

WHY DO CHANGE PROJECTS FAIL? CAN AGILE METHODS REDUCE THE RISKS?



In today's environment, managing change effectively and delivering new outcomes and much needed benefits are essential for survival and success. But the track record is not good. Published reports ^(1,2,3) proclaim one in four change projects as a success and three in four as failures. And that result applies equally in public and private sectors.

This paper examines why change projects frequently fail and explores how Agile methods for change management can reduce the risks of failure. In today's environment, getting change right has become a critical priority and that means re-thinking how change is managed.

Failure in Change Projects

A change project should have the objective of achieving a desired outcome, with associated benefits in a fixed timescale, within an agreed budget. "Failure" can take a number of possible forms – the project is abandoned and not completed; the project is completed but the required outcome and expected benefits did not materialise; the project is completed but is delivered late and/or over budget. These symptoms are closely linked, and often have the same root causes.

Based on our own experience in reviewing and rescuing change projects, and a review of the popular reading and published research over the last ten years, there are three main established causes for failure. They are not exclusive – there are some overlaps, and they are not exhaustive – there are other, lesser, reasons. But these three provide a large enough contribution for us to explore the impacts of using Agile change methods. The three classic problem areas are described below.

(A) Want and commitment for the change are missing

This is a simple model - "big want" gets "big effort" and "big effort" improves the "likelihood of success".

When there are competing demands for attention and resources, or where there are barriers to overcome around a change project, the extent of the "want" for that change to happen will influence the extent of the effort to make it happen. There are questions about leadership coming in here. The "want" and the commitment have to start at the top of the organisation, but they also have to be passed down into everybody who is engaged in making change happen and making the solution work. Most importantly, the key stakeholders who can influence and push delivery must be "bought in" and clearly be seen to be demonstrating their support. At that stage, the "want" will be reflected in the commitment to succeed by all parties.

A good example of this problem area is evident in the past failure of public sector change projects to realise the expected benefits in their business cases. Many public sector change projects have not covered their costs let alone delivered their business case. Historically, this failure is undoubtedly the result of not enough want for those benefits. That position is changing rapidly today. In the next eighteen months, many public sector organisations will be very dependent on achieving cost savings through change projects to survive.

Another symptom of weak "want" is ambivalence. *Not sure what we really want, but we want something.* This will lead to lots of strategic reviews, high level design workshops going on for ever and getting nowhere.

Some research published in 2001 by Mourier and Smith ⁽⁴⁾ described some serious statistical analysis that was carried out with 250 organisations doing change.



Factors that were VERY highly correlated with failure ($p=.0005$):

- Sponsor left.
- Sponsor was uninvolved or ambivalent.
- Key executives or other departments did not support the change effort.
- The goals seemed vague.
- There didn't seem to be a plan.
- No one seemed to be in charge.
- Problems not communicated to the sponsor.
- Executives were more concerned with other issues.
- People didn't understand the reasons for change.
- Vendors/suppliers failed to deliver product or service promised.
- The change clashed with the way things are done in your organization (i.e., the culture didn't support the change).

The research showed the highest correlation between factors such as uninvolved sponsor, lack of support from other executives, vague goals etc. and change project failure.

In some cases, there is evident “want” on day 1 but over time, the want fades. The business context is changing and what was seen as a need and opportunity for a new business solution has gone away or moved to a different form. The problem is that, rather than stop or reshape the change exercise, it continues to complete the change plan. The change in want becomes immediately obvious to everyone involved with the project, and rapidly de-motivates the team.

(B) The design – reality gap is too big

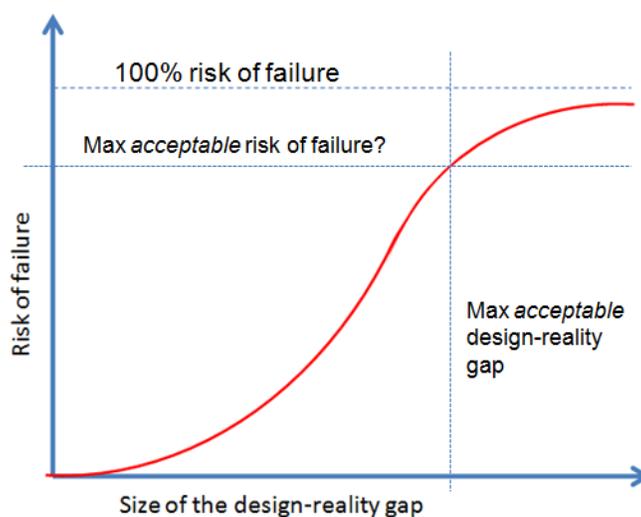
The second big cause of failure is related to the size of the “design-reality gap” - the gap between where you are now and where you want to get to, through the change work.

This is another simple message - the bigger the step, the more complex the change programme, the more things can go wrong.

The difference between the “as is” model and the “to be” model can be measured in a number of dimensions – organisation, market, IT, process, behaviour etc. If the scale of the collective differences is too big, then it presents a black hole – with uncertainty and hence difficulty in assessing what's involved in delivering the change and whether the planned solution will work.

The concept of design–reality gap as a measure impacting failure was originated by research that Manchester University⁽⁵⁾ carried out into why e-government projects fail. They then did a simple correlation of measured gap against failure rates, and not very surprisingly concluded that the larger this design-reality gap, the greater the risk of e-government failure.

What is more interesting is the fact that the relationship between the size of the design - reality gap and the risk of failure is less of a linear relationship and more of an exponential form. Below is a model that we hypothesize for the relationship between the size of the design-reality gap and the likelihood of failure.



On the right hand side, we know risk of failure cannot exceed 100%. The important part is the bottom left hand corner where most change projects sit. Here there is an exponential relationship between gap and risk of failure. As the gap increases, the risk increases at a faster rate.

This is confirmed by various risk probability models. A simple “number of components model” says that if you have n components and the probability of getting each one right is p then the probability of any failure is $1 - p^n$. Another risk model is based on the number of relationships between the components that you are changing – which again, as the number of components increases, the number of relationships increases faster and increases risk exponentially.

Predicting complexity at the start of a project can only be a very crude approximation. In practical terms, all experienced change managers will confirm that managing one large change project is much harder than managing two small change projects.

This “design – reality gap” is further exacerbated if there is a large delay from concept to delivery. There are dependencies and assumptions about the context, and stakeholder behaviours that are needed for the change to succeed. The longer the time scale for delivery of change, the bigger the risk of getting those assumptions wrong.

Al Goerner⁽⁶⁾ has proposed these numbers about requirements half-life.

Half-Life of a Requirements Set

<i>1980</i>	<i>8-12 years</i>
<i>2000</i>	<i>2-3 years</i>
<i>2010</i>	<i>6-18 months</i>

He is talking about software requirements but the same principles will apply to the new process requirements, organizational requirements, etc. in a new business solution. If there is some basic measure of the value of implementing changes in the business solution, then over time that value deteriorates. The point where the value is 50% of its peak is the half life. In 1980 the half-life was about ten years. In 2010, Al Goerner claims that it is about one year.



This simply is saying the world is moving on a lot faster today. The longer you take to build the solution, the greater the chance that the value has deteriorated significantly by the time you deliver it – the higher the risk of not achieving the forecast benefits.

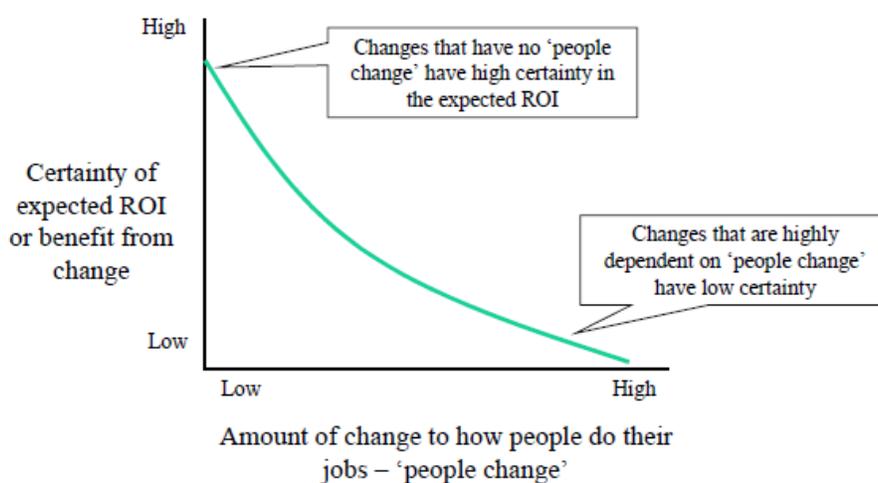
(C) Not enough attention is paid to the “people issues”

This is an already well expounded message for change projects. It includes a broad spectrum of issues – including communications, engagement, resistance, motivation etc. In basic terms it can be explained by the logic that people are the most difficult component in the business solution to change. Buying the new IT systems, using different accommodation, etc. are relatively easy physical components to change. Changing mindsets, behaviours and ways of working is more complex and difficult to achieve. There are emotions to deal with, including fear, insecurity, and appetite. At the same time, people are often the biggest part of the solution – getting their contribution right or wrong will have a major impact.

In 2009, Bearingpoint⁽⁶⁾ published their research into causes of change project failure with the headline that upwards of 70% of change management projects fail to achieve stated business objectives due to people issues. They specifically associated risk with factors including:

- Leaders just assume the organisation is ready for change.
- Not enough people know the business reasons for the change.
- The change is developed without input from those whom it affects.
- Employees lack or do not receive the knowledge and skills to make the change.

Prosci⁽⁷⁾ is a research organisation that provides training in change management in the USA. They have published this simple graph of certainty of expected Return on Investment from change, against the size of the people gap. High people gap – more attention to the people issues needed – lower the certainty of benefits from change.



Here is a classic example of not paying enough attention to the people issues. Cornwell consultants were asked to review the results of a major exercise to implement SAP. The client was concerned that they were not getting the benefits they expected. As part of the



implementation of SAP HR, the client organisation had changed the way HR support was delivered. Originally, each division in the organisation had an HR team providing support for that division. In the new arrangements, the HR support was centralised – one HR team supporting all divisions. There were clear indicators that this solution would provide a more efficient use of the resources involved. When we examined the way the new HR function was working, we found that the HR staff had all been relocated into a new large single office, and that the SAP HR solution was being used correctly. But we also noted when we lifted the lid a bit more, was that HR staff were still working for their original divisions. In fact, whilst the team was co-located and looked like one team, they were still mentally working in the old ways. Even the desks in the new HR support room, were grouped to reflect the divisions that staff came from and were still operating for. Whilst the physical barriers between these groups had been removed, the mental barriers had not.

Although attention to people issues in change projects gets a great deal of air time, the problems still exist and present a major risk of change failure.

Agile Change Methods and Risk Reduction

Interest in Agile methods for managing change follows the successes from using Agile in software development. The traditional problems that prompted a different approach in the IT industry (slow timescales, drawn out waterfall lifecycles, and a general lack of confidence in getting a valuable result from the investment) are common to other types of business transformation work. The result is a natural migration of the Agile principles and techniques from software development into the closely related change management work space. The migration is being fuelled by a growing stream of success stories from the practical use of Agile change methods.

Agile change management can take different forms but normally combines specific techniques from Agile software development (such as time boxing), with a general style of working based on the original philosophy behind the Agile manifesto.⁽⁸⁾

For the purpose of this paper, Agile change management methods can be characterised by the following principles:

Outcomes over route

A clear committed view of value based outcomes and the realisation of benefits is top of the agenda and essential to drive and govern change – the route is negotiable.

Decisions over Deliberations

Encouragement to make decisions and act rather than to deliberate and defer. Assumptions should be bottomed out. Issues should be resolved not logged. For Agile, you don't need a strong blame culture! You're going to get it wrong sometimes.

Now over later

It is important to focus on harvesting the "low hanging fruit" and the actions required now, rather than what might be happening in two years time. That means heavily discounting benefits that are three, four years away.

Flexibility over certainty

The project structure is flexible and adaptable – we have to operate with uncertainty and be able to adapt to new business drivers, changing circumstances and new opportunities. Change managers should be more ready to terminate projects rather than to complete a non-productive project plan.



Incremental over completeness

Change will be delivered in incremental steps – with build up of value in the solution and an appetite for “hunting out” further benefits. The law of diminishing returns may indicate that the solution, as originally envisaged, is not completed – there is something else more beneficial to do..

Iterative over decomposition

There is an iterative “delivering – operating - reviewing - learning cycle” that is key to navigating through the change work with a strong emphasis on measuring and proving results and “learning as we go” from the good bits and the bad bits.

Fixed time/cost over fixed requirement

Change work is time boxed and rapid, continuous steps of change will be delivered frequently (weeks rather than months).

“Good enough” over perfection

It is important to focus on delivering “just enough” and avoid wasting effort on over-delivering and on “niceties in the solution”.

Empowerment over directives

Self organising empowered teams are an essential feature of how Agile change work is managed and delivered.

Human contact over digital dialogue

Face to face communication and regular (daily) dialogue with team and stakeholders are classic principles for team working with Agile methods.

We use these principles to guide how we go about change projects and also to shape the specific methods for governance, project management, team working, service re-design, change realisation, benefits management, and continuous improvement.

The application of these principles is specifically aimed at reducing the risks in the three root causes of change failure.

Strengthening the want and commitment for change

Firstly, applying the key Agile principles, in practice, requires a much more pro-active governance role. The programme / project structure is dynamic – not fixed, the work content is being regularly reviewed and re-defined, the business case is evolving, and there is an active learning process for the navigation of the work.

All this forces the sponsor to be directly involved and to make real decisions about what outcomes they are trying to achieve, what “better” means and how much they are prepared to pay for “better”.

Secondly, Agile sets the value based outcome and the realisation of benefits as the top priority, over the change process. This approach helps significantly to highlight the “want”. It sends a strong message that the organisation is not going through change for the sake of following a process, but is clearly set on achieving specific results.

Similarly the emphasis on “good enough” over perfection provides clear evidence of the want and purpose of the change work. It helps to reinforce the direct link between the change work and the requirement for change.

Paying more attention to what can be done in the short term – getting some tangible benefits sooner - is another important way of creating appetite and enthusiasm for change, and making it real. Early success demonstrates capability, builds confidence and commitment to the goals.



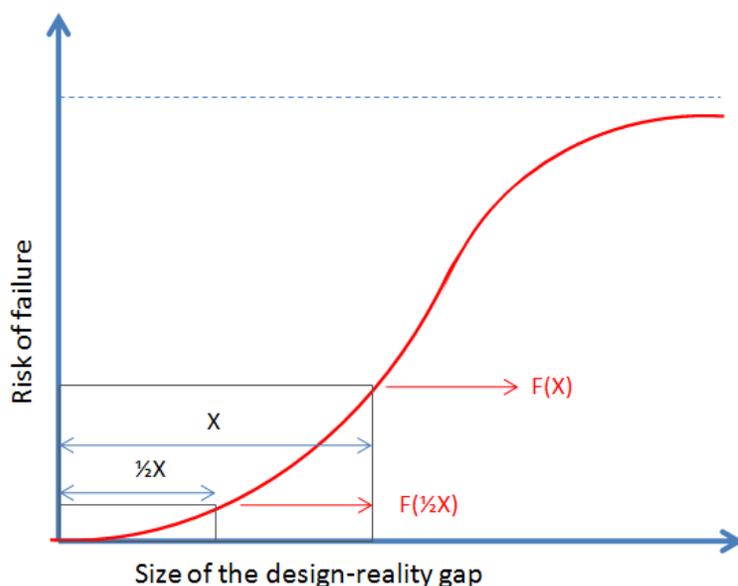
Agile also puts a lot of weight on getting human interaction, engagement and communications right and pushes face to face contact rather than electronic media. This is an essential feature of the way change leaders must operate and will significantly help in communicating the “want” and the priority of the change work.

For some time we have been working with a client in the finance sector helping them to re-engineer their business operations. We have been using Agile methods and that has involved challenging the senior management team. Forcing the engagement, getting them to make decisions and be involved. Up front we said this is how it is going to work – a different way – and the process has had significant impact on assuring the clarity about the want and the delivery of results.

Reducing the design-reality gap

Agile has a major impact in reducing risks associated with the design-reality gap. By delivering early and often, Agile progressively narrows the design-reality gap, rather than letting it widen. Agile puts more weight on actions that can deliver benefits in the short term, and applies milestones based on time or cost rather than fixed delivery content. Agile also applies an incremental approach – many small steps rather than one big step and repeated work cycles with a heavy emphasis on learning. These two principles will reduce the gap in terms of both the extent of change and the time to deliver in any one step, which has a strong impact on reducing risks about the workability of the solution and about the assumptions and dependencies outside the projects control.

Going back to our model of an exponential relationship for gap size and risk, this again demonstrates that the risk of doing two steps of size $1/2X$ is a lot less than doing one step of size X , and helps to explain why the incremental approach inherent in Agile methods reduces risks.



Applying the Agile principle of flexibility over certainty, is another important step in mitigating the risks associated with the design-reality gap. A continuous check on the viability of the change project and adaptive scoping require additional attention to governance but are essential techniques in keeping the work relevant and on course to deliver the required outcomes and benefits.



Other Agile principles, such as “good enough” over perfection, provide practical pointers for keeping the design-reality gap to a minimum.

We helped a large national public sector organisation to implement a new CRM system. They had been struggling for some time to move the project forward. We came in using Agile change methods and quite a detailed iterative process – with two work streams – a corporate stream and individual team streams to change and implement ways of working around the new IT system. The incremental / iterative process enabled them to start moving without a grand design plan for the full solution, and to make rapid progress and to start achieving benefits.

Paying more attention to the people issues

The Agile approach explicitly advocates empowered – self organising teams which gives control – and ownership – to the team.

Agile promotes “Outcomes over Route” and puts more emphasis on the teams in the workplace to decide how they will derive the required results and less attention to instructing them to follow a specified course of action.

These are two important measures to help develop a positive approach to the required changes and to help reduce the resistance.

The iterative approach in Agile is focussed on learning and building capability and knowledge, which apart from the obvious impact of improving change performance, will also help build enthusiasm and confidence about their role in the change process.

The Agile principle of human contact over digital dialogue is another important step in “humanising” the change process. There are a lot of emotions in the journey of people through change which can be detected and managed through personal contact and are easily aggravated through remote communications.



The table below shows where the individual Agile principles reduce the risks arising from each of the three core potential problem areas.

Principles / Risks	Strengthening the want and commitment for change	Reducing the design-reality gap	Paying more attention to the people issues
Outcomes over route	√		
Decisions over deliberations	√		√
Now over later	√	√	
Flexibility over certainty		√	√
Incremental over completeness		√	
Iterative over decomposition		√	√
Fixed time/cost over fixed requirement		√	
“Good enough” over perfection	√	√	
Empowerment over directives			√
Human contact over digital dialogue	√		√

Is There a Downside For Agile Change?

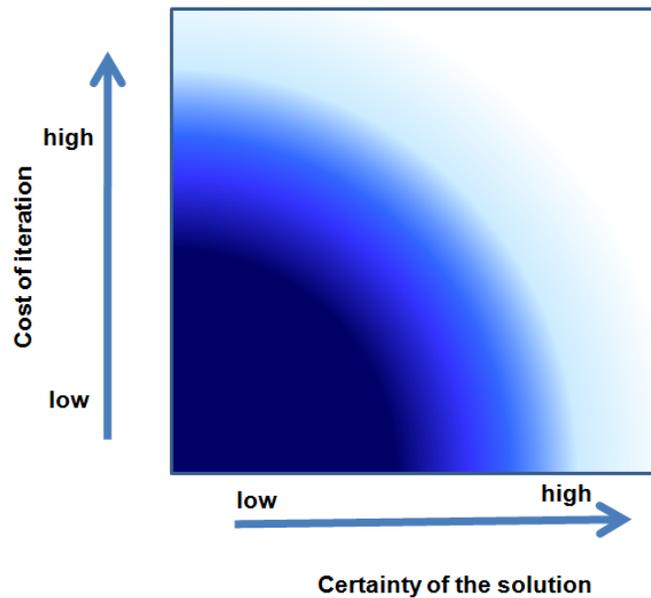
There are two important factors that need to be considered.

Firstly, if the cost of iteration is too high then the price for using Agile methods with repeated iterations may outweigh the benefit of risk reduction.

So for example, in constructing new buildings, it is best to agree the design up front and build the full solution rather than try walls in various places and see how they work. It becomes expensive construct the new building using Agile methods.

A second factor concerns the certainty of the solution. Agile is based on the principle that solution is partly unknown – that is why we are using an incremental building process. If we are 100% certain of the right solution, then there are potential economies from building that solution in one leap.

Of course, all the evidence from failed change programmes indicates that organisations are not good at predicting the form of the right solution – so there are not many change projects where the certainty of the solution is clear from day one.



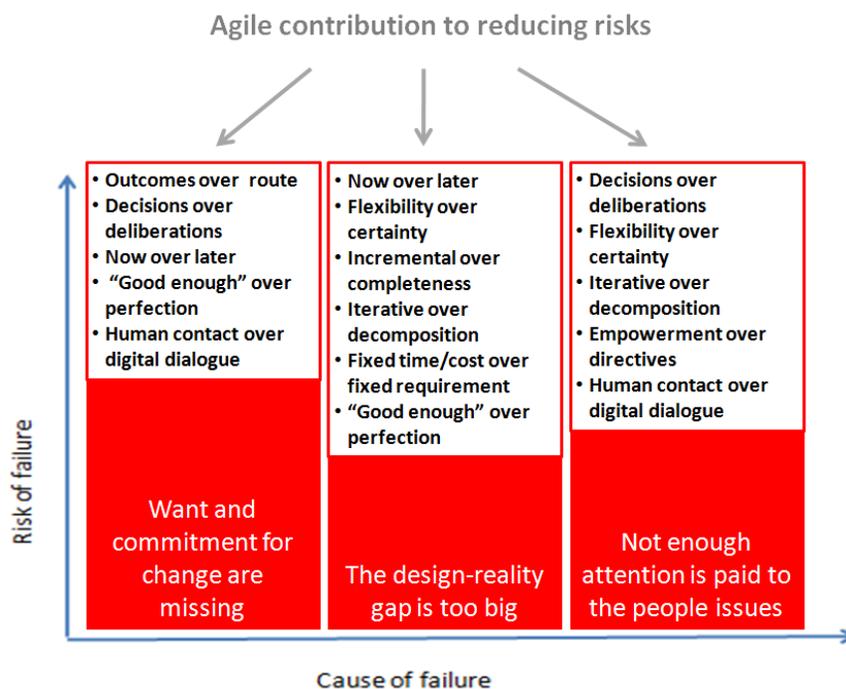
But overall, Agile is most effective in the bottom left quadrant of this picture – low cost of iteration and low certainty of the form of the best solution.

Conclusions

The primary driver for using Agile methods in managing change is to reduce the risks and increase the probability of achieving the required outcomes and realising benefits.

Agile methods have an impact on risks associated with not enough evident want and commitment for change, and not enough attention to the people issues. But the strongest impact of Agile in reducing risks relates to risks associated with too big a design-reality gap.

Agile methods will increase the likelihood of achieving workable solutions and of delivering real benefits – avoiding wasted effort on change investment.



These reductions in risk are born out from the practical use of Agile methods. Our experience shows that Agile methods will accelerate the delivery of new business solutions and will provide an effective navigation process – with lower risks - for the change route.

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(7) *Prosci's ROI of Change Management Model* Prosci and the Change Management Learning Center 2006

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