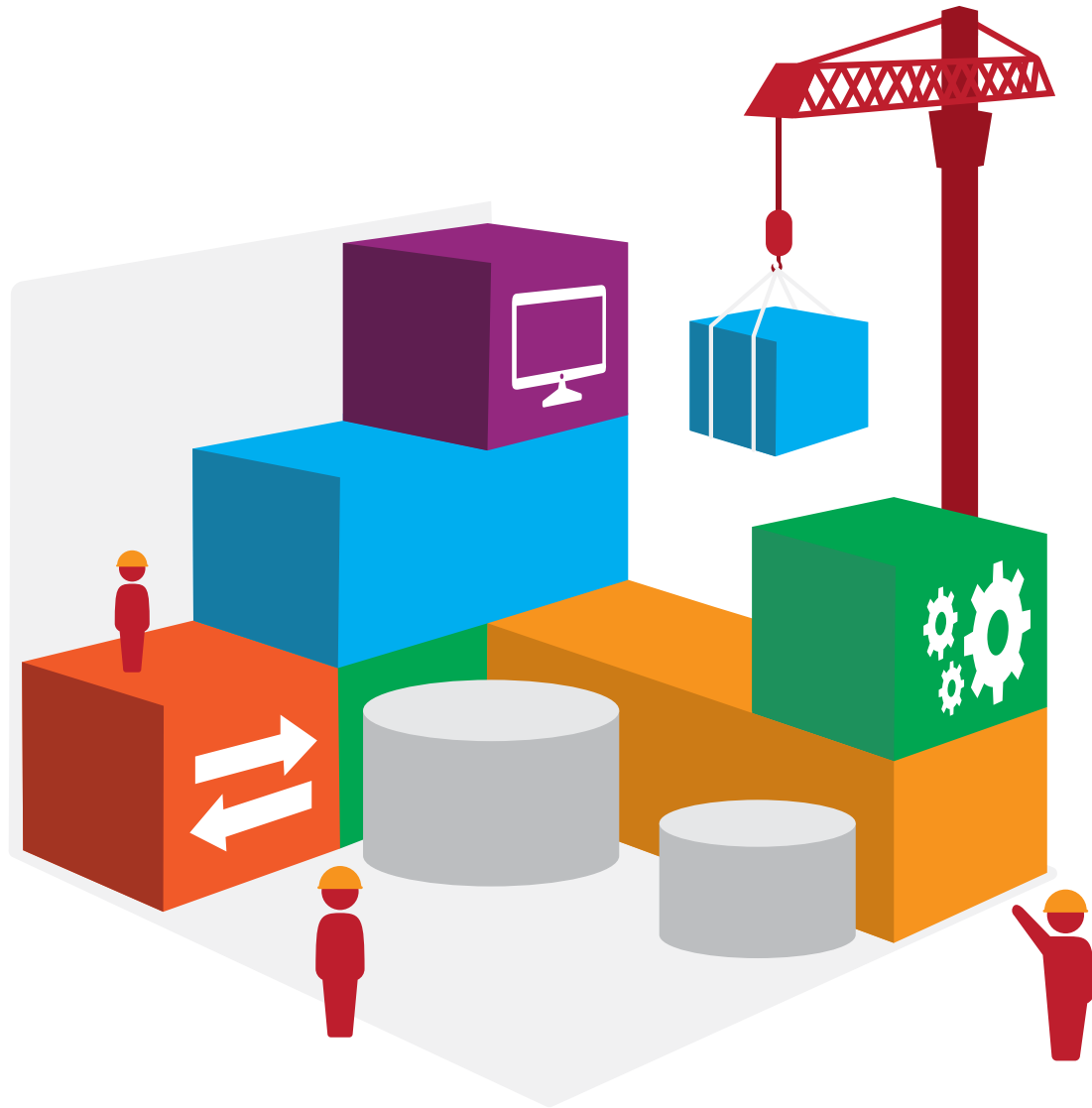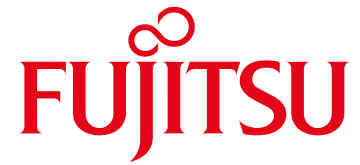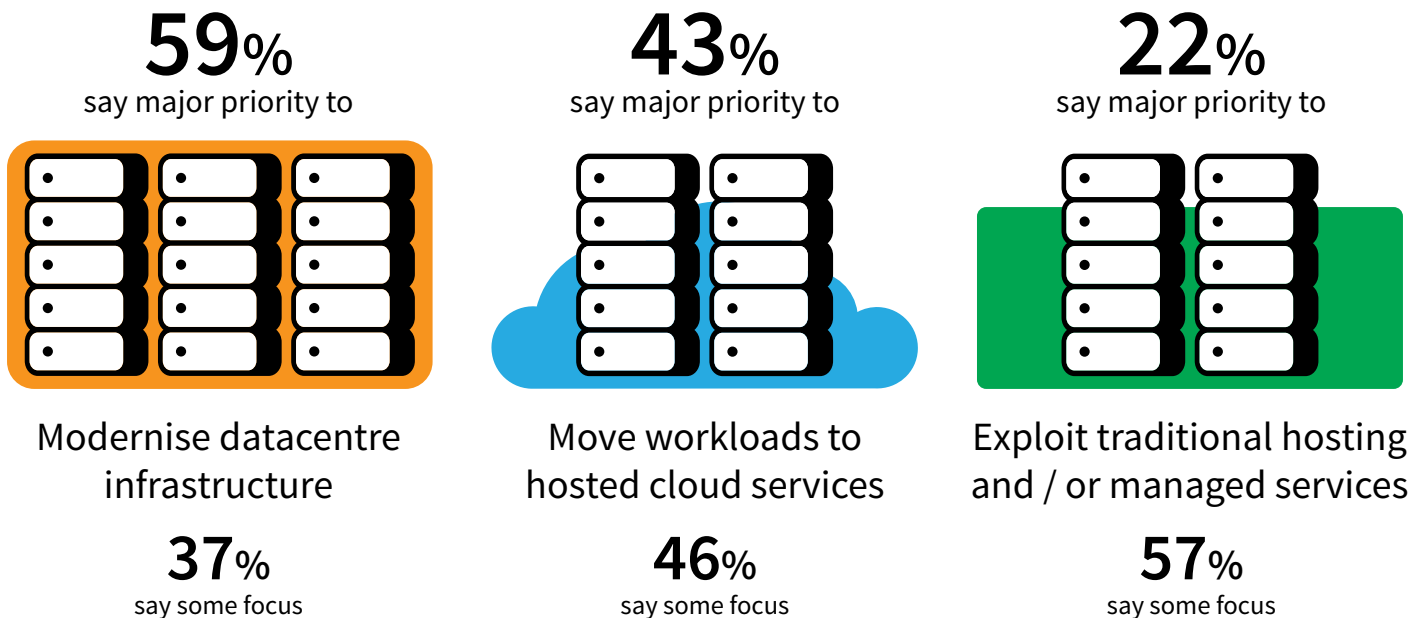# Application Platforms Matter

But how do you take the pain out of designing
and building optimised systems?

**Freeform Dynamics, May 2017**

# The Datacentre Modernisation Imperative

Against the backdrop of digital transformation, and a more general escalation of demands on IT, it is natural to explore different ways of delivering IT services. With this in mind, we weren't surprised to see cloud and more traditional outsourcing options being prioritised by many of the 378 senior IT professionals taking part in a recent research study. Something that came through even more strongly, however, was a clear imperative to modernise the datacentre.

## Tactics for driving improvement in IT delivery

**59%**
say major priority to



Modernise datacentre infrastructure

**37%**
say some focus

**43%**
say major priority to



Move workloads to hosted cloud services

**46%**
say some focus

**22%**
say major priority to



Exploit traditional hosting and / or managed services

**57%**
say some focus

## Best performers are more likely to prioritise datacentre investment
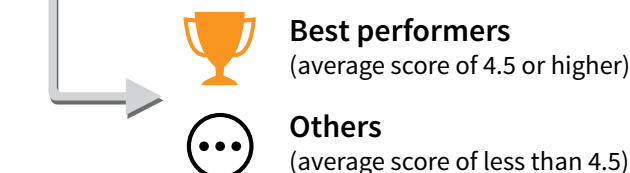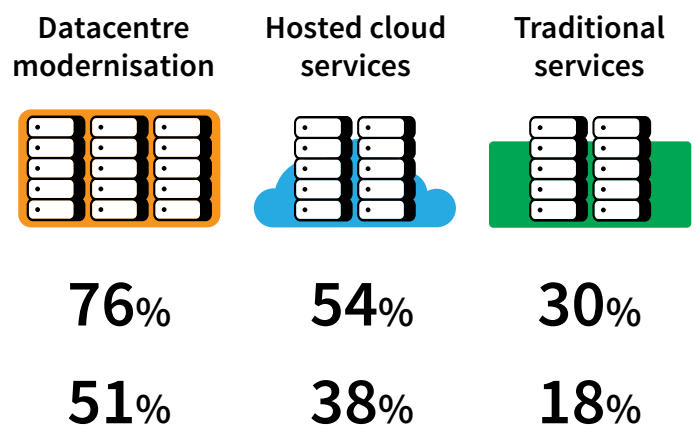
**PERFORMANCE SCORECARD**
based on:

Meeting service level expectations

Response to new / changing needs

Management of costs and overheads

Control of IT related risks

Ratings from 1 (lowest) to 5 (highest)

The study also provided insights into how IT teams vary in how well they deliver services to the business. This is not surprising in itself, but what's very interesting is that the best performers (a third of our sample) were more likely to be prioritising datacentre modernisation. This underlines the ongoing importance of strong on-premise IT.

### Tactics regarded as a major priority

| | Datacentre modernisation | Hosted cloud services | Traditional services |
|---|---|---|---|
| **Best performers** (average score of 4.5 or higher) | 76% | 54% | 30% |
| **Others** (average score of less than 4.5) | 51% | 38% | 18% |

# Application Platform Requirements

But if you are going to invest in your datacentre rather than moving everything to the public cloud, then surely you should at least be aiming to move all of your applications to a cloud-style 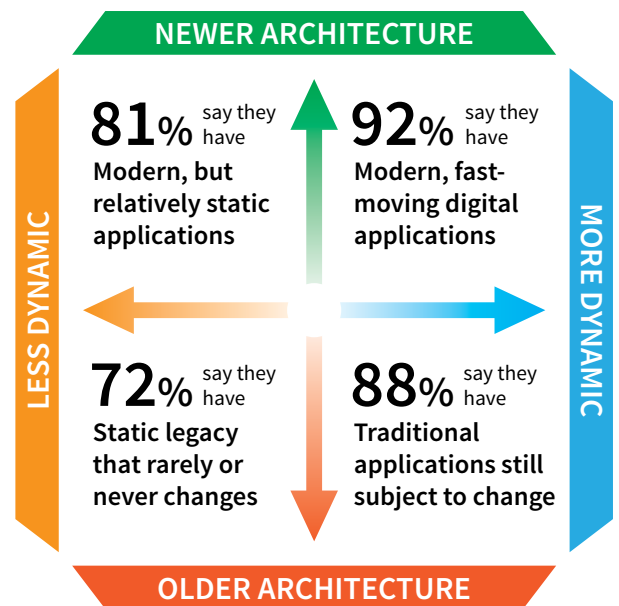architecture. It's a nice thought, and private cloud platforms can offer some great advantages in terms of scalability, flexibility and efficiency when deployed appropriately. The reality, though, is that no single platform, regardless of its attributes, is likely to deal with all of your application requirements.

**93%**

*Either agree or strongly agree that*

**Applications and workloads vary significantly in terms of platform requirements**

## Modern, fast-moving digital applications are only part of the mix

The need to acknowledge this multi-platform reality becomes particularly clear if you stand back and consider the makeup of your application estate. Understandably, our thoughts are often dominated by those fast-moving digital applications that are so important to stakeholders for driving success and differentiation on the front-end of the business. But these only represent one part of the equation. Many such applications are dependent on more traditional back-end systems that are also subject to frequent change in order to keep up. Let's also not forget the myriad systems and services that might not be that dynamic, but are still critical to the business. And it's not just 'legacy' here; a lot of software running on modern platforms is often relatively static.

**NEWER ARCHITECTURE**

**LESS DYNAMIC**

**MORE DYNAMIC**

**81%** say they have **Modern, but relatively static applications**

**92%** say they have **Modern, fast-moving digital applications**

**72%** say they have **Static legacy that rarely or never changes**

**88%** say they have **Traditional applications still subject to change**

**OLDER ARCHITECTURE**

## Not all applications are virtualisation ready

When considering platform requirements it's also important to bear in mind basic practicality and economics. While it often makes sense to port older applications to new cloud-style platforms, this isn't always possible, or even desirable.

| How many applications... | a lot | some |
|---|---|---|
| Require a dedicated platform to run successfully | 31% | 56% |
| Require a traditional stack to run optimally | 23% | 51% |
| Would be impractical to port to a virtualised environment | 19% | 47% |
| Would be uneconomic to port to a virtualised environment | 19% | 49% |

If you focus on what really matters - i.e. the kind of measures our best performers deliver so well against - then an obsessive quest to make your datacentre look like that of a large cloud service provider doesn't make business sense.

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# Formulating an Effective Platform Strategy

So, if you acknowledge that a mix of platform architectures will be required to meet evolving needs (as over three quarters of study participants do), then what must you consider to formulate an effective strategy? Well the main piece of advice is to keep in mind that despite the claims of some manufacturers, consultants and analysts, no technology ever provides 'the answer' to all problems. There are many scenarios, for example, in which a more traditional systems stack will physically out-perform the latest hyper-converged architecture, and cost you less to acquire, implement and run. The trick is therefore to be driven by genuine needs and opportunities rather than technology industry fads and fashions.
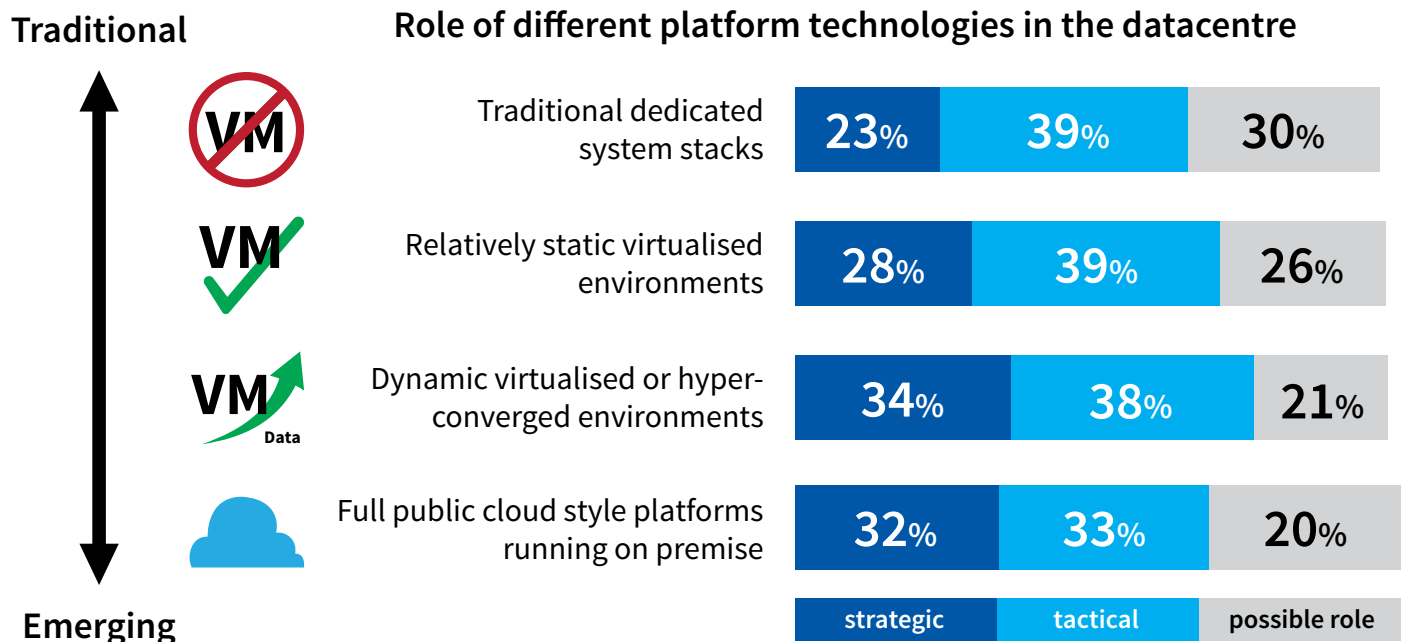
## 75%

*Either agree or strongly agree that*

### We will need a mix of platform architectures to meet evolving needs

## A place for all types of platform architecture

With this in mind, a message that comes across loud and clear from the research is that a legitimate role exists for all types of platform architecture, from traditional dedicated stacks right through to the latest cloud-style offerings.

**Traditional**

**Emerging**

### Role of different platform technologies in the datacentre

| Platform technology | strategic | tactical | possible role |
|---|---|---|---|
| Traditional dedicated system stacks | 23% | 39% | 30% |
| Relatively static virtualised environments | 28% | 39% | 26% |
| Dynamic virtualised or hyper-converged environments | 34% | 38% | 21% |
| Full public cloud style platforms running on premise | 32% | 33% | 20% |

## Driving for the platform advantage

An important point to stress here is that highlighting the continued role of traditional architectures is not the same as advocating the practice of dragging out the use of outdated technology. As platform hardware and software ages and edges towards obsolescence, the cost of ownership escalates and it ultimately becomes a constraint on progress, e.g. preventing you from running the latest versions of application software. Modernising traditional stacks is therefore as important as adopting new platform architectures. In line with this, it's probably no coincidence that the best performers in our study tend not to delay when it comes to exploring new platform capabilities as they emerge, regardless of architecture.
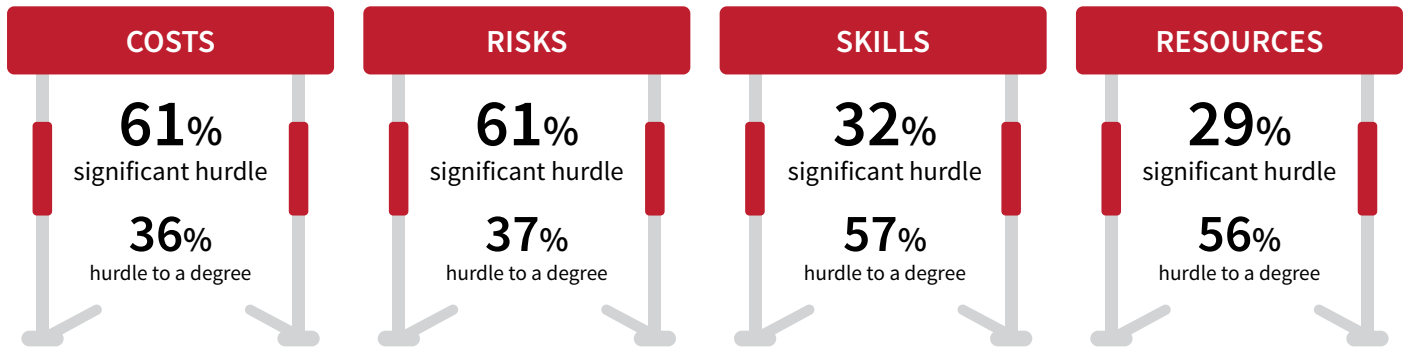
### Best performers are

## 2x

More likely to try new platform capabilities very quickly

# Practicalities of Making it Happen

While you might want to take advantage of current platform technology when rolling out new applications or modernising existing ones, it isn't always that easy. Participants in our study highlighted a range of factors that can slow or limit the adoption of new platform capabilities.

## Considerations that limit adoption of new platform capabilities

| COSTS | RISKS | SKILLS | RESOURCES |
|---|---|---|---|
| **61%** significant hurdle | **61%** significant hurdle | **32%** significant hurdle | **29%** significant hurdle |
| **36%** hurdle to a degree | **37%** hurdle to a degree | **57%** hurdle to a degree | **56%** hurdle to a degree |

At least some new platform costs can be offset against the high cost of ownership of older systems, and/or the false economy of buying less future proof technology just because it's familiar. Harder to handle are the risks that stem from the volatile mix of new technology, skills limitations and resource constraints in the context of live systems.

## Leveraging supplier knowledge, experience and resources

Whether based on traditional or newer architectures, modern platforms tend to simplify application deployment and management, but they can themselves be tricky to design and build. Fortunately, suppliers have options to help smooth and de-risk early adoption activity, and the benefits of these were recognised during the research.

### Alternatives to the total DIY approach

**Level of benefit in relation to:**

| | Minimising costs | Minimising risks | Dealing with skills issues | Speeding up delivery |
|---|---|---|---|---|
| **BLUEPRINT-DRIVEN CONFIGURATION** Reference architectures to deal with common workload types or deployment scenarios | ✓ **39%** / ✓ 55% | ✓ **46%** / ✓ 47% | ✓ **29%** / ✓ 54% | ✓ **42%** / ✓ 46% |
| **CUSTOMISED TURN-KEY SOLUTIONS** Having a supplier pre-integrate systems, then deliver a fully supported turn-key platform | ✓ **43%** / ✓ 44% | ✓ **42%** / ✓ 49% | ✓ **32%** / ✓ 52% | ✓ **44%** / ✓ 43% |

✓ Seen as a compelling benefit     ✓ Seen as a worthwhile benefit

Reference architectures are a useful way for suppliers to make their aggregate experience available to customers. It might be the first time you have implemented a particular type of system, but unless you are working at the extreme 'bleeding edge', suppliers and their partners will have seen similar requirements many times before. Whether based on a reference architecture or a bespoke design, suppliers can then go further to deliver a totally pre-integrated turn-key solution.
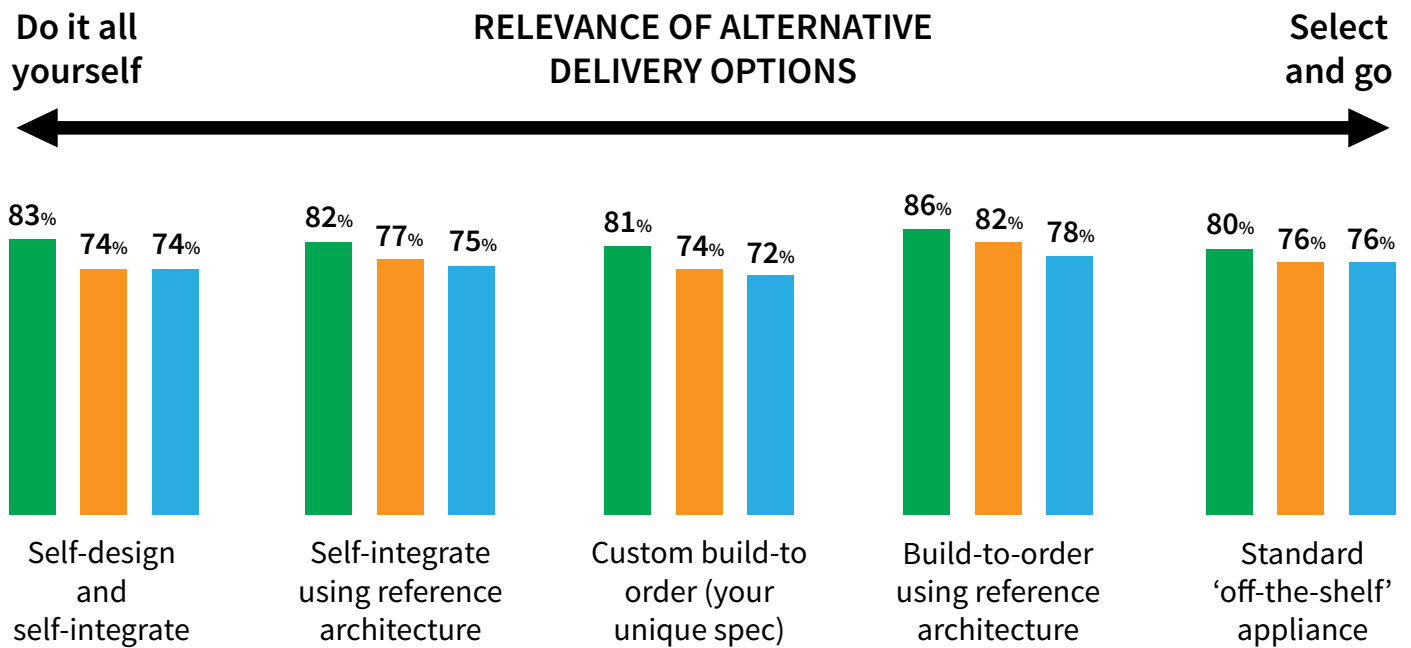
**Best performers are**

**2.6x**

More likely to have a strong preference for pre-integration

# Matching Delivery Models to Requirements

The kind of delivery models we have mentioned are not just useful in relation to the latest hyper-converged and cloud-style platforms; reference architecures and pre-integration can also take the risk, cost and pain out of working with traditional systems. Depending on the situation, however, it can sometimes still make sense to do-it-yourself (DIY).

**Do it all yourself** → **RELEVANCE OF ALTERNATIVE DELIVERY OPTIONS** → **Select and go**

**Self-design and self-integrate**
- 83%
- 74%
- 74%

**Self-integrate using reference architecture**
- 82%
- 77%
- 75%

**Custom build-to order (your unique spec)**
- 81%
- 74%
- 72%

**Build-to-order using reference architecture**
- 86%
- 82%
- 78%

**Standard 'off-the-shelf' appliance**
- 80%
- 76%
- 76%

**Seen as relevant for:**

- ■ Traditional system stacks
- ■ Hyper-converged environments
- ■ On-premise cloud environments

# Final thoughts and recommendations

A clear message from our study is that despite developments in public cloud and other hosting options, your on-premise systems are likely to remain the pivot point for IT service delivery into the future. This notion is reinforced by the fact that high performers are even more likely than their counterparts to be prioritising datacentre modernisation. As you look to act on this imperative yourself, it's important to recognise that from a platform perspective, modernisation is not just about introducing the latest hyper-converged and cloud-style infrastructure into the mix. It can also mean updating the hardware, systems software and management tools associated with traditional platform stacks, or even putting new traditional stacks in place based on the latest server, storage and software components. Whatever the nature of the platform, there are times when a DIY approach can make sense, but reference architectures and pre-integrated delivery can ease and quicken your access to new platform capabilities. In this respect, working with suppliers who offer a wide range of delivery options can have advantages. What's most important is accelerating time to benefit with the right solution.

**Do you see a benefit in working with suppliers who can offer a wide range of delivery options?**

- 1% no
- 28% possibly
- 71% yes
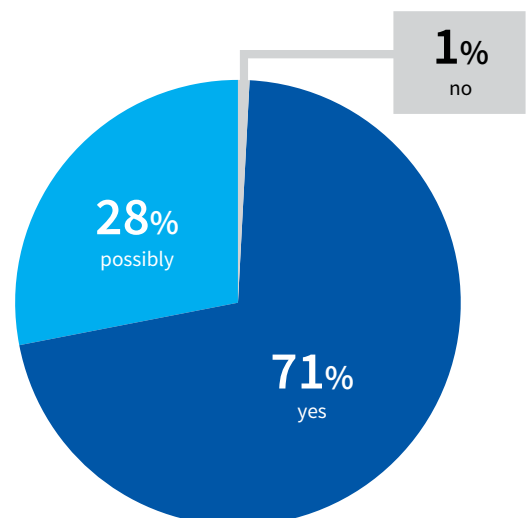
# About the Research

The research upon which this report is based was designed and executed on an independent basis by Freeform Dynamics. Data was collected from 378 senior European IT professionals via an online survey. The respondents were drawn from a variety of industry sectors (Manufacturing, Retail, Travel/Transport, Financial Services, Telecoms, Healthcare / Life Sciences and Automotive) and the organisations in which they worked were spread evenly across three size bands (25 to 249 employees, 250 to 5,000 employees, and greater than 5,000 employees). The study, which was completed in May 2016, was sponsored by Fujitsu.

# About Freeform Dynamics

Freeform Dynamics is an IT industry analyst firm. Through our research and insights, we aim to help busy IT and business professionals get up to speed on the latest technology developments, and make better-informed investment decisions.

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