

In *Anticipation* of Change

Strategies for Engineering Leaders to Stay
Current and Effective



James Da Costa, VP of Engineering at Cint

In *Anticipation* of Change

“our job as CEOs, is to look around corners, anticipate where opportunities will be someday and position the company to be near them; standing under the tree to do a diving catch when the apple falls”

*–Jensen Huang, Founder, President and CEO
(Acquired Podcast, Oct 2023)*

Strategies to develop an

Anticipatory Mindset

to help with longer-term planning and future-proofing

Sources of information for

Knowledge Gathering

to help build our intuition and improve decision-making

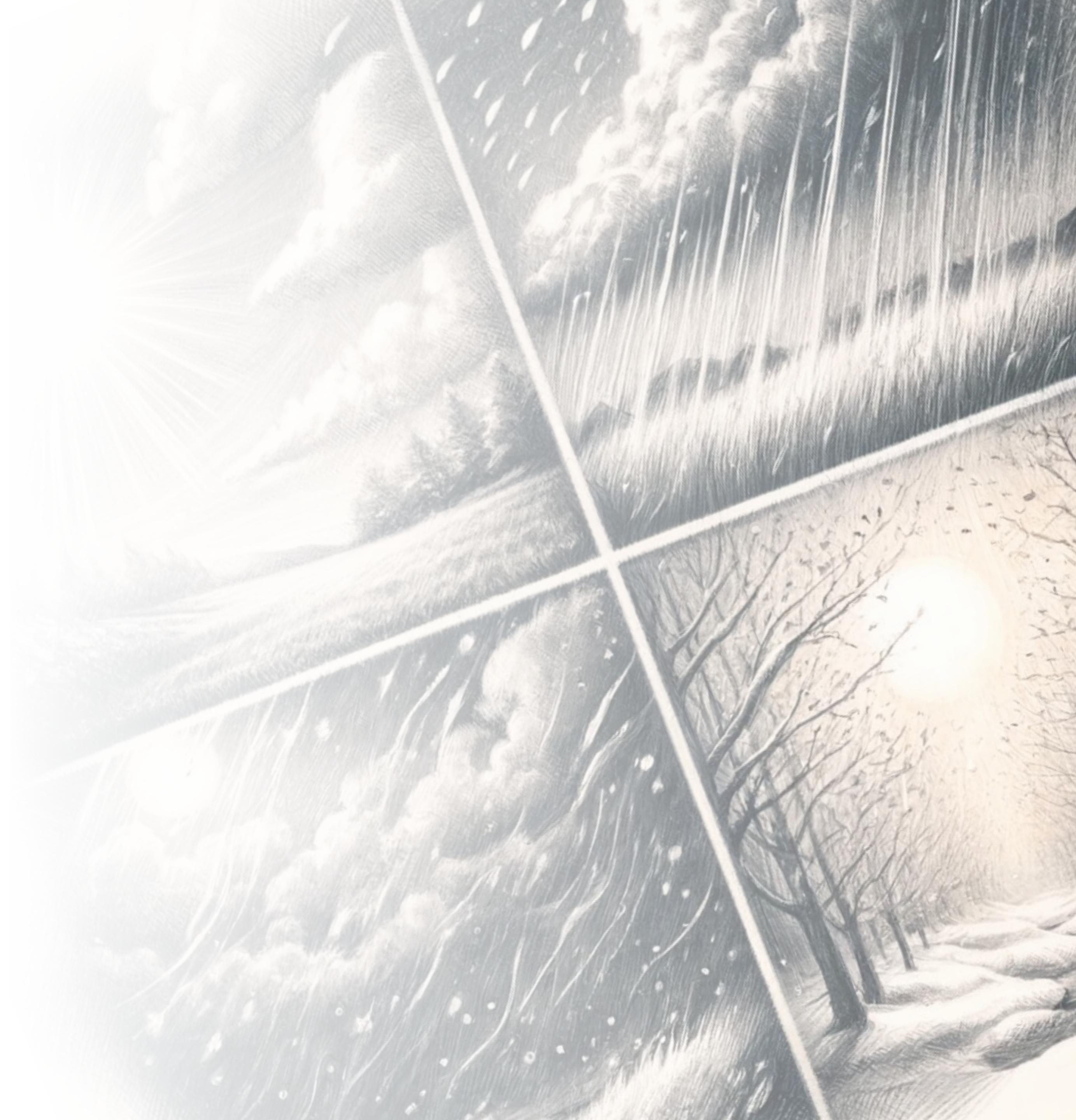
Use your leadership stack as a

Fallback Mechanism

to help stay effective when current knowledge is lacking



Scenario Planning



Scenario Planning

- ❖ **Define Scenarios:** What are the **two critical uncertainties** that might change how we run our organisation?
- ❖ “critical uncertainties”: **impactful** and **unpredictable** driving forces
 - ❖ AI-assisted engineering
 - ❖ Software engineering salaries
- ❖ Consider hyper-growth and slow-growth scenarios for each.
- ❖ Create a 2x2 scenario matrix.

Hyper-growth of AI-assisted engineering

3

AI-assisted engineering grows.
Developer salaries stable.

4

AI-assisted engineering grows.
Developer salaries increase.

Salaries remain stable

Salaries increase

1

AI-assisted engineering adoption
is slow.
Developer salaries stable

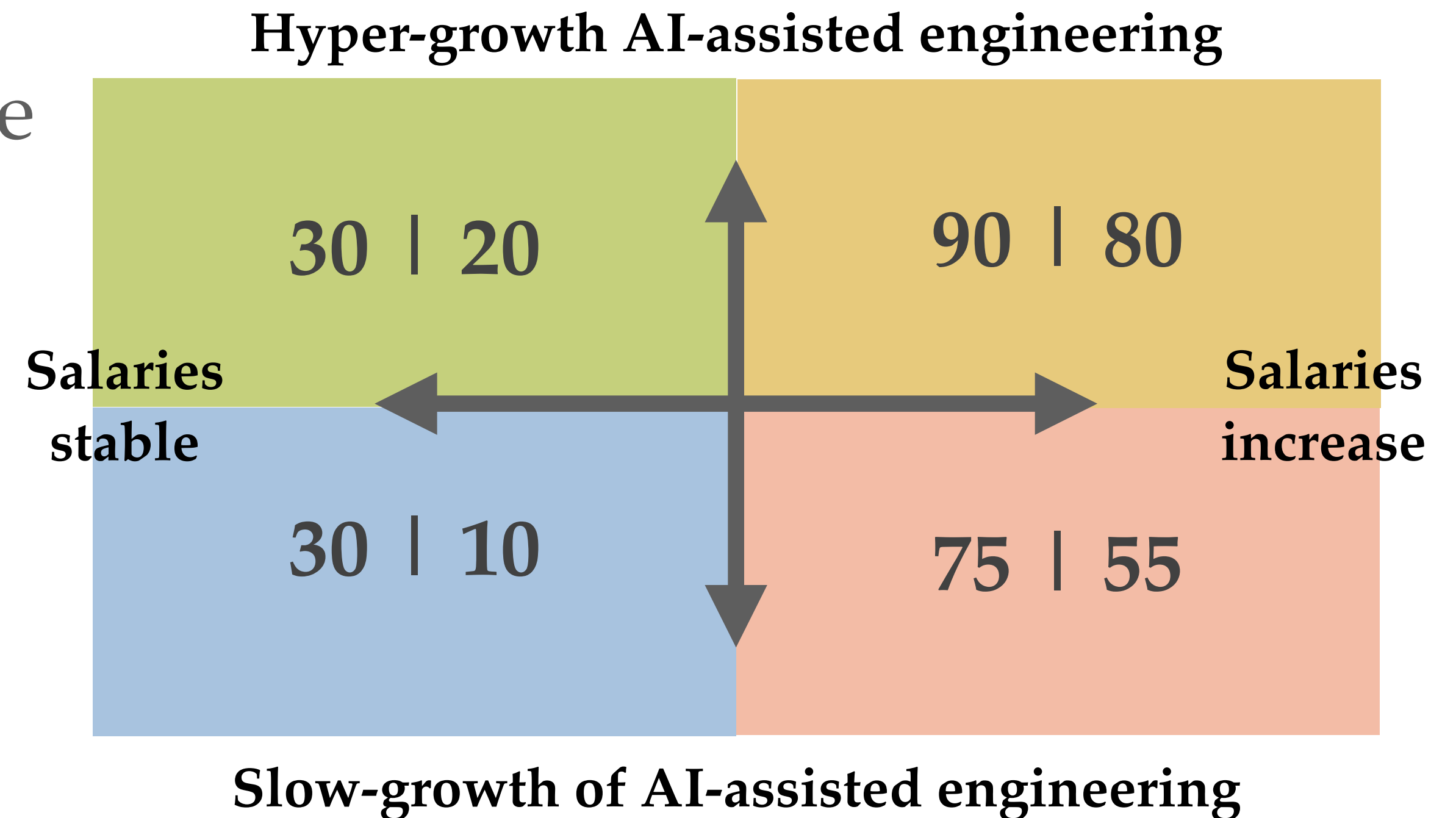
2

AI-assisted engineering adoption
is slow.
Developer salaries increase

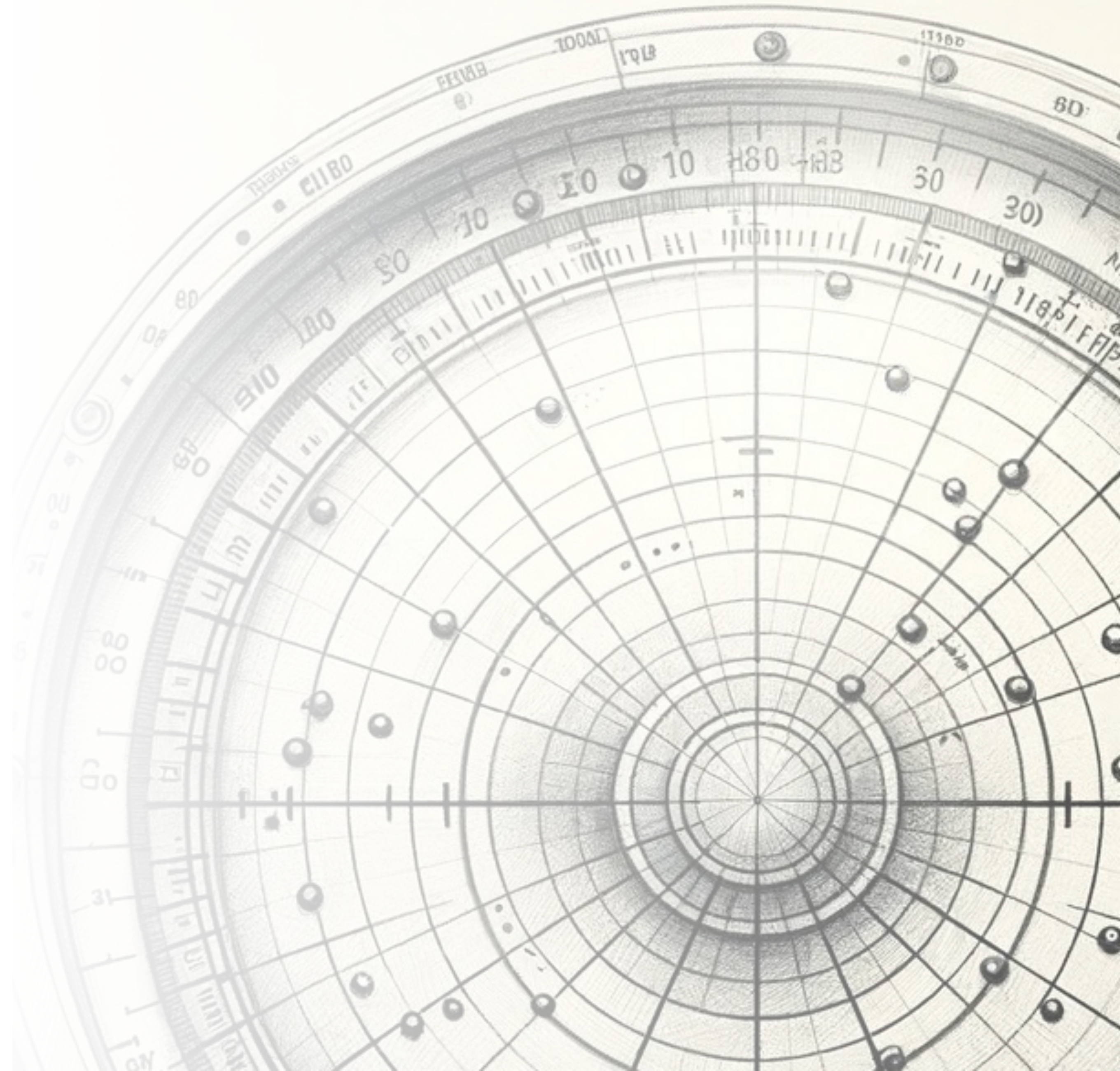
Slow-growth of AI-assisted engineering

Scenario Planning

- ❖ What is the likelihood & impact of these scenarios occurring?
- ❖ What are we doing today that would:
 - likely fail in these scenarios?
 - thrive in these scenarios?
- ❖ What options should we consider in anticipation of likely & high impact scenarios?

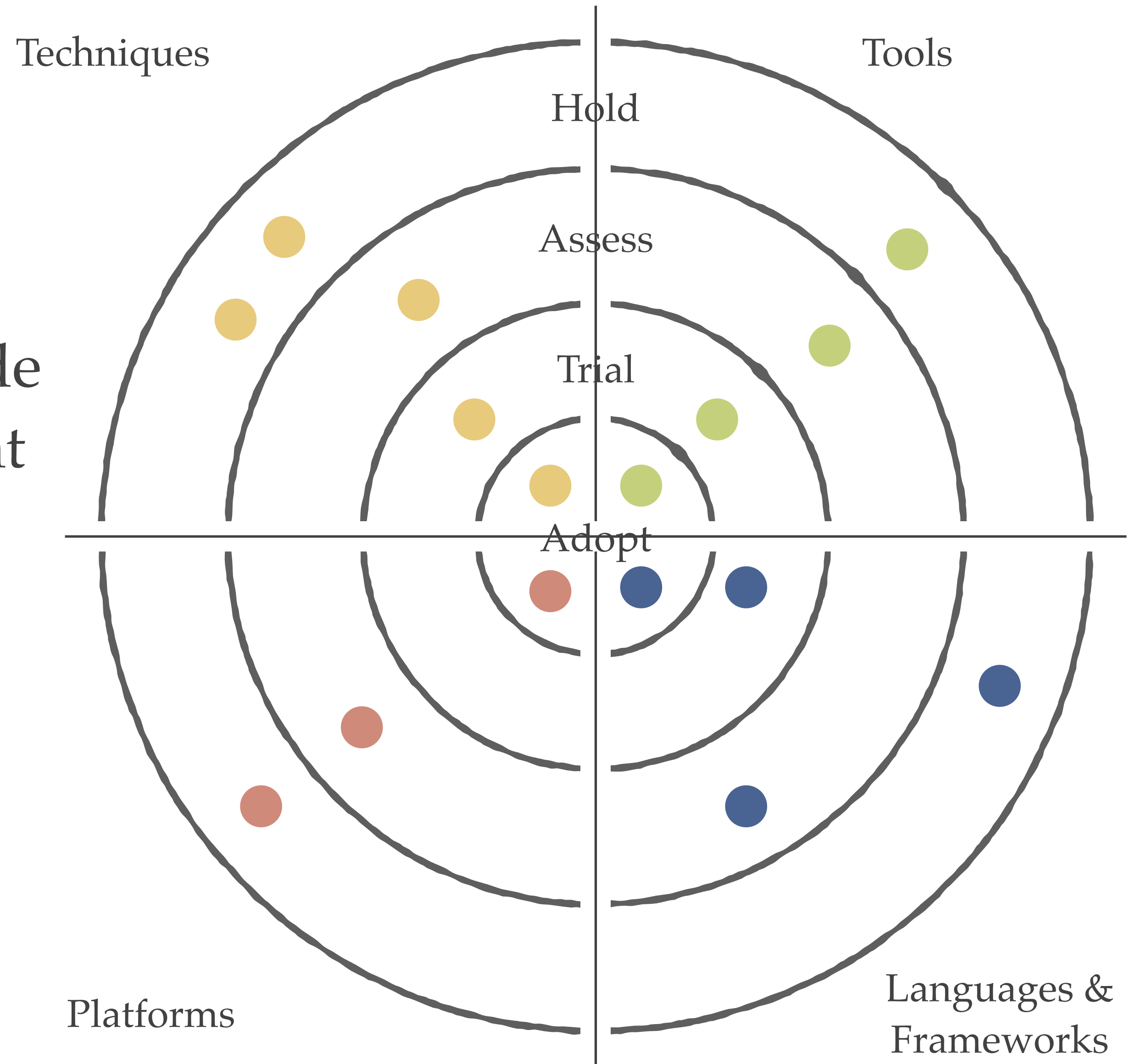


Technology Radar



What is the Radar?

- ❖ A visualisation that shows “blips” representing choices you have made within 4 quadrants. Rings represent status of those choices.
- ❖ **Hold:** don't use for anything new
- ❖ **Assess:** research it and feedback
- ❖ **Trial:** try on a low risk project
- ❖ **Adopt:** you should be using this



Why build a technology radar?

- ❖ Tech radars can help to communicate the broader technical strategy
- ❖ Bring functions, tech leads & managers together to document current state
- e.g. Data Science, UI, Backend, Infrastructure, QA
- ❖ Great opportunity to discuss contradictions, implicit choices, failed initiatives
- ❖ Highlights organisational characteristics (e.g. deprecation & adoption challenges)
- ❖ Communicates institutional knowledge in a clear and consistent way (e.g. for new starters & new team members)

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Elite footballers are often **scanning** the field to build an understanding of the game; improving their **decision-making** when they get the ball.

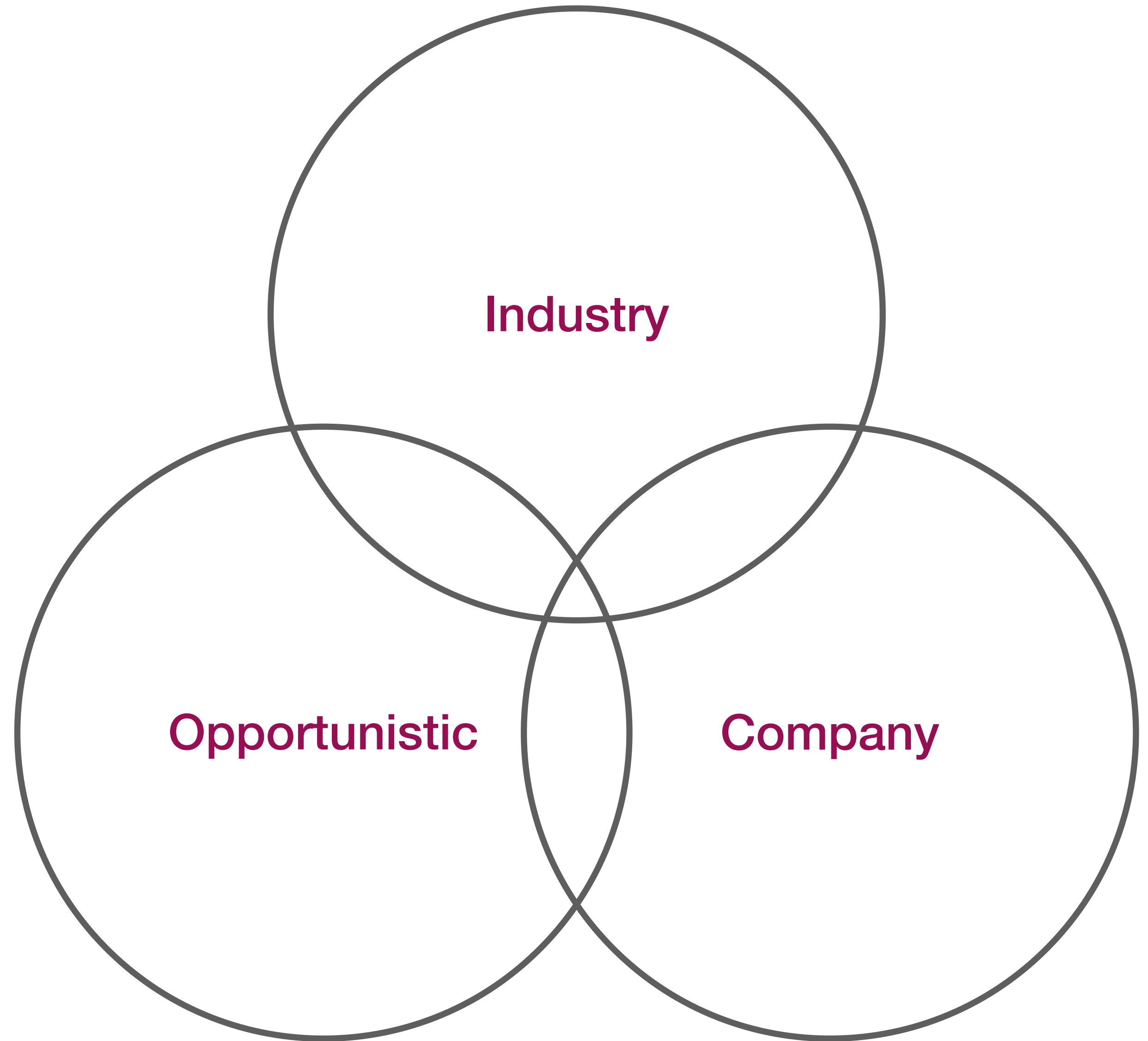


Scanning Questions



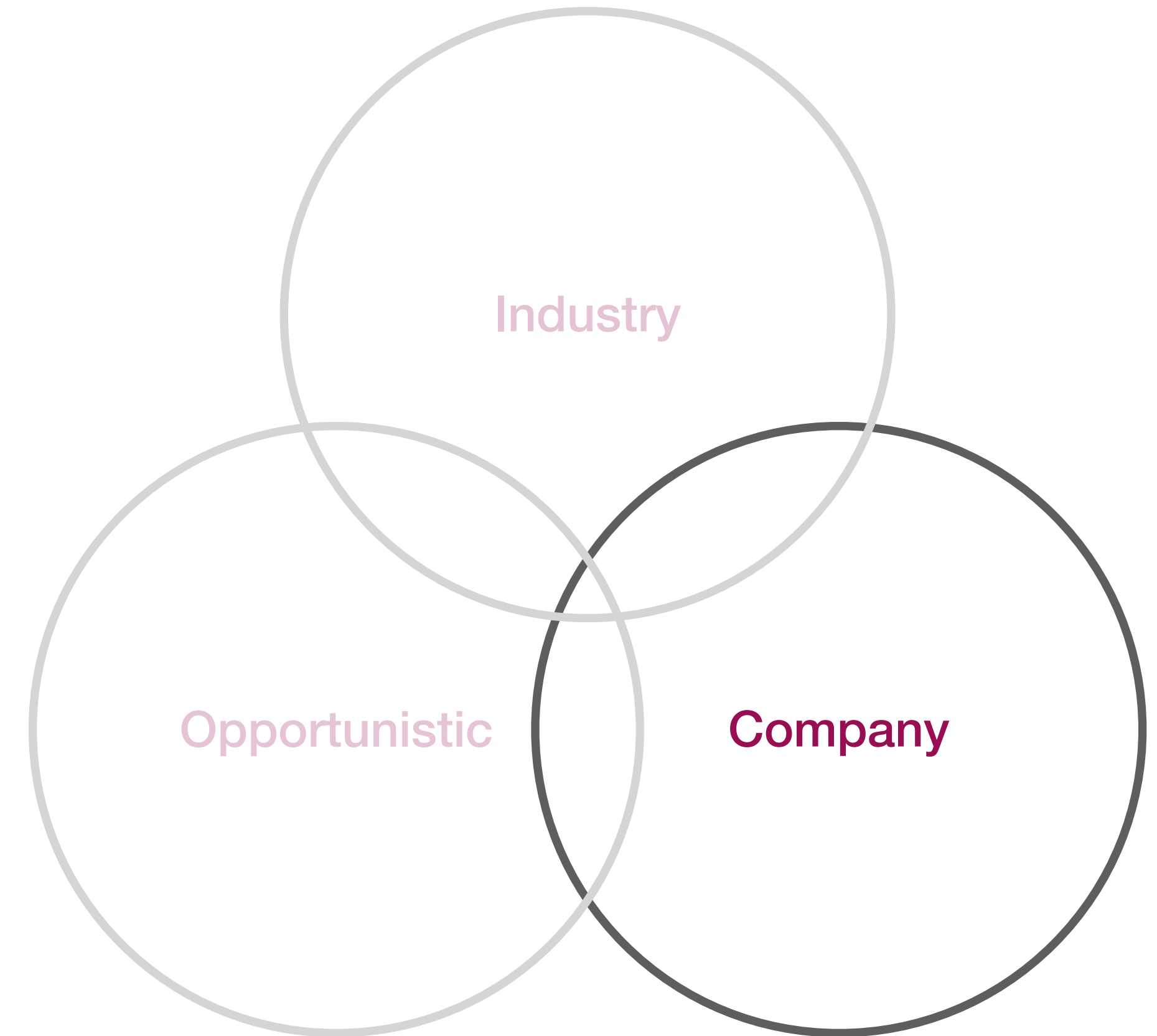
Scanning Questions

- ❖ Company Knowledge
- ❖ Industry Knowledge
- ❖ Opportunistic Knowledge



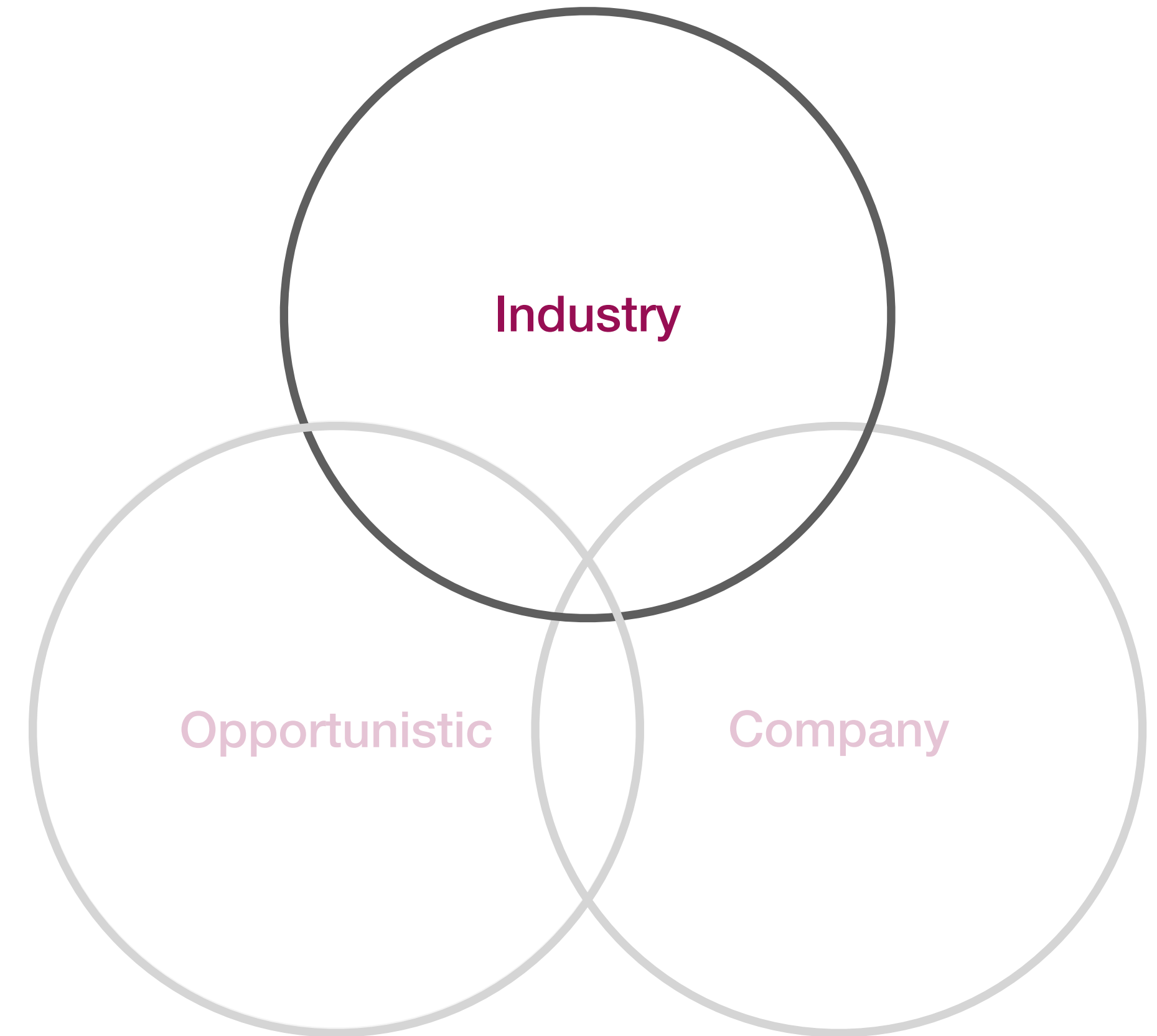
Company Knowledge

- ❖ How does the company make money?
- ❖ What are the longstanding challenges we need to solve?
- ❖ How do our teams collaborate, debate, design and deliver software?
- ❖ What slows us down? How do we reduce cycle time?



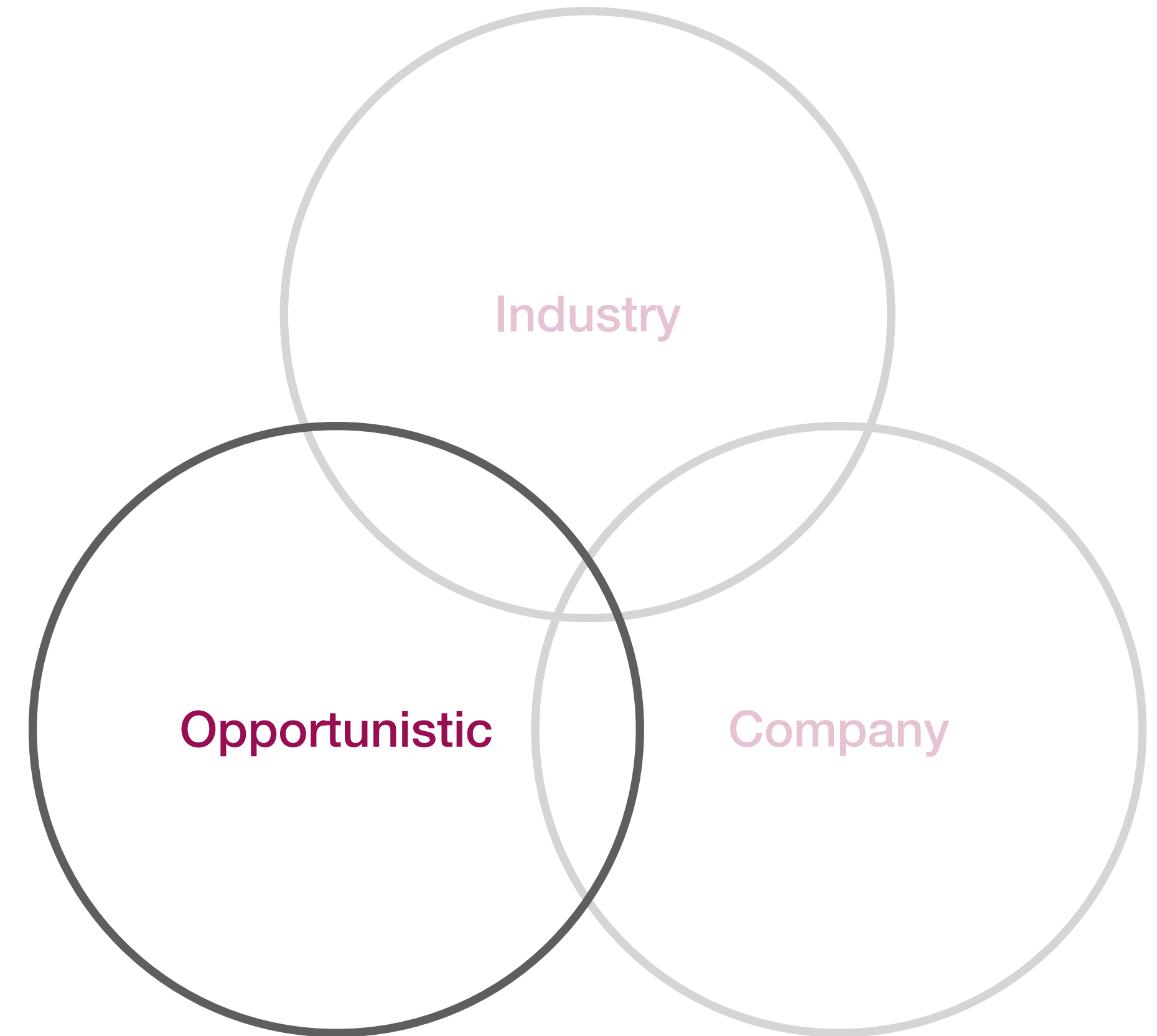
Industry Knowledge

- ❖ Why does this industry exist? What problems is it here to solve?
- ❖ Who are our major competitors? Why do they exist and how do they differentiate?
- ❖ How might someone create a game-changing disruptive product in this industry?
- ❖ Who are our ideal customers? Who are our actual customers?



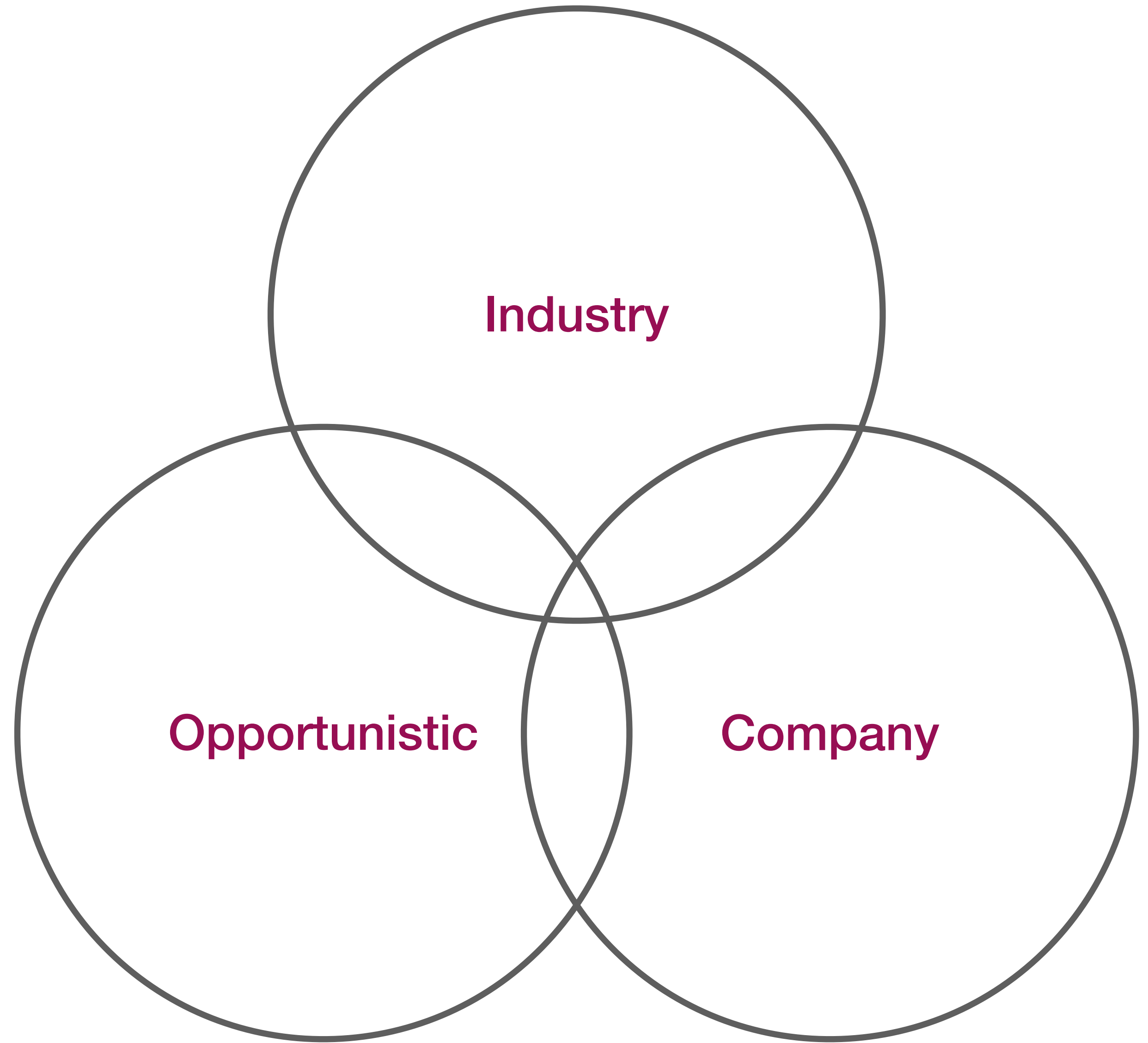
Opportunistic Knowledge

- ❖ Which technologies are potentially undervalued or underutilised?
- ❖ What can we learn from adjacent industries?
- ❖ What can we learn from our colleagues and communities?
- ❖ What can we learn from changes in attitudes towards new technologies?



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Leadership Stack



Leadership Stack

- ❖ **Prepare for change ahead of time**
 - ❖ Framework to identify skills and competencies we'll need
 - ❖ Help us gain confidence and increase our potential
- ❖ **Stay effective during a transition**
 - ❖ Recognise when current knowledge is lacking
 - ❖ Stay effective & build up knowledge intentionally

Leadership Stack

Focus Area

Competencies

4	Company Goals	KPIs, Customer Adoption, Engineering Cost, Technical Strategy, Financial Targets, Metrics, Empowered Teams
3	Software Engineering	DX, Agile, Quality, Complexity, Distributed Systems, Design, Incident Management, Testing, Architecture, Performance
2	Project Management	Setting Goals, Understanding Risks, Planning, Dependencies, Bottlenecks, Timelines, Problem Solving, Team Dynamics
1	People Skills	1:1s, Performance, Delegation, Decision-making, Team building, Feedback, Career Development, Coaching

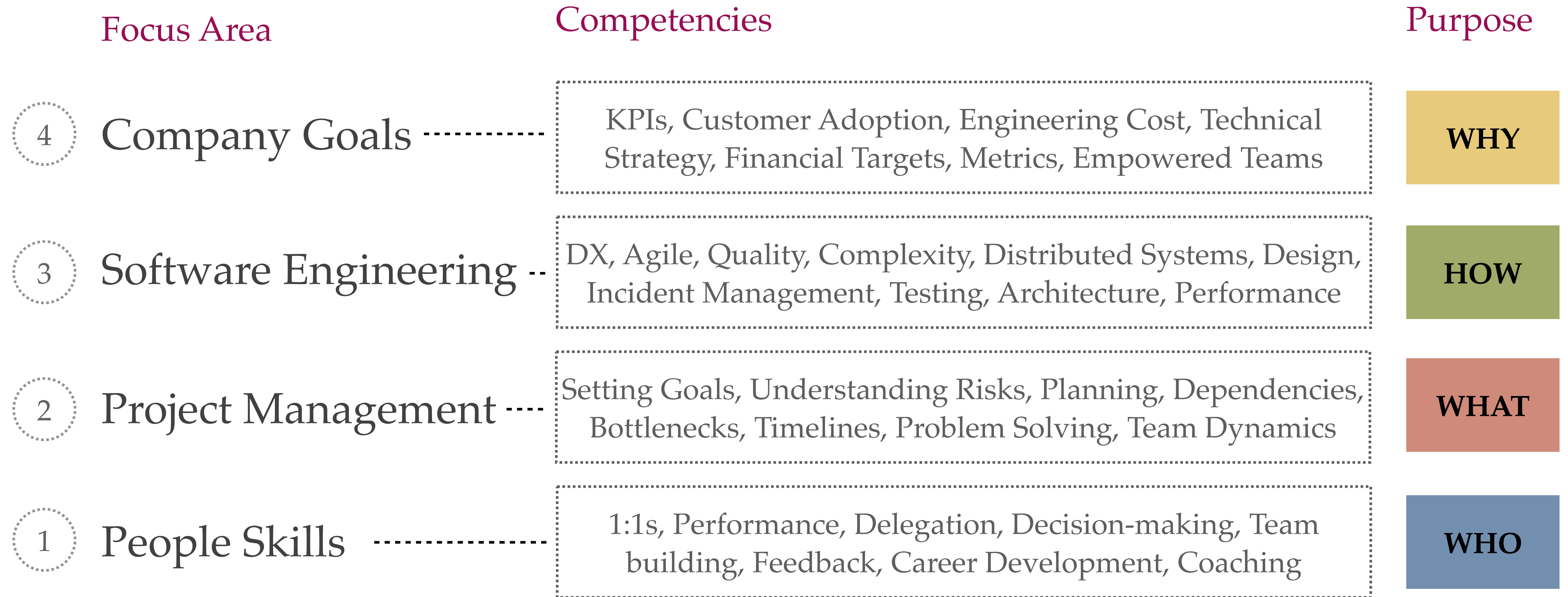
Leadership Stack

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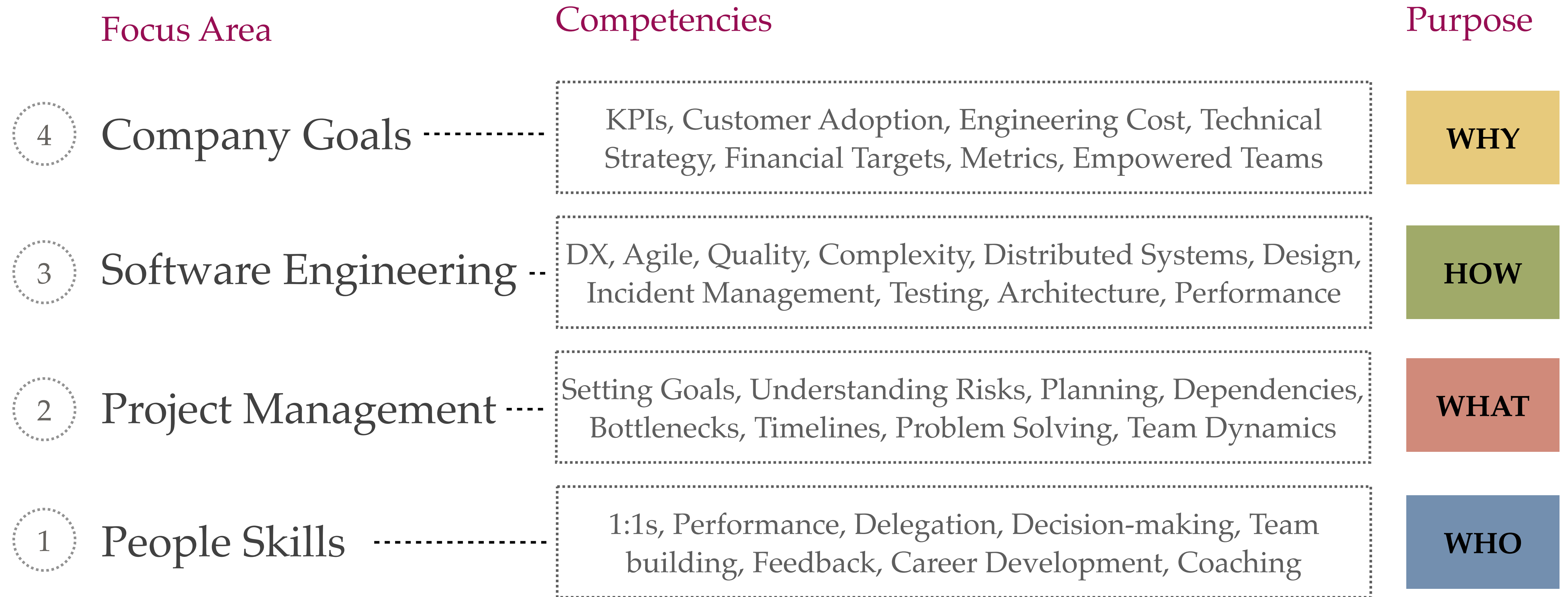
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Leadership Stack



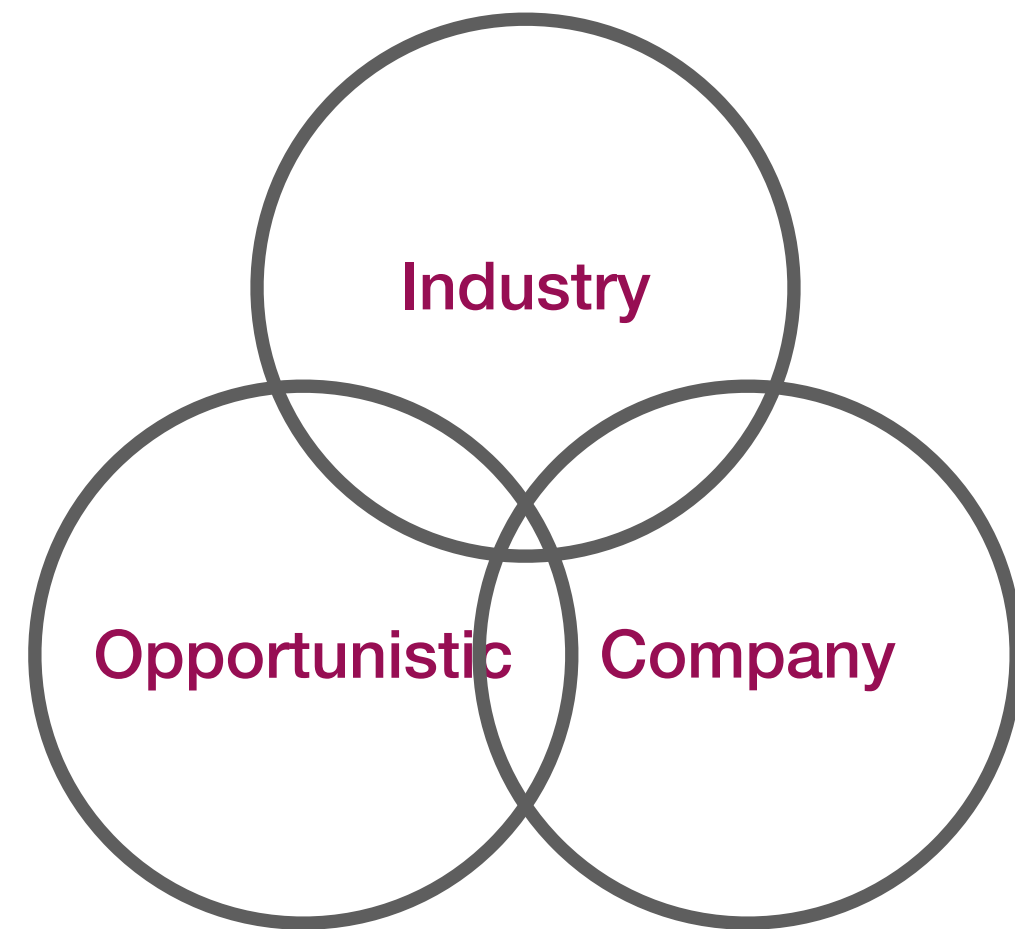
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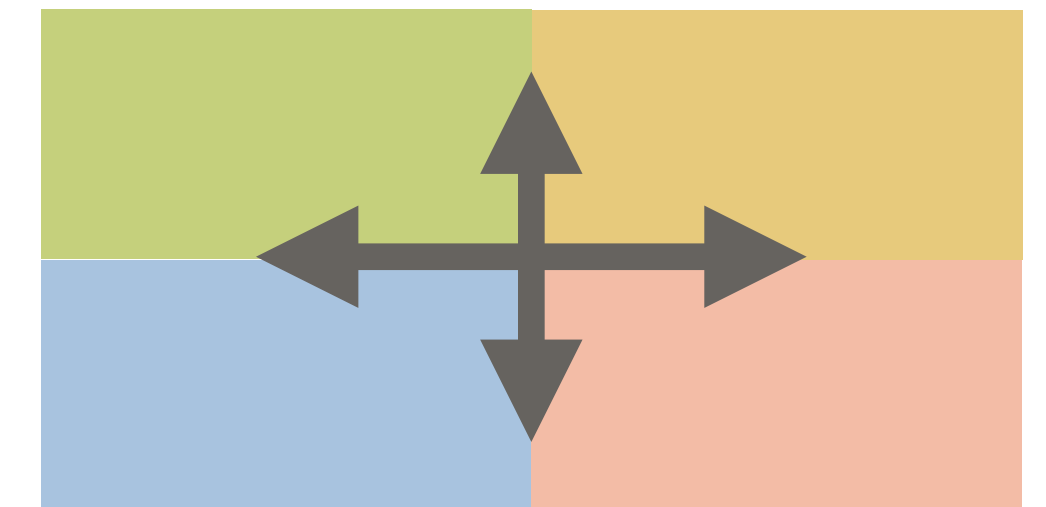
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Technology Radar



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