



UNIVERSITY OF
CAMBRIDGE

Cambridge Service Alliance

CAMBRIDGE SERVICE ALLIANCE

annual report

2015

The Cambridge Service Alliance

The Cambridge Service Alliance is a unique global partnership between businesses and universities. It brings together the world's leading firms and academics, all of whom are devoted to delivering today the tools, education and insights needed for the complex service solutions of tomorrow.

About the Cambridge Service Alliance

Founded in 2010 by BAE Systems, IBM and the University of Cambridge's Institute for Manufacturing and Judge Business School, the Cambridge Service Alliance brings together world-leading organisations with an interest in complex service systems to:

- Conduct insightful yet practical research to improve the design and deployment of high-performance complex service systems.
- Create and develop industrially applicable tools and techniques that deliver competitive advantage.
- Provide an unparalleled network of academics and industrialists that share experience, knowledge and insight in how better to design and deploy high-performance complex service systems.
- Develop and deliver public and member-only education programmes to raise the skill levels of organisations.



Joining the Cambridge Service Alliance

Industrial members

The Cambridge Service Alliance is a business-led alliance with industrial members who have an active interest in the shift to services. In 2015 the industrial members were BAE Systems, Caterpillar Inc., IBM, Pearson and Zoetis.

The Cambridge Service Alliance will bring together further companies prepared to make significant and long-term contributions to support the Alliance. Benefits of joining include:

- Challenging yet practical insights into the design and delivery of high-performance complex service solutions.
- Practical tools, techniques and methodologies.
- Education and training to enhance capabilities in service and support.
- A stimulating international network of the world's best talent engaged in solving problems associated with complex service solutions.

Academic members

The Alliance draws on members from across the University of Cambridge, initially from the Institute for Manufacturing and the Judge Business School.

Internationally leading researchers and educators will be invited to join the Cambridge Service Alliance to meet specific research requirements and the needs of industrial members.

Further information

Email: contact@cambridgeservicealliance.org

www.cambridgeservicealliance.org

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Foreword

The Cambridge Service Alliance is a unique global partnership between Cambridge University and world-leading businesses – BAE Systems, Caterpillar, IBM, Pearson and Zoetis. Working together we are delivering today the tools, education and insights needed for the services and solutions of tomorrow.

Customers are demanding services...

Customer demand for services and solutions is gathering pace. Increasing numbers of customers - both clients and end consumers - are asking why do we need to own products, when actually what we are interested in is the value the products deliver - the outcomes they enable. Different sectors use varied language to describe this phenomenon. The aerospace sector talks of “power by the hour”. Education and healthcare talk of delivering “learning” or “health” outcomes. In capital equipment industries the talk is of maximizing uptime and availability or minimizing total lifetime costs. While mining businesses focus on minimizing the cost per tonne of extracted materials. Whatever the language - the underlying concept is the same - a focus on outcomes, with providers increasingly worrying about how do they create and successfully operate business models that deliver the outcomes their customers really want.

The Cambridge Service Alliance is providing answers...

In the Cambridge Service Alliance we are working with our partners to understand these challenges and how firms can respond to them. We have learned a lot since we started working together - we understand more about the risks of service contracts and how these risks can be better identified, managed and mitigated. We understand the importance of customer dependencies - knowing where and when your ability to deliver outcomes is affected by your customer’s actions. Through our research we have identified seven critical success factors that underlie the successful shift to services. We have developed new methods of analysing unstructured customer data, so we can better identify how services can be improved and customer satisfaction enhanced. We have studied business models and ecosystems, identifying what capabilities firms need to successfully deliver excellent services in partnership with firms.

While asking better questions...

We work closely with all of our partners - developing ideas and concepts with them, testing out these ideas and concepts in their businesses and then supporting our partners as they seek to capitalise on this work and roll out the insights across their organisations. While we have learned a lot we have also learned that there is much more to understand - in essence we are now able to ask much better questions than we were a decade ago. Critical issues that we need to understand include how can you scale services - successfully growing your services business. How you price services - especially when customers are already paying for capital equipment. How can you leverage big data and the industrial internet/industrie4.0 to create better services. How can you innovate and coordinate across ecosystems - networks of organisations that are pooling their capabilities to deliver outstanding service.

In essence, the Cambridge Service Alliance is itself a complex service ecosystem. Through deep and cooperative long-term relationships with our partners we are seeking to uncover and communicate the secrets of designing and delivering world-class services and solutions. We are always interested in hearing from and talking to others who share our interest in these issues. We hope you will find this annual report interesting and insightful and that it will stimulate you to join us as we continue to explore these new ways of doing business.

A handwritten signature in black ink, appearing to read 'Andy Neely', written in a cursive style.

Professor Andy Neely
Director, Cambridge Service Alliance

Our industrial partners



BAE Systems is a global defence, aerospace and security company employing around 93,500 people worldwide. Its wide-ranging products and services cover air, land and naval forces, as well as advanced electronics, security, information technology, and support services. BAE Systems provides a wide range of military and technical services, from preparation and training programmes that ensure personnel and equipment are ready for deployment, to maintenance and modernisation services to keep equipment at the forefront of technology.



Caterpillar Inc. For more than 85 years, Caterpillar Inc. has been making sustainable progress possible and driving positive change on every continent. Caterpillar is the world's leading manufacturer of construction and mining equipment, diesel and natural gas engines, industrial gas turbines and diesel-electric locomotives. The company is also a leading services provider; Caterpillar Job Site Solutions offers complete solutions to customers that are designed to improve the jobsite performance and increase sustainability.



IBM. Throughout its 100-year history IBM has continually strived to innovate and progress. In the mid-1990s the company faced some real challenges as the information technology industry started to become rapidly commoditised. IBM survived and prospered by changing its strategy, and over the past decade has shifted into high-value services and software, which now account for more than two-thirds of its revenue. Radical innovation in IBM's business model has been another example and is central to its re-invention as a globally integrated enterprise. Globally integrated delivery is now IBM's business norm, enabling it to provide services that draw on large, new pools of highly skilled specialists from across the planet.



Pearson is the world's leading learning company, providing educational materials and services and business information through the Financial Times Group. Pearson serves learners of all ages around the globe, employing 41,000 people in more than 70 countries.



Zoetis is the leading animal health company, dedicated to supporting its customers and their businesses. Building on a 60-year history as the animal health business of Pfizer, Zoetis discovers, develops, manufactures and markets veterinary vaccines and medicines complemented by diagnostic products and genetic tests and supported by technical services, with a focus on both farm and companion animals. In 2012 the company generated annual revenues of \$4.3 billion. With approximately 9,300 employees worldwide at the beginning of 2013, Zoetis has a local presence in approximately 70 countries, including 29 manufacturing facilities in 11 countries. Its products serve veterinarians, livestock producers and people who raise and care for farm and companion animals in 120 countries.

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This is a really great model to understand our priorities to deliver better customer experience. The model has many details and It is insightful.

Service Director, Finning

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2015: new challenges

Complex services play an important part in all sectors of the economy, from education and healthcare, through to capital-intensive and asset-heavy industries. Whatever the sector, complex services have three defining characteristics:

- A focus on solutions
- Networks of firms pooling their capabilities
- Long-term relationships involving outcome-based contracts.

In all cases, the firms involved are looking for ways to increase the efficiency of their operations, reduce their cost-based and risk exposure and to partner with strategic providers to deliver integrated solutions.

Making this shift to services is not straightforward. To design, deliver and support complex services and solutions many firms need to innovate their business models. They need to rethink the ways in which they interact with their partners and their broader industrial ecosystems. They may need to collaborate with companies they had traditionally regarded as competitors. New sources of competition, especially data integrators and dedicated service providers, may enter their markets. The shifting landscape means that firms constantly have to evaluate and review their approach to complex services.

The Alliance provides a forum for doing just this, by offering a unique environment where non-competing organisations can share their knowledge and experience. The partners in the Alliance jointly agree a defined research programme with the University of Cambridge, addressing issues of interest and relevance to them.

In 2015 we explored:

- How you successfully make the shift to services and solutions.
- How you map business ecosystems and innovate across them.
- How you can enhance customer experience through better data analytics.

You can find more details about this work and our other projects in the pages that follow.





More impact

Through a rigorous programme of research and investigation, we have been developing a set of tools and techniques which can be used by businesses to address some of their most pressing needs.

Business model innovation assessment: this process helps senior teams understand whether their organisations have the right capabilities to innovate their business models. We have used this assessment successfully with a variety of senior teams, helping them develop a much clearer and more coherent strategy for organisational capability development as they seek to make the shift to services.

Identifying and designing enterprise-wide key performance indicators: firms often work with partners to deliver complex services and solutions but this creates a challenge when it comes to performance measures, which are typically developed within the confines of a single firm. The Cambridge Service Alliance has developed a structured process for developing cross-organisation, enterprise-wide, key performance indicators. The process helps you to identify and design a small and well-structured set of key performance indicators that you and your partners can use to coordinate value creation and delivery across the network of organisations involved in the delivery of a complex service.

Ecosystem mapping toolkit: as networks of firms pool their capabilities to deliver the desired customer outcomes, the question of who to collaborate with, and how, becomes central to the strategic debate in many firms. Understanding the structure and nature of your ecosystem, as well as its economics, is a prerequisite to thinking about your approach to collaboration and competition. The Cambridge methodology for mapping and innovating ecosystems helps you understand the structure of your ecosystem, analyse its economics and decide how you should seek to shift the balance of power within it.

Priorities for 2016

2016 promises to be an exciting year for the Alliance. We will be focusing on three areas in particular:

- The continued exploitation of existing materials – ensuring we deliver value to our partners.
- Further research and investigation – exploring new areas and ideas.
- Education and development – building skills and capabilities in our partners, and more broadly.

While 2016 will see us exploiting existing materials, we will also continue to investigate new areas and topics. To make these materials more widely available we will be running a series of executive education programmes – both public and in-house – to support organisations making the shift to services.

2015

Research themes

Each year the Alliance partners agree a programme of research which reflects their most pressing challenges and preoccupations. In 2015 we focused our activities on the following three themes:

Shift to Services Theme

Making and sustaining the shift to services

Theme leader: Veronica Martinez

The making and sustaining the shift to service project is actively supporting industrial, engineering and general firms to diversify their current product portfolios and search for different opportunities to expand and grow. In this search for growth, 'Services' has been a popular strategy to follow. Our research shows that largely firms shift to services to increase new sources of revenue generation, increase capacity utilisation, de-risk competitive position and broaden the relationship with the customers among others. Despite the great pool of benefits, the shift to services represents a massive challenge for most organisations. There is a huge gap in literature, practices and tools to help and support firms in making this shift to services.

This research project is devoted to help firms like yours to make and sustain the shift to services. Building in our 2014 research, particularly on the 'Service journey' and on the 'Service strategy model'. Our 2015 research focused on two key issues:

First, the understanding of the 'Service Processes' which underpin a sustainable shift to services. These are: design and plan services, portfolio of management, piloting and incubation, scale -up & commercial execution and transformation from Service Generation 1 to Generation 2.

Second, the identification of the 'Critical Success Factors in the Shift to Services' and their correspondent actions that drives success.

Shift to Services

After reading the Seven Critical Success Factors ... now, I can see why our shift to services did not work out the first time around... it took us too much time

Andrea Bertini, GEA





Progress

With the support of our industry partners worldwide, we developed, tested and validated 'a set of five tools for making and sustaining the shift to services'. (1) The seven critical success factors in the shift to services, (2) the service design method: a business approach, (3) the piloting and managing service portfolio: a lifecycle method, (4) the five tensions in piloting services, and (5) the ten rules for service pricing. This is uniquely global research where the Cambridge Service Alliance Partners from China, Singapore, Australia, US, Germany, France, Italy, Latin American countries and other actively participated.

These tools are helping manager and employees - including customer facing employees - to inform and guide their operations in planning, developing, managing and commercialising their services from the conception of the 'Service' idea to the point to sell.

We have been trained more than 100 partners' employees, half a dozen policy makers and other industrial firms making the transition to services. Usually, during the training sessions, the discussions focus around the tools and the problems the tools will solve, the best use and adaptation of them to particular situations. Best practices associated to each tool, and the cases, enrich and further expand our partners' knowledge in making the shift to services.

“

The work behind the service strategy model and the critical success factors in the shift to service are extremely applicable Zoetis in a number of ways. They not only pertain to selling services, but to all programs we deploy and services. They could be used to establish 'what good looks like' when we stand up programs (business). The critical success factors model has interesting answers to help us operate faster and smarter.

Kerry Gunter, Zoetis International Services

”



Five Tools for Making the Shift to Services

- 1. The seven critical success factors in the shift to services**
Through a business viability analysis, this process guides you from the idea generation to selection of the strongest service idea to be piloted.
- 2. The service design method: a business approach**
this method helps firms to map the pilot lifecycle and set time frames. It also identifies key variables of the pilot for future standardisation and scalability.
- 3. The piloting and managing service portfolio: a lifecycle method**
In managing the service pilot lifecycle, it is vital to set various decision-making points. This tool gives you the map and the points where you as a company need to make decisions to pilot services and arrive to the point of commercialisation in a shorter, more efficient, cheaper way than the traditional methods. Strategic and financial criteria are key components in the evaluation of pilots.
- 4. The five tensions in piloting services**
This tool presents the tensions in piloting and developing services up-front to manager to clarify before confronting the inevitable future problems in service piloting and incubation.
- 5. The ten rules for service pricing**
This is a unique tool that presents the 10 rules for service pricing. It is complemented by an additional tool called General Rules for Pricing Services in Emergent Markets.



The five service processes tools help us to be able to look out into industry and know that others are thinking (and struggling) in the same way as us. To reflect, analyse with real data and make corrections. The shift to service stream informed the decision that services in this sense had to be technology based for several reasons, so we decided to focus on a long term service realisation through digital. This was part of our service journey output from the program.

Daniel Smith, Zoetis





The Seven Critical Success Factors in the Shift to Service is a solid piece of thought leadership for both inside and outside the company's many stakeholders

Daniel Smith, Zoetis



Tool 1:

The Seven Critical Success Factors in the Shift to Services



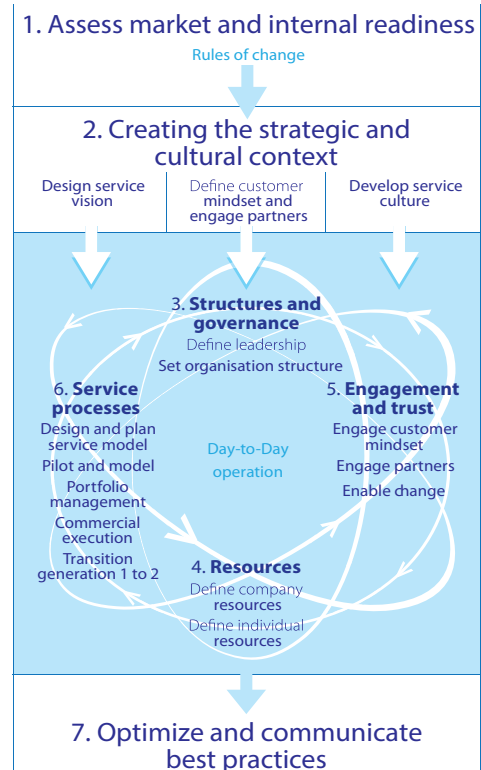
This Executive Briefing sets out a roadmap for making the shift to services journey. It identifies the seven critical success factors (CSFs) in order to deliver services successfully and gives firms a set of key actions to do this. Critical success factors (CSFs) for any business are defined as the limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for the organisation. In other words, a critical success factor is a key factor or activity needed to ensure the success of a firm.

The report leads organisations to how they need to use these CSF in their implementation strategy. There is a logical progression to them and a relationship between them. Each of the critical success factors has a defined set of rules, which will allow your company to embed these into your organisation. There is a strong relationship between the seven CSFs, and you need to realise that to move from one to the other you need to complete the preceding one first particularly with the first few steps. You have to be diligent in setting up these steps and you need to be sure you are ready to progress to the next one before doing so.

Shift to Services

The Seven Critical Success Factors:

1. **Assess your market and internal readiness:** making the shift to services means that all parties involved must be ready to change and understand the value of doing so.
2. **Create the right strategic and cultural context:** a service business is different to a product business and needs a completely new mind-set to be instilled throughout the whole service ecosystem
3. **Build the structures and governance for services:** firms need to make a clear commitment to services by creating properly empowered teams, structures, measurements and incentives.
4. **Get the resources ready for service innovation and delivery:** short and long-term budgets need to acknowledge that services are very resource intensive and change over time.
5. **Proactively manage engagement and trust:** services are co-created with customers who are active participants in the service journey.
6. **Develop and embed service processes:** firms delivering services must experiment, adapt and learn to actively commercialise services. They need processes, which enable them to do that.
7. **Optimise services and communicate best practices:** services rely on continuous innovation and so require a 'best-practice' mind-set.



The Seven Critical Success Factors in the Shift to Services Report was written by Veronica Martinez and Andy Neely, Cambridge Service Alliance; Neil Allison and Monica Lund, Pearson North America; Dav Bisessar, IBM; Thomas Bucklar, Caterpillar; Stewart Leinster-Evans and Graham Pennington, BAE Systems; and Daniel Smith, Zoetis.

Read the Briefing at: <http://bit.ly/28MeYSs>
 Listen to the Authors' podcast at: <http://bit.ly/28MeYSs>
 Watch the webinar at: <http://bit.ly/28N46Fk>



Customer Exeperience Analytics: A text mining approach

Theme leader: Mohamed Zaki

Customer experience (CX) management is listed in the top priorities of CEO's worldwide, with firms increasingly viewing CX as a promising approach to addressing key marketing challenges. While it is acknowledged that the customer experience is complex and longitudinal, measurement is generally made at one point in time, usually at the end of the journey. Single measures taken at the end of the customer experience journey may mask underlying sources of friction at the various touchpoints. Moreover, the single measure typically forces customers to provide an 'overall' assessment of the journey. Even if multiple measures are taken at several touchpoints across the customer experience journey, they are often 'averaged out', masking important details that matter to customers.

Furthermore, even if customers are asked to provide details of concerns or compliments, practitioners often do not know what to do with these details expressed in the free text verbatim comments (e.g. transactional surveys, social media, call center notes, etc). If used at all, these comments are typically employed by managers as selected quotes, or allocated to one of two broad categories - either a positive (compliment) or negative (complaint). Not surprisingly, in their raw form, these verbatim comments appear of little relevance to practitioners. In contrast, single numeric scores are simpler to use as they can be averaged and easily incorporated into management reports. However, the qualitative comments offer richness unable to be obtained from single averaged numeric scores.

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Applying this model would allow us to analyse customer feedback on a yearly basis. This will make us understand how the comments are changing over time. The model has many details and it is insightful. It has good accuracy.

Customer Experience Manager at Finning

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The model looks flexible to accommodate domain specific terms in different accent and potentially could accommodate different languages.


Customer Experience Management, CAT

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Firms need better tools for CX measurement, as well as new data-driven approaches for identifying key points of friction in the customer experience. Thus, we created a data-driven CX model that combines qualitative and quantitative data to better measure the customer experience, identifying sources of friction and ways to reduce it in order to improve the customer experience. In particular, our CX analytics will enable:

- **Monitoring Touchpoints:** Our analytic tool enables identification of a fuller set of key touchpoints from the customer’s perspective which was different than the organisation-centric perspective. This highlights the importance of understanding the customer view as well as using the verbatim comments to facilitate better mapping of customer organisation interactions. Furthermore, it helps organisations to identify the actual encounters that are critical for customers’ service evaluations in terms of satisfaction.
- **Root cause analysis:** the analysis shows that using quantitative measures alone mask the underlying concerns, compliments and suggestions for improvement. This identifies not only the root causes of friction but also ranks the areas of most through to least friction. The analysis captures which aspects of the service received the most customer complaints, compliments or suggestions.
- **Customer Loyalty Status Versus Customer Evaluation:** Our approach enables us to uncover potentially vulnerable customers that prior approaches and models would have considered loyal and not requiring intervention strategies. An important finding was that so called ‘loyal’ customers still complain.
- **Monitoring Customer Loyalty status:** Following a longitudinal analysis, we found the status of many customers changed over time, from loyal to vulnerable to at-risk. This uncovers a new potentially vulnerable customer segment that wasn’t consider before by organisations.

We believe firms need to use data-driven approaches to create rich, dynamic customer-centric models that can provide a deeper understanding of customer behavior, including subsequent customer responses to organisational attempts to improve the customer experience.



Going beyond the normal sentiment analysis and evaluate resources and activities are the way forward to understand VOC better and It is applicable to all our customer transaction surveys but also it could open new opportunities for mining other different textual documents’.

Tech Leads, IBM



.. I was very happy with the survey. The Service Alliance researcher provided an outside perspective that is always welcome in technology discussions, and led to the discussion of possibilities to apply advanced technology to better drive Service Excellence efficiency improvements.
Scott Miller, Global Service Excellence, Caterpillar

Ecosystems and Value Mapping and Analysis

Ecosystems value mapping and analysis

Theme leader: Florian Urmetzer

Company boundaries will be blurred in the near future, through close collaboration with partners and competitors. The background to the ecosystems and value mapping and analysis workstream is that customers' needs for goods and services are often better addressed by multiple interacting organisations. A company will have relationships with suppliers, competitors, partners, complementary organisations and a range of other stakeholders. Such networks act as business ecosystems or extended enterprise, in which companies' strategies are closely interdependent, competition goes hand in hand with cooperation, and no single firm can succeed without relying on resources and capabilities controlled by others. The partner companies of the Service Alliance are involved in complex ecosystems and are contracting those partnerships. Hence there is an importance to understand the 'full' value exchanged in those partnerships and wider ecosystems to make them a success. In discussions with the partners it turned out that there are service contracts which are complex, and where multiple firms are involved in the service delivery. The main problem was that there is normally no understanding of how the value exchange between the partners involved in the service delivery contract works. Therefore, the research objective was to understand 'How are different types of value being created within an ecosystem and captured by its customers?' The research acknowledged early on that not all value is defined at the point of service delivery and hence questions were asked; Who creates Value? and Who captures value? – Between the service delivery partner companies.

Progress

In the first exploratory phase of the study, we identified that there is the need to actively seek to capture created value from other organisations. This is, for example, where information for the collaboration is created by one of the partners, but the information does not lead to actions, or is not taken up, resulting in the value not being captured. In multiple workshops we could identify five focused levels on which firms exchange value with each other when they are involved in an ecosystem. One level is the direct level. This means there is a level at which value gets exchanged that is normally contracted. For example, a contracted service against money. But, then there are four levels which we found are indirect values. First, there is the organisational level, where the organisations exchange value. An example is the collaboration between a start-up and a multinational. Where the multinational captures value through innovation brought by the start-up. The multinational will bring value to the start-up by increasing their valuation. The second level is the managerial level. Here managers create and capture value for a collaboration. This may be meeting a KPI enabling more sales of the company or may be having experience in collaborating and communicating in partnerships, hence being the person in the company who can make the collaboration a success. The next level is the strategic intent. We found that companies are capturing or creating value for future plans by participating in a collaboration. This may be in form of gaining market access through a collaboration or better operations. The final level is Risk. Collaborations may capture or create value by reducing risk for a partner organisation. An example would be financial risk or market risk.

Customer Value Canvas

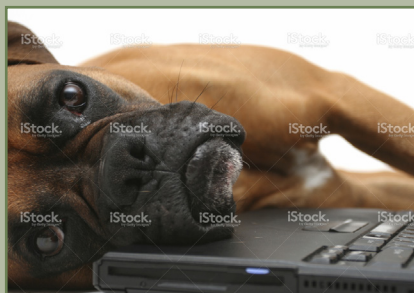
International defence ecosystem

An international BAE Systems project was facing the problem of understanding the value exchange within a complex international Ecosystem. The multiple companies were awarded development work in the defence sector, which are multinational and highly political. The benefit for the countries involved is that they reduce their cost base for defence development work. Using the **Value Canvas** of the Cambridge Service Alliance, the project reviewed the complete value exchange between the multiple companies involved. The exercise has resulted not only in a deeper understanding of the ecosystem, but in direct understanding of how value gets created and captured within the ecosystem and how BAE Systems fits within this. The feedback from management on this project was that *'before using the model we have been going around in circles on value'*.



Understanding the direct and indirect value for an animal health medicine within its ecosystem

Using the **Value Canvas** has helped the EMEA business leads of Zoetis to reshape their ecosystem approach to selling a medicine which was not penetrating the market as expected. A workshop was run, which firstly focused on improving the understanding of the ecosystem of the market, including all influencers and actors. Then the direct and indirect value exchange were discussed in large detail, using the value canvas. After the workshop the EMEA Marketing Manager stated: *'If we had known then what we know now we would have made our value offer not to the start of the production chain (vets and farmers), but to the completely other end of the chain (retailers)'*. The outcome from the process was a complete strategic change.



Customer satisfaction in online tutoring

Pearson wanted to understand how the customers see their online tutoring business. Problems in setting up an in-depth qualitative customer satisfaction study arose when it came to passing through ethics committees to be able to study under-aged people at a school. The researchers from Cambridge took the challenge and have defined a novel method to study customer satisfaction using the frontline employees for questioning instead of studying the customers. The advantage is twofold; First, the employees know the feedback from their direct daily interactions with their customers, and Second, the employees feel valued that feedback they are given is being taken seriously and advances the service delivery quality. The outcome of the study produced direct recommendations to improving the service offering of Pearson, and a framework allowing a continuous interaction on service quality with the frontline employees.



Caterpillar study on technology impact on KPIs

Caterpillar was facing the problem that there are plenty of new technologies that have the potential to enable their dealers to excel in their market. Based on the past work and publications on *'Key Considerations in Asset Management Design'* and *'The Future of Servitization: Technologies that will make a difference'*, questions arose around the impact of technology on the KPIs and attributes of a dealer. Hence, the direct question *'With which technology can I improve my KPIs, and in which way?'*. The study has revealed the direct and indirect effects of the a set of technologies to the KPIs and attributes of the dealers. The study was based on interviews, conducted by asking what the dealers have already implemented and have already planned to implement. The effects of the technologies on the KPIs and attributes could be established and visualised in a presentation that was given to the manager at Caterpillar. The work will enable Caterpillar and the dealers to more effectively collaborate on strategic decisions and priorities for their technology investment pipeline.



Other Projects

The future of servitization: Technologies that will make a difference

Veit Dinges, Florian Urmetzer, Veronica Martinez, Mohamed Zaki and Andy Neely

This Executive Briefing provides an invaluable guide to the technologies that are likely to play a pivotal role in the future of servitization. In doing so, it offers integrated product-service providers some insights into how they can maintain or gain competitive advantage in their markets.

The research related in this briefing also identifies the broad technological themes that underpin the development of servitization today, as well as providing a glimpse into the future, by detailing the key technologies for the future of servitization, as identified by practitioner and academic experts.

Read the Executive Briefing at: <http://bit.ly/24OeS5Q>



Through-Life Accountability: managing complex services

Chara Makri

As part of her PhD research, this year Chara has presented a paper and a webinar in the Alliance series. The specific study seeks to understand how confusion over accountabilities can lead to accidents. The Cambridge Service Alliance has been conducting this research in partnership with BAE Systems and Intelligent Energy, with the sponsorship of EPSRC. The paper is based on the analysis of 17 commercial aircraft accidents that occurred globally between 2006 and 2013. The results suggest that organisations with low levels of hierarchy will need to focus more on clearly defining accountabilities. Organisations with high levels of hierarchy will need to promote a culture of reporting failures. Finally, all servitized manufacturers, operating in safety critical environments, will need to engage customers and help them operate as 'high-reliability organisations'.

Read the paper at: <http://bit.ly/1R58pzA>
Watch the webinar at: <http://bit.ly/1LbISU1>



Cambridge Service Alliance is an important partner in our journey to creating and implementing our services within animal health industry and it was our pleasure to work closely with you.

Daniel Smith, Zoetis





Thanks for the training on “How to Manage the Service Pilot and Portfolio of Management” today, a very worthwhile session.
Phil Howell, Senior Solutions Manager, Caterpillar Job Site Solutions



Industry evolution and servitization

Ivanka Visnjic

In this research the authors studied the industry conditions that prompt product firms to offer services, distinguishing between services performed on products (product-oriented) and services that go beyond product to support broader customer needs (customer-oriented). They suggest that product firms are likely to offer product-oriented services when industry conditions favour the deepening of product knowledge and to offer customer-oriented services when industry conditions reward the broadening of firms’ knowledge base.

Analysis of 410 public firms demonstrates that firms are more likely to offer product-oriented services in the early stage of the industry lifecycle and/or under conditions of high R&D intensity and competition, while they tend to offer customer-oriented services in the mature stage of the industry lifecycle and/or highly cyclical industries.

Read the paper at: <http://bit.ly/24OcNa2>
 Watch the webinar at: <http://bit.ly/1LOC79G>

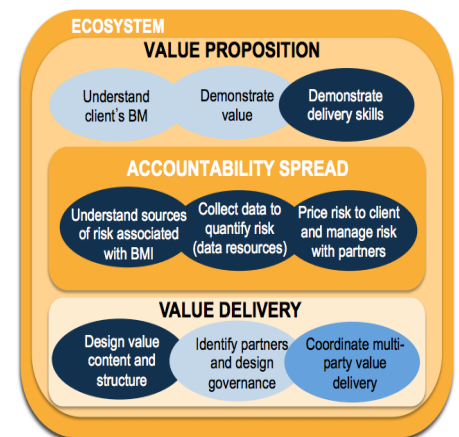


Capability-Based View of Service Transitions

Ornella Benedettini, Andy Neely and Jane Davies

The study investigated how manufacturers organise their service relevant capabilities, as well as how different services require different capabilities. It also focused on how, and if, greater service capabilities actually link to greater firm performance. To do this a new Capability Audit Tool was developed to help companies audit their capabilities to make the transition to services. It contains four key categories of capabilities: value proposition, ecosystem awareness, value delivery and accountability spread. There are also 12 bundles of capabilities within these four categories digging down to define over 70 capabilities. The study then looked at 138 companies in the aerospace and defence industry during 2013 and 2014. It used annual report narratives and content analysis technique to extract information on service capabilities. One of the main conclusions of the research showed that if companies offer more than 8 or 9 services it is not more financially profitable for them. The framework has subsequently been successfully used with Caterpillar and Pearson, allowing executives to identify organisational strengths and weaknesses, as well as improvement priorities. The framework is available for partners in the Cambridge Service Alliance to use.

Read the research paper at: <http://bit.ly/1pd9ljX>
 Listen to the podcast recording with Dr Benedettini at: <http://bit.ly/1LbkLUs>
 Watch the webinar with Dr Benedettini at: <http://bit.ly/1RPU86C>





Knowledge management capabilities of lead firms in innovation ecosystems

Chander Velu

One of the key challenges for firms operating in ecosystems is to manage knowledge, in order to stimulate innovation among members of the ecosystem. In this research, the author outlined a set of capabilities that are built, maintained, and exercised by the lead firm in order to enhance innovation within ecosystems. In particular, the knowledge management capabilities are grouped into three key areas: (1) knowledge acquisition, (2) knowledge sharing, and (3) knowledge utilisation.

An analogy is made of innovation ecosystems to how teams work together. Teamwork is important among firms for such knowledge brokering in order to both generate and integrate knowledge to create value for the firms and customers in a collaborative network. The research highlights three salient tensions that need to be managed across knowledge management capabilities in order to increase the rate of innovation of the ecosystem: autonomy–control, dissent–consent and uncertainty–certainty. A set of propositions is explored for lead firms on how knowledge management tensions in innovation ecosystems require balancing delegative versus directive leadership so as to provide direction whilst not stifling creativity, in order to stimulate innovation.

Read the paper at: <http://bit.ly/1QAmCB9>



Why to servitized firms fail?

Ornella Benedettini, Andy Neely & Morgan Swink

This year, research has continued into the link between servitization and firm failure. In the latest paper and webinar released, the authors look at the attendant risk consequences in servitizing your business. Specifically, the research builds on the distinction between ‘environmental’ and ‘internal’ risks. In particular, the research concentrates on the risks that may cause product firms to fail in the most extreme sense, those that may lead to bankruptcy. Using data from a sample of 75 servitized and 54 non-servitized bankrupted manufacturers, the research finds that the presence of a service business increases overall bankruptcy risks for the supplying firm. This is essentially because of greater internal risks, indicating that management abilities have a significant potential for controlling the risk consequences of service transitions. At the same time, environmental bankruptcy risks do not decrease under servitization.

Read the paper at: <http://bit.ly/1p4WXqX>
Watch the webinar at: <http://bit.ly/1UPLpUN>

Data-Driven Business Model

Mohamed Zaki

We live in a world where data is the new oil. Just as with oil, the value of data is universally recognised. Capitalising on this data explosion is increasingly becoming a necessity for businesses who wish to remain competitive. However, there is distinction between young 'digital born' companies and older, more established, companies that rely on human experience and intuition to a much greater extent. There are twin challenges facing these two very different kinds of businesses: the barrier to allowing big data to optimise existing business models and the emergence of a flurry of new business models built around the incorporation of big data. As a consequence, many firms are looking to develop new business models - effectively data-driven business models (DDBMs) 'a business model that relies on data as a key resource'. A DDBM is not limited to companies conducting analytics, but also includes companies that are 'merely' aggregating or collecting data. Furthermore, a company may sell not just data or information, but also any other product or service that relies on data as a key resource. Therefore, firms should think about six distinct business models that center themselves around the use of big data:

1. Free data collector and aggregator: companies collect data from vast numbers of different, mostly free, sources then filter it, enrich it and supply it to customers in the format they want;
2. Analytics-as-a-service: these are companies providing analytics, usually on data provided by their customers;
3. Data generation and analysis: Companies generate data themselves rather than relying on existing data. Besides generating data, most of the companies also perform analytics on this data. Within the model, companies can generate data through crowdsourcing, Web analytics, and smartphones or other physical sensors.
4. Data-aggregation-as-service: these companies aggregate data from multiple internal sources for their customers, then present it back to them through a range of user-friendly, often highly visual interfaces;
5. Free data knowledge discovery: the model here is to take freely available data and analyse it;
6. Multi-source data mash-up and analysis: these companies aggregate data provided by their customers with other external, mostly free data sources, and perform analytics on this data to enrich or benchmark customer data.

Transition towards a DDBM in the online newspaper publishing industry

The advantage of start-up businesses being born digital is that they can supply data services where more established companies are struggling to modernise their systems. For example, Nettavisen, the Norwegian online start-up that experienced a boost after the financial crisis of 2009. Since then, the firm has been able to increase its market share and profitability through the use of highly disruptive business models, allowing the relatively small staff to outcompete powerhouse legacy-publishing companies and new media players such as Facebook and Google. From a financial point of view, these disruptive business models have been successful, as Nettavisen captured a large market share early on, and was consistently one of the top-three online news sites in Norway. Capitalising on media data explosion, Nettavisen is moving towards a data-driven business model (DDBM). In particular, the firm analyses huge volumes of user Web browsing and purchasing habits across desktop, tablet and mobile devices to drive both advertising and e-commerce revenues. However, the DDBM transition faces many challenges, including competition, personnel turnover, blogger collaboration, lack of data practices and financial resources.



Read report at: <http://bit.ly/1ntCRW3>
 Watch webinar at: <http://bit.ly/1THEJZQ>

Internet of Animal Health Things

However, not all companies settle on the appropriate business model nor find their niche in the market. Established businesses with big data needs and young start-ups born digital can work together to the benefit of both, but only if old businesses learn to trust data, and new businesses manage to find the right business model to stay afloat. Therefore, Zoetis collaborated with Cambridge to write a thought leadership piece about the future of data-driven business models in the animal health sector.



In particular, the recent revolutionary changes in data-management practices in livestock farming, driven by the continued intensification of livestock farming alongside the rapid expansion of the Internet of Things (IoT). The use of sensor-driven data collection in 'Precision Livestock Farming' now presents an excellent opportunity for the collection of big data, using automated data-capture methods which are stress-free for the animal, and efficient for the farmer. In order for data-driven precision livestock farming businesses to succeed. There are a number of challenges raised that Animal Health industry proactively need to:

- Create a responsible use of data in order to meet the societal needs for increased food security, and consumer desire for increased traceability in the global food chain with improved animal welfare.
- Integrate privacy and redaction models in a manner that can achieve the promise of improved animal medical outcomes that drive precision farming.
- Standardise technology infrastructure and practices to ensure proper data privacy, security and management, while enabling the wider benefits of increased transparency and information sharing along the value chain.
- Work together to ensure data practices are trusted by users and society as a whole, and set the standard for the responsible use of data.

Read report at: <http://bit.ly/1Ry9NF1>
 Watch webinar (by Daniel Smith and Scott Lyle, Zoetis and Mohamed Zaki from the Alliance) at: <http://bit.ly/1UaQ17u>



PhD Reserach

Through-Life Accountability: managing complex services

Chara Makri

The objective of this PhD research is to investigate how an understanding of Through-Life Accountability can improve safety and examine the human and organisational factors that can lead to failures and in turn, accidents within a service environment. Chara is interested in engaging with researchers and practitioners in order to understand more about why these failures happen and how they can be prevented. The ultimate goal is to equip servitized manufacturers with a unique tool in order to face such challenges and support them in the challenging path towards the services of the future. This research is conducted in partnership with BAE Systems and is sponsored by EPSRC.

Read the paper at: <http://bit.ly/1R58pzA>

Watch the webinar at: <http://bit.ly/1LbISU1>

Platform Based Service Innovation

Xia Han

'In 2015 Uber, the world's largest taxi-company owns no vehicles, Facebook the world's most popular media owner creates no content, Alibaba, the most valuable retailer has no inventory and Airbnb the world's largest accommodation provider owns no real estate.' — Techcruch, 2015.

These businesses are, in essence, multi-sided platforms. These platforms serve the function of matching the needs and resources of two or more groups of customers. Their distinctive feature of enforcing positive correlation between the number of participants and value of network has transformed the traditional thinking of business. Xia Han's research aims at understanding the platform ecosystems and its implications on its participants' service innovation activities. He has been conducting case studies on how platforms have transformed the traditional used vehicle industry in China.



Using the Seven Critical Success Factors in the Shift to Services, I can clearly see the steps and where to go... it is simple..... why we did not have this tool before?

Ian Baker, BAE Systems





The five tools for making and sustaining the shift to services are used to guide and inform and develop the next Service Pilots at Pearson Academic Services, particularly the piloting and managing service portfolio: a lifecycle method. The 10 general rules to price services informed conversations on – how we as a firm price today versus the pricing tool. Pearson used the training sessions as professional development for the leaders of the services team(s) to ensure they have the knowledge and tools for continued growth of high quality service delivery.

Holly Atwell, Academic Services, Pearson



Facilitating co-creation in living labs: The JOSEPHS study

Katharina Greve

Organisations are increasingly using open innovation to reach beyond their own boundaries, enhance internal innovation and expand their markets. Living labs provide a new platform for companies to engage customers in a process of co-creation. Existing research about those factors facilitating co-creation in living labs is limited and filling this gap is therefore crucial to support the development of new products and services that better meet consumers' wants and needs.

For this reason, the Cambridge Service Alliance collaborates with the University of Erlangen-Nuremberg and the living lab 'JOSEPHS' in order to analyse factors that are critical to the facilitation of co-creation in living labs. To achieve this objective, the study integrates findings derived from existing literature with primary data collected with JOSEPHS' managers and researchers as well as companies that have utilised the living lab.

Preliminary findings from this study show that academic theorising and managerial practice highlight different factors as facilitators of co-creation in living labs. The study contributes therefore to practice by creating first insights into the operational activities and design structures. These findings are of interest for different stakeholders: living labs themselves, companies and users. To enrich these findings, a workshop with users engaging in the co-creation process at JOSEPHS will be conducted in autumn 2016.

This study is funded by NEMODE (New Economic Models for the Digital Economy) an initiative under the Research Council UK's Digital Economy research programme.

Supplying Innovation - Unlocking Innovative Behaviours in the Supply Chain

Jingchen Hou, Jonathan Baker-Brian, Claire Vine

Engaging multiple suppliers to form an alliance to deliver outcome-based agreements is a novel approach to encourage suppliers to innovate and to provide exceptional customer outcomes. This White Paper, conducted with IBM, outlines how supply chains with numerous partners can build alliances to bring about new innovations for firms. Trust and collaboration are key words to enable these innovative behaviours to thrive and prosper and all the partners need to be included. 'Supplying Innovation, unlocking innovative behaviours in the supply chain', is co-authored by Jingchen Hou, with three senior IBM managers Keith Wishart, Jonathan Baker-Brian and Claire Vine and challenges the conventional concept that innovation comes from within a company.

Read the White Paper at: <http://bit.ly/28QfnYh>

Listen to Podcast at: <http://bit.ly/28P6nCb>

Watch Webinar at: <http://bit.ly/28QfCCD>

Read Blog at: <http://bit.ly/28OEBIm>





In the world...

Big Data in the news

The data and analytics research appeared in several news outlets this year, showing the growing interest in how big data can be used in the new business models. Mohamed Zaki had an article in the University of Cambridge Research Discussion pages, on the subject: 'Is Big Data still big news?'. In it he discusses how even though many companies are benefiting from big data, it can also present some tough challenges.

'To get value out of big data, organisations need to be able to capture, store, analyse, visualise and interpret it. None of which is straightforward'.

Andy Neely was also reported, in an article in the Telegraph, 'The Six Burning Questions for Firms Looking to Make Money from Big Data', where he raises the six burning questions for firms looking to make money from big data. He discussed how firms should go about reaping the potential financial rewards of big data.

Read the University of Cambridge article at: <http://bit.ly/1UaQdDz>

Read the Telegraph article at: <http://bit.ly/1UPNhhNI>



2015 Academy of Management Annual Meeting

Veronica Martinez and Florian Urmetzer represented the Alliance at the 2015 Academy of Management Conference, in Vancouver, British Columbia. Veronica organised and chaired a symposium together with Andy Neely on the topic: 'Services, Platforms, Business Model Innovations and the Implications for Open Governance', in which key experts from the fields of services, innovation, business models and platforms came together to present and discuss their latest research in the light of the symposium theme. Florian Urmetzer chaired a session on the topic 'Alliance Portfolios', which included presentations from leading academics in the topic area of Alliance, Network and ecosystems. The session resulted in a lively discussion around performance of firm networks, how network structures influence the competition strategy and driving factors behind the benefits of ecosystems.

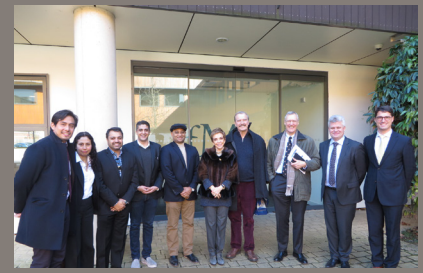
EuBC Research Award 2016

Florian Urmetzer was awarded the EuBC Research Award 2016. The European Business Circle (EuBC) is an international and independent non-profit association of entrepreneurs and distinguished personages from business, politics, academia and society. Its aim is to stimulate and promote entrepreneurialism, economic and political co-operation. The annual distinction rewards outstanding academic research on European economic and political issues. Florian was awarded for his research in the area of service business design and the shift to service of classical manufacturing companies.



Former Mexican President visits the Alliance

Former President of Mexico, Vicente Fox, and his wife Marta Sahagún de Fox, visited the IfM and researchers of the Alliance. They were interested in the research in the area of manufacturing and services, to understand the future trends in the area to further Mexico's economy. They have multiple charities including the Centro Fox, which is the first presidential library created by a Mexican president. The aims include the disadvantaged and poor, but as well serve Mexico as a think tank.



Mohamed Zaki was a keynote speaker at the S2DS conference held in London. He spoke about 'How Data Works in Business' – how organisations capture value from big data, particularly how they use data to optimise service delivery and develop data-driven business models. Mohamed Zaki gave a keynote speech at a workshop held by DNV GL about Data-Driven Business Model (DDBM): The Future of Data Smart Assurance. The intent of the workshop was to reflect on the current positioning and the future aspirations for Business Assurance. It also aimed to provide DNV GL Business Assurance senior executive team with an inside out insight into big data and business model innovation by utilising big data capabilities.

Awards for Mohamed Zaki

At the Frontiers in Service Conference, in San Jose, CA, Mohamed Zaki received two awards for his paper 'Analyzing Customer Experience Feedback Using Text Mining: A Linguistics-Based Approach'. The paper, by Francisco Villarroel, Dr Charalampos Theodoulidis, Dr Jamie Burton, Prof Thorsten Gruber and Dr Mohamed Zaki, was awarded a prize as a Runner-up for the AMA Best Services Article in 2014. The paper was also one of the four finalists for the Journal of Service Research Best Article Award for 2014. The award is presented annually to the best article in the previous volume of JSR, as selected by the JSR Editorial Review Board.



Mohamed also received a Speaker Award at the Service Research and Innovation Institute (SRII) 2014 Global Conference, held in Silicon Valley, California, for his participation on the service analytics panel.

POMS College of Service Operations

Ornella Benedettini and colleague Liana Victorino from the University of Victoria (Canada), as Vice-Presidents of the POMS College of Service Operations (CSO), organised the 2016 POMS CSO Mini-Conference. The theme was 'Experiential Service'. The programme featured presentations from Orlando Utilities Commission (OUC - The Reliable One), IBM, Hilton WorldWide and SeaWorld Parks & Entertainment, as well as a behind the scenes tour at the SeaWorld Orlando theme park. The Mini-Conference was held in Orlando, FL on May 5 2016, the day prior to the Annual General POMS Conference. At this conference Ornella Benedettini presented her study 'The Contribution of Capabilities to the Service Orientation of Manufacturing Companies'.



Over the year Andy Neely has delivered keynote speeches at a number of international events, presenting the work of the Alliance in services and servitization, as well as the lessons we have learnt about business-university collaborations. The keynotes have been at various international locations, including Copenhagen Business School; Stockholm; Tokyo Institute of Technology; Shanghai; South China University of Technology; and the University of Padova, Vincenza. Some of these have been on Servitization as a Strategy for Business Expansion and Increased Competitiveness and also The Servitization of Manufacturing: Technology Enabled Innovation.

In an IfM video, Mohamed Zaki describes how big data can create value for companies. He identifies the key elements of the Data-Driven Business Model and explains the questions that large companies need to ask when creating their own data-driven business models. Watch video at: <http://bit.ly/28KP42X>



Veronica Martinez spoke at the BAE Systems – Submarine Service Group about 'Service culture: managing the shift to services'. Veronica spoke about the challenging nature of services and the importance of the service culture in engineering firm.

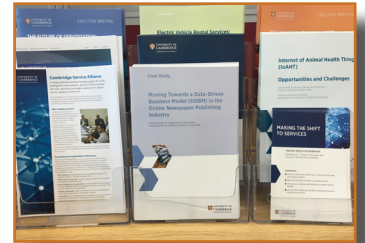
Veronica was also an invited guest speaker at the The Service Community Conference, in Fujitsu, Stevenage, UK. Veronica presented part of her research focused on the shift to services, particularly from an outcome-based services perspective.

Engagement

In order to maximise the impact of our research, we seek to engage not only with our industrial partners, but also with the wider business and academic communities and with policymakers. These are just some of the things we have been doing to engage these audiences.

Published Material

We continue to release papers and reports in our Monthly Paper Series, which showcases a piece of research being undertaken by one of our researchers. On each paper we highlight how the paper may be of interest to industrial audiences. Often the topic of the monthly paper will have an associated Podcast, Webinar and/or Blog for further clarification and dissemination to academic and industrial audiences. A list of the papers produced and of the available podcasts and webinars is available later in this publication and they are available to download from the Alliance website.



Website and Social Media

The Alliance has continued to develop its website, moving to a new design and layout, which incorporates sections specifically aimed at business audience and for academic and visitors. The Alliance presence in social media has also developed further with an active Twitter presence (@CamServAlliance), as well as a growing LinkedIn membership.

The web address for the Alliance is www.cambridgeservicealliance.org.

Webinars January 2015 to July 2016

The webinar series provides an effective avenue for knowledge exchange around complex services. Only employees of Alliance partners are able to participate but the webinars are subsequently made freely available on the Alliance website. A list of the webinars produced is below and they are available via the Alliance website.

- Case Study - A Transition Towards a Data-Driven Business Model (DDBM)- Dr Mohamed Zaki
- How Do Industry Evolution and Industry Conditions Prompt Product Firms to Offer Services - Prof Ivanka Visnjic
- Making and Sustaining the Shift to Services in the Animal Health Industry - Dr Veronica Martinez
- Internet of Animal Health Things - Dr Mohamed Zaki
- A Capability-Based View of Service Transition - Dr Ornella Benedettini
- Through-Life Accountability: managing complex services - Chara Makri
- Data and Analytics - Data-Driven Business Models: A Blueprint for Innovation - Dr Mohamed Zaki
- Business Model Innovation in an Emerging Ecosystem: Electric Vehicles Diffusion - Dr Claire Weiller
- Key Considerations in Asset Management Design - Dr Florian Urmetzer
- Impact of Firms Characteristics on Survival - Prof. Ornella Benedettini
- Services typology – a classification model for product-service offerings - Dr Veronica Martinez

Keeping in touch

The Alliance welcomes research and business engagement, and so has continued to encourage methods of interaction with both academic and business audiences. Via a quarterly newsletter we aim to keep interested parties up to date with the research and associated activities of the Alliance and its partners. We also encourage partner specific relationship development, via dissemination of alliance materials and participation in events such as the webinar series and executive events.



Community of interest

The Cambridge Service Alliance brings together non-competing firms with a common interest in innovating their business models and making the shift to services and solutions. The Community of Interest (Col) was established to provide an open forum where our partner firms can share experience and ideas, learning directly from one another. The Col has continued to develop with quarterly meetings on various topics such as Condition Based Management (CBM), Service Pricing, and Value Exchange: optimization of B2B partnerships. The meetings also provide an opportunity to update Partners on the research work of the Alliance, as well as providing a valued opportunity for partners to networks with each other, and to participate in current thinking discussions.



Col Themes for 2015

Condition Based Management (CBM) (Hosted by the Alliance in Cambridge)

Condition Based Maintenance / Integrated Vehicle Health Management - the 'monitoring' word is usually interpreted to mean (just) the technology of monitoring, whereas we should really be about the full lifecycle of engineering, and the business model implications of moving to a CBM-based paradigm....). Presentations and discussions included: Understanding the BAE approach to Condition Based Maintenance, the Caterpillar Approach to Equipment Maintenance. Understanding the full potential of Technology & Sensors and the potential of Data Analytics. Additionally, Open Architectures for Integrated Vehicle Health Management and future approaches for CBM were discussed.

Value exchange: optimization of B2B partnerships (Hosted by the Alliance in Cambridge)

The cases presented included: Learnings from international cross company collaboration and defining partnerships by necessity in the defence industry. As well experiences from partnering with different stakeholders like dealers and customers at the same time and experiences from building partnerships to drive new business outcome. The discussion on emerging themes is being published as an executive briefing through the Alliance.

Service Pricing (Hosted by Zoetis in London)

The topics discussed included: Understanding the prices and challenges on pricing for MBDA (BAE Systems) Stockpile Management, the BAE Systems: Hawk Support contract, an example for process outsourcing pricing presented by Pearson and Caterpillar Job Sites Solutions. Additionally cases from the animal health industry were presented by Zoetis and a case from Caterpillar in China was presented, showing as well cultural differences on pricing. The participants left the two days with a deeper understanding of service pricing and an aggregated list of 10 rules to service pricing.

Update from the Alliance Research Work-streams (Hosted by Pearson in Chicago, USA)

The presentations included the update on the 'Shift to service' work-stream presented by Dr Veronica Martinez. An update and first results on the Ecosystem Value Mapping and Analysis work stream and updates on the work by Dr Mohamed Zaki on the Customer Experience Analytics. The workshop closed off with a discussion on the direction of the CSA and how the research can be furthered.

Cambridge Service Week

“*We call this the internet of services because it might be people from different organisations that are providing services to the end customer or it might be the customer himself; properly designed interactive services are the part that brings most value to the customer.*

Christopher Ganz, ABB



In October, the Alliance held its annual Cambridge Service Week, a series of events which brings together leading academics, industrialists and policymakers to address the challenges facing service education, research, practice and policy.

Industry day: Creating Value Through Customer Services

At this year's Cambridge Service Week conference we focused on the question of how to ensure your customers recognise the true value of the services you provide. Leading firms described their approach to delivering customer value through services.

Speakers at Service Week 2015 - Industry Day Conference

'Better Services for a Changing World'

Tom Palmer, Director of Services, Rolls-Royce plc spoke about Rolls Royce's service journey, explaining how they use data and analytics to drive customer value, as well as providing observations on the current service model and how it has to change.



'Internet of Things, Services and People Enabling Next Level Services'

Christopher Ganz, Group Service R&D Manager, ABB spoke about how ABB have evolved their service business including the role that industrie 4.0 and connected devices has played. Christopher also discussed what was next for ABB in its shift to services.



'Creating Value and an Enriched Customer Experience with Services in the Pharmaceutical Animal Health Industry'

Alejandro Bernal, EVP and Group President Strategy, Commercial and Business Development, Zoetis explained how Zoetis set up a new business (spinning out from Pfizer) and the crucial role of services in building customer relationships. Alejandro also spoke about the work they have done around the concept of The internet of Animal Health Things.



“*Our whole vision is about being trusted to deliver excellence - we need to be trusted by our customers to act in their best interests.*

Tom Palmer, Rolls Royce



Academic conference

On the 1-2 October, the Cambridge Service Alliance hosted a leadership conference with key academic experts and policy makers from around the world. The conference participants reviewed the 2008 White Paper '*Succeeding through Service Innovation*'. The paper was produced by the Institute for Manufacturing (IfM) from the University of Cambridge in collaboration with IBM. Answering the initial call of the white paper for establishing a common language and shared frameworks for Service Science, the group discussed the field's main achievements since 2008 and reviewed the research agenda for the future of services.



Executive education

The Service Design Programme

The Service Design Programme: ***Making the Shift to Services*** is a University accredited two-day executive programme which helps organisations understand how to make the successful transition to services and how to design or redesign services successfully. The programme is derived from the latest research from the Cambridge Service Alliance. The tutors have a highly engaging and interactive teaching style and have delivered workshops to a host of clients in the public and private, manufacturing and service sectors. At the end of this intensive programme, participants were well equipped with practical tools and techniques to start the shift to services in their organisations.

In-company courses

We also tailor this course to a company's particular needs and run a bespoke version for them in-house.

Contact: Florian Urmetzer
Email: flu20@cam.ac.uk



Feedback from previous participants:

Great overall process of understanding how to develop new business opportunities and understand the customer perspective.

The collaborative work created opportunities to learn different perspectives.

A key learning for me was how to take a structured approach to fleshing out and refining a new or existing service.



Delegates learn how to:

- Design services which satisfy customers and create new revenue streams
- work with partners to deliver successful services
- change your organisational thinking to support service delivery
- use new technology and big data to develop innovative services and solutions



Programme leaders

Clockwise from top left: Andy Neely, Florian Urmetzer, Veronica Martinez and Mohamed Zaki.

Find out more about the programme here:
<http://bit.ly/28P7wd5>



Communicating Alliance research

JANUARY

Monthly paper: *Competing and Co-existing Business Models for Electric Vehicles: Lessons from International Case Studies*, **Claire Weiller, Amy Shang, Andy Neely and Yongjiang Shi.**

Blog: *Business Model Innovation and the Evolving Market for Electric Vehicles*, **Claire Weiller**

Webinar: *Services typology – a classification model for product-service offerings*, **Dr Veronica Martinez**



FEBRUARY

Monthly paper: *Data and Analytics - Data-Driven Business Models: A Blueprint for Innovation*, **Josh Brownlow, Mohamed Zaki, Andy Neely and Florian Urmetzer.**

Col Meeting: *Vehicle Health Management (IVHM)*, **Cambridge**

Webinar: *Impact of firms characteristics on survival*, **Prof. Ornella Benedettini**

Blog: *Rethinking Competition and Collaboration in Ecosystems: Who Should You Work With?*, **Andy Neely**

Talk: *Innovating Your Service Business Model: The Capabilities to Succeed*, **Karlsruhe Service Summit, Andy Neely**

Blog: *Watch Out for the Industrial App Economy as the Battle for the Industrial Internet Heats Up*, **Andy Neely**

MAY

Monthly paper: *Making and Sustaining the Shift to Services in the Animal Health Industry*, **Veronica Martinez, Veronique Pouthas and the Shift to Services Team.**

Webinar: *Data and Analytics - Data-Driven Business Models: A Blueprint for Innovation*, **Dr Mohamed Zaki**

Talk: **Veronica Martinez presents at The Service Community Conference on Outcome Based Services**, **Stevenage, UK**

Blog: *Servitization and Service Innovation in China: Reflections from Shanghai*, **Andy Neely**

Conference: *The Value of Capabilities for Service-Oriented Strategies*, **POMS Conference, Washington, Ornella Benedettini; Jane Davies and Andy Neely,**

JUNE

Executive Briefing: *The Future of Servitization: Technologies that will make a difference*, **Veit Dinges, Florian Urmetzer, Veronica Martinez, Mohamed Zaki and Andy Neely**

Webinar: *Through-Life Accountability: Managing Complex Services*, **Chara Makri**

Article: *Article by Mohamed Zaki on the University of Cambridge Research Discussion pages*

Conferences: *Alliance researchers presented their research at the IfM PhD Conference*, **Katharina Greve, Chara Makri and Xia Han**

Blog: *A capability-based view of service transitions*, **Ornella Benedettini**

Talk: *Era of Innovating Services*, **Tokyo Institute of Technology, Tokyo, Japan, Andy Neely**

SEPTEMBER

Case Study: *Moving Towards a Data-Driven Business Model (DDBM) in the Online Newspaper Publishing Industry*, **Mohamed Zaki, Tor Lillegraven and Andy Neely Cambridge Service Alliance, University of Cambridge**

Webinar: *Internet of Animal Health Things*, **Dr Mohamed Zaki**

Podcast: *Internet of Animal Health Things - Opportunities and Challenges*, **Daniel Smith, Scott Lyle and Mohamed Zaki**

Conference: *Mohamed Zaki presented at the Rustat Conference on Big Data*

Blog: *Creating Customer Value Through Services*, **Andy Neely**

Conference: *The Relationship Regulator: A Buyer-Supplier Collaborative Performance Measurement System*, **PMA Symposium, Bologna, V Maestrini, V Martinez and A Neely**

OCTOBER

Monthly paper: *How Do Industry Evolution and Industry Conditions Prompt Product Firms to Offer Services?*, **Ivanka Visnjic, Sam Arts & Dimo Ringov.**

Webinars: *Making and Sustaining the Shift to Services in the Animal Health Industry*, **Dr Veronica Martinez**

Cambridge Service Week: *Creating Value Through Customer Services: in a world of data enabled ecosystems'*

Podcasts: *Podcasts with Speakers and researchers from the Alliance - conducted during Cambridge Service Week.*

2015 highlights

MARCH

Monthly papers: *Through-Life Accountability: Managing Complex Services*, Chara Makri & Andy Neely.

Webinar: *Key Considerations in Asset Management Design*, Florian Urmetzer

Blog: *Data-Driven Business Models (DDBM): A Blueprint for Innovation*, Mohamed Zaki

Talks: Andy Neely gave two presentations in China on *servitization* - one at Shanghai, and one at South China University of Technology, Andy Neely

Talk: *Service culture: managing the shift to services* BAE Systems, Submarines, Barrow, UK

APRIL

Monthly paper: *A Capability-Based View of Service Transitions*, Ornella Benedettini, Jane Davies and Andy Neely

Webinar: *Business Model Innovation in an Emerging Ecosystem: Electric Vehicles Diffusion*, Claire Weiller

Col Meeting: *Service Pricing*, London

Podcast x 2: *Data & Analytics, DDBMs: A Blueprint for Innovation and The Competitive Advantage of the New Big Data World*, Andy Neely and Mohamed Zaki

Article: *Telegraph article - The Six Burning Questions for Firms Looking to Make Money from Big Data*

Blog: *Through-Life Accountability: managing complex services*, Chara Makri

JULY

Case Study: *The Internet of Animal Health Things: Opportunities and Challenges*, Daniel Smith, Scott Lyle, Al Berry, Nicola Manning, Mohamed Zaki, Andy Neely,

Webinar: *A Capability-Based View of Service Transition*, Ornella Benedettini

Conference: Three presentations at the EurOMA conference, Neuchatel

Conference: Three presentations at the Frontiers in Service Research Conference, San Jose. US

AUGUST

Conference: Alliance researchers at the 2015 Academy of Management Conference, in Vancouver, British Columbia. Veronica organised and chaired a symposium on 'Services, Platforms, Business Model Innovations and the Implications for Open Governance'. Florian Urmetzer chaired a session on the topic 'Alliance Portfolios'

Video: *How Can Big Data Create Value?*, Mohamed Zaki

Blog: *The Productivity Paradox: Is There a Measurement Problem?*, Andy Neely

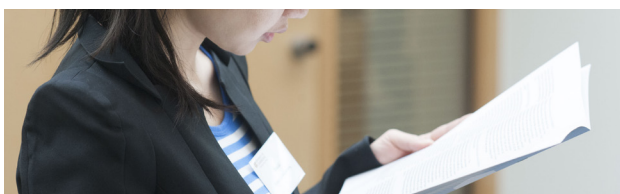
Conference: *Governing the City: Unleashing Value from the Business Ecosystem*, Academy of Management Conference, Vancouver, Ivanka Visnjic

NOVEMBER

Monthly paper: *Knowledge Management Capabilities of Lead Firms in Innovation Ecosystems*, Chander Velu

Webinar: *How Do Industry Evolution and Industry Conditions Prompt Product Firms to Offer Services*, Prof Ivanka Visnjic

Webinar: *Webinar from the RECODE network team on Re-Distributing the Future of Consumer Goods*, Mohamed Zaki



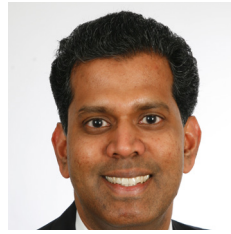
DECEMBER

Monthly paper: *Why Do Servitized Firms Fail - A Risk-Based Explanation*, Ornella Benedettini, Andy Neely and Morgan Swink

Webinar: *Case Study - A Transition Towards a Data-Driven Business Model (DDBM)*, Dr Mohamed Zaki

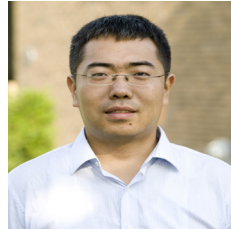
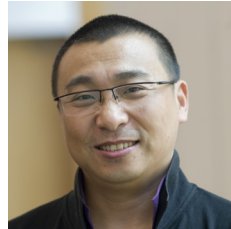
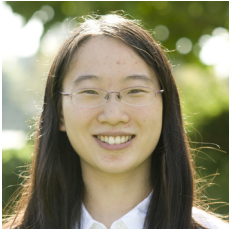
Conference: Andy Neely presented at and co-hosted the *European Operations Management Service Forum* in Nuremberg in December, providing an opening address on 'Service Innovation: Concepts, Platforms and Business Models'. Katharina Greve also presented at the forum.

2015 people



Left to right:
Professor Andy Neely,
Professor Michael
Barrett, Professor
Duncan McFarlane,
Dr Chander Velu, Dr
Ornella Benedettini

Left to right:
Jacqueline Brown,
Katharina Greve,
Dr Markus Eurich, Xia
Han, Philipp Hartmann



Left to right:
Jingchen Hou, Julie
Jonas, Ari Ji, Chunshon
Li, Tor Lillegraven

Left to right:
Vieri Maestrini, Chara
Makri, Dr Veronica
Martinez Professor Janet
McColl-Kennedy, Alexis
Nicolay



Left to right:
Dr Ajith Parlikad,
Dorothee Schulz-Budick
Dr Florian Urmetzer,
Dr Anna Viljakainen, Dr
Ivanka Visnjic Kastalli,

Left to right:
Angela Walters, Dr Claire
Weiller, Dr Mohamed
Zaki, Zimeng Zhang



2015 papers

Data-Driven Business Models: A Taxonomy of Models Used by Start-Ups, Philipp Hartmann, Mohamed Zaki, Niels Feldmann, and Andy Neely, Accepted for publication in International Journal of Operations & Production Management, forthcoming 2016.

A Transition Towards a Data-Driven Business Model (DDBM): A Case Study of Nettavisen Online Newspaper Publishing, Mohamed Zaki, Tor Bøe-Lillegraven, Andy Neely, Accepted for publication by Sage Publishing, (Forthcoming 2016).

Why Do Servitized Firms Fail - A Risk-Based Explanation, Ornella Benedettini, Andy Neely and Morgan Swink, Working Paper, December 2015.

Knowledge Management Capabilities of Lead Firms in Innovation Ecosystems, Chander Velu, Working Paper, November 2015.

How Do Industry Evolution and Industry Conditions Prompt Product Firms to Offer Services?, Ivanka Visnjic, Sam Arts & Dimo Ringov, Working Paper, October 2015.

Moving Towards a Data-Driven Business Model (DDBM) in the Online Newspaper Publishing Industry, Mohamed Zaki, Tor Lillegraven and Andy Neely, Case Study Report, September 2015.

Unmasking Details That Matter in Customer Experience Management Using Prescriptive Analytics, Janet McColl-Kennedy, Florian Urmetzer, Mohamed Zaki, and Andy Neely, Frontiers in Service Conference, 2015.

A Taxonomy of Data-Driven Business Models Used By Service Firms: Knowledge Discovery Through Text Mining, Mohamed Zaki, C Li, and Andy Neely, Frontiers in Service Conference, 2015.

Services, platforms, business model innovations and the implications for open governance, Veronica Martinez and Andy Neely, Panel Organiser, Academy of Management Conference – Symposium, Vancouver, Canada, 10 August 2015

The Internet of Animal Health Things: Opportunities and Challenges, Daniel Smith, Scott Lyle, Al Berry, Nicola Manning, Mohamed Zaki, Andy Neely, Case Study Report, July 2015.

Making the shift to service in the animal health industry, Veronica Martinez, Veronique Pouthas, Andy Neely, John Gibbs, Stewart Leinster-Evans, Daniel Smith and Florian Urmetzer, EurOMA Conference, Neuchâtel, Switzerland 28 June – 1 July 2015

Through-life Accountability: Managing Complex Services, Chara Makri and Andy Neely, 22nd EurOMA Conference, 2015, Neuchatel, Switzerland, 2015

Why do servitized firms fail? A risk-based explanation, Ornella Benedettini, Andy Neely and Morgan Swink, International Journal of Operations & Production Management, 35(6), 946-979. 2015

A capability-based view of service transitions, Ornella Benedettini, Jane Davies and Andy Neely, 22nd EurOMA Conference. June 26th - July 1st Neuchatel, Switzerland, 2015

Organisational transformation in servitization, Veronica Maritnez, Sergio Cavalleri and Paolo Gaiardeli, Special issue in the Production Planning and Control Journal, 2015.

The Future of Servitization: Technologies that will make a difference, Veit Dinges, Florian Urmetzer, Veronica Martinez, Mohamed Zaki and Andy Neely, Executive Briefing, June 2015.

Making and Sustaining the Shift to Services in the Animal Health Industry, Veroncia Martinez, Veronique Pouthas and the Shift to Services Team, Working Paper, May 2015.

A Capability-Based View of Service Transitions, Ornella Benedettini, Jane Davies and Andy Neely. Working Paper, April 2015.

Through-Life Accountability: Managing Complex Services, Chara Makri and Andy Neely, Working Paper. March 2015.

Data and Analytics - Data-Driven Business Models: A Blueprint for Innovation, Josh Brownlow, Mohamed Zaki, Andy Neely and Florian Urmetzer, Working Paper, February 2015

Competing and Co-existing Business Models for Electric Vehicles: Lessons from International Case Studies, Claire Weiller, Amy Shang, Andy Neely and Yongjiang Shi, Case Study Report, January 2015



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