



HYTERA WHITE PAPER

Worker Safety – More Than Just a Radio



Executive Summary

The British workforce is woefully under-equipped for the modern workplace. That's the finding of research undertaken by innovative two-way radio manufacturer Hytera in conjunction with Health and Safety at Work magazine to understand how businesses protect employees at work, and their use of technology to achieve this objective.

Indeed, the results of Hytera's survey depict a perilous picture of employees being sent to work in hazardous conditions, often on their own, in remote conditions or both, without the appropriate communications equipment for their needs:



- Nearly 82% of survey participants stated that their organisation uses mobile phones as a primary communication system in the field, with just half of that figure using two-way radios.
- Under one-third (31.4%) of organisations offered workers Lone Worker technology – either within a two-way radio or a separate device.
- 1-in-5 businesses admit to not having safety-critical communications at all. Of those, 95% work in potentially hazardous conditions.

Survey respondents admit to giving workers mobile phones due to a lack of confidence in other communication technologies. However, many acknowledged this wasn't a solution best suited to ensuring worker safety; alongside citing unreliable mobile coverage as an issue, respondents voiced concerns that mobile phones acted as a potential distraction for workers and represented an unnecessary additional cost burden to the business.

Taking a deeper look at the findings from those private sector organisations operating in hazardous environments, such as the Oil and Gas, Construction and Manufacturing Industries, a much darker picture unfolds.

Here the survey findings show a significantly smaller percentage of businesses providing workers with 'Lone Worker' or 'Man Down' technologies. Similarly, overall confidence in existing communication systems was much lower in these industry sectors.

This White Paper evaluates the research findings in the context of today's modern workplaces that typically features disparate workforces operating in challenging or hazardous working conditions. It also sets out a migration roadmap for organisations looking to make the journey to next-generation DMR (Digital Mobile Radio) systems that guarantee instant communication and provide greater worker safety.

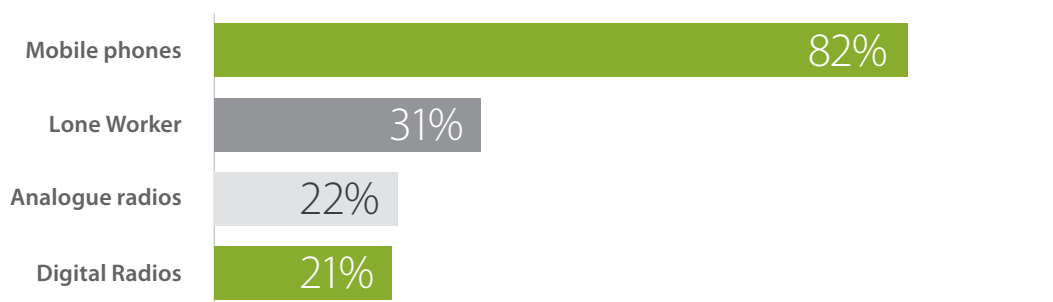
But getting there will require a change of mindset. Because, when used to its full capability, a radio is more than just a radio - it's a complete Health and Safety toolkit. Indeed, organisations should not view migration to a next-generation digital radio system as a pipe dream or an expensive luxury – but a necessity. Because without a comprehensive communication network in place, the potential risk of an injury or fatality for workers is significantly increased.

Failure to Equip Lone Workers with Appropriate Technologies

The most worrying finding from our research with Health and Safety at Work Magazine is the sheer number of businesses that have employees operating in hazardous or remote locations, without appropriate communications equipment or devices at their side.

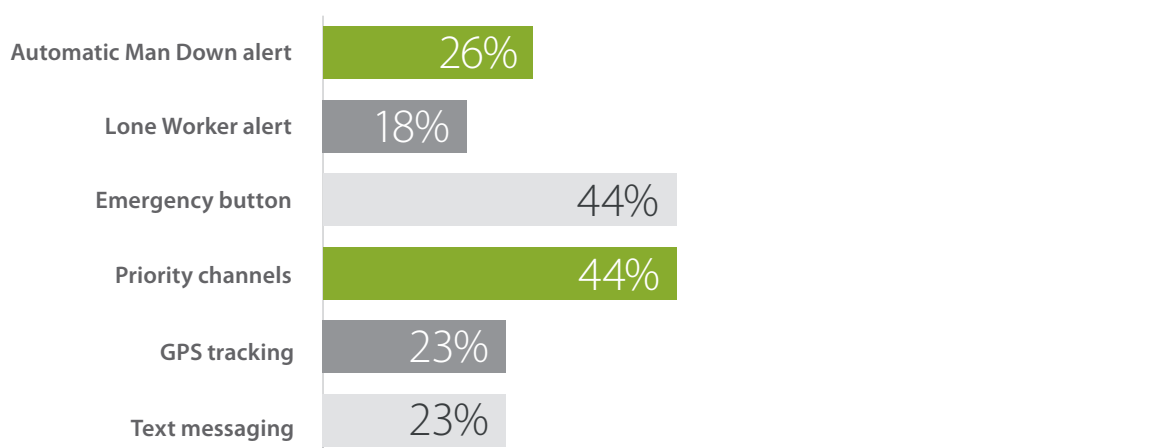
Of those organisations surveyed, 81.82% claimed that employees were given mobile phones as their primary means of communication. In the event of an emergency, less than 1-in-3 businesses had provided employees with Lone Worker technology, and only 42% used two way radios (analogue or digital).

What systems do you use out in the field?



Exploring how organisations utilise their radio handsets, the findings show how many businesses continue to persist in using handsets in a highly traditional radio-to-radio manner – and are failing to take advantage of the full capabilities on offer:

If you use two-way radios, what do you have access to?



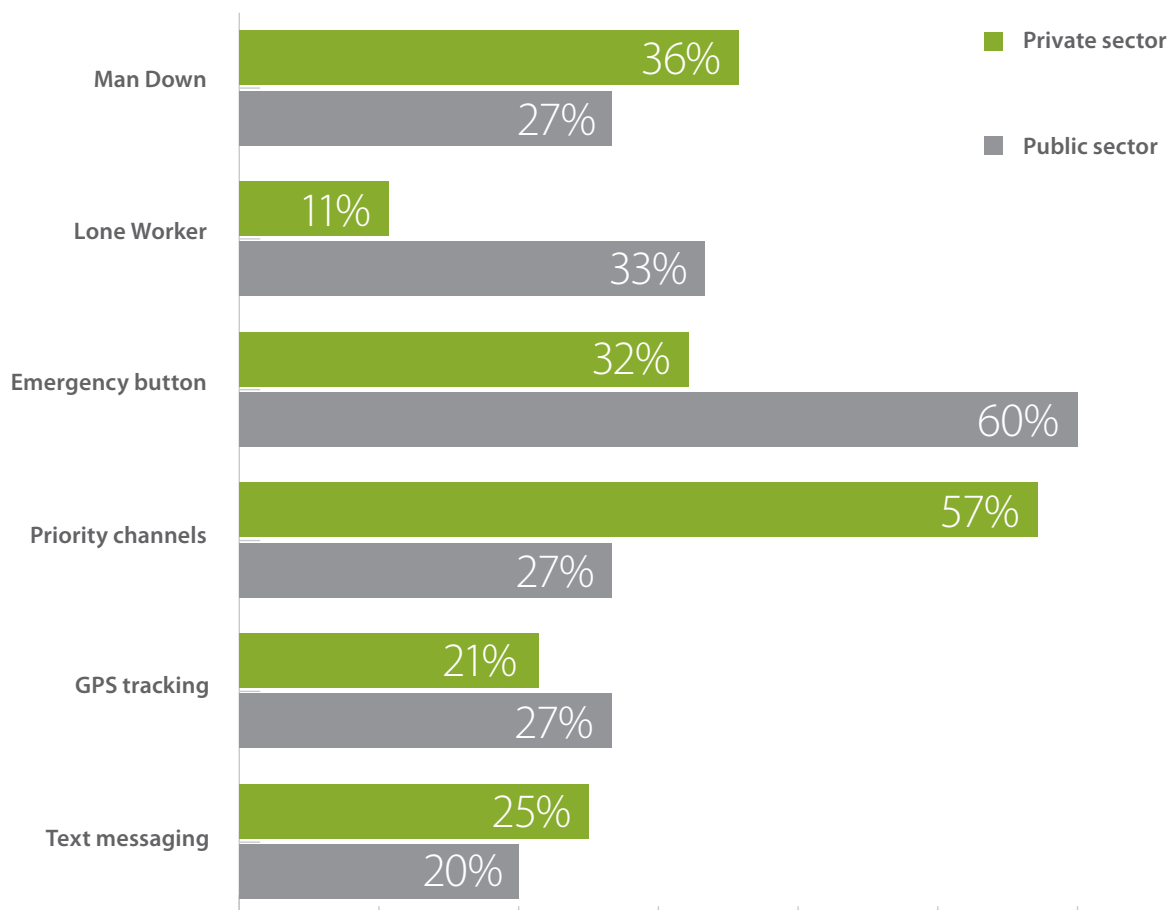
It also appears that businesses are reliant on mobile phones because they either do not have appropriate functionality within their two-way radios, or don't realise the advantages that two-way radio systems offer over smartphone.

Yet workers in dangerous conditions require instant communication that includes the ability to alert colleagues when an incident arises. However, smartphones often lack the reliable features necessary to protect people in the field - such as Lone Worker, Man Down, Group Call and Emergency buttons. They also represent an additional and unnecessary spend.

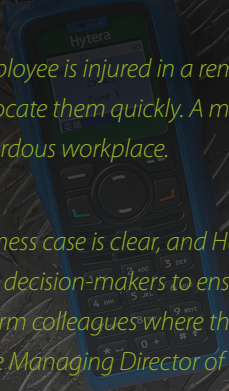
Surprisingly, the private sector appears to be lagging significantly behind the public sector in terms of the take-up of advanced Health & Safety communication features.

Examining responses from organisations operating in three demanding working environments – Oil and Gas, Construction and Manufacturing – we see that only 10% of employees have access to Lone Worker technology compared to 33% in the public sector, and just 32% have access to a dedicated emergency button compared to 60% in the public sector.

Private vs public sector



This diversity of findings between the private and public sector provides food for thought when evaluating how different organisations view their Health and Safety responsibilities – and the equipment they provide to employees when safety is a concern. It does appear that both sets of users would benefit significantly from the complete list of functionality.



There is simply no excuse for not providing workers with the tools to communicate instantly when they are operating hazardous machinery or working in remote locations. Often, businesses rely on mobile phones that may or may not experience coverage blackspots. But even when staff are in coverage zones, mobile phones do not offer the instant reliable safety features prevalent in two-way radio systems.

If an employee is injured in a remote location, you need to know instantly. If they are unconscious, you need to be able to locate them quickly. A mobile phone won't help you in this instance, nor could it stand up to the rigours of the hazardous workplace.

The business case is clear, and Health & Safety Managers need to position the benefits of the latest digital two-way radios to decision-makers to ensure they are aware that employees are at risk unless they are provided with systems that inform colleagues where they are, when they are alone, and when they are in trouble. If not, responsibility falls upon the Managing Director of the business.

Failing to Exploit Two-Way Radios

Our research shows that organisations that deploy two-way radios to the workforce generally use these in a highly traditional manner – in other words, they are failing to exploit the capabilities of their two-way radio systems.

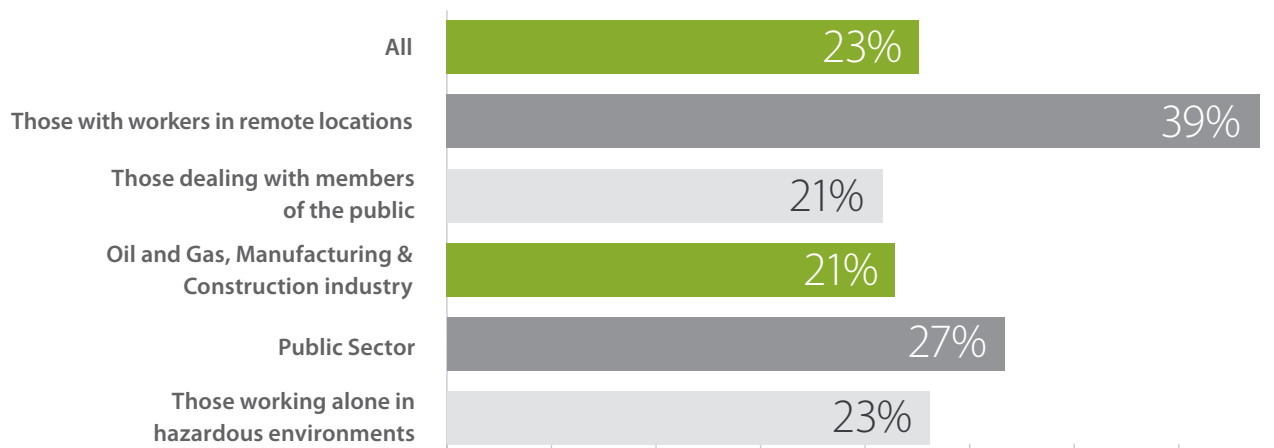
Even when employees regularly work in remote locations, a high proportion of businesses are still not using the GPS tracking (61%) feature built-in to advanced digital two-way radios.

This failure to utilise GPS monitoring may result from a lack of understanding or awareness of the in-built feature itself – or fear of a potential push-back from employees concerned about the monitoring of their movements.

But organisations able to debunk the 'corporate snooping' mythology by providing transparent communication and education for workers will be able to initiate integrated GPS services in their radio handsets to better monitor worker safety and respond to incidents quickly.

What's more, utilising the integrated GPS feature can help geo-fence and geo-locate employees. For instance, an alert can be sent to colleagues when an employee unwittingly strays into a hazardous area. In this instance, it is extremely important that the employee is contacted and warned.

If you use two-way radios, do you have access to in-built GPS?



More advanced DMR systems are able to extend this safety technology through the provision of ambient listening that makes it possible for dispatchers or controllers to literally 'listen in' to a radio user's microphone. This ability could prove crucial when a radio user is facing a potentially hostile member of the public, or if there has been an incident and the user is unable to access the radio. Furthermore, all these calls can be recorded and logged by the DMR system for post event reporting and evaluation.

There was recently a case in France where an employee at a major retailer entered a refrigerated room, and was locked in. With no means of communication, and no means of being located, the employee unfortunately and unnecessarily died. Responsibility fell upon the President of the employer's company, who was prosecuted for involuntary homicide.

Simple communications tools could have prevented this fatality. But two-way radios can go further, providing colleagues with an alert when an employee strays into a hazardous or dangerous area of your site. In many countries, there is legislation to protect Lone Workers, but two-way radios need to be used to their full extent in order to holistically protect people.

Steps to Upgrading

1

Radio evaluation

Are you using the right devices and technology? Speak to a recommended authorised dealer.

2

Coverage survey

An authorised dealer will understand your site topography and user requirement.

3

Upgrade to a DMR system

You will be recommended the correct solution incorporating digital handsets and repeaters with supporting applications as required for your health and safety needs.

Hytera Helps to Evolve Communications at Down House

CASE STUDY

Down House – the family home of Charles Darwin – is a popular historical visitor attraction extending over 33 acres of gardens and stunning Kent countryside. But its management team was encountering a number of issues with its existing analogue radios.

Coverage was poor, with employees often unable to communicate when one was in the house itself and another was in the grounds. What's more, the radios often ran out of battery before shifts ended. This left employees at risk of being unable to communicate in the evening.

The staff based in the car park often faced the greatest challenge. With the analogue radios frequently dropping out of signal, this represented a serious security risk for these lone workers.

To address all these issues, a decision was taken to switch to DMR (Digital Mobile Radio) handsets. The team immediately found the radios easy to use, plus they were lightweight and rugged enough to stand up to a day's use without running out of battery charge.



"I'm now able to monitor and communicate with my team so much more effectively, and the battery life is excellent so I have no worries that someone's battery will run out halfway through the day. It gives me that sense of security that I can contact anyone I need to at any time, wherever they are on the 33 acres that we have here."

BRIONY ATKINS, SITE MANAGER AT DOWN HOUSE



More Than Just a Radio

In many cases, workers are carrying inefficient equipment that is not up to the job. Worse still – they are carrying multiple tools, none of which are comparable to the capabilities offered by a single digital two-way radio.

The research findings clearly indicate a generic lack of confidence in existing communications across all the industry sectors we surveyed: 1-in-3 businesses feel that there are weaknesses in their systems or had worries these might fail, and acknowledged the situation needs addressing quickly. Only 1-in-5 businesses claim to have 'full confidence' in their communication systems.

This leaves workers in a difficult situation. Despite having a number of communication tools there is no guarantee that they'll be able to communicate fast in the event of an incident, or that their message will be clearly heard. And that increases the amount of time it takes to respond.

Clearly, the traditional usage of two-way radios needs to change and a DMR radio system can greatly improve an organisation's communications capacity, capability and responsiveness by:

- Delivering the required coverage across sites.
- Providing digital audio correction that filters out background noise and improves communications clarity.
- Improving call availability and information flow.

Today's cutting edge digital dispatcher solutions make it easy to efficiently manage employee communications while satisfying health and safety requirements.

Alongside providing ease of management of both voice and data services these platforms deliver real-time location awareness of all users, instant awareness of emergency calls, and those all important Lone Worker or Man Down alerts that give the user's location with pinpoint accuracy via their handsets.

For organisations that need to handle a high volume of calls, the ability to both give priority to certain calls on the system and integrate the digital radio with the public telephone network offers a modern solution that's fit for purpose for today's workplace.

A solution that not only makes it easy to handle emergency situations more efficiently and effectively – but also generates significant workforce productivity gains.

Hytera can help you develop the communications system fit for your modern workforce. To understand how, visit our website at hytera.co.uk and contact your local authorised [dealer](#).

