

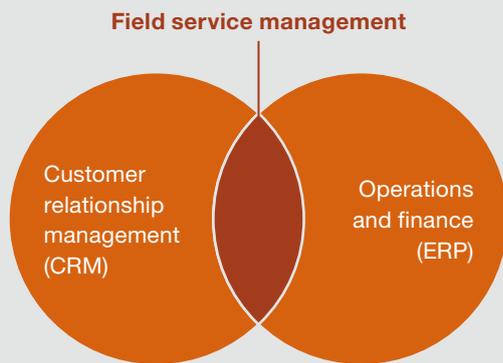
Challenges and best practice in digitalising field service management



Background

Field service management (FSM) has been a challenging area for decades. Typical FSM solutions have usually been biased either towards the customer (customer relationship management, or CRM) or operations (enterprise resource planning, or ERP).

Fig. 1 FSM exists at the boundary between CRM and ERP



We believe that this is beginning to change – the arrival of the fourth industrial revolution (4IR), technological advancement and technological integration (e.g. Salesforce acquiring Click and Mulesoft) are making broader FSM solutions achievable. And we have already taken a leap into this new world by implementing one of the biggest ever salesforce.com Field Service Lightning (FSL) solutions for one of our clients. This viewpoint sets out the main areas of interest and provides some food for thought on best practice for implementing FSM solutions.

What are the challenges?

Our experience gathered during work with different clients in various areas tells us that technology may not always be the perfect solution. It's important to first understand the current challenges in detail, divide them into technology-related and non-technology-related, and then solve them one by one.

In most cases, a combination of structured or harmonised processes and strong governance is required to lay a solid foundation for implementing any new technology.

Based on our experience working with various clients in field service management, we have identified the following as typical challenges:

1. **Increased localisation in global companies** – many global companies often have processes tailored to local needs, with low levels of standardisation, uncommon IT systems, manual data entry into various systems, duplicated data and no central tools for internal or external reporting. Having some specific processes for a particular line of business is understandable in some cases, but having a local process for everything is unlikely to help in terms of global reporting, visibility, transparency and collaboration. Localised processes like this also often lead to the development of localised governance and IT systems.

Fig. 2 Challenges resulting from increased localisation in global companies

Topics	Issues	Consequences
Processes	Processes tailored to specific local needs	Low degree of standardisation and harmonisation, limiting transparency and collaboration
Process governance	Localised management of process improvement	Opportunities for standardisation are missed; other regions miss out on opportunities to benefit from top-quality processes
IT systems	Local processes create development and maintenance costs for local IT systems	Increased local costs and lack of collaboration and data analysis at global/regional level
IT governance	Local systems lead to local governance of support, maintenance and IT vendor selection	Regional IT governance functions cannot learn from one another; company cannot obtain global volume discounts on IT costs
Monitoring of processes	Global KPIs cannot be defined or compared due to differing processes and systems	Monitoring and reporting of KPIs is extremely time-consuming

2. **Changing customer needs** – with the arrival of 4IR, technological advancement and technological integration, customer needs are also changing. Customers are now looking for intuitive and proactive interfaces to gain real-time transparency on service fulfilment.

Fig. 3 Challenges resulting from changing end customer needs

Topics	Issues	Consequences
User interfaces	Non-intuitive, lack of support on multiple devices	Lack of adoption by customers; customers still expect collaboration and reporting to take place using traditional channels (e.g. email, presentations, messaging services)
Seamless connectivity	Company cannot connect to multiple customer applications or seamlessly integrate into the customer's ecosystem	Data has to be manually synced between company and customer systems; processes for receiving data from customer systems cannot be automated; reduced proactivity and cost-saving potential
Monitoring and reporting KPIs on demand	Customers have to wait for a meeting or presentation to monitor KPIs; changes in reporting of current KPIs take time and effort	Reduced opportunities for collaboration, reduced transparency and increased non-productive time due to lack of real-time monitoring of KPIs
Global benchmarking	Lack of cross-site benchmarking against sites across the globe for clients	Business units in different regions cannot learn from one another



Best practice in FSM

Best practice for implementing any field service solution can be categorised into the following four aspects:

Fig. 4 Best practices for field service implementation across different dimensions



1. Process

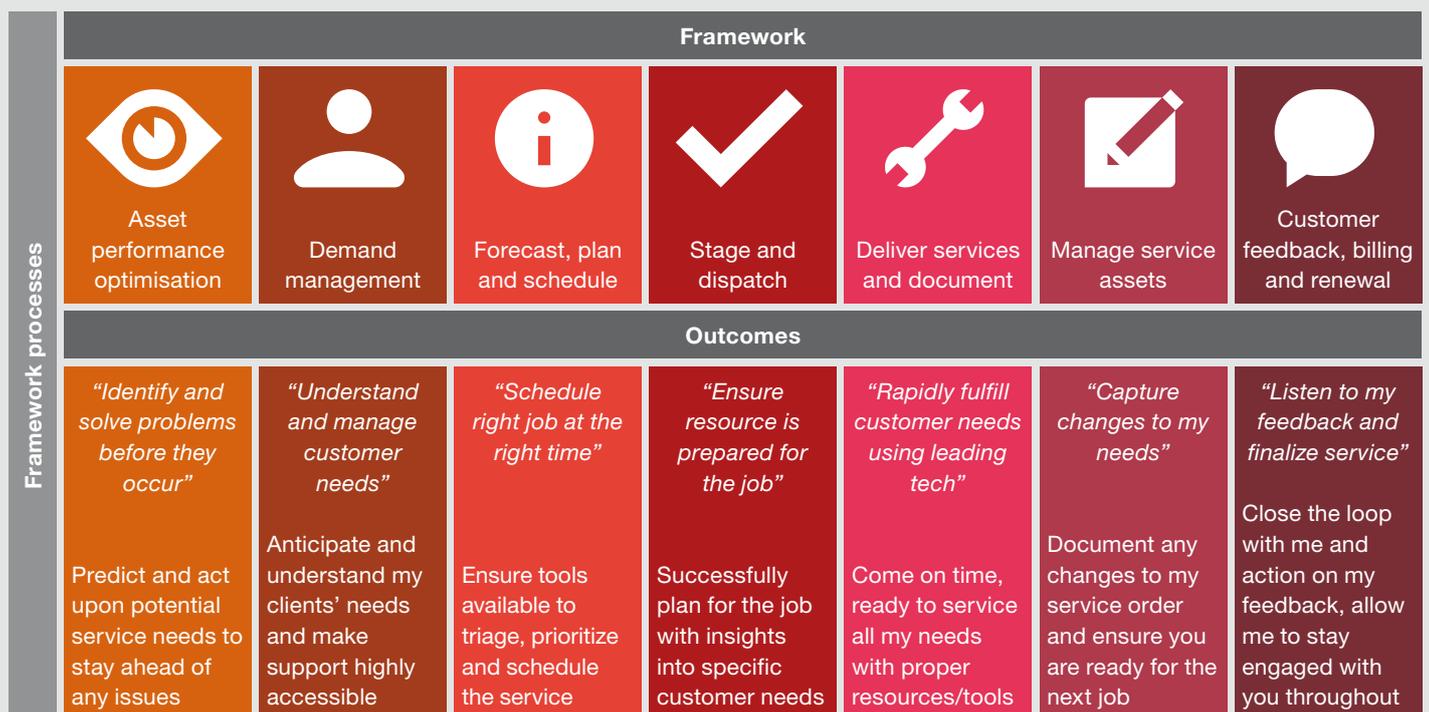
Process – process harmonisation is key for digitalising field service management; many organisations try to focus purely on technology without giving proper attention to aligning/harmonising processes. To lay this foundation stone of digital FSM, the following steps are required:

- **Develop a clearly defined business case**
 - Define a business case with clear performance indicators. KPIs might include factors such as reducing non-billed services for agreed and completed service tasks, increasing bid win rate to improve market position, increasing workforce efficiency, and streamlining and automating processes to reduce the administrative workforce required.
 - Develop a high-level project goal, including the capabilities and business values to be delivered based on the proposed business case.
 - Get all relevant stakeholders to commit to the business case.
- **Develop a global business process model**
 - Develop a **global target business process model** that describes how the enterprise can work globally across various aspects of field service management. This target model should be aligned with the business case, and progress should be constantly checked against it.
 - The target business process needs to be aligned across different lines of business/business units/divisions and across different regions to bring any local variations into play. These local variations may relate to:
 - Mandatory local processes – local legal standards, local compliance standards, local HR policies impacting field service workforce, and level of harmonisation with global target business process model
 - Local reporting and analytical needs based on market complexity
 - Local data regulations and privacy policies
 - Capturing these important variations in the global target business process model will ensure complete global coverage and commitment.
 - The global target business process model needs to be defined till level 5 so that it can be translated into actual user stories for technical implementation.



We have defined a field service management process framework, into which detailed process maps and customer-centric local variations can easily be incorporated:

Fig. 5 PwC field service management framework

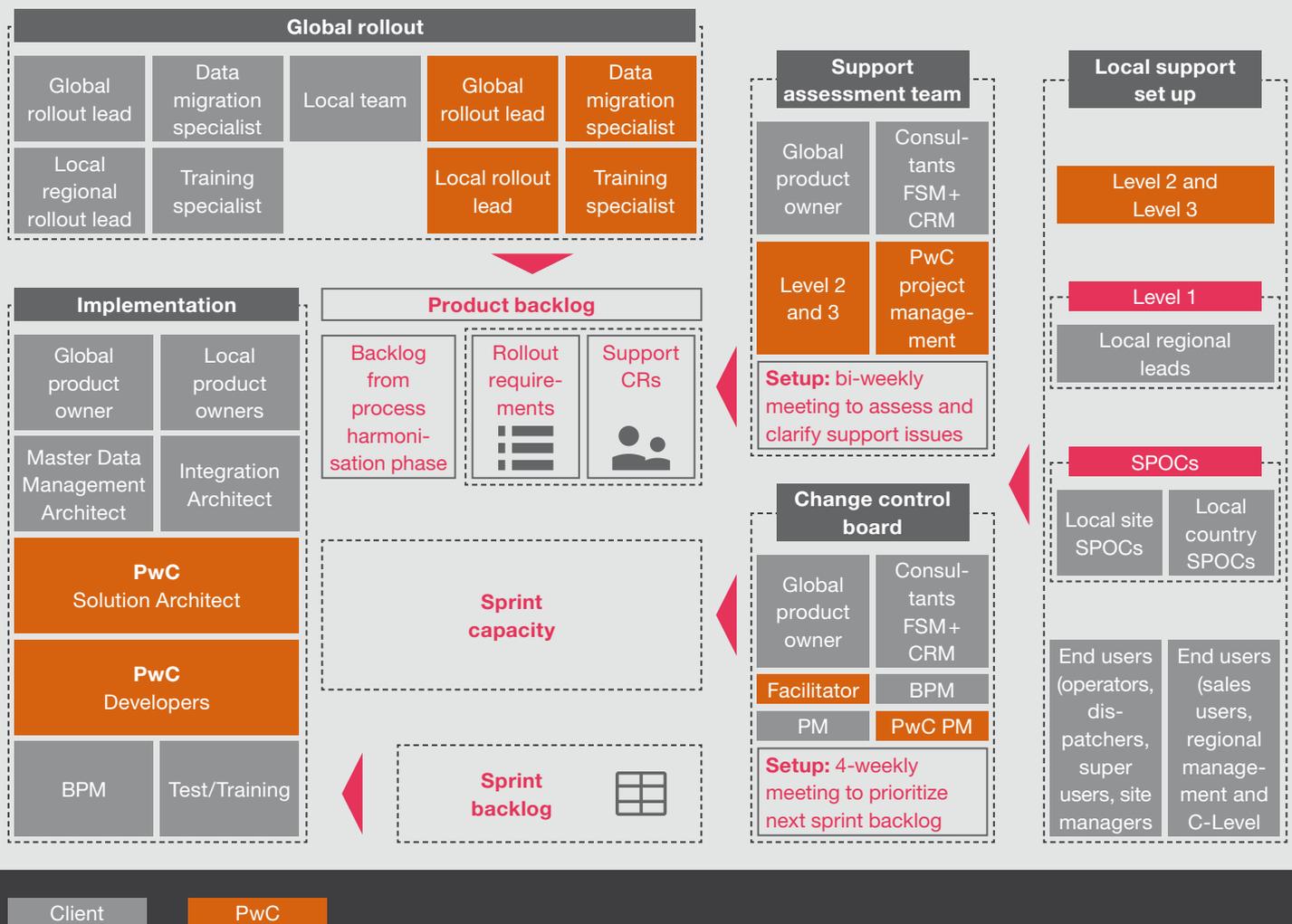


2. Governance

Governance – having the right governance model is a key success factor when implementing a global field service solution. There are multiple elements of governance that need to be considered and defined in a project charter at the beginning of the project:

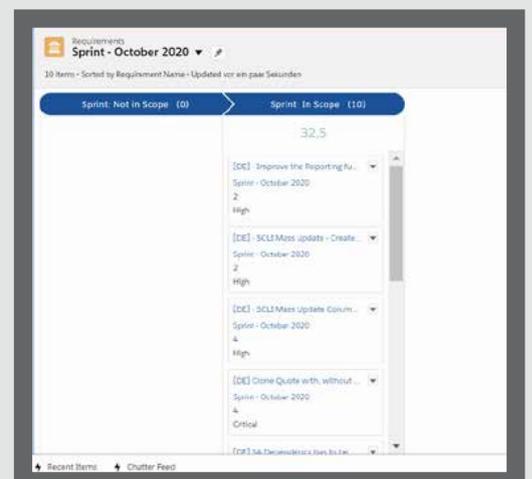
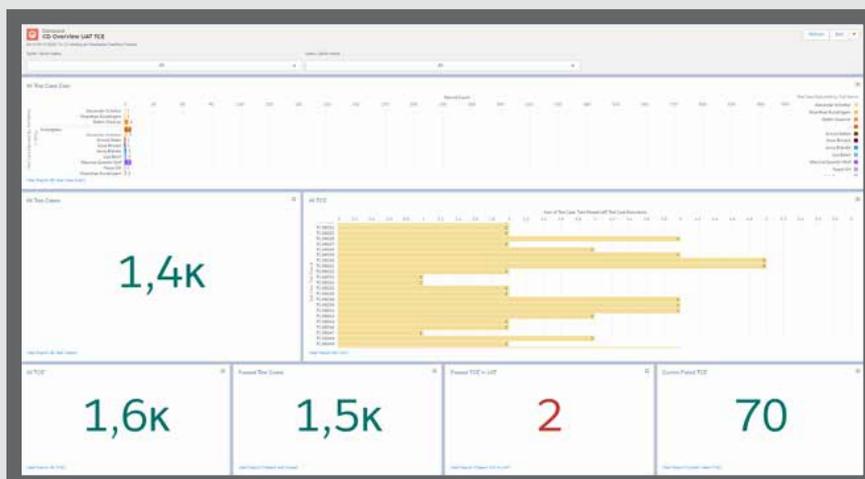
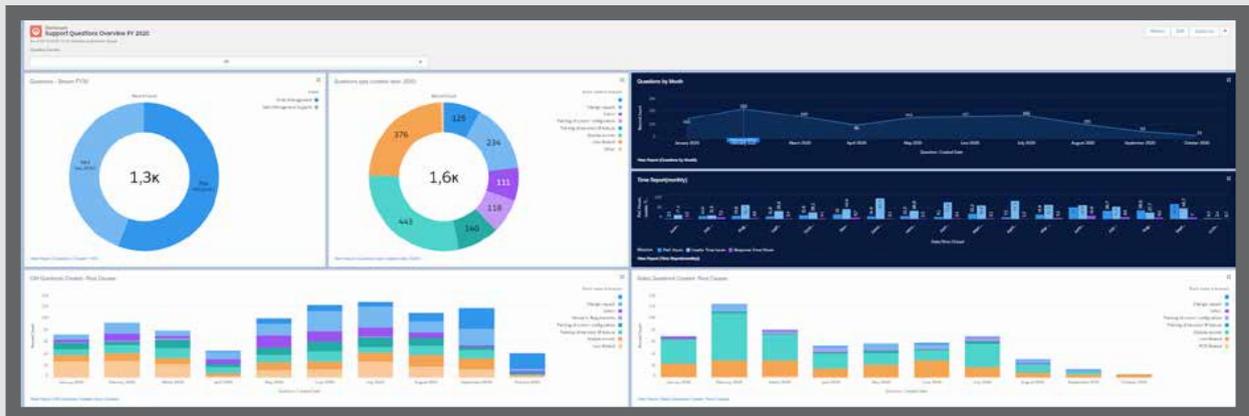
- Define a **project-specific organisational structure**, which doesn't necessarily need to be aligned with the levels of organisation in the company. Teams required for a typical field service solution include an implementation team, a rollout team and a high-level support team. An example organisational structure for a field service project is shown below. A mix of stakeholders – both local and from headquarters – is very important, as is getting local commitment early on.

Fig. 6 PwC Field Service program Governance Model



- **Project management tools** – define the right project management tools, including status reporting, quality management and a communication plan. We've developed our own project management tool – PwC pForce – which we use in agile project management for end-to-end project lifecycle management, increased transparency, better governance, and impact reporting.

Fig. 7 PwC Project Management and requirement traceability tool – pForce

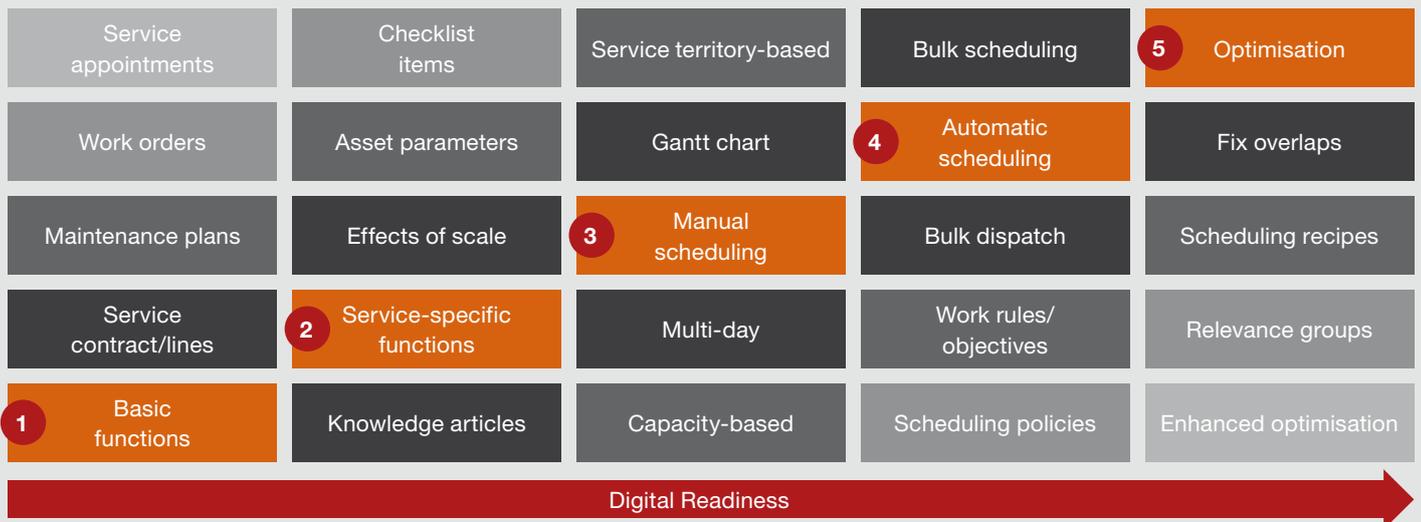


3. Execution

• **Technology** – Implementing a field service solution in a single step is not a suitable approach for all clients, so our field service digital readiness approach breaks the implementation process down into five steps. We believe that the implementation of every field service solution needs to start with basic functions to cover

initial set-up, rather than going straight into highly automated optimisation. This is because it is important for technicians and field service operators to familiarise themselves with the system and how it works. Similarly, administrators need to understand the benefits of the system so that they can use it to its full potential.

Fig. 8 PwC Field Service digital readiness steps

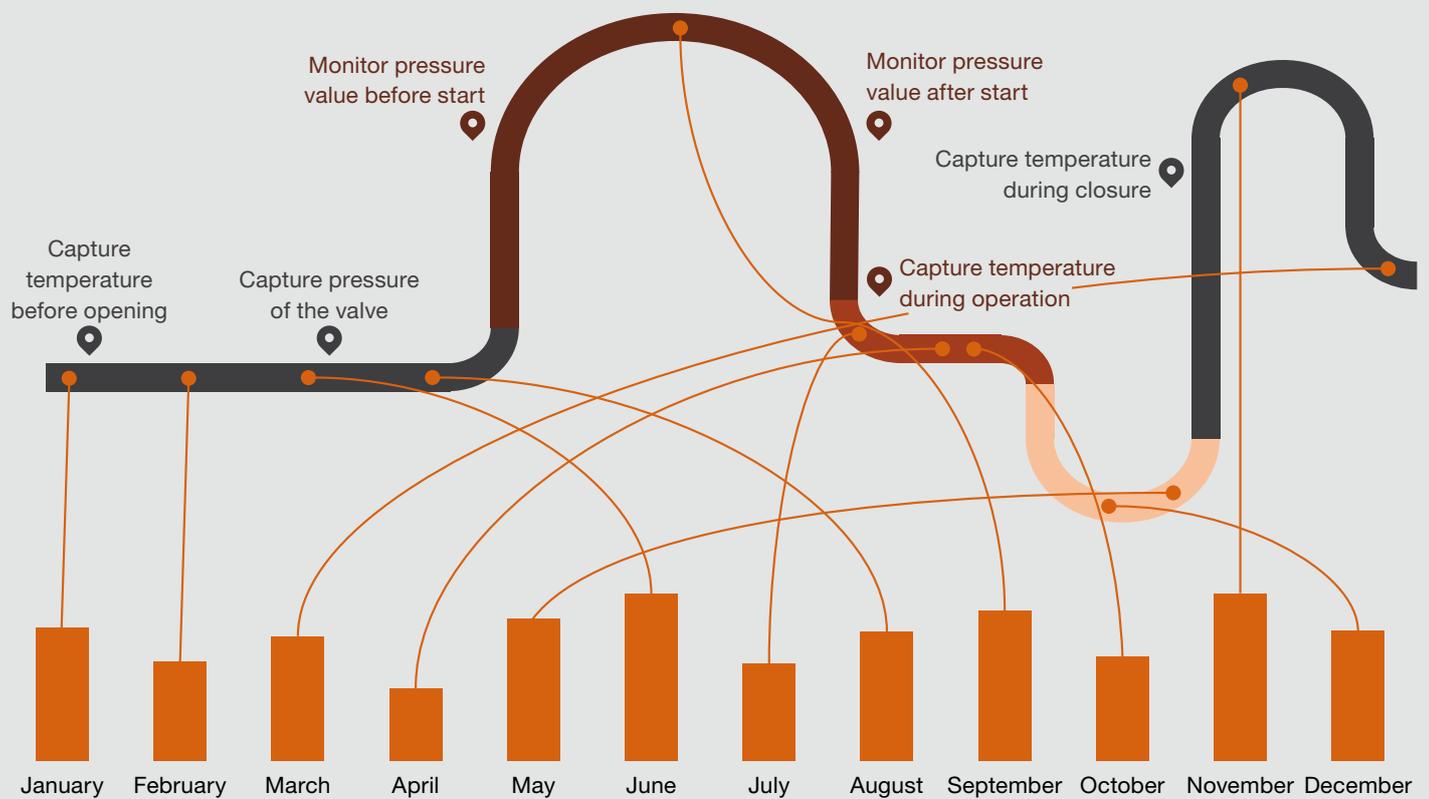


- **Data migration** is crucial to the rollout of any field service solution. Field service functionality depends entirely on the data that is fed into it; getting the basic functions of Salesforce Field Service Lightning (i.e. scheduling and allocation) to work requires approximately 15 entities to be appropriately provided with data. It is therefore important for the right strategy or tool for tackling this task to be developed at the very beginning of the project. We have designed a custom data migration tool which can be adapted to each client’s data model; this automates the process of providing the 15 entities with data, enabling cost savings to be made and drastically increasing the duration of the rollout.
- **IoT and AI** – as a cloud-based solution, the greatest benefit of Field Service Lightning is the ability to connect to any IoT cloud system or smart device used by the end customer to provide predictive maintenance and support. When building your solution on FSL, make sure you choose the right architecture and take the right steps so that the solution can ultimately connect to an IoT cloud system. For example, you could define an additional asset parameter field on an asset to measure different parameters; based on this, different tasks can be generated in the system for predictive maintenance.





Fig. 9 lot and AI enablement



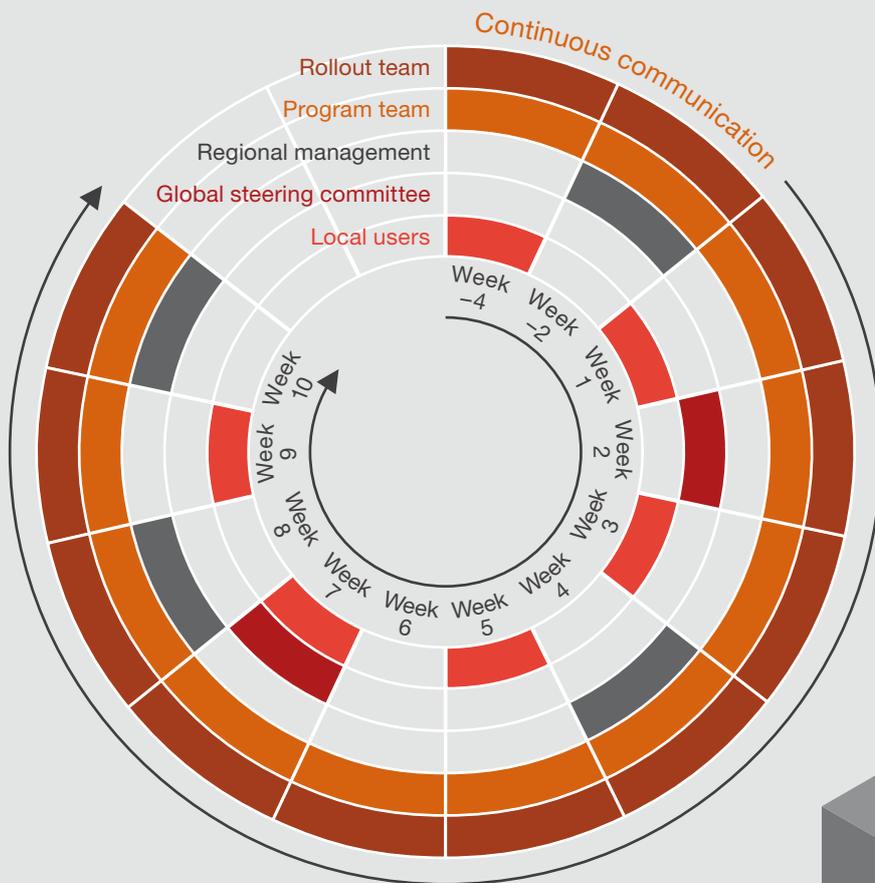
- **Industrial rollout** – if a global solution cannot be rolled out quickly in all countries/regions concerned, the solution will become increasingly irrelevant, defeating the object of a major transformation. So to make the rollout process faster, more streamlined and more efficient, we recommend following our industrial rollout approach for Field Service Lightning:
 - Prerequisites: processes harmonised on a global level and with low levels of local customisation (or ideally no customisation at all) are essential before starting the rollout. Having the right governance model in place, as described in section 2 above, is also very important.
 - Activities to be performed during rollout: work should mainly be focused on getting the country/region/site started on the new platform and migrating the necessary data.

4. Change management

Change management is one of the most neglected streams during many digital transformations. According to a PwC study, 70% of transformation projects fail because project leaders do not implement the right change management approach.

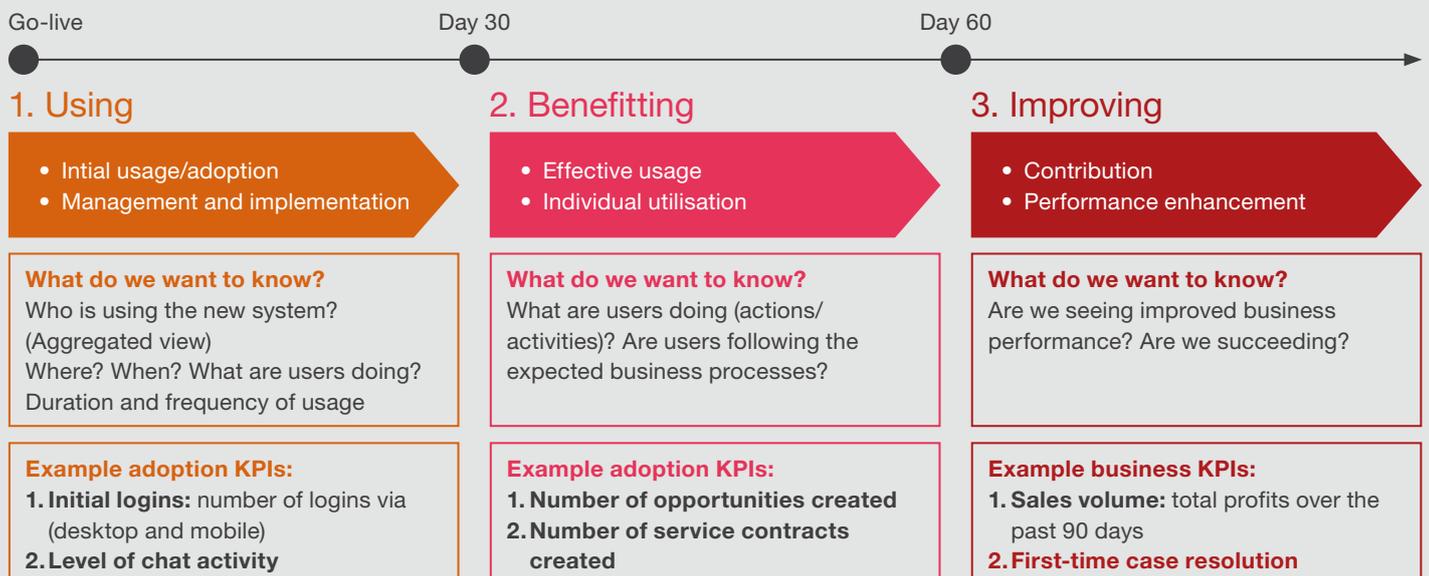
- **Communication strategy** – it is important to define a change story right at the start of the project, aligned to the KPIs in the business case. This needs to include the vision, the what, the why and the how of the transformation, and should be elaborated and detailed on a personal level. The change story must be communicated to and by the right stakeholders at the right time, throughout the lifecycle of the project, via the various channels used internally by different stakeholders.

Fig. 10 PwC Change Management Communication Clock



- **Monitoring KPIs** – on top of the business case KPIs, it is very important to define KPIs to measure the effectiveness of system usage. We recommend using the steps and KPIs shown below.

Fig. 11 PwC Change Management adoption KPIs



Conclusion

Our clients are becoming increasingly aware of the need to digitalise field service management and to have dedicated field service solutions. In the current situation, every company is looking for a solution to help them return to business safely and efficiently while still retaining the right touchpoints with their end customers. We at PwC have already taken a leap into this new world by implementing one of the biggest field service management solutions ever on salesforce.com for one of our clients. This is already enabling the client to increase operator productivity, improve collaboration and transparency with end customers, optimise scheduling (e.g. completely eliminating backlog to cut down on inefficiencies created by missing appointments) and increase their bid win rate. Best practice in FSM – as described in this viewpoint – has also enabled a rapid go-to-market strategy for the client's regions and has helped them to reap the benefits.

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