

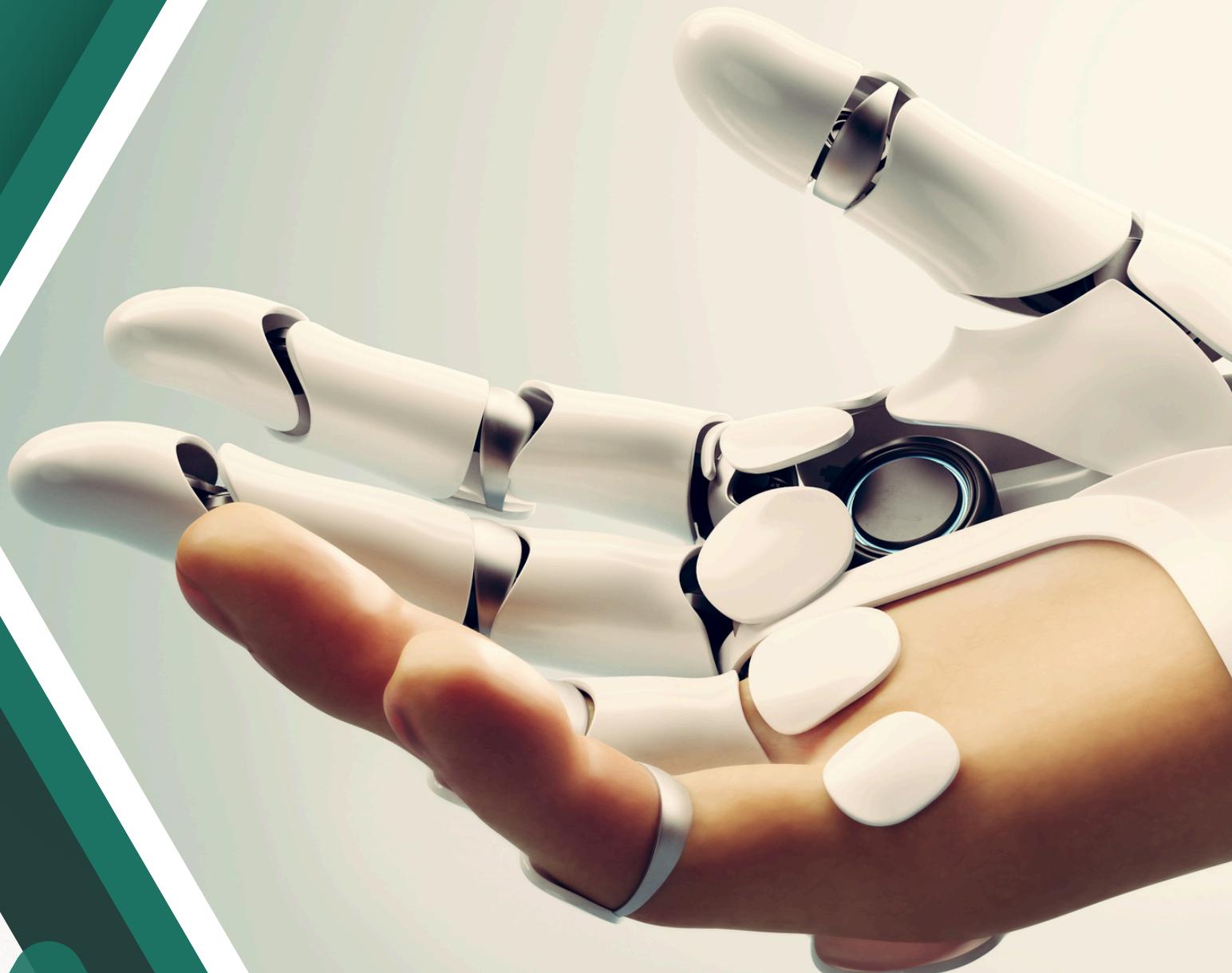
# **INTEGRATED PROJECT & CONTEXT-BASED LEARNING (IPCBL) FRAMEWORK IN ICT EDUCATION**

[jacquim.github.io\icpbli](https://jacquim.github.io\icpbli)

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# AGENDA

-  **Background & Introduction** **01**
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-  **Technical Considerations** **03**
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-  **Framework Implementation** **04**
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# BACKGROUND

## ► **Industry-Relevant Skills**

A need for innovative teaching and learning methodologies that better equip students with practical, industry-relevant skills exists (Khasawneh, 2024).

## ► **Real-World Applications**

Traditional assessment methods lack the integration of real-world applications (Janse van Rensburg, 2022).

## ► **Competency-Based Learning**

A framework that promotes competency-based learning through project-driven and context-aware education is needed (Pratisto and Danoetirta, 2025) & (Molina-García et al., 2024).

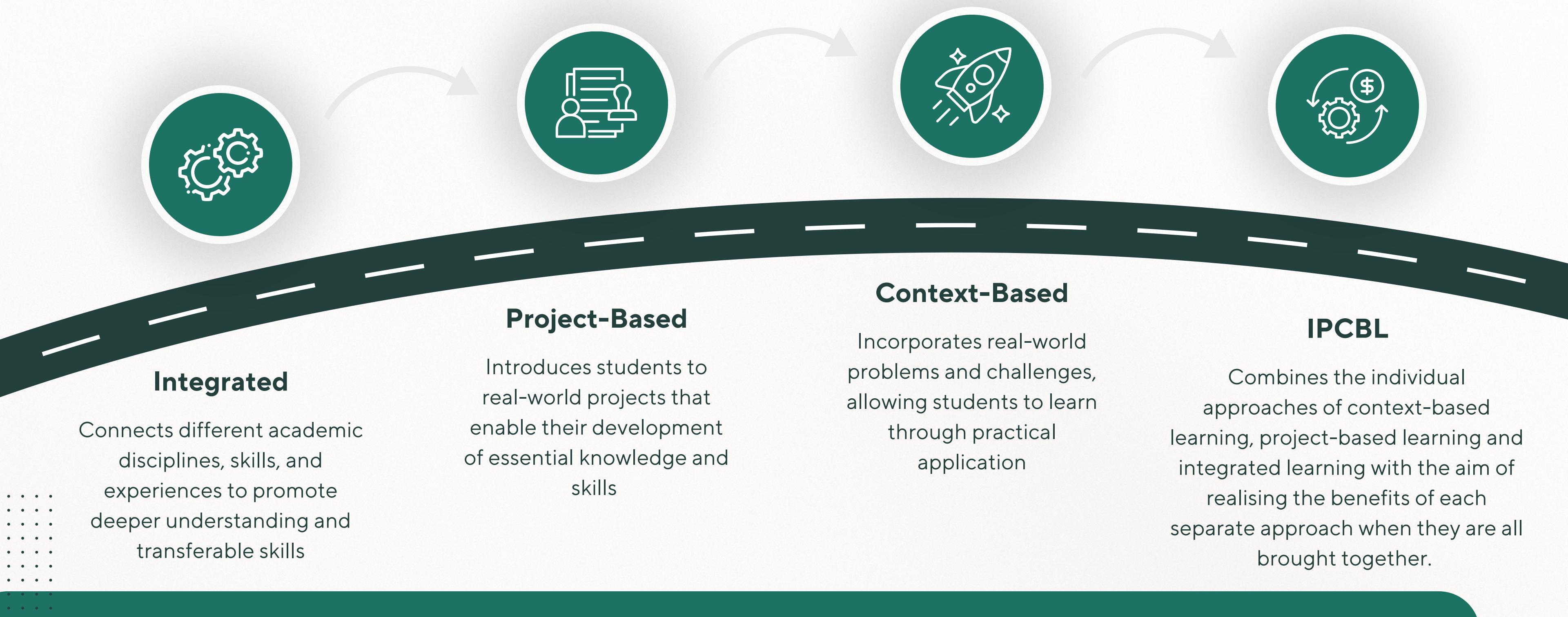


# OBJECTIVE

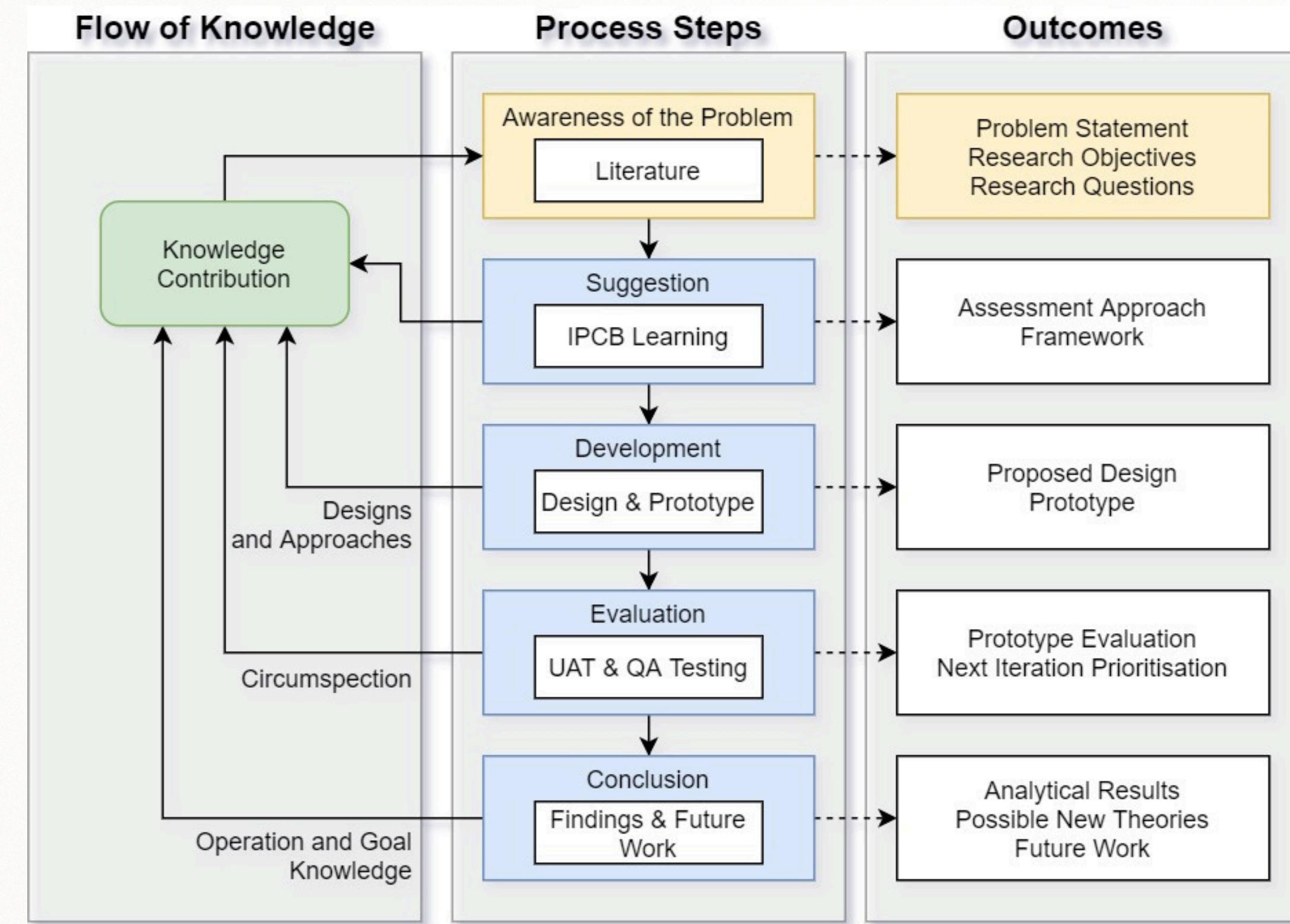
To develop and evaluate a framework that fosters deep learning, problem-solving, and skill acquisition within an ICT education context.



# IMPLEMENTATION PLAN



# RESEARCH DESIGN



# IPCBL IMPLEMENTATION

## Industry Workplace

### Context

#### Capstone Project #1

Discipline - Foundational Theory

Static Delivery Type

Individual Team Composition

#### Capstone Project #2

Discipline - Progressive Theory

Static Delivery Type

Individual/Interdisciplinary Team Composition

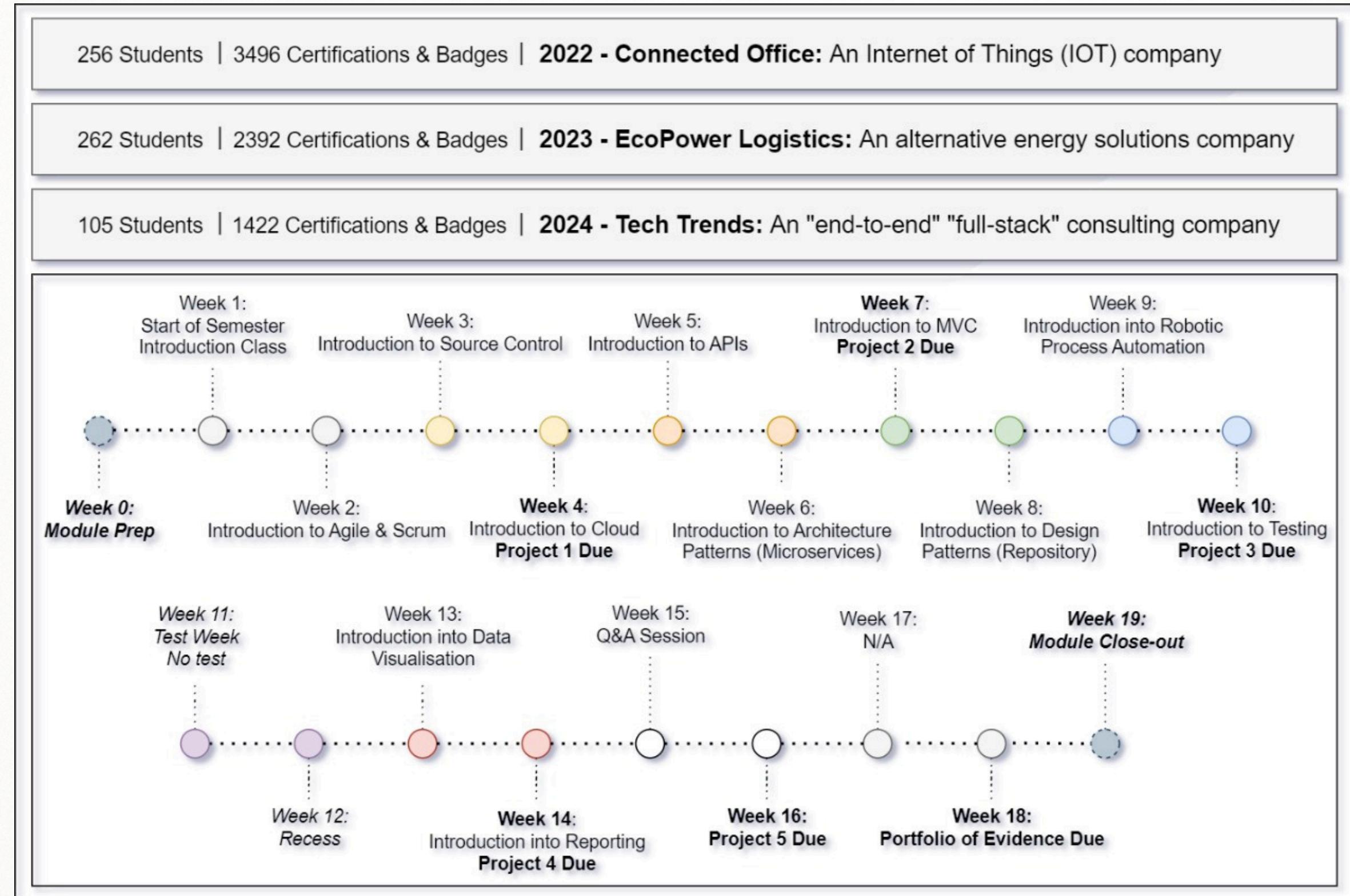
#### Capstone Project #3

Discipline - Practical Theory Implementation

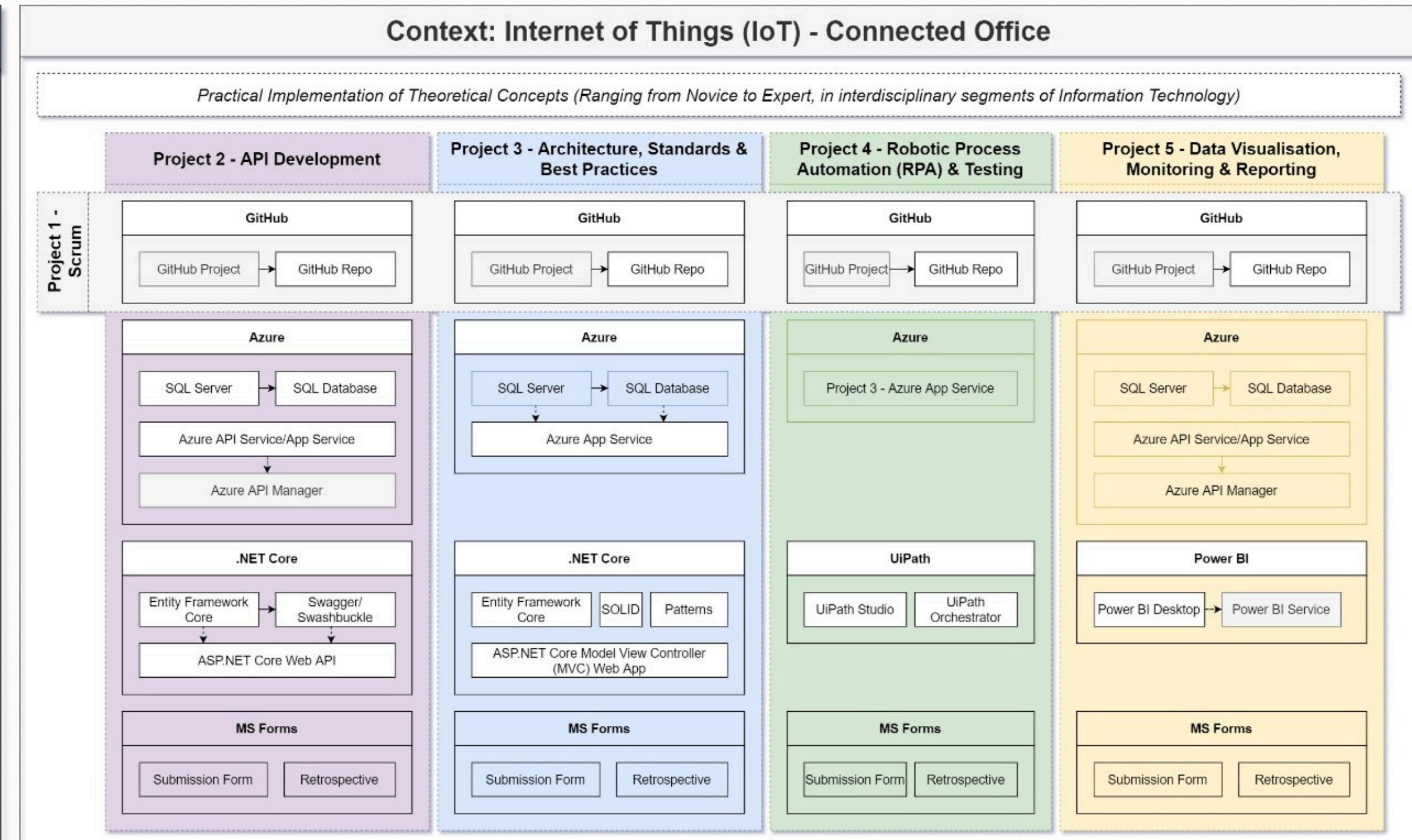
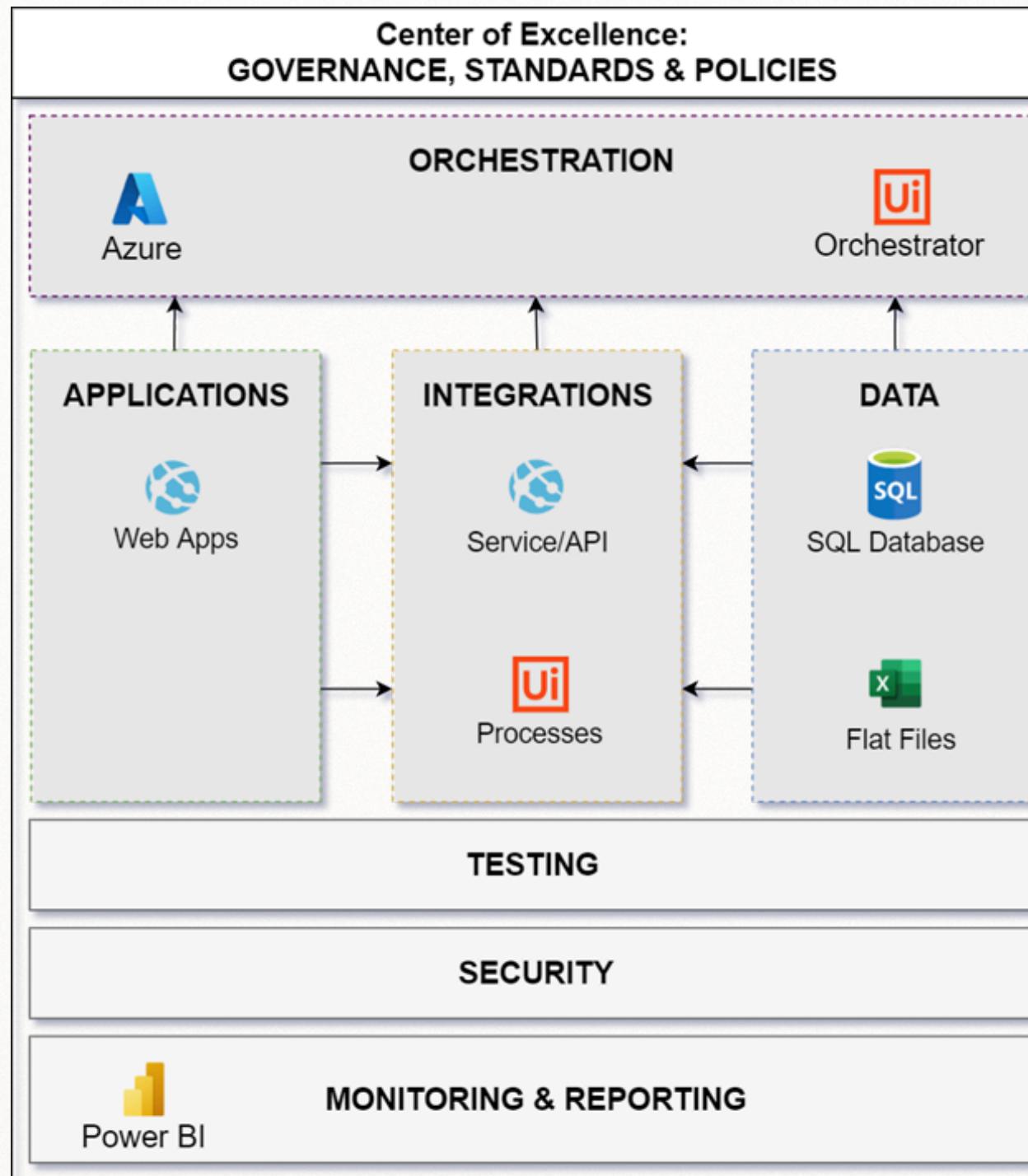
Dynamic Delivery Type

Interdisciplinary Team Composition

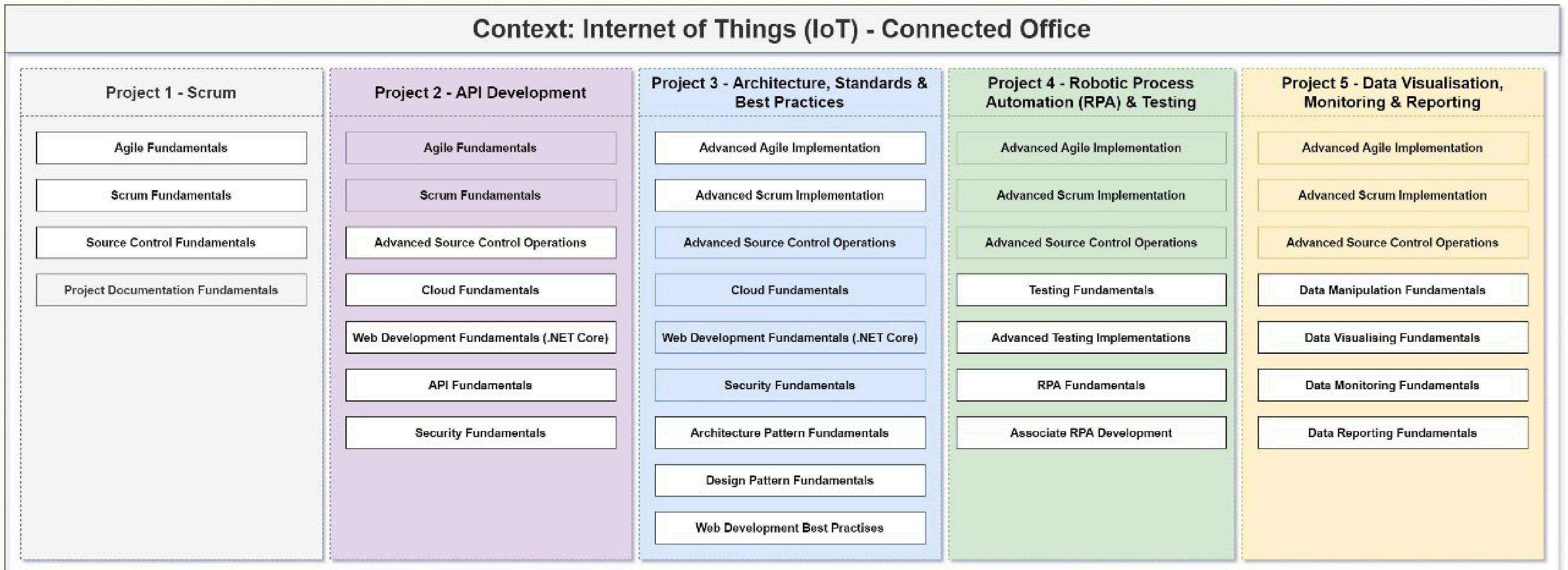
# IMPLEMENTATION PLAN



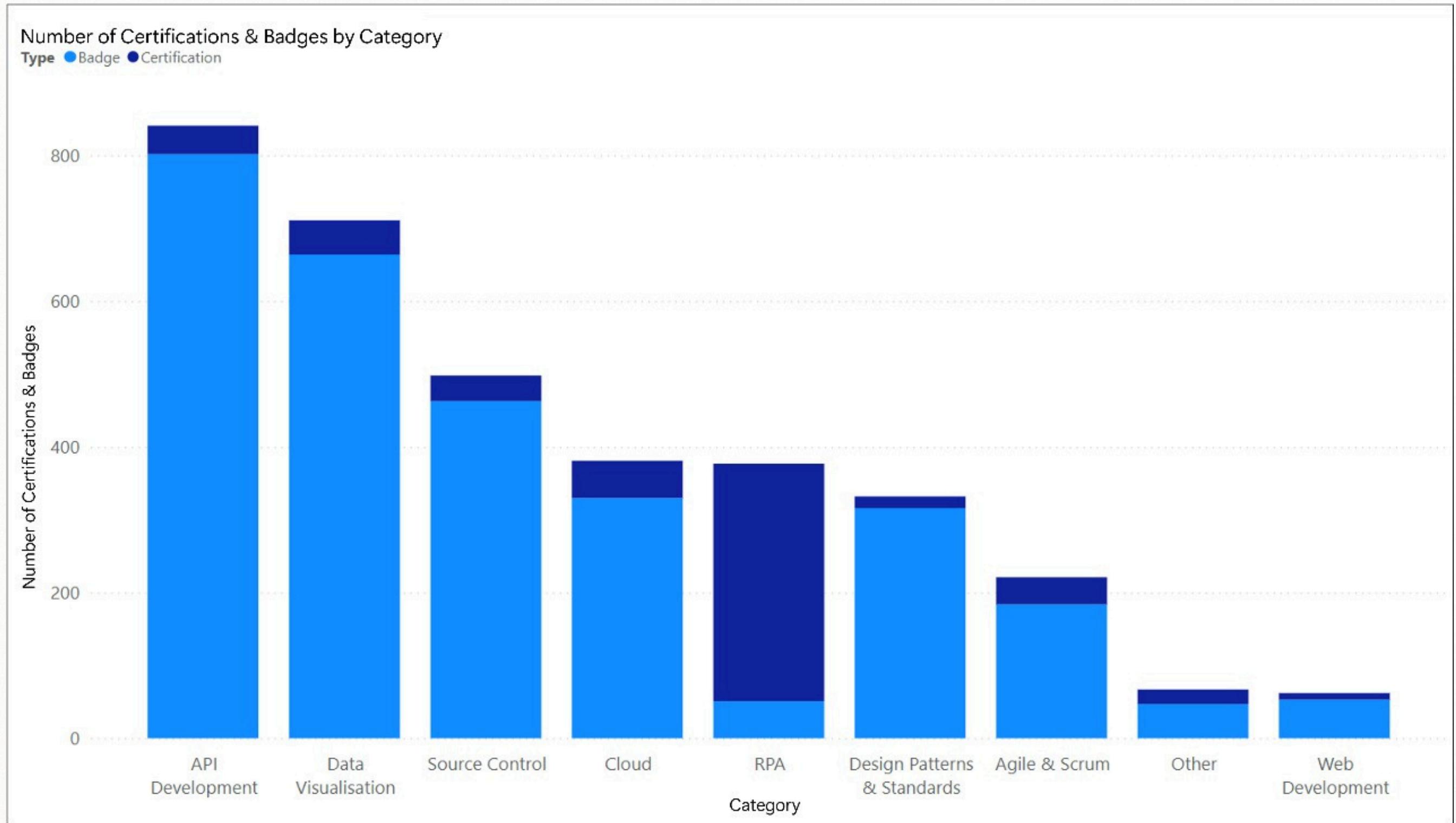
# FIRST ITERATION



# FIRST ITERATION (CONT.)



# FIRST ITERATION RESULTS



# APPROACH COMPARISON

Advantage	Context-Based Learning	Project-Based Learning	Integrated Learning	Integrated Project Context-Based Learning
Improved motivation & engagement	✓	✓	-	✓
Improved retrospective understanding of critical concepts	✓	✓	✓	✓
Development of essential skills	✓	✓	-	✓
Transferability of knowledge	✓	✓	✓	✓
Real-world application	✓	✓	✓	✓
Encourages critical thinking	✓	✓	✓	✓
Encourages creative thinking	-	-	✓	✓
Encourages problem solving	✓	✓	✓	✓
Encourages external training & certification	-	✓	-	✓

# FUTURE WORK

## ► **Module Outcome Curriculum Development**

Encapsulate the approach proposed by Muller and Greeff (2022) to develop a curriculum shaped specifically to incorporate pre-defined skills that can be aligned to a module-outcome-level binary rubric.

## ► **Portfolio of Evidence Template**

Enhance the template of the content required in the portfolio of evidence that illustrates the progression of student skills and application of knowledge through the IPCBL learning approach.

## ► **Training & Certification Milestones**

Introduce external training milestones into the approach to ensure certificates are obtained timeously and within integrated capstone project context, contributing to the overarching module context.



# THANK YOU!

