

# Domain Knowledge Guideline Bot

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## 1 Persona of Business Unit

### Who we are:

Project Development & Design Management (PDDM) is a core competency of CLD, with the team responsible for developing CLD's projects.

It consists of 4 Pillars:

- **Project Management**
- **Design Management (Architectural)**
- **Design Management (M&E)**
- **Cost & Contract Management**

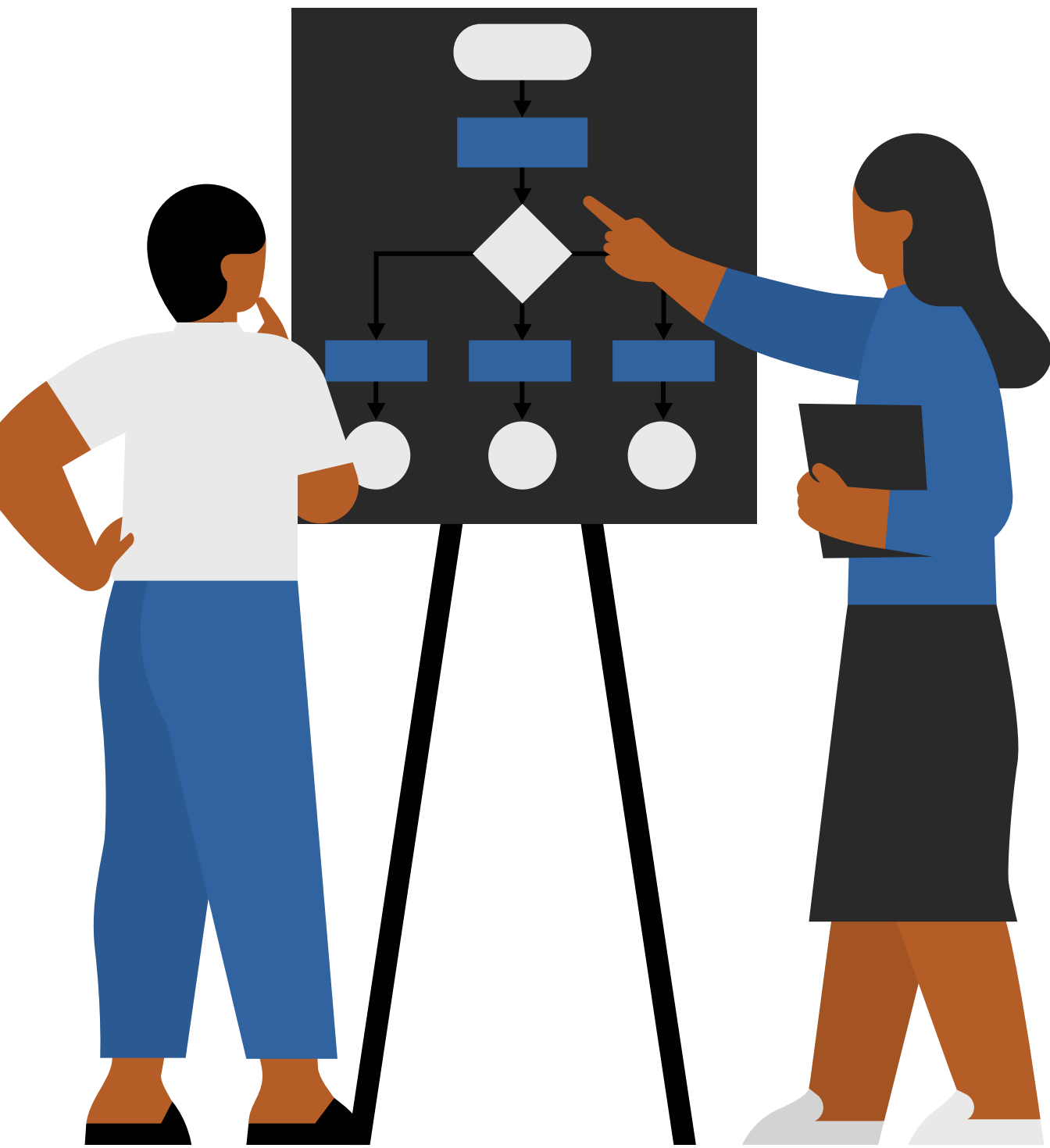
### What we do:

PDDM appoints third parties on behalf of CLD, such as

- **Architects**
- **Consultants**
- **Contractors**

for each project and work closely with them to deliver the projects up to CLD's requirements





# Problem Statement:

It is **time consuming and labour intensive** to:

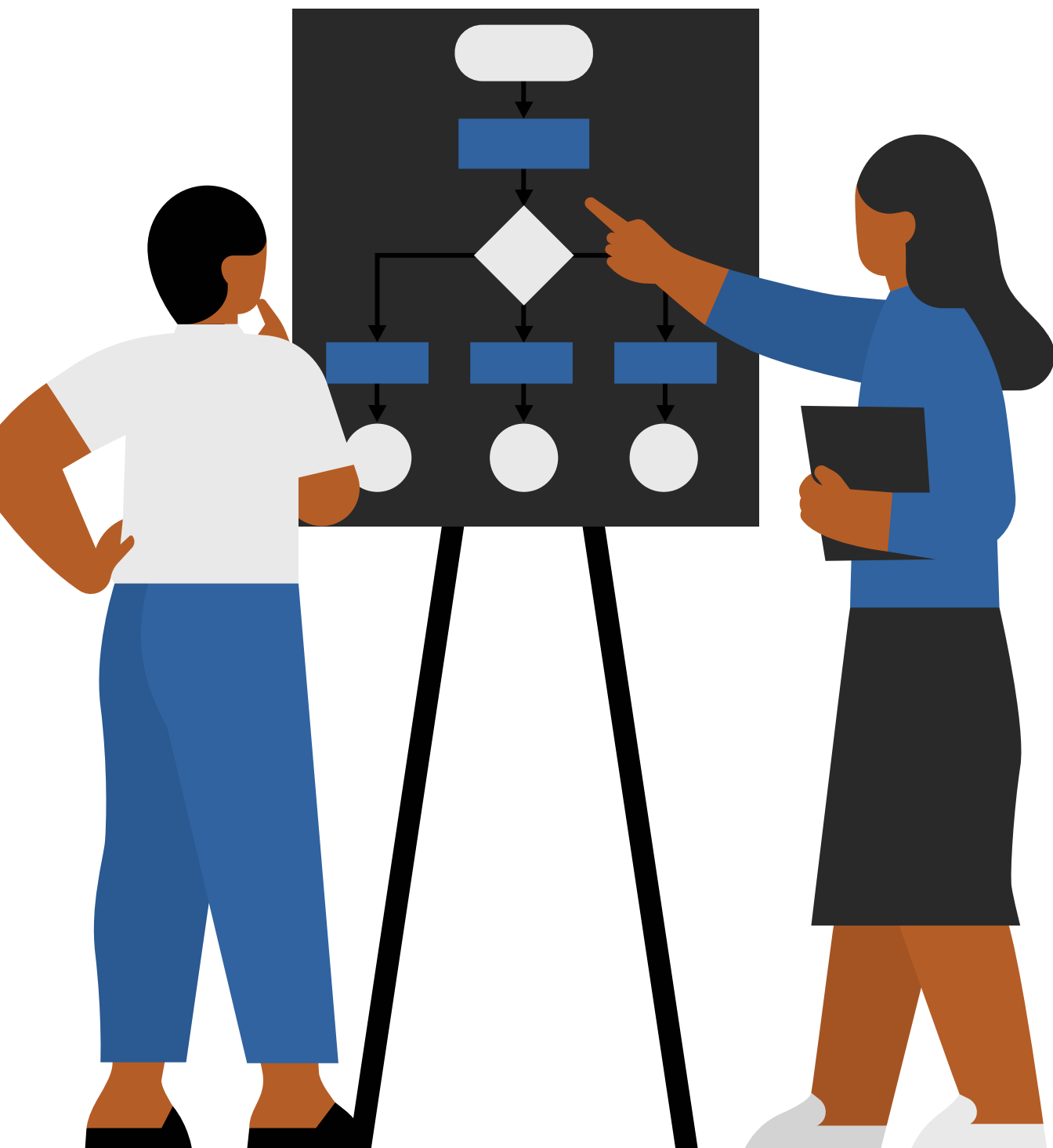
1. **Search for specific information** within PDDM's Domain Knowledge database
2. **Compare against market norms** to ensure that the Domain Knowledge remains current, relevant and leading-edge.

Context:

- Our quality management system, design guidelines and project database (“Domain Knowledge”) are constantly reviewed and improved with time.
- The extensive database of Domain Knowledge is maintained and updated manually by the PDDM team.

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## Problem Statement & Pain Point



## Significance/Impact:

**One of PDDM's competitive advantages lies in adherence to our well-established ISO 9001 Quality Management System, comprehensive design guidelines and an extensive project database ("Domain Knowledge").**

- This Domain Knowledge is crucial to maintain the high competency level that is currently being upheld by the team.

# Data Points:

- **Database of Domain Knowledge**
  - Quality Procedures
  - Quality Records
  - Design Guidelines
- **User Query List**



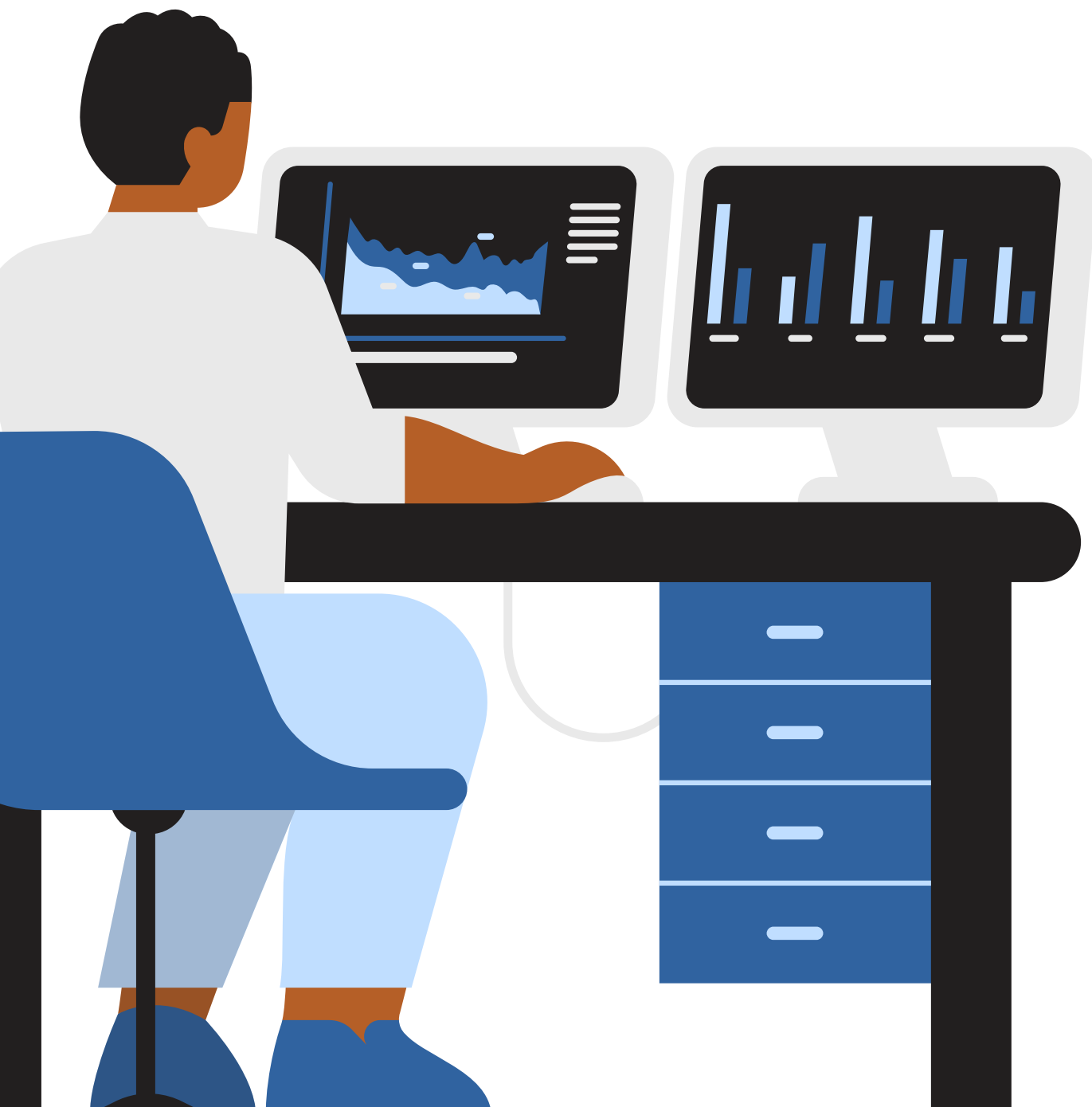
## Scenario:

- **Layer 1 (within Domain Knowledge database)**
  - Look for LOA template
  - Process guideline search
  - Design guideline search
- **Layer 2 (against market norms)**
  - Compare LOA (for consultant appointment)
  - Compare design guideline (car parking lot size/layout/demarcation lines, general principles for washroom layout)
- **Layer 3 (Enhancement)**
  - Recommend design or trends in carpark and washroom



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**Desired Outcome  
& Success Criteria**



# Desired Outcome:

**Potential solution: 3-layer AI bot that enhances PDDM capabilities and boost productivity**

## Layer 1

- AI chatbot of Domain Knowledge database for easy info extraction.

## Layer 2

- Link chatbot to OpenWeb/external data for ease of market research and benchmarking e.g. compare, in a table, our standards of car parking lot size/layout/demarcation lines to that of the latest workspace building in the market, good LOA template.

## Layer 3

- Leveraging AI-generated insights to augment the continuous enhancement of the design guidelines, quality procedures and records.



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Desired Outcome  
& Success Criteria



## Success Criteria:

**Ease of using AI bot to access Domain Knowledge database, driving improved efficiency, compliance, and development outcomes.**

### Key Measures:

- 100% user engagement with the bot over traditional shared drive access
- Enhanced work efficiency and internal compliance
- Facilitates benchmarking of design guidelines, quality procedures etc against industry best practices
- Improved quality of developments and time to market

## Future Potential:

**The infrastructure can be replicated to other functions to strengthen in-house capabilities.**

