

Cypher 3.0 – Problem Statements

Welcome to **Cypher 3.0**.

Here are the official problem statements from our innovation partners — **Envision**, **Innowhyte**, and **KD's Garage**.

Each problem challenges you to combine creativity, technology, and design thinking to create impactful solutions.

1. Envision

AI & DeepTech for Wind Farms

Problem:

Use **Artificial Intelligence (AI)** and **DeepTech** to enhance the performance and predictive maintenance of wind farms.

Focus Areas:

- Develop systems that can predict when turbines may fail or need maintenance.
- Improve the overall energy efficiency and output of wind farms.
- Reduce operational downtime and costs through smart analytics.

Goal:

To make renewable energy systems more efficient, sustainable, and reliable using data-driven technologies.

2. Innowhyte

AI-Powered Learning Companion

Problem:

Most learning in schools focuses on memorizing facts instead of understanding concepts deeply.

Task:

Build an **AI-powered learning companion** that helps students learn from first principles by:

- Explaining **why** and **how** a concept works.
- Breaking complex ideas into simple, understandable steps.
- Personalizing lessons based on a student's understanding and curiosity.

Goal:

Create a system that makes learning conceptual, engaging, and adaptive to every learner.

3. KD's Garage – Hybrid Innovation Track

Bridging Technology, Design, and Leadership

KD's Garage invites you to build systems that don't just work efficiently, but also **think, reflect, and adapt** like humans.

You can choose any one of the following six tracks.

Track 1: The HR Twin – The Living Organization

Problem:

Build a digital representation (or "mirror") of an organization that reflects its emotional health, team balance, and collaboration.

Ideas to Explore:

- Create a **Culture Dashboard** showing morale and engagement trends.
- Predict burnout or imbalance using communication or activity data.
- Blend analytics with empathy to build human-centered organizations.

Goal:

Use data to make organizations healthier and more emotionally aware.

Track 2: Persona Canvas – The Leadership Mirror

Problem:

Design an interactive system that helps individuals reflect on their leadership style — how they decide, communicate, and grow.

Ideas to Explore:

- Develop a **Leadership Persona Canvas** or journaling platform.
- Analyze tone, values, and communication patterns.
- Build reflection-based learning experiences for teams.

Goal:

Encourage self-awareness and personal growth in leadership through thoughtful design.

Track 3: The Virtual Roundtable – Decision Simulator

Problem:

Create a digital simulator that places teams in real-world ethical or strategic dilemmas to study how they make decisions under pressure.

Ideas to Explore:

- Build a scenario-based simulator with multiple decision paths.
- Develop a **Team Bias Heatmap** to visualize decision-making patterns.
- Use AI or logic trees to evaluate collaboration and reasoning.

Goal:

Understand and improve how teams make decisions collectively.

Track 4: WorkDNA – The Skill Blueprint

Problem:

Design a system that maps a person's or team's unique "WorkDNA" — a dynamic skill blueprint that evolves with experience.

Ideas to Explore:

- Create a **visual skill tree** that grows with learning and collaboration.
- Develop a **growth dashboard** for individuals or teams.
- Combine behavioral and technical data for self-assessment and improvement.

Goal:

Help individuals and teams visualize and track their growth journey.

Track 5: The Adaptive Interviewer

Problem:

Redesign the interview experience to make it more human-centered and adaptive to candidates' emotions and responses.

Ideas to Explore:

- Build a text-based interviewer that adjusts tone and questions in real time.
- Create a **Candidate Reflection Portal** for self-feedback after interviews.
- Develop empathy-driven evaluation systems to reduce bias and anxiety.

Goal:

Use technology to make hiring more inclusive, fair, and human.

Track 6: Project Kaleidoscope – Innovation Through Diversity**Problem:**

Design a system or framework that ensures diversity of thought and prevents stagnation in idea generation.

Ideas to Explore:

- Develop a process or game that challenges repetitive thinking.
- Build an **Idea Diversity Meter** to measure creativity in teams.
- Create a collaborative platform that brings in different perspectives.

Goal:

Promote innovation by encouraging diverse and creative thinking within teams.