

Mainframe—The Ultimate Cloud Platform?

A survey conducted by Vanson Bourne on behalf of CA
Technologies

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Survey Highlights

The Mainframe and Cloud Computing

- 79% of European organisations believe the mainframe will be an integral part of their cloud computing strategies.
- 70% of respondents agree that cloud computing will sustain or extend the mainframe environment.
- 74% believe that the mainframe will have a role in any cloud computing initiative.

Mainframe Workforce Challenges

- 44% state that staffing issues (greying workforce, difficulty in hiring new staff) are of concern to organisations.
- The most pressing issues facing European organisations in the next 12 months (in order of priority) are an increased demand for training (cited by 54% of respondents), the need to implement new and easier to use enterprise software (43%), and hiring new IT staff (38%).

Value of the Mainframe

- 82% of respondents report that they intend to use the mainframe in the future either as much or more than today.
- Top reasons why the Mainframe is considered a valuable organisational asset included reliability (55 percent), its position as an established technology (52 percent), platform cost-effectiveness (48 percent), and IT attitudes toward change (40 percent).

SECTION 2

Preface

New developments in mainframe automation and other technologies increasingly support the use of mainframes for delivering cloud-computing—and help resolve recession-era computing challenges around cost, power, energy use, and reliability. Cloud as a concept is, in its most basic sense, virtualising resources within the data centre to gain scale of efficiency and optimisation. However, CFOs and CEOs are starting to ask simple, but insightful, questions about why all these servers are needed and to what degree these servers are being utilised. When the answer is 15 or 20 percent utilisation, it begs for a centralised model.

Larger organisations are using their mainframe in a highly virtualised way. They've been doing it for 30 years. Indeed, today's mainframe is effectively an on-demand engine. In today's modern mainframe environment, you have an infrastructure that turns on additional engines that are already housed in the box as needs grow. The platform effectively becomes an in-house utility, with the ability to expand capacity on demand and manage peaks in demand—without having to pay for it all year long.

The mainframe can also be used to achieve a cloud strategy at dramatically lower cost. Well-managed mainframes have up to a 96 percent advantage in terms of energy usage and are the gold-standard in terms of reliability, scalability, and virtualisation.

Despite this virtue, there are still some nagging issues with the mainframe. The people who work with them tend to be the same ones who worked on them 30 years ago, and the technology they use to manage the platform hasn't been updated to the more intuitive interfaces. CA Technologies' revolutionary 'Mainframe 2.0' mainframe management strategy helps organisations to maximise platform value and performance by dramatically simplifying its management. It provides practical innovation to ensure that the mainframe can always be an effective and integral part of an evolving IT infrastructure and addresses productivity and workforce challenges to help organisations increase agility and decrease costs.

Simultaneously to address the workforce sustainability issue, CA Technologies is piloting a Mainframe Academy in Europe. This begins a global initiative to help a new generation of employees, including current IT business employees, become effective on the mainframe. The Mainframe Academy is designed to provide an agile, project-based approach to accelerating, obtaining, and mastering core mainframe virtues and programming skills.

Mainframe 2.0 solutions are penetrating the market in way that hides the intricacies without losing control or dramatically changing the way mainframes are utilised. As such, the mainframe will become an increasingly important platform for cloud computing.



SECTION 3

Research Methodology

The objective of this independent research—commissioned by CA and conducted by the respected international research organisation Vanson Bourne—was to understand the importance of the mainframe in today's web-enabled enterprise, especially with regard to its relevance to cloud computing. The pan-European survey also aims to explore why the mainframe remains such a valuable computing asset, the challenges it faces, and what organisations' future intentions are for the platform.

The survey "*Mainframe—The Ultimate Cloud Platform?*" was conducted among a total of 300 respondents during August 2010 among IT decision makers. The sample comprised respondents in the UK, France, Germany, Italy, Benelux, Scandinavia, Russia, Poland, Turkey, and the Czech Republic.

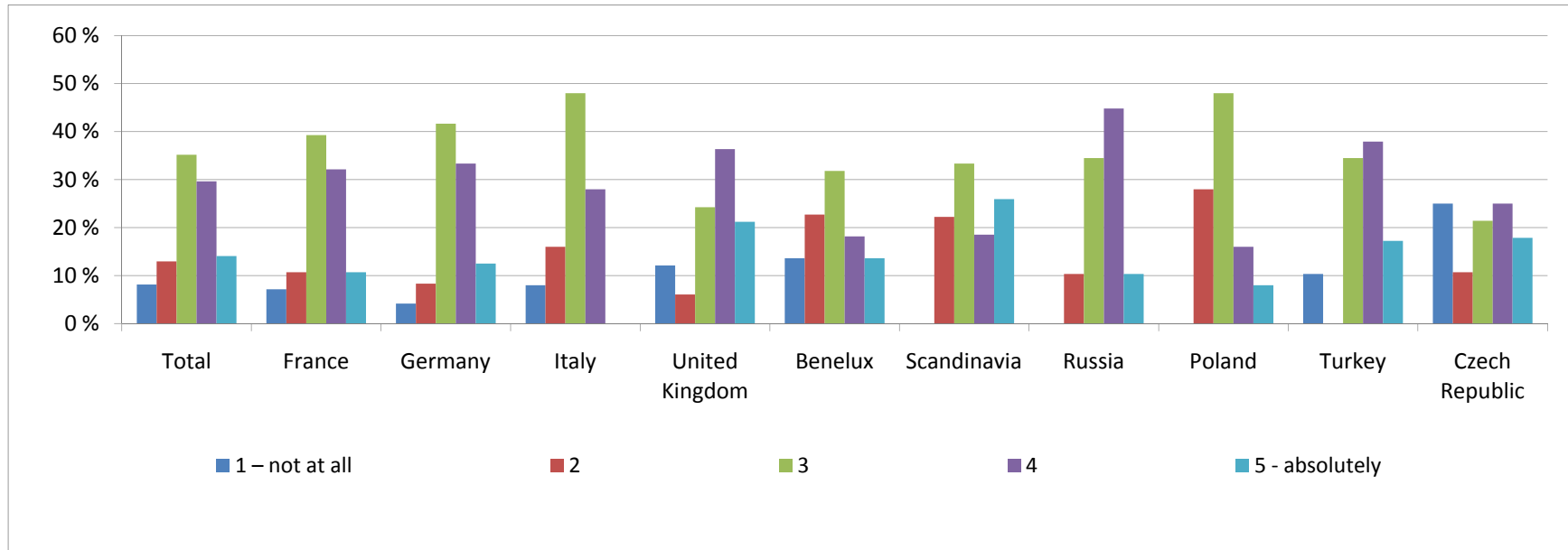


Research findings in detail

4.1 The Mainframe and Cloud Computing

The mainframe is here to stay and will remain a cornerstone of emerging technologies, such as cloud computing. That's the conclusion based on the survey findings. Seventy-nine percent of IT organisations believe the mainframe is an essential component of their cloud computing strategy (see Figure 1).

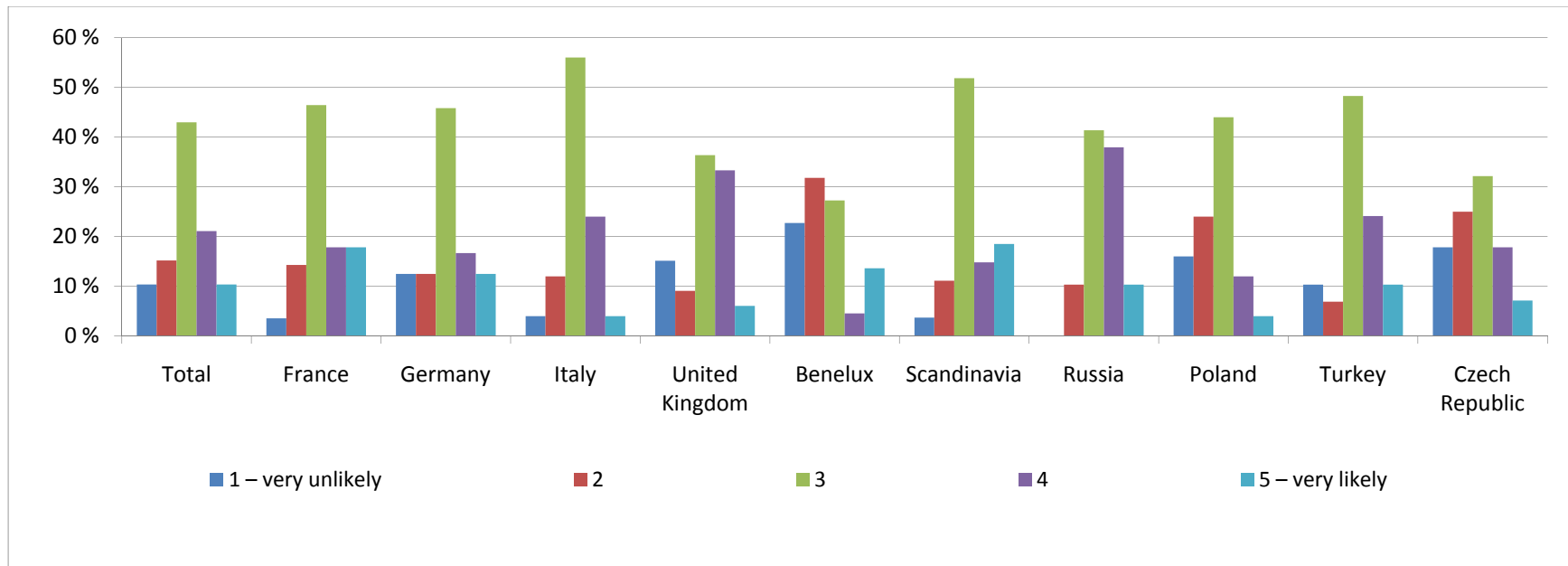
Figure 1: Do you think your mainframe should be an integral part of any strategic IT initiative including cloud computing?



Note for Figure 1: This question was only asked to those respondents who have not implemented or have part implemented cloud.

Moreover, 74 percent of respondents believe that the mainframe will have a role in any cloud computing initiative (see Figure 2). Reciprocal to the Mainframe's strategic role in the cloud, 70 percent of respondents agreed that cloud computing will sustain or extend the mainframe environment (see Figure 3).

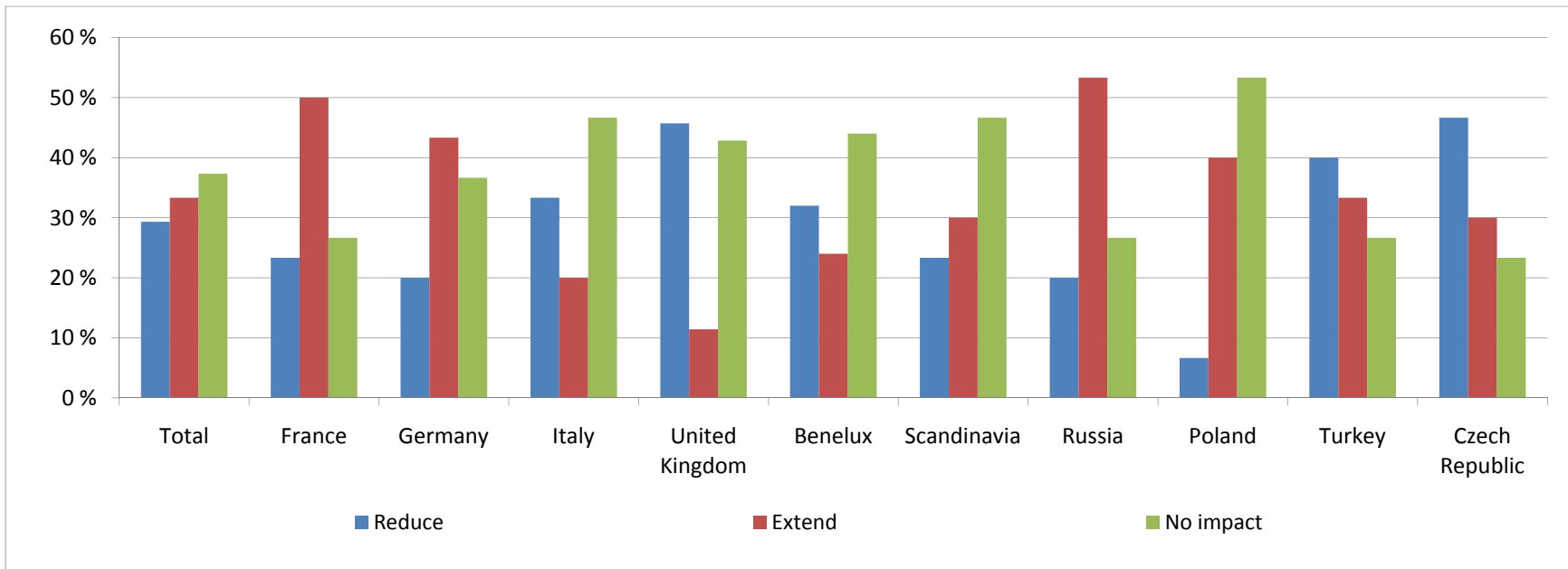
Figure 2: How likely is it that the mainframe will have a role in any cloud computing initiative you will consider?



Note for Figure 2: This question was only asked to those respondents who have not implemented or have part-implemented cloud.



Figure 3: Do you think cloud computing will reduce or extend your organisation's use of the mainframe?



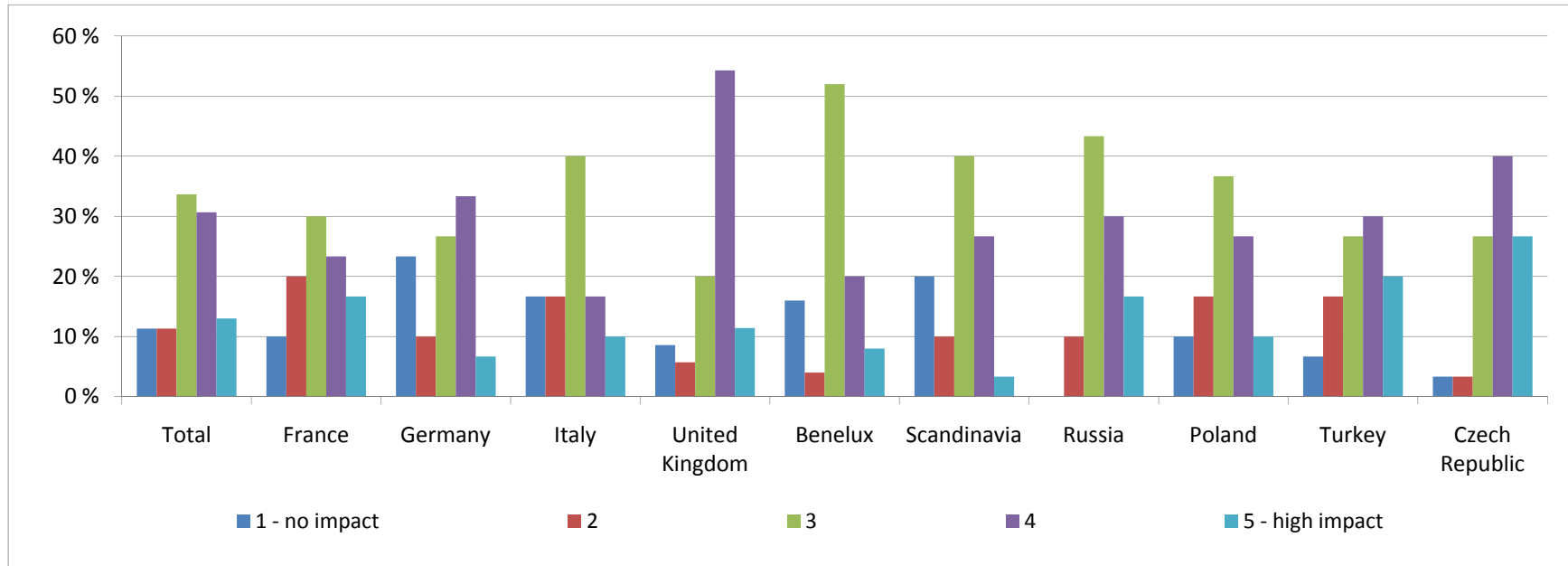
4.1.1 The Mainframe and Cloud Computing: Country Findings

The 10 countries participating in the survey display a significant degree of variation in their approach to using the mainframe for cloud computing. Russia (90 percent) displays the greatest propensity to use the mainframe as part of cloud computing initiatives (see Figure 1), followed by Turkey (89 percent), Germany (88 percent), and the UK (81 percent). The lowest score is in Benelux and the Czech Republic (both 64 percent). Turning to the likely it that the mainframe will have a role in any cloud computing initiative (Figure 2), Russia again leads (89 percent), followed by Scandinavia (86 percent), and Italy 84 percent). The countries least likely to consider the mainframe in any cloud computing initiative are Benelux (46 percent), the Czech Republic, and Poland (60 percent). As regards whether cloud computing will reduce or extend an organisation's use of mainframe (Figure 3), Poland scores highest (93 percent)—which is an interesting contrast to their response to Figure 2—followed by Germany and Russia (both 80 percent). The Czech Republic (53 percent) and the UK are the least likely to extend their use.

4.2 Mainframe Workforce Challenges

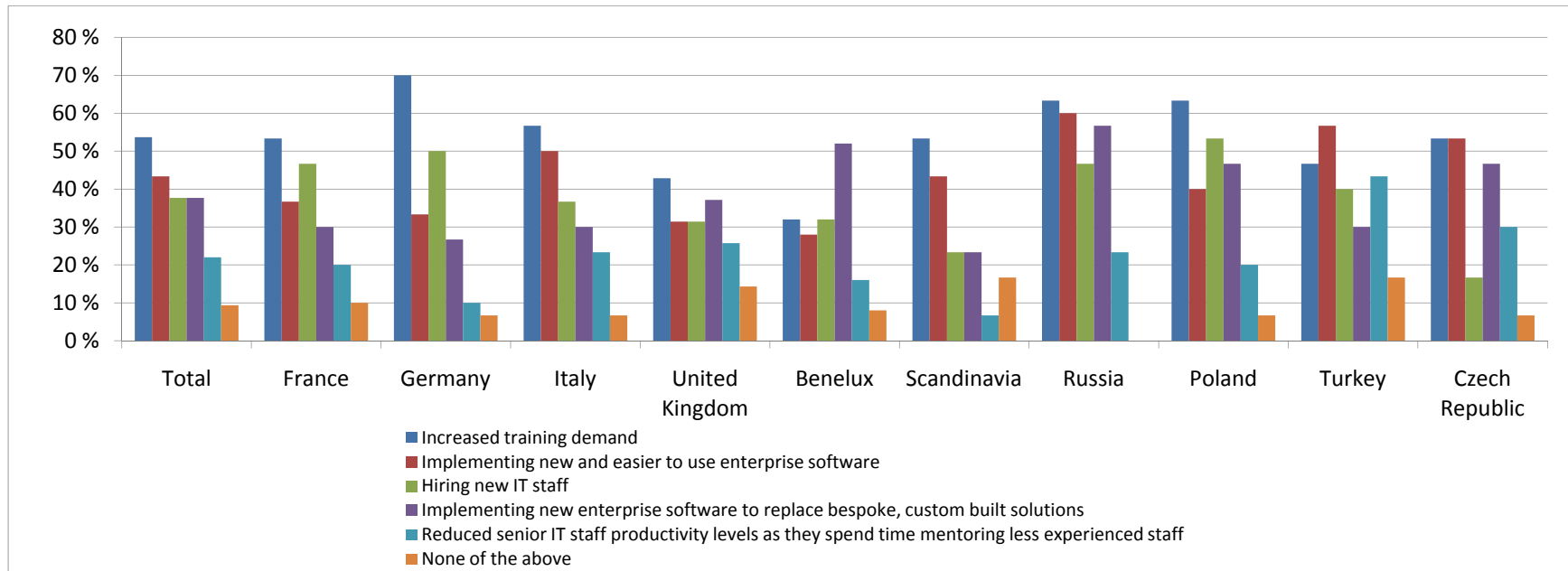
Despite the fact organisations are recommitting to the mainframe in ever increasing numbers, it is a well-known fact that the available pool of skilled mainframe professionals is shrinking. The study concluded that 44 percent of IT organisations grappling with staffing issues created by the greying workforce and difficulty in hiring new staff are concerned that these challenges will make the mainframe less viable in the future (see Figure 4).

Figure 4: To what extent do you see the following issues making the mainframe as you currently run it less viable?



In fact, the survey indicates that the most pressing issues facing European organisations in the next 12 months (see Figure 5) are an increased demand for training (cited by 54 percent of respondents), following by the need to implement new and easier to use enterprise software (43 percent), and hiring new IT staff (38 percent).

Figure 5: Which if any of the following activities or issues is your organisation likely to face during the next 12 months?



4.2.1 Mainframe Workforce Challenges: Country Findings

Staffing issues—created by the greying workforce and difficulty in hiring new staff—are a particular issue in the Czech Republic (67 percent), the UK (66 percent), and Turkey (50 percent). According to the respondents, attracting young talent is less of a challenge in Italy (27 percent) and Benelux (28 percent). There are also some interesting anomalies when comparing the most pressing issues facing European organisations in the next 12 months (see Figure 5). The focus is on people: an increased training demand (70 percent) and hiring new IT staff (50 percent). The same is reflected to a lesser extent in France: increased training demand scores 53 percent and hiring new IT staff scores 47 percent. However, in the UK, the major challenge over the next 12 months is also to implement new and easier to use enterprise software.



4.3 Value of the Mainframe

Mainframes are here to stay. The survey indicates that 82 percent of respondents reported that they intend to use the mainframe in the future either as much or more than today (see Figure 6). The top reasons why the mainframe is considered a valuable organisational asset (see Figure 7) included reliability (55 percent), its position as an established technology (52 percent), platform cost-effectiveness (48 percent), and IT attitudes toward change (40 percent).

Figure 6: How do you plan to use the mainframe in the future?

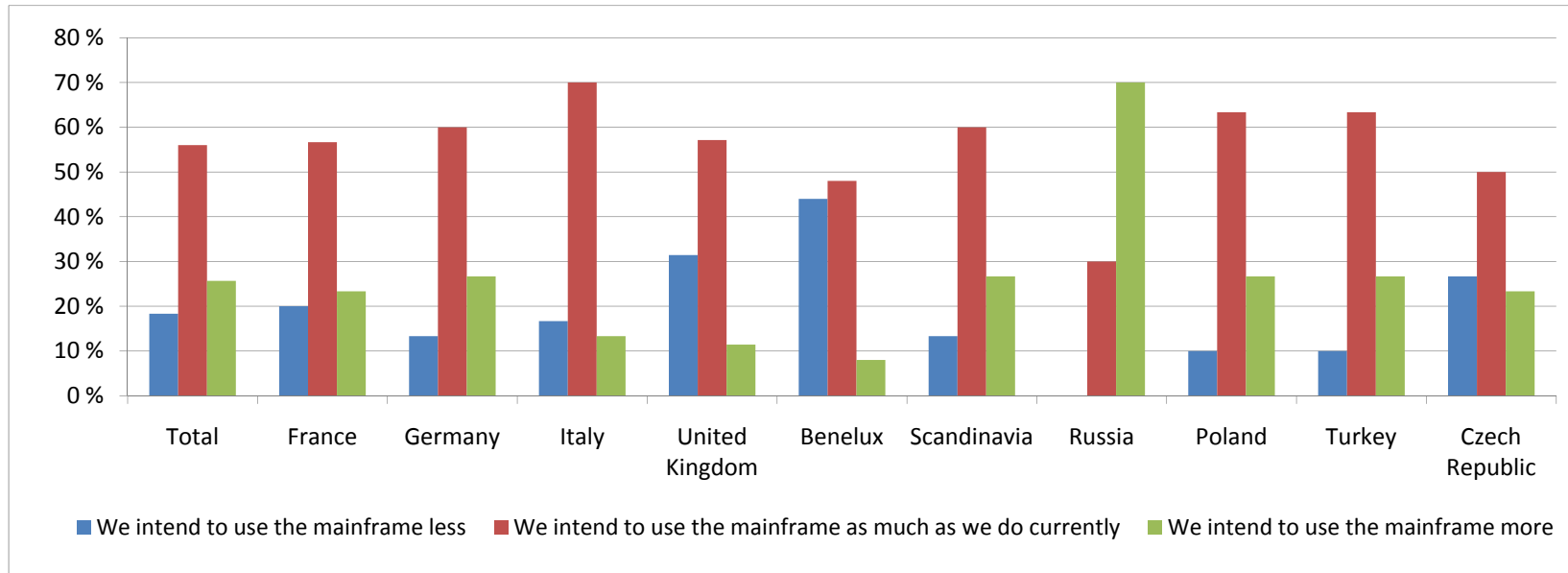
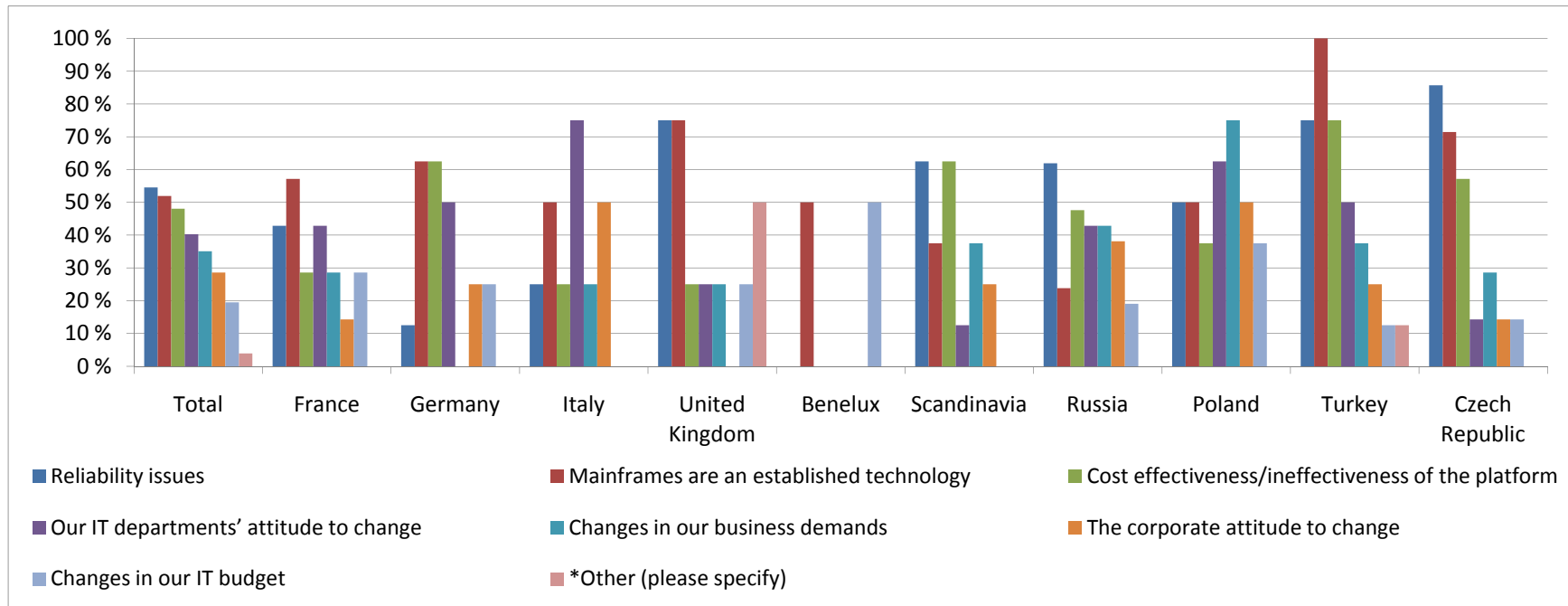


Figure 7: Why do you intend to use the mainframe more?



4.3.1 Value of the Mainframe: Country Findings

All 100 percent of respondents in Russia reported that they intend to use the mainframe in the future either as much or more than today. Poland (90 percent), Turkey (90 percent), and Germany (87 percent) also scored highly. Benelux intends to use it less (44 percent). So why is the mainframe so popular? Reliability is especially important for UK and Turkey respondents (both 75 percent), although remarkably reliability is only important for 13 percent of German respondents and 25 percent of Italian respondents. Platform cost effectiveness is rated highly in Scandinavia (63 percent) and in Benelux its appeal lies in it being an established technology (50 percent). It is interesting to note that 'changes in our business demands' is rated so highly in Poland and Russia—possibly reflecting their desire to use the mainframe more for cloud computing.