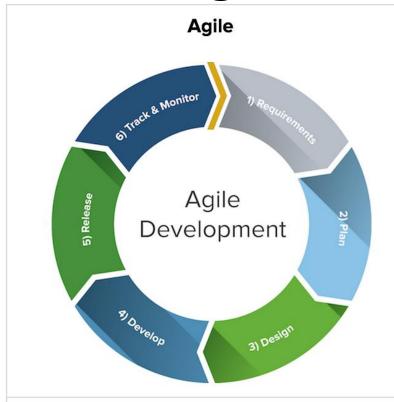
Two-Speed Architecture Governance

Key Learning Objectives 💞

- Keep these two broad industry changes top of mind, "software has eaten the modern world," and "RESTful API's will consume the rest."
- Agile began with an manifesto, followed with methodology, then planning guidance — governance is the last step in the evolution — and typically the slowest.
- A correct balance beween team oversight and the right level of trust, increases the rarity of severe outbreaks of technical debt or rework.
- As far as working software is a concern, software does not get cheaper if you wait.
- The waterfall is not dead, and it will no die any time soon.

Agile versus Waterfall





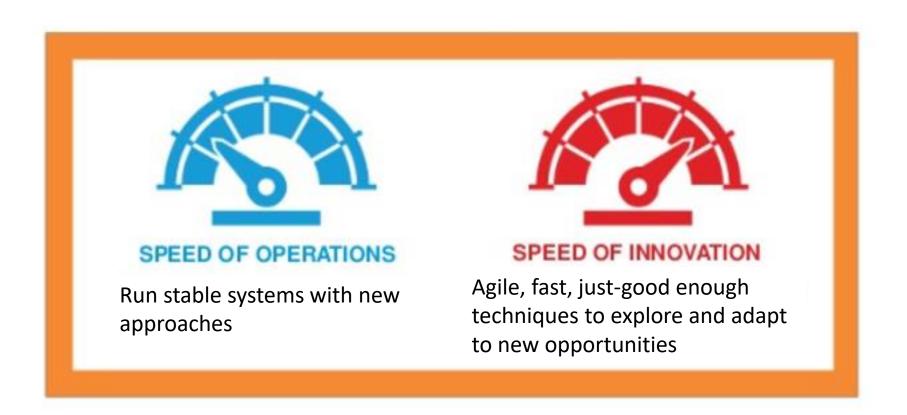
- Continuous cycles
- Small, high-functioning, collaborative teams
- Multiple methodologies
- Flexible/continuous evolution
- Customer involvement

- Sequential/linear stages
- Upfront planning and in-depth documentation
- Contract negotiation
- Best for simple, unchanging projects
- Close project manager involvement

Agile Planning 🐓



The nature of the conflict



It is possible to deploy new code on a site within an hour.

	Code	Build file	Jenkins ¹ build	Develop	Test	Production
Duration	Varies	15 min	20 min	5 min	10 min	10 min
Description	Write the	Write the	Create the	Create new	Deploy the	Deploy the
	actual code for the service	build file and define depen- dencies	Jenkins ¹ build and run the build job	web images	new web images in the test environment	new web images in the production

¹Jenkins is an open-source continuous-integration application that monitors execution of repeated jobs, such as building a software project.

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How Roles are Changing

Low automation High automation WATERFALL **AGILE AGILE NEXT GEN Product Owner Product Owner Business Delivery Managers Project Managers** Concierge/Scrum **Scrum Master** Master **Customer & User** Customer & User Experience Experience **Business Analysis** Engineering Engineering Architecture **Architecture** Architecture Development Development Development Integration Integration Integration Test Automation Dev Ops **Testing Testing Dev Ops** Transition Data, Insight & IT Ops Data, Insight & Optimization Optimization

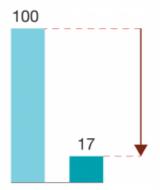
The value of adopting DevOps can be significant.

Indexed to 100

Pretransformation Posttransformation

Improvement in time to market

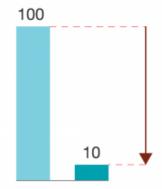
Average number of days from code completion to live production



 Eliminate rework through integrated change management and automated deployment and testing

Reduction in cycle time

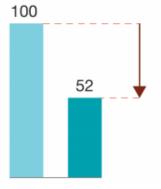
Number of days to update servers and the IT environment



- Eliminate wait time and rework through standardized processes
- Eliminate non-valueadded work through automation

Improvement in productivity

Average number of DevOps handoffs per processing activity



 Eliminate wait time and rework through improved development and operations communication

McKinsey&Company

Where is the pressure coming from?

Monolithic IT operations simply move too slow in the modern muti-release market. In response, many lines of business who can control their own IT dollars choose to invest in cloud-based products, or change over development teams to AGILE.

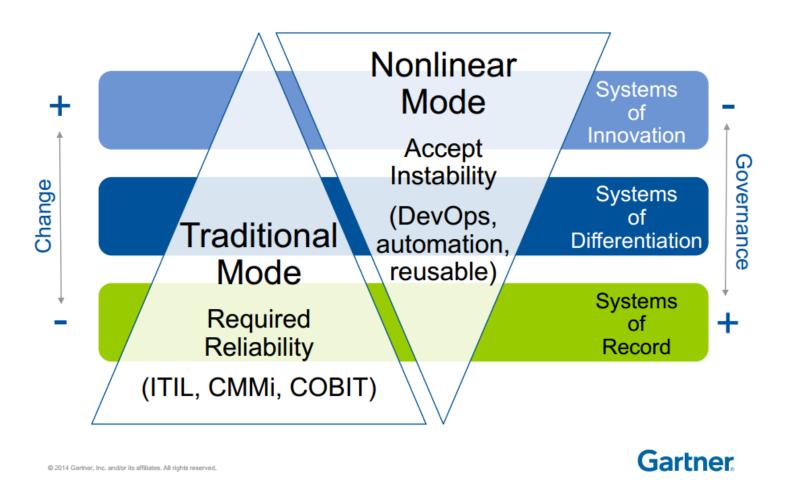
In turn, the pressure on IT is to segment into CHANGE, BUILD, and RUN/OPERATE organizations with process automation, analytics, and DEVOPS as the driver.

Organizational 2-Speed Nirvana



Achieved by consuming API's

Type-1 vs. Type-2 Governance €



The meltown commences ...

Presently, EA manages from a 1-speed frame of reference and not addressing a fundamental question: Which systems and processes within the overall architecture need to move faster?

Presently, IT traditionally has operated via lengthy, centralized planning processes and governance that are often far removed from the business requirements.

<u>The need</u>: Address the technology architecture and infrastructure required to enable DEVOPSs while simultaneously making changes to various operations, processes, and governance structures in the IT organization and within the business overall.

Governance vs. Manifesto

Agile Governance needed

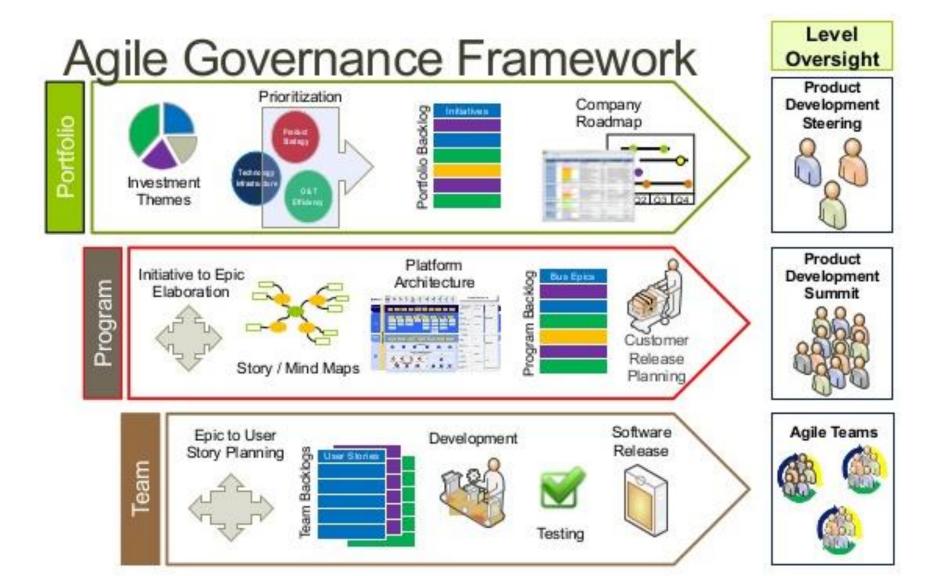
- PRO At the project level identify and advocate for specific goals to be reached during each sprint or iteration to determine the core requirements that comprise the initial release of the project.
- PRO At the program level, the more comprehensive strategic goals of the organization filter down to individual Agile projects that produce tangible results.

Agile Principles Conflict

- CON Governance requires all kinds of documentation that agile methodologies might deem redundant or have no intrinsic value
- CON Governance and compliance is normally satisfied by upfront analysis and agreement on outputs, which is in conflict with agile principles

Main Agile Risks 💞

- <u>Iterative Risk</u> As with any design that is not fully completed at the time the first build task is started, there always remains the risk that some outputs may not be fully understood until reached.
- <u>Compliance Risk</u> A common theme amongst dealing with governance and compliance requirements is that the disciplines required by the agile project management team will satisfy and create the outputs necessary for compliance
- Competence Risk Not having sufficient agile competencies or training within a project team is a risk in of itself, and, is the leading cause of agile project failure.
- <u>Documentation Risk</u> The agile process and architecture are sometimes mistakenly thought of as free form processes in which no documentation is required.
- <u>Decelleration Risk</u> the Agile project will experience push back from the various serial and waterfall-oriented committees responsible for controlling software development within the organization.



Hard Problems in Agile Governance

- Deciding what issue must elevate out of Type-2 workflow (Agile/DEVOPS) to Type-1 governance for deliberation (e.g. value judgement, alignment, resources, risk and performance management)?
- How to distinguish the difference between oversight, and pretending to follow the rules for the sake of the team
- The definition of "done" cannot meet the requirements of TOGAF Phase H Architecture Change Management. The increments are too small.

Essential Questions

- Does EA, from a TOGAF point of view, have a place in Agile Mehtods?
- Does Agile methods, have a place in TOGAF EA methods?
- Can an enterprise architect function as an EA, in an Agile Program? Is there any work for an EA to perform, or is it all solutions-like work?