Whitepaper

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De-risk your digital system migration

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Who is this document for?

Whether you are considering a new CMS, EMS or CRM system, the modern business is under increasing pressure to embed sustainable yet flexible digital solutions across teams, geographies and departments.

This document is for any senior decision makers in marketing, IT or operations who are looking at the role digital systems play across their organisation.

Why do businesses change their digital systems?

There can be several triggers that force businesses to re-platform their business systems. These triggers range from outdated and poor quality legacy systems right the way through to a change in agency incumbent.

A pattern we often see is what we call the 'three-year cycle', or as Harvard Business Schools' Eric Ries calls it the "large batch death spiral".

Businesses launch a new platform over the course of a year, building every possible feature to lowest cost. The site becomes outdated as a new wave of technology emerges. And as updates are required, the 'technical debt' caused by the complex and cheap initial build means that the site becomes more and more expensive to maintain. This invariably means that after only two or three years of a system being live, the platform is now not fit for purpose.

This is something we've seen happen time and time again.

So how can we mitigate this situation?

The opportunity
New digital systems open up possibilities never thought possible before. Personalisation, 121 marketing and 360° customer data views are a growing reality and attractive to marketing, customer service and technology teams alike. But even these opportunities carry their own risks. Where will technology be in 12 months? Two years? How do we know that the decisions we take today will see us through the next five years? The fact is that there will always be change. And there will always be innovations in technology and devices or changes in human behaviour that create yet another trigger event that requires organisations to respond quickly and cost-effectively.

Consider too that 'Digital transformation' is now a board-level imperative – and the role platforms can play in taking an organisation on a journey of cultural change and continual evolution is more powerful today than ever before.

But here's the reality check.

Everyone has his or her day jobs, and the business needs to maintain its current performance as well as make a shift in its future thinking.

And what we can't afford to do as senior decision makers is to allow ourselves to revisit this same dilemma every three years. Far too often businesses paint themselves into a corner when embarking on business change programmes, sometimes with disastrous long-term implications.

This document is intended to arm you with ten practical, semi-chronological steps to achieve a balance in this seemingly complex framework.

We have based our advice on our experience in helping some of the UK's most admired businesses and brands move their digital businesses forward through periods of significant change.

1 Collect problems from across the business

Change programmes take time, energy and cost money – and frankly are to be avoided unless completely necessary. It's therefore important to understand clearly why you are changing platform and what the problems are that you are looking to solve. Typically the trigger moment happens in the marketing or the IT teams. Or perhaps sales and customer services find they are unable to serve their customers because the technology gets in the way.

The fact is that no matter **where** the trigger event happens, rolling out a process of improvement or replacement will have an impact on **every** department across the business. Whether you like it or not. See this as an opportunity to come back to your business plan and revisit your vision statement, your objectives and goals. Seek out other problems to solve in other departments across the business.

Be inclusive. Share the opportunity early. Doing so will empower those around you and will make the process leaner and less wasteful. Be honest – how many times have you seen an initiative kick-started in one team, only to have a negative impact across other teams upon launch and roll-out?
It doesn't have to be this way.

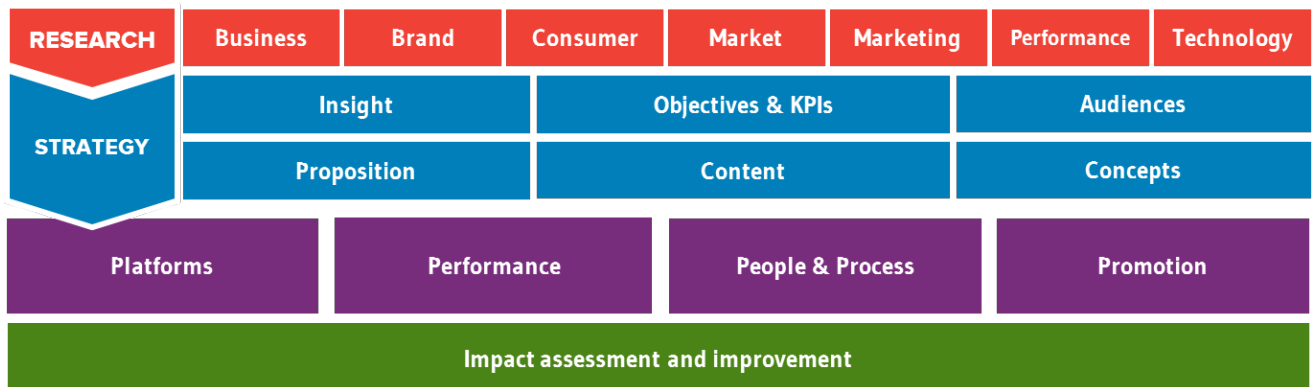# 2 Create a forum for the business to contribute

Creating business-wide clarity is great in principle, but in practice is more difficult than it sounds. Department heads in large organisations might never truly work together under normal business conditions so getting a real sense of collaboration and team working takes a small shift in behaviour and process.

The most successful organisations combat this by creating a new steering group made up from a mix of people and skills. Typically these groups have representation from Marketing, IT, Sales, HR, Operations, Finance and Customer Services. Think about inviting trusted partners to the table – whether that's your media agency, digital consultancy or brand partner – whoever you think can contribute to the future direction of the business. Also consider who is best suited to chairing and driving this new team. It could be that you invest in a 'change agent' for a period of time to bring new blood and ideas to the table. You might take an existing group of people within the business that has a real hunger for change and give them authority and responsibility to make a difference.

In our experience organisations that introduce an outside perspective to a process like this see the greatest impact. New people tend to bring new energy, experience, ideas and enthusiasm. Internal politics, siloed thinking and historical processes, and staid ways of working don't hamper them.
They are able to bring people together in a new way, leaving departmental or individual ambitions at the door, instead refocusing energies on where the organisation needs to get to. Be open to the idea that the contributors may not be senior management – cast your net wide and give everyone a chance.
Starting a change event like this needn't take months. Effective businesses bring lean, agile teams together to solve problems and empower them to make decisions.

The below model gives some structure to the process, taking into account the various research inputs that fuel the strategy, before then looking at what impact it will have on four major areas of your business:

- Your technology **platforms** and digital systems
- The **performance** of your organisation (either commercially or in the reduction of inefficiencies or some other measure that is meaningful to your business)
- The skills your **people** have today and if this needs to change, looking too at the **processes** they run
- **Promotion** – how these changes affect how we talk about and market the business to all stakeholders.

RESEARCH	Business	Brand	Consumer	Market	Marketing	Performance	Technology
STRATEGY	Insight		Objectives & KPIs			Audiences	
	Proposition		Content			Concepts	
	Platforms		Performance		People & Process		Promotion
	Impact assessment and improvement						

This diagram illustrates well that changing digital systems and technology **platforms** is just one part of the picture.

Also the role **people** and skills will play in your organisation will vary greatly in the next five years as this table ably describes. Look at how important 'co-ordinating with others' becomes:

in 2020	in 2015
1. Complex Problem Solving	1. Complex Problem Solving
2. Critical thinking	2. Coordinating with others
3. Creativity	3. People management
4. People management	4. Critical thinking
5. Coordinating with others	5. Negotiation
6. Emotional intelligence	6. Quality Control
7. Judgement and decision making	7. Service Orientation
8. Service Orientation	8. Judgement and decision making
9. Negotiation	9. Active Listening
10. Cognitive Flexibility	10. Creativity

(SOURCE: HTTP://REPORTS.WEFORUM.ORG/FUTURE-OF-JOBS-2016/)

Running a **platform** change process in isolation risks a lack of commercial performance, the ability for the business to adapt and – crucially – inhibits marketing effectiveness.

3 Benchmark performance

Frankly, there is too much data available to decision makers and it can be overwhelming to know what to do with it. Perversely you might find that even with all this data, you still don't have access to the things that you really want to know.

Dedicate time to understanding the things that are important to measure, and ignore the things that aren't. Go back into the four 'p's above and think about the things you would really love to know under each business area.

For instance, a large B2B organisation might want to understand the role platforms and promotions play in assisting their resellers to make a sale. Under 'people' it might be a case of benchmarking staff retention or satisfaction scores. Or taking a snapshot of the time it takes the marketing team to get a new promotion live, including DM, SEO, PPC and eCRM activities, looking at how you would like to see this process refined. Decide what's important to measure, how you are going to measure it and how it will be reported.

Set your benchmarks and be really clear on what those are. Make it clear to your stakeholders and to your agencies too and give them the responsibility to make it happen where appropriate. The model shown is a tool we use to demonstrate how a business vision cascades down to objectives, goals, metrics and measures.
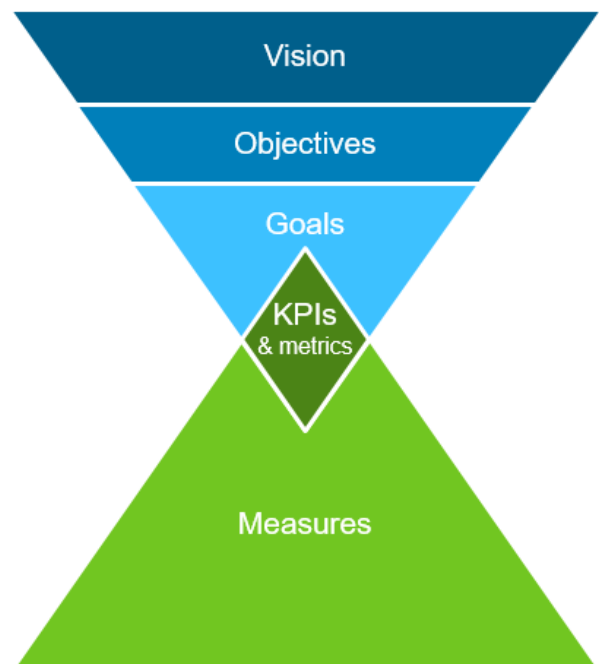
4 Make the right platform choice for you

Once you have your objectives, your KPIs and clarity on what the four 'p's of your business need as part of this move towards a better future, then the role of platforms becomes clearer. IT, Marketing, HR, Operations, Finance and your customers will have all fed their needs into the process.

Now you are in really good shape to know how to shortlist from the hundreds of technology platforms that are out there: some specialist, some generalist, some open source, some licenced, some PHP, some .NET, some Java.

Where do you start?

This chart from cheifmartec.com illustrates the magnitude of choice.
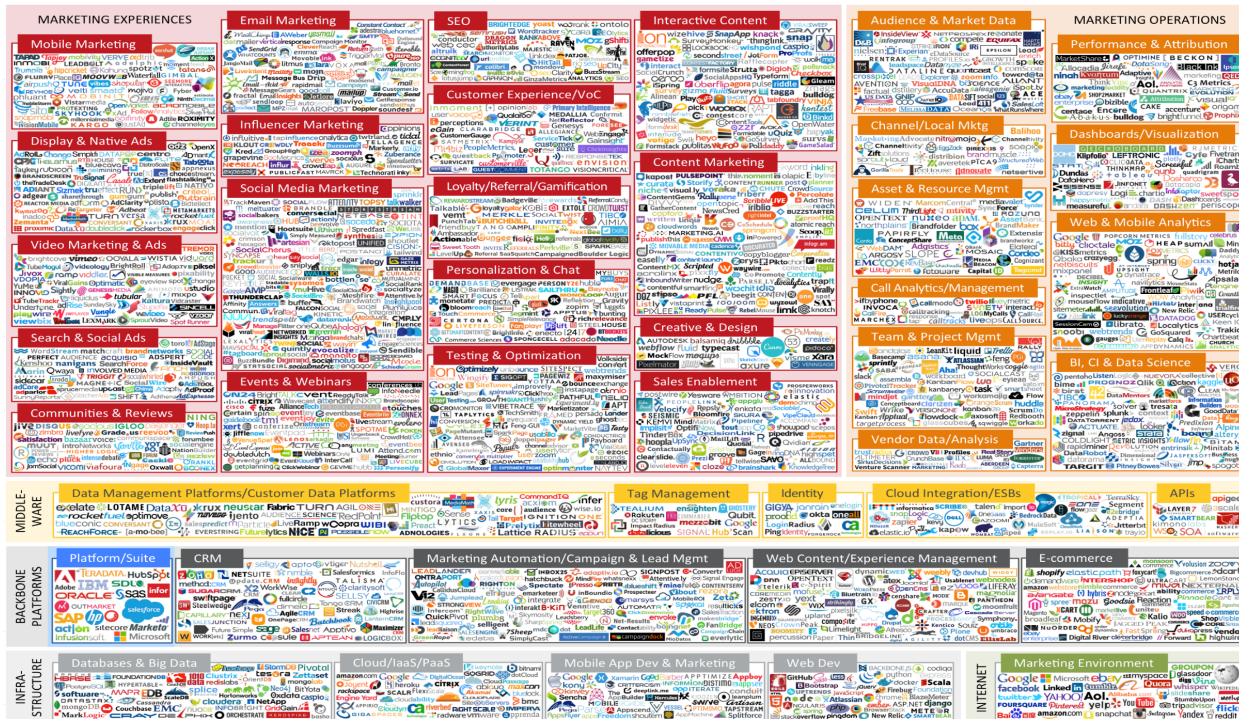
by Scott Brinker @chiefmartec http://chiefmartec.com

gate this complexity. For example, Gartner produces a regular review of the major CMS and Experience Management systems into something they call their 'Magic Quadrant' (below).

We can see that Adobe and Sitecore lead the way in terms of 'completeness of vision' and 'ability to execute'. Both these products come at a cost and tend to work best for businesses where digital is critical, and there is a need for advanced personalisation tools and features.

Both products have a strong team of developers and researchers behind them, constantly improving the capabilities of the product with every release update. However, their technology stack is different. Sitecore is built on .NET whereas Adobe is built with Java. You may have an IT director who has a leaning to one over the other, which may sway a decision.

Conversely, Acquia also sits in that quadrant and is a relatively cost-effective product, perhaps without some of the advanced features of

Source: Gartner (July 2015)

Sitecore and Adobe – and built on yet another technology – PHP. These products claim to be good at

a lot of things and include CMS, data management, ECRM, analytics and so on. This fully-featured single-product approach may suit some but not others.

Based on your requirements you might benefit from a simple blogging or API based system like **contentful** if your business is looking to trial new technology without all the complexity.

The important thing is to be clear about what problems you want technology to solve and start there. Invite Sitecore, Adobe and others in to demonstrate their products and see for yourself.

5 Free vs. licenced products

As a digital consultancy, we are often given the shared responsibility of choosing a CMS product with our clients. Often clients can be torn between spending money on a licenced product versus taking a free or cheap-to-use framework.

Sitecore versus Umbraco is a match we've seen a great deal over the years (Umbraco being a free-to-use system with a similar code framework, but without any of the advanced features around personalisation and data management). It can be tempting to go with the cheap alternatives on the first view, but the decision needs to shift away from one of 'cost' and towards 'value'. If you were to spend £100k on a licenced product and it would enable you to deliver personalised experiences that would drive an extra £1m revenue above your baseline earnings over two years, you'd buy it, right? Also think about years three to five. Is this product the right one to enable us to grow? Will it continue to deliver value? Dig into the 'value proposition' and put 'cost' to one side.

6 Prove a positive impact before you do anything

Now that you have chosen your new system(s) it can be tempting to ignore the now 'old' and unloved system and want to replace it as quickly as possible with the shiny new one. Don't move so fast. As much as the system is being replaced for the myriad of reasons you highlighted in your research, it still (usually) drives a successful organisation.

You are not in crisis mode.

Make your moves measured. Prioritise where the business needs the most support, or where the problems are the most obvious (and would drive the most value once fixed) and start there.
'Big bang' launches where businesses reveal a completely new experience overnight will become less and less common as time passes. There are a few high-profile stories where big brands have got this wrong - **Marks and Spencer** being a notable example losing 8.1% sales overnight. Instead there are a number of methods you can use to prove a result before you push the experience live.

6.1   Tree testing

Tree testing is a great methodology you can use to measure how easy it is for a user to find content and complete actions. They allow you to test the live site, make learnings and create hypotheses for change before offering to the same group of users a new experience to see which one they prefer.

We have clients who have observed a six-fold improvement in the effectiveness of the experience just by using tree testing methods. This gives us absolute confidence that building the experience will be a complete success.

6.2   Rapid prototyping

When looking at forms, or booking or buying processes that require multiple steps, a similar technique can be deployed. A group of users are set tasks on the 'old' site – for example, 'search and find a yellow table size 100x100, add it to your basket and check out'. Test and time users and observe the challenges they face in this process; the take the learnings to create new ways to overcome those problems.

This method is really powerful. We've seen users' complete tasks in half the time based on refining existing processes. Not only does this de-risk the eventual build process (as you are always building things that work), but your ability to manage internal stakeholder expectations becomes really empowering and actually genuinely exciting.

6.3   A/B testing

It's surprising how many brands still don't have an ongoing A/B testing programme in place across multiple devices. When re-platforming and changing experiences, it is so easy to let politics and opinion get in the way of making the right decisions. A/B testing allows you to remove opinions and let real customers decide what they find most valuable. Through research and A/B testing you can learn what works and improve the experience accordingly.

We replaced the user interface for Asda.com using these methods and made radical improvements to customer understanding and business revenue. We reduced bounce rate by 37% and increased onward traffic by 24%, which put £000Ms onto the bottom line.

7   Replace the most valuable parts first

The digital estate that you want to replace will have had years of investment in both time and cost terms. Expecting to replace five years of work in a six-month project is clearly unreasonable.
Moreover, changing everything all at once is laden with risk. When moving from one platform into another, either in entirety or in part, risk mitigation is of high importance – especially where key revenue streams are involved.

One approach that we have had success with in moving large existing systems or collections of websites is a migration method known as 'Application Strangulation'. It effectively means you keep the majority of your old business systems in place, only replacing the parts you need to as you go. We have implemented this approach on a number of clients including Hillarys Blinds, and in particular the Oxfam Website re-platform into Sitecore.

At the outset, the Oxfam ecosystem was comprised of a number of different websites and systems, including the main website, online shop, Policy and Practice, Regular Giving donation platform. Throughout the duration of the project we gradually brought these systems over to the Sitecore platform in phases – moving from old to new over a managed period of change.

7.1　Rebuild the most valuable things first

The first 'new' work package needs to be something that will add significant value to the business once it's live – and ideally a 'quick win'. It could be your forms that drive all your leads, or your key landing pages – look carefully at what 'value' means to your business.

Once built then you may choose to only show the new experience to a fraction of your overall traffic, watching closely how the changes measure up against your KPIs. As we gain confidence that the business is driving more value from these new experiences we switch traffic to 100%, removing the old experience completely. We can then move onto the 'next most valuable' batch of work with complete confidence. Over time, through development iterations, the new system gradually increases in size and takes over from the legacy system.

By releasing a new feature to a subset of users and measuring performance using the frameworks set out at the outset of the project, the risk of introducing features can be mitigated and once proven can be released to all users. It also means you will never have to spend money in the wrong places again – only building the tools and features that users will truly value.

8　Quality for the long term

Platforms and CMS products are just tools. They enable a business to do lots of new things, but often they are quite dumb out of the box. It takes your digital partner (or internal development team) to bring these tools to life, and build the technical infrastructure you need for the long-term.

Your choice of development team then is really critical. Consider this: if you were getting a 30ft tree removed from your garden, would you rather employ a tree surgeon using a hand-saw or a handy man using a chain saw? Or if you had to race against either Lewis Hamilton in a Ford Fiesta or a newly qualified driver in a F1 car, which would you choose?

The best tools need to be used by the right people. The same applies to software engineering.
There are development teams that are truly expert at engineering. These people understand how to select technology for a purpose, quickly adapting their skills and code craftsmanship to shape, engineer and deliver awesome solutions to solve complex problems.

There are development teams that claim to be 'Sitecore experts' or 'insert platform here' experts.
But if development teams don't value and apply software engineering practices – things like Lean development principals, test driven development, value-driven decision making, unit testing and automation – then there is a risk they are compromising the long-term adaptability of the solutions they make.

Our philosophy is to employ highly talented coders and get them to learn how to apply best practice engineering to the tools they need to solve the problems they have, rather than bring in Sitecore developers that don't have a passion for clean code and craftsmanship. But how do you know you are dealing with a tree surgeon or a handyman?

When selecting your partner make sure you ask good questions and ask them for evidence of best practice, and a client reference that will back them up.

9   Decouple your systems where you can

Building scalable environments that are open to integrating a number of vendors' toolsets to meet current and future demands is the way some businesses choose to approach their technology radar, rather than invest in a single fully-featured toolset. Businesses change direction, and technology needs to enable that change, not hinder it.

Utilising multiple vendor toolsets allows you to use the best tool for the job, and give you the ability to swap systems in and out as new and improved toolsets come onto the market. We therefore advocate that systems are not too closely integrated where possible as this makes replacing system tiers difficult without extensive redevelopment.

We believe in building small to serve big. By default we adopt a micro services-like approach to development, breaking large systems into suites of independent services that can be deployed and scaled in isolation to meet demands. The diagram below illustrates the difference between something called 'monolithic' and 'service orientated' solutions.
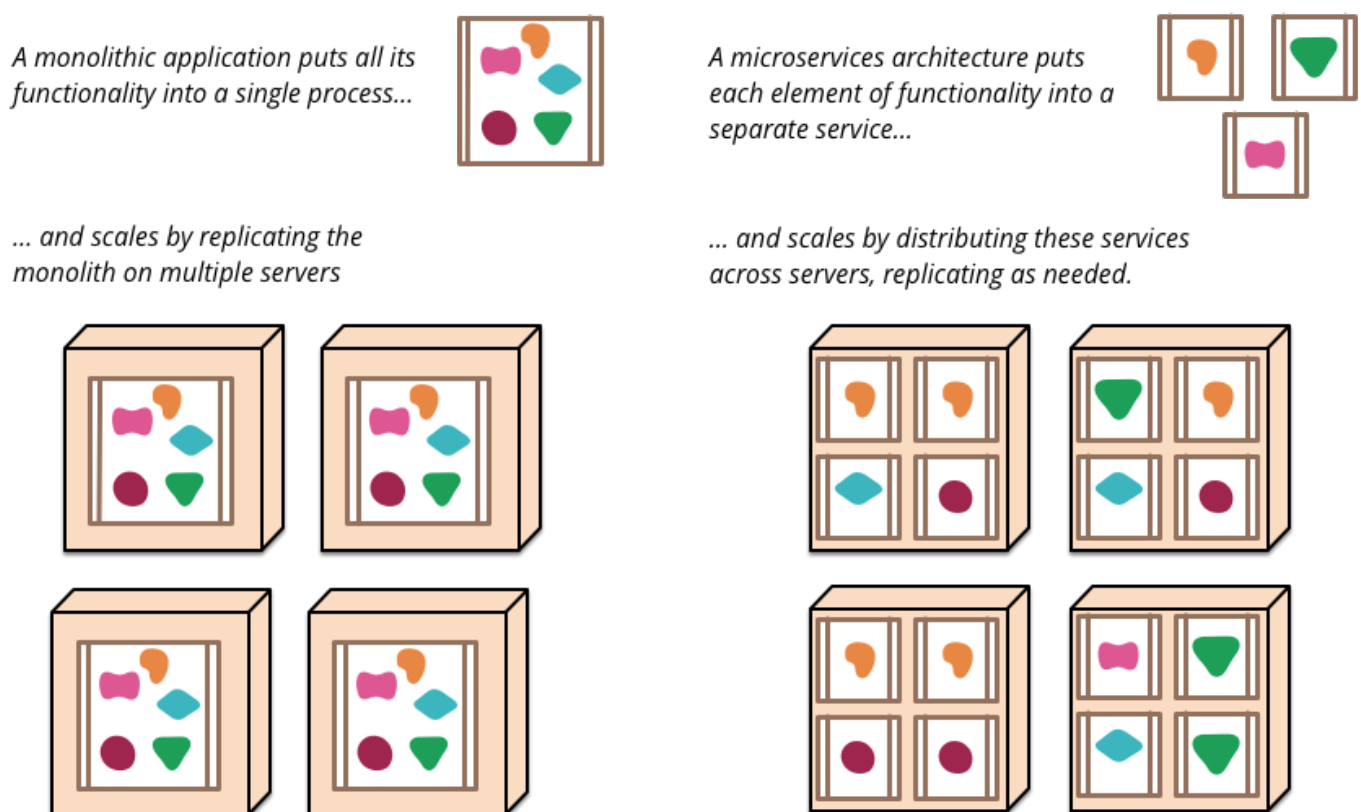

Figure 1 - Monoliths and Micro services – Ref: Martin Fowler

As the number of consuming applications increases, the service can be scaled in isolation without the need to scale the website. This also allows consuming applications to be delivered by different vendors if required.

This is an area we have extensive experience of, in particular with Oxfam's Sitecore platform, which is integrated with over 30 different toolsets. This includes payment providers (Barclays SmartPay),

search tools (Adobe Search and Promote), resource libraries (iLibrary), recruitment systems (iGrasp), campaigning tools (Engaging Networks), CRM systems (Ascent) and ESP (Adestra) as well as e-commerce providers (MS Commerce).

We recommend appropriate integration approaches following API/web services models where possible and where close integration is required, or lighter touch iFrame based approaches if that is appropriate. Where possible we look to abstract the integration from the solution itself using APIs which allows for systems to be more easily swapped out and reduces the risk that the whole platform will be affected if one third party solution isn't working.

10   Think in products not projects

Thinking in terms of projects limits your ability to think about the long-term value of the systems you build. Projects have fixed scope, fixed timeframes and fixed budgets. They are absolute in many ways.

If Cost, Scope or Time change, it will affect quality, too.

Scope
The work you and your team have to do for the project

Quality

£

Cost
Your project will always have to stay within a budget

Time
When your project schedule runs late, you've usually blown your budget, too.

Credit: Code Computerlove

But the reality of the modern digital business is that nothing is absolute. Technology, device adoption and changes in human behaviour mean that nothing is best of breed for long. Thinking in projects means you are thinking that there is an endpoint to your investment.

The reality is different.

But the good news is that if you think in terms of products that live and breathe and change direction and grow, you will spend less money over time. Products have roadmaps and strategies that

continually look at how those systems can drive even more value into organisations, getting faster to change and staying cost-effective to run.

Don't forget SEO

When building external-facing system, many organisations look at the role of SEO, content and outreach last. But SEO must be considered at the very earliest stages.

Content migration can be an arduous task but lifting and shifting everything over to the system is never the right thing to do. Assuming that 'long tail' content that gets few views isn't valuable is also short-sighted.

So often brands go live with new systems and infrastructures only to find their search rankings fall off the face of Google – sometimes with business-critical implications. Make sure you are benchmarking today's successes and work hard to safeguard those rankings and make improvements as you move to a new platform.

Conclusion

We are seeing a genuine shift in the role of digital platforms for today's modern businesses.
Digital transformation is a reality of the boardroom and smart businesses will create living, breathing infrastructures that allow them to move and adapt whatever the future brings.
For further tailored advice on your system migration, get in touch with us at **hello@codecomputerlove.com**.