# PROJECT in a box

# Atern Guidance material



**Version 1.1**

March 2009

## *Welcome to the PROJECT in a box Atern guidance manual*

This guidance material has been provided kindly by the DSDM consortium and is provided under licence. It is provided as a basic introduction to Atern and if a more complete understanding is required we provide links in the further guidance section.

**Contents**

# INTRODUCTION

Atern is the new version of DSDM - the proven agile project delivery framework.

Atern helps to deliver results quickly and effectively. It concentrates on strategic goals and incremental delivery of real business benefits while keeping control of cost, risk and quality.

Business Agility is enabled through the encouragement of self-directed, empowered teams working together in a supportive and collaborative manner. Atern can be applied to a wide range of projects from small software developments all the way up to full scale business process change.

## How can Atern help?

Managing business change and developing solutions are never simple tasks. The problems that often occur when people from varied disciplines come together are:

- Late delivery
- Reduced benefits
- Wrong solution
- Poor quality
- Cost overruns

Atern has been specifically developed to overcome these problems.

## What is Atern?

Atern is an agile project delivery framework that delivers the right solution at the right time.

The right business solution is delivered because:

- The Project team and other significant stakeholders remain focused on the business outcome
- Delivery is on time providing an early return on investment and reduced risk
- All people involved with the project work collaboratively to deliver the optimum solution
- Work is prioritised according to business need and the ability of users to accommodate changes
- Atern does not compromise on quality

Importantly, Atern harnesses the knowledge, experience and creativity of end users. It uses an iterative lifecycle to evolve the most appropriate solution to satisfy project objectives.

Using planned, visible timeboxes with clearly-specified outcomes control is exercised hroughout by the project manager and the team members themselves.

Roles are clearly defined and work is divided into timeboxes with immovable deadlines and agreed outcomes.

## Atern agility

Atern's agile approach avoids the cumbersome rigidity of 'big design up-front' without the inevitable risks of 'no design up front'.

Since it is worth spending some early time examining the structure of the overall solution before building any components, Atern advocates that projects should do just 'enough design up front'.

## Atern flexibility

Atern can be used to complement other project management disciplines such as PRINCE2™ and PMI without duplication of effort.

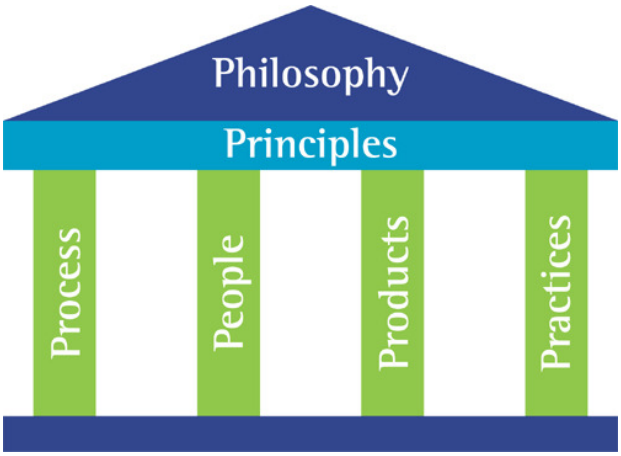
PRINCE2™ is a Trade Mark of the Office of Government Commerce.

## The Philosophy of Atern

*The Atern Philosophy is that any project must be aligned to clearly defined strategic goals and focus upon early delivery of real benefits to the business.*

This is best achieved when key stakeholders understand the business objectives, are empowered to an appropriate level, and collaborate in order to deliver the right solution. This solution will be delivered in the agreed timescale, according to the priorities set by the business.

The stakeholders must be prepared to deliver a fit for purpose solution. They must also be prepared to accept that change is inevitable as they understand more about the solution being developed.




The Atern framework details a set of eight working Principles which guide practitioners in the adoption of the Philosophy. They are supported by a Project Lifecycle (Process) with defined Products, Roles and Responsibilities (People), and recommended Techniques (Practices).

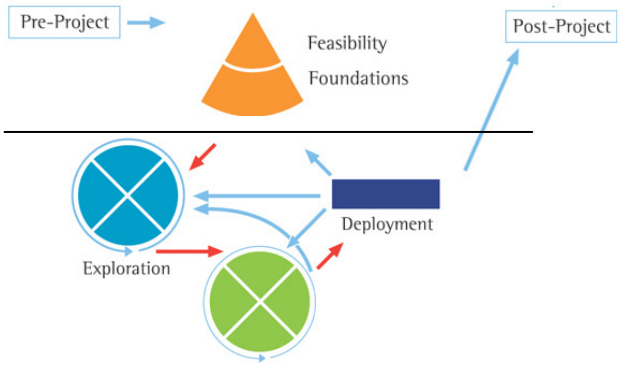
# Atern in PROJECT in a box

PROJECT in a box Community Edition provides a framework for managing project documentation quickly and easily in-line with a process model. The structure of a project in PROJECT in a box is that it has a main 'project' set of documentation and a repeatable 'stage' set of documents. The stage set of documents can be replicated as many times as required to model the structure of the required project.

The Atern method provided here in Community Edition provides a simple model as follows:

'Project' containing Pro-project, Feasibility, Foundations and Post-Project as well as the project level controls documents for the Exploration, Engineering and Deployment processes.

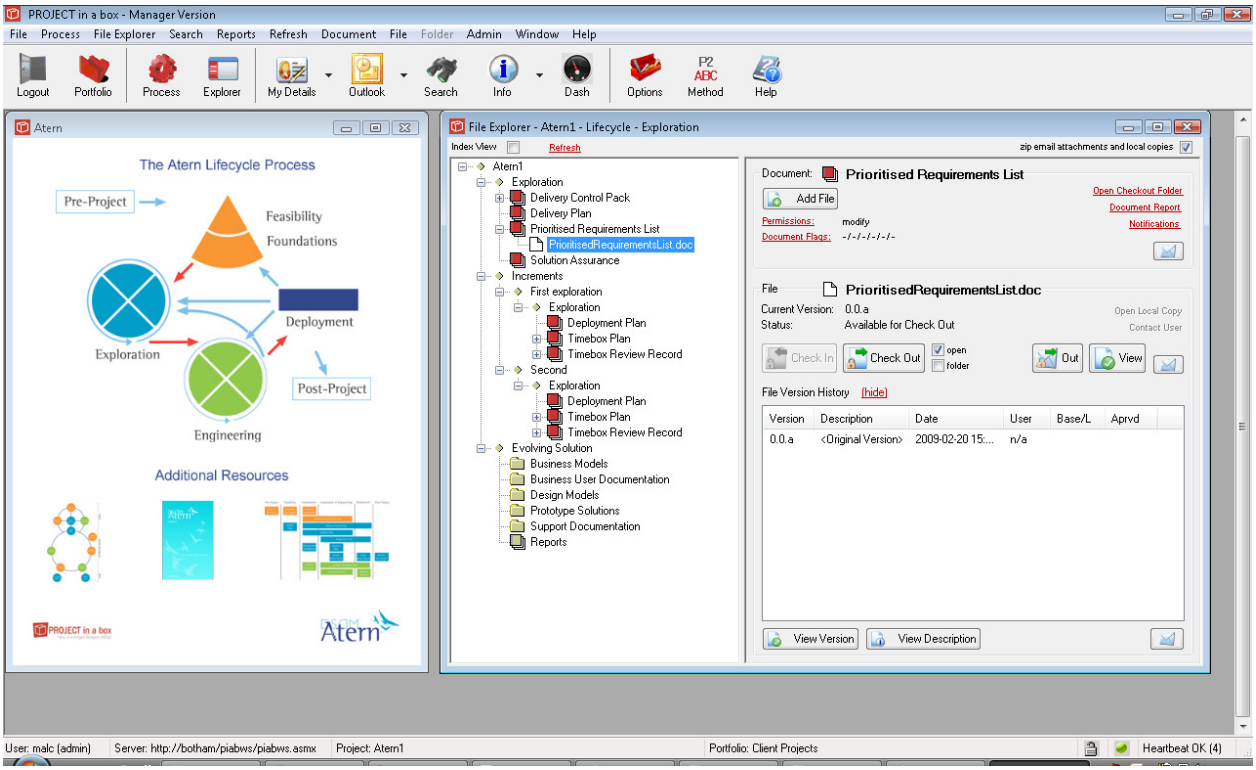
'Increment' contains the Exploration, Engineering and Deployment processes associated with a single increment of the project.




This uses the complete Atern Process diagram to indicate the options in moving between Exploration, Engineering and Deployment. However it is assumed that modest projects will be managed within Community Edition and as such a single combined Exploration /Engineering process is provided when clicking on the model. This is in-line with Example 3 on page 14.

Therefore a simple project consisting of one combined exploration/Engineering and one deployment can be created with the default 'project' structure and a single 'increment'.

If a more complex type of project is being managed several 'increments' can be used either in part of in full to create the mix of processes required to create the required process structure. This structure as developed by the addition of increments is reflected in the explorer tree in the product as shown below:



# ATERN PRINCIPLES

The eight principles of Atern support the Philosophy. They direct you in the attitude you must take and the mindset you must adopt in order to deliver consistently.

Compromising any principle undermines Atern's basic philosophy.

If you don't follow all of the principles then you don't get the full benefit. The collective value of Atern's principles enables organisations to deliver best value business solutions collaboratively.

Atern's eight Principles are:

1. Focus on the business need 
2. Deliver on time 
3. Collaborate 
4. Never compromise quality 
5. Build incrementally from firm foundations 
6. Develop iteratively 
7. Communicate continuously and clearly 
8. Demonstrate control 


## *Principle 1.* 

### *Focus on the business need*

Every decision taken during a project should be viewed in the light of the overriding project goal, which is to deliver what the business needs it to deliver, when it needs to be delivered.

Always remember that a project is a means to an end, not an end in itself.

In order to fulfil this principle, Atern teams will:

- Understand the true business priorities
- Establish a sound business case
- Seek continuous business sponsorship and commitment

Specific business roles in Atern, in conjunction with the business products created in the Foundations phase and key techniques such as Timeboxing and MoSCoW Prioritisation, enable Atern teams to fulfil this principle.

## *Principle 2.* 

### *Deliver on time*

Delivering products on time is a very desirable outcome for a project and is quite often the single most important success factor.

Late delivery can undermine the very rationale for a project, especially where market opportunities or legal deadlines are involved.

- In order to fulfil this principle, Atern teams will:

Timebox the work

- Focus on business priorities
- Always hit deadlines

Timeboxing (a key technique) and MoSCoW Prioritisation (a key technique) enable Atern teams to implement this principle and build a reputation for timely and predictable deliveries.

## *Principle 3.* 

### *Collaborate*

Teams that work in a spirit of active cooperation and commitment will always outperform groups of individuals working only in loose association.

Collaboration encourages increased understanding, greater speed and shared ownership which enables teams to perform at a level that exceeds the sum of their parts.

In order to fulfil this principle, Atern teams will:

- Involve the right stakeholders, at the right time, throughout the project
- Ensure that the members of the team are empowered to take decisions on behalf of those they represent
- Actively involve the business representatives
- Build a one-team culture

Atern Business Visionary, Business Ambassador and Business Advisor roles bring the appropriate subject matter experts into the project so they can contribute to the solution. The Business Analyst is responsible for facilitating a high level of collaboration between team members.

Facilitated Workshops (key technique) enable stakeholders to share their knowledge effectively with other members of the project team.

## *Principle 4.* 

### *Never compromise quality*

In Atern, the level of quality to be delivered should be agreed at the start. All work should be aimed at achieving that level of quality. No more and no less.

A solution has to be 'good enough'. If the business agrees that the functionality in the minimum usable subset has been provided adequately, then it should be acceptable.

In order to fulfil this principle, Atern teams will:

- Set the level of quality at the outset
- Ensure that quality does not become a variable
- Design, document and test appropriately
- Build in quality by constant review
- Test early and continuously

The Business and Technical Testing products together with regular reviews throughout the project lifecycle will help the Atern team to build a quality solution.

Using Atern, everything is tested as early as possible. Test-driven techniques result in a test being written before the deliverable is actually produced. MoSCoW Prioritisation and Timeboxing are used to ensure that testing is appropriate and undertaken without introducing unnecessary risks.

## *Principle 5.* 

### *Build incrementally from firm foundations*

In order to deliver real business benefit early, Atern advocates incremental delivery. This encourages stakeholder confidence and is a source of feedback for use in subsequent increments.

Increments which are deployed into operational use may lead to early business benefit.

Atern advocates first understanding the scope of the business problem to be solved and the proposed solution, but not so detailed that the project becomes paralysed.

In order to fulfil this principle, Atern teams will:

- Do enough design up front to create strong foundations
- Strive for early delivery of business benefit where possible
- Accept that most detail emerges later rather than sooner
- Evolve more precise estimates as the project progresses

Atern teams implement this principle using the Atern Lifecycle, which delivers a solid base of knowledge during Feasibility and Foundations phases before developing incrementally during the Exploration and Engineering phases.

## *Principle 6.* 

### *Develop iteratively*

In order to converge on an accurate business solution Atern uses iterative development. The concept of iteration is embedded throughout Atern's lifecycle down to the lowest level of Timeboxing.

It is very rare that anything is built perfectly first time and projects operate within a changing world. Atern advocates a pragmatic approach to change that relies on iteration in order to embrace change and produce a better solution.

In order to fulfil this principle, Atern teams will:

- Be creative, experiment, learn, evolve
- Embrace change - the solution will evolve as the team learns more about it
- Take an iterative approach to building all products
- Continually confirm the correct solution is being built
- Converge on an accurate solution

Change is inevitable, so Atern allows for change and harnesses its benefits.

Within the constraints of time and cost, change is actively encouraged in order to evolve the most appropriate solution. Atern uses iteration and constant review to make sure that what is being developed is what the business really needs.

## *Principle 7.* 

### *Communicate continuously and clearly*

Poor communication is often cited as the biggest single cause of project failure. Atern techniques are specifically designed to improve communication effectiveness for both teams and individuals.

In order to fulfil this principle, Atern teams will:

- Use facilitated workshops and daily stand-ups
- Use rich communication techniques such as modelling and prototyping
- Present iterations of the evolving solution early and often
- Keep documentation lean and timely
- Manage stakeholder expectations throughout the project
- Encourage informal,face to face communication at all levels

Atern emphasises the value of human interaction through Facilitated Workshops, clearly defined roles and user involvement. Modelling and prototyping make available early instances of the solution for scrutiny.

These techniques are far more effective than the use of large textual documents, which are sometimes written for reasons other than achieving the business objectives.

## *Principle 8.* 


### *Demonstrate control*

It is essential to be in control of a project at all times. An Atern team needs to be proactive when monitoring and controlling progress in line with the Foundations Phase products, especially the Business Case.

You need to be able to prove you are in control.

In order to fulfil this principle, Atern teams, especially the Project Manager and Team Leader, will:

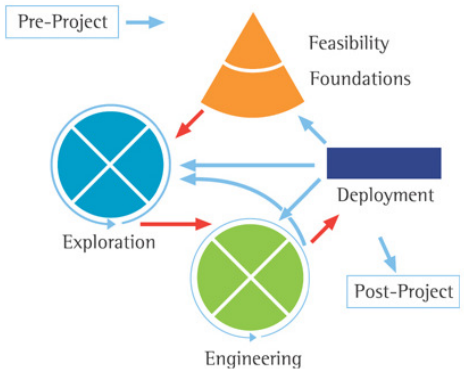
- Use an appropriate level of formality
- Be able to demonstrate control at all times
- Make plans and progress visible to all
- Measure progress through focus on delivery of products rather than completed activities
- Manage proactively
- Evaluate continuing project viability based on the business objectives

The use of well defined Timeboxes, with constant review points, and the preparation of the Management Plan and Timebox Plans are designed to assist the Project Manager and the Atern team to follow this principle.

Further guidelines on maintaining control are included in Understanding Project Variables.

# LIFECYCLE OVERVIEW

Every Atern project has a lifecycle tailored to its own individual needs which supports iterative development and incremental delivery.




Lifecycle phases (see diagram above) are:

- Pre-project
- Feasibility
- Foundations
- Exploration
- Engineering
- Deployment
- Post-project

Depending on the size, complexity and risk of the project, adjacent phases may sometimes be merged.

## *Project Phases*

### Pre-project

This phase formalises a proposal and prioritises it in the context of other work being carried out by the organisation in line with its strategic goals.

### Feasibility

Gives the first opportunity for deciding whether a proposed project is viable from both a business and a technical perspective. It involves a high-level investigation of potential solutions, costs and timeframes.

Project viability should be continually assessed to ensure that the benefits predicted are justified in relation to cost of delivery.

### Foundations

Establishes firm and enduring foundations for the project. The three essential perspectives of business, solution and management are combined to provide a robust and flexible project

focus.

Level of detail is strictly limited so there is no constraint to the way in which a solution evolves, but it must be possible to demonstrate how business needs will be met.

## Exploration

Used iteratively and incrementally to investigate detailed requirements and translate them into a viable solution.

Any solution created is used to demonstrate that it will deliver what is needed, whilst accommodating ever changing details of overall need.

## Engineering

Used iteratively and incrementally to evolve the solution created during Exploration to full operational readiness.

Development effort also addresses non-functional requirements including performance, capacity, security, supportability and maintainability. Continued involvement from Business representatives provides an ongoing opportunity to validate fitness for purpose.

## Deployment

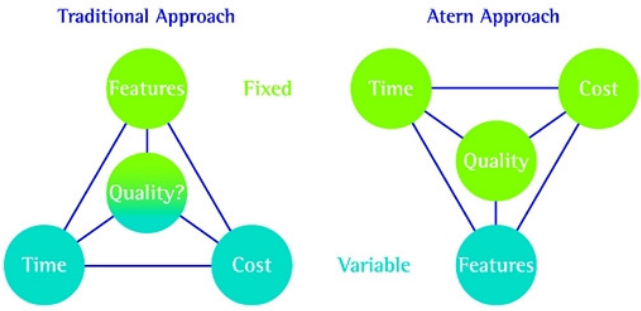
The focus of the Deployment phase is on getting the solution into operational use or ready for market. The number of passes through the Deployment phase will depend on business imperatives

## Post-Project

Takes place after the last planned deployment. It reflects on project performance in terms of the business value actually achieved.

## *Understanding Project Variables*

Most projects have four parameters - time, cost,features and quality. Trying to fix all these parameters at the outset is impractical and is the cause of many common problems.




In the traditional approach to project management (left hand diagram) the feature content of the solution is fixed whilst time and cost are subject to variation.

If the project goes off track more resources are often added or the delivery date extended. It is recognised that adding resources to a late project just makes it later. A missed deadline can be disastrous from a business perspective and could easily damage credibility.

Quality is often a casualty and also becomes a variable, accompanied by late delivery and increased cost.

Atern's approach to project management (right hand diagram) fixes time, cost and quality at the Foundations Phase while contingency is managed by varying the features to be delivered.

As and when contingency is required, lower priority features are dropped or deferred with the agreement of all stakeholders in accordance with MoSCoW rules.

An Atern project will always deliver a viable solution.

As long as MoSCoW and Timeboxing rules are followed a minimum sub-set of features is absolutely guaranteed to be delivered on-time and in budget.

Quality is fixed in an Atern project because acceptance criteria are agreed and set before development commences.

Atern reduces the chance of scope creep by establishing firm foundations on which to build that are approved by key stakeholders. Development is then started in a controlled manner with clear objectives.

Having well-defined high level requirements means that as the project progresses it is easy to spot the difference between the need to get additional detail (e.g. increased depth of understanding of requirements) and additions to the project's breadth (scope creep).

## *Appropriate levels of rigour*

At the heart of Atern is the need to determine the correct level of rigour that should be used for a particular project. Every project is different.

Too much formality can slow progress down and even cause paralysis. Too little formality can lead to a seat-of-the-pants approach.

Atern should be tailored to suit a project's individual needs. A risk assessment is undertaken early on in the project lifecycle in order to determine the level of rigour that should be applied throughout.

The aim is to have adequate formality, so that waste is eliminated and all activities at each incremental level add value.

An Atern project ensures that formality and rigour are there to help rather than hinder progress.

## *Example Paths through the Lifecycle*

In between Pre-project phase and Post-project phase, Atern's lifecycle offers options for all types of project.

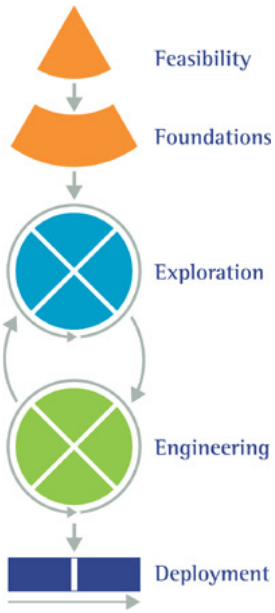
Typical Atern projects start with a Feasibility phase followed by a Foundations phase. When a project is assessed to be simple, low-risk and of short duration these two phases may sometimes be merged.

This early work is used to determine the best way to develop the required solution and this is where the subsequent path through the Atern lifecycle is determined. Agreement on the future shape of the project marks the end of the Foundations phase.

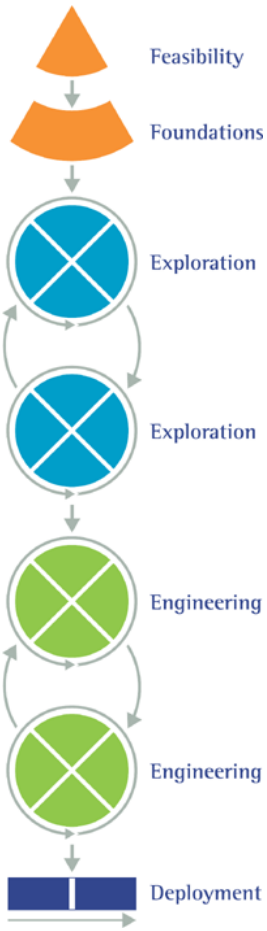
Actual development work is then divided into one or more increments, each normally marked by the deployment of a working solution into the live environment. Increments are in turn divided into Development Timeboxes.

The focus of a timebox may reflect a single development phase (either Exploration or Engineering) or may be a combination of both.

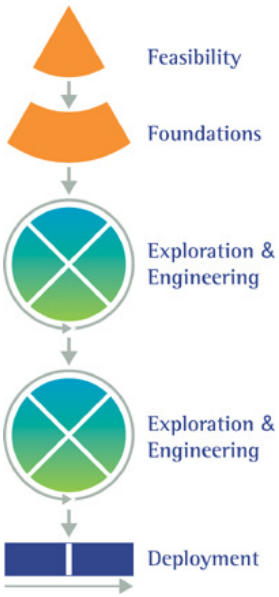
There are many possibilities, as Atern will deliver solutions in almost all project environments, whether the solution involves IT or not. Four different examples of paths through the Atern lifecycle are shown on the following pages.




Example 1 (above) illustrates iterative development with alternating cycles of Exploration and Engineering.



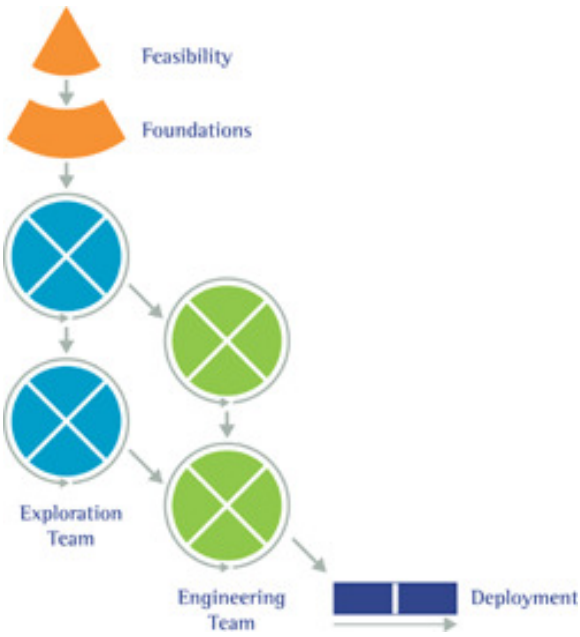

Example 2 (above) illustrates iterative development with a number of exploration cycles followed by a number of Engineering cycles.




Example 3 (above) combines Exploration and Engineering work to deliver fully engineered subsets of the end product in a single pass.

Example 4 (right) reflects a more complex scenario with two teams involved.

One team concentrates on exploratory work and the other on engineering. In this example, the Exploration team might deliver prototypes of the solution as an input to the Engineering team, which builds solutions for deployment.



# KEY ATERN TECHNIQUES

Atern harnesses a number of key techniques to support the adoption of its Principles. These techniques offer the means by which Atern's collaborative teams deliver the most appropriate business solutions on time and within budget.

Key Atern techniques are:

- Iterative Development
- Timeboxing
- MoSCoW Prioritisation
- Facilitated Workshops
- Modelling

## *Iterative Development*

Iterative Development is the key Atern technique used by a team to evolve solutions from high level idea to delivered product.

By working collaboratively the team can ensure that detailed requirements are correctly reflected in the evolving solution. The demonstration of interim solutions broadens the team's awareness of available options and speeds up development.

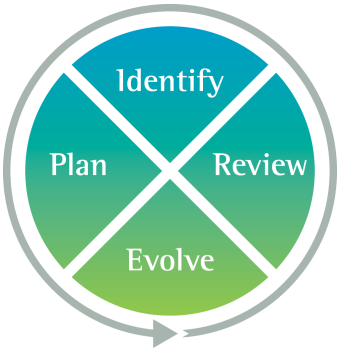
In evolving the solution to meet overall business needs it may be useful to focus on specific perspectives either in sequence or in combination:

- The Business perspective looks at functional aspects of the evolving solution
- The Usability perspective concentrates on optimising the solution for users
- The Performance and Capacity perspective ensures that the solution can cope with expected throughput

It may prove useful, as development proceeds, to create disposable prototypes to test particular design approaches or to prove concepts.

## Development Cycles

Development Cycles are used in both Exploration and Engineering phases to describe an iterative development process controlled by Development Timeboxes.




A development cycle passes through four steps:

- Identify deliverables to be evolved
- Agree plan for evolving deliverables

- Evolve the deliverables
- Review the deliverables

## *Timeboxing*

Timeboxing is the key Atern technique used to achieve defined objectives by a fixed deadline.

A timebox is Atern's universal framework for managing project team activities by an immovable end date. Every timebox has prioritised requirements and a list of associated outcomes.

Timeboxes deliver their outcomes by using MoSCoW Prioritisation to vary requirements so that on-time delivery of at least a Minimum Usable Subset is always guaranteed.

Timeboxing:

- Helps maintain a focus on delivery time
- Supports managing dependencies within a project
- Enables regular team assessment of a project's progress
- Prevents scope creep

Three types of timebox are used within an Atern project, corresponding to different levels of project management:

- Project Timebox
- Increment Timebox
- Development Timebox

### Project Timebox

Timeboxing a project means that a deadline has been set by which time that project needs to have delivered.

To achieve the Project Timebox, the timeboxing process (using MoSCoW prioritisation) is applied at lower levels to ensure that deadlines are met and objectives achieved.

### The Increment Timebox

All projects consist of at least one increment, which is also timeboxed. An increment refers to the delivery of a complete and meaningful subset of the solution.

### The Development Timebox

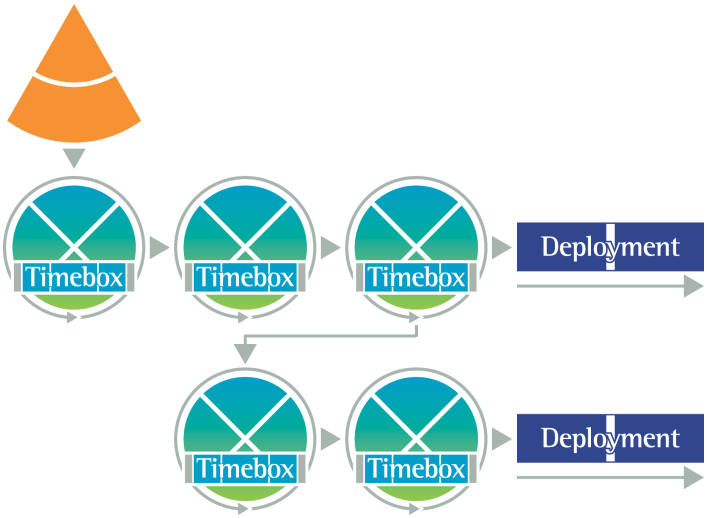
Increments consist of one or more Development Timeboxes, the fundamental building blocks of an Atern project.

Development Timeboxes must be long enough to achieve an agreed objective, but short enough to keep the team focused. A typical Development Timebox duration is between 10 and 30 days.

Control of time, cost, functionality and quality throughout a project is achieved by applying control at Development Timebox level. If all is well at this level it will also be well at the Increment and Project levels.

For suitable projects requiring rapid delivery, the Increment Timebox and Development Timebox could be the same.

## A time-based view of the Lifecycle




The earlier diagram describes Atern's generic lifecycle. The diagram above shows an example of how this lifecycle might be applied in practice.

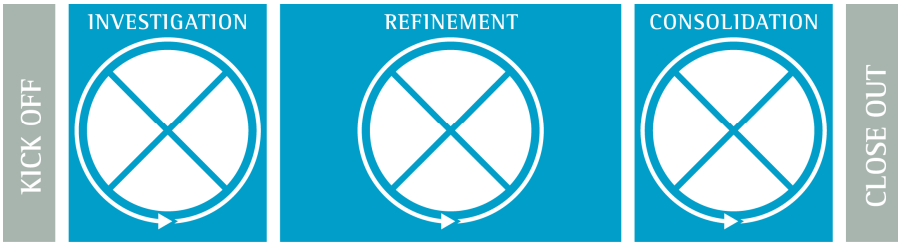
For a project of perhaps six months duration, it illustrates the use of Development Timeboxes, which may have an Exploration focus, an Engineering focus or a combination of the two.

It also shows incremental delivery of usable solutions, as indicated by having multiple deployment phases.

## Controlling a Development Timebox

In the Kick-off session, the team plans how to deal with requirements identified for that timebox. At Closeout, the team reviews what has been achieved.

In between, a Development Timebox is made up of three cycles: Investigation, Refinement and Consolidation.




As a rule of thumb, the main cycles in a development timebox take up 10-20%, 60-80% and 10-20% of total resources respectively (see above).

Each cycle incorporates both a planning and a review element. Daily stand-ups occur every working day so there is a detailed review of progress to date. This also allows for plans to be adapted as required.

## Investigation Cycle

Provides a firm foundation for work to be carried out during the Refinement Cycle that follows.

In Exploration timeboxes the team investigates requirements and produces an initial model or prototype.

In Engineering timeboxes the team begins detailed testing and acceptance activities.

At the end of Investigation the review should be attended by all Development Team members and, where it will be useful, members of the wider team.

### Refinement Cycle

This is where most work is carried out in a timebox and development work should finish here.

At the end of the refinement cycle there is a major review to look at which deliverables have been created and see what amendments will be needed to satisfy the acceptance criteria. All those responsible for product acceptance should attend or provide their feedback.

When refinement is complete no new functionality or changes can be added.

### Consolidation Cycle

Actions agreed at the end of refinement review are carried out together with any final work required to satisfy organisational or project standards. Final testing is completed and any product failing to pass its tests is not considered to be delivered.

Anything planned for delivery but not actually delivered may be considered for inclusion in a later timebox at the next planning session. This mean other deliverables have to be sacrificed.

## *MoSCoW Prioritisation*

Delivering on a guaranteed date means that some work originally planned for a delivery may have to be deferred. It may also be necessary to include work not originally identified.

Essential work must be completed and only less critical work may be omitted from a delivery.

A straightforward requirements prioritisation technique is used to achieve this, using these MoSCoW rules:

- **Must Have**: requirements that are fundamental to the solution. Without these it will be unworkable and useless. Must Haves define the Minimum Usable Subset which an Atern project guarantees to deliver
- **Should Have**: important requirements for which there is a short term workaround. Normally classed as mandatory when more time is available, but without them the business objective will still be met
- **Could Have** for requirements that can more easily be left out of the increment under development
- **Won't Have this time** for requirements that can be included in later development. Won't Haves are excluded from plans for the current delivery

MoSCoW Prioritisation is the key Atern technique which provides the basis for decision making about project team activity at all levels.

## *Facilitated Workshops*

Facilitated Workshops are a key technique in Atern throughout the life of a project. They encourage collaborative working and enable high quality team-based decisions to be made without delay. People brought together as a group communicate more effectively and generate creative solutions.

A well run Facilitated Workshop also delivers an outcome that has a high degree of buy-in and ownership from those people who have taken part.

Ideally, workshops are independently facilitated by someone external to the project. At the very

least, the Workshop Facilitator should be independent of the workshop result to ensure that all ideas and contributions are given equal weight.

Effective workshops follow a well-defined and carefully thought out process. This should include defining the objective, identifying appropriate participants, creating an agenda, managing the logistics and distributing any pre-reading to participants.

A trained facilitator creates an environment that allows full participation by everyone.

Facilitated Workshops are particularly valuable for requirements gathering, timebox planning, risk analysis, problem solving and product reviews.

## *Modelling*

Modelling is a key technique in Atern for collaboratively evolving diagrams and pictures that define the problem or intended solution. Atern advocates the use of models to improve communication through visualisation.

How often models are used and how formal they are depends on the nature of the project and how much skill and experience the team has in the use of modelling techniques.

Models will also vary depending on the type of project, prevailing standards and best practice. Those used for constructing a new power station will necessarily, by virtue of the safety-critical nature of the task, be more detailed and complex than those for building a small web-site.

Atern projects do not require the use of any specific modelling techniques, but use standard industry techniques as appropriate.

The simplest rules to follow are:

- Do what works for you and your organisation
- Do enough and no more so that the purpose of the model is achieved.

# ROLES

Roles in an Atern project fit into three categories:

- Project Level
- Solution Development Team
- Other

Project Level roles are responsible for overall strategy, business perspective and governance. The project is directed by the project manager.

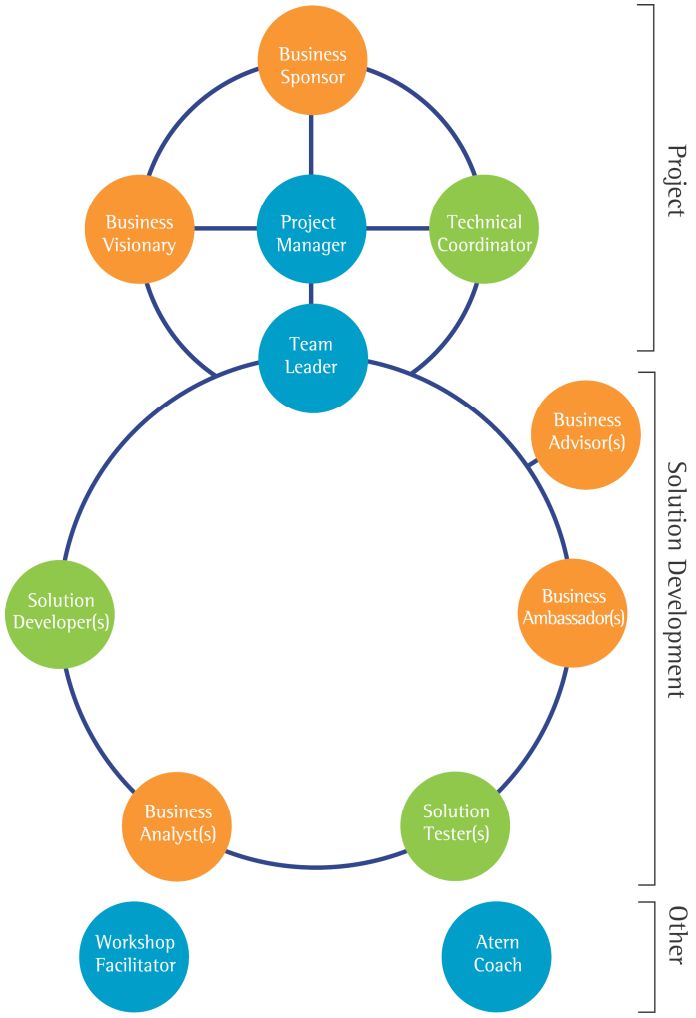
Solution Development Team roles are responsible for the detailed work involved in defining, developing, testing and deploying the solution.

Other roles provide alternative viewpoints, specialist user knowledge and specific skills needed to guide the project throughout its lifecycle.

Roles do not necessarily equate to individuals, except at Project Level. A team can only ever have one leader, but otherwise one person may cover multiple roles and a single role can be shared between several people.

## *Atern Team Organisation*

The diagram below shows how an Atern team is structured. Role types are colour-coded to differentiate between business (orange), development (green) and project management roles (blue).



## *Project Level roles*

### Business Sponsor

The most senior project level business role. The Business Sponsor acts as project champion and is committed to the proposed solution and the approach to delivery. This role owns the solution once delivered and is responsible for realising the associated benefits.

Business Sponsors need to have sufficient authority within the organisation so they can 'force open closed doors' and resolve business issues. They will make financial decisions and are responsible for enabling progress throughout the project.

Only one person can be responsible for this role and should be available throughout a project's duration so there is a clear escalation route.

**Responsibilities:**

- Owns the Business Case
- Ensures ongoing project viability
- Makes sure that funds and other resources are made available as needed
- Guarantees a fast and effective decision-making process
- Responds rapidly to escalated issues
- Ultimate arbiter for conflict resolution

### Business Visionary

A senior Project Level business role which requires more active involvement than the Business Sponsor.

Responsible for interpreting the needs of the Business Sponsor and ensuring these needs are properly represented in the Business Case and to the team.

Remains involved throughout the project to give the team strategic direction and ensure that the solution delivered will enable benefits to be accrued as described in the Business Case.

**Responsibilities:**

- Owns the wider implications of any business change
- Defines the Business Vision
- Communicates and promotes the Business Vision to all interested parties
- Monitors progress in line with the Business Vision
- Contributes to requirements, design and review sessions
- Approves changes to high level requirements in the Prioritised Requirements List
- Ensures collaboration across stakeholder business areas and availability of resources
- Promotes translation of the Business Vision into working practice

### Project Manager

Responsible for business, technical and delivery aspects of the project throughout its duration. Provides highlevel management direction and manages the working environment in which the solution evolves.

In line with Atern's concept of empowerment, the Project Manager leaves detailed product delivery planning to the Team Leader and Solution Development Team members.

**Responsibilities:**

- Communicates with senior management and the project governance authorities
- High-level planning and scheduling, but not detailed task planning
- Monitors progress against baselined plans
- Manages overall project configuration
- Motivates teams to meet their objectives
- Managing business involvement within the Solution Development Teams
- Resources specialist roles as required
- Manages risk and handles escalated problems
- Coaches Solution Development Teams

### Technical Co-ordinator

The Technical Co-ordinator is the project's technical design authority.

Ensures that Solution Development Teams work in a consistent way, that the project is technically coherent and meets the desired technical quality standards.

This role provides the glue that holds the project together while advising on technical decisions and innovation.

The Technical Co-ordinator performs the same function, from a technical perspective, as the Business Visionary does from a business perspective.

**Responsibilities:**

- Agrees and controls the technical architecture
- Determines technical environments
- Advises on and co-ordinates team technical activities
- Identifies and manages technical risk
- Makes sure that non-functional requirements are achievable and met
- Ensures adherence to standards of technical best practice
- Controls technical configuration of the solution
- Manages technical aspects of the solution's transition into live use

## *Solution Development Team Roles*

### Team Leader

Reports to the Project Manager and ensures that a development team functions as a whole and meets its objectives.

The Team Leader works with the team to plan and co-ordinate all aspects of product delivery at a detailed level.

This is a leadership role rather than a management role, and the person holding it will ideally be chosen by peers as the best person to lead a particular project stage. A Team Leader may also perform another product development team role.

**Responsibilities:**

- Concentrates the team to ensure on-time delivery of agreed products

- Encourages full participation of team members
- Ensures that the iterative development process is properly focused and controlled
- Manages risk at development timebox level and escalates to the Project Manager when necessary
- Monitors day-to-day progress
- Reports progress to the Project Manager
- Sees that testing and review activities are scheduled and completed

## Business Ambassador

A development role which offers a perspective for all decisions related to the way the solution's fitness for business purpose is defined and implemented.

The Business Ambassador generally comes from the business area being addressed and provides information from the perspective of those who will ultimately use the solution.

As a true ambassador, the role is responsible for the day-to-day communication channels between the project and the business.

**Responsibilities:**

- Contributes to requirements, design and review sessions
- Provides a business perspective for day-to-day decisions
- Describes business scenarios to help define and test the solution
- Communicates with other users
- Provides assurance that the solution is evolving correctly
- Organises business acceptance testing
- Develops business user documentation
- Ensures adequate user training is carried out

## Business Analyst

Ensures that the business needs are properly analysed and are correctly reflected in the approach the team adopts in order to generate the envisioned solution.

A Business Analyst is fully integrated with the Solution Development Team and focuses on the relationship between business and technical roles.

Active involvement of business users is vital to the success of an Atern project. Business Analysts are not intermediaries but facilitate communication between the developers and the other business roles.

**Responsibilities:**

- Supports unambiguous and timely communication between Business and Technical participants
- Manages documentation and products related to business requirements
- Ensures that business implications of day-to-day decisions are properly thought through

## Solution Developer

Interprets business requirements and translates them into a deployable solution that meets functional and non-functional needs.

**Responsibilities:**

- Works with Business roles and Solution Testers
- Undertakes iterative developments of the deployable solution
- Records and interprets the detail of changes to requirements and their consequences
- Adheres to technical constraints laid out in the Solution Architecture Definition
- Participates in quality assurance to ensure products are fit for purpose
- Tests own output prior to independent testing

## Solution Tester

Fully integrated with the Product Development Team and performs testing in accordance with the Technical Testing Strategy, throughout the project.

**Responsibilities:**

- Works with Business roles to define test scenarios for the evolving solution
- Carries out technical testing, reports test results to the Technical Co-ordinator for Quality Assurance
- Keeps the Team Leader informed of test results
- Assists Business Ambassador and Advisor roles to carry out important tests

# *Other Roles*

## Workshop Facilitator

Manages the workshop process and acts as a catalyst for preparation and communication. A Workshop Facilitator is responsible for context, not content and should have no stake in the outcome.

**Responsibilities:**

For each workshop:

- Agrees scope with the workshop owner and plans the workshop
- Becomes familiar with the subject area
- Engages with participants to understand any major areas of interest or concern
- Helps the workshop meet its objectives

## Business Advisor

Provides specific and often specialist input to development or testing. Would normally be an intended user or beneficiary of the solution but may just provide guidance with which the solution must comply.

**Responsibilities:**

For a particular specialism:

- Provides specialist input for requirements, day-to-day project decisions and business scenarios

- Provides specialist advice on business acceptance testing, business user documentation and user training

## Atern Coach

Helps a team gain experience of using Atern to get the greatest benefit within its own organisation.

If something in the project environment runs contrary to Atern's principles, or a particular Atern technique is inhibited, then the potential problem must be resolved.

The Atern Coach will help by influencing the environment or adapting the technique.

**Responsibilities:**

- Provides detailed knowledge and experience of Atern to team members
- Tailors Atern to suit individual projects
- Helps the team and others use Atern techniques to realise their value
- Encourages the collaborative and cooperative working essential to Atern

## Other Specialists

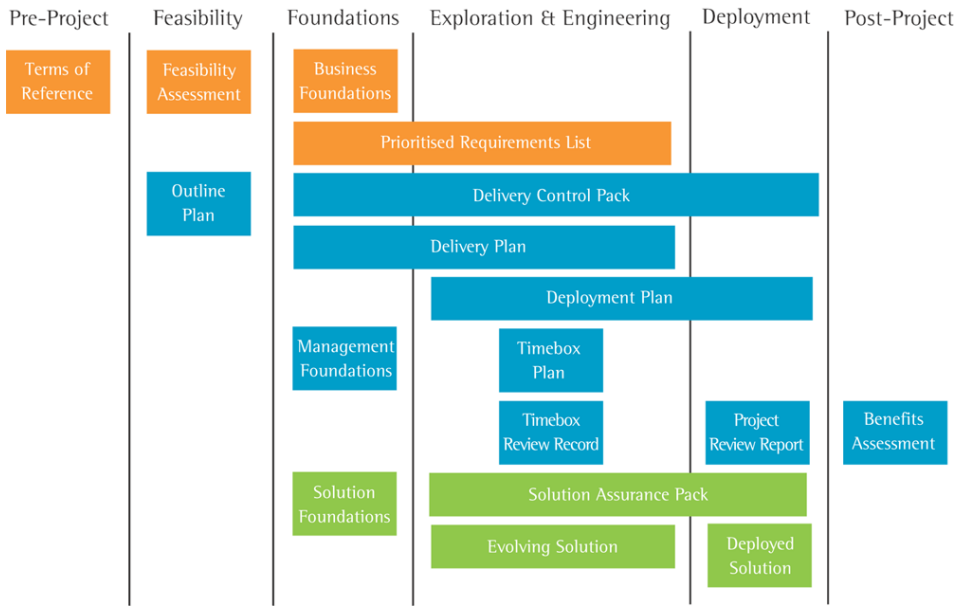
Sometimes it is necessary to draw on specific knowledge, experience or expertise. Examples include technical specialists, production support representatives and those responsible for quality management and risk.

# PRODUCTS

Atern identifies deliverables associated with each phase of the lifecycle. These are referred to as Products. Not all products are required for every project and the formality associated with each product will vary from project to project and from organisation to organisation. The formality of the products is influenced by factors such as contractual relationships and corporate standards.

Some products are specific to a particular phase in the lifecycle, others may continue to evolve through subsequent phases

The products and where they feature in the lifecycle are shown in the diagram overleaf and further described in the following pages.




## *Pre-Project*


**Terms of Reference:** Defines at a very high level the objectives and business drivers for the proposed project

## *Feasibility*



**Feasibility Assessment:** Describes the project to a level that will allow the Business Sponsor to approve, as a minimum, further investigation in the Foundation phase. In all cases it may be appropriate to present one or more options. Where appropriate, the Feasibility Assessment includes:

***Outline Business Case:*** At a very high level deals with the likely costs and benefits associated with the project.

***Outline Solution:*** Describes at the highest level the likely structure of the overall solution (what the solutions includes and excludes, an overview of the solution architecture etc).

***Feasibility Prototype:*** Offers a disposable candidate solution that has been created to help demonstrate or eliminate options supporting the business or technical feasibility of the solution or project.

***Risk Assessment:*** Provides a description and a mitigation strategy for any risks significant enough to influence the viability of the project.

**Outline Plan:** Describes how the development and deployment of the solution may be taken forward. Where applicable (e.g. to support different Feasibility Assessments) more than one Outline Plan may be presented.

The outline plan incorporates:

***Project Approach Questionnaire:*** A tool to help the project manager configure Atern to optimise the degree of agility that can be applied to the project.

## *Foundations*


**Business Foundations:** Provides essential business considerations related to the viability of the project moving forwards, including:

***Business Vision:*** Defines at a high level how the business will operate once the proposed solution has been delivered.
***Business Case:*** Refines the outline of the business case provided in the Feasibility Assessment to provide detailed business justification for the project.

**Prioritised Requirements List:** Provides a high level description of requirements that the project needs to address, indicating their priority with regards to meeting the overall project objective.

**Solution Foundations:** Provides an overview of the candidate solution and guidance on how it should be developed, including:

***Business Area Definition:*** Provides a high-level design baseline for all business change aspects of the solution including current and future states for business processes and organisation. It also defines the impact the project or the solution will have on the business in terms of process, organisation, behaviour and resourcing.

***System Architecture Definition:*** Provides, for projects involving IT development, a high-level design baseline for all systems aspects of the solution, including infrastructure and software architecture for all development, test and production environments.

***Delivery Approach:*** Describes relevant practices, standards and style constraints to be applied to the solution in development and how elements of the Evolving Solution will be reviewed and assessed, against pre-defined acceptance criteria, throughout the life of the project.

For software projects a **Testing Strategy** should be included here. Distinguishing between **Business** and **System Testing Strategies** may help deal with acceptance testing (the responsibility of the Business Ambassador role) and other testing (the responsibility of Solution Developer and Solution Tester roles) respectively.

***Solution Prototype:*** A disposable prototype may be useful here to further explore some or all of the solution. The Solution Prototype could be passed into the Exploration phase for further development. Knowledge gained in constructing the prototype helps to clarify project objectives, estimates and development strategies.

**Management Foundations:** Describes the approach to the set-up and management of various aspects of the project, including how the project will be organised and governed. It also describes the approach to managing Change, Configuration, Communication and Risk.

**Delivery Plan:** Provides a schedule for timeboxes and other activities for development, testing (where applicable) and deployment of the solution.

**Delivery Control Pack:** Comprises various logs and reports for monitoring, documenting, communicating and demonstrating control of a project. The major component of the Delivery Control Pack is the Risk Log. It may also include items such as burn-down charts, issues logs, change logs, communication logs, periodic reports etc. as required. The detail and formality of the elements of the Delivery Control Pack will often be dictated by adherence to organisational or programme level standards.

## *Exploration and Engineering*


**Evolving Solution:** Comprises all aspects of the end solution as they evolve (e.g. software, models, training materials etc.), in line with the agreed focus for the development to date (e.g. reflecting business, usability or performance perspectives). At a given point in time components of the solution may be complete, or simply reflect work in progress as the solution is developed. The Evolving Solution may include:

***Models:*** Created in advance of, or during, development, exploring describing and documenting business and technical aspects of the solution, where appropriate.

***Capability/Technique Prototypes:*** (Sometimes known as architectural spikes). Created in order to explore and demonstrate potential solutions and mechanisms for creating them.

***Business User Documentation:*** Created when required to help support the effective operation of the Deployed Solution by the end-users.

***Support Documentation:*** Created when required to help support the effective operation of the Deployed Solution by support and maintenance staff.

***Deployable Solution:*** A baseline of the Evolving Solution that is coherent, usable and operationally ready. It should include all documentation needed for the use and support of the solution in live operation. It may be a subset of the overall solution delivered as discrete Increments of the project.

**Solution Assurance Pack:** Contains all the detailed plans for, and records of review. For projects with a software element it also provides plans and records of testing activities. The pack may include:

***Business Testing Pack:*** Includes test plans, scripts, data and records related to testing technical aspects of the solution (e.g. software) in a business context. For Business Systems projects this will include User Acceptance Testing.

***System Testing Pack:*** Includes test plans, scripts, data and records of software elements of the evolving solution. This will include Unit, Integration, Component System and Regression Testing.

***Solution Review Records:*** Provides a record of all review activity associated with the evolving solution (including its models and prototypes). Solution Review Records (whether

formal or informal) are a key input to the Timebox Review process.

**Deployment Plan:** Sometimes included as a subset of the Delivery Plan, this product provides a resourced schedule for all activities associated with the deployment of the solution. The Deployment Plan includes, where appropriate:

***Business Deployment Plan:*** Describes how new business processes will be implemented, how new organisational structures will be communicated, and the mechanisms and logistics related to education of those impacted by the change.

***System Deployment Plan:*** Describes how software elements of the solution will transition to live operation.

***Benefits Realisation Plan:*** Defines and schedules the activities required to assess the extent to which the benefits predicted in the business case are achieved through operation of the Deployed Solution.

**Timebox Plan:** Elaborates on the objectives provided for each development timebox in the Delivery Plan. It details deliverables for the timebox along with the activities and resources required to deliver them.

**Timebox Review Record:** Produced at the review points in the Development Timebox, the Timebox Review Record captures what has been achieved and any feedback, which will influence plans moving forward. After Timebox Close-out, any outstanding issues are considered in the context of the Delivery Plan and future Timebox Plans.

## *Deployment*


**Deployed Solution:** A Deployable Solution from the Engineering Phase that is now in operation in the live business environment.

**Project Review Report:** An evolving product updated at the end of every delivery increment to reflect project performance and learning. Including as required:

***Increment Review:*** Provides a record of what went well and what could be improved from a process perspective. It documents what has been achieved in the Increment against the full scope of what might have been. Decisions need to be taken on what to do about lessons learned and elements of the scope that were not delivered and, where appropriate, future plans need to be updated to reflect this.

***Benefits Enablement Summary:*** Describes which of the benefits described in the Business Case have been enabled by the Deployable Solution. It is a record of what the project has achieved and provides a focus for the benefits realisation activity carried out in the Post-project phase.

***End of Project Assessment:*** Created at the end of the final Deployment phase in the project. It draws on the findings in each of the Increment Review Records and summarises the project's overall performance against its objectives. Sign-off of the End of Project Assessment normally marks the formal end of the project.

## *Post Project*

Benefits Assessment

**Benefits Assessment:** Describes how the benefits predicted in the Business Case have actually accrued as the Deployed Solution has been used.