

Building technology mid-flight

Sam Hamilton, March 2012

Tech Stack Expectations...

Evolvability

Debugability

Customizability

Reusability

Integrity

Deployability

Portability

Predictability

Scalability

Timeliness

Efficiency

Stability

Seamlessness

Durability

Traceability

Accuracy

Robustness

Usability

Accessibility

Recoverability

Reliability

Administrability

Adaptability

Precision

Affordability

Agility

Auditability

Mobility

Credibility

Process capabilities

Fault-tolerance

Compatibility

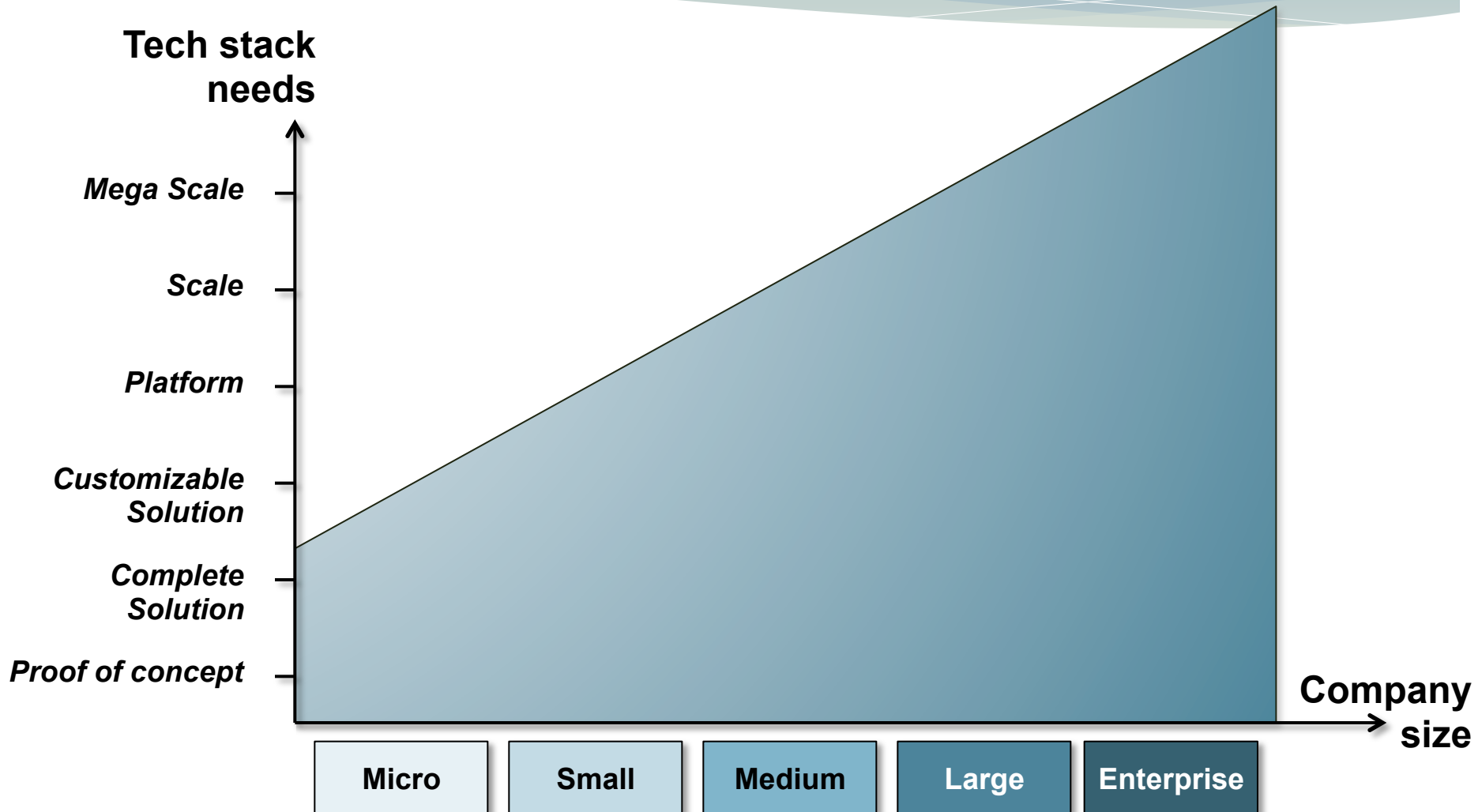
Configurability

Correctness

Extensibility

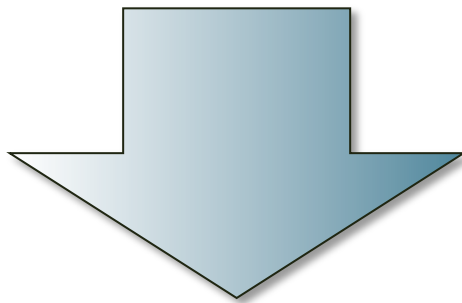
Inspectability

Evolve along with company



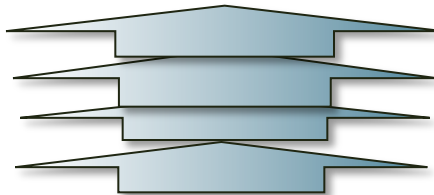
Growth is good...

Support the current
Deliver enhancements
Build for the future



**Aging
tech stack**

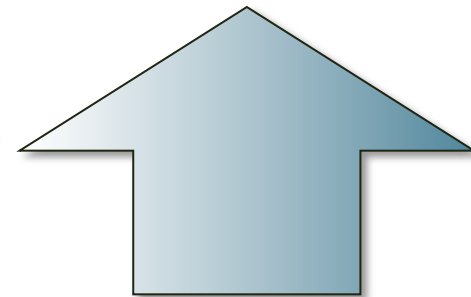
Version 1.0



**Tactical
enhancements**

(incremental)

Version 1.x



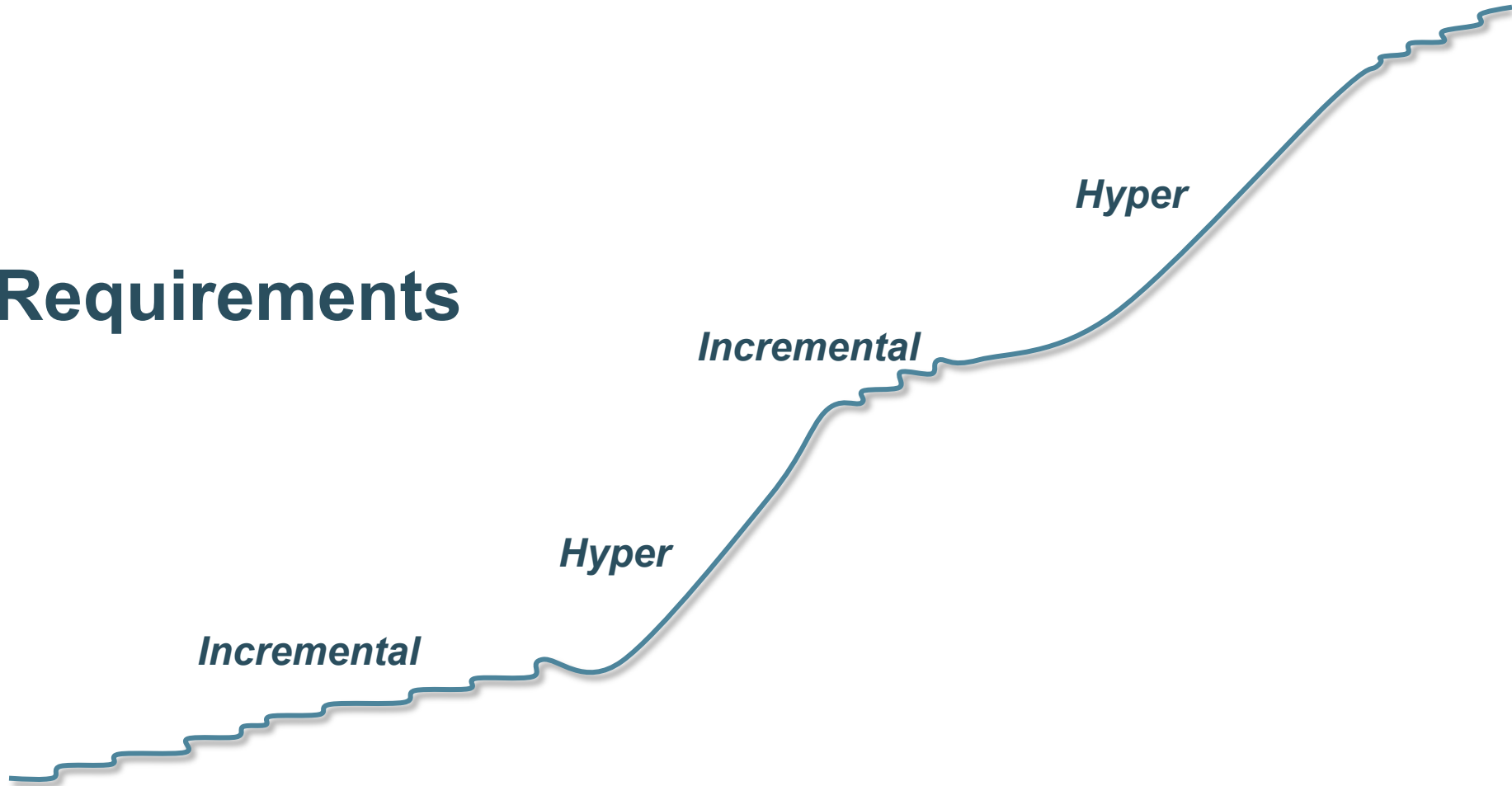
**Strategic
future**

(hyper)

Version 2.0

Most often unpredictable...

Requirements



...generates growing pains

Pain for the Business

- **Successful enterprises make money with yesterday's technology**
- **Business growths are constrained by technology limitations**
- **Not enough tech investment for the future**

Pain for the Technology

- **Focus**
- **Scalability**
- **Maintainability**

How do we address?

Mid-flight build

Support the ***necessary*** present

Minimize the incremental

Leapfrog capabilities for the future

Migrate ***smartly***

Mid-flight build

Support the necessary present

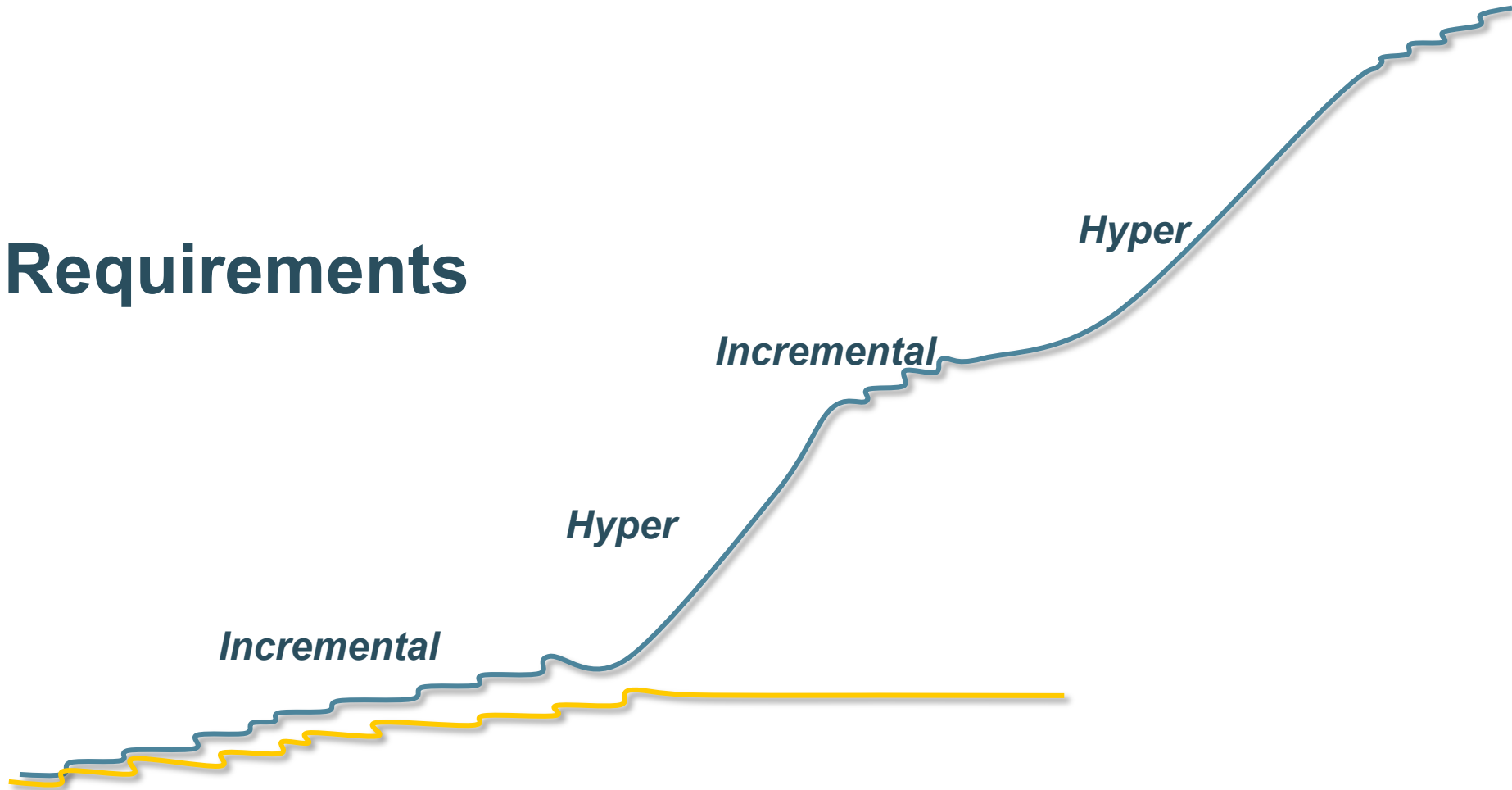
Minimize the incremental

Leapfrog capabilities for the future

Migrate smartly

Necessary to deliver on commitments...

Requirements



Mid-flight build

Support the necessary present

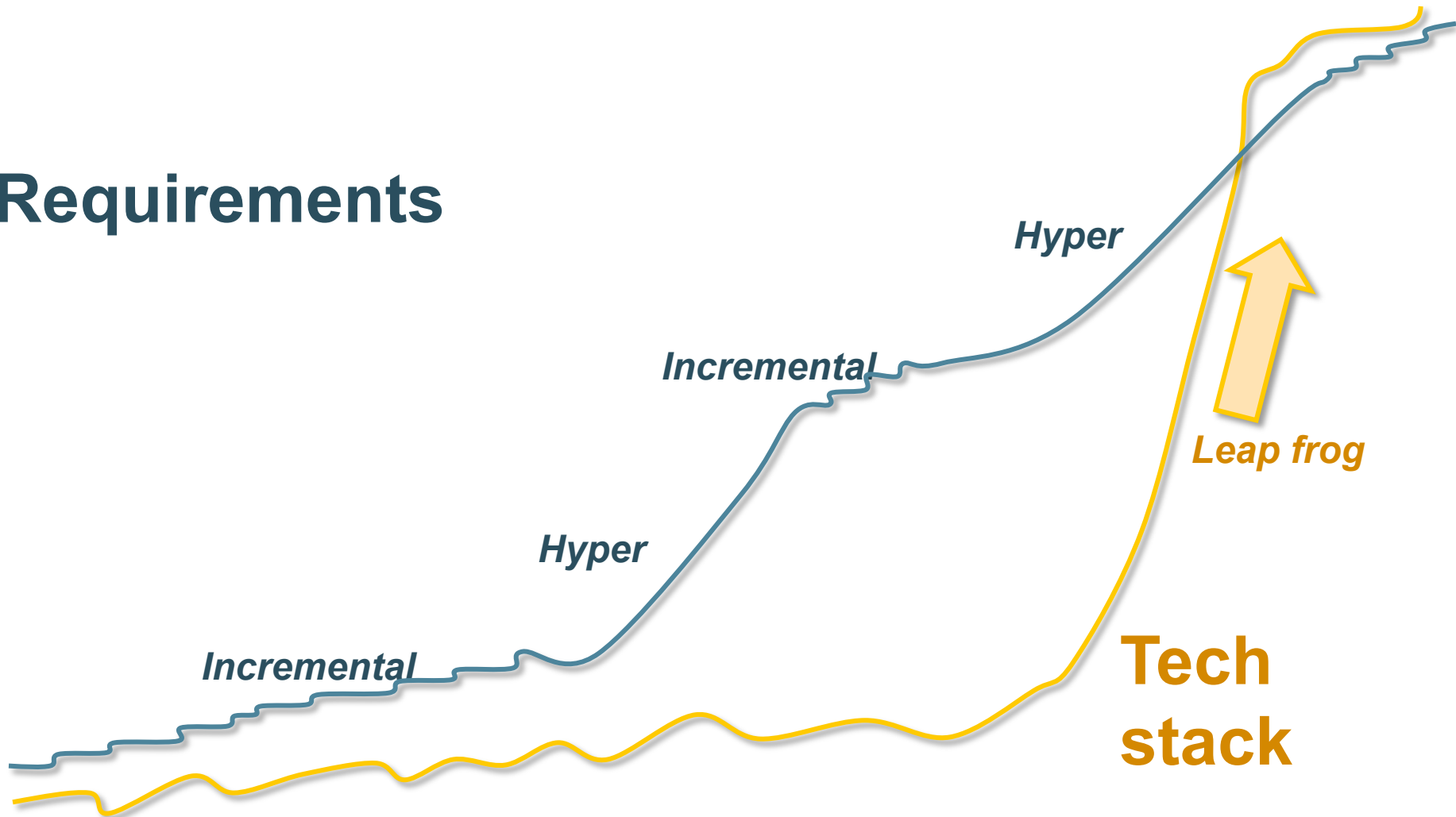
Minimize the Incremental

Leapfrog capabilities for the future

Migrate smartly

Leapfrog capabilities

Requirements



Tech stack

Mid-flight build

Support the necessary present

Minimize the Incremental

Leapfrog capabilities for the future

Migrate smartly

Smart migration

Define Success



Smart mapping



Process redesign



Migrate



Measure and monitor

Building technology mid-flight

- A** Technology choices
- B** Architectural principles
- C** Organizational considerations

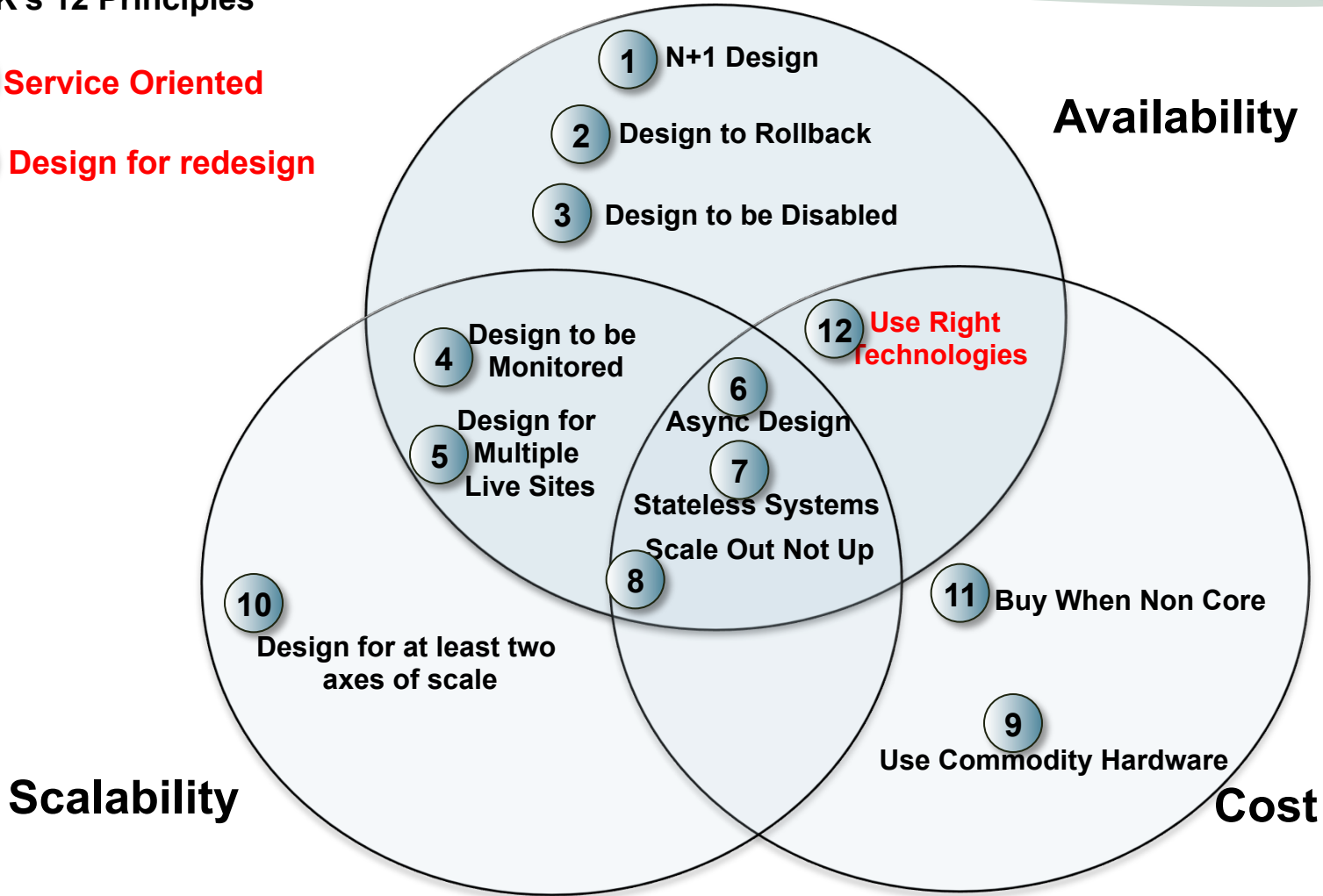
A Technology choices

- **Address needs**
- **Not limited by the current knowledge or skills**
- **Adopt standards; Innovate for differentiation**

B Architectural principles

AFK's 12 Principles

- 13 **Service Oriented**
- 14 **Design for redesign**



C Organizational considerations

- **Resource Allocation**
- **Clarity in Responsibility**
- **Engagement**
- **Agility**

Summary

Mid-flight build is hard but essential

