

Unless implemented correctly, mobile technology can leave workers feeling alienated, according to Thorsten Querfurt and Mark Sidley



Morale high ground

In the late 1990s, field force enablement seemed to be the answer to many of the problems that beset utility asset maintenance. It promised to increase profits by making business processes and customer service more effective and the work force more productive. However, in too many cases the introduction of new technology made things worse rather than better. It alienated the workforce while delivering little improvement in the quality of data collected and only limited improvement in business processes.

This failure cannot fairly be laid at the door of the technology itself. The problem has been a lack of understanding about how field force enablement should be deployed, which is as part of a wider change programme affecting the entire operating model. When that is understood, the results can be impressive. It can produce a measurable improvement in the delivery of maintenance while increasing staff satisfaction by making them feel empowered.

There is no doubt that utility maintenance practices were in need of an overhaul. In the late 1990s the sector was under pressure from customers and regulators to cut costs and improve reliability and service. At the same time, it was having to cope with ageing assets. Traditional maintenance

practices had not evolved much since privatisation. Most organisations had local and regional workforces, locally held records (usually paper), limited scope to move resources to meet work demand, and local demands driving a high cost base.

In the field, this often resulted in a lack of accountability and ownership of the work or assets, poor lines of communication and cumbersome, complicated processes.

While data was collected, it was not used to inform decisions. Work was often planned on the basis of incorrect data, and there was little understanding of the total work required or of the effect of additional work on operational expenditure. There were often difficulties matching high-priority work with outages and resources, and there was no reliable measure of productivity and utilisation. In short, in many instances, no-one had confidence in the work

schedules or performance reports that were produced.

Against this background, poorly implemented new technologies served only to alienate and demotivate staff. More often than not, field force enablement systems were implemented blindly, in the hope that new technology would solve the problems. There was little understanding that the technology could serve its purpose only as part of a wider change programme, affecting the whole operation.

Furthermore, many devices were not tested in the field, and little buy-in was sought from those who would be using them. There were problems using the new systems: connections to the central office were not reliable; the new hand-held devices for field work were not sufficiently robust – for example, the machines were too small for the staff to use while wearing gloves, the screens were hard to see in

Mobile technology can serve its proper purpose only as part of a wider change programme

daylight, and the machines proved sensitive to oil spillages.

The belief that, with the new technology, staff would be able to execute their work in isolation destroyed the team dynamic (including supervision) that many were used to and that was critical to maximising productivity. In brief, the introduction of field force enablement changed processes and structure in the field and ultimately had a huge impact on morale. Far from making tasks easier and streamlining operating practices, it created a disaffected and therefore less effective field force.

Specifically, these problems manifested themselves as: lack of ownership of the assets; complicated multiple reporting and communications lines; incomplete and late data input; insufficient view of resources, resulting in undeliverable work schedules; repetitive processes, with multiple hand-offs; poor performance on preventive maintenance; difficulty matching high-priority work with outages and resources; low workforce morale; confusion over accountability; and no shared key performance indicators. Ultimately, this resulted in large amounts of asset downtime.

But new technologies have been able to support the transformation from the old regime to one with centralised planning and a flexible and mobile workforce. And they have been able to support the collection of up-to date maintenance information that can be fed directly into the system. However, implementing new technology into field forces requires major change: people need to buy-in to the changes. New systems, structures and ways of working also need to be put in place to support the technology. It is only with this holistic approach to change, linking technology to systems, structures, processes and culture, that these new technologies can be used to empower field force staff and that significant improvements in performance can be realised.

In any performance improvement initiative, it is essential to understand that the core processes of the business need to be tackled before looking to address other aspects of the operating model. IT, along with organisational structure and management information systems, should be designed to support these core processes. The performance

improvement initiative must be based on a solid understanding of the issues the organisation is facing at the moment.

Here, it is paramount to engage those employees at the front line, because they are closest to the action and will have the best insight into where the current processes are falling down and where they are working well. This approach also ensures buy-in from those staff who will be most affected by the impending changes.

Once the "as is" situation is fully understood, process redesign principles can be applied to address the issues identified. These may include:

- put the decision point where the work is performed;
- organise around outcomes, not around tasks;
- allocate clear roles, responsibilities and accountability, with clear lines of communication;
- treat dispersed resources as a single pool;
- reduce variability of work;
- segregate, eliminate, and reduce exceptions;
- have those who use the output of the process perform the process;
- delay binding decisions.

Only when the future processes have been designed is it time to look at the supporting elements – such as key performance indicators, IT (including field force enablement), structure and culture – and to design them to support the efficient execution of the processes. Anything else smacks of the tail wagging the dog.

To implement change programmes effectively some key principles need to be followed. First, run pilots to test the operating model in one part of the business and be sure to listen to and act on the findings. Pilots ensure that the new business system is tested and refined and enables it to be trialled in a real environment. It gives management the opportunity to measure performance and identify potential improvement areas, while engaging and seeking feedback from staff.

Second, phase the rollout of the business operating model. This is often recommended to minimise risk to the day-to-day business and to ensure a smooth transition. Finally, seek

continuous improvement. When change is introduced, it is important to ingrain a culture where people seek to improve performance continually. Making the changes sustainable means transferring skills and developing performance indicators at all levels in the organisation that will encourage the correct behaviours in driving performance.

Clearly, such a holistic approach makes the overhaul of maintenance practices a more demanding undertaking than the simple introduction of a piece of new technology. But where it has been done well, the results speak for themselves in measurable improvements. For example, one of our major utility clients registered a 69 per cent reduction in overdue work, an 83 per cent reduction in new and additional work raised, productivity gains and significantly reduced operating costs.

But perhaps even more satisfying was the reaction of the staff involved. According to a survey, staff felt valued and had a greater sense of ownership of the assets. With field forces empowered to make instant decisions, recorded levels of staff satisfaction have risen to an all time high. The implications for the integrity of the company's major assets are obvious. ■

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