

Create a Technology Roadmap For Your Organization



Anthony Sneed
Chief Technology
Architect, Hilti Group



chiefarchitectnetwork.com

Anthony Sneed

Chief Technology Architect
Hilti Group



- 30 yrs in the Tech Industry
- Responsible for Technology Strategy of Hilti's Fastening and Protection Business
- Extensive experience software development, architecture, consulting, technical publications, training
- Former instructor and author for DevelopMentor, Wintellect
- Blog with 1.5 million visits
- Author of 70 open-source libraries with 7.8 million downloads



Event Driven .NET

Technology Roadmap **Milestones**



- Identify Key **Business Drivers**
- Envision **Technology Strategy**
- Differentiating **Technology Competencies**
- Ways of Working vs **Industry Best Practices**
- Assess **Internal Capabilities**
- Form **Strategic Partnerships**
- Gain Technology **Landscape Visibility**
- Ensure Technology **Strategic Alignment**



How does technology drive
your **business strategy**?

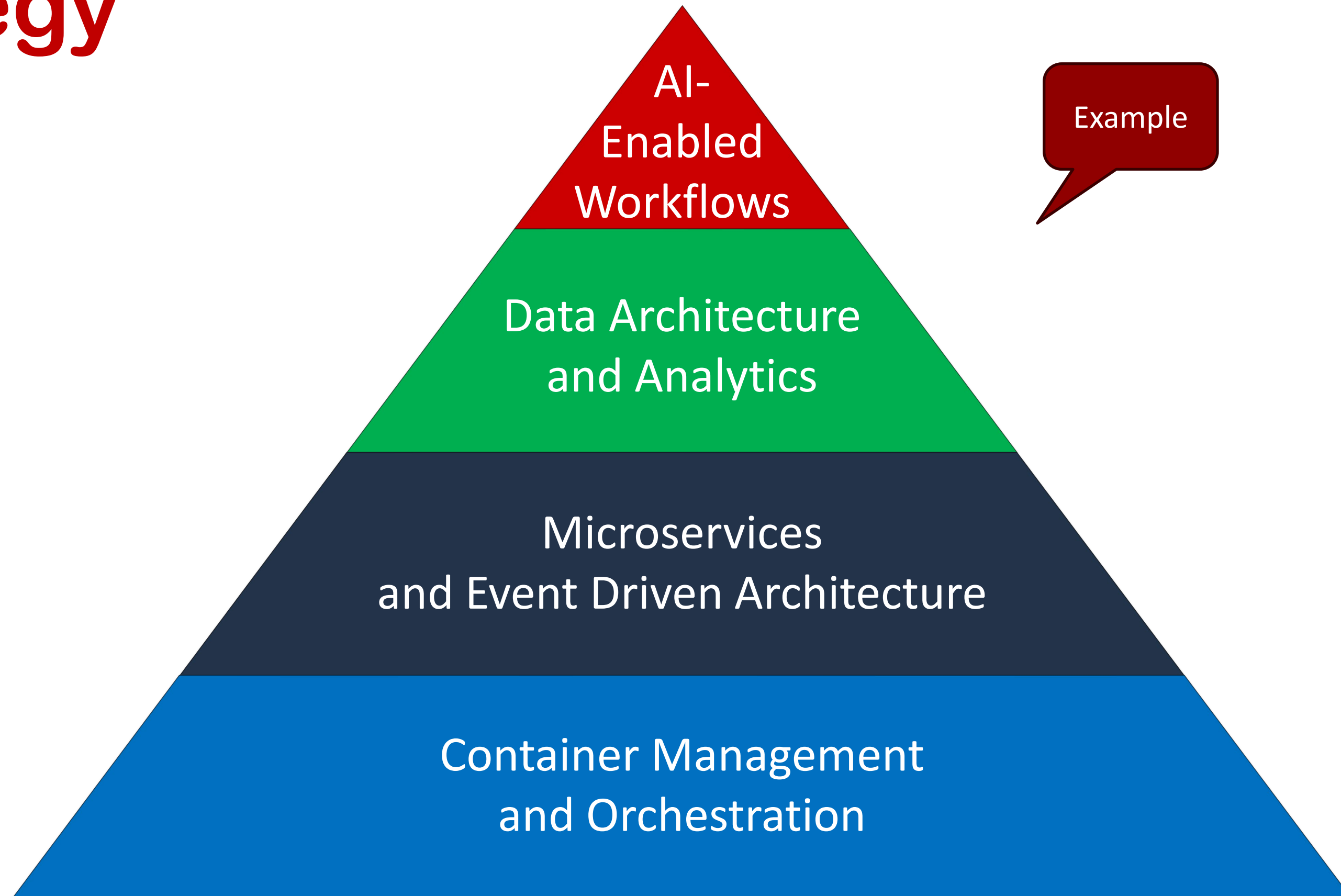
Technology Driven Business Strategy

Example

- Hilti is a construction hardware company
- High profit margins to support product development
- Sales built on strong customer engagement
- Develop SW to help customers be more productive
- SW promotes customer loyalty / “stickiness”
- NPS (Net Promoter Scores) reflect productivity, ease of use, performance, reliability

What are the contours of your
technology strategy?

Business Driven Technology Strategy



What **SW** competencies
are critical to your success?

Differentiating SW Competencies



Example

iPaaS

Open API

Container
Management

Microservices,
Event-driven
Architecture

IoT & Edge
Computing

AI-Augmented
Software
Engineering

Platform
Engineering,
DevOps

Voice of the
Customer
Applications

Digital
Experience
Monitoring

Design
Systems

Feature Flags

Data
Architecture
and Analytics

Observability

AI/ML in
Construction
Domain

Security,
Identity and
Access Control

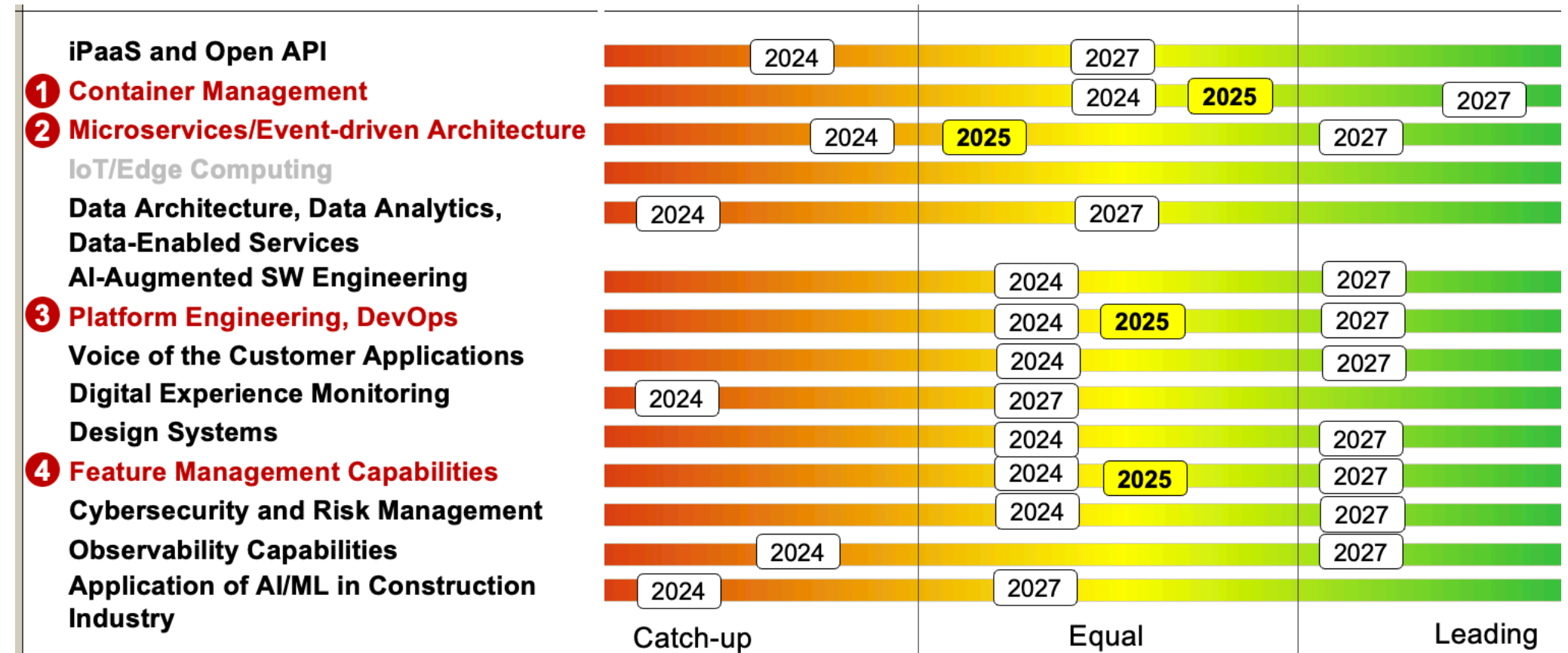
How do your ways of working
measure up to **industry best practices?**

Ways of Working vs Best Practices

2. Container Management Best Practices

No	Best Practice	Tech Score
		1.06
1	Containers should be stateless	1
2	Containers should be immutable	1
3	Optimize for build cache	1
4	Use multi-stage builds	1
5	Use docker ignore file	1
6	Effective use of monitoring tools (e.g., Prometheus)	1
7	Robust version control, naming conventions	1
8	Include only necessary dependencies in the build	1
9	Integrate image scanning into CI/CD pipelines	0
10	Use image tagging	1
11	Declare resource requirements	1.5
12	Use k8s namespaces	2
13	Use readiness and liveness probes	0.5
14	Effective use of auto scaling	1.8
15	Use resource requests and limits	1
16	Use multiple nodes with replicaset	1
17	Use role-based access control (RBAC)	0.4
18	Regularly scheduled k8s upgrades	2
19	Use Infrastructure as Code (IaC)	2
20	Use network policies	0

Example



What gaps exist in
your **internal capabilities**?

What **strategic partnerships** can
help mitigate these gaps?

Balancing Internal Competencies with **Strategic Partnerships**



Example

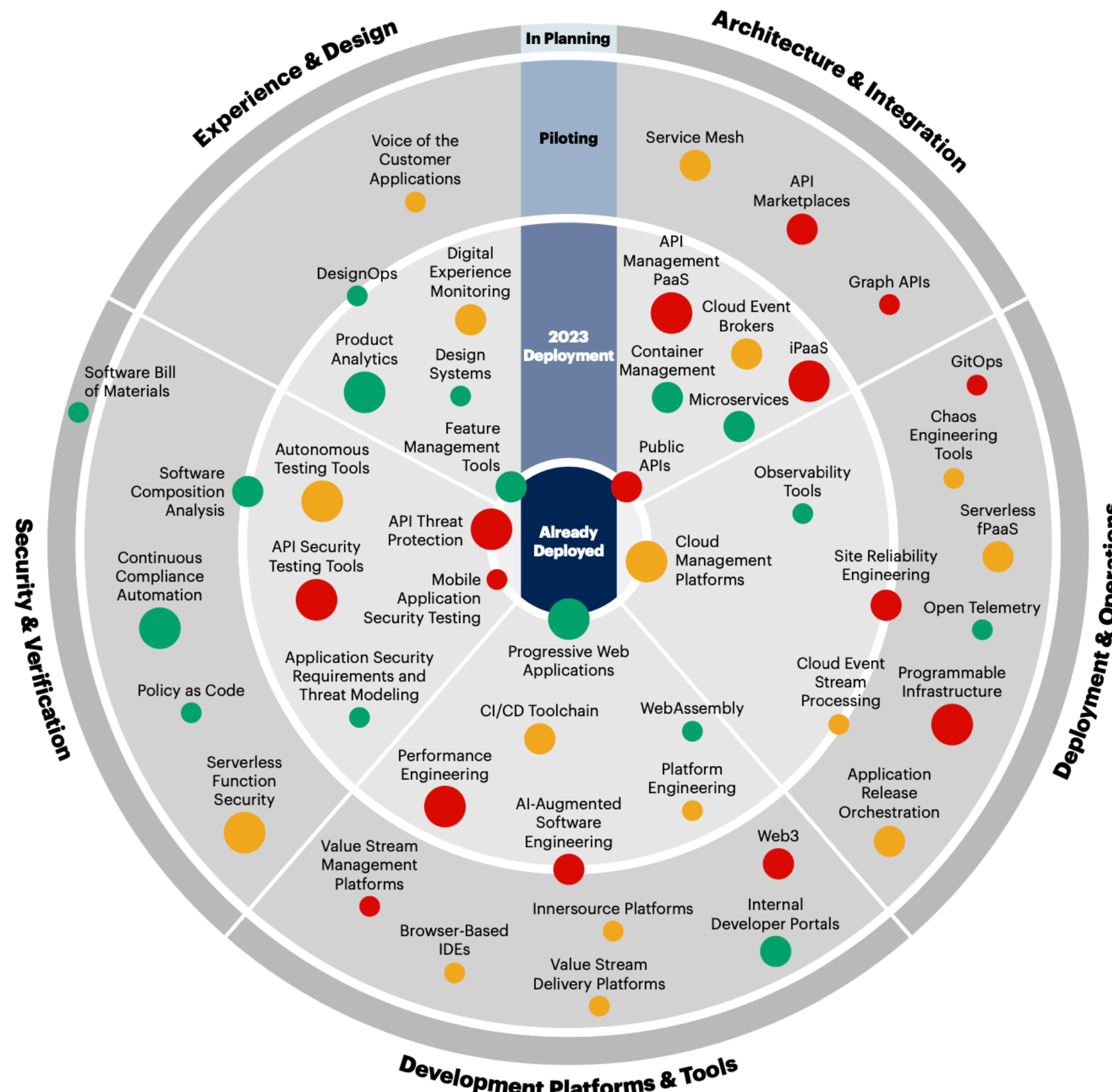
Internal Competencies for
Container Management



Strategic Partnership for
Container Management

Do you have visibility into your
technology landscape?

Technology Adoption Radar



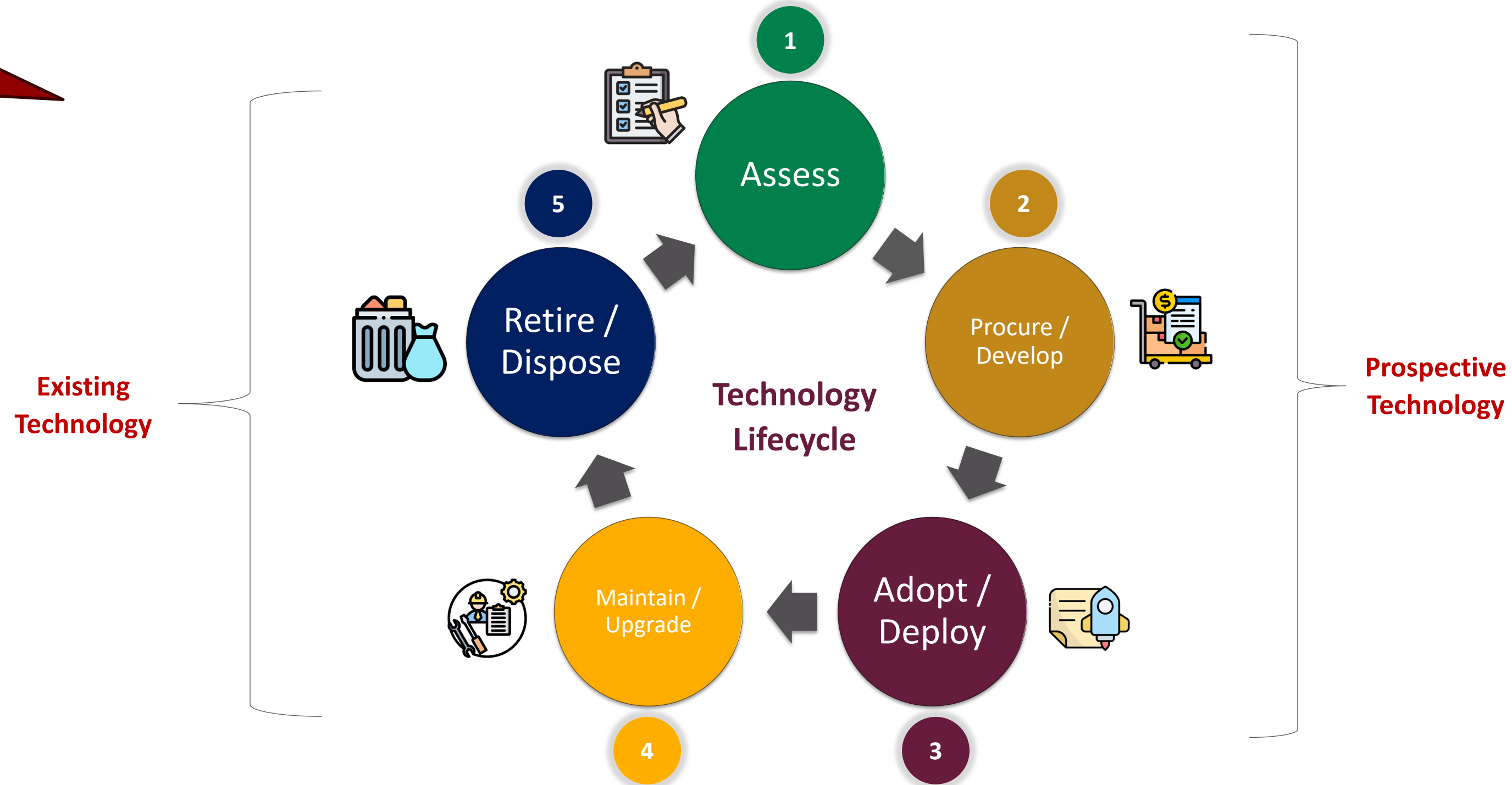
Example

Gartner Technology Adoption Roadmap:
<https://www.gartner.com/en/publications/2023-te-adoption-roadmap-for-software-engineering>

Are your technology selections
strategically aligned?

Technology Lifecycle Management

Example



Technology Roadmap Recap

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Thank You!



Connect with me on **LinkedIn:**

<https://www.linkedin.com/in/tonysneed>

