

# ROI in IT projects



Report by

 Future Processing



# **ROI in IT projects**

report by Future Processing



**2022**



## Daria Polończyk

Head of Analysis & Design,  
Future Processing

# Welcome to the ROI in IT projects report!

At Future Processing,  
**we have used  
technology to solve  
business problems for  
more than 22 years.**

Enabling business  
potential is our core  
principle. We strongly  
believe that good tech  
companies need great  
people, and great  
people make great  
software.

Our partners' success has always been a critical value for us. We believe that helping them measure the business impact of investments in software development is a solid baseline for the success of IT projects. **Naturally, some business aspects are easier to quantify than others.** For example, a marketing campaign is much more streamlined than a complex technological investment. The question arises: how to effectively measure the impact these tech initiatives have on your organisation?

More than 20 years of experience in delivering IT projects can really teach you something. At Future Processing, we have learned that one of the most overlooked and misunderstood aspects of software development for our partners is measuring the ROI.

**What impact can our IT services have on your business? How can they boost the value your company offers? The answers to these questions may be highly complex, which is why it's so easy to lose the heart of the matter altogether in this respect.**

Knowing ROI for your technological investments is crucial to getting a full overview of your financial situation. **However, there is a significant skills gap in the market in this area, which makes it difficult to quantify accurately.** We have created this report to explain how organisations approach measuring ROI in their IT projects and to establish benchmarks in terms of returns on software development initiatives within various organisations.

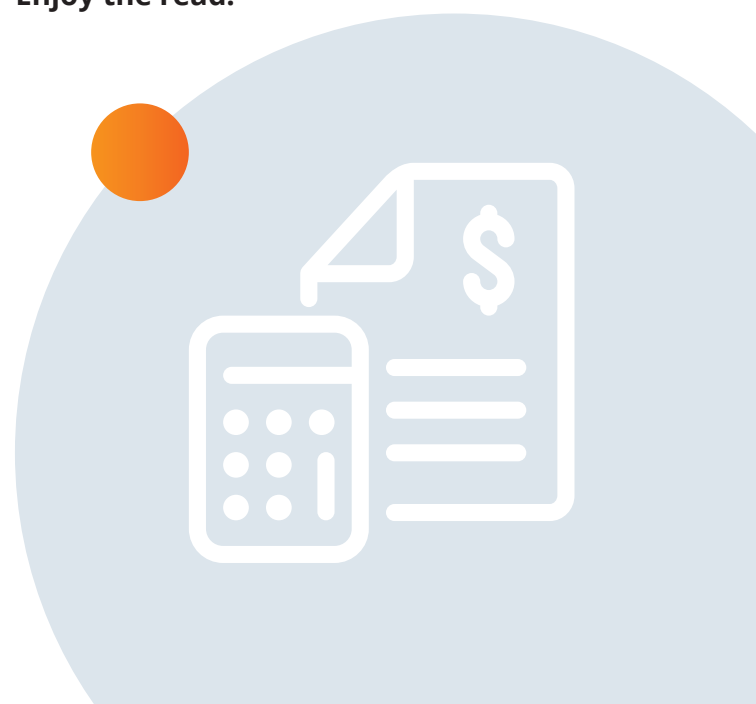
With this report, we aim to help our peers by approaching ROI holistically. We look into how ROI can be quantified in IT projects, and specifically, how technology investments are impacting various IT businesses and what kind of returns they are producing.

**This report combines results from over 180 online questionnaires we sent to our partners.** To analyse them, we went through all the comments, quantified priorities, and identified

processes and value indicators. On top of that, we combined these insights with industry-leading ROI experts' opinions on how to build and measure returns your investments make and how they impact your business. **The result is an in-depth leadership study,** supplemented by a short case study in which we calculate ROI from scaling local infrastructure compared to expanding Cloud resources.

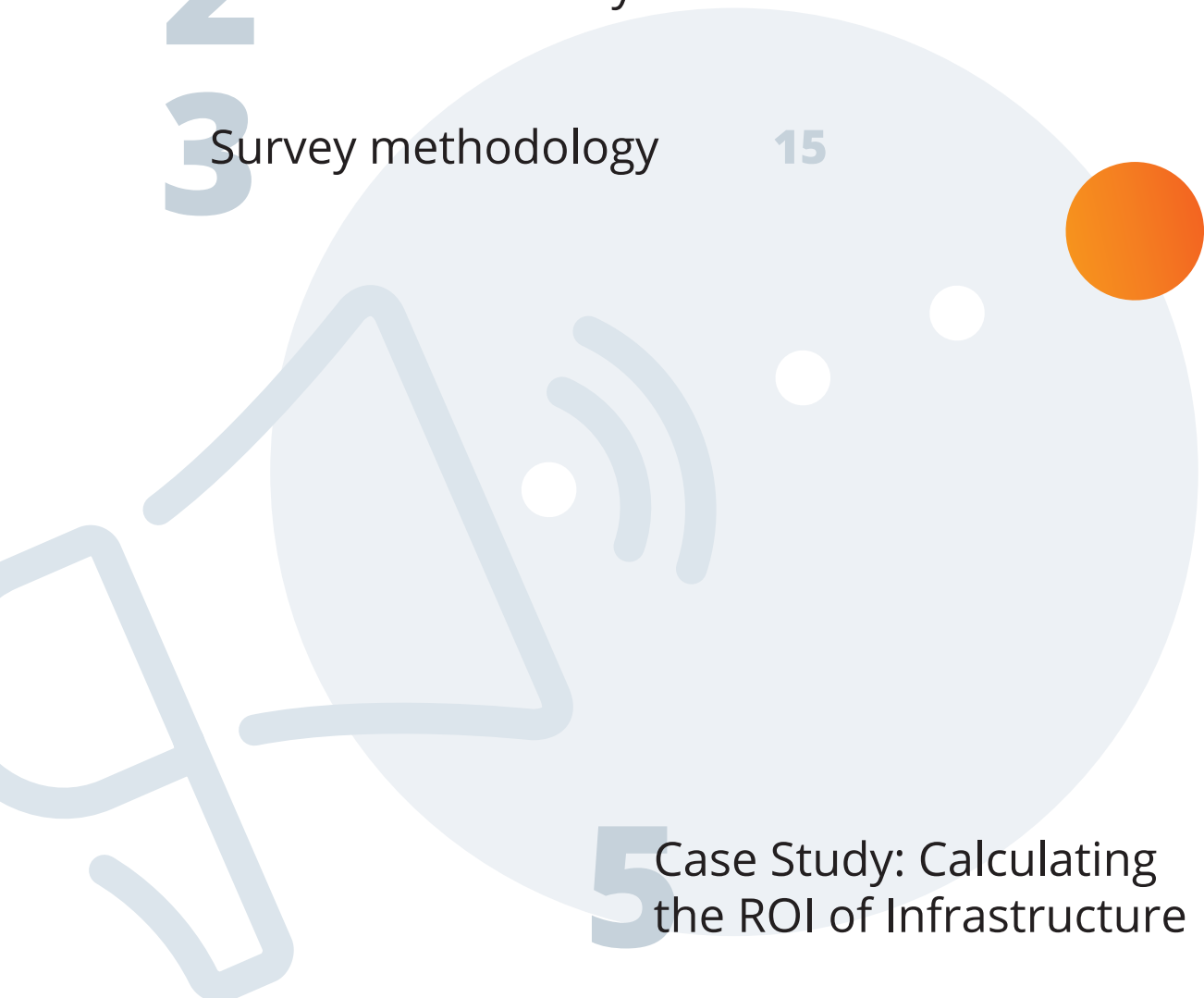
So, grab a cup of a hot drink, sit back, and dive deep into our report.

**Enjoy the read!**



# Contents:

<b>1</b>	Introduction	<b>4</b>
<b>2</b>	Executive summary	<b>8</b>
<b>3</b>	Survey methodology	<b>15</b>
<b>5</b>	Case Study: Calculating the ROI of Infrastructure	<b>69</b>
<b>6</b>	Expert point of view	<b>76</b>
<b>7</b>	Wrap up	<b>84</b>



# 4 ROI in IT Projects – the analysis 20

<b>#1</b> ROI in practice	20
<b>#2</b> Why is ROI important?	21
<b>#3</b> The difficulties of ROI	22
<b>#4</b> Soft ROI	22
<b>#5</b> Market perception of ROI skills	24
<b>#6</b> The benefits of estimating and measuring ROI	24
<b>#7</b> Anticipated ROI vs Actual ROI	28
<b>#8</b> When to calculate ROI?	29
<b>#9</b> A multi-layered approach to ROI	30
Short-term vs long-term ROI	31
Multi-period ROI	31
<b>#10</b> Who measures ROI in organisations?	32
<b>#11</b> External ROI consultants	36
Challenges for consultants	38
Choosing an external ROI consultant	38
Different ROI consulting services	40
<b>#12</b> ROI expectations	42
<b>#13</b> ROI: significant contributing factors	43
ROI and UX	44
Returns on investment in UX in different stages of an IT project	46
Measuring success of UX	48
ROI and process automation	50
ROI and the Cloud	52
ROI and the discovery stage	53
ROI and the IT delivery process	53
<b>#14</b> ROI in projects vs ROI in products	59
<b>#15</b> Traps and pitfalls of ROI	61
<b>#16</b> The current use of ROI	63

# Executive summary: a brief overview of the project

---

Using methodologies such as an online survey, video interviews, an expert summary, and a deep-dive case study, we gained a deep understanding of challenges related to measuring ROI in IT initiatives.

We found there to be **a distinct lack of knowledge on how to measure and manage ROI**, with very few businesses classifying themselves as 'experts'. We also discovered hesitancy in the market when it came to using externals to deliver ROI expertise.

Despite the above, there was **a consistent recognition of the need for greater understanding of ROI** as well as willingness to enter into the conversation further and to expand in this area.

This report lists the areas which, according to market-leading experts, have the most influence on ROI. It outlines how to develop processes to measure and manage ROI more efficiently and how to avoid pitfalls that may create issues, unless understood clearly.


$$\text{ROI} = (\text{Net profit} / \text{costs}) \times 100\%$$

## #1 ROI in practice

ROI is a mechanism addressed to companies and investors used for measuring the profitability of an investment. It can be understood as a metric with a relatively simple formula, but also perceived in a much broader context – as a set of metrics related to both financial and non-financial results. The latter approach expands the meaning of profitability to non-pecuniary values and thus can facilitate decision-making processes from a different angle.

**91% of respondents** to the survey stated that measuring ROI in their companies was either **'very'** or **'somewhat' important**, providing justification for a more elaborate study of ROI.

While in principle ROI calculation appears to be simple ( $ROI = (\text{Net profit} / \text{costs}) \times 100\%$ ), **understanding the true value of 'net profit' is where the difficulty lies**. Soft and intangible returns on investment make precise calculations tricky. There are many other **Key Performance Indicators** (KPIs) that are used for measuring profitability of investment, and this diversity indicates the importance of tailoring them specifically to each business, project, or product. They are

not universally applicable. Nonetheless, when projects are complex, it is sometimes more effective to use other KPIs to measure individual stages and ROI for the project overall. KPIs are the best metrics for predicting the final results of a project, while ROI is best used to review the validity of decisions made.

While it was clear that the vast majority of survey respondents and interviewees understood the importance and need for accurate ROI calculations, **there was a definite lack of competency**.

Only **10%** regarded themselves as **'experts'**, with **67%** categorising themselves as **'beginners'** or **'intermediates'**.

Among those who do calculate their own ROI, there is **a huge variety in how they arrive at their final results**. Some use the classical formula, others adapt it somewhat, and a quarter of all respondents claimed they were not aware of any methods to calculate ROI at all.

This shows that there is **a real skills gap in the market** when it comes to accurate ROI calculations.



It became apparent that **a multi-layered approach was the most comprehensive and suitable solution to measuring ROI**. Many companies choose to estimate ROI at the beginning of a project (anticipated ROI), then evaluate it at key pre-defined stages, and do in-depth analysis at the end to understand the actual ROI.

Our research shows that while C-Suite staff are most commonly responsible for managing ROI in their companies (59%), there is in fact **a strong collective responsibility** that often trickles down to employees in a range of roles. The least common occurrences were companies either having **a dedicated ROI officer (7%)** or actually going one step further and hiring **an external consultant (2%)**.



Only 10% regarded themselves as **'experts'**, with 67% categorising themselves as **'beginners'** or **'intermediates'**.

## #2 Challenges for consultants

Through the video interviews with industry experts, we discovered that the biggest problem facing external ROI consultants was in **proving their value** to prospective customer companies, as it's extremely hard to 'measure' the viable impact they could have. This is partly due to **consultants not having sufficient access to evaluate the potential ROI gain**, and partly due to a lack of willingness on behalf of the customer to share their financial information with personnel outside of their organisation.

## #3 ROI – Significant contributing factors

Our survey shows that **user experience (UX) is the most significant area affecting ROI**, with 31% of replies. We found that the highest returns are expected from investment in UX, as it is a highly visible and measurable metric that can be present in projects at any time. **When it comes to ROI in UX, it is very important to be able to refer to existing data.** This will allow you to measure indicators before implementing a change in the user interface or customer journey, to establish benchmark expectations based on those indicators, and then to study how the changes are received.

The **second most common area** that respondents to the survey found to be affecting ROI was



**process automation** (26%). This was particularly true for experts who measured ROI immediately after their investment was made, at the beginning of the project. Process automation offers clear, measurable gains in development and its consequential returns, making it a reasonable and viable deliverable.

**Utilising the Cloud technology was another method of increasing ROI** that proved common with 12% of respondents. When it comes to using the Cloud, repeating ROI calculations periodically to discover factors that were not previously taken into account and to determine whether the investment had paid off earlier than was forecasted turned out to be a beneficial approach.

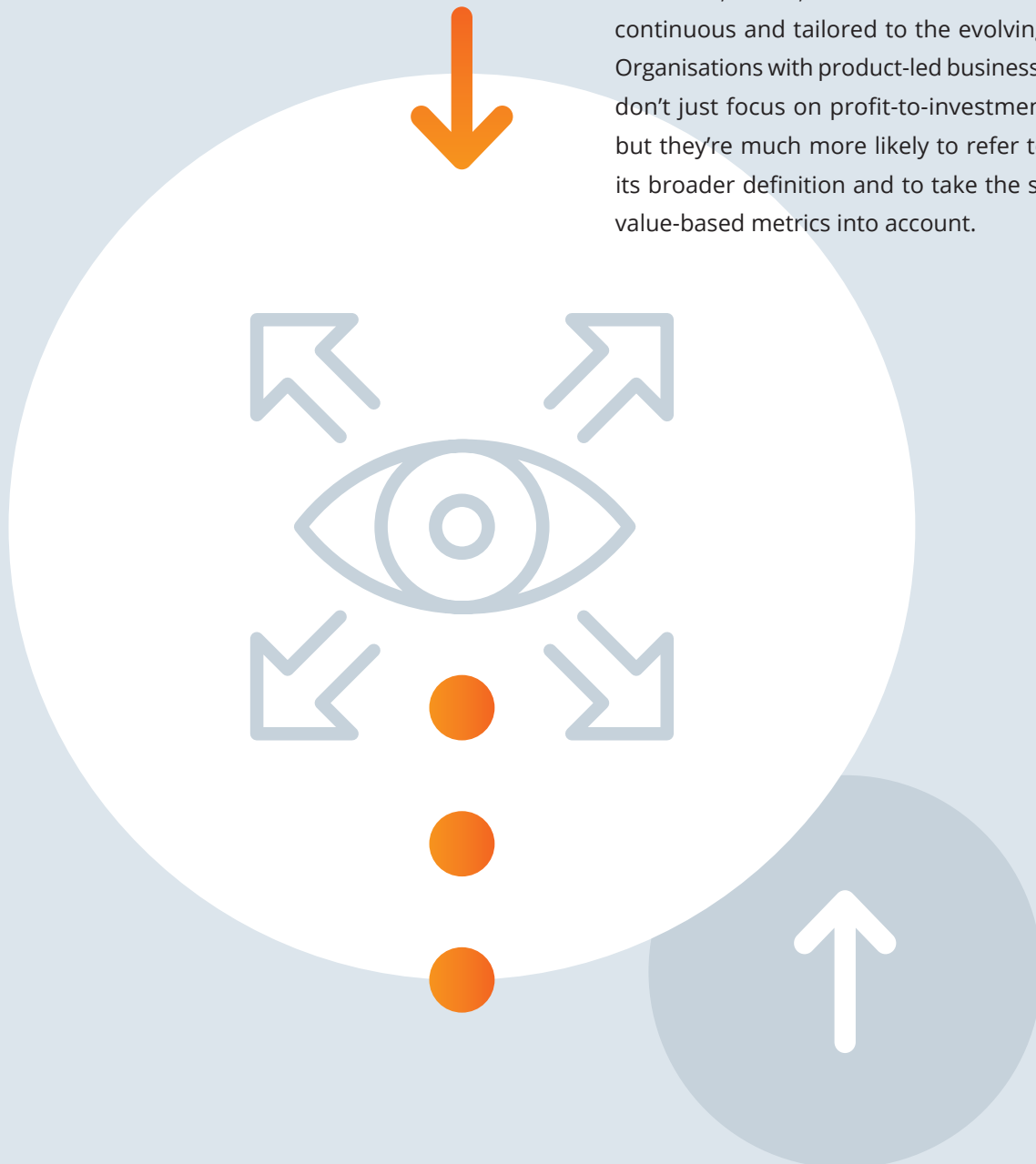
**The discovery stage was another important aspect** mentioned in our surveys and interviews. It is known to increase ROI by reducing the risk of incurring unforeseen costs throughout projects. It helps companies gain 'early wins' through careful evaluation and analysis. Nonetheless, only 9% of respondents identified the discovery stage as the most ROI-contributing factor. **In addition, a thorough discovery phase is the most important and simplest way to help prevent scope creep.** The better the discovery phase, the less scope creep, the better design and user experience, and, consequently, the higher the ROI. Finally, the discovery phase makes a product better suited to the environment, its competitors, and users.

## #4 Different points of view on ROI

It is also important to note the **differences between ROI in projects and products**.

In **project thinking**, the emphasis is on the outputs, scope, time, budget, and efficiency. This approach is time-limited, with fixed requirements.

Conversely, in **product thinking**, the focus is on outcomes, values, and effectiveness. The work is continuous and tailored to the evolving needs. Organisations with product-led business models don't just focus on profit-to-investment ratios, but they're much more likely to refer to ROI in its broader definition and to take the so-called value-based metrics into account.



## #5 Traps and pitfalls of measuring ROI

While there are unarguably many benefits to adopting ROI into many, if not all, aspects of decision-making, it must be noted that – as with any tool – it has its flaws. The most common issues are related to:

### #1 Gaining reliable data

ROI is often treated primarily as an input to the business case – an argument for decision-makers as to why a particular change should be implemented in order to save budget. As a result, **ROI calculations are treated as a short-run activity** at the beginning of a project and may not be accurate or comprehensive at this stage.

### #2 Implementation costs

By default, organisations often focus on the direct costs of implementing a solution when estimating ROI in IT. **The actual cost of implementing change may be much higher** than the initial estimate and could additionally include other aspects and non-obvious costs.

### #3 Risk

According to our research, **ROI calculation often fails to include the issue of risks**. The costs associated with risks usually occur only when they actually materialise, which makes them extremely difficult (if not impossible) to calculate.

### #4 Challenges with measuring ROI

There are **plenty of different challenges related to ROI**, such as a lack of synchronisation between departments, a lack of clear, measurable objectives, a lack of a defined and viable ROI strategy, or a lack of discipline. Other challenges relate to approaching ROI only selectively and in isolation, or not leveraging reliable tools to collect the necessary data.

### #5 Soft ROI

By definition, ROI is a financial metric of pecuniary value. The **difficulty lies in evaluating an investment when the expected benefits are defined in both financial and non-financial gains**. Sometimes, these intangible, non-financial, and hard-to-measure metrics precisely address, key benefits that relate to ROI (e.g., increased Net Promoter Score or boosted UX). Unfortunately, it's often overlooked altogether.

## #6 The current use of ROI

In the current market, ROI is being used as **an umbrella term relating to both financial and non-financial metrics**. Even though calculating ROI is usually understood as a very valuable practice, our survey shows that **some organisations measure ROI but do not use it to inform business**.

The fact that ROI, although perceived as important, is in many cases not realistically used in decision-making may be **due to negative experiences**. Also, it is very likely that these difficulties result in the low utilisation of ROI calculations in organisations, and even lower interest in the services of external ROI consultants. Without the right data and a proper management of this data, organisations will not be able to get their ROI initiatives off the ground. In order to get priority in organisations, **ROI needs to be backed up by solid measurement and management processes**. Without these in place, even the best consultant will be unable to conjure up anything worthwhile.

## #7 Key conclusions

Our study and the following analysis show various approaches that companies have towards ROI. The key conclusion coming from organisations' experiences is that **there is no single correct way to measure ROI** or one scenario that fits all. However, different case studies can help plan your ROI approach and avoid common mistakes.

A long-term, individual approach with frequent result checks and a comprehensive look at different business areas is crucial to successful measurement of ROI in technological investments.

If companies want to look at ROI in the long run and make business decisions around it, they cannot lose ROI's great impact and the opportunity to positively influence different business areas. **To do this right, they should always have ROI on their agenda.**

Companies need to remember that measuring ROI is **always an individual process** that needs to include relevant areas corresponding with the individual goals of the project. On top of that, **measuring ROI is interdisciplinary work**, where responsibility for the final result is shared.



# Survey methodology

---

We created this report by **gathering data from market experts from a wide range of industries across the globe**. We investigated how market leaders quantify and measure ROI, how important ROI is to their businesses, and which measurement techniques they use. We obtained data and examined it. Finally, our Analysis and Design experts quantified the use, demand, and current understanding of ROI in the tech market and offered their conclusions.

## #1 Data collection

The conclusions laid out in this report result from collating and analysing two main kinds of input:

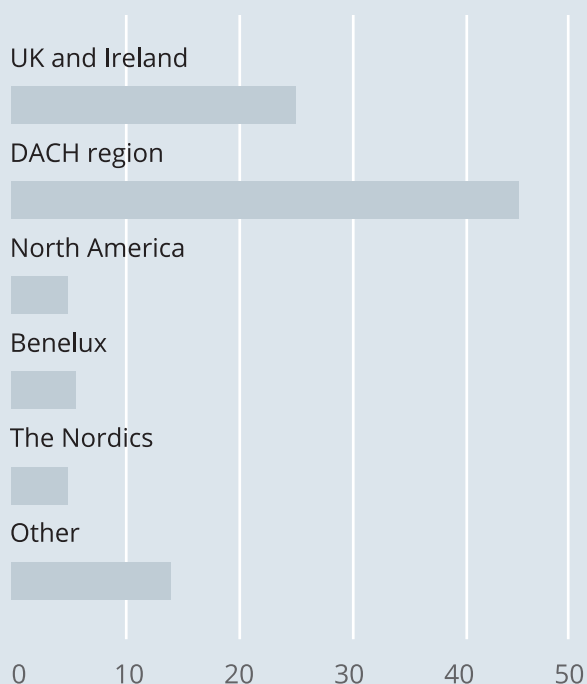


## Methodology 1: Online survey

We ran a questionnaire over a 4-week period to gain measurable data from business professionals from all over the world. **We received 182 responses from experts in over 16 business sectors** including Information Technology and Services (31%), Financial Services (20%), and Professional and Business Services (11%).

**The roles of the respondents** ranged from C-Suite personnel such as IT Executives (34%), IT managers (25%), to Non-IT Executives (20%), and IT Consultants (7%).

### Where is your company based? (%)

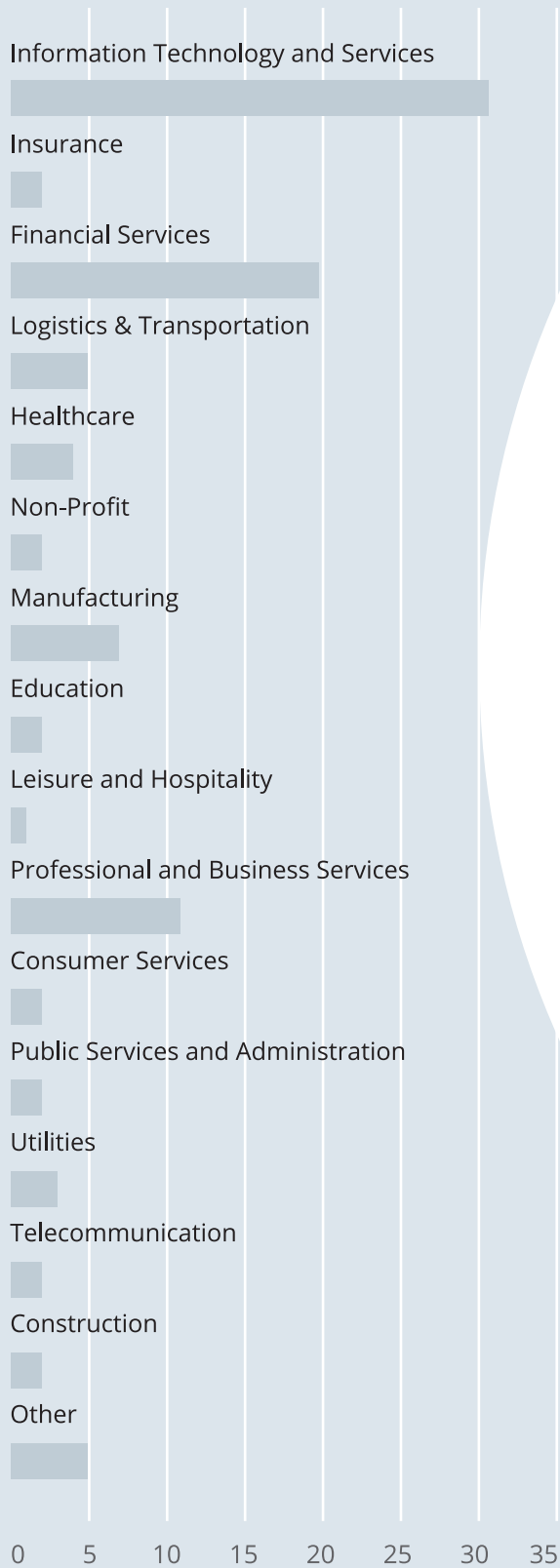


Largely, **the professionals who answered the survey were from Europe**, with 45% coming from DACH countries, 25% from the UK and Ireland, and 6% from Benelux. While there were fewer respondents from North America (5%), 14% came from other regions of the world.

The most common **company size** in terms of the number of employees was 2–50 staff members (31%). However, there was a significant representation from larger companies too, with 21% of businesses comprising 5000 or more staff, and 12% with 1001-5000.

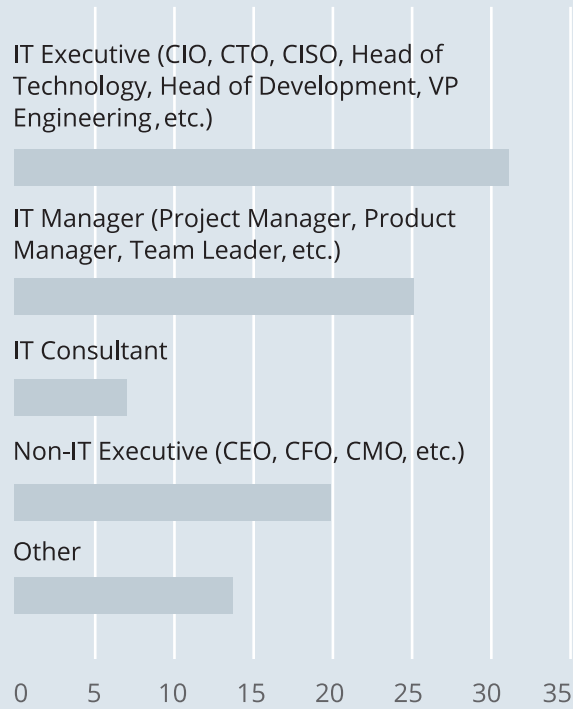
Data gathered through the survey was a **vast and fair representation of the market**. The variety of company sizes, industries, roles, and geographical locations provided our Analysis and Design experts with enough information to understand companies' ROI needs through a range of lenses and gain a full data overview to analyse the results.

### What is your organisation's industry? (%)

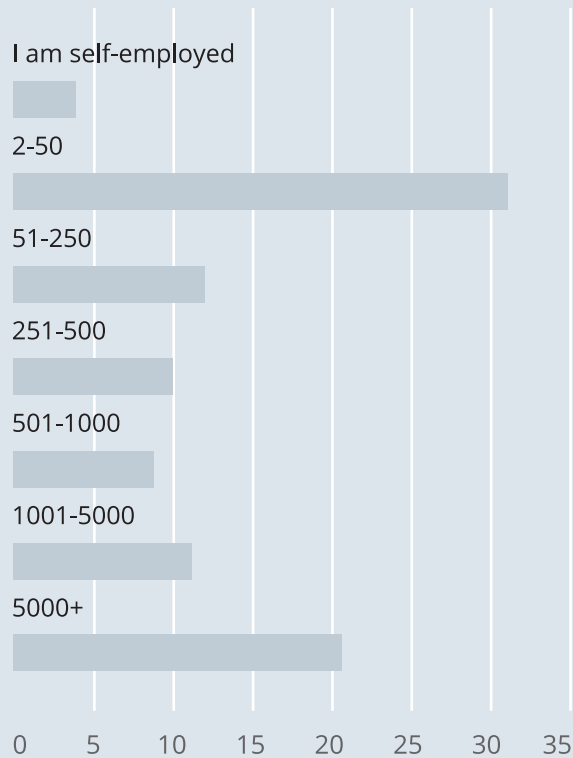





### What is your role? (%)



### What is your company size (number of employees)? (%)





## Methodology 2: In-depth interviews with leading market experts

We conducted video interviews with 12 leading experts in the market representing a range of industries. We asked them about their understanding of ROI, best practices, **the importance of ROI in their day-to-day decision making**, and their ability to accurately measure and understand ROI within their business.

We discussed their experiences of measuring ROI in their current and previous companies. Together, we uncovered important lessons they had learnt along the way, which had helped evolve their understanding of ROI. **Now, we're letting you on tips, tricks, and joint market observations that help measure and understand ROI.**

### #2 The final step

As a result, we were able to get an understanding of the state of ROI across many industries. We also combined our **knowledge of IT projects, business consulting, and data analysis** to provide unique insights into ROI.

Sit back, relax, and discover what we found on the way.

# ROI in IT Projects: the analysis

## #1 ROI in practice

ROI stands for **Return On Investment**. It is a performance metric used for evaluating the profitability or efficiency of an investment. In its simplest understanding, it aims to directly calculate the rate at which investment translates into return.

**ROI is calculated as the ratio of net income (profit or loss), compared to the total investment.**

Calculating ROI is simple. It can be expressed as a ratio or percentage, using the formula:

$$\text{ROI} = (\text{Net profit} / \text{costs}) \times 100\%$$

With this ratio, you can objectively compare different investments.

**For example:** Three companies – A, B, and C – achieved revenues of \$13,000 each. However, Company A invested \$10,000, Company B invested \$5,000, and Company C invested \$15,000. At a glance, what is each company's ROI?

By calculating ROI for each of these investments using the formula **ROI = (Net profit / costs) x 100%**, you get:

ROI: Company A = 30%

ROI: Company B = 160%

ROI: Company C = -13%

With this simple calculation, you can see that Company B had the best ROI with 160% of their original investment. Company A had a reasonable ROI at 30%, but Company C actually made a 13% loss.

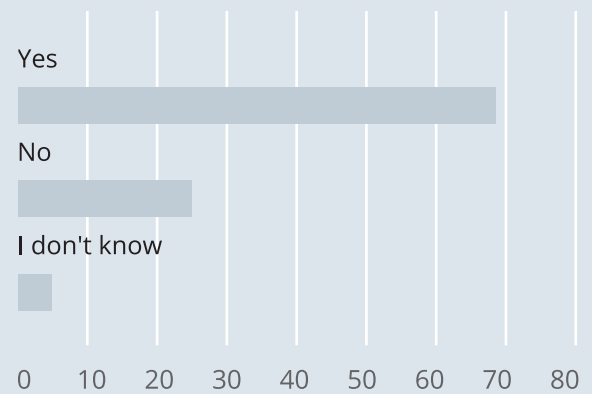
## #2 Why is ROI important?

In order to make good investment decisions, **it's critical to understand how each initiative impacts your balance sheet.** This not only provides valuable information to investors, but it also helps to make informed and calculated investment decisions for future IT projects.

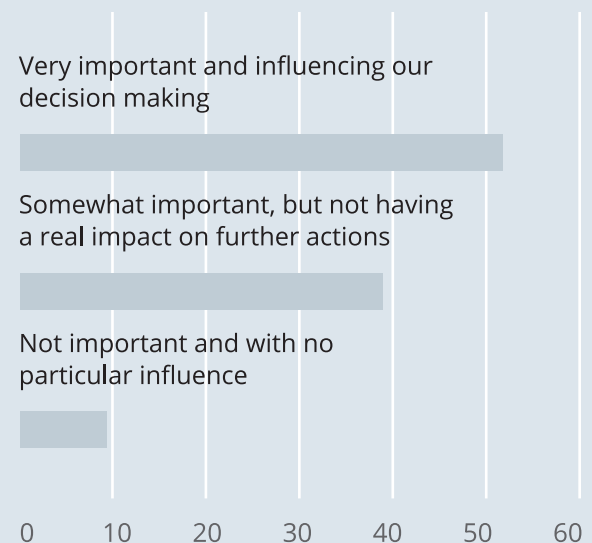
ROI is an important metric for all companies regardless of the size of the business, the number of employees, or the investment amount.

In our survey, **69% of respondents said they actually measured ROI.** 52% of respondents stated that ROI was very important to their decision-making processes, 39% claimed it was somewhat important, and only 9% declared it was not important at all. This is a clear indication of the overwhelming value that ROI has for many businesses and industries.

### Do you measure Return on Investment (ROI) of IT projects or any other software-related initiatives in your company? (%)



### How important is measuring and tracking ROI of IT projects for your organisation? (%)



### #3 The difficulties of ROI

While ROI calculation is simple, **the difficulty lies in determining the net profit accurately** (understood as income and generated savings). If we don't arrive at the correct net profit, then ROI calculation will not be accurate. This is important when calculating the potential ROI before or during an IT project.

Instead of looking at the project holistically, in order to increase the accuracy of ROI calculation, companies try to calculate ROI for specific areas of a project. This will highlight aspects which are working well and help to focus on areas that need improvement.

*There is also a purely financially-led ROI, meaning cashflow improvement or anything else that will tangibly demonstrate revenue growth, cost reduction, operational efficiency, and profit growth – once you put a monetary value on it, that for me, is ROI.*

**Ravi Veerasubramanian**

Director – Managed Services,  
Cloud Solutions, NTT DATA UK

### #4 Soft ROI

There is also another, slightly different approach to ROI. The respondents to our survey mention other elements that help them to calculate ROI, which are often referred to as 'soft ROI' or 'intangible ROI', because they can be difficult to convert into concrete financial measures. The elements mentioned in the survey include:

- **Increased Net Promoter Score (NPS)** – this is a factor that helps to determine user satisfaction with a product and users' willingness to recommend the product to others. If the NPS of a product increases, the chance of gaining new users increases, as do profits.
- **Process comfort and speed** – this aspect can be measured in many ways, depending on the specifics of the project.
- **New service opportunities** – these can be defined by a number of metrics and should be adjusted to the specifics of the business, product, or project.
- **Time savings** – for instance, calculating the number of person-hours saved during process automation or while improving efficiency (e.g., by improving the UX).

There are many other metrics that can be used to calculate and understand the true ROI, as we discovered during our interviews with industry experts.

It's worth emphasising that **effective and meaningful KPIs should be tailored to the specifics of the business**, as it is impossible to identify universal metrics that will work in every case. There is no 'one size fits all' solution.

*Some organisations utilise OKRs (Objectives and Key Results) to focus on outcomes that better explain ROI. OKRs help everyone in the organisation take measurable steps towards strategic objectives.*

**David Kolb**

Senior Technology Advisor



## #5 Market perception of ROI skills

The vast majority of our respondents (**63%**) **stated that they used the classic ROI calculation formula** (or its close variation). Only 12% mentioned using other variations due to the specific metrics of their projects. While these results were positive, one quarter of all respondents stated that they were not aware of any approaches, techniques, or methods their company used to measure ROI.

**Only 10% of survey participants identified themselves as 'experts' in the area of ROI**, and up to 67% considered themselves to be either beginners or intermediate. These results clearly indicate that **there is a real need for advanced ROI measurement in the market**. The ability to provide accurate, reliable ROI calculations that are carefully adapted to project-specific metrics is currently not common, as most organisations still need to improve their knowledge and skills in this area.



## #6 Anticipated ROI vs Actual ROI

ROI is a useful metric when deciding whether to invest in a software project/product, and – more specifically – when choosing which initiative to invest in that may offer the highest return in a given period. This can be done either by aiming for the absolute highest ROI in terms of financial return, or by calculating the best return in a specific time frame. These, done prior to the investment or at the very beginning, both refer to the so called **'Anticipated ROI'**.

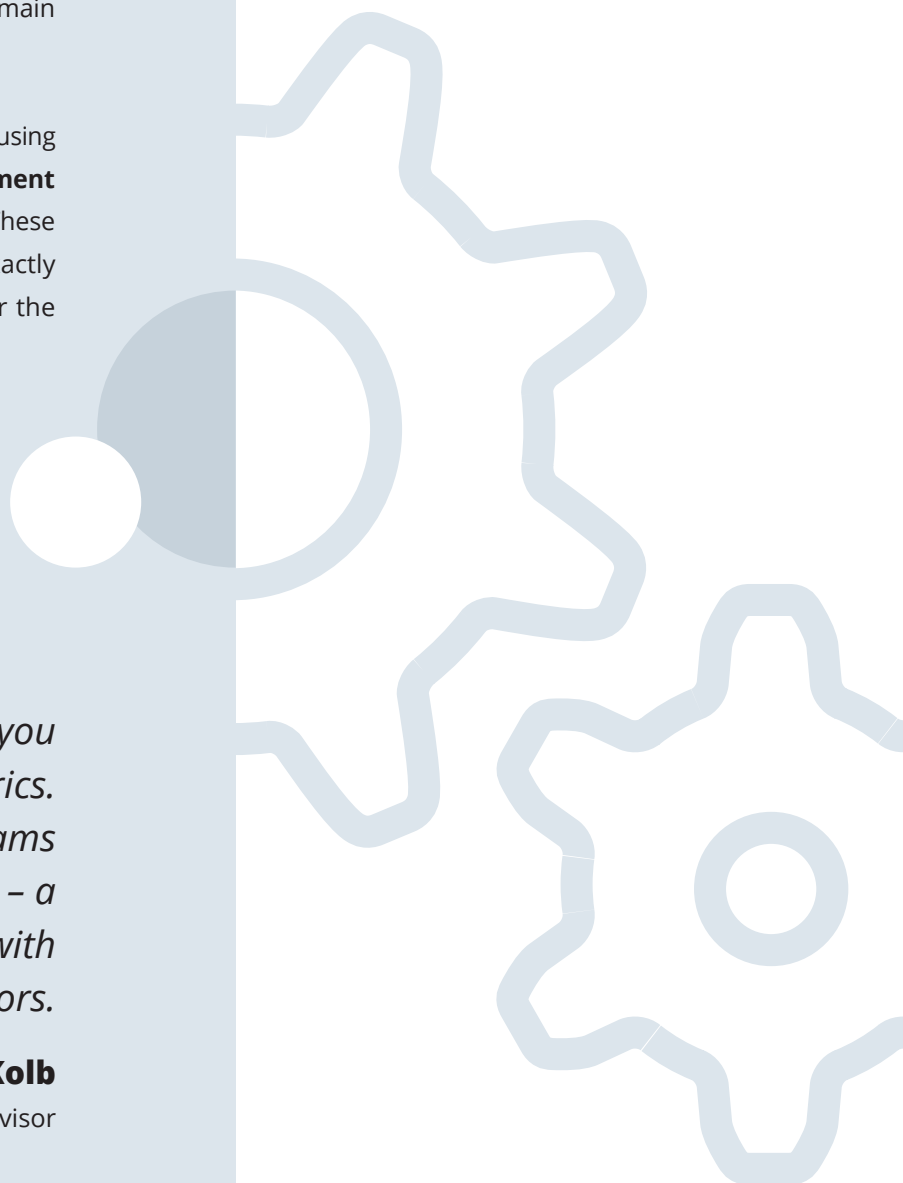
44% of respondents to our survey cited the ability to use ROI to help make decisions and implement changes **during the process** as one of their main reasons for measuring ROI.

Conversely, 41% of respondents claimed that using ROI to evaluate the results **after the investment is made** was their main reason for using it. These companies find value in understanding exactly how successful their investment was after the fact. This is known as **'Actual ROI'**.

*Calculating ROI is hard if you don't have established metrics. Start-ups and new product teams turn to innovation accounting – a way to take measured steps with leading indicators.*

**David Kolb**

Senior Technology Advisor





## #7 The benefits of estimating and measuring ROI

Our research shows that the majority of respondents (69%) measure ROI in their projects. It is interesting to note that **the results of ROI calculations only factored into the decision-making process for around half of the cases we investigated.** The question arises – why measure ROI if it isn't taken into consideration when making decisions?

*The first hurdle when initiating an IT project is to say, "I have a business case." You have to do the high level raw estimate before the project starts, and it can only be an estimate.*

**Tom Reichert**

IT Manager

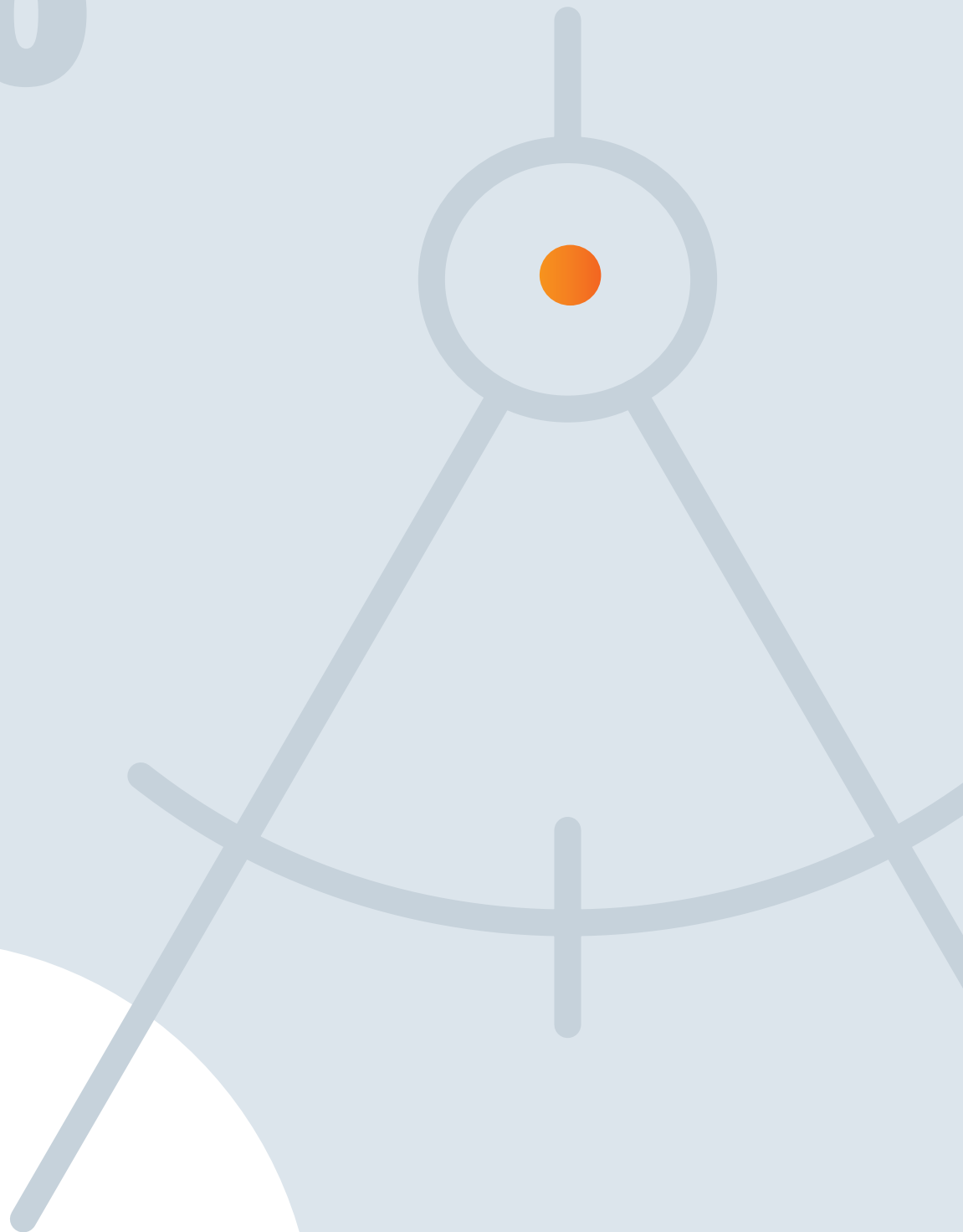


There are many more applications of ROI, e.g.:

- the expected ROI can allow **prioritising tasks, projects, and initiatives,**
- it can be used to **provide evidence for decision-makers** to invest in an initiative,
- comparing the anticipated ROI at the beginning of an initiative to the actual ROI achieved at the end allows **drawing conclusions** about the accuracy of a project. These are then used to **create much more accurate cost estimates and expected revenue** for future projects, and help build confidence for a business and its investors,
- defining ROI helps to **map out the planning process more accurately.** It is much easier and more cost effective to make well-informed amendments to a project at the beginning,
- ROI can also be used on an **operational level.** For example, a Product Owner can calculate the ROI of an investment in a subsequent project, product, or feature. In turn, this can be translated into priorities in the backlog,
- monitoring **ROI can help in holding people accountable.**

69  
%

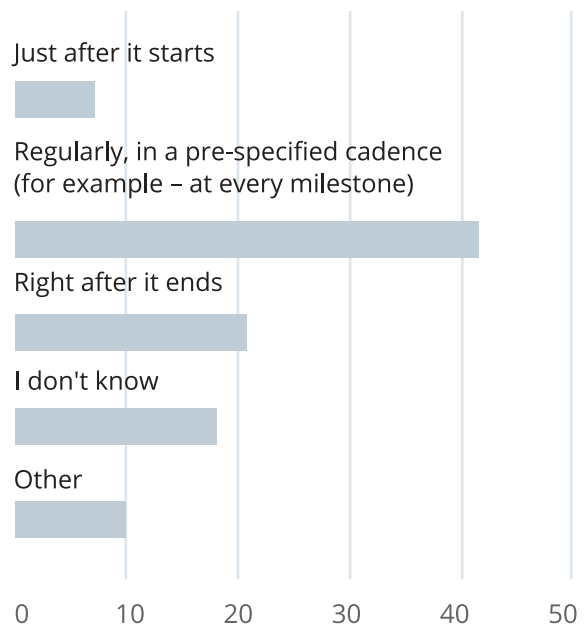
of respondents  
**measure ROI**  
in their projects.



## #8 When to calculate ROI?

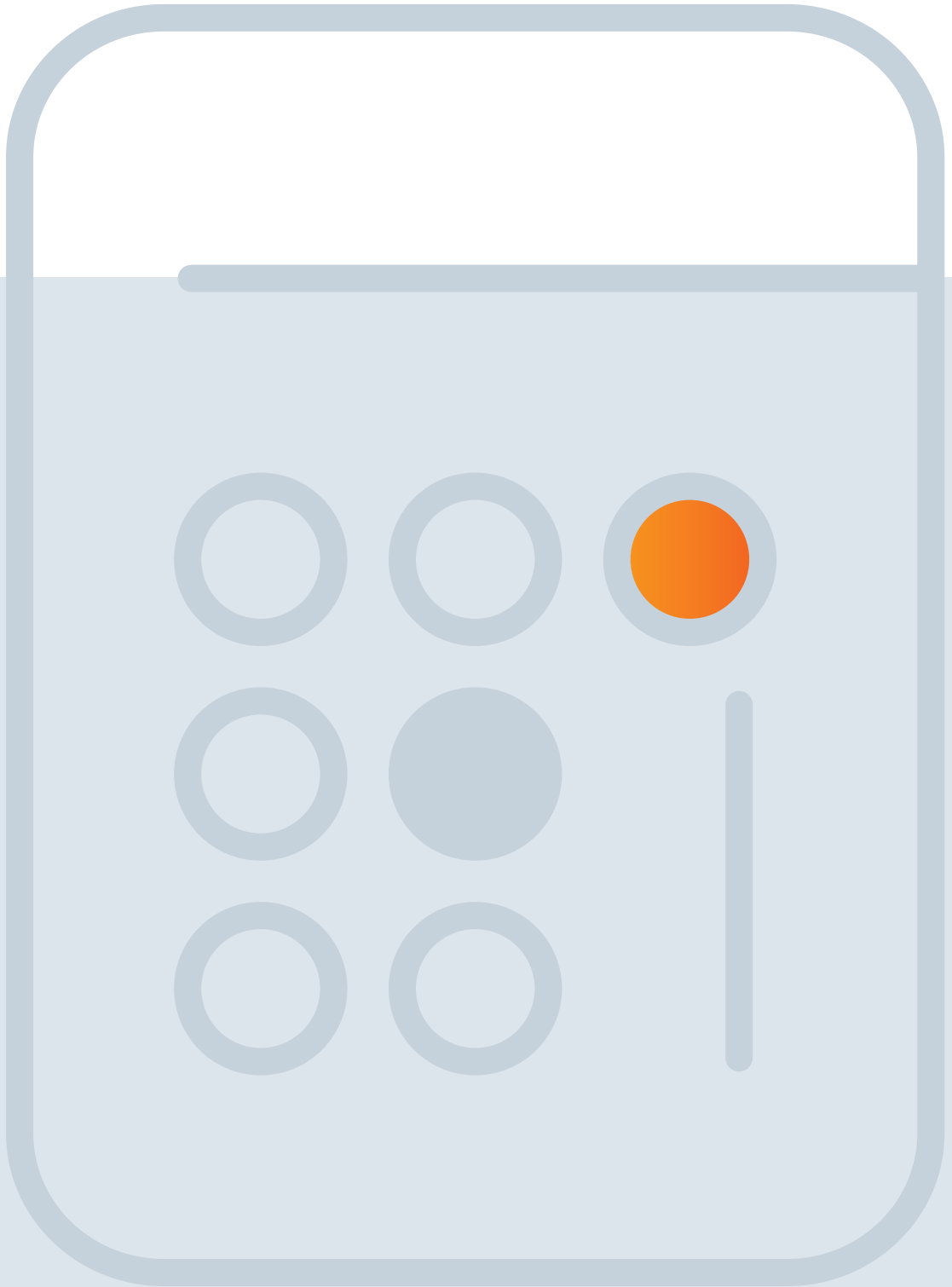
According to our survey, **almost half of all respondents (43%) measure ROI regularly at predetermined intervals** (e.g., at specific project milestones). 21% of respondents take these measurements when their project ends, and just 8% measure ROI immediately after the start of a project.

### At which stage of an IT project do you usually measure its ROI? (%)



During the video interviews, industry experts confirmed that their approach on when to measure ROI followed a similar pattern to that shown in the survey.







## #9 A multi-layered approach to ROI

Through the interviews, we discovered that **it is popular to divide ROI measurements into three stages**. Firstly, an estimation is produced **at the beginning of a project** to forecast what the anticipated ROI is. Companies then proceed to **check ROI at pre-defined points** during the project. The final measurements are made **at the end of the project** to calculate the actual ROI. This multi-layered approach to ROI was almost universally considered to be the most accurate and comprehensive.

When it comes to measuring ROI at pre-defined stages of a project, it was noted that these stages could be performed on a regular basis (monthly, annually, biennially, etc.) or at key project milestones. For the latter, in organisations working strictly according to agile methodologies, ROI

calculations can be done in an iterative rhythm, in correlation with successive increments of delivered software.

It is important to note at this stage that product-led organisations look at ROI precisely from the perspective of what they deliver. For such entities, **ROI may be based on how the product is produced, how many customers use it, how much revenue it generates**, and so on. Such entities are most interested in the total cost of bringing a product to market, and therefore, tend to focus on measuring ROI according to that metric only. Bear it in mind that **not every company has the same definition of a 'return'**, so it is essential that this is defined according to the company's values and priorities.



## Short-term vs long-term ROI

In today's world, most people tend to expect immediate results. However, studying ROI in the short term can be less reliable. **Measuring ROI long-term seems to reflect the desired outcomes more effectively.**

Nevertheless, even if short-term ROI measurement is not the best way to approach the topic, it doesn't mean that it has no value. **Key Performance Indicators (KPIs) can be established to track the product/process journey**, show progress, and validate milestones. These KPIs act as 'checkpoints' on the way to your eventual destination: accurate and reliable ROI.

With complex projects, KPIs tend to be more effective for measuring individual stages, while ROI is more effective for evaluating the whole project in general. KPIs are helpful metrics for predicting the final results of the project, while for ROI is helpful in reviewing the validity of decisions retrospectively.

## Multi-period ROI

The ROI for a project with the same total numbers can be calculated in a variety of ways and may provide results (with an order of magnitude variance) that could lead to various takeaways. Therefore, **it's important to know which calculation to use**, that would best support measuring if you're moving towards the goal of the project.

As for the time frame, it's important to decide on how many years are included in the calculations. Is it one year, two years, or the entire life cycle? Do you take profits from the entire life cycle of the product into account, or just the initial launch? How would any future marketing efforts distort the calculations? **Would this initiative open new sales areas for the whole business suite you're developing?** And if so, for how long?

This is where the trouble begins: while easy to calculate, **the results of your ROI performance rely heavily on the assumptions and compromises you need to take during your calculations.**

## #10 Who measures ROI in organisations?

Our survey showed that **people in C-level roles were usually responsible for measuring ROI**. 59% of all respondents identified themselves as CIOs, CTOs, CFOs, or similar. Only 7% said their company had a dedicated ROI Officer, and only 2% said their businesses outsourced their ROI measurements to external companies. In the interviews, a number of experts emphasised that although the C-level staff was primarily responsible for ROI management, lower-level employees did indeed support them as they felt co-responsible for the ROI 'cost challenge'.

The interviews uncovered that **the responsibility for ROI calculations could also lie across the departments** – according to the ownership of projects and their respective processes. Even though it might be challenging, it is definitely a recommended practice.

### Who is responsible for measuring ROI of IT projects in your organisation? (%)





**The high-level raw estimate has to be done by the business.**

**The methodology is created and supported by IT** because we need the facts and figures to be able to manage our portfolio of projects. On the other hand, let's say the process ownership is on the business side. But we do these all together in alignment.



**Tom Reichert**, IT Manager



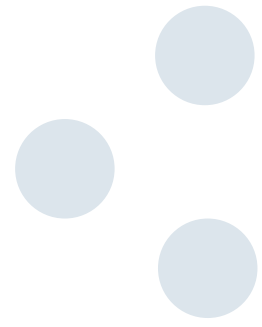
**The responsibility for ROI** within companies is not confined to the C-Suite staff only. Although these employees make up the largest proportion of people who manage ROI, **the responsibility regularly falls to other staff members** such as managers closely related to IT, marketing teams, dedicated ROI specialists, and, on occasion, external consultants.

If ROI is such a critical metric to a business's success, why is it not be the sole responsibility of the highest-level employees: the C-Suites, the Presidents, the Managing Directors? This is largely because it's almost **impossible to look at ROI from a global perspective**. It cannot be accurately quantified

in terms of the 'entire organisation', but rather, it **must be broken down** and measured in individual projects and departments.

To achieve the optimal ROI measurements, every single person involved in a given project needs to take care of their own section, taking responsibility for their tasks and analysing their individual ROI.

There is little true value in looking at ROI holistically because a company is made of many 'parts', and not a single piece.





## #11 Outsourcing ROI responsibility to external IT consultants

The survey shows clearly that **companies rarely employ external consultants to calculate and manage their ROI**. We explored this subject more closely in the interviews with industry experts and we arrived at two major findings.

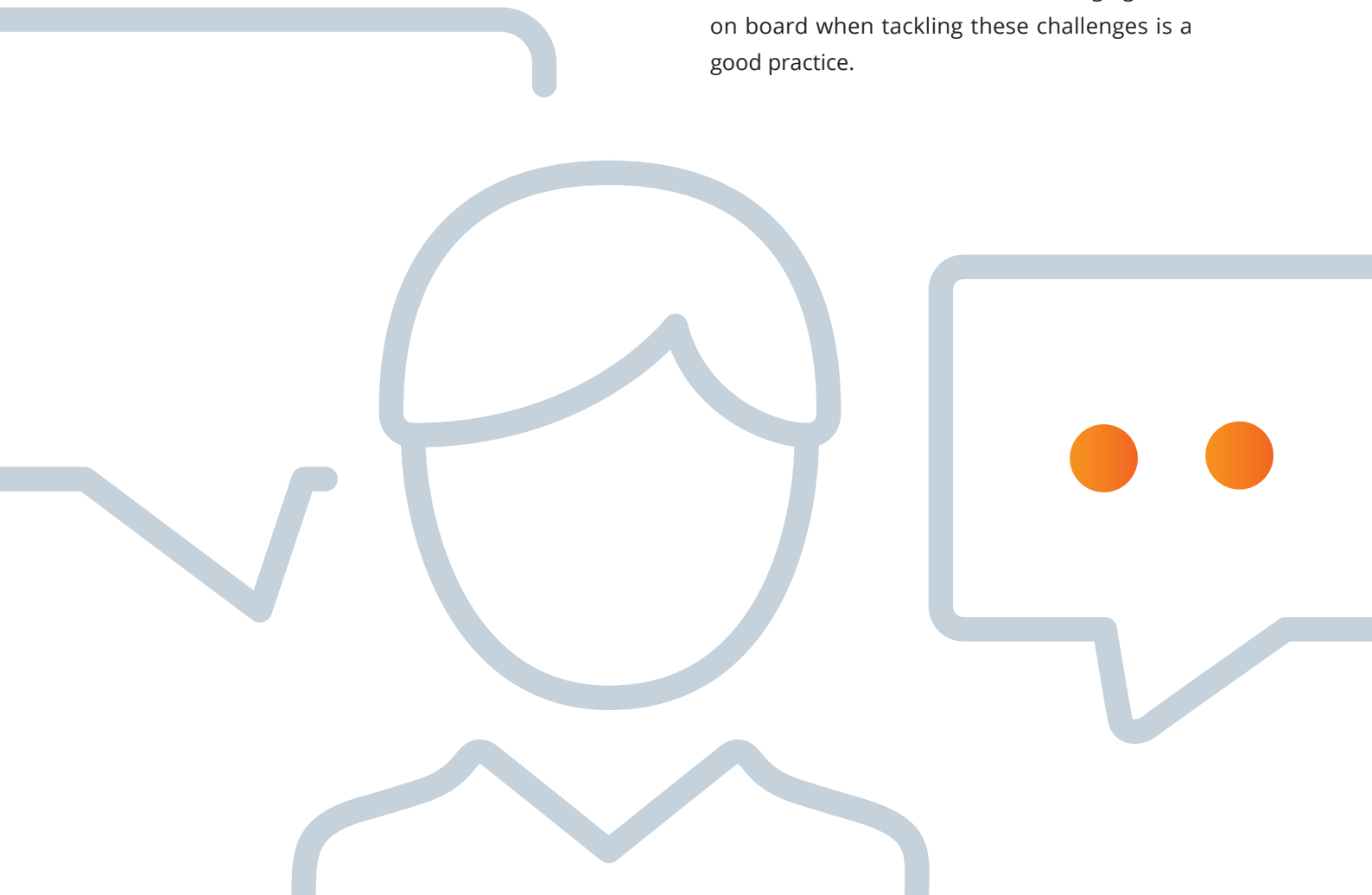
First and foremost, **third-party consultants struggle to 'prove' the value of their services** in a convincing way, which tends to be a deal breaker for their potential clients. Instead, companies prefer to undertake their ROI management themselves but with mixed results, as they often have little experience in this area.

Secondly, **external service providers are only directly involved in ROI on a 'need to know'**

**basis. If ROI information is relevant to their actual tasks, the client company may share it with them. If the client company doesn't find this information relevant to the external consultants' work, it's highly unlikely to be shared.**

One important takeaway of the interviews is the discovery that companies are **not only reluctant to share ROI metrics** with external organisations, even if they are involved in the projects that affect them, but they are in fact **overwhelmingly protective of this information** and are likely to go to great lengths to keep it to themselves.

However, it is worth noting that some of **more mature technology companies** do have the capability to deliver a software project complete with its ROI calculations, and thus bringing them on board when tackling these challenges is a good practice.



*Internally, organisations do not have sufficiently skilled practitioners who are able to do it [measure and manage ROI]. I don't think they have the capability or focus, and therefore, I believe that if you scrutinise the business case for many company's projects, they don't pass muster.*

**Simon Scarott**

Consulting Director and Business Advisor

*We don't share anything with other companies unless they are involved in it... We do not disclose all the details, only what they [external agencies] need to know regarding the project and our spending. They are given "enough" information to carry out their jobs, but they aren't let into everything – only the "need to know" aspects relevant to their task.*

**Victor Benjamin Oshodi**

CEO, Pearly Bleuwaters

## Challenges for consultants

Among the 182 surveyed respondents, only 4 (2%) indicated that they used external consultants. The typical reasons for the extremely low use of external consultants in determining ROI could be **previous negative experiences**. Businesses may believe that an external consultant lacks the necessary understanding of their domain or they may be somewhat put off by the potential difficulties and high costs involved.

As mentioned before, even if companies outsource all (or part) of this responsibility, external consultants **do not have access to the necessary data** to measure ROI based on the activities in which they are engaged with the customer company. Often, the reason for this is that companies in general lack the necessary data to share, or this data might be too poor in terms of quality to actually form a valuable merit to the analysis.

In addition, in our ROI survey, 39% of respondents rated the relevance of ROI in their practice as only 'somewhat important'. This can suggest that **consultants may not be directly involved** in the processes of defining, monitoring, or verifying ROI of the work they deliver, since this process often is not being performed anyway.

## Choosing an external ROI consultant

When choosing a consultant, prepare some basic information.

Firstly, **determine what you seek to get out of** the arrangement before meeting the potential consultant. What do you hope to achieve? Once you have defined this, **look for a firm that understands your sector extensively** but doesn't

necessarily share your thought processes (after all, you're hiring a consultant to show you new ways of quantifying your ROI, not to repeat things you've been doing for years). A general fit for the business and domain-specific knowledge might even warp consultants' objectivity as they tend to project their biased point of view onto an already biased organisation.

Once you've found a potential fit, **do your homework** – find out exactly who you're hiring: their professional history and specialisation. Next, **create an exit plan** to minimise the risk of vendor lock-in. An example exit plan could be based on the partnership coming to an end once certain indicators, KPIs, or ROIs are met. This will provide you with a 'get out' clause, while still leaving the door open for further collaboration if you wish to keep it going.

Before signing the contract, **seek authenticity** – is the consultant able to prove their ROI methodology based on their own services? Are they willing to contract in an ROI-based model? Look for consultants who believe that **ROI is not a formula, it is a responsibility**.

In fact, **experience is secondary to analytical skills** – a business acumen for putting information into perspective accurately. Seek for objectivity, which is crucial for proper assessment and differentiating between important and irrelevant business information, as well as for flexibility, understood as an ability to pivot a point, if that's required by the changing circumstances or incorrect assumptions.



39  
%

of respondents indicated that they rated the relevance of ROI as only **'somewhat important'**.





## Different ROI consulting services

There are **three main activities that external ROI consultants can undertake** with customers.

Firstly, they can conduct an audit which involves evaluation of a project or organisational area. As a result of the **audit**, the client receives a report in which the auditor evaluates certain pre-defined aspects. These aspects may include the impact of the project (and related projects) on other important areas of the organisation, the financial ROI, and non-financial benefits.

Secondly, a consultant can **provide ROI training** for the organisation's employees to let them acquire the necessary knowledge and experience to work independently with ROI – for example in the areas of planning and implementing processes for ROI analysis, data collection, or the interpretation and presentation of results. It is also useful to provide training on steps for improvement once the ROI analysis has been done, and making well-informed decisions based on that analysis.

To sum up, an external consultant gives you **an opportunity to gain a fresh perspective on your business**, as someone who's able to differentiate between valuable information and wasteful processes driving profitability down.



An external agent operating as the person who is responsible for guaranteeing benefits and realising ROI actually **increases your opportunity to do it** because that's what they're vested in.



**Simon Scarott**, Consulting Director and Business Advisor



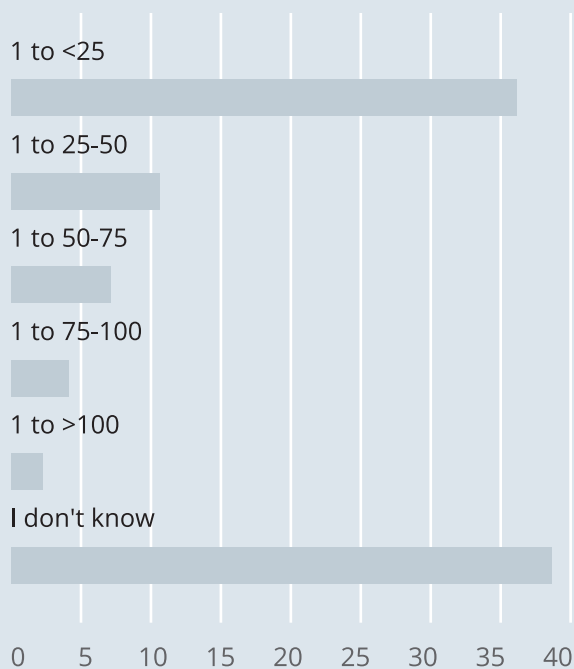
## #12 ROI Expectations

When asked about satisfactory ROI for their business, most respondents said simply **'I don't know'**.

A staggering 39% of respondents admitted they didn't know what level of ROI to expect. The unfortunate result is that **they tend to have no expectations at all**.

For those who did express certain expectations, the overwhelming majority were at the lowest levels of return percentages, with ROI of 1-25 and 25-50 gaining 26% and 12% of the choices, respectively. Nevertheless, it's important to remember that 1-25 is not a bad ratio for ROI in fact.

### What is a satisfactory ROI level for your organisation regarding IT projects? (%)

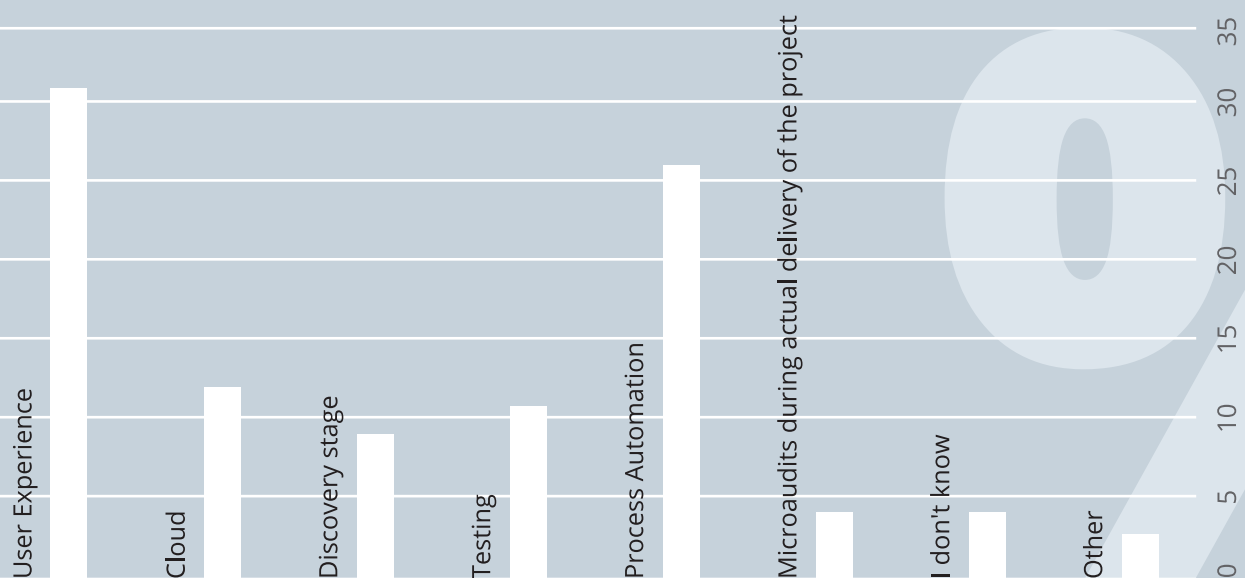


## #13 ROI: Significant contributing factors

When calculating ROI, there are a number of significant factors that can be considered which influence ROI to a greater or lesser extent.

In our survey, we asked the experts about which areas had the most significant impact on ROI in their business. In this section of the report, we will go through these aspects in detail.

In your opinion, **which of the areas below have the most significant impact of the overall ROI** of your IT projects and software-related initiatives? *(multiple choice available)*



## ROI and UX

User experience (UX) is the most significant area affecting ROI. We understand UX to mean ***all actions taken in a product/project with the end users' well-being in mind.***

31% of survey respondents chose UX as the element that most significantly influenced ROI. This result was also consistently present in the expert interviews and it's clear that for many people and organisations, their thought process is based on: 'good UX means a good ROI'. Interestingly, this result was the same regardless of the size of the organisation.

*Focus on the user and  
all else will follow.*

### **Rule #1**

Google's *Ten Things* Philosophy

UX can influence ROI at any stage of a product's life. This is true when researching needs, gathering requirements, making or changing design decisions, and implementing changes based on feedback.

*Customer experience only really becomes something you can measure, track and overtly influence if you have long-term metrics for that customer base.*

### **Simon Scarott**

Consulting Director and Business Advisor

Not only can good UX translate into higher ROI, but neglecting this area and providing poor UX can lower ROI significantly.

## Good UX – Higher ROI

### Externally

Higher customer confidence will result in more service recommendations and increased loyalty

Higher retention and lower cost of acquiring a customer

In e-commerce terms, good UX translates into greater customer spending

No need to invest in onboarding customers, which reduces costs

Higher profits

### Internally

All benefits from the external viewpoint benefit the company internally

Reduces development costs at the decision level (e.g. scope, priorities, design, etc.), preventing costly changes

Reduces user support costs by reducing user errors

## Poor UX – Lower ROI

### Externally

Raises the cost of customer service

Raises the cost of customer acquisition and retention

Reduces profit

May cause IT issues which repel users, causing customers to choose other solutions

### Internally

Increases development costs

Increases room for error, forcing expensive fixes

Forces more staff to support customers

## ROI in UX at different stages of an IT project

When it comes to ROI in UX, it is very important to be able to **make use of the historical data** you already possess. This will allow you to measure performance indicators before implementing a change to **establish benchmark expectations** and then study how the changes are received. Respondents to our survey indicated, that they usually measured ROI at these three different stages:

### BEFORE THE PROJECT BEGINS

Firstly, do your research. **The discovery phase of any project is critical for its success and enables you to clearly define the scope of work and so, its success factors.** Based on the *Trillion dollar UX Problem report*, the number of projects abandoned because they do not meet the original purpose is close to 15%, which equates to \$150 billion wasted annually worldwide.<sup>1</sup> The time burned by developers reworking badly-scoped projects with avoidable faults amounts to around 50% of the total development life cycle! Out of the top 12 reasons why IT projects fail, the first three spots are attributed to UX failures.

*The value of UX is not wasting time and money developing the wrong solution.*

### Jeff Humble

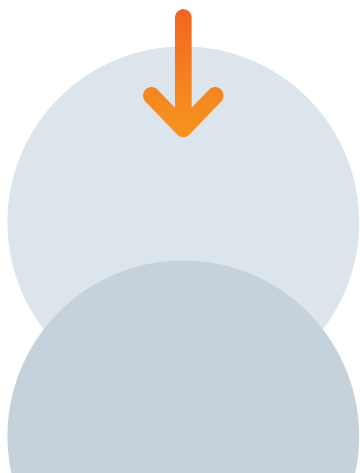
CO-funder, The Fountain Institute

### DEVELOPMENT DURING A PROJECT

For every \$1 it costs to fix a problem during design, it would cost \$5 to fix the same problem during development, and as much as \$100 to fix the same problem after the product's release. Validating design mock-up solutions is much faster and cheaper.<sup>2</sup> Building a No-Code or Low-Code MVP requires mostly design work.

### SUPPORT AFTER THE RELEASE OF THE PROJECT

Developing software with user-centred design increases adoption by 20–70%<sup>2</sup> and results in visible reduction of support requests from customers.





## Measuring the success of UX

Sample metrics to take into consideration when measuring the success of UX-related initiatives are as follows:

### CR Conversion rate

This is used when measuring how often users perform a desired action.

# CR

$$\text{Conversion rate} = \frac{\text{\# People who take a desired action}}{\text{Total Visitors}} \times 100$$

### BR Bounce rate

This is an indicator mainly used in e-commerce (but not exclusively). It focuses on how often users 'bounce' and don't end up purchasing the contents of their shopping cart in an online shop.

# BR

$$\text{Bounce rate} = \frac{\text{\# People who leave the website without interacting with other pages}}{\text{Total Visitors}} \times 100$$

### NPS Net Promoter Score (NPS)

This is a general indicator of loyalty to a product/brand. The higher the NPS, the higher the engagement and the greater the potential for growth.





(...) *the **highest returns** are expected from investment in UX.*

## RPC

### Revenue per customer

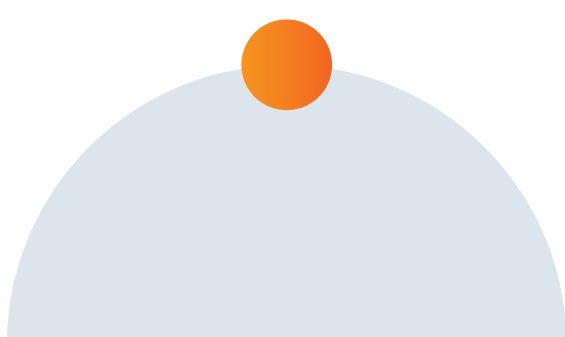
This is an indicator which measures the cost of performing a specific action by the user. For example, it could refer to the cost of displaying an advertisement, right until the purchase of an item/service, divided by all those who clicked on the advertisement.

Involvement and expenditure on UX are **proven to translate very well into increased revenue**, both by increasing income and reducing maintenance and support costs, which in turn boost your ROI numbers. As UX elements can be present in any project at any point in time, this is in line with the observation shown in the survey: **the highest returns are expected from investment in UX.**

## SUS

### System Usability Score

This is an indicator where users in a moderated survey answer questions about the usability of the interface on a scale of 1 to 5.





## ROI and process automation

In our survey, **process automation was identified as the second most significant area affecting ROI**, with 26% of respondents identifying it as important. This was confirmed in our video interviews, where process automation was named one of the main areas that leading experts felt as key to improving ROI. It is interesting to note that process automation is indicated as important more often by those respondents who measure ROI 'immediately after investment'.

To increase returns of process automation, **the key is to decompose business processes into specific tasks**, and then prioritise certain tasks as required. Examples of task categories that lend themselves to ROI from automation include tasks based on clear rules with few exceptions, labour or time-intensive tasks, repetitive tasks, and other tasks in which there are specific, defined data structures.

### Calculating ROI of process automation

In order to calculate the savings resulting from the automation of a particular process you can use the following formula:

Time (*spent on a single task*) x frequency (*during the year*) x cost (*per hour*) = **annual savings**

*This is the quickest way to save money. In a very short time, you can automate a lot of error-prone manual process steps.*

**Tom Reichert**

IT Manager

*If you look back from the time that the pandemic accelerated transformation, you will probably find cloud computing and process automation have driven the largest return on investments.*

**Ravi Veerasubramanian**

Director – Managed Services,  
Cloud Solutions, NTT DATA UK

Moreover, automating processes in a business minimises the downtime of systems incurred in its processes. To determine the savings gained from minimising downtime, we can use the following calculation:

# #1

Estimate the cost of losses incurred if a particular service is not available at a particular time (seconds/minutes/hours).

# #2

Calculate the annual cost of this loss:

$$\text{Annual cost of this loss} = \text{cost of loss (sec/min/hour)} \times \text{average time that service is unavailable} \times \text{number of events per year}$$

# #3

Estimate the expected [%] reduction of incidents.

# #4

Calculate the annual savings:

$$\text{Annual savings} = \text{annual cost} \times [\%] \text{ reduction in events}$$

## ROI and the Cloud

Migrating your business to the Cloud is a perfect example of **ROI-driven decision-making**. Measuring ROI is an important factor in choosing the right Cloud platform to migrate to.

12% of respondents to our survey indicated the Cloud as the most impactful area increasing ROI of IT projects. We also found out that organisations in **North America perceived the Cloud as having more impact on ROI** than in the opinion of businesses from other geographies.

Another interesting correlation is that the more experienced the respondents were, the more important migrating to the Cloud was to them, as an area directly influencing the bottom line.

Such a migration is **not a leap of faith, nor an all-or-nothing scenario**. It could be divided into sub-processes, where parts of your business might actually offer better returns when held on-premise or in-house, while others might benefit significantly from the switch by boosting performance and cutting costs.

For more information on ROI value in terms of the Cloud, please refer to the case study in section 7 later in this report in which we go into great detail about **how we have leveraged ROI calculation methods at Future Processing** to make well-informed decisions related to choosing the best way to transform our business to the Cloud.



## ROI and the discovery stage

When asked: *In your opinion, which areas have the most significant impact on the overall ROI of your IT projects and software-related initiatives?*, 31% of respondents indicated UX but only 9% stated the discovery stage.

Some respondents provided answers that were not on our list, such as having a clear purpose, defining what it means to have 'early wins', and the inclusion of key business stakeholders and users throughout the process.

This stakeholder involvement came up a few times, as did the concept of delivering value to the user. Even though these seem random on the surface, at a closer glance, it's clear that **they are all key aspects of the discovery phase** of an IT project.

### The discovery stage plays an important role in terms of the overall ROI.

Firstly, during the discovery phase the aim is to **understand the issue** rather than merely assume it. **Stakeholders should be engaged in the discovery stage** to enable the team to gain the broadest possible knowledge of the domain and project. **The actions to be taken should be defined** in a different, challenging way, taking an innovative approach. In **developing the solution process** seeking the answers to the previously defined problem and designing the solutions with the stakeholders closely engaged are crucial. Finally, it is important to **deliver**, having tested the applied solutions and improving these which require it.

In addition, among those who identified the discovery phase as having a significant impact on ROI, the **vast majority consider ROI to be 'very important' (65%)**, with additional 27% ranking it as being 'somewhat important'. This indicates high awareness of the benefits of the discovery phase among those who care about ROI.

Let's take a look at how the discovery phase actually impacts ROI:

$$\text{ROI} = \frac{\text{profit}}{\text{cost}} \times 100\%$$

↑ Discovery phase = Product better-suited to the market and its needs = Greater chance of profit

↓ Discovery phase = Better-designed product = Less risk of rising costs

The discovery phase reduces the risk of unforeseen or rising costs throughout the project and, therefore, reduces the denominator in the ROI formula.

In project management, this situation is often attributed to the so-called **scope creep** – when stakeholders add unexpected new features and functionalities to the project scope, which were neither included nor agreed on from the outset and so they bring risk to the project’s timeline, cost, and resources.

Scope creep creates unforeseen, additional project costs such as materials and labour, and **creates challenges for usually already tight budgets**. Consequently, with each unplanned occurrence, the ROI forecast suffers.

Scope creep correlations with other factors can be clearly seen in the surveys of these parameters conducted annually by the Project Management Institute.<sup>3,4</sup> Moreover, **scope creep has an inversely proportional relationship with other parameters** that are important for the project’s success and profitability, such as:

**meeting the assumed objectives and business interests**

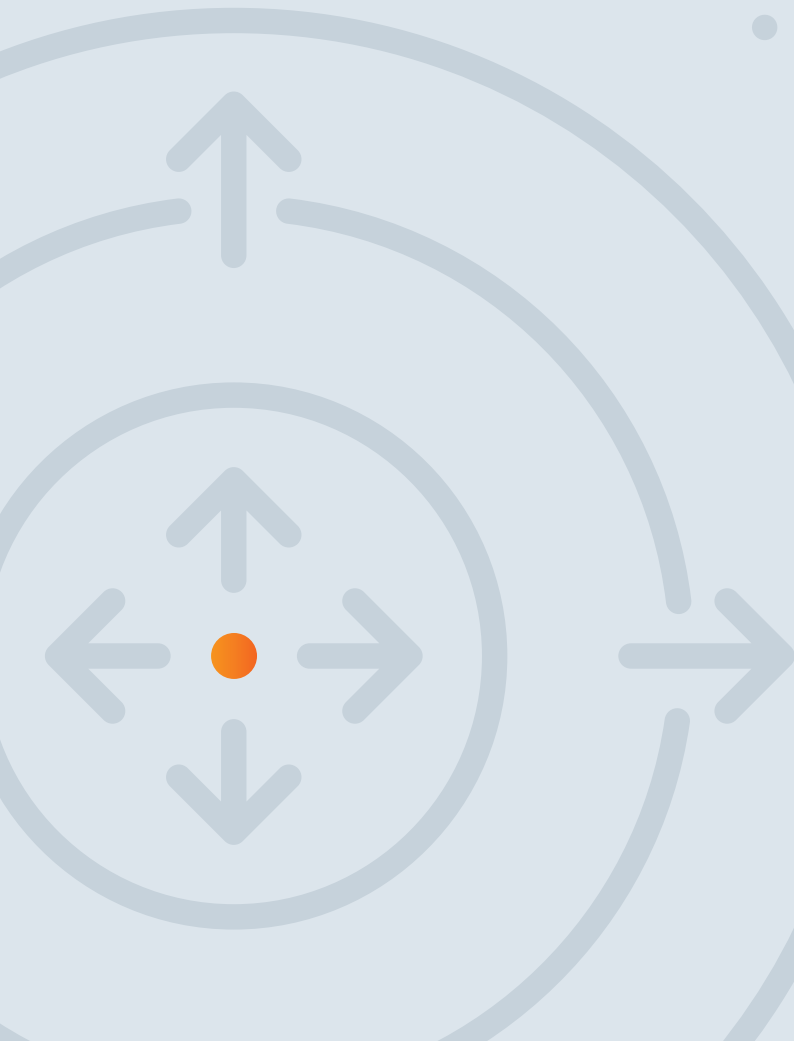
the smaller the scope creep, the more likely the project will meet the assumed objectives

**completing the project within the planned budget**

the smaller the scope creep, the greater the chance of not exceeding the budget

**completing the project on time**

the smaller the scope creep, the greater the chance to complete the project on time



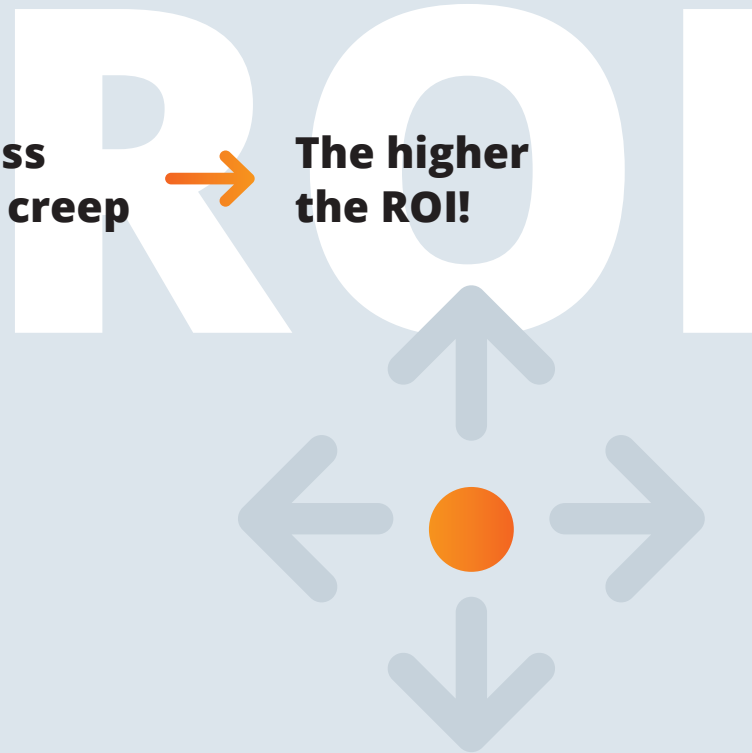
**The better the discovery phase**



**The less scope creep**



**The higher the ROI!**



In organisations that ensure lower scope creep, better results in positive project parameters are also clearly visible. As the PMI Pulse of the Profession 2020 points out in their study, organisations that are more mature and place a higher priority on value delivery get clearly better project metrics – they have lower scope creep and less project failures, they meet their goals, staying within the budget and delivering on time more often than those less mature organisations. All the parameters shown in the study have **a direct the impact on ROI.**

Admittedly, **scope creep is practically impossible to avoid.**

Nevertheless, its impact can be significantly reduced, and this is where the discovery phase helps. Some of **the most common causes of scope creep include** not prioritising features, poorly defined requirements, receiving user feedback too late, lack of clarity, not including stakeholders early on, poor alignment, and being unable to say ‘no’.

A range of strategies from the discovery phase can be employed to avoid the issues above. It’s important to start off by **postponing the project until full requirements analysis has been done.** This allows creating a detailed project scope. Next, **perform stakeholder analysis** to determine who’s going to be involved in the project, how much time they have at hand, and what they want to accomplish in the project. Make sure to engage the stakeholders early on in the project so as to negotiate critical priorities. This will also help in aligning the stakeholders from day one and ensure their requirements are in sync. Don’t forget to **involve users early on** as well, and seek their feedback early in the design phase. Lastly, make sure you **identify the key components and features** that are most critical to the project’s success.

A thorough discovery phase is the simplest yet most effective way to help prevent scope creep. Of course, the more thorough it is, the smaller the risk or surprising your accountants with unforeseen expenditures.

What is more, the discovery phase makes a product better suited to the environment, its competitors, and users. This results in greater project success and, consequently, greater ROI.

Research shows that 9 out of 10 startups fail, and of those, 34% fail because their product was not aligned well with the market.<sup>3</sup> With a well-executed discovery phase, this alignment would be ensured, and stakeholders would stay on top of these risks.

In Wellington's 2020 *The State of Project Management Report*, respondents identified the two areas that are relatively easy to control and give the most value to the project and its success to be **stakeholder engagement** and **risk management**.<sup>5</sup>

Conducting a discovery phase before the start of a project precisely focuses on early stakeholder engagement, which in turn increases stakeholder participation and **strengthens ownership of the project in the long term**. Another important element of the discovery phase is risk analysis, which allows risks to be identified and proactively addressed from the outset.



**The better the  
discovery phase**



**The more  
successful  
the project**



**The higher  
the ROI!**

## ROI and the IT delivery process

There are various metrics in the development process itself that affect the ROI value. **Any aspects that accelerate the speed of delivery, increase the quality of the product, and reduce the amount of changes in requirements will increase ROI.**

### Speed

Implementation speed is an obvious contributor to the ROI score. The use of modern frameworks and libraries significantly speeds up development time and allows developers to focus on solving important problems and delivering business value, instead of 'reinventing the wheel', so to speak.

In addition, each requirement change means that some work needs to be scrapped, then done again, which also means increased delivery time and costs and is detrimental to the expected returns. These changes may come about due to ignoring the importance of in-depth analysis and the design phase of product development, other unwise business decisions, or simple misunderstandings. Often, **the reason for refactoring is simply the lack of knowledge** in terms of the vision as a whole at the beginning of the development work. Wrong assumptions at the level of architecture can significantly affect the size of the return at a later stage. **This risk is strongly mitigated by the discovery phase**, in which technical architects participate and thus are able to deliver their detailed vision to all stakeholders.





## Quality

Maintaining quality allows avoiding major slip-ups during production and will translate into increased chances of the product's success. The faster the application errors are caught, the better the user experience and reliability, the lower frustration of the users, and the higher their trust in the brand. In addition, this reduces the number of support tickets which also generate costs. The quality of the product also reduces potential downtime, which can generate huge costs in some products. Your solution **should work and bring profits instead costing a lot to fix it.**

One way to increase product quality and optimise resources in the long run is to implement **automated testing**. Of course, in the beginning, this will incur a greater financial burden, but eventually, it should decrease to just the costs of test maintenance. Nonetheless, if the requirements change too dynamically, the costs of maintaining the tests may exceed their value.

$$\text{ROI} = \frac{\text{savings}}{\text{investment}}$$

**Savings** = The amount gained by replacing manual tests with automated tests.

**Investment** = The costs funnelled into setting up test automation pipelines and maintaining the test during development.

Other aspects that will protect the business from losses are various types of audits, such as **security audits**. The costs associated with data leaks can be devastating for any company, with reports suggesting that the cost rose from 3.86 million to 4.24 million USD in 2021 on average.<sup>6</sup> Incidents like this can severely impact customer confidence in a brand. Implementing security policies and working to standards such as ISO can protect a company's reputation and provide a sense of security for its customers.

## #14 ROI in projects vs ROI in products

Our interviewees often mentioned that their **approach to measuring ROI differed** depending on whether they were talking about product-based or more traditional project-based organisations.

To better understand **the differences between project thinking and product thinking**, look at the graph on the right.

Research shows that ROI has its uses in both project and product approaches depending on the areas on which the measures are focused. The approach itself, is decided upon on the basis of the goal you currently want to achieve.

### Product thinking



Focuses on outcomes

Value

Continuous

Effectiveness

Evolving needs

**VS**

### Project thinking



Focuses on outputs

Scope, time, budget

Time limited

Efficiency

Fixed requirements

When defining 'anticipated ROI' prior to making an investment, you will often direct your attention to the long-term (product) perspective. **When estimating costs, you shouldn't only count in development and infrastructure**, but also predicted expenses that are very likely to occur after the completion of the project, such as support and maintenance.

With the product-led perspective, assume a long-term view, and account for the large scope of business implications of a given product, rather than just the delivery process itself. A purely financial ROI stands at the core of calculations, but there's also a whole set of non-tangible values to consider, such as customer experience, NPS research data, brand recognition, and customer/employee loyalty (depending on the assumed

*Many organisations are product based, so they look at the ROI from a product perspective...  
What is the product's value to the customer and will they use it?*

**David Kolb**

Senior Technology Advisor

business goals). These values – although difficult to measure in terms of hard cash – play a key role in the product approach, and will turn into concrete figures on the balance sheet at some point.

**Organisations that believe in product-centric approach are much more likely to refer to ROI by its 'broader' definition**, incorporating these 'value-based metrics' in their calculations, instead of going purely for profit-to-investment ratios.



## #15 Traps and pitfalls of ROI

While there are unarguably plenty of benefits to adopting ROI into many, if not all, aspects of decision-making, it must be noted that – as with any tool – **it has its flaws**. Below are some of the issues raised by the industry experts we interviewed.

### #1

#### Issue #1: Gaining reliable data

One of the more worrying issues is the **low level of confidence that ROI can deliver high-quality, reliable data**. ROI is often treated primarily as an input to the business case – an argument for decision makers as to why a particular change should be implemented in order to gain budget.

ROI calculations treated as a short-run activity at the beginning of a project may not be as accurate or comprehensive at this stage, and the measurement mechanisms may not yet exist. Consequently, the actual project results may differ by up to 35%.

*In my experience, 70% of the time, the business case is generated merely to satisfy an internal tick box exercise to get the investment. It isn't robustly calculated at all.*

**Simon Scarrott**

Consulting Director and Business Advisor

*If you work for a company that hasn't necessarily used ROI effectively, redefine a strategy for how your product or service aligns to measurable business outcomes.*

**David Kolb**

Senior Technology Advisor

Similarly, if an organisation historically placed little or no focus on ROI, attaching greater weight to ROI may be tricky, as the data needed to guide this process would simply be unavailable.

**ROI is all about data, so if data is not available, for example in legacy contexts, this could be a major barrier for an organisation.** Modern businesses or those who have gone through digital transformation are likely to have the data at their fingertips, and as they define new products and services built from the ground up, and they will use that data to take their products forwards. This puts companies without relevant data at a major disadvantage.



## #2

**Issue #2:** Implementation costs

By default, we often focus on the direct costs of implementing a solution when estimating ROI in IT. **The actual cost** of implementing a change may be much higher than the initial estimate, and **could additionally include different aspects** such as costs related to the problem/solution analysis, licensing, infrastructure, maintenance and support, marketing, staff training, and other unobvious costs.

Furthermore, even if the solution is delivered by an external supplier and the costs of delivery are known or have been estimated, other costs still remain that are associated with taking part in interviews, workshops or the acceptance of project stages.

To be precise, the costs of opportunities can also be taken into account: the profits that organisation could have earned if the assets were invested in some other initiative.

## #3

**Issue #3:** Risk

According to our research, **ROI calculation often fails to include the issue of risks**. The costs associated with risks usually occur only when they actually materialise, which makes them extremely difficult (if not impossible) to calculate.

Risks analysis **should be carried out independently** and monitored on an ongoing basis. Remember that when they do appear, risks can have a significant impact on profit. To minimise the impact of these risks, **companies need to have risk avoidance strategies in place**.

*Another area of ROI that is often missed is risk: risk mitigation or risk avoidance compliance. (...) Putting in the parameters and mechanisms to stop you falling onto the wrong side of risk saves you from potentially catastrophic problems, but as they never actually occur – due to your risk management – how it affects ROI is tough to calibrate.*

**Simon Scarott**

Consulting Director and Business Advisor



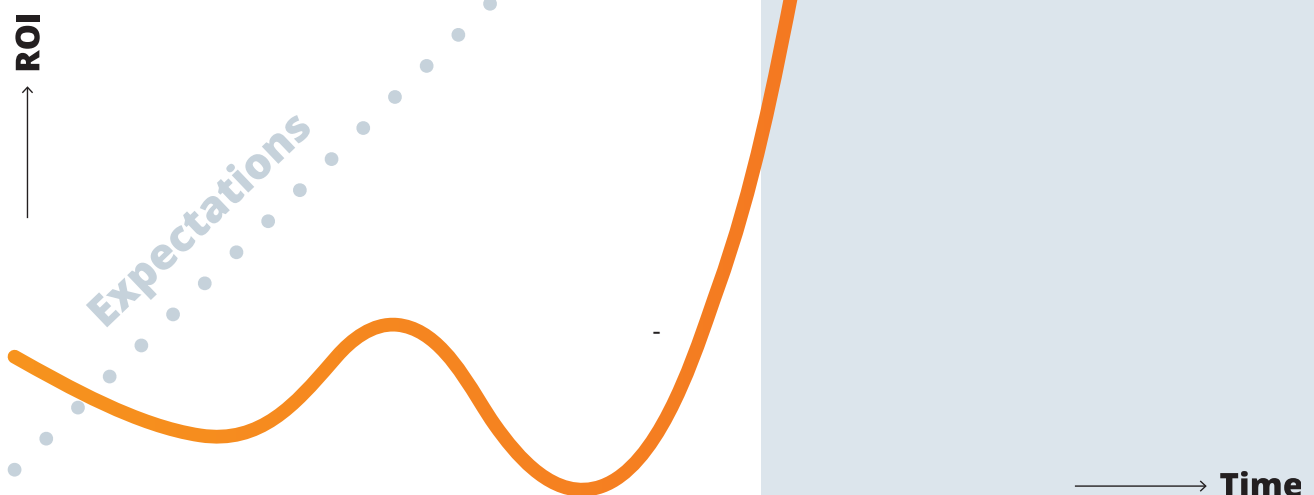
# #4

## Issue #4: Measuring ROI

**ROI is by definition a financial metric** which allows comparing similar metrics to each other – ‘comparing apples to apples’.

Consequently, the difficulty lies in comparing the benefits of an investment when the expected benefits are defined in both financial and non-financial measures. Sometimes, these **intangible, non-financial, and hard-to-measure metrics precisely address key benefits that relate to ROI (e.g., NPS or UX)**. Attempting to place all of these factors into the same category can result in missing out on meaningful data. It can also lead to erroneous or ambiguous comparisons of investments that are measured in different metrics and have non-linear return projections, due to high estimation uncertainty.

The ROI graph is usually non-linear (especially for investments in IT products). **Making decisions based solely on current ROI may result in changing course prematurely.** ROI tends to come in waves, with a lull at the beginning of a project followed by a steep increase at a later point in time.



## #5

**Issue #5:** Quantifying the non-financial aspects

*The whole concept of ROI needs a rethink – are we measuring the right things? We know that ‘good’ looks like more revenue, but what other things do you want us to be able to measure? (...)*  
*I think you’ve got to measure other things than just the obvious.*

**John ‘Bob’ Spence**

Managing Director, 5next Technologies

ROI focuses on **more than just the financial benefits**, but these other aspects are often overlooked or given less value. Aspects that are more difficult to quantify in financial terms **are equally important** in the decision-making process. These are often called **‘Soft ROI’, ‘Social ROI’, or ‘Value on Investment (VOI)’**. Although they may not offer any obvious financial benefits at first glance, they can include positives such as increased customer satisfaction, better forecasting, better communication within the organisation, increased brand awareness, etc.

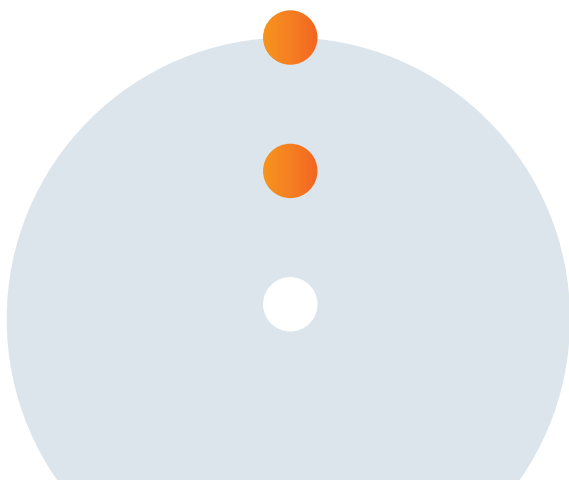
What is more, **measuring ROI is an additional cost and responsibility**. This extra strain on both the time and the finances of an organisation can be very difficult to manage.

Companies that run complex projects usually have tight deadlines and intricate financial structures. Adding in extra steps aimed at measuring ROI can be a drain on their resources. Steps such as boiling down the expected benefits into measurable parameters, then analysing, monitoring, propagating, and communicating expectations, dependencies, and metrics all take valuable resources away from other areas of a company. Instead, companies **often choose to intuitively define the expected benefits** and targets and take the decision to simply monitor them – but is this a bad thing?

*It’s hard to link them [soft/social ROI] sometimes. For example, things like personal development, in and of itself, in the short term may not return anything, but you would hope that as people develop, they develop themselves in terms of becoming more agile, more accurate, more productive. They would create a return in the form of enhanced productivity, better quality services, better customer experience, etc.*

**Simon Scarott**

Consulting Director and Business Advisor



## #16 The current use of ROI

In the current market, **ROI is being used as an umbrella term** relating to both financial and non-financial metrics. This was mentioned a number of times in our interviews with market experts.

Our survey shows that **some organisations measure ROI but don't use it to inform business decisions - 30% of respondents state that they measure ROI and that it is important to them, but without any real impact.** The fact that ROI, although perceived as important, remains unused in decision-making in many cases may be due to negative experiences.



# 30%

of respondents stated that they measure ROI and that it is important to them, but without any real impact.



**What could be going wrong?** Why do organisations either not measure ROI at all or do so in a way that does not fully exploit the potential of the metrics? In our research, we looked for possible reasons for this:

### Reason #1

A **lack of synchronisation** between departments, for example, between marketing and sales. Without setting up a common plan, priorities, responsibilities, result monitoring, etc. drawing conclusions regarding the given metrics can be ineffective.

### Reason #2

A **lack of clear, measurable objectives** that meet the assumptions of the SMART method. Without specifying the goal in a clear and measurable way, the KPIs are not defined and so there can be no expected levels of ROI. This makes it very difficult to choose the right measures. With 39% of answers, our survey showed that the most common responses to the question of expected ROI was quite simply 'I don't know'. Companies **very often have little to no idea** about what kind of ROI they could expect.

### Reason #3

A **lack of a defined and viable strategy**.

*Without a strategy, there can be no ROI. The "R" in ROI implies that there is in fact a return to be had. As such, the return must be defined through objectives and ultimately strategy development.*

**Danna Vetter**

VP, Consumer Strategies, ARAMARK



### Reason #4

Companies **approach ROI selectively**, with activities in the area of analytics often isolated from the actual business. Instead of looking at ROI holistically, organisations analyse initiatives, projects or products separately. They also measure ROI at the very end of a project, instead of measuring it at different stages of development.

### Reason #5

ROI is **mainly associated with creating a business case and raising finance**. If the circumstances and non-financial justification are unquestionable, seeing no other benefits from introducing metrics, we tend to give up on measuring ROI for example, when the technology that an IT product was created in becomes obsolete.

### Reason #6

Another problem is the **lack of tools to collect data**. This is often combined with a **lack of willingness, knowledge, and skills to collect and analyse data** (67% of survey respondents classified their competence levels in measuring ROI to be just beginners or intermediates, with only 10% identifying as experts). Oftentimes, companies may have a lot of data but lack proper organisation and presentation. As a result, they don't know their potential and they have no idea where to begin at all.

## Reason #7

Many companies are not able to monitor ROI due to a **lack of discipline and required planning**. 56% of survey respondents state that they measure ROI at pre-defined stages of a project, 19% do this right after the project ends, and only 9% right at the beginning, just after the project starts.

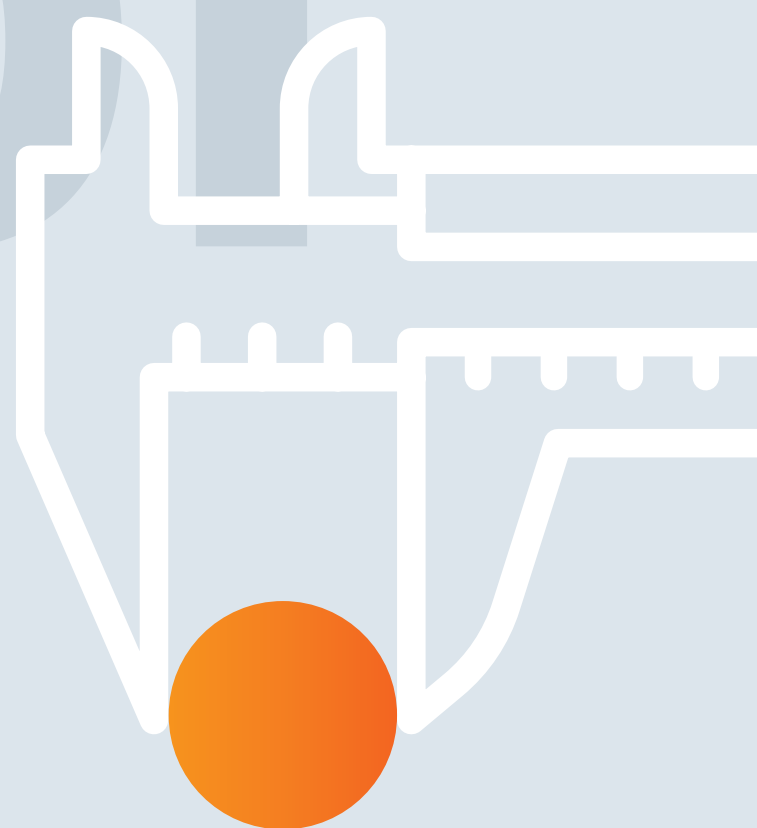
## Reason #8

Often, ROI measurement ends once the project costs have been estimated. However, this **estimation is not always reliable** and this uncertainty can reduce the sense of importance that ROI has in the decision-making processes.

## Reason #9

Indicators that are both directly and non-directly related to ROI are often unmeasured due to a lack of data. This could be for several reasons.

Firstly, it may be the case that this **ROI data is not collected at all**. Secondly, the **data may not be collected early enough** in the process. If an organisation starts collecting data too late, no meaningful conclusions can be drawn. Thirdly, the **data may be of poor quality** due to being collected too rarely, or simply because the type of data being collected is not correct. It may also be the case that the personnel managing ROI **do not have enough knowledge** to do it correctly.



This can be compounded by the lack of a defined strategy and objectives.

## Conclusions

**It is very likely that the above difficulties result in the low utilisation of ROI calculations in organisations, and even lower interest in the services of external ROI consultants.** Without the right data and a proper management of this data, organisations will not be able to get their ROI initiatives off the ground.

In order to get priority in organisations, **ROI needs to be backed up by solid measurement and management processes.** Without these in place, even the best consultant will be unable to conjure up anything worthwhile.



Sometimes **one important business argument shifts the balance completely towards a particular option, thus negating the other.**

For example, when you need to scale immediately, Cloud is the only answer.



**Adam Gaca**, Head of CloudOps, Future Processing

# Calculating the ROI of Infrastructure



## #1 Our challenge: Developing the Cloud or Local Infrastructure?

Over the last few years, Future Processing has grown substantially. This meant we needed to develop our existing hybrid infrastructure. The challenge was to find out what was most efficient for us in terms of costs and performance.

## #2 The ROI of Infrastructure: our process

### Step 1. Defining the objective

Our objective was to scale and enhance our development environment to improve delivery times. Automation and self-service support were considered nice to have.

### Step 2. Assessment of the current situation

To select the options for consideration, we needed to analyse the situation as it was. We asked ourselves a number of questions, including some of the following:

- Which elements of the infrastructure are already in place?
- Who in the company can help in the project and what competencies are in place?
- Who are project stakeholders?
- What is the budget of the project?
- What are the project priorities?
- What is the current state of the market?
- What is the business impact of the project?
- Does it affect our brand?

## Step 3. Defining our options

Following the analysis, we decided to **consider the following options in our ROI calculations:**

1. Scaling our existing local infrastructure, through either:
  - direct purchase of hardware (servers, switches, storage, backup units),
  - leasing the chosen hardware.
2. Expanding our Cloud resources with various enhancements
3. Delivering barebone metals for very demanding projects to unload the main development infrastructure

## Step 4. Deciding on a time frame

ROI calculations can **look very different depending on the time horizon** considered. For this project, we went with 5 years after taking all the feedback received into account.

## Step 5. Exploring each option

We explored each of our options in real depth. **This meant posing many questions** – questions to our stakeholders about their requirements, questions about what we needed to consider in every scenario (costs and benefits), and questions about risks.



Take a look at some of our costs and benefits considerations for each scenario:

## Scaling existing local infrastructure

### Costs

### Benefits

Technical rooms for the equipment

We already have many things in place, we just need to scale them up for additional hardware so overall costs would be lower

Costs of electricity

Most of our IT staff have experience working with enterprise hardware

Cost of supporting equipment (air conditioning, UPS, power generators)

It's something that we are accustomed to, the learning curve is almost flat

Costs of qualified staff

The change doesn't require for our business to learn and adapt

Support fees from hardware producers

We have a wide network of providers, prices can be negotiated

Costs of software licences

Performance is higher when the load is lower

Costs of fire safety systems and audits

We can use this infrastructure without the internet connection

Support period for hardware & what's not included in the fee

Costs involved in maintaining, repairing and updating the infrastructure

Costs of internet connection and its backup

Costly aspects of self-service and automation solutions

Costs of ending the life cycle of local infrastructure (moving, archiving, backing-up services, removing servers, etc.)

Technical debt (outdated equipment and/or software)

Increased carbon footprint

This option also included two financial possibilities, categorised as **CAPEX**:

- a one-time payment for the hardware,
- leasing – paying a set value each month for a defined period of time.



## Expanding our Cloud resources

### Costs

### Benefits

Cost of migration and setup

We could lower the costs of the Cloud thanks to the usage of local licences and partnerships

Cost of migration and setup

We are gaining knowledge on new technologies

Cost of training

Increased business agility and faster response to business unit inquiries

Cost of new staff members

Cloud Computing characteristics, like scalability, serverless, multi-tenant, multi-cloud, elasticity, sustainability

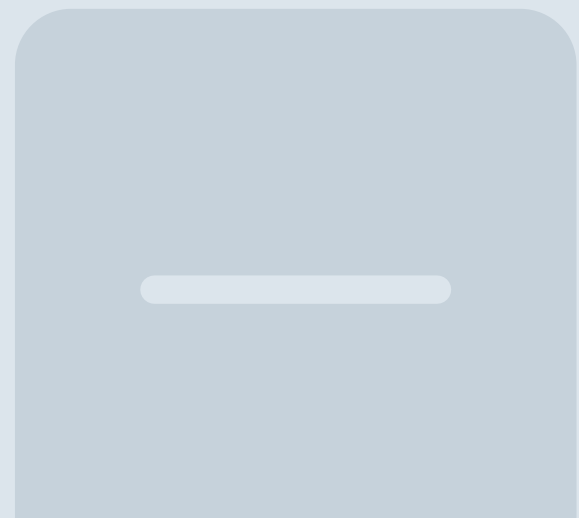
Optimisation from the start is crucial

Easy to automate and delegate self-service

Cloud readiness of the whole company

The infrastructure can be handed over to the client

Cloud usage is categorised as **OPEX**.





## Step 6. Creating a comparison matrix

Once we received the quotes back from our suppliers, **we created a comparison matrix** based on the best practices from, e.g., ITIL.

Our matrix included every perspective of project group members like the 'must-haves', the 'nice-to-haves' and the technological advantages/unique features of each solution. It also covered a list of risks and data containing finances, for example.



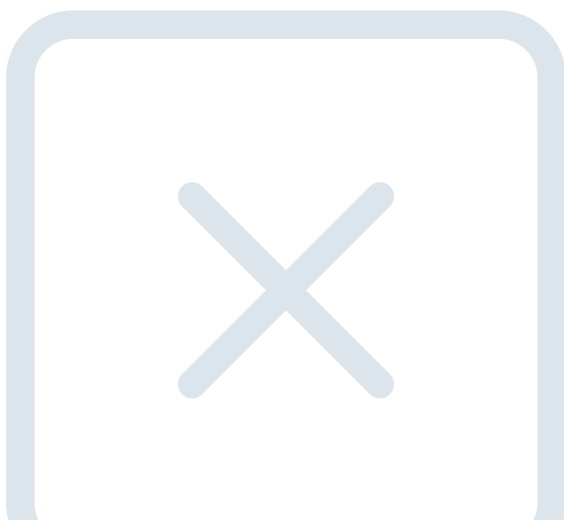
## Step 7. Analysis and final decision

Our challenge was very complex because of the broad impact the change would have on our organisation. That's why, when making the final decision, we not only looked at the data, but also followed our business intuition.

*Look at the data, but don't ignore the gut feeling. Don't forget to talk to the management not only about the 'here and now', but also about potential plans as they can change the picture completely.*

### **Adam Gaca**

Head of CloudOps, Future Processing





## What was the result of our ROI calculations?

The final decision was to invest in Cloud resources as the main solution (whenever the technology and the client allowed) and partially improve our local infrastructure on a 5-year lease plan.

To sum it up, we used a simple formula of

**(gain from investment - investment) / (investment) = ROI**

Remember to multiply the gain by years. The difference we got between the options resulted in 11% ROI in the period of 5 years.

## Was it worth it?

**Calculating ROI has been a great, eye-opening experience.** It also turned out to be a bigger challenge than anticipated. Going through this process was well worth it.

Here are some of the several benefits for us:

- we chose the best option, having considered more than finances,
- by the end of the analysis process, we had a rough plan of implementation,
- we optimised our operational expenses,
- we spotted a few places in the organisation that needed improvement.

*For good practice, it is worth to periodically repeat ROI calculations. By doing this, you can uncover factors which weren't taken into consideration previously and perhaps see that your investment has paid off after a shorter period than initially calculated.*

### **Adam Gaca**

Head of CloudOps, Future Processing



# How to successfully translate the effects of IT works into measurable benefits?

Expert point of view  
by Daria Polończyk

A long-term, individual approach with frequent result checks and a comprehensive look at different business areas – companies need to take these elements into account if they want to successfully measure ROI in technological investments.

**Reliable IT partners are crucial in the process** of planning and implementing ROI measurements.

IT costs are growing rapidly and this process is bound to continue in the near future. High-end specialists, essential infrastructure (e.g., Cloud space) and services are on the rise, so, as an experienced IT solutions supplier, **we must ensure that the costs our clients bear are equivalent to the substantial value for their businesses.** That means the urge to provide the highest possible ROI from our collaboration with measurable evidence.

For Future Processing, a business partner in advising and delivering IT solutions, it is one of our greatest challenges: how to translate the effects of our work on many different stages into measurable benefits for both our clients and the users.





If we want to look at ROI in the long run and make business decisions around it, we cannot lose **its great impact and the opportunity to positively influence different business areas.**

---

**Daria Polończyk**, Head of Analysis & Design,  
Future Processing

## #1 Different approaches to measuring ROI

Even though companies declare they measure ROI of particular investments, many of them still encounter difficulties on several levels. The most common questions are: How to approach ROI according to the circumstances? What areas should we take into account? How to calculate different stages of our work? What results can be expected? Should we bring about financial benefits? If yes, how can it be achieved? How to create measures for intangible values, called soft ROI? **Answering all these complex questions requires time, focus, detailed research, and open collaboration between a company and its IT partners.** This is essential for further steps organisations take in planning ROI measurements.

## #2 Long-term approach: always have ROI on the agenda

After the above-mentioned stage, an incredibly crucial issue arises. Organisations consider, which measures should be taken to make better decisions and draw conclusions for the future. As the survey respondents emphasise, **if companies want to look at ROI in the long run and make business decisions around it, they cannot lose its great impact and the opportunity to positively influence different business areas.** Detailed measuring, if related only to a selected area without translating it into business, can lead us into a trap. Companies usually realise this when discovering that a given area (e.g., IT) is booming, but at the same time the overall business is going downhill. This is a clear sign it's time to change the way companies think about measuring ROI from technological investments and re-discuss the whole process with the team and IT partner. A fresh start can be a great opportunity to set new goals based on complex information and check if there is more for business to gain from IT solutions.




### #3 What can affect ROI?

Various factors can influence the highest possible ROI. As far as IT solutions are concerned, areas where good, data-based decisions generate significant profits include:



- In-depth research and UVP (Unique Value Proposition)
- UX and the ergonomics of an IT solution and the service
- Discovery phase and the involvement of appropriate stakeholders
- Selection of essential competencies
- Software quality and best practices of software development
- User support
- Marketing processes
- Pricing policy
- Maintenance and more



- Measuring ROI is always **an individual process.**
- 

## #4 Key conclusion: individual look at measuring ROI

The research carried out and the analysis that followed show various approaches companies have towards ROI. In addition to this, organisations approach investments in technological solutions from different angles. They also happen to treat the topic selectively, for example, focusing on ROI from technical aspects of the solution or IT product marketing, and paying less attention to the UX area that can have overwhelming impact on the long-run returns.

**The key conclusion coming from organisations' experiences is that there is no single correct way to measure ROI or one scenario that fits all.** However, different case studies can help plan your ROI approach and avoid common mistakes.

It is important to remember that **measuring ROI is always an individual process** that needs to include relevant areas corresponding with the

individual goals of the project. For example, despite the common understanding that the investment in UX is one of the factors influencing ROI most strongly, in some initiatives it may not be adequate. This can happen when a company deals with an investment in technology that does not significantly affect interactions with users.

There are also certain **limitations and traps to avoid**. One of them is a narrow view of ROI in terms of both the responsibilities and the area of research. For example, Sales and Marketing are responsible for increasing revenues from an IT product that repels users with its poor UX or extortionate price. However, it turns out the situation is caused not by the price that is not reflected in top quality or outstanding UX, but the Cloud maintenance and support costs are exorbitant and they influence the price in the first place. It is important to consider the broader perspective.




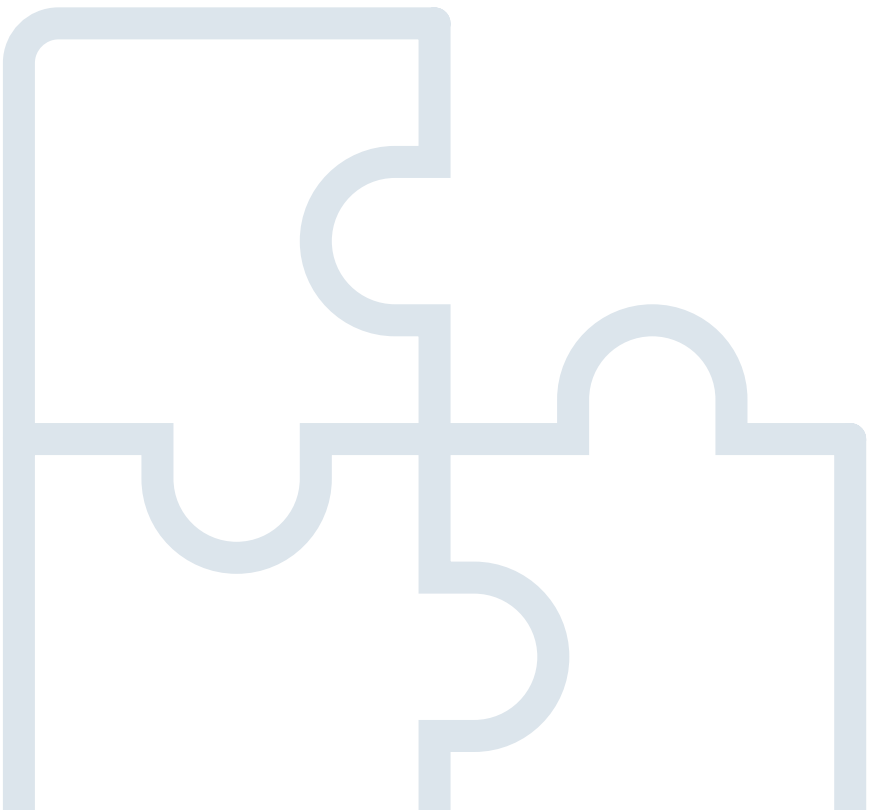
## #5 Measuring ROI as interdisciplinary work

**Responsibility for the final result is shared and interdisciplinary.** Therefore, if we want ROI to reflect reality, it should be a cross-sectional initiative covering all the essential aspects. Such co-responsibility for the final result is possible in a mature, well-coordinated organisation and with stable, reliable partnerships with tech consultants. Otherwise, the point-responsible parties are afraid that ROI result will be a bad indication of the effectiveness of activities for their projects or areas of the company they deal with. For the same reasons, it is so difficult for solution providers to take responsibility for the result of the entire project, even if they are the suppliers of the final solution. In my opinion, in the coming years, this will be a key issue for tech companies.

The question is: **how can tech consultants prove the value of their services if they only have a limited impact on just some of the aspects affecting the success of a project?** The value here is understood as high ROI from costly IT investments.

The answer is: **by aspects that influence the project but are not the only ones to consider.** For instance, a highly competent design team can fully engage in business process modelling and UX design, but without access to users, stakeholders, and space for research, it is impossible to design the highest quality solution, which are problems that we as a technology partner face in many projects.

As the prices of IT services are continuously on the rise, at the end of the day, only IT partners with the broadest horizon can remain successful and fully reliable for the clients. There is a growing trend for organisations to look for partnerships, in which quality cooperation, holistic approach, and multi-threaded thinking become a standard. Delivering a service or a ready product is no longer sufficient. Now it's time to take every business area into account. Especially caring for ROI that comes from investing in IT solutions.

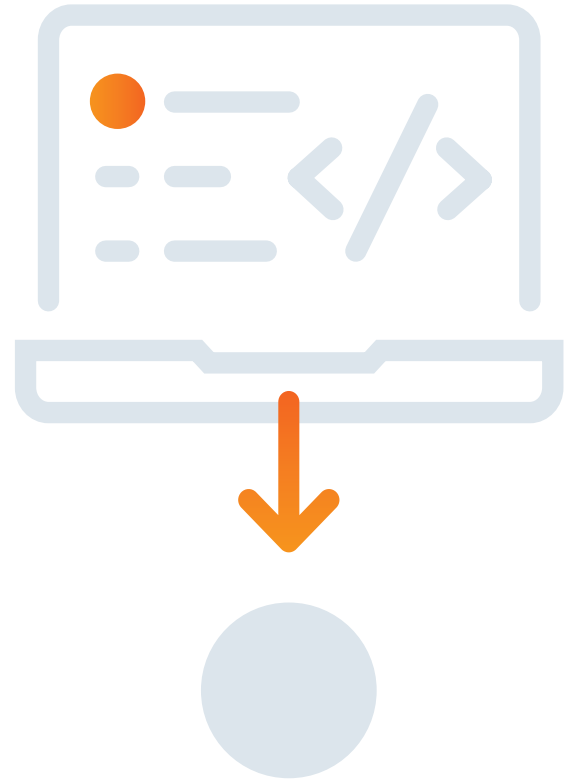
- 
- **Responsibility**  
for the final  
result **is**  
**shared and**  
**interdisciplinary.**
- 

## Wrap up

---

The aim of this report was to gain a deeper understanding of ROI in IT projects, and to further explore the need for greater expertise in managing and calculating ROI of tech-related initiatives.

On behalf of Future Processing, **we would like to thank you for taking the time to read our 2022 report on ROI in IT projects.** We are extremely grateful for your time, energy, and interest and for delving deep into the world of calculations and returns with us. We feel that there is a lot to be gained by further exploring how measuring and managing ROI effectively can be of huge value.



We would also like to take the opportunity to thank our dedicated team of experts at Future Processing who worked tirelessly in researching and delivering all of the information included in this report.

If you would like to discuss any aspect of this report with us, or if you would simply like to explore the topic of ROI further in general, feel free to contact us any time and we will be more than pleased to chat with you.

# ROI





# Keep in touch



**Daria Polończyk**

Head of Analysis & Design, Future Processing

**e-mail:** [dpolonczyk@future-processing.com](mailto:dpolonczyk@future-processing.com)

# Sources:

---

- 1) *The Trillion Dollar UX Problem: A Comprehensive Guide to the ROI of UX*  
Raffaela Rein – Medium, accessed: 15 May 2022  
<https://medium.com/@raffaelarein/the-trillion-dollar-ux-problem-a-comprehensive-guide-to-the-roi-of-ux-f02708b97372>
- 2) *How Iterative Testing Decreased Support Calls By 70% on Mozilla's Support Website*  
Susan Farrell – Nielsen Norman Group, accessed: 15 May 2022  
<https://www.nngroup.com/articles/testing-decreased-support/>
- 3) *Pulse of the Profession® 2018: Success in Disruptive Times*  
Project Management Institute, accessed: 15 May 2022  
<https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/pulse/pulse-of-the-profession-2018.pdf>
- 4) *Pulse of the Profession® 2021: Beyond Agility*  
Project Management Institute, accessed: 15 May 2022  
[https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/pulse/pmi\\_pulse\\_2021.pdf](https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/pulse/pmi_pulse_2021.pdf)
- 5) *Annual Report: The State of Project Management Report 2020*  
Wellington Limited, accessed: 15 May 2022  
<https://wellington.co.uk/wp-content/uploads/2020/06/The-State-of-Project-Management-Report-2020-Wellington.pdf>
- 6) *Average cost of data breaches worldwide from 2014 to 2021*  
Statista.com, accessed: 15 May 2022  
<https://www.statista.com/statistics/987474/global-average-cost-data-breach/>

