

Mobile Computing Newsletter

Summer 2009

C-innovate Ltd, www.c-innovate.com

Welcome to the C-innovate newsletter, a quarterly publication discussing the business change aspects of mobile ICT implementations – all with a human-centred focus

Achieving sustainable business change

Lots of excellent work has been done over the last few years implementing PDAs and BlackBerrys at the frontline of policing. However, despite these devices becoming evermore ubiquitous, embedding them into police work practice continues to be a significant challenge; the barriers can often overshadow the benefits, with officers on the ground not always experiencing or perceiving the rewards.

This newsletter is designed to help you address the challenge

of embedding. It provides some of the knowledge we have gained through our recent work with forces, including:

> Benchmarking and analysing usage behaviour through workshadows

> Running supervisor's workshops

> Setting up and maintaining champion's networks

It also provides commentary on the issues of cultural change and mandating device



usage. We hope you find some, if not all, of it of interest.

Any feedback would be warmly received; please send to paul@c-innovate.com

Special points of interest:

- Get your Supervisors enthused about mobile systems
- Benchmarking system usage behaviour
- Activating and maintaining a champion's network
- To mandate or not to mandate? That is the question
- Updating status using Airwave data functionality

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Being a fly on the wall

Over the last couple of months we've been out spending entire shifts with officers (from response, neighbourhood and SOCO teams) recording minute by minute observations of their behaviour and system usage. It may sound like quite an onerous task, but being a fly on the wall is very enlightening, providing numerous insights into the realities and practicalities of using mobile systems in the field.

Understanding these realities has many a benefit:

> Identification of how exactly work practices have changed or could be changed for the better

> Identification of system usability issues

> Fully understanding how different systems are used by officers and why

> Identification of additional training and support needs

A workshadow also provides a benchmark with which future workshadows can be compared to illustrate benefits; an excellent way to consolidate statistical and attitudinal data on device usage – or as a stand alone example that you are doing the right thing.

The enclosed A5 leaflet provides an example of one of our recent workshadows.

Supervisory buy-in; don't overlook it



Get them involved

“This is the only project we've ever been properly consulted with before, during and after implementation.”

Response Sergeant

Effective supervision is critical to the success of your mobile information project, but how do you go about delivering this in practice? Sergeants may rarely get out of the office; they have 100+ more important things to do; they may be technophobes themselves; they have been through many an ICT system implementation most of which have provided little or no apparent frontline benefit (why should mobile data be any different? in fact the mobile data project 5 years previous was a case in point...).

Don't get me wrong, not all supervisors are luddites, many are great advocates of these new technologies; and more often than not where you've got a supervisory advocate you'll have a proactive team who use mobile devices

regularly and often innovatively. Conversely, if your supervisors are not onboard with the technology, often the team won't be either.

Essentially, you need to have all your supervisors onboard even if they are not. We've been achieving this is by running workshops with supervisor's to get their input and improve their engagement. A good workshop benefits from a nice venue and a buffet lunch (and ideally bacon sarnies at the midpoint break). A senior authority who can confidently field questions is also a significant factor, but ultimately the supervisors should leave inspired that mobile data can deliver real benefits to their teams. To do this we focus on the practicalities and realities of changing work practices, such

as by talking through workshadow data and showing video clips of the devices being used in the field.

Running a workshop is the catalyst to get supervisors engaged, ongoing supervisory support is essential for driving up usage. Identifying and allocating resources to provide localised support is required; this may be easier said than done, but providing you've got a strong advocate of the users on the project team it should be achievable.

It may not be rocket science, but comprehensive supervisor engagement is rarely delivered, it may not even be considered; there certainly is a science to prioritising this aspect of the project and then to doing it well.

Where are the champions?

Research suggests that the adoption of new systems is strongly influenced by peer networks – i.e. having the positive support of colleagues whilst new ways of working are introduced.

Easily accessible day to day support for officers using mobile devices is a prerequisite for success. An excellent way to provide local onsite support is to establish a network of champions who can pass on information and give their colleagues advice as and when required. To this end we have been helping forces

establish champion's networks. Here's how:

We like to select a wide range of individuals, including those who are not so techo-savvy but have bought into the idea of mobile devices delivering work practice benefits.

Having identified a champion for each site / shift we invite them along to a workshop to discuss their role. We want the champions to define what can or cannot be expected of them and what support they will require. The goal, as with all the user engagement work we do, is to get the people who

are involved to feel they have ownership of the process. We don't want them to feel that the role has been imposed and ideally we want them to feel that they will get something out of it (in addition to the buffet lunch provided).

As with supervisors, activating the network is the first step in what could be quite a long journey. It is maintaining the network that is the real challenge. We will talk about ways of doing this in our next issue.



Here are some champions

Updating status with Airwave data functionality

One of the forces we are working with has engaged us to conduct some research into their Airwave system – with a focus on the usage of the data functionality. Updating status using the button functionality of Airwave handsets would seem to be an easy and accurate method for keeping track of resources.

Whilst many officers use the buttons for booking on and off, their use is less prevalent for ‘At scene’ and other types of status updates. Rather than sending a global email or

operational order asking officers to use the buttons, the force are investigating Airwave usage in detail, so they can put in place an appropriate strategy for driving up button usage. They are interested in understanding what the barriers are to button usage, for example:

- > Is it a training issue?
- > Is it role or rank specific?
- > Are there any usability concerns?
- > Is it cultural?

We are conducting a range of activities to investigate these, including running an online survey, interviewing officers at stations around the county, interviewing staff from the comms centre, and wrapping it all up with a workshop with Airwave stakeholders to define the way forward.

It is thought that if button usage can become a standardised work practice, the force will be better placed to deliver the Policing Pledge. That is the ultimate goal.



Can we get more out of this?

Cultural elasticity

You can liken the culture of an organisation to an elastic band – you can stretch the culture to a different shape (ideally the shape that it needs to be), but as soon as you stop putting the effort in the culture will spring back to what it used to be, just like an elastic band. It’s a reasonably sound analogy; cultural change isn’t something that will happen overnight, you’ve got to put the effort in and keep on putting the effort in for a good long time for the cultural elasticity to wane, before you can safely

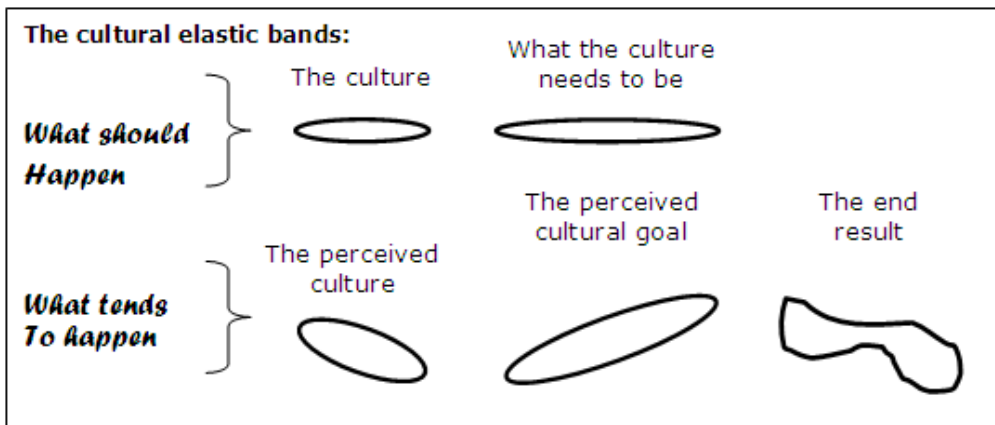
walk away knowing your job is done.

The challenges are somewhat more obtuse than our humble elastic band though. Often there is no real understanding of the culture, what needs to be done to change the culture, or where the culture needs to end up. So, even when the will is there, a lot of effort can be put into stretching a mis-shaped elastic band, into a shape it shouldn’t really be (and it will never really spring back to where it was originally,

but may well end up somewhere worse). The diagram below attempts to relay this state of affairs.

Some morals of this analogy are that when implementing new technology put resource aside to understand the culture, don’t make lots of assumptions, and objectively talk to your people. We’re sure there are many more....

“Often there is no real understanding of the culture, what needs to be done to change the culture, or where the culture needs to end up.”





C-innovate have been providing user-centred consultancy to UK police forces for approaching 10 years. Our mission is to help maximise the benefits of ICT systems through putting the system users at the centre of the design and implementation processes.

Services that we provide include:

Benefits Realisation

Requirement Definition

Benchmarking

Evaluation

Project Consultancy

We use a wide range of methods to deliver our services including surveys, interviews, workshadows, group work, usability testing and process reviews, all of which can be delivered as stand-alone services if required. If you would like to discuss anything further please contact Paul Hampton on 07989539040 or 01273704774.

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When to mandate usage

If you are going to mandate, don't rush into it. It may seem like the solution to your problems, but more likely than not it is a smokescreen to veil endemic issues. Think about why you need to mandate. If the system you have delivered is so great, why aren't officers bending over backwards to use it? There will be a range of reasons why, but a very common one we come across, is that users are not confident and they have not had the appropriate support to make them confident. (Please note that mandating usage does not make someone confident).

Of course, mandatory usage may be a work process necessity, or may deliver significant savings so is an organisational necessity.

That's fine, but go about mandating in a supportive manner. Identify the processes that you are going to mandate, consult with your users to confirm that these processes are appropriate to mandate and then tell the users that these processes will become mandatory in a specific timeframe (e.g. 3 months) and put the appropriate support mechanisms in place to ensure all users are up to speed in time. Don't, for example, send out an operational order that all PCSOs will do their PNC checks on a handheld device as of next week. It won't work, or at least it won't achieve the desired goal – under confident users will avoid doing PNC checks, all users will be

frustrated because it is an inappropriate (and potentially dangerous) work practice to enforce, the number of devices being dropped will start to mysteriously increase.

Have you mandated usage? We'd be interested to hear your thoughts on the matter; you can comment on this article via our website blog at <http://www.c-innovate.com/>

“Authoritative decisions (e.g., making adoption by individuals compulsory) may increase the chance of initial adoption but may also reduce the chance that the innovation is successfully implemented and routinised”
Greenhalgh et al. 2004



Don't get out the stick too quick