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Unleashing the true power of Autonomous Networks

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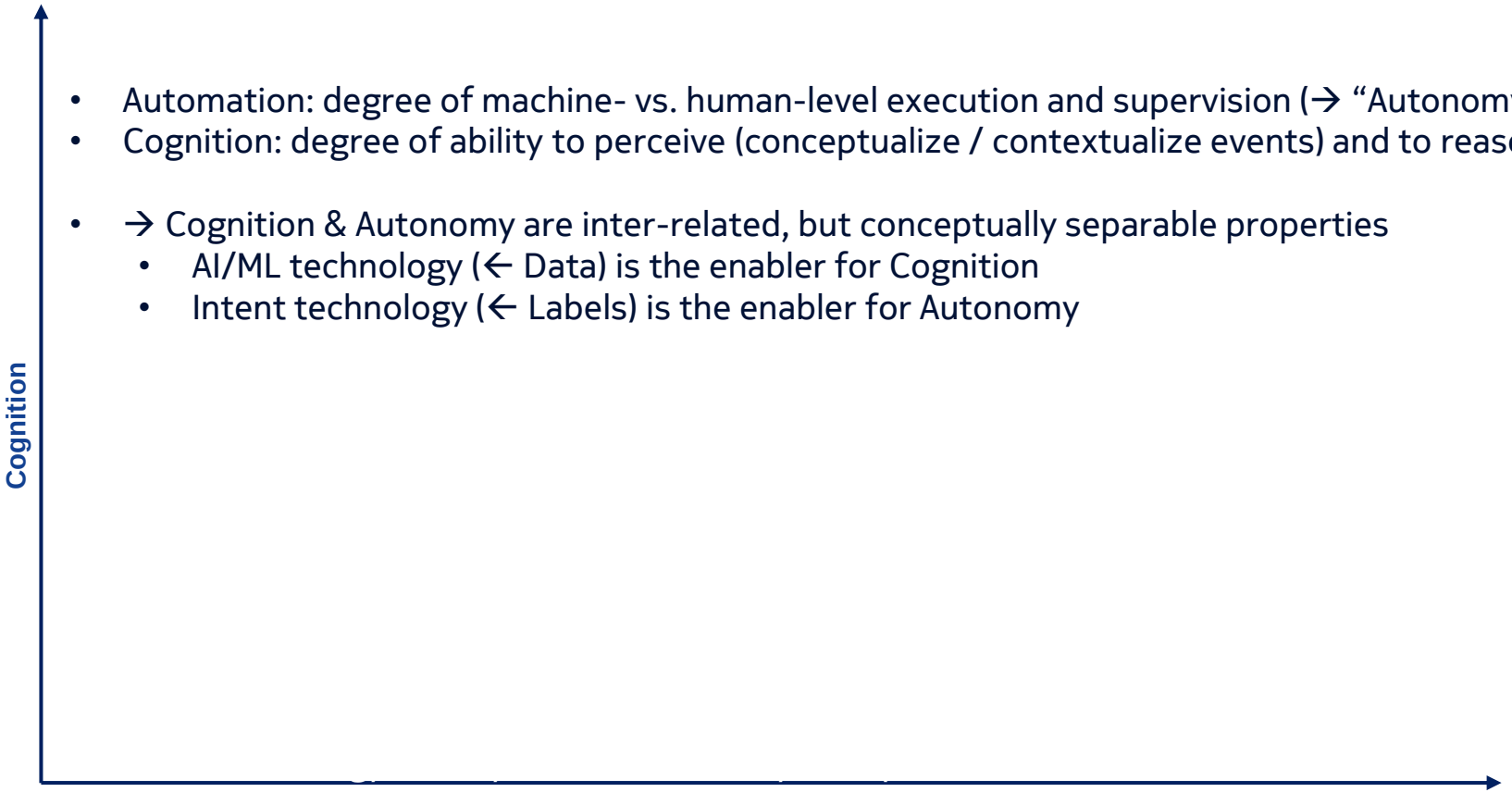
Panel

Unleashing the true power of Autonomous Networks
Position Statement – Henning Sanneck

- Automation: degree of machine- vs. human-level execution and supervision (→ “Autonomy”)
- Cognition: degree of ability to perceive (conceptualize / contextualize events) and to reason



- Automation: degree of machine- vs. human-level execution and supervision (→ “Autonomy”)
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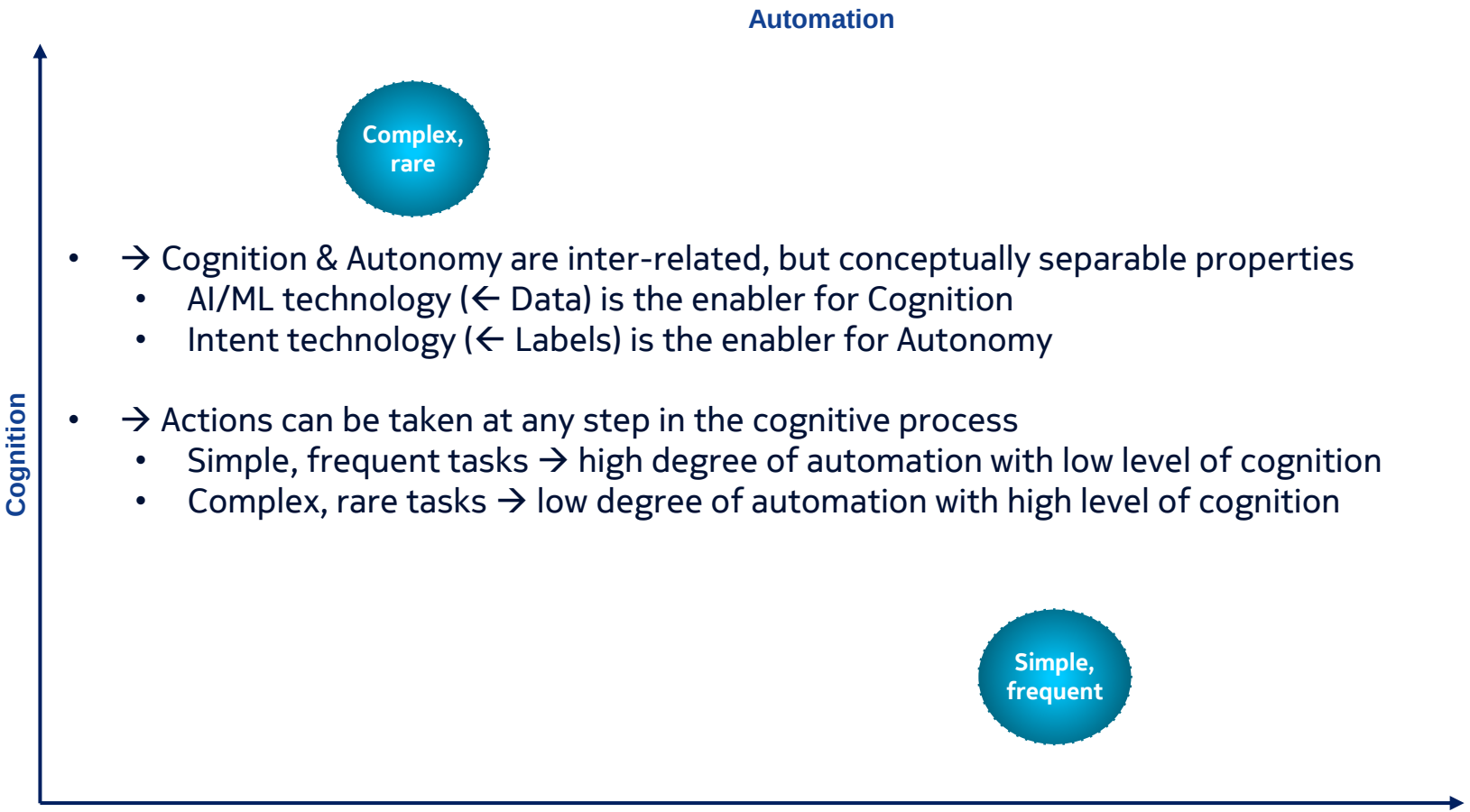
- → Cognition & Autonomy are inter-related, but conceptually separable properties
  - AI/ML technology (← Data) is the enabler for Cognition
  - Intent technology (← Labels) is the enabler for Autonomy



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  - Simple, frequent tasks → high degree of automation with low level of cognition
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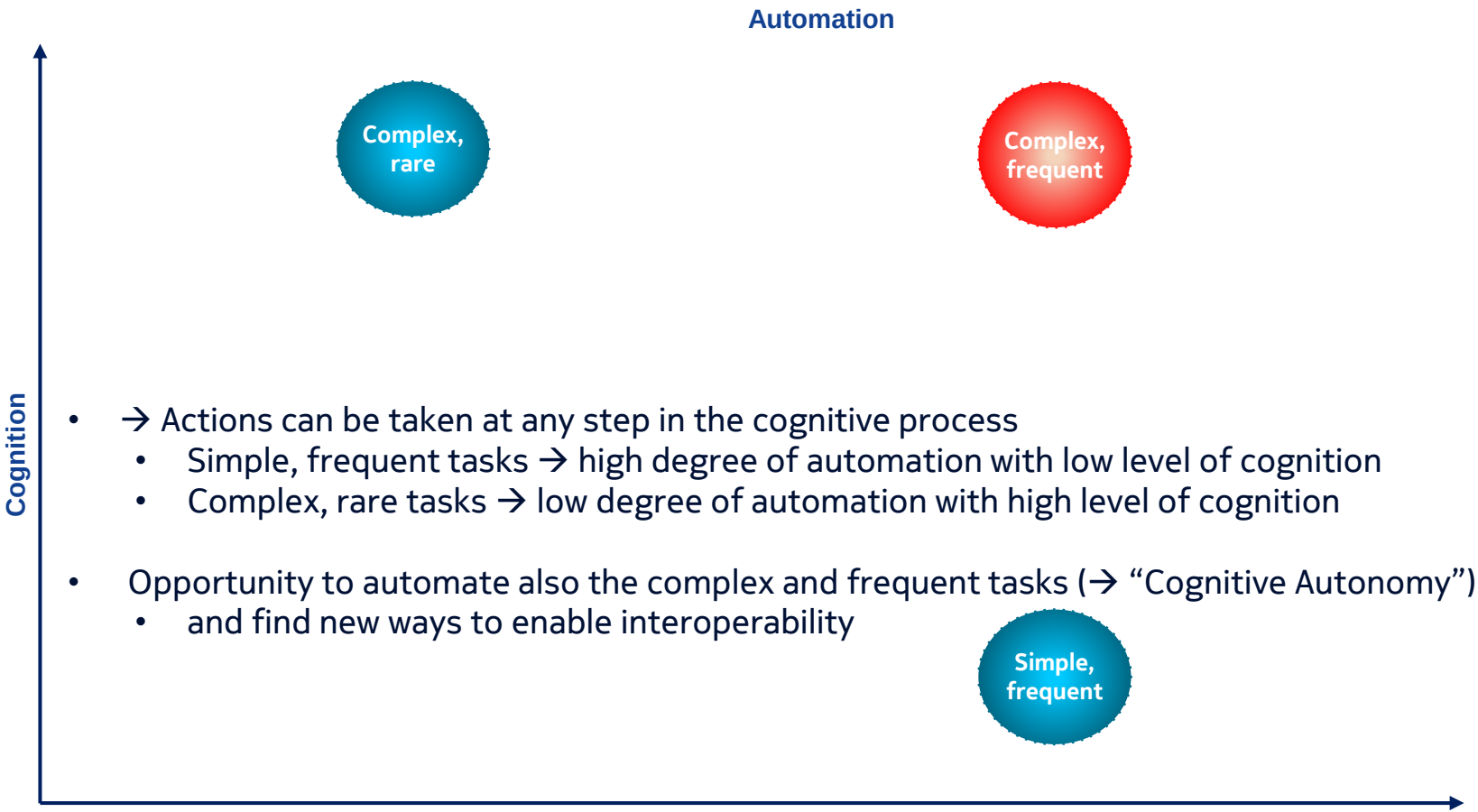

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- Opportunity to automate also the complex and frequent tasks (→ “Cognitive Autonomy”)
  - and find new ways to enable interoperability

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Cognition

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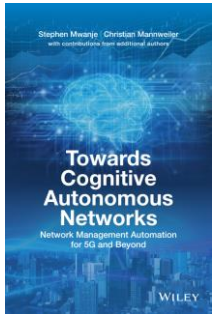

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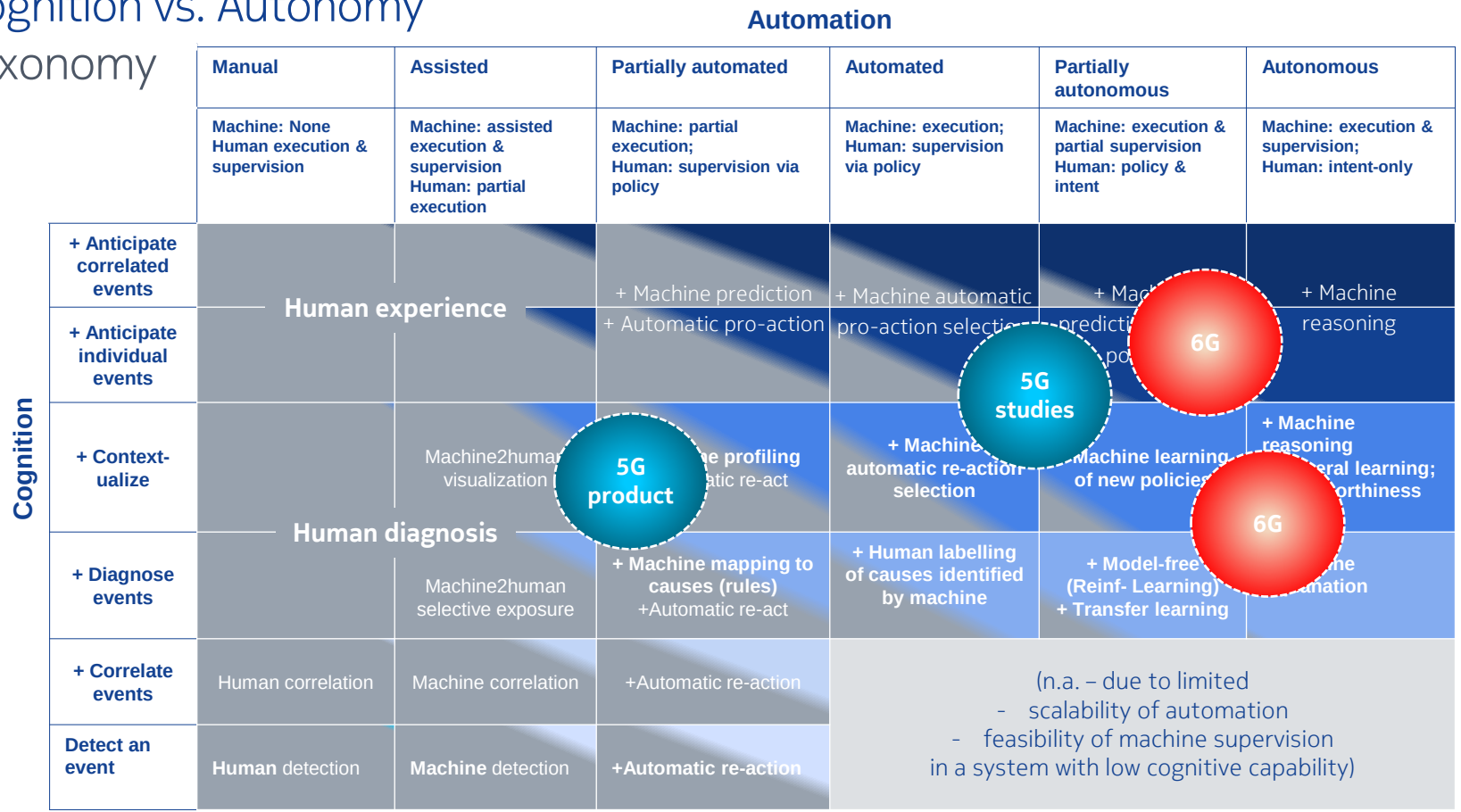
- Challenges (for Technology and Standards adoption in Networks / Network Operations):
  - System legacy and diversity (existing architectures, tools), evolution
  - Technology novelty (new functionality (MLOps), trust)

Cognition vs. Autonomy Taxonomy



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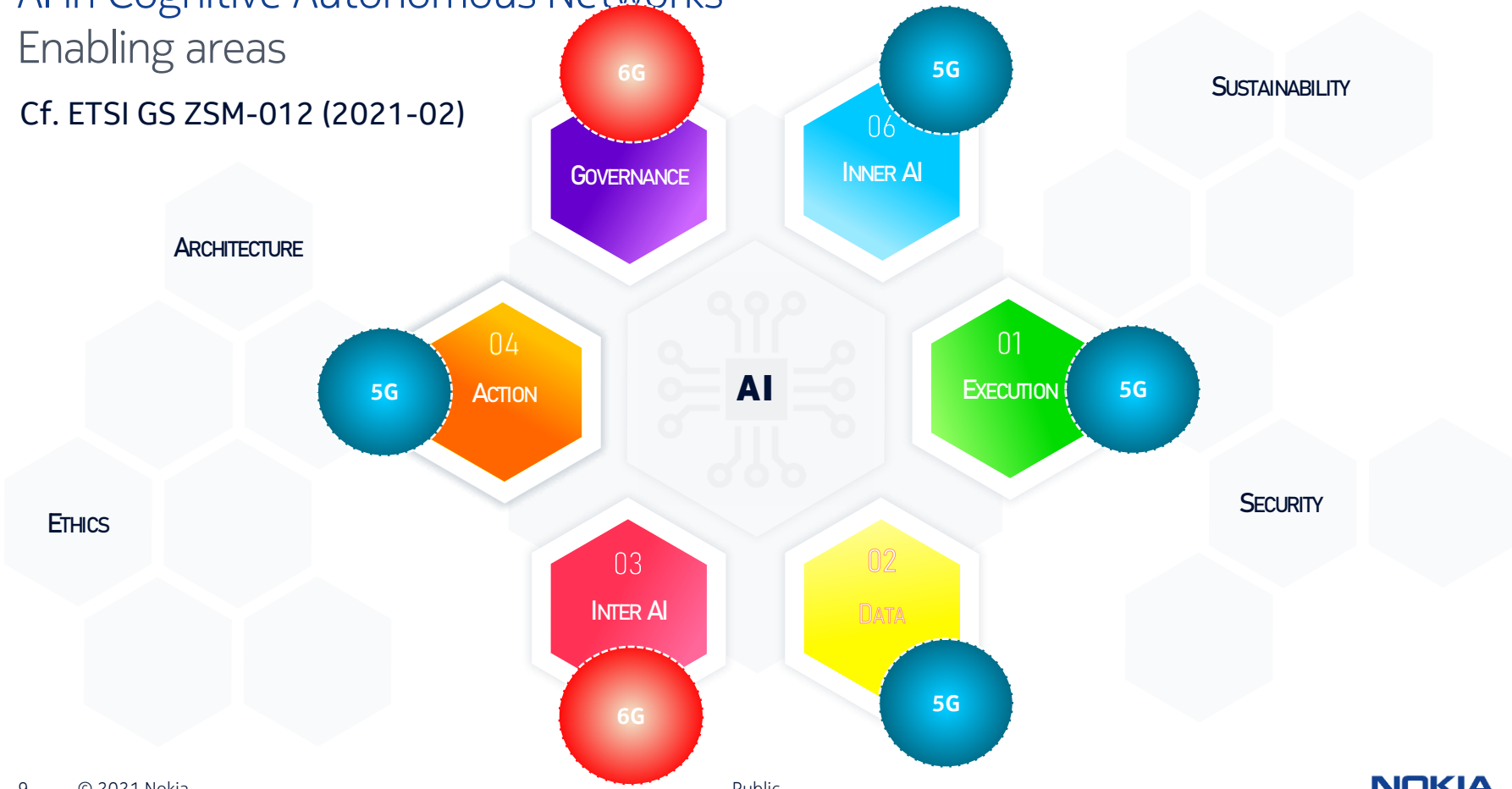
AI in Cognitive Autonomous Networks

Enabling areas

Cf. ETSI GS ZSM-012 (2021-02)



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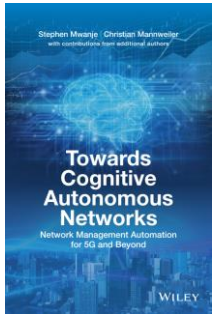

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