Assurance in Safety & Engineering: seeing what others don't - yet

Dear all,

This week, I want to talk about a subject that's often discussed but not always enjoyed - assurance. The word assurance tends to get mixed reactions because people understand it in different ways. It's easy to see why many don't find it exciting. If done badly, assurance can feel like an unnecessary chore. It also often gets mixed up with governance, which I understand, as the two can overlap.

For now, I want to focus on assurance in our operational and asset safety processes and culture. **How we think about assurance matters.** Our railway relies on people who care about their work, who focus on finding solutions and who can respond quickly when problems arise - whether that's helping passengers during disruption or carrying out repairs overnight. That ability to adapt and overcome challenges is at the very core of what we do.

Rob Cairns,
Regional Managing Director

Assurance helps make sure that every step in our plans and processes is followed, even when different teams have different priorities. Some steps might not feel important at the time because they deal with risks that rarely happen - the one-in-a-hundred type. But if those rare things do go wrong, the consequences can be serious. That's why our safety systems include controls based on past incidents. Even if some actions seem unnecessary day-to-day, they still have value.

To clarify the difference:

- **Governance** makes sure decisions and information go to the right people - whether that's leaders making decisions or keeping proper records.

- **Assurance** gives us evidence that the right things are being done. While it can give us peace of mind, its real value is that it helps us act when something isn't going to plan.

Good assurance gives us information in time to fix things before we miss important targets - like safety standards, deadlines or budgets. There are two main ways we achieve assurance:

1. Processes that naturally guide people to do the right thing. Assurance then checks if the process itself is working.

2. Checking results afterwards, through inspections or measurements.

In reality, we use both approaches. But the first prevents problems early. The second often finds problems later, when they're harder and more expensive to fix. Assurance is a type of risk management, balancing:

- The cost of failure

- The cost of prevention

- The cost of assurance itself

Whether assurance feels like a waste of time or a useful tool depends on how teams approach it. With the right attitude, and used sensibly, assurance can make work easier. I've seen it done both badly and brilliantly. Leaders need to be passionate about making assurance work. We have a very safe railway in the UK, largely because we've learned from the past and built processes to stop serious incidents from happening again. **The value of nothing going wrong is a good example of something hard to measure, but at the heart of our safety system are people checking that everything is as it should be.** It's easy to overlook or undervalue that work because it's about ensuring problems don't exist - but it's crucial. I want everyone to know how much respect and admiration I have for the people who do this work day in, day out - finishing a shift with no faults found.

A simple example: when we start our car and it sounds fine, we naturally take that as a sign everything is working as it should. Similarly, when safe system of work pack reviews are consistently careful and thorough, it suggests that teams are engaged and paying attention - a strong early sign that safety outcomes are likely to be good. Of course, this doesn't guarantee everything is perfect, but it's a positive signal.

As humans, we are wired to notice change and difference - things that stand out - because, from an evolutionary perspective, new or unusual situations often signalled danger or opportunity. In contrast, routine and familiarity tend to fade into the background. The more we experience a process that doesn't fail either when signalling trains, or looking after assets, the more our brains assume it is inherently safe. If we haven't personally seen a failure mode occur, we naturally start to undervalue its likelihood. This isn't incompetence; it's simply human nature.

This same mental shortcut helps us process huge amounts of information quickly, but it can also lead to unconscious bias - where we make snap judgments based on limited cues or assumptions, such as how someone speaks, dresses, or what car they drive. **These biases affect how we perceive situations and risks, often without us even realising them.**

In assurance, being aware of these natural tendencies is crucial. That's why structured, repeatable assurance processes matter so much - they give us an objective check, balancing out our instinct to

assume that "routine equals safe." As leaders, our responsibility is to lead safely with humans, not in spite of them - understanding how people think, and building systems that support sound decision-making even in the face of our natural biases.

Assurance helps make sure that every part of our plans and processes is properly followed, even when different teams have different priorities. Sometimes certain steps might not seem important because they deal with rare risks - things that might only happen once in a hundred times. But when those rare events do happen, the impact can be serious. That's why our safety systems include controls built on lessons learned from the past. Even if some actions don't always feel necessary in daily work, they still play an important role.

What are your thoughts on assurance? I welcome your views on this and would encourage you to [reply to me directly](#).

Stay safe,
Rob