



C&I training module for start-ups

Session 2: New Technologies and IOT

Presenter: *Jeevan Persad, Trinidad & Tobago*

Session on ICT Conformance and Interoperability: *Challenges for Developing Countries*

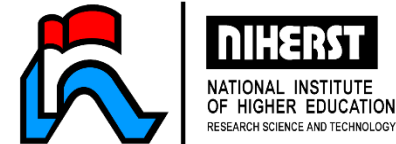


Relevant Experience

- 15years working within the Caribbean in the areas of entrepreneurship and startups
- Consultant to Caribbean economic bodies and science organisations on matters related to economic development
- 15years working in the areas of electronics product development and additive manufacturing

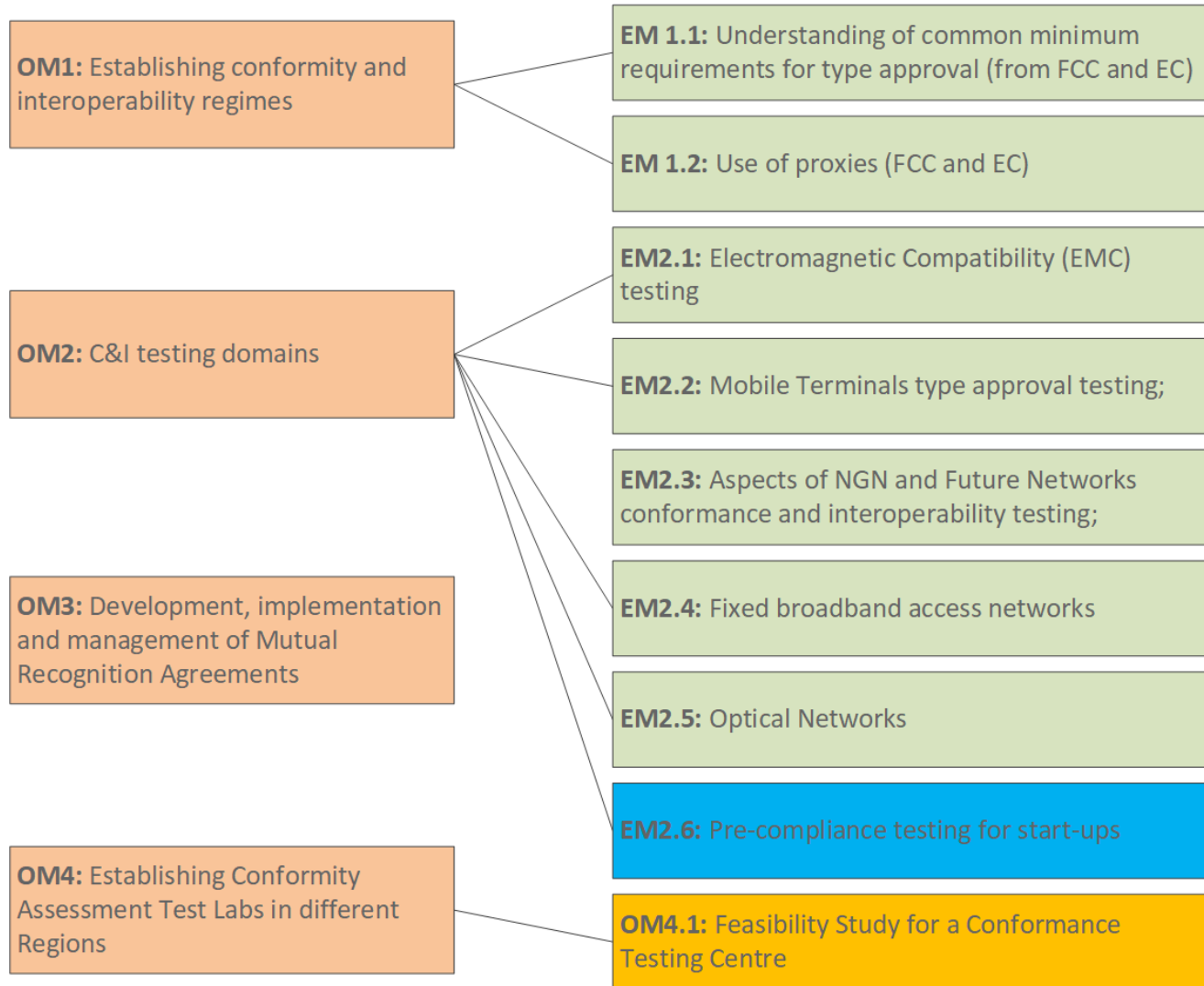


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CITP Structure



U.N. Sustainable Development Goals

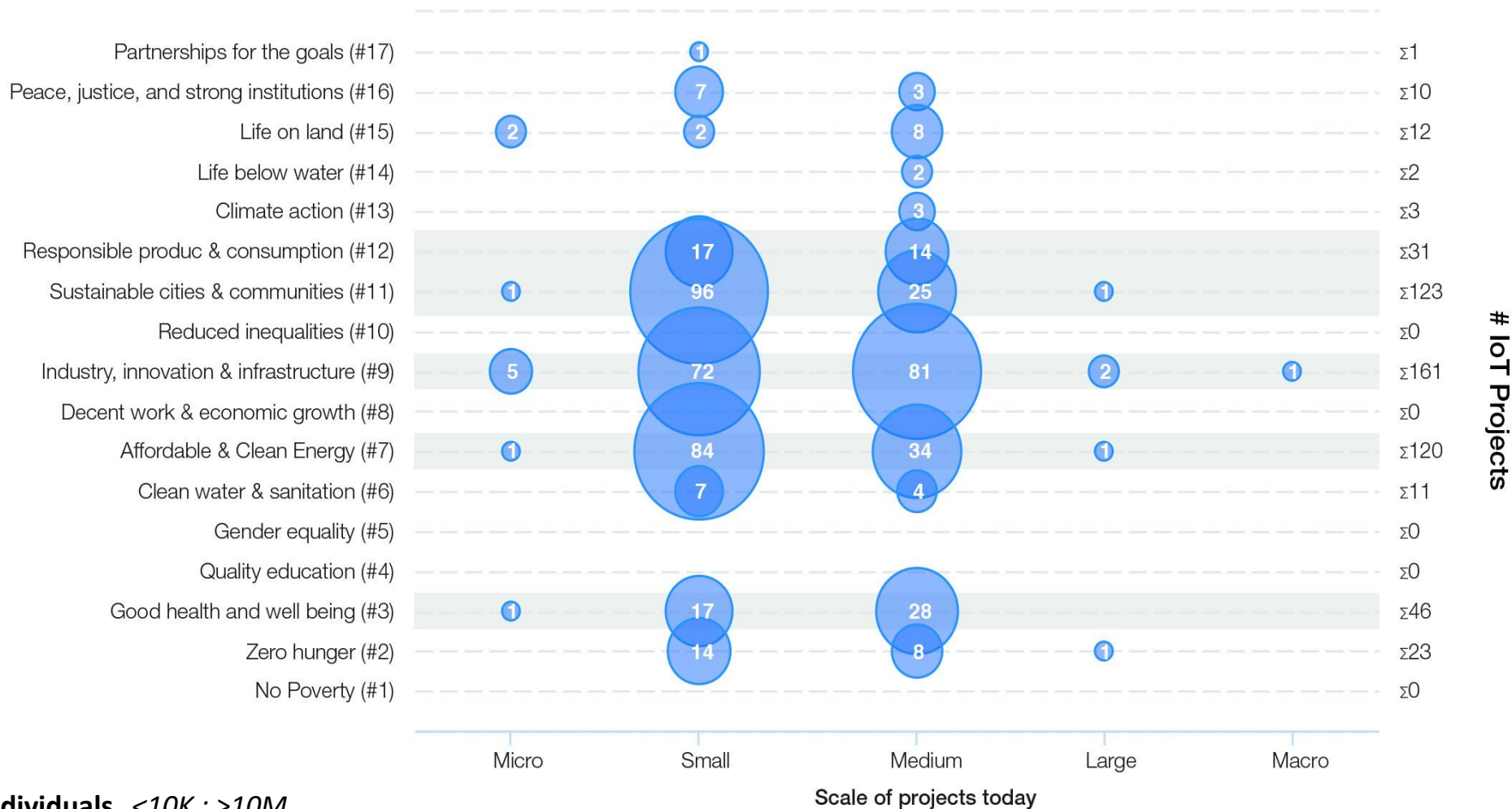


IOT & Sustainable Development

- Expectation that technology will solve local & global challenges.
- IOT is ranked 3rd for global economic impact by 2025¹
- Relevance to emerging economies:
 - Participation vs consumption (\$11.1 trillion - 14% of today's global GDP)
 - Unaddressed markets and needs
 - Specific solutions focus on social impact

¹McKinsey 2018

75% of IoT projects focus on 5 SDGs



Individuals <10K : >10M
Usage single sector : multiple sectors
Geography community : worldwide

World Economic Forum

IOT Challenges

- Scaling is impacted by interoperability challenges:
 - Understanding at the regulator level
 - Perception of regulations as a barrier to entry
- Developer level – awareness & perception of C&I
 - Monetary cost
 - Safety & human cost
- Funding and resources for IOT projects/products is limited
 - Certification costs
- IOT markets are still in their infancy



Electronic Steelpan (P.H.I.)



Pannist Natasha Joseph



Natasha Joseph performing with the PHI



Testing at the certification lab

- Product development was completed with intention to launch sales
- Undertook FCC certification and **failed**
- Resultant delay to market + required rework of electronics resulted in app. USD100k in losses



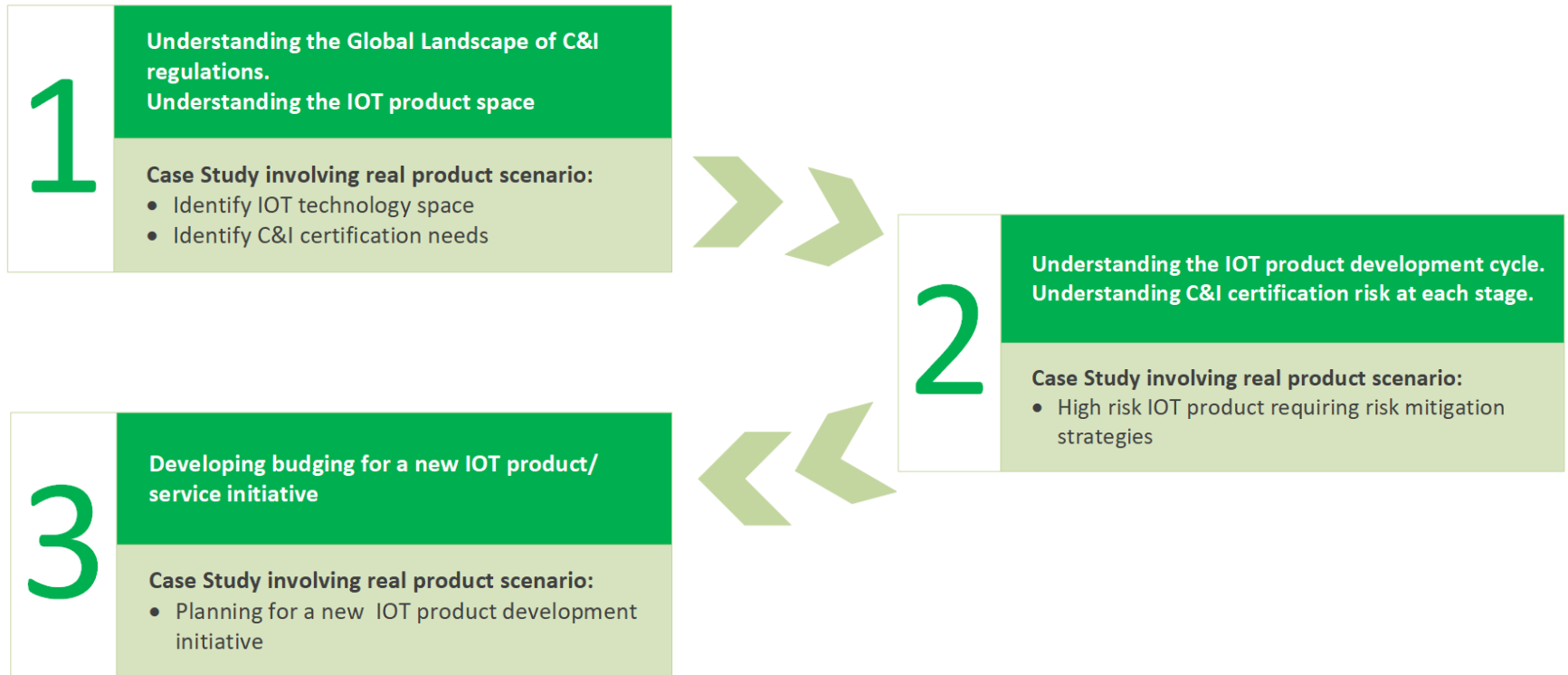
EM2.6 Pre-compliance Testing For Startups

- For startups - awareness about C&I:
 - Relevant to their specific IOT product design
 - At their current point on their journey to market
- For regulators – awareness of the impact of C&I:
 - Appreciation of the costs (monetary, time, technical) to a startup
 - Regulations as a benefit vs a barrier





EM2.6 Pre-compliance Testing For Startups



EM2.6 Hopeful Impact

- Giving Startups **a better chance of success:**
 - Smart product mix
 - Incorporating C&I from the drawing board
 - Knowing the people + resources that you need & when you need them
- Helping Regulators **uplift emerging products & businesses:**
 - Advocacy for cross cutting MRAs
 - Informed engagement with entrepreneurs

Closing Thoughts

- Young people and startups are working to build solutions to address pressing needs
- Their solutions can be exportable innovative game changers
- A progressive regulatory framework can protect and uplift all stakeholders



Young pannist playing the electronic steelpan



Need for affordable robust hearing aids



Assistive device for the visually impaired



Sustainable robotics for classrooms

THANK YOU



transforming ideas