

Health and Safety Innovation Priorities: 2018-2020





Introduction: what's the challenge?

At Highways England, safety is at the centre of all we do. No-one who travels or works on our road network should be harmed; we want everyone who works with us or for us to get home safe and well every day.

Our commitment to improve our safety performance reflects these aims, but we must continually ask ourselves if our actions and behaviours are keeping us safe while delivering our business goals and satisfying our customers. Learning where unsafe conditions exist helps us to understand why change is needed and enables us to take action which prevents harm to our people and to our customers.

We're passionate about what we do and about delivering improvements at pace. Our safety performance is improving and together with our suppliers we're finding new ways to deliver by embracing innovation and questioning convention. We acknowledge the following challenges this brings, and which we currently face:

- **Focus** – we are doing lots of great things for the right reasons but we need to ensure that these efforts align to our common objectives. Many of our people and our suppliers are highly creative and are driving forward innovations but we need to make sure ideas are shared and joined up effectively to improve efficiency and optimise benefits.
- **Measurement** – we need to know if and how innovation is improving our safety performance by evaluating innovation outcomes. Some areas of our business do this better than others, but understanding what innovation does to reduce risk is vital to make the case for embedding it in 'business as usual' and demonstrating the value we can add.
- **Dominant topics** – the public face of innovation tends to be dominated by big ideas such as self-driving cars, drones or electric vehicles. Smaller aspects of innovation which could deliver safety benefit right now tend to be overshadowed, making it more difficult for these ideas to reach the right audience.
- **Insight and indicators** – we don't have lead indicators based on good data to show us what works well and to direct us towards areas that need future innovation. At the moment, we measure lag indicators which can mean we don't respond quickly to improvements or support pre-emptive action. We need a lead indicator which responds quickly to change and which is directly linked to the lag indicators/KPIs.

Considering these challenges, we have set out a clear vision for health and safety innovation.

Health and Safety innovation ambition

Our aim is to learn from all our experiences, using our knowledge and working together to improve safety with one shared goal: that our people, whether they work with us or for us, get home safe and well every day.

To support this, our ambition for health and safety innovation is:

'to create a preferred future state where our safety culture, behaviours and approach encourage us to innovate, improving everyone's safety by pushing the boundaries of what's possible and being honest when things don't work out as we had hoped.'

To ensure this, our people need to have the best plans based on the best available information; to have the right equipment that guarantees they can complete their work right first time; and to have the right culture and behaviours that support them to get home safe and well.

What do we need to do to achieve our preferred future state?

We must continue to innovate in safety. We need to generate a credible culture where innovation is encouraged, nurtured and where benefit is realised.

We need to be strategic and identify areas where we are most likely to be able to improve the health safety and wellbeing of our people. We need to focus on areas which complement each other and encourage a positive safety culture. Success in these areas will bring us closer to our aim of getting our people home safe and well every day, and embedding our value of safety in everything we do, which has wider benefits too.

Innovation strategy

Our innovation priorities cover five key areas, based on sampling current activity within Highways England and our knowledge of the wider sector outside of the organisation, which will support getting every one of our people home safe and well every day:

Figure 1: Innovation priorities



Health and Safety innovation priority areas

The first priority of **leading safety improvement through positive safety metrics** gives a central focus for the other four areas. This priority needs to apply equally inside and outside of our organisation with both our own people and across our supply chain. We will use positive measures to promote a 'pull' towards better safety, making sure we take time to reward and celebrate desired behaviours and attitudes (including innovation and collaborative working).

The use of a Positive Safety Culture 'pull' (PSC+) metric gives us a lead indicator for safety. This is important as when we have succeeded in managing the Accident Frequency Rate (AFR) to zero, we will no longer be able to evidence further improvement. The PSC+ metric will allow us to grow our safety performance indefinitely (subject to occasional baselining) – ensuring we are always challenging our people to work in a safer way.

The PSC+ metrics will not replace the 'push' metric of AFR or incident and near miss reporting, but will sit alongside them. As a lag indicator AFR will enable validation of performance and demonstrate that good safety culture is continuing to reduce poor safety behaviour and in turn, accidents. Within a positive safety culture, incident and near miss or undesired circumstances reporting is not associated with negative actions, but instead provides us with evidence to prioritise areas for improvement and enables ongoing action and innovation in safety. The continued reporting

of AFR, together with near miss and undesired circumstances reporting, gives us consistency with previous AFR statistics as well as ensuring that statutory reporting of RIDDOR accidents remains a clear high priority to us as a client and employer.

The four themes surrounding the central PSC+ metric (see figure 1, page 5) present opportunities to identify specific actions to reduce risk to road workers and traffic officers. These also provide potential to improve customer satisfaction and delivery of the RIS1 programme as they will have an impact on some of the areas which we know present ongoing challenges.

We want to challenge the need for our people to be out on the road or on site at all, so that we can eliminate risk to them from what they do or where they are doing it. **Automating high risk activities that expose our people to potential harm** seeks to remove our people from places where they could be or are exposed to the real risk of harm for example, from vehicles driven by members of the public or on-site activities. We want to make sure that eliminating the need for people to undertake certain activities (such as debris collection or inspecting the carriageway) does not affect the safety of others, such as our customers, or indeed compromise the quality or pace of the work we do. Provided we can assure these challenges are met then automation processes have real potential to eliminate the risk of people coming to harm.



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Automation links back to the second area, which is **improving what we have, how we use it, what we do and how we do it**. We want to make sure our people have the right equipment and supporting processes that allows them to complete their work right first time and as efficiently as possible. Our people themselves are often best positioned to suggest how we can make incremental improvements in the day-to-day operations of our traffic officers and road workers, as well as changes to improve safety for our people and our customers.

By engaging with our people and asking for their ideas as to how we can make their lives safer, we not only identify quick wins to embed within business as usual, but also support them to develop these ideas and then demonstrate successes. This in turn will help to change the attitude and culture towards safety and in particular safety innovation within and outside of our organisation.

We want to make sure our people have the best plans based on the best available information. This means **using our current data and knowledge more effectively to improve safety**. We are data-rich as an organisation but we do not always share our data effectively or join up our data sources to provide the big picture.

By sharing information responsibly we can exploit opportunities to get the data we hold into the hands of those who could use it to drive safety and remove people from harm's way. This will allow us and our supply chain to make more timely and informed safety decisions and improve the experience of our customers.

The fourth area looks at **generating new sources and methods of data capture to deliver safety benefit**. This seeks out new sources of data to support further improvements to our plans and enable us to make fully informed

strategic decisions and work more effectively. Collecting data that enables earlier decision making and better identification of issues allows us to respond more effectively so we can ensure fewer people are exposed to risk.

These areas will be used to develop a programme of innovation activities to deliver quantifiable safety improvements which eliminate sources of accident risk. The vision for the areas set out within this document can be used to assess innovations and identify those that can keep our people safe, support our safety aim and move us towards achieving our objective as a company that:

'no-one should be harmed when travelling or working on the strategic road network.'

Governance

Health and Safety is one of many areas within Highways England where innovation takes place. Our overall approach to innovation within Highways England is set out in our Innovation, Technology and Research Strategy, and health and safety innovation is integrated into this approach.

The key is to promoting health and safety innovation is to embed health and safety engagement within the structures that already exist for innovation governance and decisions about innovation priorities. Doing so ensures we do not duplicate governance effort or introduce waste, but provide mechanisms for co-ordination across work areas which allows for 'check and challenge' where activity or outcomes overlap, or could be better aligned to give more benefit.

Collaboration in innovation

We understand that there are significant benefits to be obtained if we work together with our supply chain and other client organisations to drive innovation as we can promote new cross-industry standards for safety that decrease costs for us, other clients, our suppliers and ultimately the country.

The traditional model of government-funded research being adopted by our suppliers means we carry all the risk and cost of innovation. We are and will continue to seek opportunities for collaborative research and development, with each of our suppliers or other parties involved contributing to the research and innovation (whether through financing work or providing support in kind). This ensures that everyone who participates gains more benefit than the value of their individual contribution. This model encourages knowledge transfer, early adoption and promotes agile development of practical solutions to real-world problems associated with safety.

Communication, monitoring and review

Innovation, and especially collaborative innovation, requires good two-way communication to ensure that opportunities to collaborate are advertised, potential new innovations are captured, and success is shared. Highways England has recently launched an Innovation Portal (www.highwaysengland.co.uk/innovation-hub) to meet these needs, and to share key innovation projects. Transparency about when things don't work out as we had hoped features in our ambition for health and safety innovation.

We will endeavour to share the results of our innovation in all cases as this can be a useful result for future learning, and for those considering doing something similar.

Open and regular communication supports engagement with the health and safety innovation ambition, promotes uptake of innovation during and after development and feeds new knowledge, ideas and concepts into the Plan-Do-Check-Act process we will be using to develop future innovation activity.

In order to ensure that we are getting what we need and expect from innovation, we must monitor and measure our activity against our aims. A review will be carried out annually (or when a significant change in priorities is suggested) to check our approach is still relevant and identify areas that require action. This may be to add new innovation priorities, amend what we are doing or discontinue work in some areas. Our approach will be aligned to business years so we are clear which annual report applies to the year ahead.

A core value at the centre of our strategy is that innovation is best driven by the people who will gain benefit from it. This could mean those outside our health and safety team, or even outside Highways England, may lead on an innovation project to improve safety for our people. To empower others, we must track delivery so that we can support those involved and make sure that we understand all stages of a project. This will ensure we can support our colleagues and collaborators so that our work together will help our people to get home safe and well, and support our innovation strategy themes. This will also make sure we know how and when the innovation will achieve outcomes, allowing us to demonstrate to our regulators what we are doing to improve safety for our people.



We are and will continue to seek opportunities for collaborative research and development

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