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團隊開發，大顯神威— DevOps案例分享

Alfred Tse, 謝毓明

IBM Rational Software CTO & Executive Solution Architect

Greater China Group

ymtse@hk1.ibm.com

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Software delivery is at the heart of today's top technology trends

Big Data

Insights on new products by more efficiently interpreting massive quantities of data



Cloud

Demand for apps requires fast, scalable environments for dev and test, as well as production



Social Business

Broader set of stakeholders collaborates to deliver continuous innovation and value



Instrumented Products

Industry requirements demand faster response to regulations and standards, with traceability and quality



Mobile

Modern workforce expects constantly updated software to connect to enterprise systems



Software delivery

Intelligent/ Connected Systems

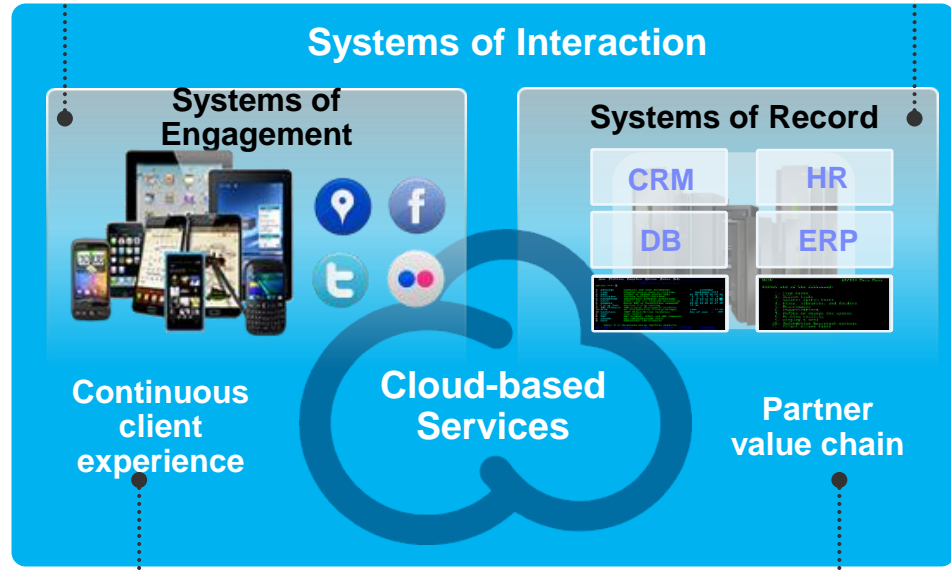
Software component in smart products driving increased value and differentiation



A lack of continuous delivery impacts the entire business enterprise in the new reality of “Systems Of Interaction”

Line-of-business
Takes too long to introduce or make changes to mobile apps and services

Operations
Rapid app releases impact system stability and compliance



>70%
of budgets devoted to maintenance and operations

>45%
of customers experience production delays

4-6 weeks
to deliver even minor application changes to customers

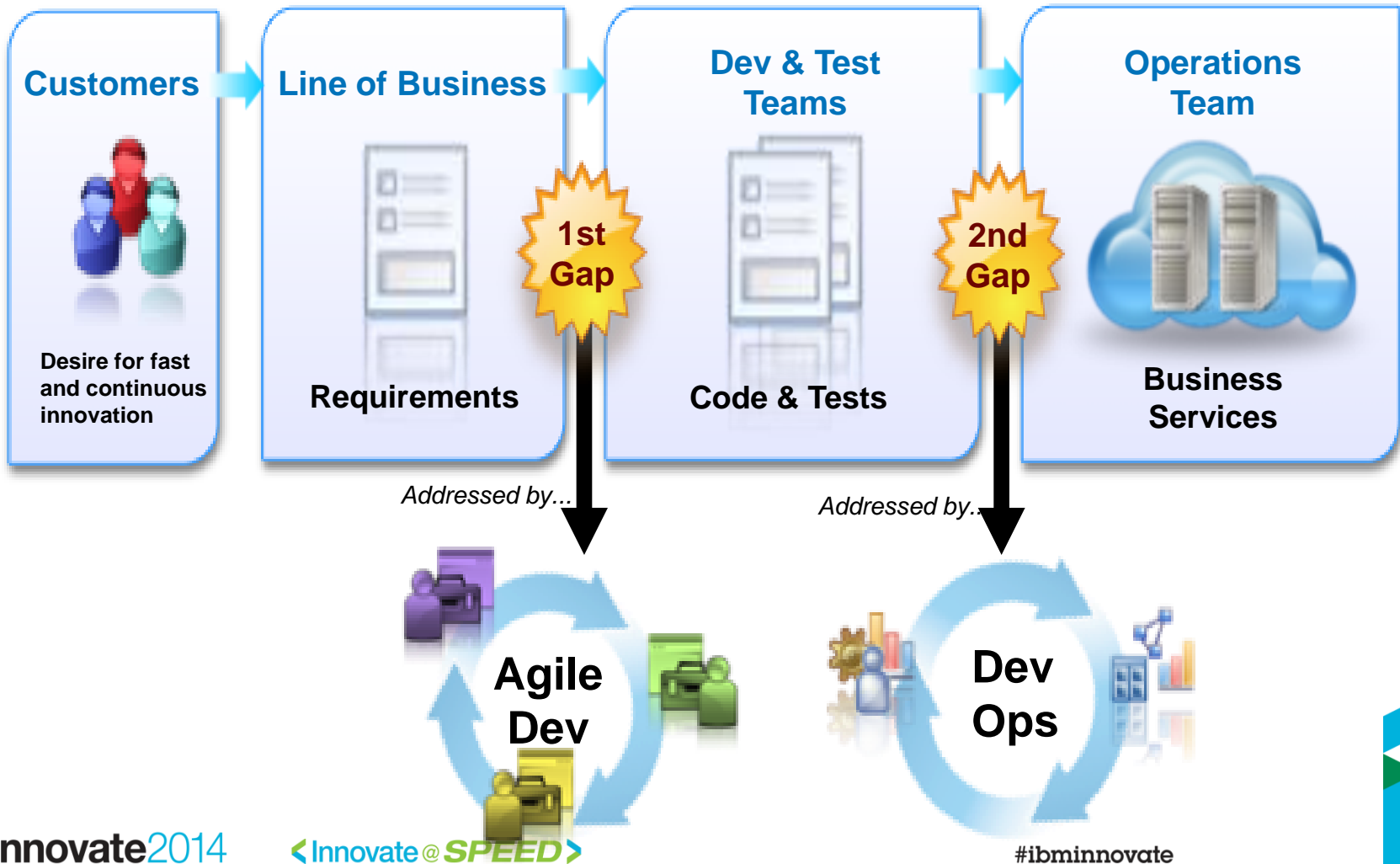
>50%
of outsourced projects fail to meet objectives

Development/Test
Speed mismatch between faster moving front office and slower moving back office systems, delaying time to obtain feedback

Suppliers
Delivery in the context of agile

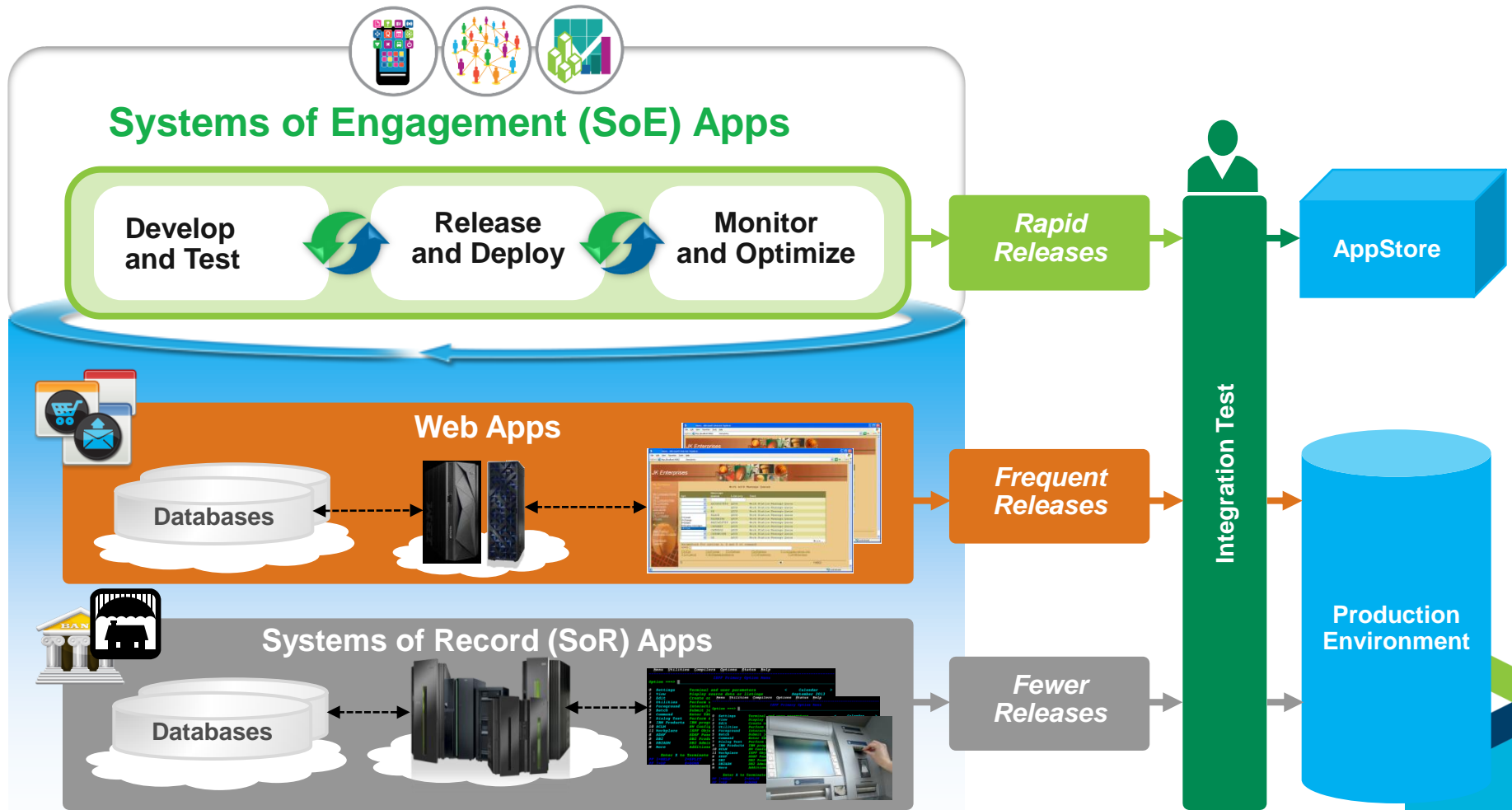


Addressing delivery challenges



The need: Integrate systems of engagement with systems of record

By bringing together the culture, processes, and tools across the entire software delivery lifecycle – spanning mobile to mainframe platforms



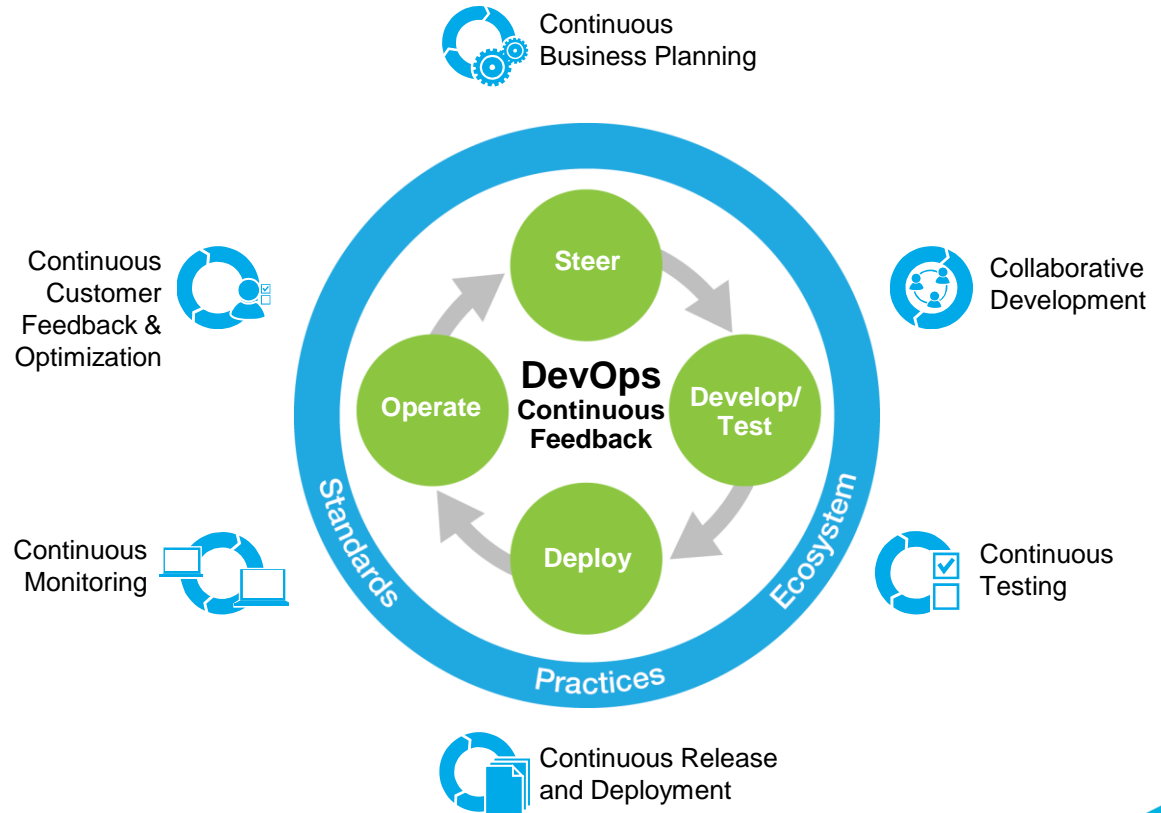
IBM DevOps point of view

Enterprise capability for continuous software delivery that enables organizations to seize market opportunities and reduce time to customer feedback

Accelerate software delivery – for faster time to value

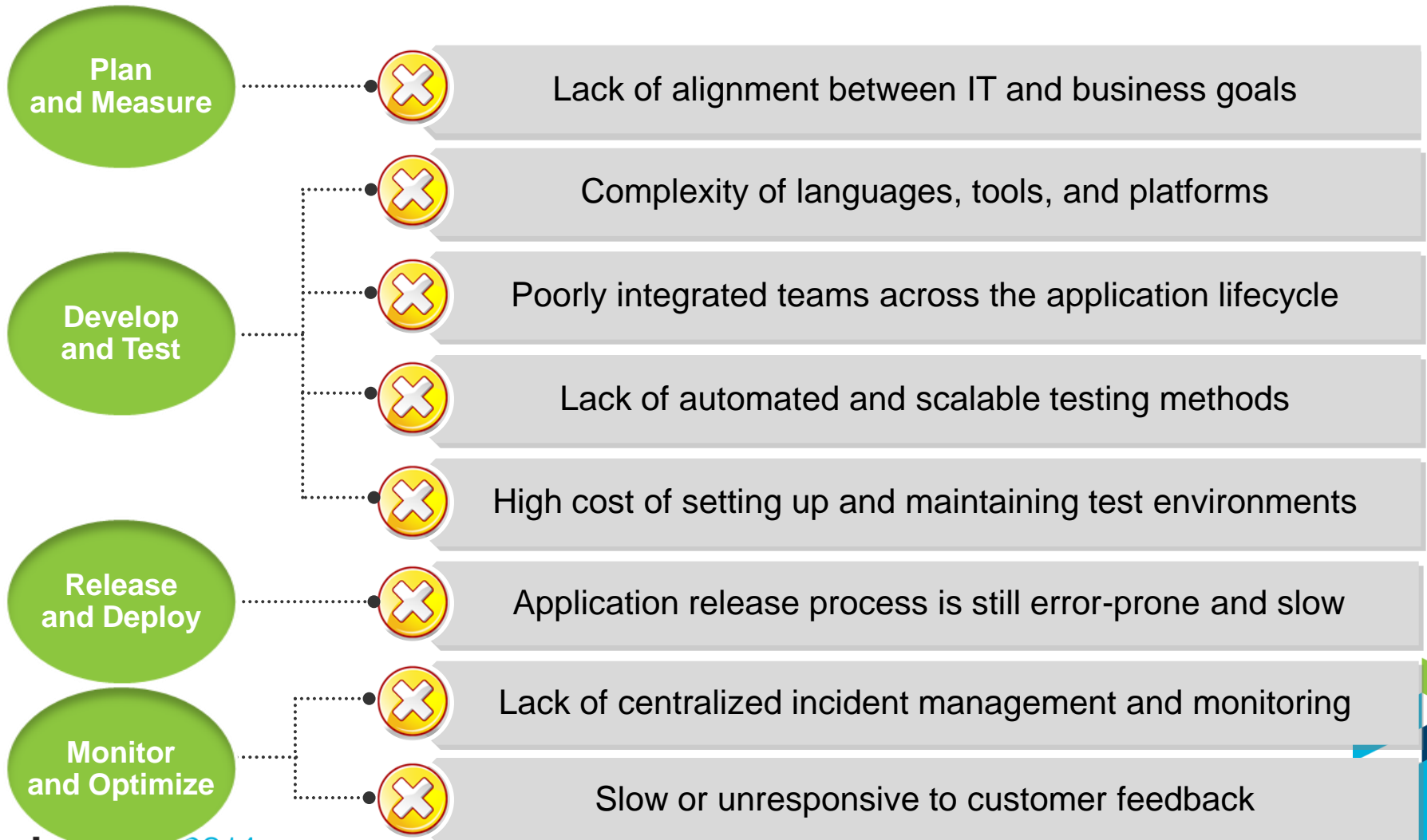
Balance speed, cost, quality and risk – for increased capacity to innovate

Reduce time to customer feedback – for improved customer experience

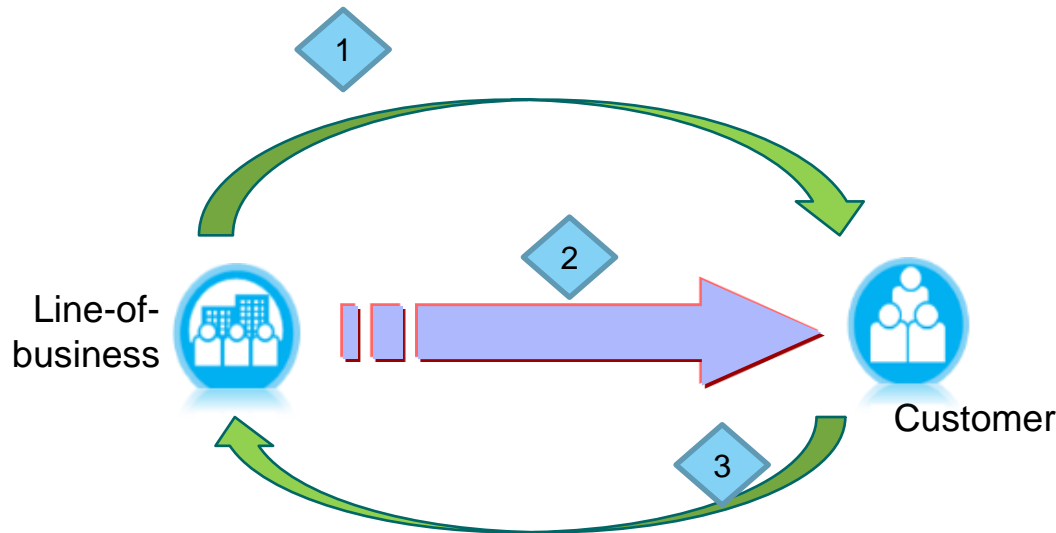


But there are key software delivery bottlenecks we must eliminate

Bottlenecks impact delivery cycles, cause rework, and waste resources

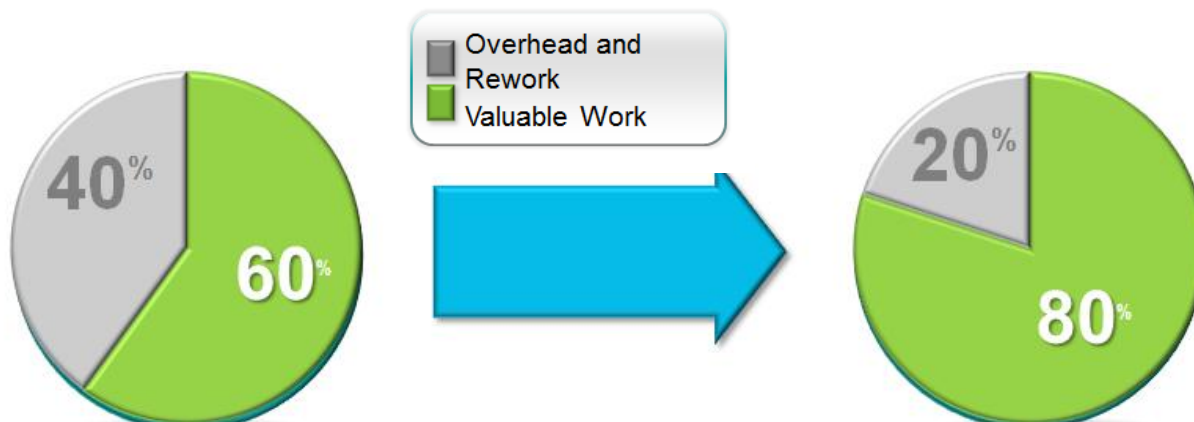


DevOps approach: Apply Lean principles to software innovation and delivery to create a continuous feedback loop with customers



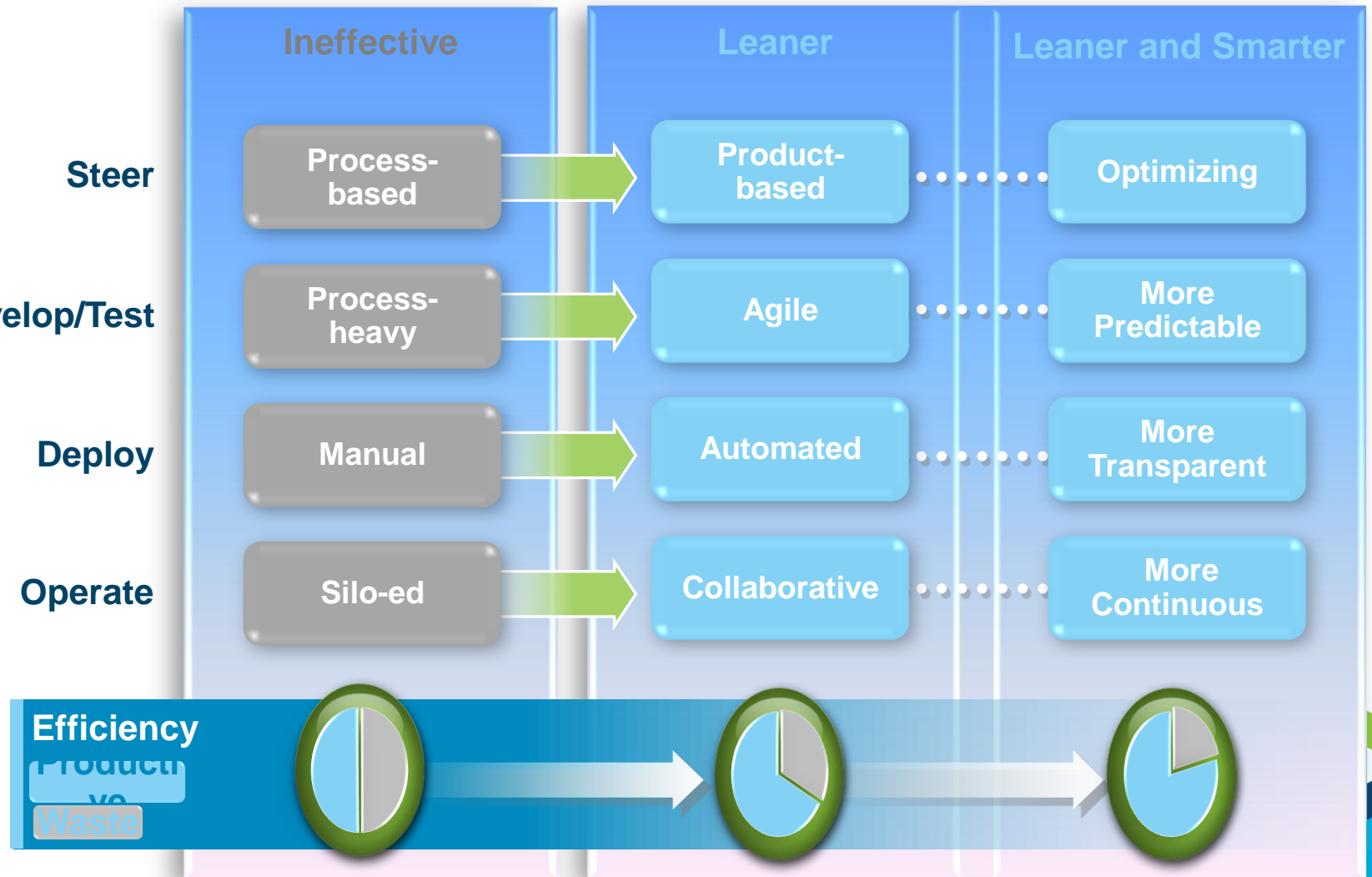
1. Get ideas into production fast
2. Get people to use it
3. Get feedback

Adopt DevOps approach to continuously manage changes, obtain feedback and deliver changes to users

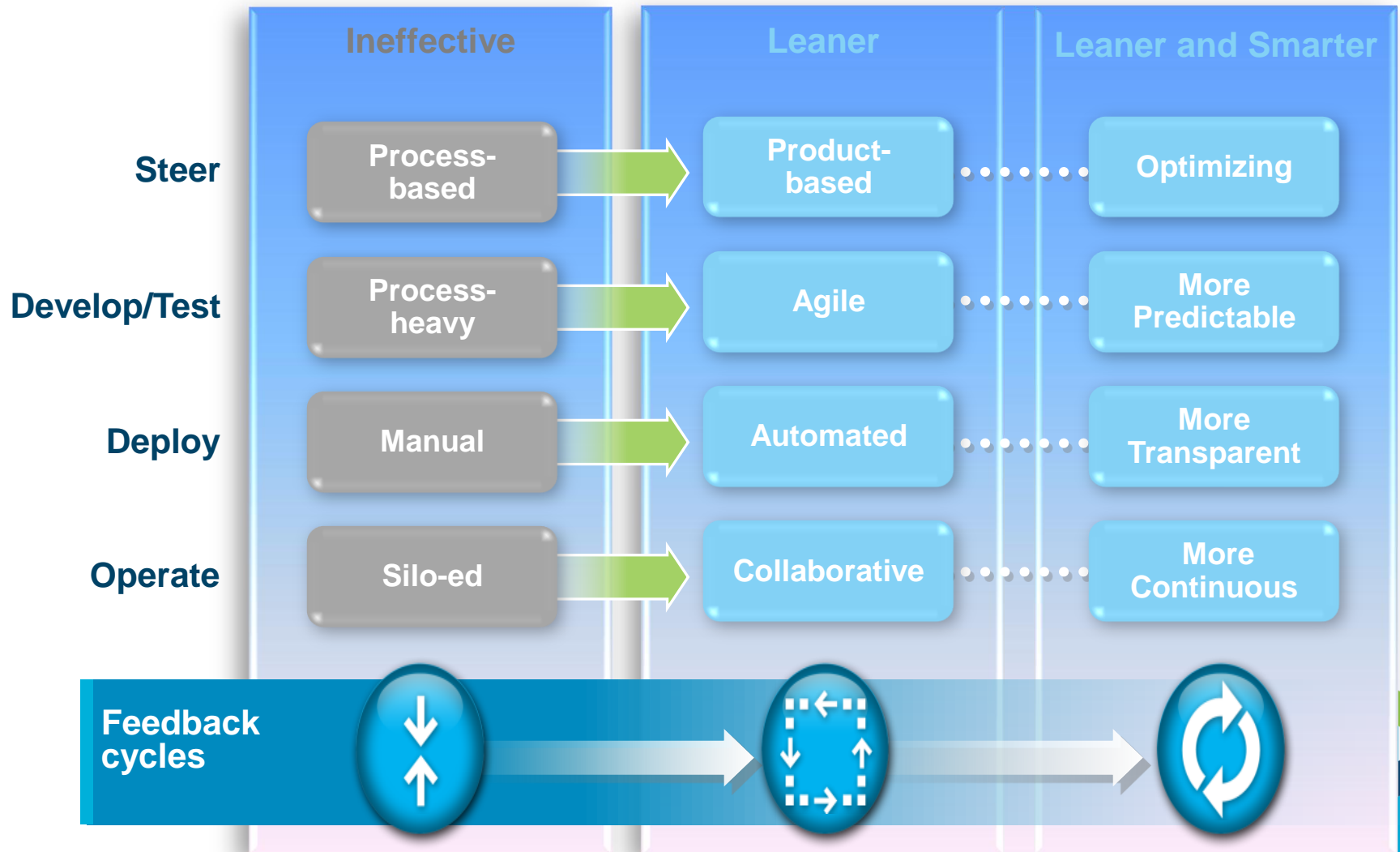


Eliminate any activity that is not necessary for learning what customers want

DevOps Adoption Model - Improve Efficiencies through Lean Adoption



DevOps adoption Model - Improve Effectiveness with Continuous Feedback



Where do you start: DevOps Adoption Roadmap

What are we trying to achieve?

- Define measurable target outcomes
- Look across silos and include all stakeholders



Business Priorities

Where are we now?

- What do you measure? What don't you measure?
- Where is the waste, overhead, rework?
- What are the root causes?
- What practices do we follow



Lean Assessment

What are the priorities ?

- Cycle times, speed
- Quality
- Effectiveness, feedback loops, value delivered
- Efficiency, productivity



Risks and Opportunities

What Initiatives do we deploy first?

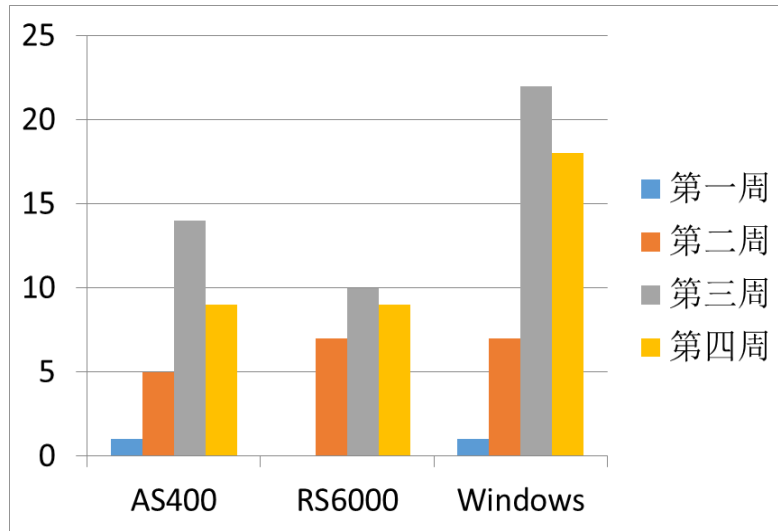
- Look for volunteers (buy-in), avoid top-down mandates
- Incremental, measurable improvements
- Measure outcomes, not compliance



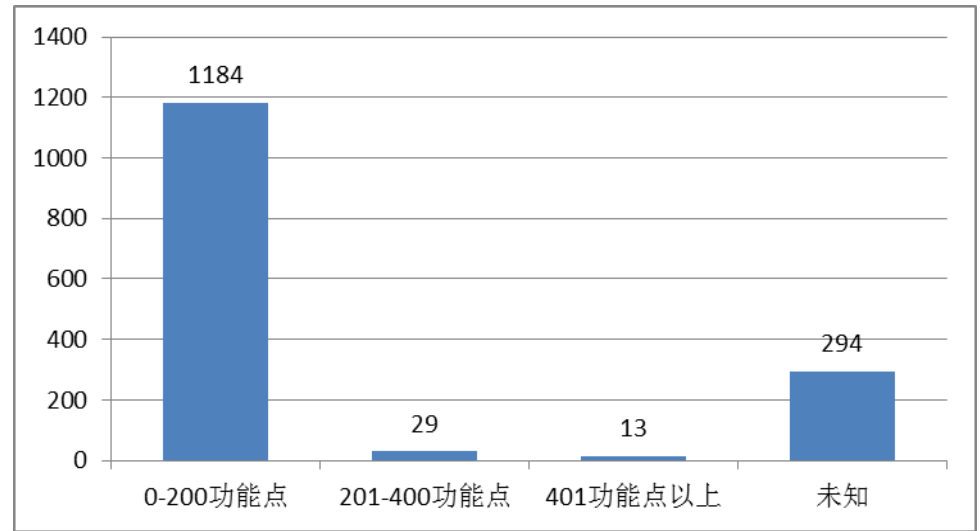
Adoption Plans

Client Case Study: A Leading Chinese Bank

應用發佈需求越來越多且持續增長，每個環節都面臨很大壓力



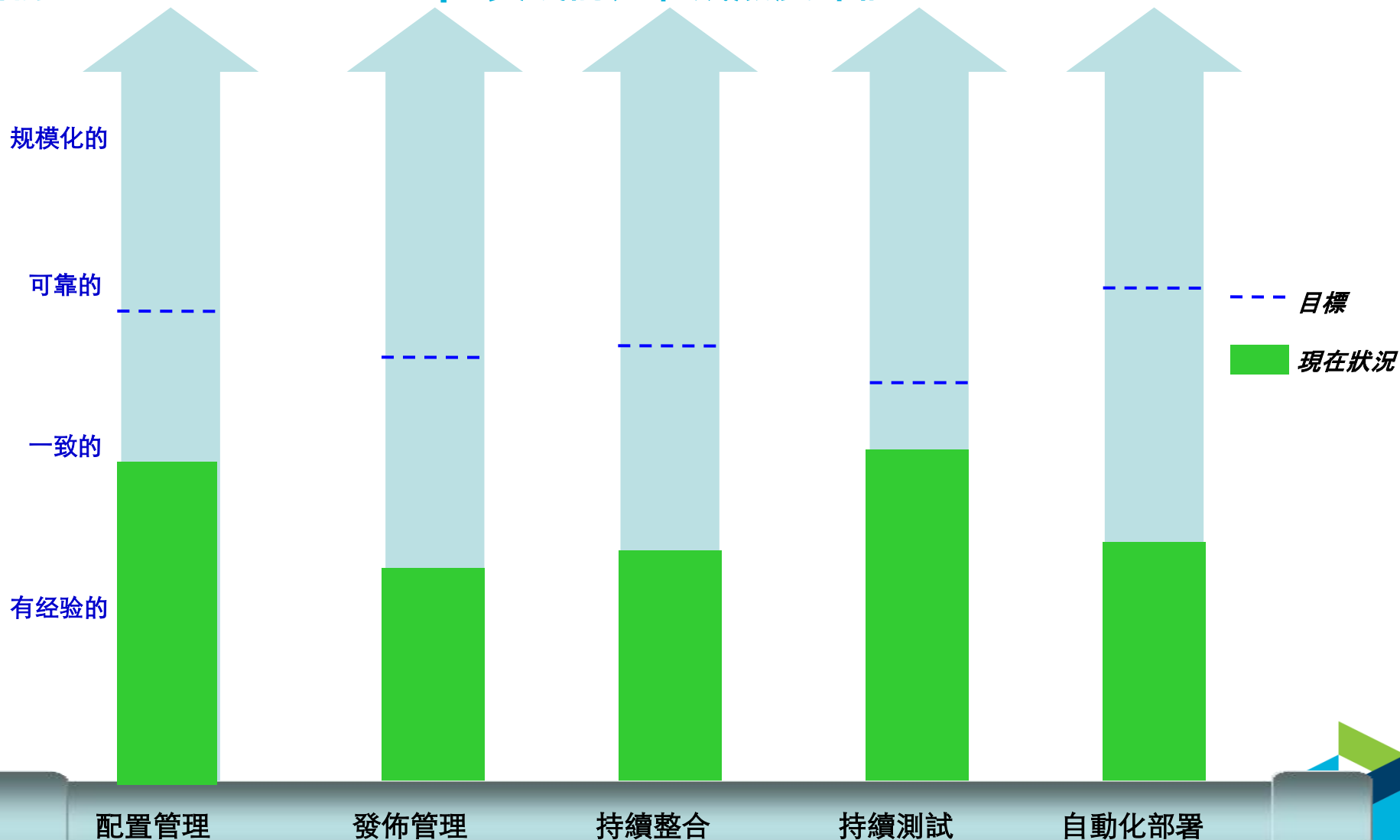
2014年2月應用發佈數量



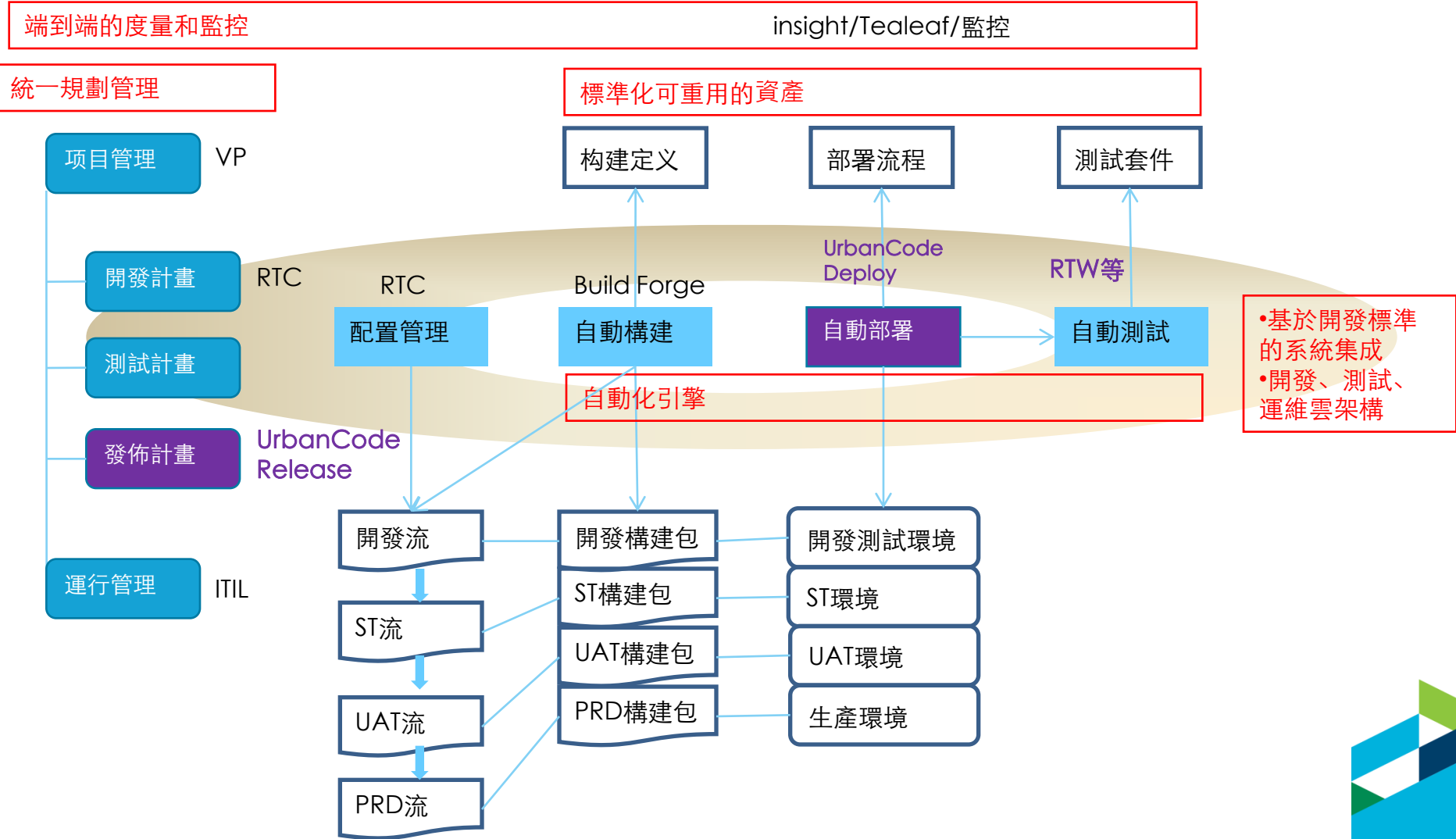
2013全年應用發佈數量

- 手動發佈模式效率依賴於發佈人員的技能與經驗，難以應對持續增長的發佈數量要求
- 缺乏標準化、自動化機制難以保證大規模發佈活動的品質

目前Chinese Bank DevOps實踐能力和成熟度評估



方案建議——整體架構

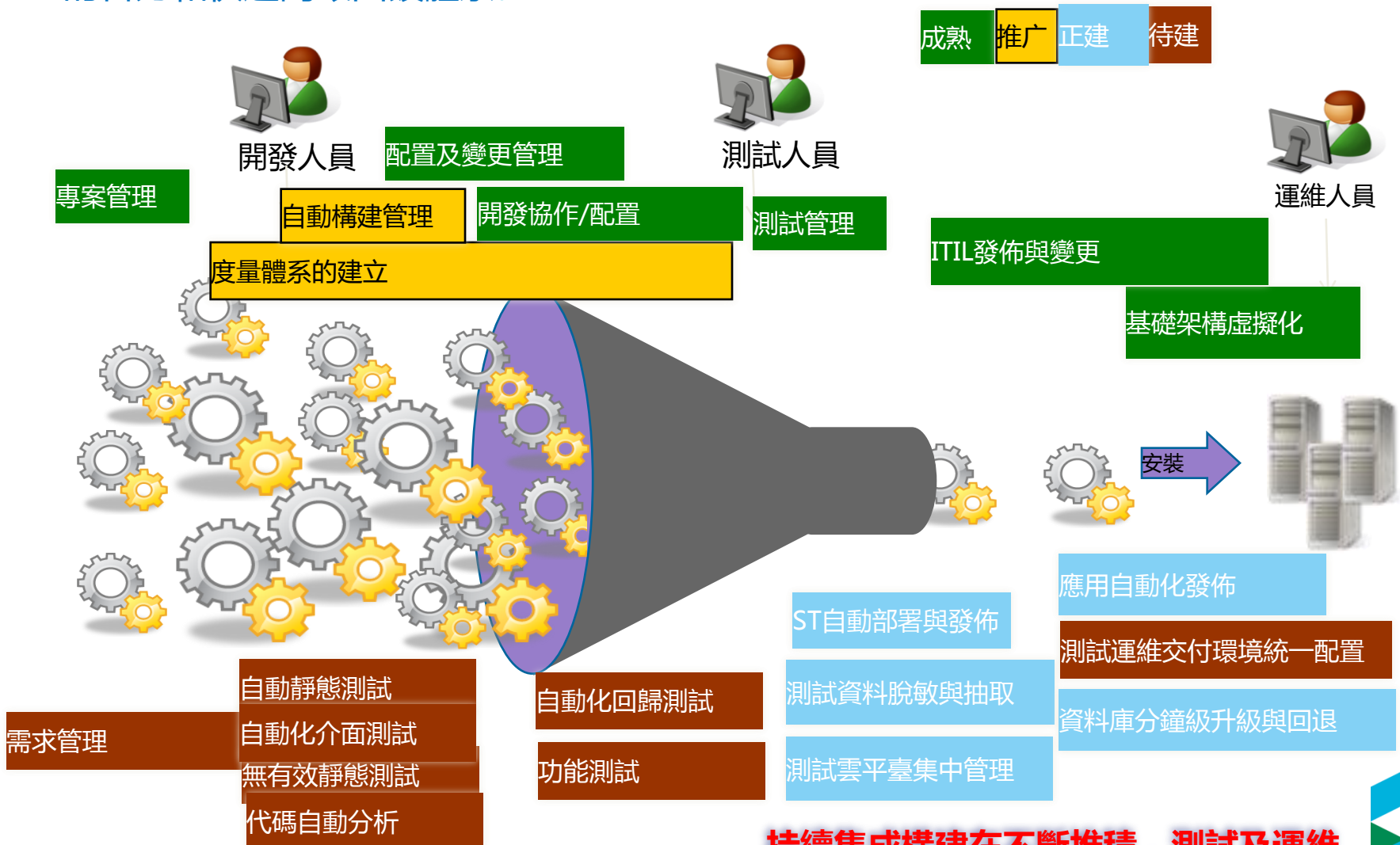


•基於開發標準的系統集成
•開發、測試、運維雲架構



Client Case Study: A Leading Chinese Bank

目前開發運維已經開展自動化和敏捷化建設，但各個環節發展並不均衡，尚未形成有效的合力和快速閉環回饋體系。



前端測試不足將隱患向後端傳遞

持續集成構建在不斷堆積，測試及運維可能成為瓶頸！

業務目標與DevOps實踐能力關聯

	提高應用發佈品質	提高應用發佈效率	提升部署過程協作效率
配置管理			
持續集成			
持續測試			
自動化部署			
發佈管理			



How WE are Improving - An Example from IBM CLM (RQM, RTC, RRC)

Measures of Operation

Lifecycle Measurements	2008	2010	2012 – 2013	Total Improvement
Project Initiation	30 days	10 days	2 days	28 days
Groomed Backlog	90 days	45 days	On-going	89 days
Overall Time To Development	120 days	55 days	3 days	117 days
Iteration Length	6 weeks	4 weeks	4 weeks	2 weeks
Number of Iterations	6	8	3	N / A
Composite Build Time	36 hours	12 hours	8 hours	400 %
BVT Availability	N / A	18 hours	< 1hour	17 hours
Iteration Test Time	5 days	2 days	4 hours	4 days
Total Deployment Time	2 days	8 hours	2 hours	2 days
Overall Time To Production	9 days	3 days	15 hours	8 days
Time Between Releases	12 Months	12 Months	3 Months	9 Months



Thank You!

