | 3.1 No Formal Policies & Regulations  There is an absence of formal certification process for QS solutions. There is a lack of regulations and policies for QS transition. |
|                               | 1. Collaboration   | 2. Governance  | 3. Policy & Regulation   |

Example of Categories used in the model



Stages of Growth Model for QS Transition

## Future Outlook

- Multiple Iterations of Growth Model
- Development of Online Assessment Tool
- Conducting workshops at organizations
- Valuable: your expertise & opinion in the field



# Thank you.

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Would you like to stay informed about our research?