AI2

AI Residency

AI Residency

1. AI Residency programs among Companies

2. intensive training through an immersive environment.

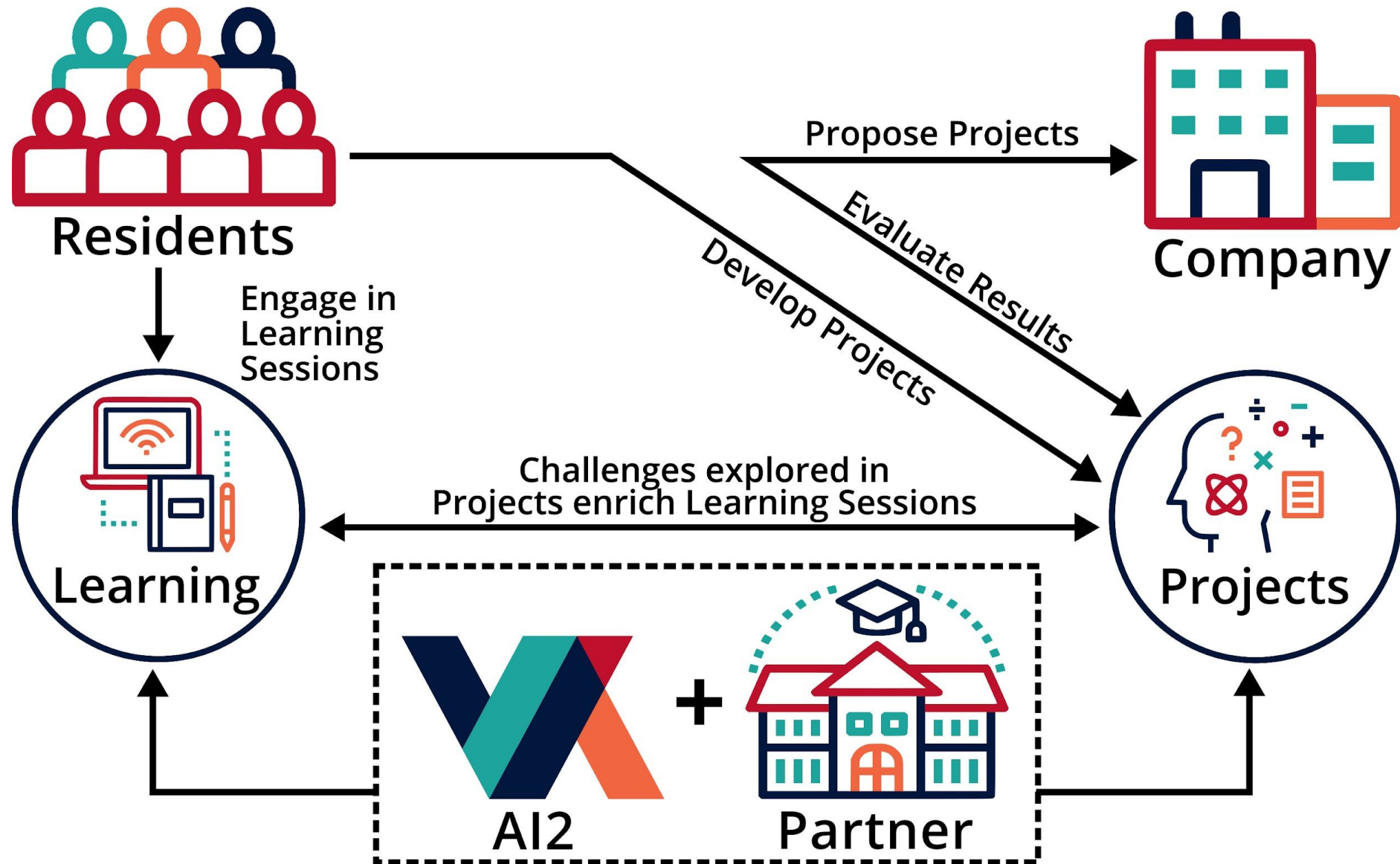3. Residents apply the knowledge on practical projects according to the company's guidelines.

AI2 Residency Program

- The Novelty of AI2 Residency Program is that it has the objective to be prepare students without any knowledge of AI to become data scientist in one year

- The program is composed of
  - Theoretical classes combined with demonstrations and practical exercises
  - Challenges with focus on Practical problems from industry and Academia
  - A machine learning expert guides students during the development of projects
    - The idea is that students will apply their knowledge in real problems in a collaborative environment, to get knowledge and experience with several common aspects of such projects

Role of the different players

- AI2
  - Instructors
  - Mentors

- Residents

- Education Partner

- Partner Company
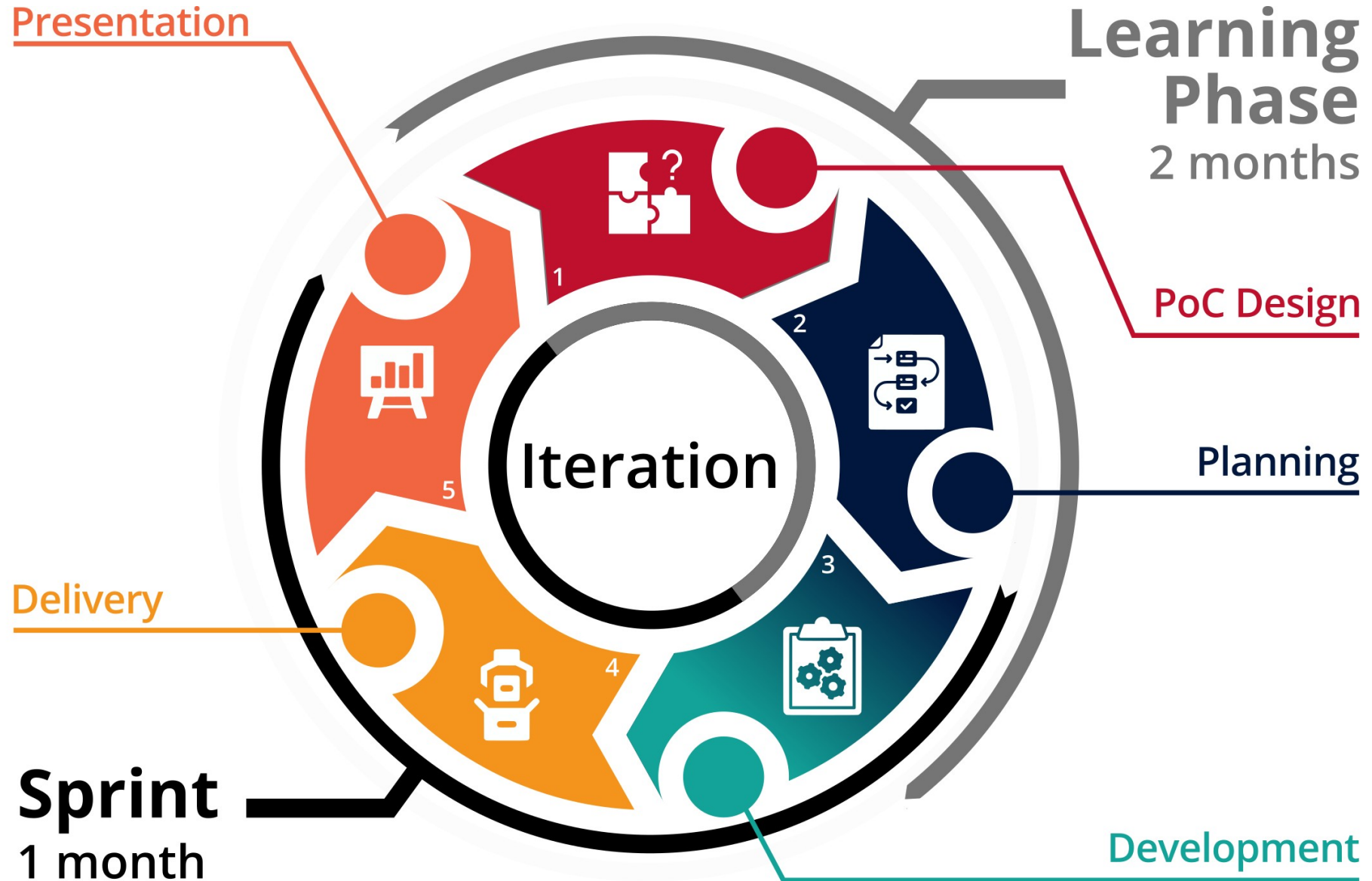
Interconnection between residency players

Residents

Propose Projects

Company

Engage in Learning Sessions

Develop Projects

Evaluate Results

Learning

Challenges explored in Projects enrich Learning Sessions

Projects

AI2 + Partner

AI Residency Activities

- The program is divided into four iterations composed of Learning Phase and a Sprint.

- Learning Phase
  - classes on AI (theoretical and a practical component)

- Sprint Phase:
  - Project Development
  - Delivery
  - Presentation

AI Residency Activities

Presentation

Learning Phase
2 months

PoC Design

Planning

1

2

Iteration

5

3

Delivery

4

Development

Sprint
1 month

AI2 Residency Program

Program Modules

Competencies to acquire

Software Engineering in Python

Python Software Development of collaborative projects

Data Science Foundations

Data manipulation and visualization through descriptive statistics

Machine Learning Foundations

Machine Learning modeling and model implementation in Python

Advanced Machine Learning

Machine Learning modeling and implementation of advanced techniques in varied domains

Machine Learning in Production

Machine Learning project development and putting models in production

Results

- Residents
  - 20 residents
  - 18 concluded
  - 10 hired near the end of residency

- Companies
  - 10 AI Topics investigated on several POCs

Number of projects in each topic

Temporal series analysis (5)

Unsupervised classification (1)

Anomaly detection (2)

Image analysis (5)

OCR and NLP (4)

Chatbot (1)

NLP (2)

Pattern recognition (1)

Regression (2)

Classification (4)