PINK

White paper
Pink Agile Framework

"Make your organization Agile, The Pink Way."

About Pink Elephant

Pink Elephant is an international knowledge leader in the field of business innovation and business change. With advisory and IT services, Pink Elephant draws the best out of its clients, by translating the knowledge and creativity of the people in these organizations into tangible results.

Since its foundation in 1980, Pink Elephant recognizes an important synergy between company objectives and the knowledge and entrepreneurship of people, as well as the way in which IT contributes significantly to making innovation possible and to increasing power of discernment in the market. Pink Elephant operates in more than 20 countries and provides business and management consultancy and other services, such as Enterprise App Services, IT Services, Document Services and Education.

Vision

Business transformation is vital in a time when technological developments happen in quick succession. The knowledge and creativity that already exists within organizations is often utilized insufficiently because both IT and business processes lack agility. Companies must invest in new Agile procedures and knowledge sharing and must also give more attention to the synergy between mankind and IT. Pink Elephant provides the people and the resources that help organizations take the next step in the transformation of their business.

Mission

Pink Elephant is the technology radar that helps organizations, at a strategic level, to achieve their business objectives. The major resources to do this are flexible IT systems and new ways for people to work together. With Pink Elephant as a partner, companies can break away from their traditional systems by using innovative technology, training and consultancy. In this way, they are better prepared for the future through the correct deployment of people and IT.
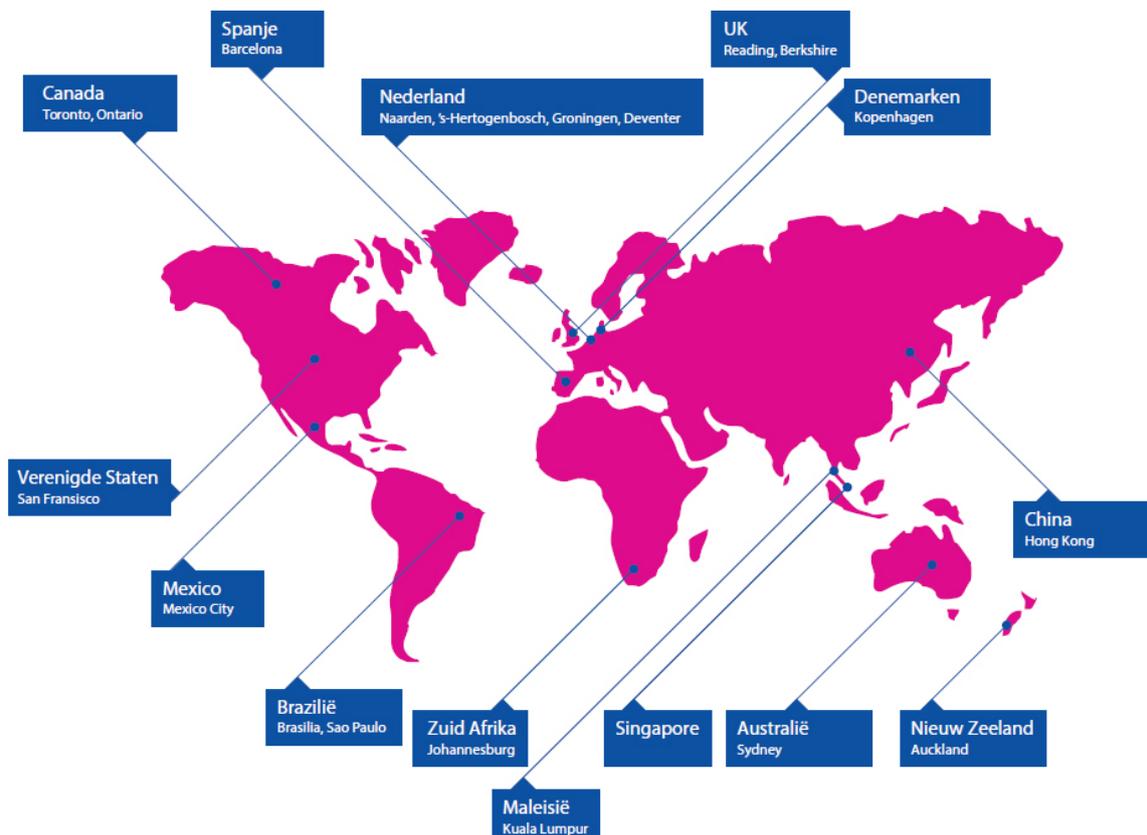
INTRODUCTION

Today, the Agile ideology is almost inextricably associated with software development. Agile is an interaction concept for the implementation of projects, which has been adopted, in various forms, by virtually every commercial IT service provider, and which has become a part of the services rendered. Most large IT-intensive companies, such as banks and electronics manufacturers, have, in the past years, been making the transition towards an Agile way of working. Many medium-sized companies are often still in the planning stage, because the transition towards an Agile working method involves a radical cultural transformation. But what exactly is Agile, and what added value can it offer to organizations?

In this White Paper, we investigate the Agile principles, the most frequently used Agile-based methodologies, and the way in which these can contribute to the optimization of business and information processes. The added value of Agile goes beyond software development. Agile is therefore not a methodology, but merely a framework for a number of ground rules and tools to organize projects. The manner in which Agile is implemented within organizations is highly personal and has a direct bearing on the people, the market segment and the business processes concerned.

"The Pink Agile Framework stands for an end-to-end Agile approach that can be implemented within the entire organization, from Marketing and Sales to Software Development and Management."

One thing is certain: Agile is an important tool for making companies more alert and for improving business project results. In fact, this alertness, or agility, is a must in a time when technological developments take place at such a rapid pace. Companies that are not able to keep apace with these developments in a flexible and decisive way, will, sooner or later, see their traditional business model evaporate into thin air. And this while they have the feeling that they really are very actively involved according to the old-fashioned waterfall method with formulating plans and strategies that are suppose to guarantee the future of the organization.

Agile provides organizations with practical tools to replace their old-fashioned methods for project and change management with a more flexible, less hierarchical and, most of all, more creative way of working. This is the essence of this White Paper. How can you use the Agile ideology to your advantage in order to transform a traditionally organized company into a modern, Agile organization that is ready for the future?

Contents

In this White Paper we will discuss the following subjects::

Agile

A quick and flexible development method that uses time-bound, iterative processes and evolutionary development methods. Agile uses a variable planning, stimulates a rapid delivery and contains different values and techniques that allow for flexible and rapid changes in the process. The distinguishing feature of Agile development is that it responds flexibly to changes that may occur in the course of the development process.

HISTORY OF IT PROJECTS

A common phenomenon with regard to large IT projects is that, in many cases, they are not completed successfully. They do not live up to expectations, are delivered with a greatly exceeded budget or are cancelled halfway. This particularly seems to apply to traditionally organized IT projects. The success percentages are considerably higher for projects that are carried out according to an Agile methodology. But what are the exact reasons for the miserable quality of traditional IT projects?

Waterfall Method

The traditional way of developing software is also referred to as the waterfall method. Simply put, a project conducted according to the waterfall method consists of a long planning and preparation phase, followed by the development stage, at the end of which the complete final product is delivered all at once. Practice shows, however, that the delivered solution often does not correspond at all to what the organization really needs. Research conducted by Gartner, for example, has shown that an average of 31 per cent of IT projects are a complete failure. As for the projects that do succeed, it appears that 47 per cent of the delivered functionality is not used in actual practice, and that 29 per cent of the desired functionality is never delivered. The main reason for this is that, in a waterfall project, all the requirements of an organization are collected during the planning phase and are then included, without applying any priority, in the desired final product. Because of this, the IT project becomes an objective unto itself, instead of being based on concrete business objectives. End users often do not play any role in this kind of development process, so that the final product does not fulfil the requirements of the organization. In addition, the process does not provide for any time to verify whether the objectives are achieved, so that all these shortcomings become apparent when it is much too late. Finally, in a waterfall environment, the requirements and costs of IT projects are completely planned in advance. Because of this, project managers avoid uncertainties and therefore end up planning much too cautiously, so that the costs almost always end up higher than originally planned. In addition, all kinds of political agendas can play a role, which, in combination with hierarchical decision procedures, can slow down the decision-making process considerably.

Emergence of Agile

The official birth of the Agile ideology was in February 2001, when, during a conference in the state of Utah, seventeen software developers drew up the Agile Manifesto. Among them, Scrum founder Jeff Sutherland and the Dutchman Arie van Bennekum, who also played an important role in the development of the Pink Agile Framework.
Before this, various Agile-like methodologies that propose a new approach to software were already emerging, including Lean, RAD (Rapid Application Development), DSDM (Dynamic Systems Development Method) and Scrum.

The common feature of these new methods is their emphasis on innovation through sharing knowledge and best practices. Thus, the objective of the Agile Manifest is to determine all the principles that these methods have in common. During this important meeting in 2001, the four basic principles, twelve supporting principles and the collective term of Agile were devised.

MANIFEST FOR AGILE SOFTWARE DEVELOPMENT
• **People and interaction** before processes and tools
• **Software that works** before bulky documentation
• **Consultation with the client** before contract negotiations
• **Responding to change** before following a plan

12 UNDERLYING PRINCIPLES OF THE AGILE MANIFEST

1. Our highest priority is to satisfy clients by delivering valuable software quickly and regularly.
2. Welcome changing requirements, even if they come up at a late stage in the development process. Agile processes use change to give the client a competitive advantage.
3. Deliver functional software at regular intervals. Preferably once every few weeks, at least once every few months.
4. During the entire process, business representatives and developers must work together on a daily basis.
5. Build projects around motivated individuals. Give them the working environment and support they need, and be confident that they can do the job.
6. The most efficient and effective way of sharing information in and with a development team is by talking with each other.
7. Software that works is the most important measure of progress.
8. Agile processes promote durable development. Clients, developers and users should always be able to maintain a constant development speed.
9. Paying constant attention to a high technical quality and a good design strengthens the agility.
10. Simplicity, or the art of maximizing the amount of work that is not done, is essential.
11. The best architectures, requirements and designs emanate from empowered teams.
12. At regular intervals, the team examines how it can work more effectively and adjusts its conduct accordingly.

ADVANTAGES OF THE AGILE METHODOLOGY

Thanks to the Agile Manifest, all kinds of flexible development methods have been included under a common denominator. This has strongly improved the acceptance and adoption of the ideology within organizations since 2001. But what are the advantages of Agile for your organization? And is it of any use for companies that are not directly involved in software development?

Responding to Change

One of the most important advantages of Agile is that it makes companies more alert. Nowadays, organizations must respond with increasing speed to market changes and the wishes of clients. Agile is a response to the desire of organizations to change, to innovate more and to work with IT closer to their business. By developing agilely, IT projects become business projects.

Doing Business in a People-Driven Way

By working Agilely, you can use the motivation, knowledge, experience and creativity of the employees of an organization in a better way. You partly break away from hierarchical power relations and a budget-driven strategy and replace this with a holistic approach, in which the various business units are connected in a natural manner. This social, people-driven way of doing business usually requires companies to undergo a drastic internal culture transformation.

Making Services Accessible Online

Organizations that want to transfer their traditional 'offline' business model to the Internet can, in fact, not do that without Agile. Agile has practically become the standard procedure for virtually every developer or IT service provider that advises clients about optimizing the use of the online channel. In the online world, you always work at the cutting edge of process, information and organization. This is the most effective way to reach, serve and keep clients.

Optimizing the Internal Organization

Agile is not only useful for companies that are involved in software development. For any project-driven working environment where functionality, products or other items are provided, Agile provides the necessary tools to steer these processes in the right direction and to achieve results within short periods of time. By working agilely you break away from your traditional way of planning, decision-making and project management, and self-managing teams then become responsible for projects that are organized with a view to quickly adding value to the organization.

Traditional	Agile
Reactive	Proactive
Focus on control	Facilitating
Activity focus	Product focus
Work for	Work with
Reproach culture	Not a reproach culture
Obstructs change	Responds to change

Traditional IT projects versus Agile projects

PINK AGILE FRAMEWORK

Companies that have switched over to Agile know that this methodology brings about a drastic cultural transformation within the organization. Old organizational conventions need to be abandoned and the new ways adopted to manage the organization. As stated earlier, Agile is just a collective term for various different methodologies that have many elements and terms in common. Scrum is the best-known Agile method, but, although it is very suitable for software development, it is less suitable for other departments within organizations, like Sales, Marketing, Finance and Management. Outside of software development, DSDM (Dynamic Systems Development Method) is often used as a methodology. Unlike Scrum, this method has been designed to work with a variety of projects. Eventually, though, every company is free to choose a suitable Agile methodology and to implement it at their own discretion, depending on the situation. Agile is not a method, so everyone can decide for themselves which tools they want to use from the available methodologies. In 2012, Pink Elephant switched over to Agile and developed its own methodology that is used both within the organization and in the interaction with clients: the Pink Agile Framework. This method consists of a combination of elements of DSDM and Scrum. Simply put, DSDM is used for project management purposes, whereas Scrum is used for software development purposes. Therefore, the Pink Agile Framework stands for an end-to-end Agile approach that can be used in the entire organization, from Marketing and Sales to Software Development and Management.

"Working agilely is about combining the knowledge and skills in order to achieve collectively a successful end result. In our case, things worked out so well that we started to consider the people of Pink Elephant as colleagues rather than as the hired party."
Frank van Donk, Manager of Delta Lloyd ESC

Personalized Toolbox

Depending on the situation of the client and the complexity of a project, the contents of the toolbox of the Pink Agile Framework are used more or less extensively. The approach is focused on the type of projects and clients that Pink Elephant usually works with. This means that unnecessary complexity has been eliminated, making it easier to work agilely for companies that do not yet have any experience in this field. By using this personalized toolbox, Pink Elephant is, in cooperation with clients, able to keep full control over a project without losing flexibility.

PINK AGILE FRAMEWORK KEY TO SUCCESS AT DELTA LLOYD

A particularly successful example of an Agile development project is the eXpo business application developed by Pink Elephant in cooperation with the Delta Lloyd Expertise Center (ESC). The organization was forced by market developments to improve its operational efficiency and to develop a new business model that would allow the company to distinguish itself in the market. Delta Lloyd found a suitable business partner in Pink Elephant, that proposed a way to realize the project using a combination of the Pink Agile Framework and the Mendix application platform. According to Frank van Donk, manager of Delta Lloyd (ESC), this combination has been the key to the success of the project. "We did not have any experience with Agile. In many IT projects you have to beg for capacity from the business, but in this case, it was the other way round. Our employees were very keen to cooperate, since it they were given the unique opportunity to build the system themselves that they would work with later. Working agilely is about combining the knowledge and skills in order to achieve together a successful end result. In our case, things worked out so well that we started to consider the people of Pink Elephant as colleagues rather than as the hired party. Our colleagues took part in the brainstorming with so much enthusiasm and so constructively and were sometimes negotiating with Pink Elephant from early in the morning until late in the evening. This is how agility is supposed to work."

ADVANTAGES OF TRADITIONAL VERSUS AGILE WORKING METHODS

Experience has shown that at Pink Elephant, Agile projects yield much better results than traditional waterfall projects. Therefore, Pink Elephant chooses to, as a rule, work with clients on the basis of the Pink Agile Framework. A summary of the advantages of working agilely with Pink Elephant:

• Project members work together more efficiently and more effectively.
• The close interaction between the members of a project team, consisting of employees of the client and of Pink Elephant, leads to better results.
• An immediate response to new insights during the process is realised.
• An immediate response to the changing requirements of the client is realized.
• Functionality that immediately adds value to the organization is delivered more quickly and regularly.
• During Agile projects, ways of improving the performance of the project team are constantly examined.
• By running projects agilely, the development time and the budget can be managed much more efficiently.
• Products that are carried out agilely deliver a much higher degree of acceptance within the organization and result in a better Return on Investment (ROI).

There is a clear difference between traditional projects and Agile DSDM projects in terms of elements like functionality, quality, time and costs (see Figure 1). In the traditional situation, the functionalities (functions) are invariables that have been laid down in a contract. Quality here is partly invariable and partly variable. Both time and costs are fully variable, since what has to be delivered has been laid down in a contract. It consequently has to be done this way, regardless of how much time or money you invested in it. Therefore, the obligation to deliver all the previously determined functionalities is often done, at the expense of the quality delivered. In Agile projects, the pyramid is turned upside-down: time, costs and quality are all invariables. Only the delivered functions are variable. They are only determined during the development phase. Here, the balance tips in favour of the objectives of the organization: achieving quality is more important than delivering functions that you may not need at all. In addition, Agile projects have fixed delivery periods and costs, making them much easier and better to manage.

Traditional Working Method
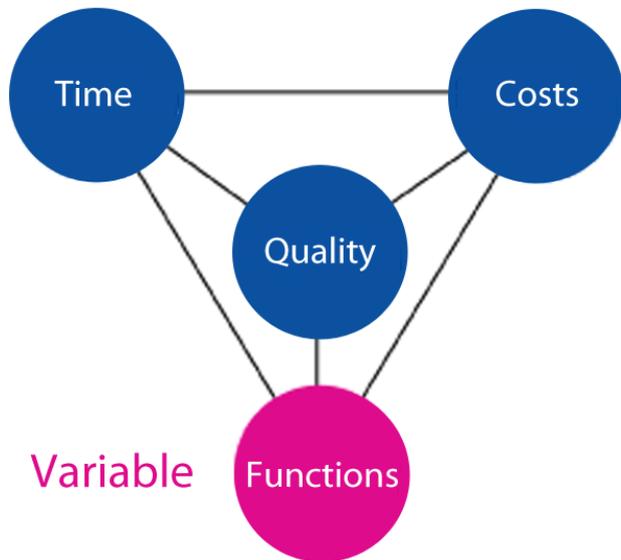
Invariable

Variable
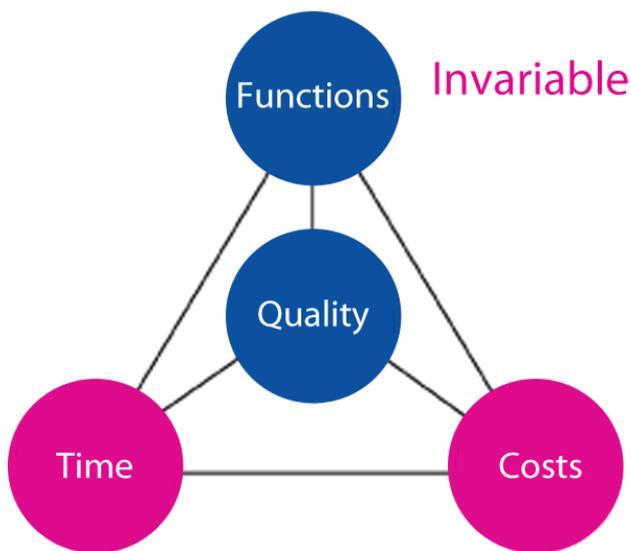
Agile Working Method

Figure 1 Traditional projects (L) versus DSDM projects (R)

BASIC PRINCIPLES

A central aspect of Agile projects is that neither the client nor the IT service provider knows what the final solution will be. The final basic functionality is clear, but the details of its implementation are not yet known. During the project, the best way to realize this is explored. By progressively gaining more detailed understanding and by regularly delivering segments of functionality, a project team gets closer and closer to the final solution. Essential for the acceptance of Agile in organizations is, therefore, that you have to give up the idea that you can deliver a good product on the basis of requirements that have been formulated and laid down in a contract before the start of the project. The five most important basic principles are:

• Prioritize requirements and functionality on the basis of value
• Reduce feedback loops in the process
• Empower teams with in order to accelerate the decision-making process
• Implement improvements in a short, cyclic and iterative way
• Constantly deliver working software

FIVE PROJECT PHASES

Pink Elephant divides its projects into five phases (see Figure 2). The first phase involves assessing the feasibility of a project, on the basis of, among other things, a business case and a technical assessment. In this phase, the objectives of the project are determined, and to what extent they are feasible and what their benefit will be for the organization.

Agile Foundations

Directly following this are the Agile Foundations. Here, a solid project foundation is laid down in three areas, the Business Foundations, the Solution Foundations and the Management Foundations. In this phase, the right people from the various organizational layers, who have to carry out the project, are brought together. Their roles and mandates in the project are determined during this phase. By focusing on these essential aspects of the project, the various departments of the company gain a better understanding of the project, and the Marketing and Sales departments can, for example, achieve a much better connection with the objectives of the business or client.

Evolutionary Development

The remaining project phases are Exploration, Engineering and Incremental Deployment. These phases have to do with the actual development of the solution, involving the constant delivery of parts of the eventual functionality in short periods of time (time boxes). By constantly repeating this process, one keeps getting closer step by step to the final product. This type of evolutionary development makes it possible to respond to changing insights during the course of the project. The development team also takes responsibility, during the process, for the management of the newly delivered solutions and, by doing so, keeps its sights on aspects like performance, capacity, security, support and maintenance.

Exploration and Engineering

After the first two phases (Feasibility Study, Foundations), in which the functional and technical possibilities of the project are investigated, the development phase begins. The Exploration then follows, during which, together with the end users, work is done towards realising a concrete prototype of the final solution in a number of iterations. If this prototype meets the overall requirements and wishes of the client, the Engineering phase begins. In this phase, the architecture of the solution is determined and the framework is established for the phase in which the final solution is realized, based on Scrum.

Deployment

In the last phase (Deployment), the system is transferred from the development environment to the production environment in order to subsequently be implemented. Prior to implementation, a user manual is written and in many cases users receive a training, after which the system is handed over to them. If there are a large number of users, the implementation period can also be extended over a particular period of time.

Project review

Finally, after the implementation, a project review is written. In this document, the outcome of the project is summarised. On the basis of the results, the subsequent strategy and possible further development of the delivered product can also be determined.
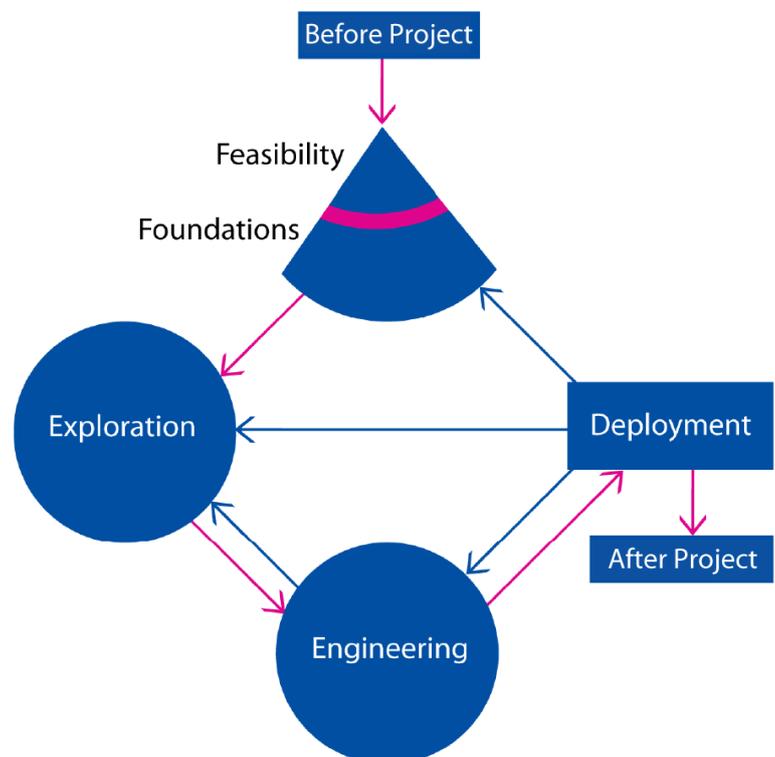

Figure 2 The Pink Elephant project approach is divided into five project phases

ROLES AND RESPONSIBILITIES

Pink Elephant's project approach has specific roles for users and developers (see Figure 3). The number of roles depends on the size and complexity of a project. Furthermore, a person can have several roles.
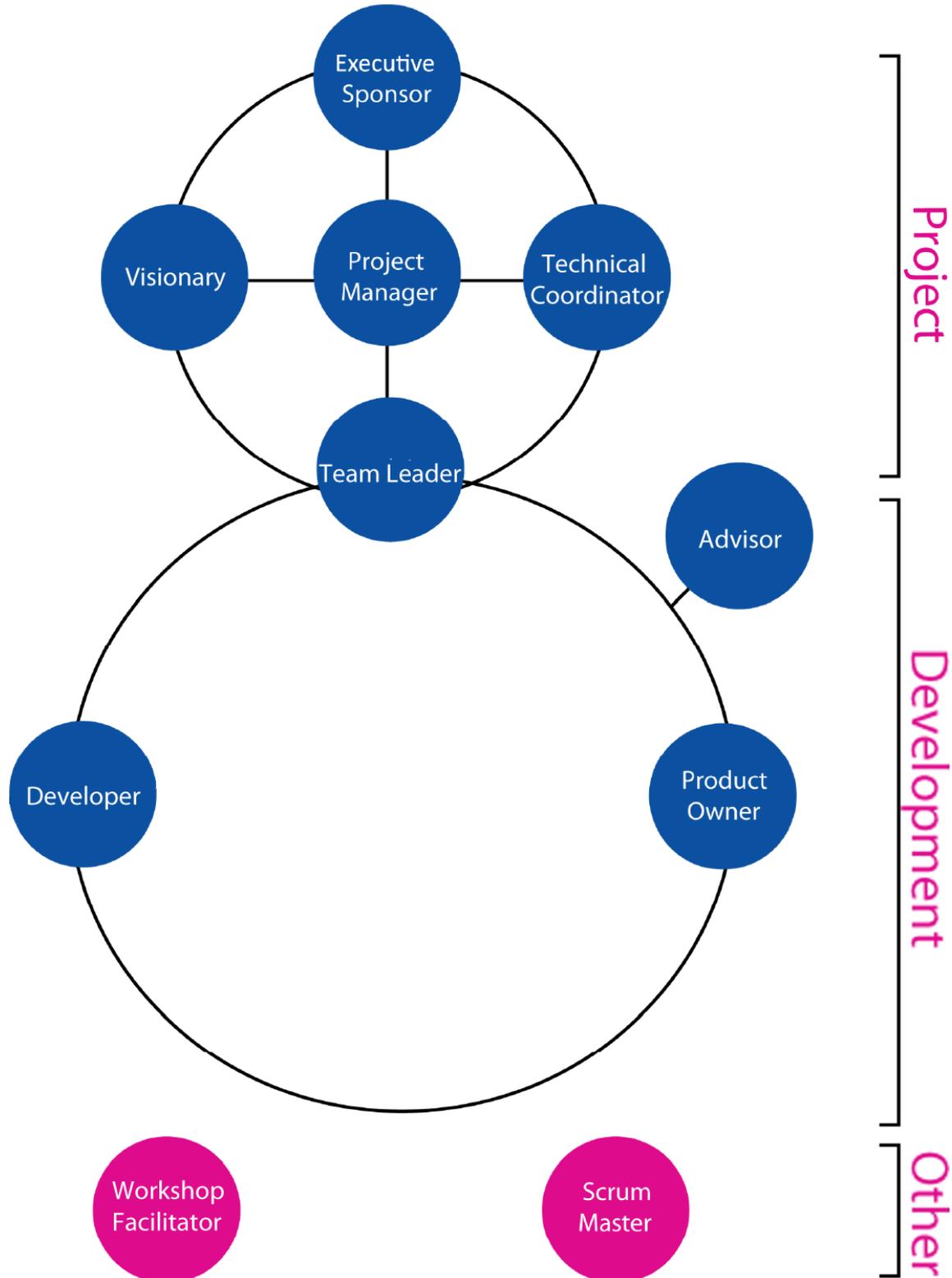
Figure 3 Roles in the Pink Agile Framework

CLIENT ROLES

• **Visionary** – This is usually the person who designed the project and is responsible for creating and spreading the idea at the client side. He ensures that the most important requirements are being documented as quickly as possible and that the project remains on track, even though views may vary in the course of the project.

• **Executive Sponsor** – This person is the financial authority and as such is responsible for the project at the client side. He ultimately takes the decisions.

• **Product Owner** – He is the ambassador of the project and this important role will be filled in by the client. This person represents both the company and the end users, and communicates on the progress of the project. However, the Product Owner cannot represent all user groups, which sometimes necessitates another role, that of Advisor. This person for instance could represent an important point of view from the (user) organization.

PINK ELEPHANT ROLES

• **Developer** – This role includes all developers in a project, ranging from analysts, designers, programmers to testers. The exact composition of the team may differ for each project, but the aim is to compose a multi-disciplinary team, in which a person may have more than one role.

• **Scrum Master** – This is the coach of the development team, the person who checks whether the team complies with the rules of Scrum and who maintains the focus on the envisaged targets during the Sprint. He helps to improve the team's performance, facilitates the Scrum meetings and takes care of the project planning and coordination. This role is often combined with the developer's role.

• **Technical Coordinator** – This person defines the system's architecture and is responsible for the technical quality of the project. It includes technical monitoring, such as the use of software configuration management.

• **Project Manager** – This person is responsible for the commercial, technical and delivery aspects of the project and ensures the direction and the coordination of the project at management level. This means that he monitors the client's expectations and reports to the management about planning and delivery.

Team size
Pink Elephant IT project teams preferably are multi-disciplinary and self-managing. The ideal team size is between three and six members. The minimum is three, as a team should contain at least one user representing the client and two developers. The maximum is six, as in practice it has proven that larger teams do not lead to a better performance.

Site
Scrum's success is that all members of the project team have to meet each other in person regularly. This is needed to make arrangements and to make full use of the interaction between the team members and the creativity that comes out of it. The preferred approach of Pink Elephant is to realize a large part of the solution on site at the client, as this helps to enhance the feeling for the client's demands as much as possible.

WHAT IS SCRUM

Scrum was devised in 1995 by Jeff Sutherland and Ken Schwaber. They examined the principles of successful projects and used these to formulate a set of rules that provide certainty in situations in which creativity, commitment and collaboration of teams is needed to create solutions quickly.

Sprints

In Scrum a team works in Sprints, each lasting one to two weeks, to realize an operational product. The various parts of functionality which are delivered in these Sprints come from a Product Backlog, a list sorted on priorities, which is drawn up in the first three stages of the project.

Product Owner

The Product Owner represents both the company and the IT. He protects their interests and makes sure that the development team is working on the appropriate functionalities. He does so by formulating so-called User Stories (see text box) and to prioritize them in the Product Backlog.

Product Backlog

The Product Backlog defines the distinctive elements of a product, sorted on priority. In the normal course of events, this is a dynamic document and contains rough estimates of both the business value and the development effort to realize a piece of functionality (User Story). The Product Owner uses these estimates to define a time line for the delivery of each piece of functionality.

User Stories

Scrum IT projects are composed of User Stories. These are being drawn up by the development team and the Project Owner. Instead of defining the requirements of a solution in great detail and from the technical perspective, User Stories are readable and short descriptions without too many details, containing only the essential aspects.

This fits the idea that the work is carried out from the user's perspective. User Stories do not contain details, which forces the development team to ask questions to the Product Owner. As such, User Stories save time and what's more is that they ensure much more interaction between developers and users.

Sprint Planning

The Sprint Planning is a short meeting in which the Product Owner informs the team of which parts of a Product Backlog are included in the Sprint. The team then decides on the basis of the complexity of the distinctive parts to what extent they may meet the Sprint Backlog.

During a Sprint the functionality in a Sprint Backlog cannot change, in other words, the development effort is time boxed. Functionality that has not been realized within a Sprint, will be returned to the Product Backlog and given a new priority. At the end of each Sprint, the team shows the functionality they have realized.

CLIENT SATISFACTION

In traditional waterfall projects the usual method of operation is that a large group of persons works on the development and delivery of one big solution for a longer period. In this model, all strategic targets and product characteristics are being defined and laid down in an agreement before the start. Only at the end of the project it becomes clear whether the product actually meets the expectations, which often is not the case. The primary reason for the poor results of this outmoded method is that in the course of the projects no attention is given to changing views of developments in the market. The focus is set only on delivery of pre-defined products.

A far better alternative is to opt for an Agile project method, such as the Pink Agile Framework. A small group of persons will work in shorter periods on the frequent delivery of smaller partial solutions of which the organization immediately benefits. In the course of this creative process, the focus is always on new ideas and possible shifts of priorities, which leads to a better end product in each sprint. In Agile projects, the client's demands and how these translate to end users are of primary concern. Interaction and cooperation with the client is central in order to guarantee the best possible end product and the highest possible client satisfaction rates. Agile has many advantages for almost every organization which needs to follow the market dynamically. It enables companies to introduce new products and services much faster and it ensures higher quality projects – whether or not IT related – and better conformity with the original demands.

Pink Elephant has extensive experience with Agile-driven business projects in various market segments, including financial services, health care, public authorities, insurances and logistics. Business and management consultancy are complemented with Business Services, IT Services and Education Services, which combination provides you with the appropriate means to achieve the best results with the expertise and creativity that can be found in your organization. Paramount in projects executed according to the Pink Agile Framework, is that the work is always carried out on the basis of clearly defined strategic business targets and that the projects always focus on fast delivery of tangible results for the organization. The Pink Agile Framework introduces you in an accessible way to the Agile methodology developed by Pink Elephant. You are always at the helm of your business project in which new functionality is being delivered at a high speed, sailing towards an end product that fully contributes to your business targets.

Would you like to know how to deploy the Pink Agile Framework to improve the effectiveness of your business projects? Our experts will be pleased to discuss the options with you. Please contact Pink Elephant.