



SUMMIT
ONLINE

INT 03

Building an ML organisation

Eden Duthie

APJC Professional Services ML Lead
Amazon Web Services

Agenda

Introduction

Amazon's approach to innovation - simplified

People

Operations

Summary

How do we organise for innovation?

Culture

Customer obsession, hire builders, let them build, support them with a belief system

Mechanisms

Encoded behaviours that facilitate innovative thinking

Architecture

Structure that supports rapid growth and change

Organisation

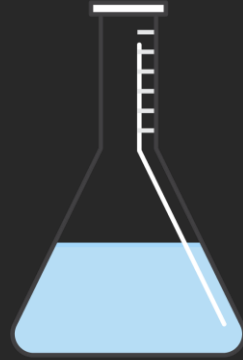
Small, empowered teams that own what they create

Simplified for ML

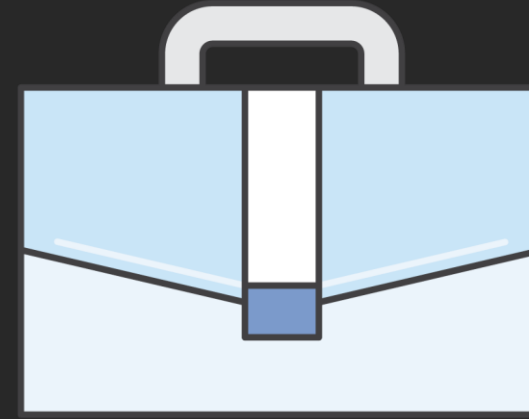
People | Operations | Technology

People | Operations | Technology

ML team skills matrix



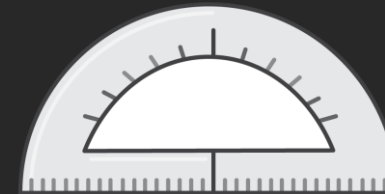
Research Scientist



Product Owner



Engineer



Mathematician / Statistician

#1 anti-pattern: the lone superhero data scientist



Decide to invest in ML as a core company strategy

Build or buy?

2-pizza team

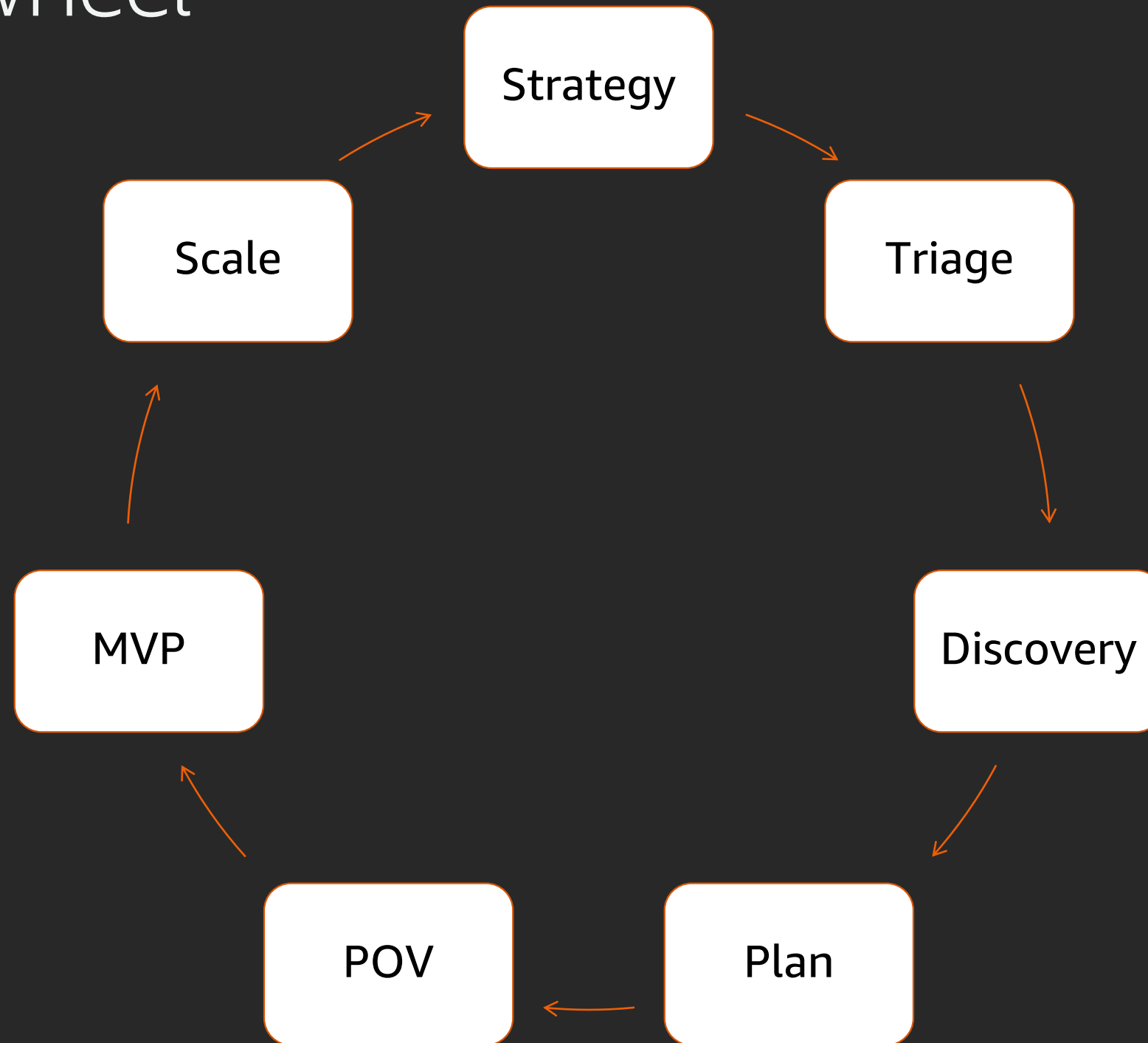
- 1x Business lead
- 1x Business SME
- 1x 2x Data scientist
- 1x ML engineer
- 1x Scrum master / project manager
- 1x Cloud architect
- 1x Technology team lead
- 1x Innovation team lead
- ... and a wide ecosystem of supporters who were critical

#1 Traffic forecasting at Transurban



People | **Operations** | Technology

The ML flywheel



Summary

- Amazon's approach to innovation
- People | Operations | Technology
- People: superhero antipattern and 2-pizza team solution
- Operations: ML flywheel

Thank you!

Eden Duthie

duthiee@amazon.com