

# Greater successes by using Agile Techniques closer to the light bulb moment.

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## Abstract

*BT, as part of its Agile transformation, has widened its Agile footprint into the demand-side of its business. This is being achieved by using Agile techniques in a forum called an Agile Round Table (ART), which is run as early as possible in the decision making process for new concepts. In this context, we present an overview of this forum as created and used in BT. Using an early example, this experience report illustrates the preparation and running of this forum and how, by working closer to “the light bulb moment”, we have derived further successes by using Agile techniques.*

## 1. Introduction

Does Agile have a role in helping the business in how it selects and develops new concepts for the market place? Are there patterns of behaviour within Agile that can be used to help facilitate these strategic decisions? These were key questions we sought to answer by working more closely with the demand-side of the BT business, and as early as possible in the life cycle.

To evaluate whether Agile techniques could be used in the selection and development of new concepts at BT, we have created a forum called an Agile Round Table (ART). This is used to collaboratively engage business and development in the evaluation of new concepts as close to “the light bulb moment” as possible. From Agile Development we had observed that the collaboration between individuals and teams was key to successful outcomes. Hence, we also sought to use Agile patterns of behaviour during the ART session in order to help facilitate the strategic decisions made.

More than 50 ART sessions have been run<sup>1</sup>. These have included internal and external projects; large and small; software, network infrastructure and business improvement. However, to illustrate some of the

<sup>1</sup> AA and PW originated the format and have pair-facilitated the majority of these. ASC advised on Agile techniques including Business Scenarios. AA and PW have trained BT Business Analysts to run these and share the experiences through a steering group.

successes of these sessions, this report will focus on an early project to launch a product called “E-Line”.

## 2. BT and Agile

By radically transforming its business, BT has established itself as a leader in the world-wide networked IT services market.

Globally, BT operates a state-of-the-art digital network connecting businesses across 170 countries whilst, in the UK, a telephony network with more than 30 million exchange lines serves more than 20 million business and residential customers. Currently centered on a traditional public switched telephony network (PSTN), a UK£10 billion (US\$17 billion) investment programme will see BT’s UK networks being replaced by 2010 by a high-performance multi-service network based on internet technologies. This new network will enable BT to offer its customers a rich portfolio of multimedia services, many of which will be far removed from ‘plain old’ telephony – the service most of its networks and IT systems were originally developed to deliver.

In order to support and drive forward the changes it is making, BT therefore also needs to complete a radical overhaul of the IT systems it uses to deliver services and manage its business. Its new systems must permit the sale, delivery and support of both telephony and advanced multimedia services – both today and well into the future – and they must be adaptable. Speed of delivery is of the essence – customers are no longer prepared to wait for long periods of time for solutions to be delivered.

BT has over the past 18 months been undergoing an Agile transformation of its IT organisation. This consists of 8,000 UK employees with a further 4,000 offshore or outsourced. BT needs to ensure that this vast army of IT professionals is working on the highest value work for the business. Hence, this is where we have been focusing our attention with the ART concept.

## 3. Project Background

The E-line product was an opportunity for BT to earn a multi-million pound contract from a paying

customer organisation. However, it needed to be available in less than 3 months, in order for them to migrate their existing customer contracts terminating in that timeframe. This was clearly a time-constrained challenge and one that was rejected by the conventional delivery route as “not being possible in the timeframe” and “high risk” since development work would be lost if the timeframe wasn’t met. To make matters worse the deadline for launch coincided with a mandatory development required by the UK telecom regulator, which contained penalty clauses. Worse still, they also had first call on the design and developer resources.

Using the conventional process this development could normally have expected to take about 26 weeks (i.e. two ninety day release cycles) to deliver. However, by using ARTs this delivery was completed in only 11 weeks (i.e. within one ninety day release cycle). This cycle time improvement came about from the efficiencies of working smarter not harder using the ART and the realisation from the ART attendees that delivery was in their control.

## 4. What we do and how it works

### 4.1. Get close to the “light-bulb” moment

An awful lot of work by the concept originator, marketing and product teams takes place well before the design and development communities become involved. In a large organisation - particularly a large regulated organisation - any new proposition needs to be sanctioned in terms of where it sits in the portfolio and how the potential in-life costs taken away from sales revenue forecasts will affect the general ledger. In the conventional waterfall process, a number of departments will vet each new concept. The amount of time needed to perform a thorough product viability analysis or product design can therefore often be longer than the time taken to develop and implement! Add to this, the eventual technical viability and costing exercises that traditionally follow on and it could be months before it is known if there is something worthwhile to back.

Most concepts do not fly. The fact that it takes so long to have all the information to understand this means that many concepts are ongoing at any given time. This stretches resources and makes it more difficult to attend to the growing backlog of new concept ideas and finding the real winners. The ART was thus targeted as a means to speed up this vetting and decision making.

Four key questions are the basis of the ART session:

- **What is the business benefit?** Thus, what is the value of this product to the business in terms of likely financial returns or strategically? Considering both tangible and non tangible value.
- **What are the potential solution(s)?** We may not decide on a solution at this stage as it may not be the best time to make such a decision. However we can start by costing out the solutions that present themselves within the ART.
- **What are the costs?** Thus, for the whole lifecycle – not just development.
- **What are the resource implications?** Are there people with the right skill sets available or are they better deployed on higher value work?

At the end of the session, the answers to these questions would position whether a product should be “stopped”, “parked” or “developed”.

With limited time to meet the commercial deadline on E-Line; an initial ART session with the relevant decision makers, senior designers, marketing and product manager was arranged. This was the light-bulb point for this project. Would the light be lit or extinguished?

### 4.2. Selling ART to the Business

When introducing a new concept such as the ART, we needed to be mindful of stakeholder needs and in particular those of management, the concept originator, marketing and product teams:

- **Senior Managers – “Make it faster and cheaper!”:** If there is a way of saving time and resources as well as being able to focus on the real winners - then any management team would jump at it. The application of the Agile ethos into the business environment provides a means of doing this. Management are typically well attuned to appreciating opportunities that offer time and cost savings and the BT Wholesale management were keen to give the Agile approach “a go”. First on a trial basis and later (after a successful trial) across all of the business.
- **Middle Management – “Make my life easier!”:** The middle management layers, in both supply and demand sides, also have to be persuaded of the merits of any new approach. These guys are usually the harder nuts to crack. So... to set up an ART, how do you get these people into the room? (Remember that they will come again if the initial experience works for them!)
- **Allow for easy time management:** The big lure for middle management is making their life easier. Within BT certain individuals are always in demand, for example: senior systems designers,

architects, finance experts, market sector analysts, and senior product managers. These guys are generally “time poor”, attending many meetings which often do not have the information or attendees that can make the definitive decisions. These conventional meetings, such as a Rapid Impact Assessment (RIA) can thus be inefficient and costly on time<sup>2</sup>. It is important therefore that the ART sessions should be (1) short – 4 hours maximum - and (2) would always make a consensual decision (e.g. “park” or “ride” to the next stage) for any given concept.

- ***Giving something for nothing (i.e. “free”):*** The facilitators were free resource – they were paid for as a business overhead and not as a project resource. Anyone would use such an opportunity of free resource to work on their project – especially if they are going to help you get collaboration going with your customers and get them to make the important decisions. The “something for nothing” piece really came down to the usability of the output and – particularly as we are looking at a transition between an old and new way of working – it needed to be able to replicate, or at least fit with existing overall governance processes. For E-Line it had to at least replicate the output expected from a RIA, the first project stage in our traditional development process. The good news is that the ART produced more information than our traditional RIAs and in a fraction of the time.
- ***Doing the work for them:*** Typical input to an ART session would be requirements. Typical output would be a detailed product description document with costs, sizing and do-ability. All accomplished in half a day!
- ***Planting seeds of change into governance:*** It needs to be remembered that the Agile approach was known to the BT IT delivery organisation but was new to ‘the business’. The merits of the ART approach were clear to senior business management and the approach is proving a success. However, one needs to be aware that the business has a well established governance process – typically waterfall in nature – of quality gates and decision points that co-ordinate activities right across the board (of which the BT IT delivery organisation was only a small part). The ART was effectively inserted as a “seed corn” within this

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<sup>2</sup> As a rough calculation a typical 2 day RIA for 12 people could equate to a cost of 24 man days + preparation time whereas an equivalent half day ART for 12 people could equate to a cost of only 6 man days + preparation time.

predominantly waterfall process. So, going back to our main selling points, it was important that the ART could at least replace and replicate a waterfall forum. It did this by replacing the RIA. This was important because it gave the ART (and hence agility) a foothold in the established governance process. From this foothold and as the benefits of the Agile techniques - used within the ART - became known, it became possible for the business to consider changing the footing of other governance processes.

- **An information repository:** A portal page was created explaining the ART and the roles of attendees, which could be referenced in terms of governance. The key driver was of course to provide and centralise information and collateral. This included a training pack that was available for distribution but more importantly, was presented across the business, as a series of 2 hour question and answer sessions to a number of product and operations people: the sort of people who were likely to find themselves invited to an ART ... or even running one!

### 4.3. Getting the right people

As a rough guide, an ART session works best with around a dozen attendees. There have been successes with larger and smaller groups but 12 is considered the optimum number.

For the E-line product, a RIA would have required a full day, or maybe a two day workshop and this would have been impossible to schedule at short notice with busy diaries. The ART as a forum was born of the idea that, with sufficient facilitation, the same decisions could be evaluated within half a day. This makes it much easier to synchronise diaries for the required attendees and during the session to deny attendees access to mobiles and email. Hence, a half day ART can be organised at shorter notice and with minimal interruptions and full engagement during the session.

Selection of the decision makers that you need in the room is important. You need to identify the right people: not always the managers but most often, the people who advise them. We started by asking the originator, the financial supporter of the concept and our network of our contacts who would be needed to answer our four key business case questions. By consistently having these questions answered this has now itself become a major reason for the decision makers to attend.

### 4.4. Preparing to succeed

Key to the successful outcomes from an ART is the pre-work. Thus, three things to remember: “prepare, prepare, prepare”:

- ***Prepare the attendees to fully engage:*** Discuss with each attendee, in advance of the session, their role within the meeting and expectations of the meeting; getting their feedback and addressing their concerns. This also allows us to cross check that we have representation from all the required roles within the meeting.
- ***Prepare the facilitators to assist the group to explore the concept during the meeting:*** Background reading by the facilitators so they have awareness of the concept being evaluated. Thus the awareness needed to prompt and cajole.
- ***Prepare the attendees to make decisions:*** Obtain an understanding of the business consequences of the decisions to be made.

If you do not prepare, you are preparing to fail. For E-line we needed four man days of preparation work for a half day session! However, forty sessions later our preparation time has halved, hence experience has allowed us to become more efficient.

#### **4.5. It’s an ART not a science ... How to run an Agile Round Table session**

The first important result from the ART is sharing the vision amongst all the attendees so that they all have the same understanding of the product or service that they are considering.

The conclusion of the ART session requires a confidence rating vote, which effectively decides whether a concept goes forward to the next stage or is “parked” (i.e. may be worth pursuing later, so retain all work to date) or “stopped” (not financially viable, technically too difficult, etc.). Each attendee’s vote is equal, thus a true leveller in terms of any outside hierarchy.

Each ART session is going to be different since each situation for running an ART [initial level of inputs, attendees, roles and responsibilities] is unique. The agenda for each session will therefore consist of a number of approaches and techniques that can be applied as the situation demands. We have a toolkit of different tools and techniques – it is experience that helps identify which tool to use in which situation. If one approach does not resonate with the attendees then we can look to try other techniques in the toolkit that will.

Some of the more well-known techniques that are used during an ART session, as appropriate, are: User Stories [1], Product Boxing [2], Elevator Pitch [2] and

Interaction Design (Personas/Goals/Scenarios) [3]. Additionally we’ve used a technique we’ve called “Business Scenarios”. These are User Story Epics, thus a technique that we’ve adapted and developed to incorporate the excellent aspects of interaction design and User Stories. They are a mechanism that has been successfully used within BT to ensure very large projects, that incorporate multiple teams across multiple disciplines, are focused on the same priorities and working toward the same business value.

Business Scenarios obtain a high level understanding of what the highest business value needs are, why they are required and the acceptance criteria. These are then prioritized in terms of business value and complexity (technical risk, do-ability and relative size). The prioritized Business Scenarios can then be used to identify the Minimum Marketable Feature Set (MMFS) [4] in order to define the first saleable version of the concept to be developed. The sooner we can sell, the sooner we can get feedback and revenue. (All other lower priority features are still documented but are delayed for a later release.)

At the end of the ART session a document has been interactively produced and edited by overhead projector in the format of a typical internal market requirements document. Hence, it could be used and accessed by other teams without there being the need for yet another document. Additionally we were able to include detailed Business Scenarios and both the launch and in-life cost evaluation for the MMFS.

For E-line, with the consensus in the room being that the costs, benefits, and technical do-ability were all favourable, there was a collaborative decision to launch this product subject to the required resources being available and allocated. A follow-on ART session to proceed to a solution design was then planned with the challenge of getting timely access to the required design and development resources. With the company using ninety day development cycles at that time, the resource managers were approached and the expected response obtained that “these resources were all assigned 100% for the remainder of the current ninety day cycle”. However, by contacting each of the required resources individually and explaining that they would only be required for a half-day ART to generate the solution design, it became easy to synchronise diaries again around the half-day format. Armed with the synchronised diaries it was then simpler to convince the resource managers that the required resources could be released for the half-day. One of the resource managers even phrased this as “in a ninety day cycle, a half day will be lost in the noise”.

At this ART, Business Scenarios were discussed for each of; placing an order, fulfilling an order and in-life workflows. Having clear support from the senior

managers to launch this product and the full quorum of participants in attendance, it was recognised that delivery within timescale of the MMFS was within the control of these attendees. Most of the attendees were used to being just a cog in a part of a waterfall process, but this experience of working collaboratively in the same room gave rise to not only a more efficient Value Stream[5] process but to a real sense of delivery achievement. The first phase of the E-line launch was duly completed a week ahead of schedule – we weren't showing off here, but aiming to deliver ahead of the regulatory delivery which could have scuppered the project at the eleventh hour.

The net result of this delivery was a sizeable order for the company. The non-tangible benefits ranged from a positive experience of Agile Techniques through to converts who went on to transform their daily work routines to encompass Agile. As for us we were carried head high by the developers and management – well maybe not quite – but it is certainly an interesting and fulfilling area in which to work.

#### 4.6. People and Interactions

These are fundamental to the success of the ART session and consideration needs to be given to each by the facilitators:

- ***Making it useful, interesting, efficient and “fun”:*** The ‘brain washing’ of the attendees into taking an Agile perspective happens almost subliminally. The agenda is based on Agile techniques and these energise the group and are both a more structured brainstorm and just more fun. Of course, fun is hard work (!) and is down to the efforts, preparation and energy of the facilitators.
- ***Managing expectations:*** The ART depends on momentum for its success. There is a lot to do and it is tightly time boxed. For many of the attendees, this is their first exposure to an Agile forum. ARTs are not simple to organise and run; they require a lot of outreach work in order to brief and obtain objectives from the attendees and to understand what the balance of the agenda ought to be. During the session strong facilitation is typically required. If the attendees “get it” then this is not too onerous. The initial briefing is therefore crucial.
- ***Valuing everyone’s opinion on an equal basis:*** There can sometimes be a battle during the ART to reinforce the value of everyone’s opinion and to promote collaborative engagement. Clearly, as this is new to most attendees, they attend with a lot of baggage from previous processes and a lot of

doubts about the new process. This cannot be ignored or suppressed. It is worthwhile at the beginning of each ART (less so as they become familiar) to actually make a positive thing of this. Hence, get all objections, queries and anxieties up on the wall so that they can be used as a checklist (i.e. make sure at the end of the ART that they have been covered) or tackled straight away when there is an easy answer. Teamwork, collaboration, valuing of others opinions can also be tricky in this context, where senior managers with mega budgets and mandates, are required to trade ideas on an equal footing with – quite often – less senior supply side representatives. If this is a problem, then there is not an easy answer. The facilitator just needs to constantly ensure that the right questions are asked and that the appropriate attendee has the space to answer them.

- ***Dealing with attendance gaps:*** There is no easy answer to “no shows”. Having committed to an ART, if a key player does not turn up, this seriously compromises the ability to get the full picture, identify options and make a go/no go judgement call. The absence in itself may well be a sign that the topic of the ART is not high priority. The facilitators need to make the decision as to whether or not to continue and thus to understand with those present what can be achieved and if it is worthwhile. Note that there is a natural tendency to make the best of a bad situation and press on regardless. The facilitator needs to question if this default response is justified.

#### 5. Conclusions and Advice

We have found that Agile has a very significant role in helping the business to select and develop new concepts for the market place. By having the opportunity for the demand and supply parts of the business to collaboratively review concepts early at the ART forum, the highest business value concepts can be identified and lower value concepts can be stopped or parked. This maximizes resource on the higher value work. By collecting Business Scenarios and the Minimum Marketable Feature Set, the highest value work can also be determined and prioritized for early delivery. Hence, earlier feedback and revenue!

We have seen in BT the willingness of the demand side of the business to try something new. In many ways the demand side is less resistant to change than the supply side. They can see the business value that Agile offers, providing a transparent connection between the needs and stories of the paying customer

and getting things right first time. Hence it has been mutually rewarding for us to engage with them directly with Agile techniques in an ART session. This is where we suggest starting should you follow in our footsteps.

We have not had any major difficulties with the take up of Agile approaches. Difficulties that we have encountered have been around process-driven issues and the overall governance. ARTs have been able to find a good niche that works. However, we must not fall into the trap of improving one area of the process and leaving the rest as is. We must take a holistic view of the development process and the next steps are to infiltrate Agile approaches in other areas, effectively pushing outward from the ART seed corn.

However, this is all about taking the right baby steps. We are dealing here with senior managers whose decisions have make or break implications for the business. ART sessions have an immediate link with the bottom line. They are not covering obscure software modules somewhere in the heart of the systems estate. They are all about improving ways for the business to make money.

We have also seen that there are patterns of behaviour within Agile that can be used to help facilitate these strategic decisions. We have found that everyone can respond to Agile patterns of behaviour and improve the overall outcome. The main trick in terms of making this work lies in the abilities of the facilitators to engage at the right level with the business and the IT organisation. These sessions are interactive, creative, often stimulating and fun. But this is serious stuff. What the ART sessions have tried to do and have so far achieved, is to promote the joining together of the demand and supply communities. The

general meeting of minds and understandings that are facilitated at these sessions opens up all sorts of possibilities for moving the whole business forward. The future is colourful, the future is ART.

## 6. References

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## 7. Acknowledgments

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