

# 9 challenges of software development outsourcing



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# INTRODUCTION

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Technologies have become an integral part of business, not only optimizing it, but often enabling it. Building internal units of software development and R&D is problematic due to the cost and scale of difficulties in attracting specialists and further maintenance and management of such a department. Companies that have them also need to **contend** with serious problems related to knowledge management and employee turnover. That is why they support themselves with outsourcing in the implementation of their IT projects. Customers can choose from thousands of offers from IT suppliers. **Paradoxically, it is becoming more and more difficult to find a suitable partner and start cooperation effectively.**

According to some sources, even 84% of digitalisation projects and more than half of all IT projects were not immediately successful. The criteria for this assessment are debatable, but there is no doubt that difficulties in this field have serious consequences.

We want to build a bridge of understanding between business and technology. Hoping that this publication will help in this regard, we have identified 9 key challenges that stand in the way of successful software development outsourcing. They were later divided according to the area they concern: choosing a partner, concluding a contract or implementing cooperation.

**The aspects of the process that always generate the most doubts and difficulties have been given most attention. Moreover, having tested numerous tactics of coping with difficulties, we show those that have brought the greatest value to our customers.**



# THE QUESTIONS WE WILL NOT ADDRESS

## To outsource, or not to outsource?

Of course, the answer is yes, if the assessment of the situation indicates to do so. The average time to recruit an engineer in Europe is 56 days.<sup>1</sup> Before you build a team ready to carry out your project, your business need may become outdated. If you want to deliver an effect quickly, start with outsourcing. You can build structures within the company in parallel.

## Will outsourcing of software development pay off for you?

You know best what will pay for you. Both in terms of business and budget (cheaper does not always mean better for business). You have deep understanding of the needs and capabilities of your company.

### Why do companies decide to outsource?<sup>2</sup>

**59%**

a cost reduction tool

**57%**

they can focus on their  
core business

**47%**

a solution to the problem  
of availability of internal  
resources

**31%**

enhancement of the quality  
of services

**28%**

connecting to the company's  
critical needs

## Nearshore, onshore or offshore?

We have clients in onshore and nearshore models, but are also open to the offshore model. The choice of the cooperation model depends on the specificity of the project. Some require close cooperation and regular face-to-face meetings, others entail remote coordination.

Note, however, that among the 14 directions of software development outsourcing, compared in terms of their settlement rates, market size and several other criteria, Poland ranks first among the countries of Central and Eastern Europe<sup>3</sup>, and our programmers are always at the top of many rankings of the best experts in the world.

In the outsourcing industry we use the concepts of onshore, nearshore and offshore to determine the distance of the geographical zone that separates the client from the outsourcing company.

Onshore occurs when we outsource a task to a company from the same time zone, usually in our own country.

**Nearshore**  
in case of +/- 4 time zones difference

**Offshore**  
when this difference is above 4 time zones.

## Why is it better to work in Agile?

Working in Agile is not only a good practice, but also a standard benchmark. Regardless of whether your organization is agile or not, the best way to create software is to use it. Deciding to cooperate, you do not have to immediately transform the entire management style in your company. With the right maturity of the person responsible for the implementation of the project, the friction at work can be properly eliminated.

# Main agile methods of programming:

## Scrum

Implementation of the project is divided into smaller parts, which production should last no longer than a month (sprints). Each part should bring a specific value for the whole product.

## Extreme programming

designed for small and medium-sized high-risk projects. It is based on synergy resulting from the application of various practices and observations of other successful projects.

## FDD (Feature-driven development)

its main objective is to enable the production of useful programming in a repeatable and effective way, providing reliable information about the state of the IT project to all its users with a minimum margin on programming work.

## TDD (Test-driven development)

was originally a part of extreme programming. In this technique, the programmer first writes tests for a function that has not yet been written. Then the construction and implementation of functions and refactorization of the written code is carried out.

## Lean software development

focuses on seven principles: creating quality and consistency; strengthening knowledge acquisition; making decisions as late as possible; implementing as early as possible; respecting the team; looking at the whole



Agile was created as an alternative to classic cascade project management methods. The starting point was to observe that the recipient's requirements evolve during the course of the project. Characteristics of Agile methodologies (Agile refers to the whole group) is the work of in self-organising teams and the iterability of product delivery. The basis for this is the continuous process of collecting feedback between the supplier and the recipient of the project.

# CHOOSING A PARTNER

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Choosing the right company to outsource an IT project depends on whether your project resembles constructing a bicycle or rather a space rocket.

Of course, there is room for innovation in both, and work standards should be at the highest level. However, a company accustomed to creating rockets will almost certainly be able to handle a bicycle perfectly. However, it is difficult to expect the opposite.

The more innovative, complex and connected with other systems in your organization this project is, the more attention should be paid to the selection of potential companies and their proper testing.

How to get down to it?  
Check out our advice below!



# Challenge 1

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## Identifying potential suppliers

### Where's the risk?

**28% of outsourcing companies admitted in the Deloitte survey that they should have devoted more time to selecting their suppliers.**<sup>4</sup> We often observe the following scenario in our environment. There is a business need in the company and next a proposal to carry out a specific IT project. For weeks or months there is a discussion about the conditions for its implementation, while the initial need is becoming more and more pressing. Finally there is a positive decision! However, the competition imposes a deadly pace and the members of the organization would like to start the project immediately! The only thing left is to find a partner, and nobody wants to risk wasting time for the research. A superficial review of the options is carried out. Then, having no time for a thorough analysis, the choice is made on the basis of either cost or delivery time.

In this case, the first disappointments can quickly occur which is the more fortunate option, because the detected errors can be effectively repaired in a timely manner. However, we know of cases where a project left to itself (or rather to the IT company itself) missed the customer's vision, and the customer learnt about it almost on the agreed deadline.

It doesn't require huge imagination to understand the costs of such a situation. Unfortunately, some decision-makers underestimate the importance of matching the company and its technological partner. They do not understand what the problem with choosing an IT solution provider is, since all these companies are so similar to each other. They think: what could possibly go wrong? It seems to them that it is enough to check if the company has the right technology and its offer will fit within the budget.

Accelerance, a global consulting firm specializing in evaluating software development suppliers, describes the problem as follows:



Beware of treating IT project outsourcing as a sub-product purchase (where all options are equivalent). Low service costs cannot replace an acceptable level of service quality. Choose a supplier with reasonable and competitive rates for your region and you will be more satisfied with the process and results – which will ultimately lead to savings in other areas.<sup>5</sup>



## How to protect yourself?

Psychologists indicate that one of the biggest obstacles to decision making is an excess of information related to it. If we do not know how to determine the most important selection criteria for us and reduce the number of options – we will probably be guided by a luck.

And how do typical business partner searches proceed? The person in charge of this will browse the intranet a little, ask friends related to their work, or at best look through the industry associations and their business card archive, and thus write down a few company names.

Which software houses will be on your list is largely the result of a mere coincidence and there is no need to pretend otherwise. However, it is possible to quickly separate the weed from the chaff. In order to make this possible, the most important search stage for you should take place before you will look for candidates at all.

## HERE'S SOME ADVICE:

# 1

### Do not wait for the green light

The project is still in the process of deliberation? No problem. By taking action now, you will be doing yourself and your organization a great service. Sooner or later you will face this challenge and in the worst case you will already have an identified situation.

# 2

### Examine your conscience

Paradoxically, the most important thing to do in this search is not to collect information about potential partners, but to think honestly about what and why you need.

What measurably helps you to define the selection criteria for companies is the answer to the question, what role should the company take towards your organization?

- Do you only need a CONTRACTOR? In principle, you are looking for additional hands to work without expecting them to take any responsibility other than following your instructions and technical processing of the issue.
- Do you need a CONSULTANT? A company that will mainly tell you how to do something and support you in the implementation, but will not be able to take over the management of this process.
- Are you looking for a PARTNER? A company that will not only help you with the implementation of your project, but will have the right level of competence to take over the leadership over the way the activities are carried out, and will even propose and lead a process appropriate to the product and available resources. In this case, the company combines the provision of hands to work, with a strong understanding of your business needs and significant organizational maturity.

# 3

### Write down what you consider to be evidence of predefined competencies

While almost any company with technical knowledge can be a CONTRACTOR, the other two roles require a more rigorous assessment. Collect a few critical assumptions to make a quick screening of the competition.

For example,

- company existence of a minimum of X years
- the company employs a minimum of X employees
- the company comes from a defined geographical area
- the company has a portfolio of projects implemented from beginning to end, similar to ours
- the company specializes in a specific industry, etc.

Then consider what would be an indisputable proof that the candidate you are considering will work in the role that you have defined?

- they will have strong references from brands that inspire your trust
- they will have an impressive project on its account, completed with a successful implementation
- they will ask questions



**Attention  
bonus!**

**To make it easier for you, we have compiled a list of questions you can use with potential suppliers.**  
You will find it at the end of this publication.

## Beware of these traps:

**1**

### **JUDGING THE BOOK BY ITS COVER**

A website is a trademark of the company. But remember - a website filled with fireworks does not say anything about the actual value of this candidate. A website that looks like it was made a decade ago should be an alert. On the other hand, if its aesthetics is at a sufficient level and it has provided you with the necessary information that you were looking for, it is enough. Still, you should not treat this channel of communication as the main factor influencing your decision.

**2**

### **FRIENDS' REFERENCES**

Did you get the recommendation from your successful friend? That's great, check this contact, but be careful. What has worked in one organization doesn't have to fit in at all with another. Treat recommendations with a big grain of salt as it is simply one of the sources of information.

**3**

### **PORTFOLIO FROM A FAIRY TALE**

Did you get twisted in your head because you were impressed by collection of logotypes in the portfolio section? It's time for a bucket of cold water. The most valuable projects in the IT world are those covered by the Non-disclosure agreement (NDA). On the other hand, making a simple banner for a website can already be counted among the projects carried out for a well-known brand by the supplier.

**4**

### **THE BIGGER, THE BETTER**

It is true that larger companies provide greater flexibility in terms of scaling resources. Probably, the maturity of processes in such an organization translates positively into quality assurance in the process of software development. On the other hand, agility in a large organization is more difficult to achieve, and even harder to maintain, which in practice may significantly affect the generation of business value for you during the project. Remember also the golden rule of scale adjustment, if they are much larger, your business will not be so important to them, if they are much smaller, you will not feel safe with them.

# Challenge 2

## Competence check

### Where's the risk?

People who decide to outsource development are divided into 2 groups.

- **In the first group there are professionals** who come from the IT world. They usually have precise expectations not only in relation to what is to be done for them, but also how. At the start, they have their preferences regarding, for example, the technologies that the supplier should use.
- **In the second group there are business leaders** who know their area of expertise and know exactly as much about IT as they need to.

It would seem that the first one has a facilitated task. He knows what to ask in order to verify the supplier's competence level. **Contrary to popular belief, both managers are in the same position and are equally at risk of being misled.** Why? Because many suppliers will provide them with the same position and the same risk of misrepresentation. Because many suppliers will get the answers they want to hear, no matter what it is. Especially if the first front line of contact for a long time remains the account manager responsible for sales or the business development manager... We do not intend to devalue the employees who perform such roles. Concluding an agreement without their participation also has many drawbacks. However, they do not replace contact with the technical part of the team.





## This is our point!

The most important thing is to start constructive talks with experts and specialists from the potential company as soon as possible, which means a real meeting or teleconference.

A popular practice is sending a request for proposal to the supplier. Its proper preparation can take several hours for a whole team. It contains important questions, and precise description of the necessary functionalities. The supplier's task is to complete the document. This process also involves programmers, managers, business analysts and anyone who can help to make the best impression on the client.

Then your organization needs to track the differences in the responses of individual suppliers and assess the content in detail. This is very time-consuming and expensive.

You can put down anything on paper. It is like a candidate's CV. Even the richest and the most professional CV, can be useless if we discover that the description is not supported in reality or when we do not share the same ideas with the candidate.

Getting down to verifying competence in this way is a relic of the past. It requires a large investment of time and effort, at a very early stage. You will get more information at a cheaper cost by simply holding a meeting.

### Note:

A common trap is the so-called "time saving" in „Business" on your side. You commission RFP ( Request for Proposals) to purchasing department or IT services, joining at the stage of negotiation or approval of the final selection. Our thesis is that their early involvement in the process saves disappointment and minimizes the risk of wrong choice. If the business departments are the beneficiaries of the product ordered by the supplier, they have the right and obligation to participate in the selection process. It often happens that your IT structures are the "guardians" of the choice. Whether this is the best solution should be determined by the type of outsourced project.

## How to protect yourself?

If your first challenge, i.e. identifying potential suppliers, is completed, you have already gathered the most important information about them. The knowledge you need before the initial meeting should be available on the supplier's website. It is best to ask all other questions in person to observe the reaction of the interlocutor at the same time. Therefore, select the most promising companies and make an appointment immediately. Arrange at least two meetings.

## The questions you should ask in person during the first meeting:

- What are the financial models of cooperation?
- Did you carry out a project similar to mine?
- What is the largest project you have implemented?
- What is your project management process like?
- What is your basic profile of a technical employee?
- What is the composition of the team and what is the value of each of its members?  
Why does it look like this and not differently?
- What projects do you carry out most often?

## The bonus question: how big is your legal department?

The answer to these questions allows you to estimate the business risk. If there is no legal office, the business models are certainly very simple. It's probably limited to hiring of individual employees per hour. On the other hand, an oversized legal office may indicate that the company focuses on the aspects of securing responsibility for the work performed, and not necessarily on the quality of workmanship. Certainly, the advantage is that the supplier has a lawyer familiar with the regulations of the General Data Protection Regulation, GDPR as probably you will be willing to secure the flow of user data.



For dessert, we suggest you still get a useful answer to the following question:

**What was the biggest failure of the provider and how did he deal with it?  
The history of the crisis and the way out of it will tell you the most about your partner's maturity and readiness to cope with your project.**

**The information you get about the supplier is essential for the further cooperation Even a more interesting insight is what the supplier wants to know about you and your project.**

There are only three situations in which the supplier will not have questions for you. Either they are convinced that they already know everything, i.e. they are in a state of unconscious incompetence. Usually this is equivalent to a lack of experience in implementing similar projects. Or, worse still, they're so self-confident. Then you can prepare for a difficult cooperation and a turnout between your expectations and the final product. Sometimes the supplier is indifferent to those answers and seems like he does not need them because at this stage the most important thing for them is to finish the contract at any price. In that case, someone else in the organisation will worry about the implementation of the project. This is a typical problem for large organisations.



Let's reverse this perspective. What questions from the supplier's part will show that you have a worthy partner in front of you?

**A weak supplier will ask you what you want to do. The average supplier will also ask you how you want it to be done. A really good supplier will ask you why... Because they want a long-term partnership and therefore need to understand your business.**

Perhaps you only need a project contractor and not an advisor or partner. However, even with simple projects it is worthwhile to approach the experience of a good R&D centre with openness. If the company tries to understand the business purpose of your project, you can almost be sure that you will find the right level of commitment here. A company that tries to understand the purpose of the project at the first meeting will provide you with more security than the one interested only in the functionality details. You will have time for that at a further stage.

The second indicator of your partner's business maturity and wisdom will be a comprehensive approach. It is a good sign that the following issues are addressed:

- What is the most important for you in this project: the quickest possible start of work, a specific date of implementation of the final product, the length of implementation, budget, quality of the final product, or perhaps post-implementation service?
- What are the safety requirements that the product should meet?
- At what level is the project to be tested?
- Do you want to have permanent access to the development environment during implementation?
- Is it possible to contact end users of the product?
- How fast do you want to deliver the product to the market?
- Do you want to have an impact on the effect at each stage of implementation?

## Note:

You will almost certainly want to receive a post-implementation guarantee for your product. It is a good thing if there is an obligation in the contract to provide such services by the supplier. On the other hand, it is not wise to set warranty terms before starting the design work, it is best to leave the space to work on that before the end of the project on a separate contract. Why? Warranty is on your side a necessary condition to start cooperation, on the side of the supplier it is a valuation of the cost of resources, which must be allocated to ensure continuity of service. Establishing an SLA and including it in the main contract, before starting work, is another place of potential money wastage, because your supplier will have to estimate the risk in finance on the basis of incomplete data and will certainly include it in the price.



**To sum up. A well-conducted meeting with the supplier should provide you with a sense of information, but also a good understanding with the supplier. In this type of projects, the quality of communication is an important factor influencing its success. Therefore, it is worthwhile to get the key members of the project team acquainted with each other as soon as possible and to determine the expected interactions between particular people and the ways and channels of communication. After gaining the conviction that we get along well, it is worth taking the next step. It is to provide a set of requirements, which will be used by the company to make an estimate and submit a specific offer.**



# Challenge 3

## Defining product requirements

### Where's the risk?

#### Good supplier:

- understands your business objectives and takes an active role in product development
- questions (in good faith) the business objectives of the product in order to provide an external point of view – with the approach to minimize workload, maximize value for users
- has the ability to determine the pace of work with a quality level guarantee
- is able to adapt tools and methods to your needs
- has the ability to adjust to changes in business objectives
- knows how to limit the scope, maintaining the guarantee of delivering the expected value and ensuring a stable pace of work at the same time



What do you see? A young girl or an old woman? Depending on your perception, you can find both. We succumb to similar illusions in documents, reading their content through the prism of our own presuppositions.

You have an important role to play in the supplier's compliance with these requirements. You have to work with a good quality specification. If you submit a document with a detailed multipoint functionality description and annual production schedule, and the supplier does not validate your assumptions in a joint workshop, this may be a red light for further cooperation.

First of all, the specification reflects an idea that people have put on paper using usually their mother tongue or English. It leaves room for misinterpretations or false assumptions, even at its highest quality. Any misunderstanding is likely to be very costly once the project has started.

It is a mystery why only a small percentage of the budget of projects worth millions of dollars is spent on analysis and specification of requirements. Our thesis: Shifting 5% of the development budget to the phase of joint workshop requirements specification brings about a 40% increase in the chance of project implementation on time, which often determines its success or fiasco.

The picture of your needs, which the company builds at the beginning of the cooperation, will influence the estimation and evaluation of the necessary resources and the resulting costs. Any mistakes at this stage trigger a series of difficulties with a ripple effect. It is enough that there will be a need for at least one more important modification or an unexpected, technical obstacle.

Finally, there is a moment of mutual frustration. The customer notes that despite formal compliance with documents, the product does not fully meet its intended use or has reservations about the UX layer, which was a side effect of the specification. The company is reluctant to make corrections because each subsequent one entails costs and reduces the profitability of work.

## How to protect yourself?

The simplest answer to this challenge is to use an agile model of cooperation (Agile contains many different approaches). As a reminder, the client and the supplier agree to implement further small parts of the project in specific interactions. The ordering party is able to monitor on an ongoing basis whether the initial assumptions work well. Supplier receives feedback on an ongoing basis and does not risk to waste the time of his resources.

### **However, Agile does not solve the whole problem.**

The way of working measurably allows to reduce losses in case of making unfortunate decisions. However, even a flexible approach requires some initial assumptions. The better they work, the more efficient, faster and cheaper the implementation of the project will be.

Each organisation has to secure a specific budget and place the project implementation in the context of its other activities.

That is why this estimation and the way of conducting the project proposed by the supplier is a sensible stage of preparation. The specification should make it as effective as possible – but still there is more than meets the eye!

### **It is the project contractor who should create the specification.**

Many managers may find this thesis crazy. How does your supplier know what is best for you before you tell him?

The thing is that you give him your vision, or even an existing specification, but still you need to share the responsibility for the final version.

The best form to present the expectations is Service Design workshops. Participation in them will require to abandon the assumption that everyone has the same view on the issue you are working on. A good software house will question your predictions and put you at the centre of the end user of the product. It is during this process that you should work together to determine what critical conditions a product should meet at the end, what modules it should have, what are its priorities, explore technological possibilities and reject everything that is at least valuable for the user.

Confronting your intentions with an independent, fresh and neutral view of people with experience in the industry and in building similar products is an extremely valuable opportunity. First of all, it allows you to attach a project to a specific team, consolidate its understanding, make sure that everyone is playing on the same team.

During the workshop, you will also make sure that further communication with the supplier will go well. It will also show if both organizations have the same maturity level, value system, style of functioning. If you leave the workshop inspired and motivated – it means that you had the right partner on the other side of the table. On the other hand, you will be surprised by the number of elements that you did not take into account.

After the workshop you should feel that your software house understands the context, challenges and goals of the project as deeply as you do. Is this the case? If the answer is yes, then you don't need to worry about creation of a formal specification by your new contractor.

# NEGOTIATION AND CONCLUSION OF THE CONTRACT

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Negotiating and concluding a contract is a very tricky stage of starting cooperation with a software supplier.

Why? Because the natural need of any business is to minimize risk and create a sense of security in the execution of the contract. Where's the challenge?

In the nature of the work itself, which requires a high degree of flexibility. What you can honestly agree with the software house are certain top-down assumptions. You need to remember, though, that it is impossible to have all the details of cooperation on paper.





# Challenge 4

## Estimation

### Where's the risk?

In this process the focus is on estimating the resources needed to implement a project and its duration. It determines, first of all, the level of complexity, labour intensity and the unpredictability of the matter. Time and budget are the result of these three elements.

Accurate estimation of IT projects is very difficult. This is due to the so-called invisibility of software. When creating software, we do not have a unit, in which we create, which can indicate the amount of work done. The only measure is a specific value with a working functionality that we can implement.

The estimate is burdened with a margin of error, **so the biggest mistake is to treat it as a binding declaration and as an offer.**

### What are the most common sins on this stage?

- basing the process on unclear assumptions
- insufficient clarification of the various components
- preparation on the basis of too narrow interview – not including items derived from the supplier's experience and knowledge
- relying on the method of implementation and not on the expected effect

We talked about the first two points in the project specification section. Service Design workshops are an excellent platform for clarifying assumptions and detailing the elements identified as the most important. They determine the priorities, show what can be done further and what should be abandoned.

Let's take a moment to the next two points.

Conducting Service Design workshops gives an opportunity to gather in one place and time all the people who can build the future product or service. Specification and estimation are an added bonus. On the client side, the list of participants should not be limited to the the business line director or to the product owner. Ideally, a representative of the end user of the software and some indirect users will also be invited. It can be said that in a best-case scenario we should gather all stakeholders of a given product for this purpose.

The last sin is related to the pressure often exerted by the client in the estimation process. What are the most common things they say?

- We have implemented another system faster.
- I heard at the conference that this should be done differently.
- Another company is offering a much smaller amount for the same work.

If the supplier does not show gross errors in the justification of his invoices and any other information collected about him is not a cause for concern, you can rely on his assessment of the situation. However, always ask about its basis and verify its validity. The partner should be able to justify the amount of specific costs. At the same time, remember that the estimate is a component of external criteria – resulting from specifications and internal criteria – resulting from the knowledge of your partner's resources, possibilities and limitations. Each company has its own strengths and weaknesses, and they are the best source of knowledge on the subject.



## Note:

If you have several different estimates from potential partners, it is good practice to focus on those that are similar to each other. If there is at least one that deviates by an order of magnitude from the others, then it is imperative to ask about the assumptions. Perhaps only one supplier has identified a key risk to the success of the project.

**To sum up, the consequence of the sins in estimating IT projects is a significant change in one of the three elements of the triangle BUDGET – TIME – SCOPE, which will cause some further modifications in other areas You can read more about it on next pages.**

## How to protect yourself?

Estimation is usually based on historical data from similar projects, experience of experts, availability of tools, variability of the environment. Looking for a reference point allowing to have an objective view, one makes a comparison to a similar project. However, it is more effective if it is addressed to the experience of the supplier, not yours or your colleagues in the industry. Are there any objective ways of recognising bad estimation from good?

### First of all, you can check if your supplier has completed the following essential 8 steps:

- has identified software components
- analysed the design risks by anticipating obstacles that may arise
- estimated the likely size of these components under the proposed assumptions
- determined the scope of the work and the level of difficulty of the work, with the proposed assumptions
- estimated the workload for each of the components separately, but above all the production costs of the whole product (including dependency management, work integration, everything that makes up the product approach)
- carried out an additional verification of the project team
- identified the impact of potential risks, such as staff turnover, budget reduction, the need to shorten the timetable
- allocated resources and took into account not only the development process
- indicated the relationships that may become blockers in the implementation of the measures
- provided security for all aspects of implementation (tests, process)
- indicated the unknown, most complex areas
- considered post-implementation activities (warranty, maintenance, complaint)
- took into account the client-partner communication channel
- compared its own costs to the total budget allocated to the project
- presented a proposal to deliver the project in both an optimistic and pessimistic scenario

Now, the best thing you can do is to distance yourself from these estimates and immediately secure an appropriate safety margin for each of the three areas: time, cost and scope of implementation. Also, answer the question which of them is an absolute priority. If only one of them could be carried out as intended, would you prefer to choose:

- **an absolute budget fit**
- **timely delivery of the product, or**
- **providing the functionality?**

The latter gives the field to create a good security buffer. Start by implementing MVP (minimum viable product) and then add the features that are necessary to deliver critical business value. If there are difficulties along the way, it will still be realistic that you will get a working product, even if it does not fully reflect your vision. At that point, you will be able to decide whether you can afford to develop it further or postpone it until later, when you can already use it.

# Challenge 5

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## Triangle: Budget – Time – Scope

### Where's the risk?

The Triangle: Budget – Time – Scope determines the project during the whole period of its implementation. The understanding of the rules is the basis for conducting conscious and effective negotiations.

Each of these elements is dynamically connected with the others. Consequently, if there are changes in one of them, it automatically affects the others. Therefore, in negotiations, but also in their own assumptions the client should assume that only one criterion is possible to maintain rigidly.

Sometimes both parties, sitting at the table and preparing the contract details, forget about this principle. It happens that we succumb to the illusion that the concession is small, so it will not harm any other elements. However, this is not without significance in terms of risk analysis of further actions. Especially in the IT industry, where the salaries of programmers and the market are very dynamic. A project priced too low may suddenly lose its profitability as a result of e.g. unexpected staff turnover. A small margin makes it difficult to build a financial cushion in order to if necessary, quickly hire a more expensive but competent programmer. At the end of the day, the welfare of the project will suffer.

The well-known saying of project managers is:



You can have it done well, cheaply or quickly.  
Choose two.

### How to protect yourself?

To reduce the risk of underestimation of any element, simply take a sensible approach to negotiations. Trust the supplier's good intentions. Everything has to be accounted for. At the same time, how the supplier reacts to sharp attempts to beat the price or increase the range of activities is a great source of valuable information. Of course, everyone wants to do the best business. The partner should show that they care about winning your contract. However, if he does not hesitate to make big concessions, this should trigger an alarm signal in your head. This can be a sign of desperation, low business maturity, or in the worst case being aware of the imminent consequences, but ignoring them.

The risk associated with the triangle Budget – Time – Scope is, as we mentioned, valid throughout the entire project. It is normal that you will need to optimize one of its angles. A good software house is ready for this. It's worth verifying what room for manoeuvre they have in these situations. Of course, larger companies have the highest flexibility in this respect. They can afford to allocate their resources with much greater freedom.



The following is a brief overview of what options are available if necessary:

### Re-schedule

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We can:

- shorten the duration of project tasks by reducing their scope
- enlarge the production team and order work on several modules at the same time, increasing costs

### Reorganisation of the budget

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We can:

- reduce the number of programmers per project or replace some of the seniors with slightly less competent employees – this will extend the delivery time of the project
- reduce the project time, as a result of which the amount of necessary resources (and thus the cost) will be restricted
- allocate resources by manipulating a set of employees' competences (prolongs project time)
- verify rates (which results in increased design risk due to lack of a financial cushion)

### Change of scope

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We can:

- assign additional staff to carry out all tasks (increases costs)
- extend the project implementation deadline

# Challenge 6

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## A secure contract for Agile working model

### Where's the risk?

The IT project management method – Agile – was developed as an alternative to its younger cascading methodology. In the case of Waterfall, concluding a contract was simple in its assumptions. It was necessary to write down all expectations towards the product, the scope of implementation, time and cost. Any shortcoming in the final effect violated the contract in principle.

In the agile approach we do not have a precise description of the results, or a rigid time frame and cost. As mentioned above, the specificity of software development makes it unrealistic to expect the original assumptions to be met. This applies to both contracting parties – both the customer and the vendor.

Agile focuses on the ability to continuously test the product and make the necessary modifications.

### But how to translate this agility and dynamics into the laws of formal documentation – contracts?

If your organization is not dealing with Agile on a daily basis, it can be difficult for the Legal Department to prepare these documents. It can push for artificial elements in it, which can cause tension in the relationship between you and the supplier. With a badly structured contract, some companies start to focus more on rigidly keeping to the letter rather than actually achieving its goal. They will then conduct the project under the banner of agility, but in practice, their main goal is to manage their work in such a way that they first secure themselves against legal claims. This is not helpful to achieve a real business goal.

### How to secure yourself?

A good agile cooperation agreement should not be based on the intention to secure business interests in case of failure, but as a formal platform for writing down the rules of operation. **It should work according to the type of rules of procedure – defining concepts, criteria and procedures.** Similarly to the previous stages, this should happen in the course of a joint discussion and consensus. The client and the supplier must clearly specify the expectations so that it is understandable what the development team should strive for. However, the subject of the contract is not specified at the time of conclusion of the contract, which is based on mutual and intensive cooperation. Therefore, the responsibility must be shared, as the scope of responsibilities – in case of failure of the project, the lack of results cannot be the sole responsibility of the supplier – this responsibility is often financially limited.

## There are, of course, a few elements that mix within the framework of the so-called good practices and agile document standards:

- The role of the product owner on each side should be formally identified and emphasized. The product owner on the supplier's side is responsible for the execution of the technical part, teamwork organization and contact with the customer's product owner, which in turn organizes the work on its side, controls the results of the work, clearly defines the expectations for the next work.
- The contract provisions should clearly define the intellectual property rights to the resulting products. These rights should be transferred to your organization, including the rights to the source code and other copyrighted products created during the work.
- Definition of confidentiality rules. This section should specify which information provided as part of the cooperation is confidential and under which circumstances it may be disclosed, and how long the obligation to keep it confidential applies.
- No negative impact on business. Each party should ensure that it does not interfere with the other party's business and does not poach the other party's employees.
- Approval of subcontractors. Is it necessary to determine whether the supplier can outsource part of the work? If so, what scope of work may be affected? Is it necessary to obtain approval for a specific subcontractor?
- Confirmation that both parties understand what the Agile method is and agree to act according to its principles.
- Determine the length of iterations, which will provide a temporary framework for the return of subsequently agreed product elements.
- Indicate the frequency with which the verification meetings with both parties will take place and define the purpose of these meetings.
- Definition of the other obligations of the parties.
- Determining the terms and procedures of financial settlement.
- Regulating the conditions of contract termination and defining the "exit plan" – when, who and for what reasons parties may withdraw from the contract, how will the parties settle, when copyrights will be transferred.

## At this point it is worthwhile to complete the subject of financial models on which the contract can be based.



### Fixed price

A rigid budget.

### Time & Material

The customer pays the rate for the actual time and resources used in the implementation.

### Gain-sharing

The basis for the calculation of payments are the additional benefits that the supplier provides to the customer, which go beyond the minimum contractually agreed minimum.

### Pay-by-use

The provider states the cost of using a certain range of services and the customer pays as much as he has used.

### Revenue-sharing

Supplier and customer co-create solutions or products, and supplier can count on additional benefits from their creation.



...it is estimated that more than half of all IT projects do not end successfully...

Financial models are of great significance, but it is more important to adjust them to the way the project is implemented. The fixed price model, very simple for the buyer, is probably the biggest trap for the success of the project, very few contracting parties know about it.

In the software development industry, project risks are enormous – it is estimated that more than half of all IT projects do not end successfully, i.e. according to the original assumptions. Such projects must have a time and money buffer. The bigger the project, the bigger the buffers should be used.

The most problematic is the underestimation of risk by the supplier and failure to calculate it in the fixed price offer. In this case, the work seems to go smoothly until the budget is exceeded. This, as a consequence, creates situation where there is no business value of the product and no budget to continue work. Unfortunately, even the most restrictive agreements, equipped with disciplinary tools in the form of contractual penalties, will not save the situation. Oddly enough, agreements containing penalties do not minimize the risk of non-delivery of the product. The supplier, will focus on avoiding penalties at all costs and not on providing the customer with business value.



... the FIXED PRICE model only works if you know exactly what you want to do.

Assuming, however, that your supplier estimates and controls most of the risks, such as staff turnover, interactions with subcontractors, technological conditions (interoperability or lack of interoperability with your systems), legal aspects, etc., the FIXED PRICE model only works if you know exactly what you want to do.

We are talking about the technical specification, at a really high level, validated by a group of target users.

There are organizations that manage fixed price model very well, which apart from the use of risk buffers in valuation, are able to juggle resources on projects, exchange or increase teams during their course in order to “catch up” and work at delayed parts. It is up to you whether this is a better solution than a dedicated team.

Most suppliers prefer T&M (time & material) solutions, which are associated with paying for time and not for the effect of work. Certainly, without reflecting in the way of software development, the T&M model does not guarantee sufficient security for the customer.

The solution based on agile software development model, with contractual processes and roles on both sides and short iterations, is the most “fair” for both sides of the business relationship. It is the best business value creation model so far. On the part of the ordering party, it requires the involvement of its own staff, but also the financial risk is reduced to the length of one sprint. Good Software Houses give the possibility to leave the cooperation at any time and specify the so-called “exit criteria” already in the contract. It's a bit like a prenuptial agreement, where we know that marriage is about love and not financial relations.

Gain-sharing, pay-by-use and revenue-sharing models are possible with the great trust of the parties. and only in the case of systems in which we can clearly quantify the elements controlling the profitability of an enterprise. Such a choice is most often encountered in cooperation with start-ups and software houses, but it is becoming more and more popular in business and technology consulting.

# IMPLEMENTATION OF COOPERATION

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You and your supplier have already found the answers to the questions: what and how. You have gone through negotiations, you have agreed on the remuneration and the deadline.

The most difficult part is in front of you. Implementation.

A few things help in its smooth running, but most of them come down to one thing: the quality of communication. If the flow of information between companies is impeccable, the project will overcome even powerful obstacles. On the other hand, a weak agreement is a threat of total failure even for a trivial reason.





# Challenge 7

## Commitment

### Where's the risk?

One of the most frequently mentioned benefits of outsourcing is the ability to fully focus on your core business. Someone provides you with software and you can focus on what you know best. This argument sounds encouraging, but it's sometimes abused.

If working with a supplier means "outsource and forget" for you, you will be very disappointed. Regular feedback cycles are an integral part of software development. This is especially emphasized by the agile working methods, where communication is the most important.

We can read more about the core values of Agile software development in the Agile Manifesto:



As a result of our work, we started to appreciate more:

- Individuals and interactions over processes and tools.
- Working software over comprehensive documentation.
- Customer collaboration over contract negotiation.
- Responding to change over following a plan.

It is explicit that the things on the right have value, but the things on the left should be valued more.

Sometimes in business, beliefs taken out of everyday life are reflected. If in a bakery the customer is always right, then we also feel this way in B2B relations. The customer comes to the bakery and requires goods of the highest quality, he is a passive customer. All the effort to deliver the best bread lies with the baker and the seller. However, while the baker can and must take full responsibility for the quality of the baked bread, in the case of most business products it is simply impossible. Therefore, in the development of software, partnership and constant commitment of the customer is extremely important. Both the client and the contractor, are co-responsible for the final result of the work and this requires constant contact.

Even if you choose an offer of a company mature enough to act as an advisor in your business and carry the burden of running your project, your availability will still be needed. Only by efficiently confronting the progress of work with your expectations, with your insight and knowledge about the needs of the end user will success be possible.

## How to protect yourself?

The supplier tries to make an accurate estimate of the commitment of its programmers, on that basis, he calculates costs and allocates resources.

The same should be done by the client. Who will be required to get involved in the project from your team? How much time per week should they secure for this purpose? Will it require allocation? Do these people have enough space to provide the provider with sufficient responsiveness to carry out continuous activities?

On the other hand, the lack of appropriate involvement is also a problem for IT companies.

To the question “How do companies respond to the service provider's problems?” respondents to the Deloitte survey indicated a lack of pro-activity in delivering innovation and insufficient leadership.

Therefore, speak honestly with your supplier before you start a formal collaboration. Ask what commitment from your side they will need, but also clearly define what you expect in return. Create together a framework for further cooperation indicating the division of roles, responsibilities and timetables of meetings.



# Challenge 8

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## Creating a framework for effective cooperation

### Where's the risk?

Defining a framework for cooperation is intended to prevent the phenomenon of diffuse responsibility. In a well-organised project, everyone should know when, what to do and why. And above all, everyone should be aware of their responsibilities.

A mistaken understanding of the agile model of work causes inexperienced people to ignore such issues as regular meetings, planning, checking the progress of work, keeping to the arrangements. There is a confusion between agility and lack of consistency and discipline. This shows the misunderstanding of Agile work. Unfortunately, this mistake is as common among customers who are just getting acquainted with this method as it is among IT suppliers. On the one hand, the team of programmers gets new information on priorities each week, so chaos is getting worse and there are difficulties with appropriate power distribution. On the other hand, the development team treats their forecasts regarding the possibility of providing further functionalities too freely, which makes it difficult for the client to coordinate his business activities.

### How to protect yourself?

In order to create a framework for effective cooperation between the customer and the supplier, it is necessary to take care of the following elements:

- 1** How to monitor the progress of the project. What will be subject to regular reporting? Will the exchange of information take place at meetings? How often will it take place? What form will it take (written and structured or will oral communication be sufficient)? Will the customer have full access to the product register (e.g. Jira)?
- 2** What meetings, apart from those dedicated to planning and reviewing progress, will be needed (evaluation, operational)? How often should they take place? Who should participate in them? Is it possible to impose a certain order in advance? Who will supervise the logistics of these meetings?
- 3** How will the roles in the project be divided? What is the responsibility of individual team members?
- 4** What is the initial task plan? What is the order of building product functionality? What are the milestones?
- 5** What tools will be used and for what purpose (tools for product register, tools and communication channels, etc.)?
- 6** How does the issue of decision-making on both sides look like? What information and in which circle should be processed and approved?

# Roles in a scrum team:



## SCRUM MASTER

this is a person who ensures the correct application of this method of project management. His role is to support the team by early identification of the needs of the environment and removal of possible obstacles – arising, for example, from organizational issues.



## PRODUCT OWNER

is a person who is responsible for developing and increasing the value of a product, their task is to provide a clear vision of the product and make sure that the project achieves its business objectives. This role is a link between the business and technology team, helping both parties to understand each other's needs and challenges. He is the only person who makes decisions in the area of product development for the development team.



## THE DEVELOPMENT TEAM

this is the core of the scrum team and consists of people whose competences are necessary for the project implementation – so they can be not only software developers, but also testers, analysts, UX specialists, etc.



# Challenge 9

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## A project in a crisis

### Where's the risk?

Imagine this situation. There is one month left to complete the project. The product is not suitable for implementation, and the chances of meeting the deadline are low.

### Co z tym zrobić?

Assuming that you still need to complete the project, you have to ask yourself a difficult question. Are you looking for an agreement with your current supplier and save your cooperation? Or maybe let go and in emergency mode look for a partner who will face this problem?

Let's first deal with the second option. It is a good idea to part with the current supplier if there is a lack of mutual agreement at a level that makes it impossible to make any decisions. Additionally, do it if there is no openness on the other side to constructive discussion about what went wrong, why it happened and what our partner should improve in cooperation. Let it go when the supplier sees only short-term goals and is unable to take your point of view, does not accept the variability of the business environment and relies solely on start-up decisions.

However, if you feel that you are still moving in the same direction at the value level and you see a strong willingness to reach a consensus, then give your partner one more chance. As long as the supplier wants to achieve the business goal of the project and not only avoid financial penalties, not only reports problems, but also offers solutions and is able to admit a mistake, there is hope for the success of the project.

It is worth starting with an honest analysis of the situation, the aim of which is not to point out the shortcomings, but to identify weak points and answer the question whether we have the tools and resources to eliminate them. If this is successful, proceed with a recovery plan.



First of all: act in all fields. If it is already very bad, one change is unlikely to have a comprehensive impact on all the problem areas.



Secondly, do not come up with very complicated solutions. Think about how to achieve results in the simplest way. Reach for what seems obvious.



Thirdly: communicate clearly and unambiguously, within your own teams, but also within your organisations and in relation to other stakeholders.

## How to behave in a crisis situation?

In a crisis situation, there is an even greater need for a team play between you and the product on the supplier's side. Here are a few actions that your supplier should take. Check if this is actually happening.



### Team

- Tries to restore the sense of meaning to the project team and sets it a specific goal.
- Provides the team with a sense of security – let their actions not be guided by fear of the consequences of failure.
- Gives the team a sense of influence in order to increase responsibility for the end result.
- Clearly defines its expectations and limits of responsibility in specific roles.
- Updates information – speaks openly about the business consequences of the current situation, steps taken, progress or lack of progress in these areas.



### Relationship

- Retains 100% transparency – if it hasn't existed before, it fills in the information gaps.
- Remains in constant contact – not limited to a one-way message about the delayed implementation of the product.
- Report as soon as possible about the possible consequences.



### Work organisation

- Introduces or reduces iterations in which the team worked – the greater the concentration on what is most important at the moment, the greater the chance of success.
- Provides support to other parts of the company – in the form of consultations, space, tools.
- Is close to the team and stakeholders, listens carefully.
- Does not ignore the reported problems, regardless of which side they come from.

**You can get out of any crisis situation!  
Keep calm and assess the situation.**

# SUMMARY

While creating this e-book, we had one basic goal in mind. We wanted to give, all companies that need to take advantage of the benefits of new technologies, something valuable that will make the process easier for them. That is why we have added our unique perspective to the set of basic information needed to start cooperation with an IT supplier. It is a vision of an experienced contractor based on a multitude of completed projects.

We care about the development of customers' awareness of the specificity of digitalization projects. Their success depends on good cooperation and commitment. We want to build a lasting bridge of understanding between business and the world of technology. We do it with our blog Makers of Tomorrow ([www.makersoftomorrow.com](http://www.makersoftomorrow.com)) and that's also why we created this publication.

Here we focused on the challenges and tried to identify the pitfalls that business partners sometimes fall into. We realize that all this information can be overwhelming. It may seem that outsourcing an IT project is a bumpy road. However, we all have to realize that most technological projects are experiments because their main driving force is innovation.

And yet the immanent property of creative activity is the openness to trials and evolution of the original idea. What seems to be the uneasy and questionable side of this work is at the same time a source of unique satisfaction and joy, when the next supplied parts create a new quality and value in the world. Everyone who has experienced a successful implementation, recalls the obstacles encountered, like a successful adventure.

We are driven by curiosity considering each project in the context of possible innovative applications and from the perspective of sustainable development. Sometimes our partners are surprised that we find this quality in places where they did not expect it. We observe that more and more companies expect this from a technology solutions supplier.

It is estimated that the ICT market in Europe will reach a value of around €1.085 billion by 2019.<sup>6</sup> Business needs in terms of technological development will grow, but their nature will change.

**The figures speak for themselves - 75% of the respondents to the Corporate Research & Development Research 2018 survey answered that they use external support in the implementation of R&D projects.**

In many cases, organizations are not able to start such activities based solely on their own resources. The time frame possible to achieve in these companies is far too long from the business objectives point of view. Innovative projects may lose the chance to build a competitive advantage within two years. For this reason, it is so important to have the services of specialized and experienced companies ready to perform the function of external R&D for their partners.

**Therefore, instead of being afraid of challenges and waiting for the world to overtake us, we believe that we should act. It is enough to be well prepared. We hope that we have helped at least a little!**



**Where men are gathered together in great masses it inevitably results that they must work far more largely through combinations than where they live scattered and remote from one another...**

Theodore Roosevelt

# WHO WE ARE

## and why we created this e-book

Cybercom Poland is a part of the international technology company Cybercom Group with its headquarters in Sweden, employing over 1200 people.

We have been operating in Poland for over 20 years. We employ over 300 software engineers and business consultants.

Every day we offer innovative technological solutions that help companies gain market advantage. We have customers in 21 countries around the world. Among them, there are both global brands as well as start-ups from such industries as health tech or automotive. Our goal is to support organizations in the digital transition and provide them with innovative solutions that will drive their business. We work on the basis of agile project management methods in such areas as Software Development, Security, Cloud and emerging new technologies (e.g. IoT, blockchain), we advise clients on Digital Sustainability, and we also act as an external R&D centre.

For the latter purpose, we have created the Innovation Zone - a special work zone dedicated to conducting demanding projects. Its important value is the ability to quickly build a prototype. Dynamic construction and testing of ideas reduces the client's risk related to investing in new technologies.

### The models we work with:

- we supply external agile units
- we manage teams and IT projects
- we act as R&D centres for our partners
- we consult and audit solutions



Do you have questions about the opportunities and challenges of digitalization and digital sustainability?

Or maybe you would like to get to know the possibilities of cooperation?

Make an appointment for an interview with our business consultant.

Write at:  
[contact.poland@cybercom.com](mailto:contact.poland@cybercom.com)







**Bonus!**

## List of questions to your IT supplier

1. How long has your company existed?
2. How many employees do you employ?
3. Where do you have your offices?
4. If you employ remotely, which geographical areas are these specialists from?
5. Do you have an example of an “end to end” project. What was it about, how big was your role in it?
6. Do you have a project similar to ours in your portfolio? What are the similarities?
7. Do you specialize in a specific industry?
8. What types of projects have you completed the most?
9. What references can you give me?
10. Can I talk to your client about the course of cooperation?
11. What was your biggest project? What difficulties did you encounter in it?
12. Which project was the biggest challenge for you? Why?
13. What are the financial models of cooperation?
14. How does your project management process look like?
15. What is your basic profile of a technical employee?
16. How large is your legal department?
17. What was your biggest project failure and how did you deal with it?
18. What is your company's organizational culture (mission, vision, values)?
19. Do you use subcontractors?
20. How does the company measure the quality of provided services? Have you implemented any quality management standard? Which one?
21. How do you ensure the security of your services or do you have a separate Security department?
22. How does the data security management process look like? How do you secure the General Data Protection Regulation requirements?

# Footnotes

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<sup>1</sup> [www.resources.workable.com/tutorial/time-to-hire-industry](http://www.resources.workable.com/tutorial/time-to-hire-industry)

<sup>2</sup> [www2.deloitte.com/content/dam/Deloitte/nl/Documents/operations/deloitte-nl-s&o-global-outsourcing-survey.pdf](http://www2.deloitte.com/content/dam/Deloitte/nl/Documents/operations/deloitte-nl-s&o-global-outsourcing-survey.pdf)

<sup>3</sup> [statisticbrain.com](http://statisticbrain.com)

<sup>4</sup> [www2.deloitte.com/content/dam/Deloitte/nl/Documents/operations/deloitte-nl-s&o-global-outsourcing-survey.pdf](http://www2.deloitte.com/content/dam/Deloitte/nl/Documents/operations/deloitte-nl-s&o-global-outsourcing-survey.pdf)

<sup>5</sup> The 2018 Guide to Global Software Outsourcing Rates, Accelerace

<sup>6</sup> [www.statista.com/topics/3887/digital-economy-in-europe/](http://www.statista.com/topics/3887/digital-economy-in-europe/)