

SINGAPORE BIODESIGN



Digital Health Innovation Skills & Competencies

2025

DIGITAL HEALTH INNOVATION **INNOVATION SKILLS & COMPETENCIES**

Project Management	Formulate and implement a digital health innovation project plan, address interoperability and integration considerations, understanding of iterative software development and digital product lifecycle management, while effectively managing stakeholders across multidisciplinary teams, resource and budget
Product Development	Bring a digital health innovation through the entire development phase, technology assessment, developing proof-of-concepts, robust data validation of digital solutions, to collaboration with institutional stakeholders to drive deployment and optimize integration. Ensure effectiveness and safety, monitor post-implementation ownership models and post-market surveillance, adherence to cybersecurity and privacy regulations while enhancing adoption and long-term usability
Business Planning	Plan, validate and execute digital health business models and go-to-market strategies in relevant healthcare markets, tailor business pitches to stakeholders, raise funds & conduct financial analysis
Clinical Trial Planning	Design clinical trial plan and strategy, design and coordinate different types of clinical trials for digital health products, identify and manage CROs, while establishing ethical frameworks that prioritize patient protection, and obtain ethical review board (IRB) approval as needed
Regulatory	Build regulatory strategy for Software as a Medical Device (SaMD), implement institutional responsibilities for regulatory compliance and oversight, ethical deployment of decision-support tools, while maintaining safety and long-term accountability before and after deployment
Market Access	Assemble and propose strategy to broaden patient/stakeholder access to digital health product/service, based on understanding of healthcare systems, value chain and reimbursement landscape in relevant markets
Intellectual Property & Data Ownership	Analyze the different IP instruments and basic regulations as relevant to digital health products/service, best practices for institutional IP protection and licensing models, and data ownership considerations
Operational Planning	Monitor emerging trends for AI and digital innovations, develop operational plans, cybersecurity risk mitigation, quality management systems and implement change management for the business to optimise processes, people and resources (e.g. supply chain, infrastructure)

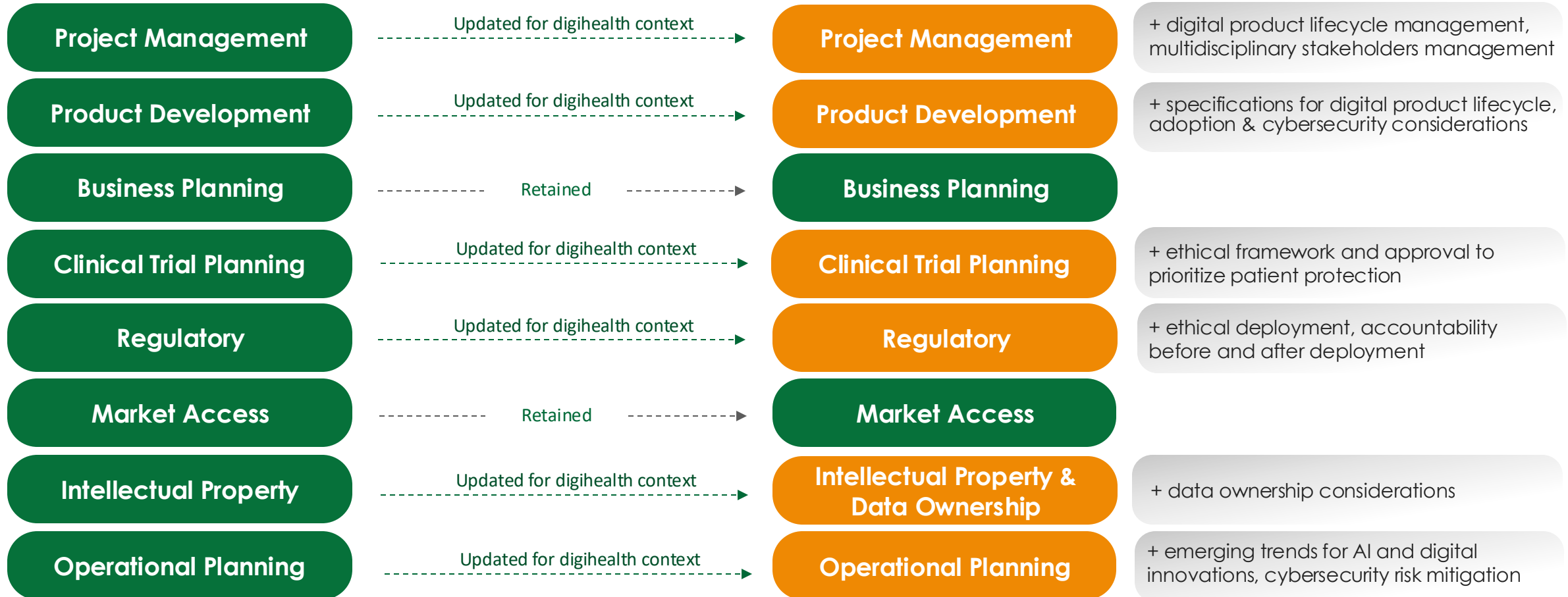
INNOVATION SKILLS & COMPETENCIES (ISC)

HEALTH & MEDTECH INNOVATION

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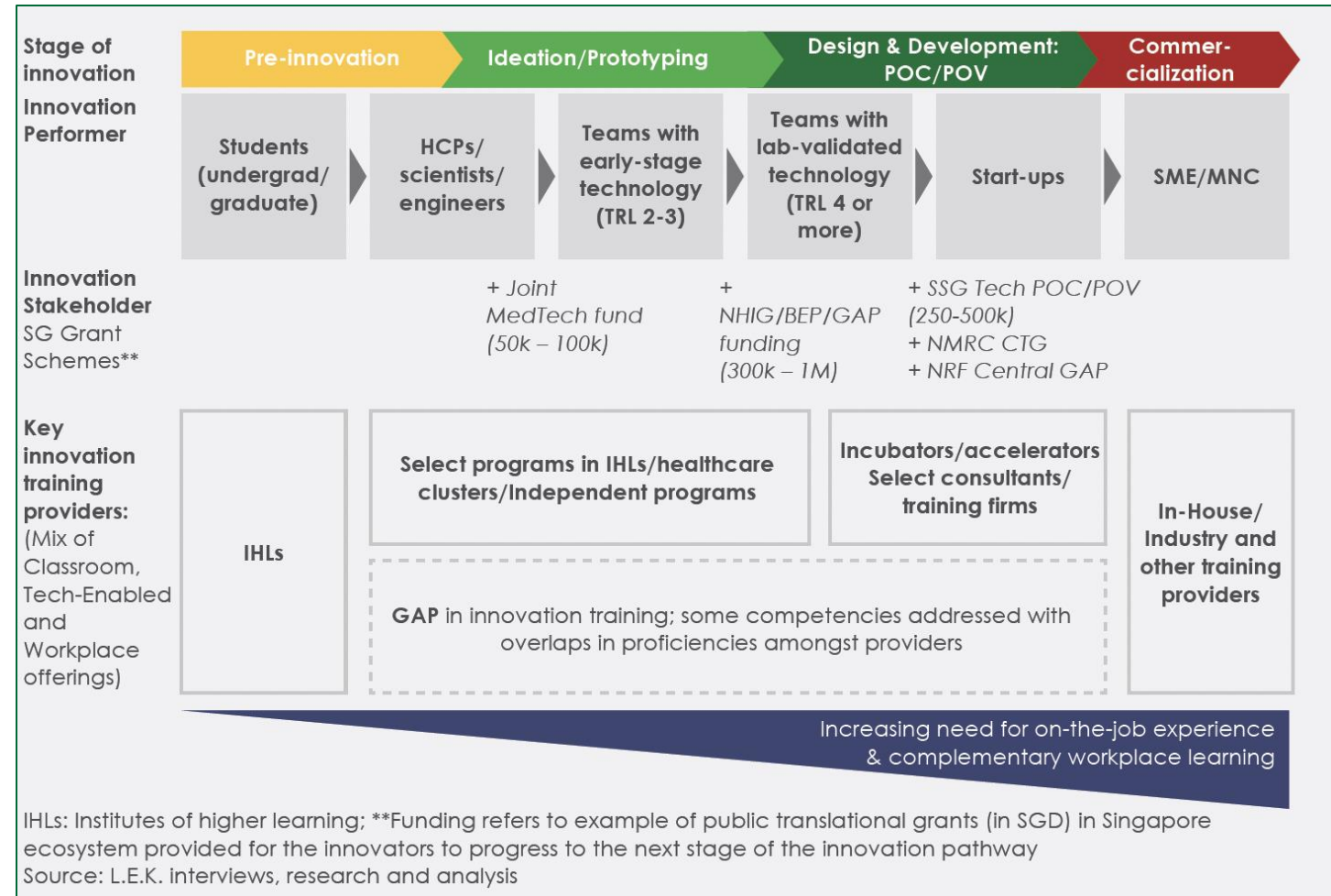
DIGITAL HEALTH INNOVATION

[With input from SB alumni, Mar 2025]



POTENTIAL TRAINING & CAPABILITY DEVELOPMENT THROUGH SB & MEDTECH PARTNERS

1. Building regulatory and compliance knowledge for SAMD
2. Incorporation of implementation science for digital health
 - ❖ Teaching frameworks for evaluating deployment success
3. Developing digital fluency ie collaboration opportunities with DHA and other organizations to train professionals in digital health innovation



Source: Singapore Biodesign Whitepaper 2022 – Health & Medtech Innovation Talent. Importance of an Innovation Training Framework

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THANK YOU

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