

Engineering Director

THE FOUNDATION PHASE





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O1 INTRODUCTION

In a world of increased digitalization and hyperconnectivity, **deploying the best digital solutions is a prerequisite for exceeding customers expectations** and ensuring business success. Organizations that become truly agile and implement a culture of continuous improvement, will have a true competitive advantage.

The Covid-19 crisis acted as a catalyst in this direction as companies saw consumers move dramatically towards online channels in a matter of days. Under this new pandemic paradigm, even the most reluctant businesses had to turn to technology to maintain daily operations and avoid threats. As many of the predicted changes become permanent post-pandemic, digital transformation initiatives will continue to multiply and their implementation will become even more important.



Despite such high stakes, a Standish Group Chaos Report found that only 29 percent of IT project implementations are successful, and 19 percent are considered outright failures. Other findings are concurrent. Research from McKinsey found that 17 percent of large IT projects go so badly, they are threatening the company.

And for those projects that do get completed, 38% of them do not finish on time (Gartner). In general, **IT projects that tend to take too long, are usually more expensive than expected**, and, crucially, do not deliver the expected benefits.



71% technology projects end in partial or total failure.

Statistics for software project delivery show that only one in three software projects are truly successful. According to Standish Group's Annual CHAOS 2020 report, 71% of technology projects (based on the analysis of 50,000 projects worldwide) end in partial or complete failure.

So, **the big question** is - How can companies avoid the high costs of such failed projects and avert from the risk of catastrophic organisation-wide problems?

Implementing a Foundation Phase might be the answer.



Why do companies need a Foundation phase?

Today's digital transformation projects are increasingly complex, and companies usually have to deal with multiple implementations at the same time. Between legacy systems, silos, multiplying tech stacks, and a seemingly never-ending array of new technology solutions, it can be difficult for companies to navigate the digital landscape and achieve their desired results while maintaining a competitive advantage.

When projects begin, the reasons for their subsequent failure can be numerous: unclear initial scope
 shifting expectations
 lack of technical expertise
 inadequate resource allocation
 lack of thorough planning
 unclear governance
 failure to set clear goals related to actual business value return
 failure to set clear end-user experience guidelines and objectives
 failure to adequately address non-functional requirements such as as scalability, security, system availability and many others

Furthermore, **even if the project is delivered, it may not achieve the desired results**. This is because some companies fail to set clear goals in terms of actual returned business value, end-user experience, properly identifying and implementing into the system, and many others. This means that even though the result might be ok it will not meet user expectations, business needs, or technical requirements.

Based on its extensive experience in guiding companies on their digital transformation journey, Cegeka has developed the Foundation Phase – a pre-development process to **help companies clearly define their business needs, their pain points and objectives**, identify the non-functional requirements and how the technology will bridge the gap between them. By starting with a Foundation Phase, we can minimize the potential issues that may arise during the implementation phase and maximize project success, while ensuring that end-users receive an experience that is tailored to their needs and context.



What is a Foundation Phase?

A process designed to help companies maximize project success that takes place before the project starts. At Cegeka, we start every complex software development project with a series of workshops to fully understand your organization, your needs, and your expectations, define the scope and identify the technical solution. And all of this is done in close cooperation with your team. This pre-implementation phase helps us to fully understand your company's specific goals and enables us to suggest the best way to achieve them.

During this step, you as a business can understand what technology solutions are available and how they can be implemented for your context. This is key as it allows your organization to test the waters without wasting valuable resources pursuing the wrong thing.

> A cross-functional Cegeka team – consisting of project managers, domain experts, business analysts, architects, and senior developers – listens and talks to the company's business and IT people. The outcome of these sessions is an overview of the business drivers, the high-level project scope, the technical solution, including functional as well as non-functional requirements, risks, and a complete budget estimate.

By business drivers we understand the goals, actors, impact, and the deliverables. As for the high-level project scope we refer to the **application context, business processes, conceptual model using story mapping or other techniques**.



Our approach at identifying projects needs as well as defining a plan of action



The Goal and deliverables of a Foundation phase

The goal of the Foundation phase is to clarify the scope and approach for the targeted solution to be built. It consists of assessing and analyzing the AS-IS state, if any, defining the TO-BE state and the high-level architecture to meet both functional and non-functional requirements (e.g., performance, scalability, etc.). It does not include the development and implementation of the Project. During this part of the process, it is imperative to **understand the business requierments and processes** as well as clearly define the business objectives.

A Foundation phase

focuses on 3 perspectives: **The Business Objectives** – this involves determining the project requirements, priorities, and relevance to the business needs.

2 The Solution Objectives – this includes all the business processes that will be supported and identifies all the information that will be used by the proposed solution. The strategies for deployment and the technical implementation standards will also be described.

The Management Objectives – this identifies the appropriate leadership and organization for the project and details the solution development lifecycle and all the techniques to be used. A schedule for development and deployment activities and project risks will also be outlined.

The foundation process provides the client with a **high-level architecture of the application** that he wants to be developed, as well as the documentation that can be used in an RFP.



The 7 pillars of a Foundation phase

05 THE ADVANTAGES

Another valuable outcome is **the ability to determine the feasibility of the project and its cost-benefits ratio**. If all the information indicates that the project is too costly, too timeconsuming, or too difficult to implement, other alternative solutions can be sought. Otherwise, if the project is worth pursuing, the implementation restrictions will be established to allow for a successful implementation. In addition, **you have the opportunity to validate their ideas and have the flexibility to implement the project at a later date** without having to commit to a full end-to-end project implementation in advance.

Implementing a Foundation Phase can have numerous advantages. First, the experts needed to successful complete the IT projects can be clearly identified. Given today's shortage of technical professionals, it is **critical to determine exactly which experts are needed for each project** implementation.



This allows us to select the right expertise from our extensive talent pool, and quickly scale to **successfully develop the digital solution your company is aiming for**. Also, at the end of this process, a high-level architecture is created that clearly outlines the proposed solution. A project implementation plan will also be created, considering all resources needed: the right expertise, time and budget.

06 TIMEFRAME & RESULTS

The Foundation proposal comes in one of the following scenarios:

SCENARIO 01	When you need help in gaining clarity and defining the direction of the to-be solution.	SCENARIO 02	When you need more structure or a coherent perspective from a software development point of view, respectively the development of the to-be solution.
SCENARIO 03	When you want a strong partner to get added business value or expected usability.	SCENARIO 04	The fact that according to our methodology we go into a certain level of detail also provides a greater accuracy in estimates.



The Foundation phase can usually take between two weeks to one or two months depending, on the complexity of the project, existing documentation, in-house knowledge, the clarity on what needs to be built to add business value, the technical complexity, and the needed integrations.

By the end of the Foundation Phase, the scope of the project will be clearly defined and will **include both functional and non-functional requirements**. In addition, a TO-BE architecture of the system to be developed will be created to enable efficient implementation. Estimates and a roadmap based on the two deliverables defined above will also be given so that the implementation of the project can begin shortly after.

Main deliverables:



- The TO-BE architecture of the system
- Estimates (cost estimate) & roadmap
 based on the two deliverables defined above



Following the main deliverables, the next step is to start implementing the project.

07 CONCLUSION

Software development projects are not doomed to fail by definition. There are sure ways to avoid failure. Implementing a **Foundation Phase** is one of them.











1992 Founding date of the family-owned company







12 Offices in European countries







High performance & redundant data centers

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Cegeka's Service Offering:

APPLICATIONS

- Software Product R&D
- Application
 Development &
 Maintenance
- ✓ IT Staffing

INNOVATION

- End-to-end IoT solutions
- RPA (including RPA as a service)
- Artificial Intelligence
 / Machine Learning

MANAGED SERVICES

- Send-user management
- Application & infrastructure management

09 GET IN TOUCH WITH US

Are you looking for a partner to help you define and clarify the scope of your IT initiatives, or are you interested in seeing how our team could ensure your project's success?

Get a preview if your Foundation Phase today.

Book a call with:

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 www.cegeka.com/devtalks-foundation-phase



Andrei Pavel has been in the software development industry since 2006, which has allowed him to explore a whole area of technologies, methodologies, verticals as well as roles and responsibilities, and as he puts it: "It's been and still is a fun and fulfilling ride, not without challenges of course".

Experience

- 15 years of experience in software development
- Over 25 successfully completed projects out of which 85% in time & budget from very high complexity to medium complexity
- Experience in a variety of industries and domains including insurance, real estate management, healthcare, telco, document management systems, social apps
- Several consultancy projects for digital and agile transformation, including software delivery processes, engineering practices, project and program management, quality requirements management, as well as organizational management and people leadership and processes
- Coordinates multiple software development teams, across multiple industries and technology stacks

