**Non-Traditional Approaches
to Project Management**

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Traditional approaches to project management require the boundaries of a project to be clearly described before the project commences. But the real world is sometimes not so clear-cut: sometimes the business problem to be solved is not defined or the possible solutions have not been explored. And often, the key stakeholders of the project are asked to provide requirements before they have fully conceptualised the problem and the solution, leading to under- or over-specification of the solution to be delivered by the project.

This workshop will explore:
 - non-traditional approaches to project management, such as extreme project management, lean project management;
- Comparing agile approaches to project management, such as DSDM Atern, with agile approaches to product development, such as Scrum;
- the project team as a complex adaptive system demonstrating natural agility;
- adopting non-traditional approaches in a traditional project management environment, and specifically the use of DSDM Atern or Scrum in a PRINCE2 environment.

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Agenda

- Traditional Approaches
  - or do we mean conventional?
- Non-Traditional Approaches
  - how did we get here and what else is out there?
- Complex Problems
  - why conventional approaches don't always work
- Adapting / integrating existing methods
  - what's next?

We'll start by looking at what is meant by the phrase 'traditional project management'. It turns out that perhaps the word 'conventional' might be a better fit.

We'll then look at the history of the development of the project management concept. We'll do this by looking at various developments over the last 70 years, and their impact on current approaches to managing projects.

Next we'll look at complex problems, and the notion of complex adaptive systems. Here we'll explore why conventional approaches to project management don't seem to work.

We'll finish up by looking at how the various approaches to managing projects that are around now might be integrated.

Tradition vs Convention

The word 'traditional' has a sense of something that is expressed in a similar way across generations. Families develop traditions around holidays, birthdays and so on. For example, on Christmas Day in my family, we appoint the youngest child who can walk to be Santa's Little Helper, put a funny hat with bells on them, and help them give out presents. With respect to project management, while there are a few techniques that have been in regular use for a long time, the discipline is in a continual state of change. This means, almost by definition, that there's almost no such thing as traditional Project Management.

The word 'conventional' has a sense of something that is expected, at this time, in this culture. What's deemed conventional at one time may not be deemed conventional at a later time. For example, working out the critical path in a project used to be done by hand but I doubt anyone here does that any more. Organisations develop conventions around they way they expect their projects to be run. We gather 'best practice' into standards and expect some degree of compliance.

What's a project?

- What a project manager manages?

- One of the means an organisation uses to achieve an end?

- Or are these conceptions too limiting?

Before we get too far ahead of ourselves, we should discuss what we take the word 'project' to mean. Is a project the thing that a Project Manager manages? If so, doesn't that mean that a project doesn't exist until a project manager been appointed?

A broader conception of a project is that it is the means by which an organisation achieves one of its objectives. So people can be working on the concept of the project before a project manager becomes involved, and may well keep working on the project well after the project manager has departed.

When does an initiative cease to be a project? In some very large organisations, a project may be proposed and worked on. Later, it sometimes becomes clear that this project will need to be managed as a coordinated programme of perhaps many hundreds of projects. AT the other extreme, how small can an initiative be, and still be called a project?

Discussion

- In your experience, what are the most common causes of cost and schedule overruns?

- What proportion of projects get into trouble?
- What proportion of features are delivered?
- What proportion of features are used?

- Any other evidence that conventional approaches may not always be the best approach?

Early in most project management courses there's usually a discussion on the common reasons that projects get into trouble. Almost everyone who's been around projects for long enough will have observed many of these problems.

The periodic Chaos Report produced by the Standish Group reports that a persistently high proportion of projects get into trouble, never finishing, or failing to deliver their full scope or delivering functions that are never used. And is this because we're not getting better at managing projects, or because our projects are getting more complicated?

And there's a lot of evidence that conventional approaches to project management may in fact be the cause of discontent. For example, the application of structured project management to an initiative which is initially at least an exploratory R and d exercise.

Is there a 'best' approach?

Conventional Project Management

Project Manager

Project

FRAGILE

Is there a conventional, best practice approach that will work on any project? Again, almost by definition the answer has to be a resounding 'No'. Best practice approaches are snapshots gathered at a point in time, and generally published a year or two later. And since the world is changing at an ever-increasing rate, this means that 'best practice' approaches are out of date by the time they are released.

It used to be an urban myth that no-one ever got fired for buying IBM products. Could a project manager ever be criticised if they applied 'best practice' project management approaches to a new project? Given the situation we've just described, the answer has to be, 'sometimes'! And this means that organisations need to critically appraise the project management approaches to be applied to each project.

Case Study

Statutory Authority – Annual Works Programme

- Executive Team have assembled a portfolio of 60 proposed projects, each of which they describe as "mandatory"
- How would you approach this?

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Here's a case study to consider. A Government Agency wanted to set up an annual works programme. They'd done some preliminary work, and developed a list of around 60 proposed projects, all of which were described as 'mandatory'. If you were engaged to get this works programme going, what would be your first step?

Would you start hiring a raft of project managers, and get them started on rapidly scoping these projects? Or would you take a step backward, and think about what they meant by the word 'mandatory'? It turned out that what the Executive Team members meant was this: "These are the projects I want run this year. They're all important to me, and I don't want my projects deferred in favour of anyone else's projects."

The way out in this situation was to define the word 'mandatory' to mean a project that had to be run to keep the CEO and Board members out of gaol! Then apply various portfolio management techniques to prioritise the proposed projects. Then apply some value management techniques to assess the alignment of the proposed projects with the organisation's value drivers, and determine which proposals might return the optimal combination of value for money and risk exposure. Finally, apply some programme management techniques to assess the project management capability and capacity of the organisation. It turned out that the organisation had a reasonable chance to run around 6 of these proposed projects, and once the Executive Team had been led through the thinking, they all agreed. And only then could we start applying project management 'best practice' to the selected projects.
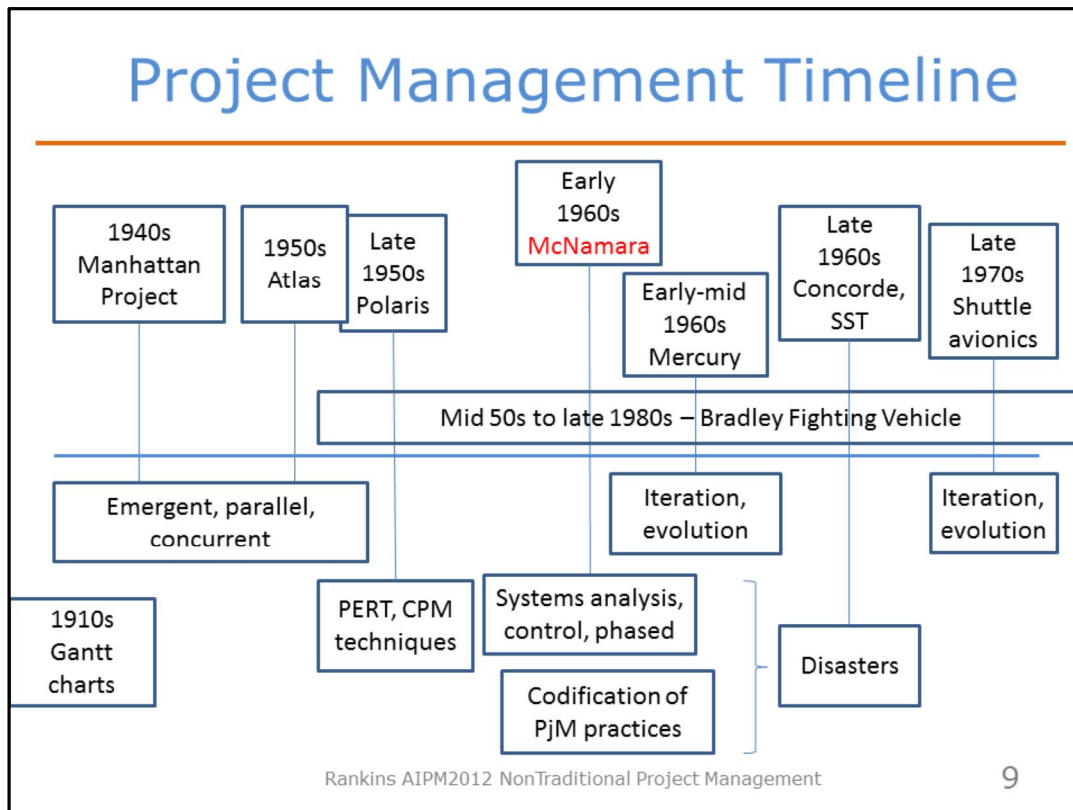
Before moving on, let's take an (admittedly selective) stroll through the history of project management in the mid to late 20th century.

In the 1940s, the Manhattan Project was set up to develop an atomic fission weapon as rapidly as possible. The problem was that there was initially no certainty about what nuclear fuel should be used, how to refine it, nor how to detonate it. Could they afford to guess what combination might work, and then try to make that work? Absolutely not! In this project, there was an overwhelming feeling at the time that the first country to develop this weapon would win the war, with no prizes for being second. So time was of the highest importance; an enormous amount of resources – money, materials, skilled physicists and engineers - was devoted to the project. They set up multiple parallel efforts to concurrently explore the various fuel, refinement and ignition options, and deal with the emergence of a rapidly advancing baseline of knowledge in nuclear science and engineering. This turned out to be an enormously expensive project, but it worked.

In the next decade, the US Air Force developed the ATLAS missile as an ICBM. The project became one of the largest and most complex production, testing, and construction programs ever undertaken. Because of the novel domain, the project used emergent, parallel and concurrent techniques. Again, because of the Cold War fears at the time (and put aside any 20-20 hindsight) the project was basically given a blank cheque.

The Manhattan and Atlas projects were both pushing the envelope. In both cases, the optimal design of their key deliverables was not known at the outset. The available

strategic choices were explored via parallel trials and trial-and-error iteration, and the projects were modified in response to emerging events.

Towards the end of the decade, the US Navy began work on a submarine-based nuclear missile called Polaris. It is said that the Navy adopted the new Programme Evaluation Review Technique (PERT) and critical path methods (CPM) so that they could 'sell' the Polaris project to Senate Committees on the basis of greater management efficiency than the US Air Force was demonstrating on the Atlas project. Interestingly, the leading experts in PERT and CPM went on to found the US-based Project Management Institute.

In the mid 1960s, Robert McNamara, the youngest president of Ford Motor Company, was appointed as the Secretary of Defence. He had overseen a major expansion of Ford through advances in management discipline and cost control. In order to rein in Defence budgets, he pushed for greater central Government control over Defence projects. This included development of a Program Planning and Budgeting System which emphasized up-front analysis and planning and centralised decision making, with the objective of 'getting it right first time'. Defence projects also adopted the newly emerging field of systems analysis, management control and project lifecycles with stage-gates. Around the same time, project management practices began to be codified in a succession of US Defence standards. These reforms recast project managers as 'order takers' following formal methods; innovation was effectively discouraged.

These new approaches to project management were applied in the late 1960s to the development of the Concorde and Super Sonic Transport (SST) aircraft. Both of these projects ended up in serious trouble, possibly because they were both attempting to extend the envelope of engineering knowledge but using a management technique that assumed that this knowledge was available and could be managed. They didn't effectively deal with the inherent technical uncertainty of building such aircraft.

Interestingly, the Mercury space program of the early to mid 1960s used iteration and evolution, successfully.

In the late 1970s, the avionics systems for the Space Shuttle were developed over 8 iterations.

(As an aside, I'll mention the development of the Bradley Fighting Vehicle from the 1950s to the late 1980s. This project was the focus of the movie 'Pentagon Wars' It's an hilarious elaboration of the need for change control.)

Chalk and cheese

	Conventional	Non-conventional
Objectives	Defined, given from above	General vision and direction; detailed goals not known or partially emergent
Activities	Can be articulated and derived from experience	Partially emergent
Capabilities	Existent or identified, sourceable	Not necessarily existent, not necessarily specifiable
Uncertainty	Variations to plan; known risks	Unforeseeable uncertainty; new variables, options, actions not anticipated
Domains of relevance	Known domains	Novel domains; new technology; inherent complexity; emergent requirements

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So we can start differentiating what has become conventional project management from the less-conventional approaches that preceded it.

The now-conventional approaches say that a project's objectives can be well defined before the project starts, that the activities required to complete the project can be articulated and estimated accurately in advance, but they assume that the capabilities required by the project can be sourced, and that the risk of every project can be managed.

This is in contrast to the many successful precedents we've looked at which were characterised by approaches encompassing parallelism, concurrency, iteration, and evolution to encompass emerging information and requirements.

Criticisms of conventional project management in R&D domains

- Too little emphasis on the early stage of R&D - exploration
  - Too little duplication
  - Too little competition

- Premature, optimistic, overly detailed requirements
- Excessive centralisation of decision making
- Premature commitment of large funds

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In particular, in Research and Development domains, conventional approaches to project management have been found to be inadequate.

Criticisms include too little duplication and competition between alternative solutions. Interestingly, US Defence recently commissioned research to explore how conventional procurement practices – essentially serial activities with a winner-takes-all approach delivering sub-optimal outcomes – could be modernised to incorporate some form of parallelism, iteration and evolution.

Other criticisms include a tendency to seek highly detailed requirements too early, limiting the scope for innovation, and premature commitment of project funding in domains where the work of the project cannot be quantified accurately.

Case Study

Statement of Requirement:

- Take a random machine
- Drop it from a 10th floor window
- Recover all configuration settings within 10 minutes

How would you approach this?

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Let's take time out for another case study.

Suppose your task was to recover all configuration settings from a random piece of damaged equipment. How would you go about this?

If you have an engineering background, you've probably been tempted to start thinking about technical ways to capture this configuration information and then to restore it onto a replacement machine.

What other approaches might be available?

How about challenging the need to do this for many types of machines, such as desktop displays? Would it be better just to replace the damaged item, and let the user reconfigure it to suit their personal preferences? Surely a better use of your time?

 How about removing the need to reconfigure some off-the-shelf equipment entirely?

The point of this exercise was to suggest that our experience might condition us to consider only the range of options we're familiar with, rather than exploring the full range of options available to us.
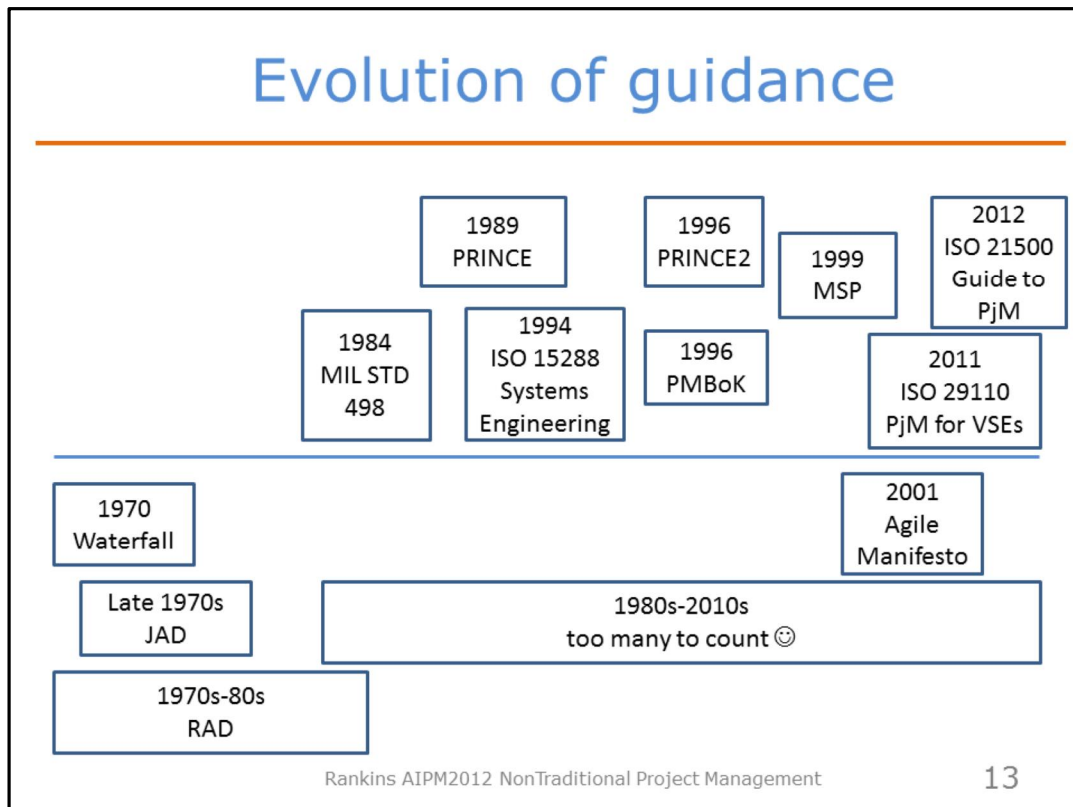
Now back to our exploration of the history of project management.

In the 1970s and 1980s, and on into the 80s, 90s, noughties and twenty-teens, an enormous number of techniques appeared, the most notorious being the waterfall model which we'll discuss in the next slide. Most of these arrived in a blaze of glory, were adopted by many, were found to be wanting, and were eventually replaced by something newer. A few persist in slightly different forms, or have been absorbed into later techniques. In 2001, the Agile Manifesto was promulgated, calling for a radically new approach to software development.

There has also been development of the concept of best practice, starting with a series of more prescriptive military standards and the systems engineering approach, and the development of methods such as PRINCE2 and MSP in the UK, and the PMI's PM BoK. Interestingly, the first global standard for project management wasn't adopted until 2012 – this being ISO 21 500., which incorporates guidance from PRINCE 2, MSP, the PM BoK, the British APM BoK, and various other sources.

Conflation of product development and project management

Requirements → Design → Implementation → Testing
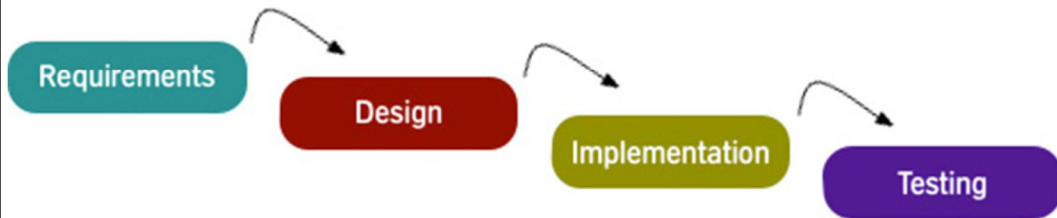
Waterfall Model
– Winston Royce, 1970

⚠ DANGER
Do not use
Scaffolding
incomplete

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A quick aside on the Waterfall Model.

In 1970, Winston Royce published an article first describing the waterfall model, as an academic exercise, with the rider: this is a mental model, not to be used in practice, because it doesn't have the feedback loops that had been found to be essential in the real world.

The waterfall model also has the limitations previously described. Its requirement for a complete system definition before development starts is impractical on innovative projects, and it's unable to handle unforeseeable events.

Yet somehow, this model is built in or at least suggested by most conventional approaches to project management.

Issues with phased approaches

- **Poor results indicate systemic problems:**
  - Proportion of projects in trouble too high
  - Long time to market

- **Based on questionable assumptions:**
  - Focus on execution
    - Project managers as order takers;
    - Project management as engineering-execution
  - Uncertainty elimination and control are feasible
    - Uncertainty avoidance rather than embracing uncertainty as a source of opportunities

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We can now discuss some of the issues associated with phased approaches including waterfall models or stage-gates.

While many projects run to completion, this doesn't mean that they did what they were supposed to do. Most project surveys report poor results; the drive to more agile approaches can be interpreted as a response to the dissatisfaction of a significant proportion of the 'market' for projects.

At the deepest level, phased approaches are based on false assumptions for many types of projects.

Firstly, that it's possible for all projects to adopt an engineering approach to execution of the project. This has the unfortunate effect of positioning project managers as order takers – tell me what you want and I'll deliver it on-time and within-budget.

The second criticism is that phased approaches imply that it's possible to manage out uncertainty at the outset, or that a project, once started, should not take on too many change requests.

Issues with phased approaches

- Highly innovative initiatives don't fit a linear phased approach
  - Stakeholder expectations that scope and deliverables will not change
  - Innovation requires iteration and parallelism

- Not all projects are novel, but where iteration and parallelism are used, it's done in spite of professional PjMgnt doctrine instead of being supported by it

A third criticism is that phased approaches stifle innovation. Innovation really thrives in environments that embrace iteration and parallelism.
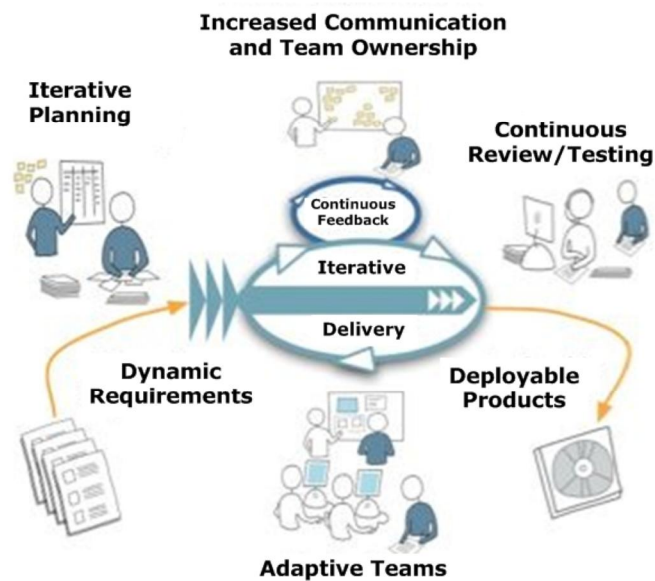
Impact of the Web

- Web development is more complex:
  - Websites are not discrete systems so much as blended convergences of software, visual design and editorial content
  - Require a great deal of communication, collaboration with non-technical personnel and team synergy

- Web development is immediate:
  - Time to market can be very short
  - Iterative approach allows the product to quickly meet known needs while maturing the product in direct response to user feedback and usage patterns

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The shift of transactions from call centres to the internet, as well as the emergence of software-as-a-service and cloud computing, put great strain on conventional approaches to delivering solutions to business problems. Web development is inherently more complex than traditional transaction processing. And web applications have a novel immediacy, both in terms of initial development times, and in the need for web applications to rapidly respond to market demands.

Introducing Agile

Increased Communication and Team Ownership

Iterative Planning

Continuous Review/Testing

Continuous Feedback

Iterative

Delivery

Dynamic Requirements

Deployable Products

Adaptive Teams

Which brings us to the first non-conventional approaches to product development – collectively called 'agile'. There are various approaches out there, of varying degrees of granularity and focus. This diagram is representative of the paradigm: dynamic environment, iteration, adaptation and evolution in response to continual feedback.

Focussed Agility

- Novel projects:
  - Fixed targets not provided – 'deployable product'
  - Broad direction and vision, initial details are hypotheses and may evolve

- Diagnose the uncertainty profile of the project
  - Areas of the project affected by knowledge gaps or assumptions

- Manage routine project modules using a phased approach
  - Plan and execute

- Manage highly uncertain modules by identifying questions to be answered
  - Parallel trials and iteration

- Governance structure empowers the project manager to reassess the situation repeatedly depending on emerging status

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There's a saying: If you give a job to a carpenter, she'll hit it with a hammer. The meaning here is that you need to be aware of the biases of practitioners. If you have a sore leg, would you first go to a surgeon? Of would a General Practitioner be a safer first port of call?

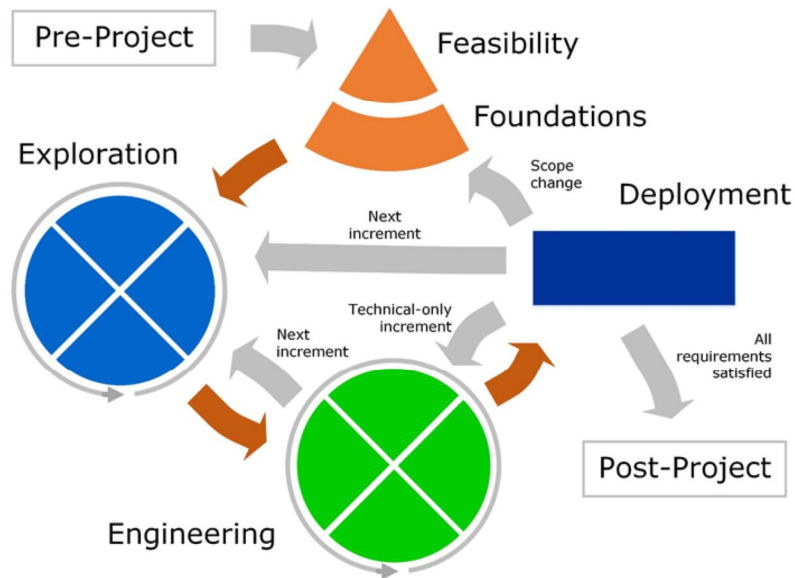Similarly, we can ask: are agile approaches useful in every type of project? Clearly not.

So what is the domain of applicability of agile approaches?

Clearly, agile is useful in novel projects and projects where fixed targets are not known. Agile approaches can help the customer and project team explore the domain and converge on a mutually acceptable solution.

Some types of project will continue to be successfully managed by conventional approaches.

It seems that what's required is a general agility: to be able to work out what parts of a project would benefits from an agile approach, and what parts can be managed by a phased approach.

Agile project management …

Pre-Project → Feasibility
Foundations
Exploration
Deployment
Scope change
Next increment
Technical-only increment
Next increment
Next increment
All requirements satisfied
Engineering
Post-Project

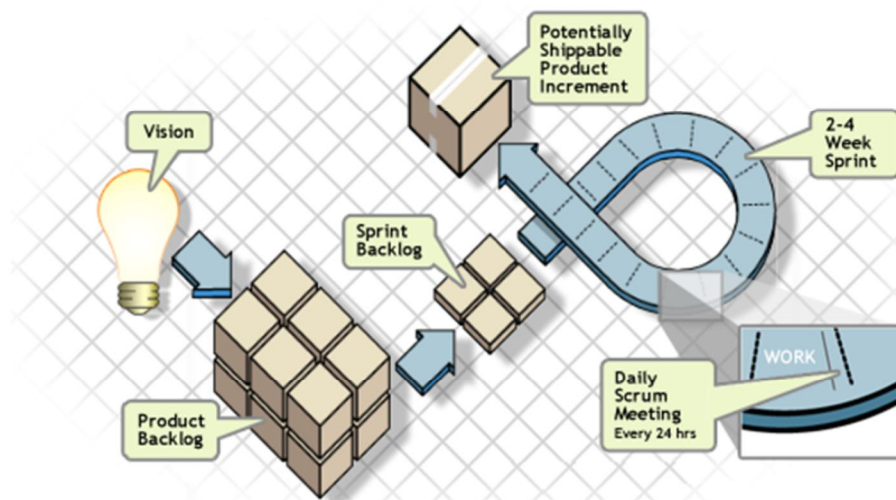Rankins AIPM2012 NonTraditional Project Management

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Another of the agile approaches relates to agile project management.

This diagram shows the lifecycle used in the dynamic systems development method (DSDM), an agile project delivery framework primarily used as a software development method. First released in 1994, DSDM originally sought to provide some discipline to the rapid application development (RAD) method. In 2007 DSDM became a generic approach to project management and solution delivery, called DSDM Atern.

DSDM is an iterative and incremental approach that embraces principles of Agile development, including continuous user/customer involvement. DSDM fixes cost, quality and time at the outset and uses the MoSCoW prioritisation of scope into *musts*, *shoulds*, *coulds* and *won't haves* to adjust the project deliverable to meet the stated time constraint. It incorporates an empirical approach to process improvement. DSDM is one of a number of Agile methods for developing software and non-IT solutions, and it forms a part of the Agile Alliance.

Scrum? Maul! Ruck!

Reference to rugby in 'The new product development game', Takeuchi and Nonaka, 1986

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One of the more popular agile approaches is called scrum. Scrum is sometimes considered a project management method, which is why I've introduced it here.

The concepts behind Scrum emerged in Japan. The original paper contained the following in its abstract:

"Companies are increasingly realising that the old sequential approach to developing new products simply won't get the job done. Instead, companies are using a holistic method – as in rugby, the ball gets passed within the team as it moves as a unit up the field. This holistic approach has six characteristics: built-in instability, self-organising teams, overlapping development phases, learning across levels and functions, subtle control and organisational transfer of learning. The six pieces fit together like a jigsaw puzzle, forming a fast and flexible process for new product development. "

Scrum (the product development method) arose in America after several gurus read this paper.

Interestingly, it appears that the Americans didn't understand the game of rugby: a scrum is one of the static set-pieces in the game, characterised by brute strength. Perhaps Scrum (the product development method) should have been called Maul? Or Ruck?

All projects are learning environments

- Requirements
  - What the customer wants
  - Often need refinement as the customer learns

- Deliverables
  - What the customer gets
  - Often need rework as the project team learns

- Discovering requirements and deliverables by iteration and rapid prototyping
  - Help the customer to learn requirements, helps the team to learn solutions

An underlying philosophy of agile approaches is that all projects are learning environments.

Conventional approaches imply that customers know what they want and can express these needs clearly, and that project teams can design solutions to satisfy the customer's needs. Agile approaches imply that both requirements and design may need to change as both customer and project team members learn. Agile approaches provide iteration and rapid prototyping as tools supporting rapid learning.

Case Study

Demographic Time Bomb

- CEO asks a question: "Our workforce is getting older. How can we ensure we maintain productivity over the next 10 years?"

- How would you set this up as a project?

Time for another case study.

A major manufacturer became concerned about workforce aging. A plant manager saw the age statistics of his plant (typical of the demographics in any Western country) and asked the question: "We as a workforce are getting older. Do we have any idea how we are going to maintain productivity?"

Agism aside, how would you approach this project?

No one had an answer until two production line managers proposed running a pilot experimental production line with the worker mix forecasted for 2017. Still, no one knew what to do or how best to adapt the line to older employees. So they then empowered frontline people in the pilot line, who developed (with help from specialists) close to 100 implementable solutions via process changes. After a year, the line achieved the same productivity and quality as lines with younger workers. Frontline staff had solved the problem initially raised by the unit head. The project had started with a question, and multiple parties had contributed to create a solution that became part of the corporate production system.

This project was not about executing strategy; it was about creating a new strategic solution to a problem that the organization faced.
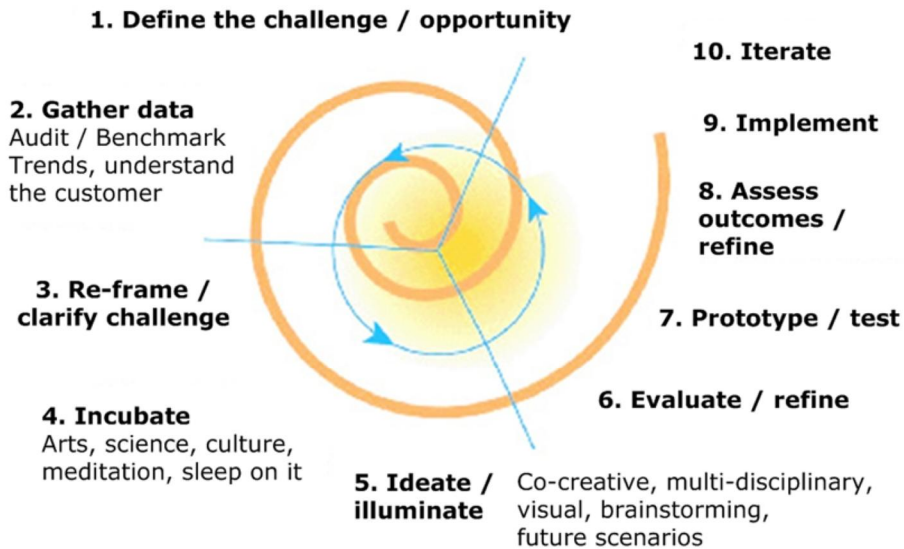
In addition to the agile approaches typically associated with IT and software systems development, there are a number of other agile approaches emerging.

Design thinking refers to a collection of methods and processes for investigating ill-defined problems, acquiring information, analysing knowledge, and positing solutions in the design and planning of new products. Unlike analytical thinking, design thinking is a creative process based around the "building up" of ideas. There are no judgments early on in design thinking. This eliminates the fear of failure and encourages maximum input and participation in the ideation and prototype phases. Outside the box thinking is encouraged in these earlier processes since this can often lead to creative solutions.

Value studies, which arise from the value management domain, are an example of design thinking in action.

Design-driven projects ...

Jawbone, Yves Behar

Advertising is the price you pay for having
an unremarkable product or service
... Jeff Bezos, Amazon.com

Some of you might own or have seen a Jawbone Bluetooth mobile headset. The photos here show the co-located development teams which developed the original Jawbone using a design-drive, agile approach.
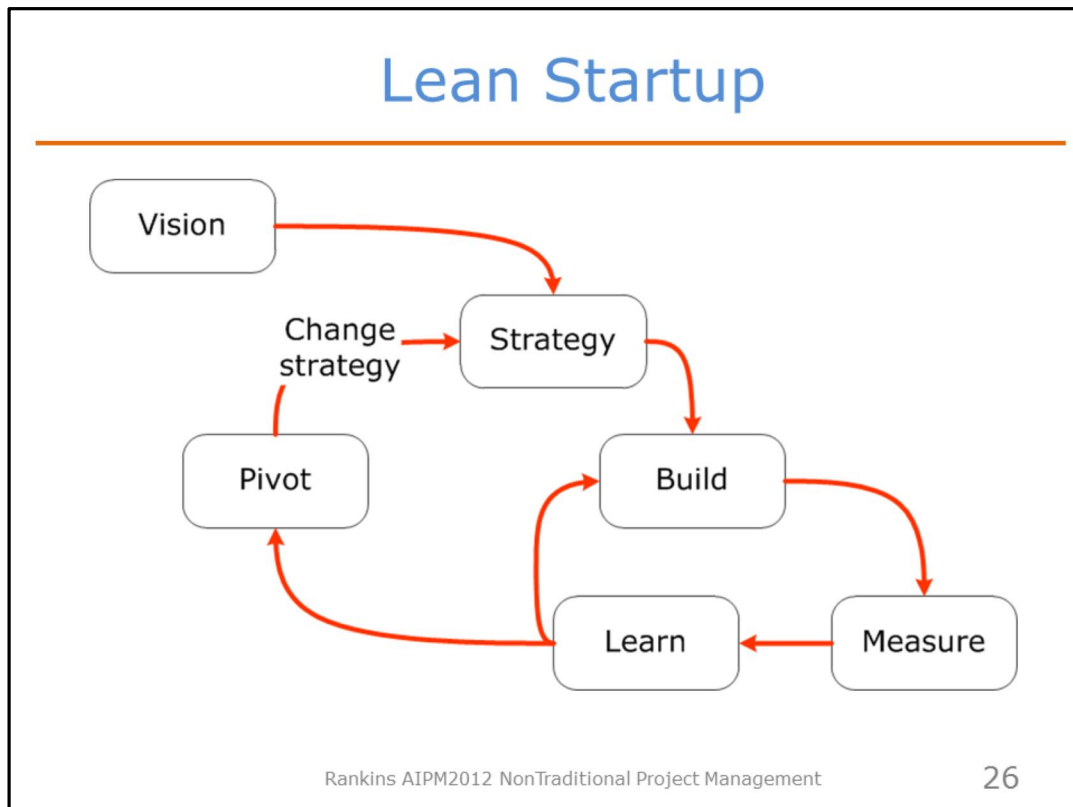
Lean Startup

Another approach is called Lean Startup. Think of a company leaping into business. It might have started out with a vision of where it wanted to go, and a strategy for getting there, but very often the market place has other ideas, or surprises. So what's the business to do?

Lean Startup is an approach for launching businesses and products, that relies on validated learning, scientific experimentation, and iterative product releases to shorten product development cycles, measure progress, and gain valuable customer feedback. In this way, companies, especially startups, can design their products or services to meet the demands of their customer base without requiring large amounts of initial funding or expensive product launches. Learning can lead to incremental changes to the product set or, where the initial hypotheses about the product and market prove incorrect, a pivot.

A pivot is a structured course correction designed to test a new fundamental hypothesis about the product or strategy.

Approaches recapped

Approach	Domain characteristics
Waterfall	Known problem, known solution
Agile	Known problem (?), unknown solution
Design Thinking, Lean Start-up	Unknown problem

So, to summarise the points so far: each of the approaches discussed has a domain of applicability. The claim of this presentation is that project owners need to think carefully about the project's domain, and ensure that an appropriate approach is applied. And find a tradesman (the project manager) with the right tools for the job, rather than a "best practice fits all" approach.
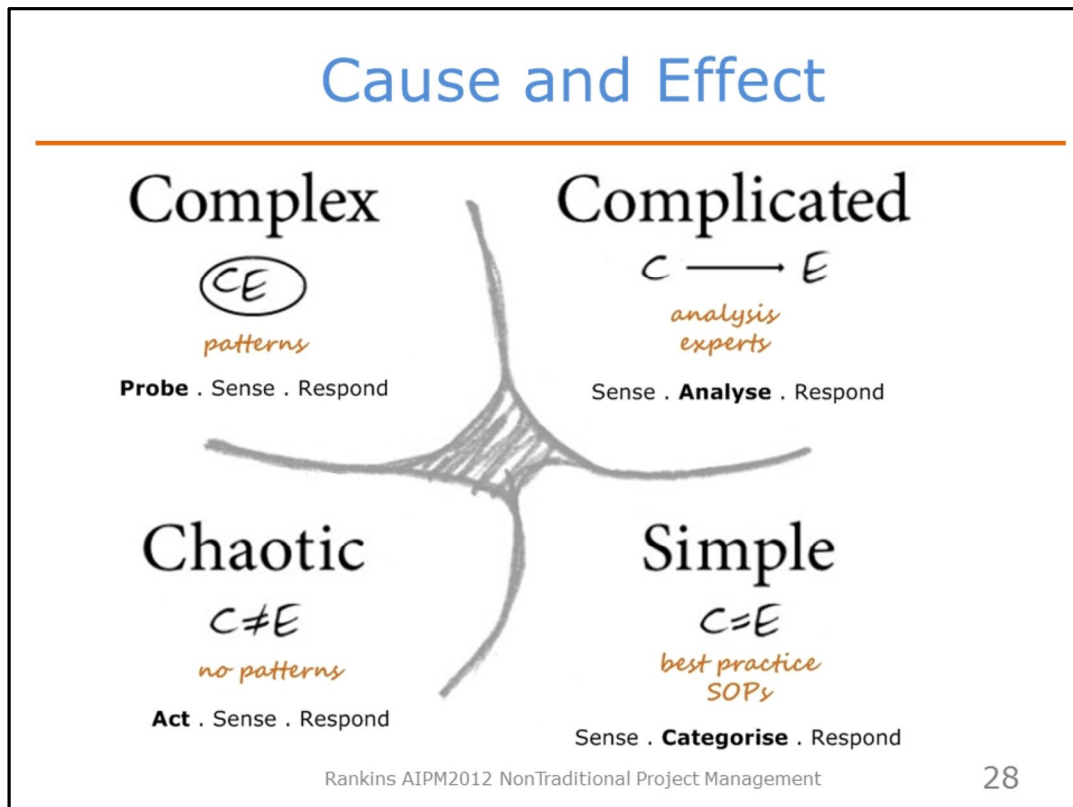
Now on to some concepts from complex adaptive systems thinking. This diagram is based on Dave Snowden's Cynefin framework. The diagram indicates why innovation and 'best practices' or 'analytics' don't go well together.

In the Simple domain, the relationship between cause and effect is obvious to all, then the approach is to *Sense - Categorise - Respond* and we can apply *best* practice.

In the Complicated domain, the relationship between cause and effect requires analysis or some other form of investigation and/or the application of expert knowledge, then the approach is to *Sense - Analyze - Respond* and we can apply *good* practice.

In the Complex domain, the relationship between cause and effect can only be perceived in retrospect, but not in advance, the approach is to *Probe - Sense - Respond* and we can sense *emergent* practice.

In the Chaotic domain, there is no relationship between cause and effect at systems level, the approach is to *Act - Sense - Respond* and we can discover *novel* practice.

The fifth domain is Disorder, which is the state of not knowing what type of causality exists, in which state people will revert to their own comfort zone in making a decision.

In the Complex domain, we need to apply techniques which help us learn as much about the domain as fast as possible. Techniques to do this include:

Prototyping. Here the aim is to make ideas tangible through quick and dirty prototypes in order to learn from them and improve upon them;

'Fast fail probes' are a way of making sense in the complex domain: ideas or approaches to solutions are challenged, sensing the impact and responding to this by either amplifying the probe or suppressing it;

We can also run experiments in the early stages of design to test critical assumptions or components of the new idea/concept and using the insights to adapt the design.

The intention with these approaches is to try something and learn about the domain rather than analysing new ideas to death in a knowledge vacuum.

Case Study

Findings of a Royal Commission:

- A Government Minister has been embarrassed
- Announces a $100M programme to address (bury?) the findings
- No-one has any idea of what to do or how to do it, or maybe there are too many options
- What's the approach?

A final case study. A massive programme has been started, but no one knows what to do next. What do you think?

Taking a lead from the MSP programme management method, we could set up a first tranche of the programme to explore the domain, identify options. The programme's vision and direction are clear, but the Blueprint (which describes the final target operating model) will be vague. We should plan for multiple iterations, to fully explore the possibilities and bring the key stakeholders into consensus about what should be done.

Once we've done this work, we can plan later tranches, and incorporate feedback loops to ensure ongoing learning as our knowledge and mastery of the domain improves. Later tranches can then be planned, with much clearer Blueprints, with some clearly-scoped projects taking a conventional approach and other ill-defined projects taking an agile approach.

This is an example of Agile Programme Management.

Reframing existing methods

MSP

Identification

Definition

Programme Plan

Early Tranches | Later Tranches

R&D
Risk Mitigation
Prototyping
Scaffolding

Acquire Capability and Transition

Post-Programme

Iterate until:
- problem or opportunity agreed

Iterate until:
- Blueprint agreed
- Benefits validated
- viable; OR
- definite maybe

Iterate **Definition** with better information and greater understanding

Feedback to strategy and corporate governance

Iterate until:
- benefits realised

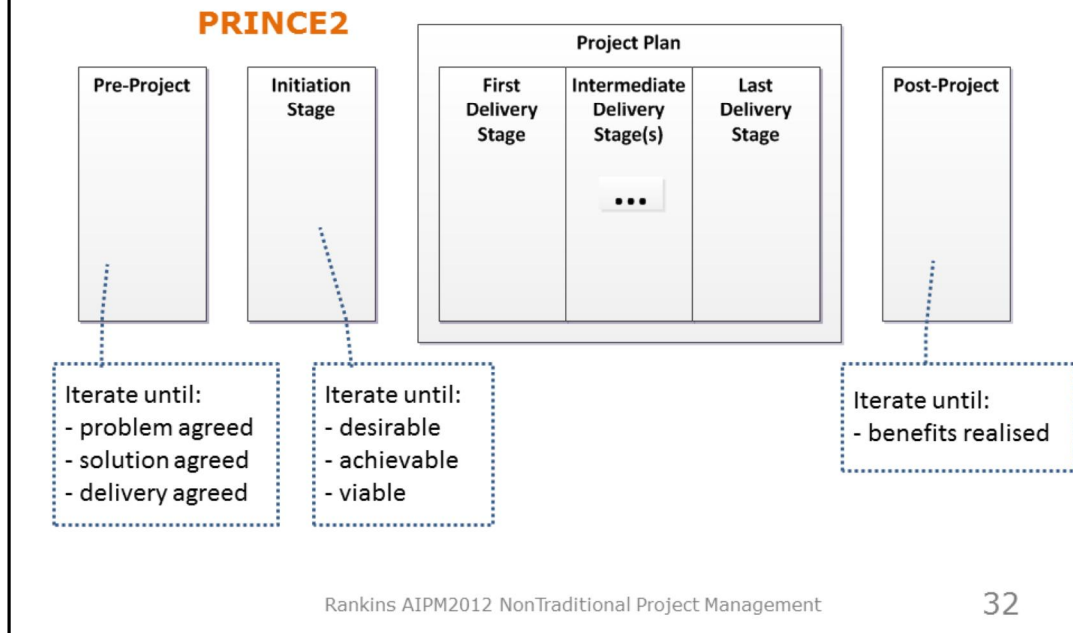Rankins AIPM2012 NonTraditional Project Management

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I now want to describe how some of the best practice methods can be adapted to deal with complex situations.

MSP is a strategic programme management method. It incorporates a process model, which it calls the transformational flow. The first two elements of the transformational flow, Identifying a Programme and Defining a Programme, are concerned with scoping and planning respectively. Both of these elements support iteration. In fact, the Capability Development Group of the Department of Defence, which frames up all of Defence's major capability acquisition programmes, generally plans for two passes through Defining a Programme.

Once tranches have been approved, early tranches could use prototyping, probes, and other forms of R and D to learn about the domain, then iterate through Defining a Programme again to form up later tranches. MSP says that each tranche, and the programme as a whole, should be regarded as learning environments.

Reframing existing methods

PRINCE2

Pre-Project	Initiation Stage	Project Plan			Post-Project
		First Delivery Stage	Intermediate Delivery Stage(s)	Last Delivery Stage	
			•••		

Iterate until:
- problem agreed
- solution agreed
- delivery agreed

Iterate until:
- desirable
- achievable
- viable

Iterate until:
- benefits realised

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PRINCE2 is emerging as the world's most widely adopted project management method. While some of the terminology differs from MSP's, you can see that the structure of its process model is similar.
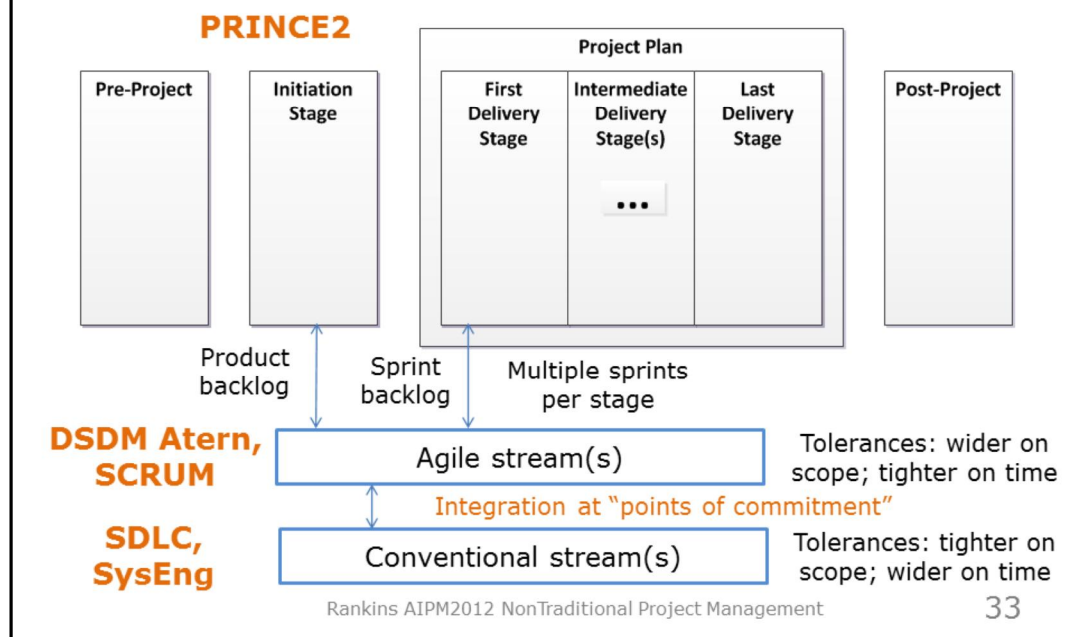
During the pre-project part of the process, the project management team create a clear description of the problem or opportunity to be addressed, what sort of product set and quality criteria would constitute an acceptable solution set, then work out what is the optimal delivery approach.

During the Initiating Stage, the project management team may refine the reasons for the project, the desired solution set and approach to delivery, but will plan the first stage of work in sufficient details, and will generate a Business Case that demonstrates the desirability, viability and achievability of the project.

During the following delivery stages, the desired solution set is created incrementally, using whichever product development models the teams find useful, which could include waterfall approaches such as systems engineering lifecycles, or agile approaches such as DSDM Atern.

During the post-project benefit reviews, the sponsors of the project ensure that the project's products are working effectively in the operational environment and are delivering the value promised in the Business Case. These reviews may iterate until the original project's objectives have been proven to have been achieved.

Integrating methods

PRINCE2

Pre-Project	Initiation Stage	Project Plan			Post-Project
		First Delivery Stage	Intermediate Delivery Stage(s)	Last Delivery Stage	

Product backlog — Sprint backlog — Multiple sprints per stage

DSDM Atern, SCRUM — Agile stream(s) — Tolerances: wider on scope; tighter on time

Integration at "points of commitment"

SDLC, SysEng — Conventional stream(s) — Tolerances: tighter on scope; wider on time

The PRINCE2 process model is intended to wrap across the development teams' processes. In complex projects, these are likely to include both conventional and non-conventional approaches. PRINCE2 is flexible enough to be used as the control layer acting as interface between the development teams and corporate management. DSDM Atern is an agile project management method; Scrum is an agile product development method. I described in a previous presentation how PRINCE2 and Scrum can be effectively integrated. The project management team and agile team(s) need to be carefully integrated to ensure that the control objectives of corporate management and the self-organising nature of the agile teams can co-exist and not interfere with each other.

Broadening Project Management

- Strategy making or strategic search
  - Bottom-up development of emergent strategy
  - Identify new strategic opportunities

- Projects as strategy-making tools
  - Move from given targets to open problems
  - Run some projects to work out suitable strategies

- Projects as organisational learning tools
  - Larger, more complex projects aiming to contribute to strategy must accept a higher degree of risk at the outset
  - Experimental learning processes

- Go back to 'making the impossible happen' from 'making the possible happen'

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So, to start wrapping up, what this presentation has been suggesting is that organisations would benefit from a much wider conception of the role of projects than is suggested by conventional descriptions of project management.

Projects can be used in a strategy-making manner. Naturally, this means that strategy-making projects will be faced with much riskier environment, but the solution isn't to manage risk out early, it is to embrace such risk as a source of opportunity and learn as much about the organisation and its domain as possible.

Adding concepts such as iteration, parallelism and evolution back into the project management toolkit would help to move project managers up from the order taker role described in conventional approaches to project management, to a role of much greater potential value to organisations, in terms of being part of their organisation's (emergent) strategy setting team.

What could happen

- You'll be McNamara'd
  - Demands for certainty where none exists
  - You're not being professional (read: conventional)
  - Failure is not an option
  - Keep taking the orders – 'fries with that?'

- Life could get interesting
  - The game isn't project management, it's delivering value from emergent strategy
  - Chief Value Delivery Officer

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So, finally, what could happen?

Of course, you could be McNamara'd by those who would demand certainty in a domain where no such certainty yet exists. You could be criticised for being unprofessional, because some of the approaches you might be suggesting, such as iteration, parallelism and evolution, are not yet part of the conventional description of project management. You could be criticised for failing to meet the conventional metrics of on-time and on-budget delivery of solutions, in domains where such metrics were never reasonable. Which might prompt you to keep your head down and remain in a safer order-taking role.

Or, life could get interesting. I once worked for the first DP Manager (that shows my age) in Australia to ever be invited to join a Corporate Board; this was 20 years before the role of Chief Information Officer emerged. If the conception of project management in an organisation was broadened to encompass some of the concepts described in this presentation, then maybe one day the senior project management professional in an organisation might be called its Chief Value Delivery Officer!

Questions

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P3M (portfolio, programme and project management)
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