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REGULATORY CHOICES – MAKING WORK SAFER?

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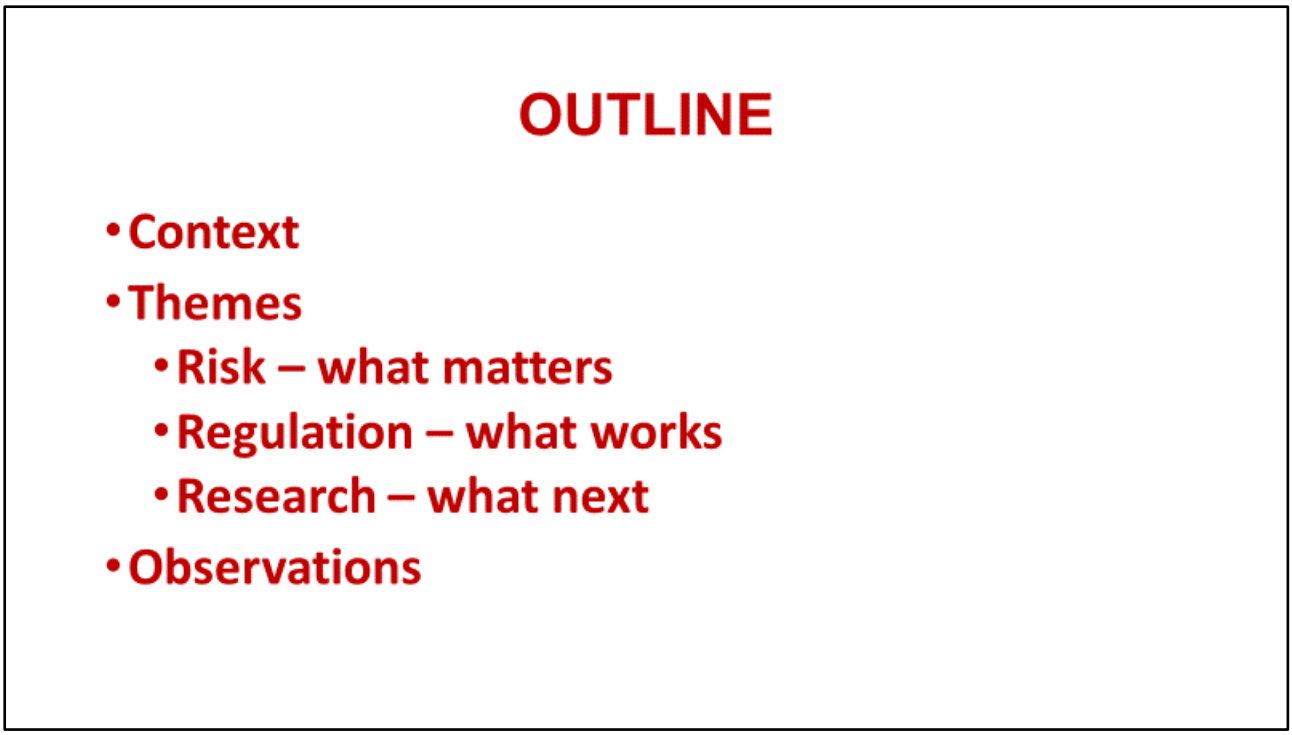
Slide 1

When I was invited to give this lecture I wanted to explore different ways in which regulators can make a positive difference to workplace health and safety. I have tried not to over-focus on COVID but to use that experience where it adds light. And although I am focusing on health and safety in the workplace, some of the issues I will be covering apply to regulation in other contexts.



Slide 2

I want to put a few pegs in the ground first.

Regulators exist because society has a duty to protect its most vulnerable citizens. In the case of workplace protection it dates back to the first Factory Act passed in 1833. The state empowers regulators and gives them a variety of legal and other tools to use.

Given this level of expectation and responsibility they should not get an easy ride.

Regulators have to be able to retain public trust and confidence in their job of reducing harms or reducing risks as part of wider social good. They need to be expert in:

- aligning evidence-based problem-solving (answering the question '**what matters**?') with
- effective action (recognising and implementing '**what works?**') and
- they need to stay focused on researching and understanding the evidence base underpinning their choices (to help them decide **what next?)**

I've called these three elements risk regulation and research.

They prompt the question about whether or not safety regulators have a sound basis for claiming that they have made a positive difference to tackling and reducing levels of workplace risk through fewer deaths, injuries and cases of ill-health. And, crucially, what evidence they can adduce in support.

This is a big 'ask'.

Good regulatory activity - which can demonstrate positive and beneficial effect - is difficult. There are many ways in which they can look busy but that is not the same as having an impact. Knowing how and where to put in the effort is challenging which is why the second half of my title is deliberately phrased as a question.

The relevant academic research across the whole regulatory landscape is referenced in the notes that accompany this talk. I think regulators themselves must contribute to this work to apply direct grounded experience of applying different solutions to practical problems [i]. If you are not writing your own story someone else will do it for you.

And for the avoidance of any doubt, the views expressed here are my own rather than those of my previous employer.

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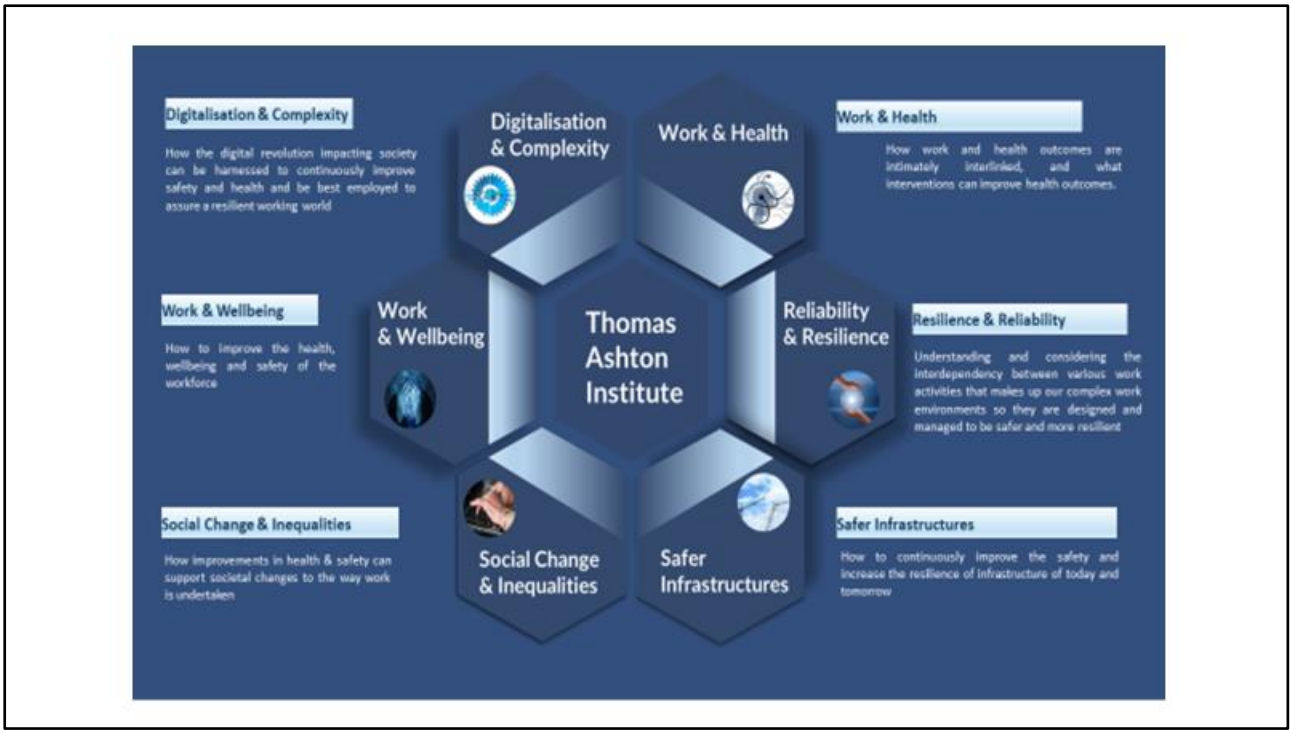
The area I am most interested in is the gap between problem analysis and solution – the space between the 2 pieces of the jigsaw where the choices are made. Simply identifying a risk that needs to be eliminated, reduced, regulated or managed is not enough on its own. There has to be an actionable response.

Regulators are always one stage removed from the risk – they do not create or own the risks they are responsible for overseeing. So their core task has to be to change the behaviour of others who have such directly-acting involvement [ii]. To influence what will happen when the regulator is not there supervising. And that is difficult to measure.

What a regulator exercises choice it is therefore important for several reasons:

- While they may fly under the radar for much of the time, that can change in an instant if they are propelled into the public eye. When regulators are making the news it is often for the wrong reasons. '*Regulator does something good'* is not an attention-grabbing headline.
- The financial sector has a habit of making negative front page headlines [iii]. Contrast that with the rare good news about the work of the MHRA on vaccine approval during the last year [iv].
- If we ask the public, or the working population 'what should the regulator do?' they might not have an opinion or have thought much about it. But if they do, they might give very different answers from what a regulator thinks they would say. This is important for public confidence.
- That means regulators have to be transparent and to give excellent accounts of what they do and to explain why and how they are making a difference rather than just listing things they have done.



Slide 4

The work being done at TAI under the six current research themes [v] bears looking at briefly in the context of the pandemic. We can draw conclusions about OSH research [vi] [vii] and there are grounds for saying that COVID has intensified the need for research effort in at least 4 of these areas:

- Work and well being
- Social change and inequalities
- Work and health
- Resilience and reliability

I am wary of over-interpreting, though, echoing the epidemiologist Adam Kucharski who says:

‘*when you’ve seen one pandemic, you’ve seen one pandemic”* [viii]

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It is 55 years since the Aberfan disaster in which 144 people died including 116 schoolchildren when a massive landslip of coal waste engulfed their school [ix]

The regulatory evolution which underpins choice often runs in parallel, but a few steps behind, major incidents or inquiries. New laws are passed or new regulators are often created on the basis of what went wrong the last time. This is not always a good foundation for the future – preparing to fight the next battle is more important than re-fighting the last one.

I cannot think of a recent time when this thinking has had to be applied to a health risk on this scale which is present everywhere, not just in the workplace.

We have experienced the long-tail ill-health impact of substances like asbestos and seen the common regulatory response in substance-specific rules for asbestos, lead and, going much further back in history, anthrax [x]. The obvious contemporary example of a major incident inquiry is the Grenfell fire in 2017 [xi]. But nothing has tested our public and occupational health resilience like this before.

We are also on the brink of the 50th anniversary of the Robens report [xii] whose author was linked to Aberfan as he chaired the National Coal Board at the time. One of the key findings was that the regulatory definition of 'work' was tied to a place (a factory, an office etc) rather than an activity. Widening the definition to protect more people from the harmful consequences of work had far-reaching impact and it created a much broader landscape where the law might apply and where social good might be achieved.

With COVID we see that basic concept given a further twist – work is not just an activity, far less a place. People can be exposed to a virus anywhere, which creates obvious difficulty in drawing boundaries between who does what in protecting the population during all their daily activities not just when they are working. Transmission is a continuous risk.

And, like other health-related issues which do not conveniently stay in one place such as stress or personal well-being, we can see parallels for how hard it is to conceptualise and then define what, exactly, it is that we want to achieve through regulatory intervention, how and with whom.

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So my first question is what matters? How do we know when have a problem? What is going on here [xiii] ? I am going to term this 'risk literacy'.

I am dipping my toe into deep water. Nowadays risk experts are everywhere. With COVID, there has been a renewed interest in what drives risk perceptions [xiv], [xv] and stern words about how statistics must be used with caution including criticism of the government by a Select Committee [xvi]. There has been predictable concern at the way individual freedoms have been assailed [xvii] [xviii] [xix]. The early official briefings were memorably described as 'number theatre' [xx].

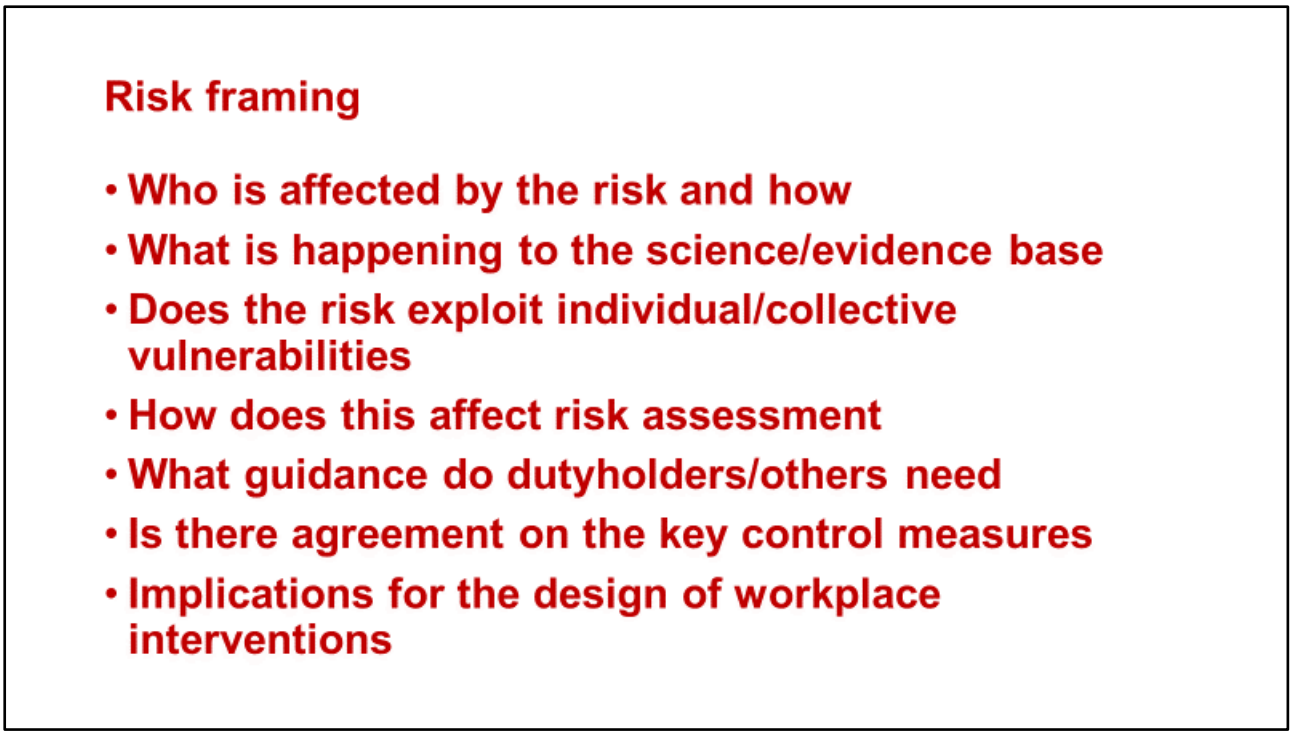
Normally we base our answer on a simple matter of scale – of hazard OR risk. And I mean hazards and risks that are non-trivial.

We look at data for actual or potential deaths, injuries and ill health. Give it context. Compare it with other problems we know about. Decide if it crosses a threshold that requires action. Do something. Avoid controversial algorithms.

COVID clearly meets all the necessary criteria – it is a global problem. The numbers are numbing. But the scale, impact and timing of how that harm materialises creates difficulty.

We know more than we did a year ago about how the virus is transmitted and how individuals are infected: person to person, in the air or on surfaces. But we do not yet fully understand the relative importance of each of these three routes or how environmental conditions can alter the dynamics of transmission in any given scenario [xxi], [xxii].

We know that the virus doesn't play fair and has brutally exposed vulnerabilities in terms of who contracts the virus and the unevenness of the resulting health outcomes [xxiii]. The wider societal impacts could be massive [xxiv]. There could scarcely be a worse opponent.



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As more knowledge emerges both about the virus (the identification of new variants, how the infection spreads or the behaviour of aerosols) and also the controls to contain it (ventilation, the most appropriate facial protection or the impact of vaccines) the actions on the regulatory 'to do' list change and lengthens.

In fact, the virus is just like any other risk. It prompts the regulator to think about how well it understands what it is dealing with and the generic topics of:

- the changing science and evidence base
- how the risk exploits individual and collective vulnerabilities
- the application of research findings to risk assessment
- the creation of guidance for duty holders including key control measures
- the implications for workplace interventions – what to do, where, when, how and with whom

These first steps are important. They give a risk scale, shape and urgency. What comes next is harder:

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- how does the regulator decide on an approach to proportionality [xxv] – balancing the response with the level of risk, especially if it is a novel one
- where does the risk sit on the broader profile of workplace harms which will not take a back seat
- what are the implications for addressing public and stakeholder expectations in explaining the risk

and critically:

- WHO should do WHAT in response

We readily talk – with varying levels of confidence – about the R number, infection rates, excess deaths, vaccination efficacy and effectiveness, channelling our inner Professor David Spiegelhalter [xxvi] or our inner Tim Harford [xxvii], [xxviii] from the radio programme 'More or Less'. It seems that we do like our experts after all [xxix].

But this brings universal challenges about whether we are becoming more risk-literate, more confused or whether risk remains a foreign language.

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Because real life is confusing.

The picture on the left is the COVID alert level from the recent winter restrictions – where 5 is the highest i.e. worst level. On the right is the commonly-seen food hygiene rating in a shop window. In this case, 5 is good. Which version of '5' do I prefer – which makes me feel better?

I am reliably informed that my bottle of kitchen bleach 'kills coronavirus' – which I have taken to mean on surface application only.

Language is important. Terms like COVID-secure, COVID-safe or zero-COVID have been used to justify different approaches or positions in relation to preferred models of risk management or regulatory oversight. None have any legal standing. The idea of zero-anything is challenging, as the Chief Medical Officer has reminded us [xxx] not least in the world of safety and not always helpful [xxxi].

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What do we make of a newspaper article saying that a vaccine is 'safe' or a car manufacturer telling us their vehicles will not be involved in a serious or fatal accident? Or a media headline suggesting we should relax restrictions more quickly? 'Too soon!' you want to cry.

We could try and go with a legally-correct suggestion: '*COVID-safe/secure so far as is reasonably practicable*'.

When we look at how regulators make sense of risk, though, we must make this tie-back to the goal-setting legal duties in existing law.

The HSW Act is precautionary. The duty to carry out a risk assessment is to make it suitable and sufficient – implicit in which is the fact it has to be dynamic and responsive as well as effective. When new facts emerge, it's time for an update. It has always surprised me that the explicit duty in regulation is so often misinterpreted.

COVID has forcibly shown us the importance of sense-making. First, in educating and informing people about how the virus behaves, spreads and harms people and, second, in charting a path to control it. It needs evidence-based clarity. It has huge consequences for whoever's job it is to protect people:

- *If organisations and experts want to be trusted they have to demonstrate trustworthiness*[xxxii]

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I lost hours of my HSE career listening to people either trash the idea of assessing risk or trivialise it by taking it to ridiculous extremes. Risk assessment should be the starting point for the conversation. It is marbled into every single decision of importance affecting our future, not least in informing the discussion on risks associated with vaccination rollout, infection figures, workplace opening and so on.

Unfortunately the arguments can be dominated by fears that risk assessment is merely a paper-driven exercise, spawning not only regulatory hyper-activity but also excessive zeal between businesses who created their own Blue version of Red tape [xxxiii], [xxxiv]. I doubt if I am alone among HSE ex-colleagues in sometimes wondering where it went wrong. I'd settle for good risk control over perfect paperwork any time.

Regular surveys of safety representatives confirm that it is a hugely important demonstration of an employer's commitment to workplace safety [xxxv] as well as deeply frustrating when they are not properly involved.

But an assessment is useless without follow-through. The sweet spot of an assessment is to specify the right risk controls.

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You cannot enter a building site without being bombarded with useful instructions about what controls are in place.

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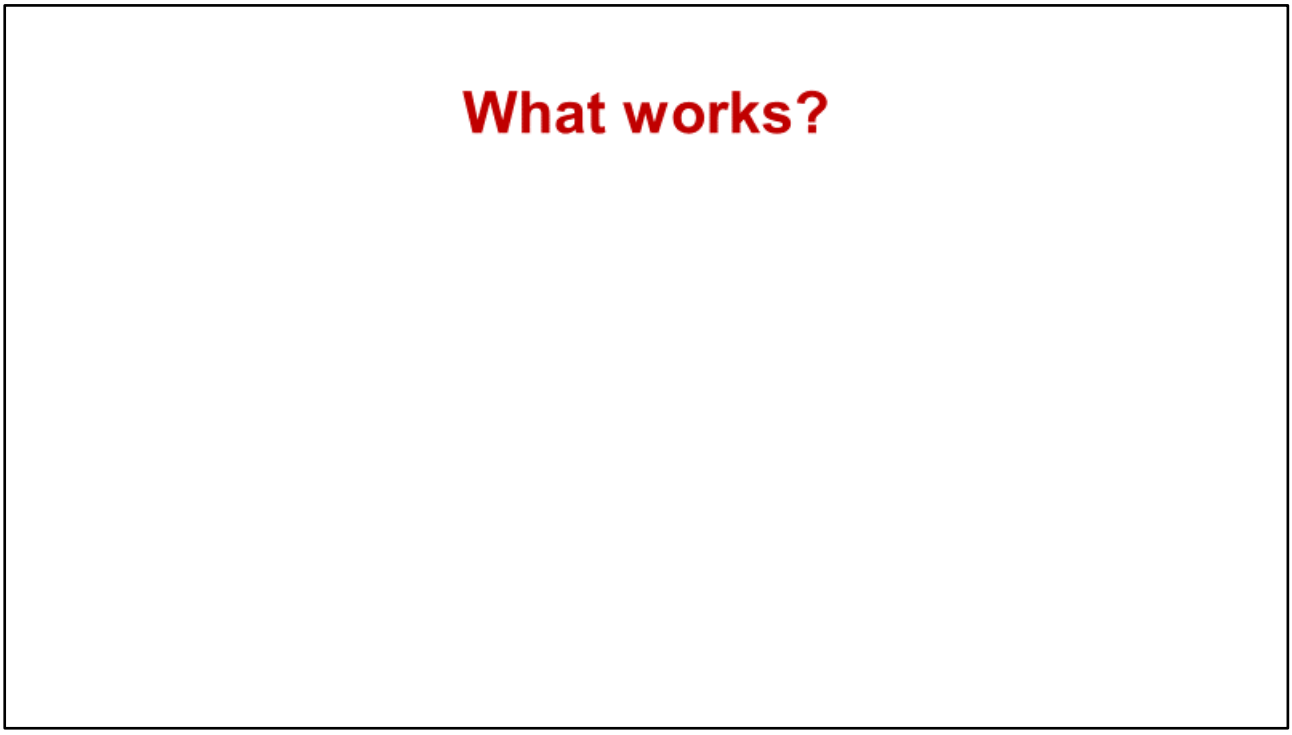
But what about this one? The slide shows a label stuck to the window of a mechanical shovel in a scrapyard. It says ‘Beware no brakes’.

This is also, given the workplace context, a risk assessment, albeit not a very good one. But it has covered some important elements. It has identified a hazard – faulty brakes - and vaguely specified a control. Whether this is an instruction – as in ‘*do not use’* – or precautionary – ‘*use carefully’* – is not

clear. It is obviously neither suitable nor sufficient. This is the empty unfulfilled promise of risk assessment laid bare.

If risk is the currency of our discussions in the workplace there needs to be a basic level of fluency. We cannot properly deal with risk in the workplace without securing effective risk competence. The updated IOSH framework for OSH professionals is a good example of what this involves [xxxvi]



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My second question is What works? My theme here is 'informed curiosity'. If we can agree on a way to begin to scale and describe risk, what follows?

Contrary to popular or populist belief, the answer is rarely '*we need new legislation'*.

The short answer about what works must surely be 'risk elimination, reduction and control' but we need to put flesh on that appealingly simple expectation.

In my HSE career I saw many different and successful initiatives across many sectors. These ranged from a full industry approach such as with paper [xxxvii] or food [xxxviii], to specific individual risk-focused improvements on reversing cameras in quarries [xxxix] and the elimination of unsafe practices in the steel erection industry through widespread adoption of MEWPs [xl]. I also remember a time when nobody wore a high-visibility jacket or waistcoat and helmets were a rarity on construction sites. It is easy to forget how much transformation in performance there has actually been in recent years. And how it has been accomplished.

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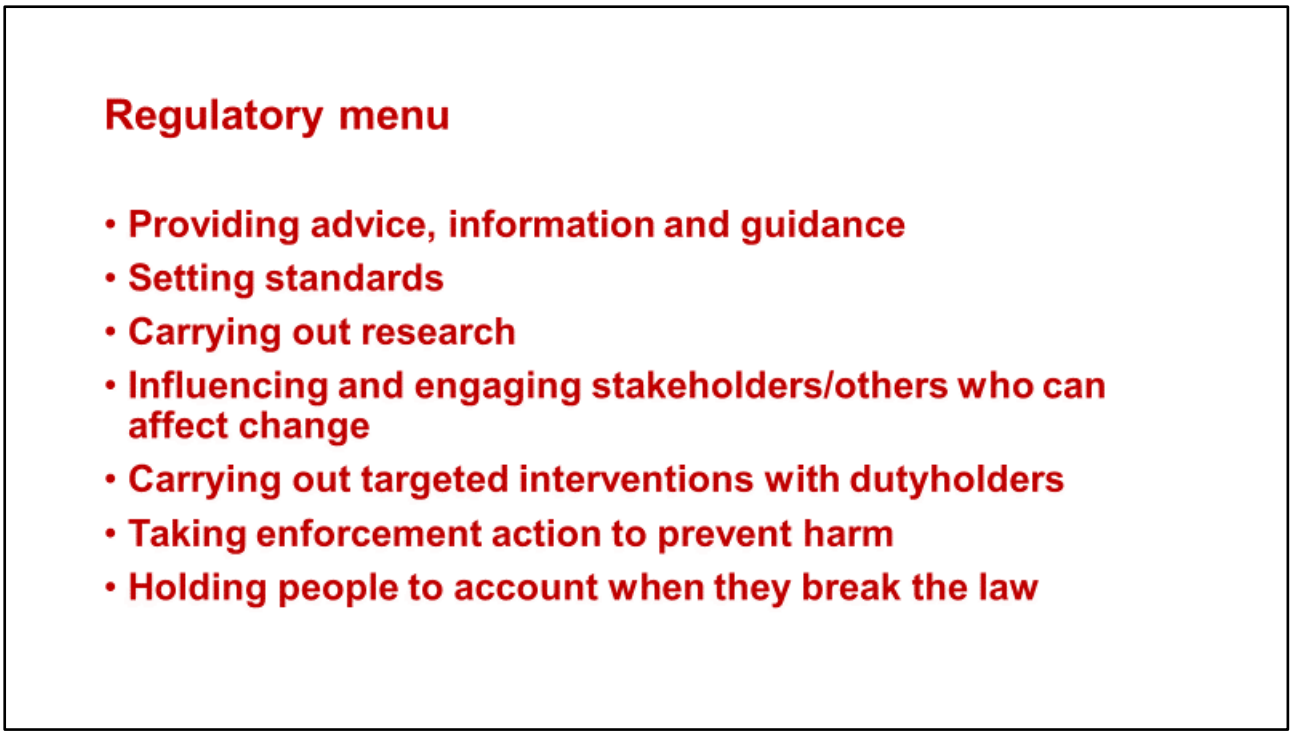
This picture may turn out to be a defining image of the pandemic. But what is the blue thing? Is it a face mask, a face covering, a medical device or a piece of respiratory protective equipment? Who should wear it? When? Will this become a routine personal precaution in future and will we wonder, in years to come, how we lived without it? Will a face mask become the respiratory equivalent of a bike helmet or a car seat belt? Will we become social pariahs if we don't wear one?

The answers matter if you are a regulator. The terms all have regulatory definitions which determine levels of protection, standards of manufacture and conditions of use.

Regulators have to respect their boundaries because they are set up with a mandate to do specific things, normally enshrined in statute from which there is no easy escape. Their powers are aligned with the mandate and also their funding. Their performance is assessed on it and their reputation relies on delivering it. Questions of governance and accountability can often be simply and unambiguously put – *this is what you are funded to do. Do it*.

There is nearly always a discretionary element – where the regulator can choose where to allocate scarce resource to areas where it will have greatest impact.



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It will include some or all of the following activities:

- providing advice, information and guidance
- setting standards
- carrying out research
- Influencing and engaging stakeholders and others who can affect change
- carrying out targeted interventions with duty holders
- taking enforcement action to prevent harm
- holding people to account when they break the law

This spectrum can also significantly re-shape the way regulators describe their work. While researching this lecture I saw an advertisement for the post of Chief Constable in Greater Manchester. It mentioned the words ‘service’ twice, ‘safe’ twice and ‘partnership’ three times. There was no mention of crime or any term reflective of wrongdoing.

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Prof Malcolm Sparrow talks about regulatory tools as part of regulatory craft – knowing precisely what task needs to be done and then selecting the right tool to do it. 'Regulation' becomes an all-inclusive term referring to any activity the regulator deploys.

Choice is therefore important in deciding which intervention will achieve the best (risk reducing) outcome with the added caveat that it has to be affordable.

With some specific exceptions (such as the functions of a competent authority under COMAH [xli]) the HSWA simply empowers the regulator to make choices – and to explain in public how they are arrived at.

The last time government took a hard look at the role of regulation was in 2016 in the Regulatory Futures report [xlii]. It concluded that regulators should concentrate on outcomes, which they would each select based on their sector and domain knowledge. They would then apply different means to achieve results.

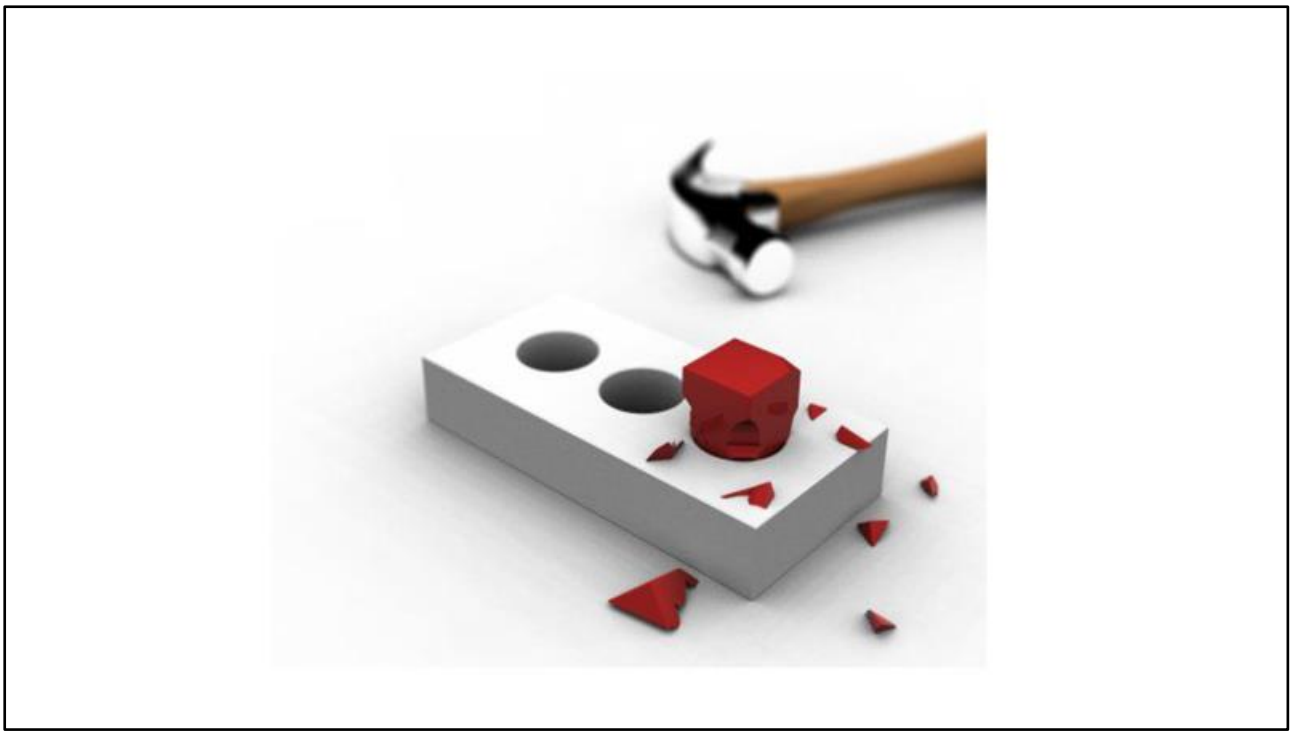
This should be fertile ground for analysis and debate about competing options and a rigorous environment in which to test the accuracy and robustness of problem definition in the pursuit of better regulatory practice. The arguments were set out as far back as the Robens Report.

But often it is more narrow. The regulator's USP is its remit to exercise the coercive power of the state. All GB regulators have to publish an enforcement policy statement explaining how they will apply that discretion [xliii].

Critics of regulatory approaches often point to the low level of prosecution activity or to the limited density and frequency of interventions as key measures of performance [xliv]. This is understandable because these actions are visible and necessary.

A prosecution exposes the example of the poor performer both as an incentive to others to do better and to reinforce when the limits of acceptable dutyholder behaviour have been breached. Public 'naming and shaming' can ensure others take note and change their behaviour to avoid a similar fate. Fines, based on the Sentencing Guidelines [xlv], can reflect the level of public disapproval and provide assurance that justice is being seen to be delivered. Visible intervention with dutyholders has a similar effect and confirms the presence of the regulator on the ground. Activity levels <u>should</u> be part of the performance picture.

It is also reasonable to ask how much risk reduction it produces compared to other approaches.



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If all you have is a hammer everything looks like a nail. The opportunity for cognitive bias (*punishing people is the best path to improvement*) is evident if there is an over-reliance on a familiar regulatory meme (*if we don't punish people we will look toothless*).

With COVID, new enforcement powers have been given to the police and to local authorities.

'*Stay at home'* was first uttered in March 2020. The term 'critical worker' has been defined and certain categories of workplace were legally required to remain shut [xlvi]. But it is unclear to me whether this can be enforced against employers who do not allow employees to work from home.

The Hansard Society keeps a running total of the number of Coronavirus-related Statutory Instruments that have been laid before Parliament (the first dates back to March 2020). As of the end of March 2021 this figure stood at 470 or 32% of all SIs in this period [xlvii]. That is an astonishing figure.

In February, the National Police Chiefs' Council reported that Police in England and Wales had issued nearly 70,000 fixed penalty notices for breaches of coronavirus restrictions up to that date [xlviii] while emphasising that they saw enforcement as a last resort after engagement, explanation and encouragement. This legislation, of course, is highly prescriptive. The data did not include information about how many of the resulting fines had also been collected.

The US workplace safety regulator OSHA has powers to serve citations for violations of safety standards (rather than as a punishment). Data published by OSHA for 2020 [xlix] shows that the agency collected $3,930,381 from 300 employers for a variety of coronavirus-related violations (the maximum for an individual violation is $13,653, but this can be multiplied 10-fold for 'wilful or repeated' cases). These figures look miserably low to me but more importantly only deal with symptoms rather than causes – a poor approach in my view.

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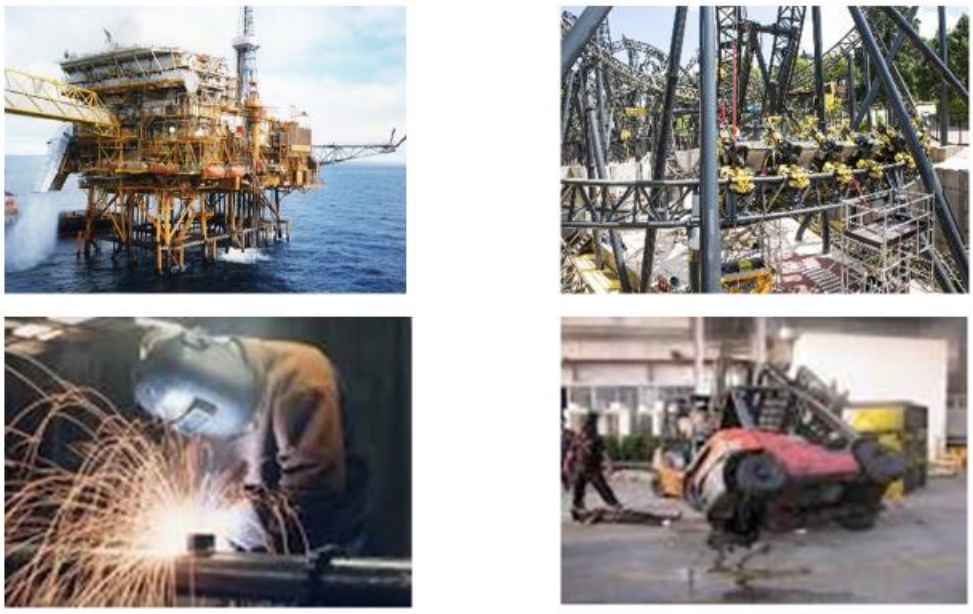
But this is also fertile territory for behavioural change advocates who question the extent to which punitive action is likely to prove effective. The behavioural scientists and proponents of 'nudge' [I] have all weighed in [li]:

- *Compliance with Government and authority in general is very much a matter of the social relationship between the public and government…The best way to police is with consent and for people to see that the police are acting for us and in our interests…*



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Consider these examples.

Natural gas goes on a journey to users from offshore installations through buried gas mains on dry land and finally into domestic appliances.

Operators of offshore installations and onshore pipelines must provide a safety case to the regulator to demonstrate that they have properly considered the major hazard scenarios that could give rise to a catastrophic incident and show they have taken effective steps to mitigate them and to protect their employees. These arrangements have been in place since the Piper Alpha fire and explosion in 1988 which killed 167 people and from experience with mains fractures leading to fires, explosions and serious casualties.

The regimes are demanding both for the operator and the regulator who exercises close supervision. But a primary purpose is to provide assurance that significant hazards are under effective operator control. The pipeline operators additionally need to abide by a formal agreement to replace cast iron mains with polyethylene pipework based on a structured risk assessment.

When gas is delivered to the domestic end-user a regime applies based on regular checking and maintenance (typically annually) of the appliances themselves is in place, producing a gas safety certificate from a registered engineer through a third party scheme (the Gas Safe Register) in agreement with HSE.

Face to face intervention forms part but by no means the whole of the regulatory package under each of these permissioning scenarios. It is the high potential hazard rather than a high level of risk which figures significantly in the choice of intervention. This is a heavy level of assurance.

But most regimes are permissive. There is no need to obtain regulatory approval or permission to operate nor to routinely provide any physical ‘proof’ of compliance. This has a big effect on the design of regulatory responses.

MILD STEEL WELDING FUME

Scientific evidence that exposure to all welding fume, including mild steel fume, could cause lung cancer and possibly kidney cancer, resulted in the reclassification of the fume as carcinogenic and the need for higher control standards.

There is no indication that the new level of risk warrants immediate prohibition for example, but neither can it be ignored. There is a need for urgency in shifting to a new set of expectations which affects the choice of approach and the mix and scale of enforcement, engagement, education and advice. You have to bring duty holders to a new level of awareness and compliance. You can’t simply drop the news on them and expect instant compliance.

This echoes some of the challenges of COVID. It also raises an interesting operational question about how long to give duty holders to reach the necessary level of competence and when to stop accepting novelty as an excuse for doing nothing.

Another common workplace hazard – the fork lift truck is really straightforward. Whether you are on a construction site, a farm, a factory, a waste recycling plant, anywhere, you need to be trained to the standards set out in the Approved Code of Practice. Simple.

FAIRGROUNDS

Whenever members of the public enter the equation the picture shifts. With fairground equipment the challenge is to allow people to be safely frightened out of their wits. Though relatively rare, fairground incidents can be fatal, often involve vulnerable groups like children and always attract close media interest exemplified by the £1m fine on a theme park in March 2020 following the death of a child [lii].

A regulatory regime based on engagement with the industry stakeholders and with ride examiners, coupled with targeted inspection of specific types of ride known to be problematic forms the backbone of the arrangement with the sector.

In each of these examples, choice about ‘what works’ has been informed and shaped by different characteristics of the risk/hazard mix and who is impacted.

Different regimes also involve different levels of face to face intervention. In those that feature licensing, visits may be commonplace such as conducted by the CQC [liii] or by ONR [liv].

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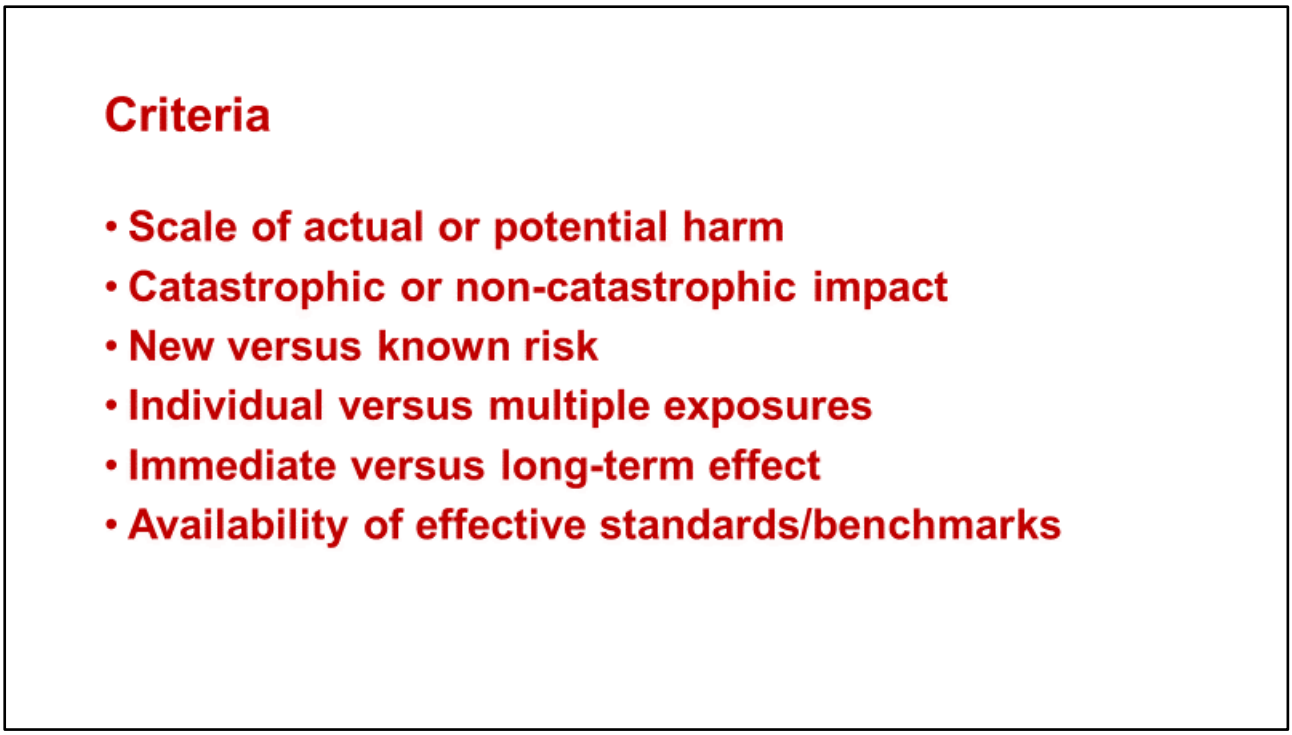
Sometimes an event completely shatters the legitimacy of the prevailing system and points to the need for a major re-boot with new regulatory architecture - a new regulator and new legislation to try and rectify the flaws introduced by previous dismantling of regulatory protection. Following her independent examination of building regulations and fire safety after the Grenfell fire, Dame Judith Hackitt concluded [lv]:

- *[There is] a cultural issue across the sector which can be described as a ‘race to the bottom’ caused either through ignorance, indifference or because the system does not facilitate good practice. There is insufficient focus on delivering the best quality building possible, in order to ensure that residents are safe and feel safe.*

More recently the new Chief Inspector of Buildings has set out unambiguously what that means in terms of translating the problem diagnosis into an assertive, enforcement focused regulatory response [lvi]. There is a real challenge here in addressing major cultural change through new legislation.

- *‘[the new system] would make it much more difficult for organisations to duck and dive, dodge and weave and use contractual arrangements to pass the buck’*



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With all of these examples, the prevailing regime reflects decisions about the regulator's assessment of risk and the proportional intervention choice based on:

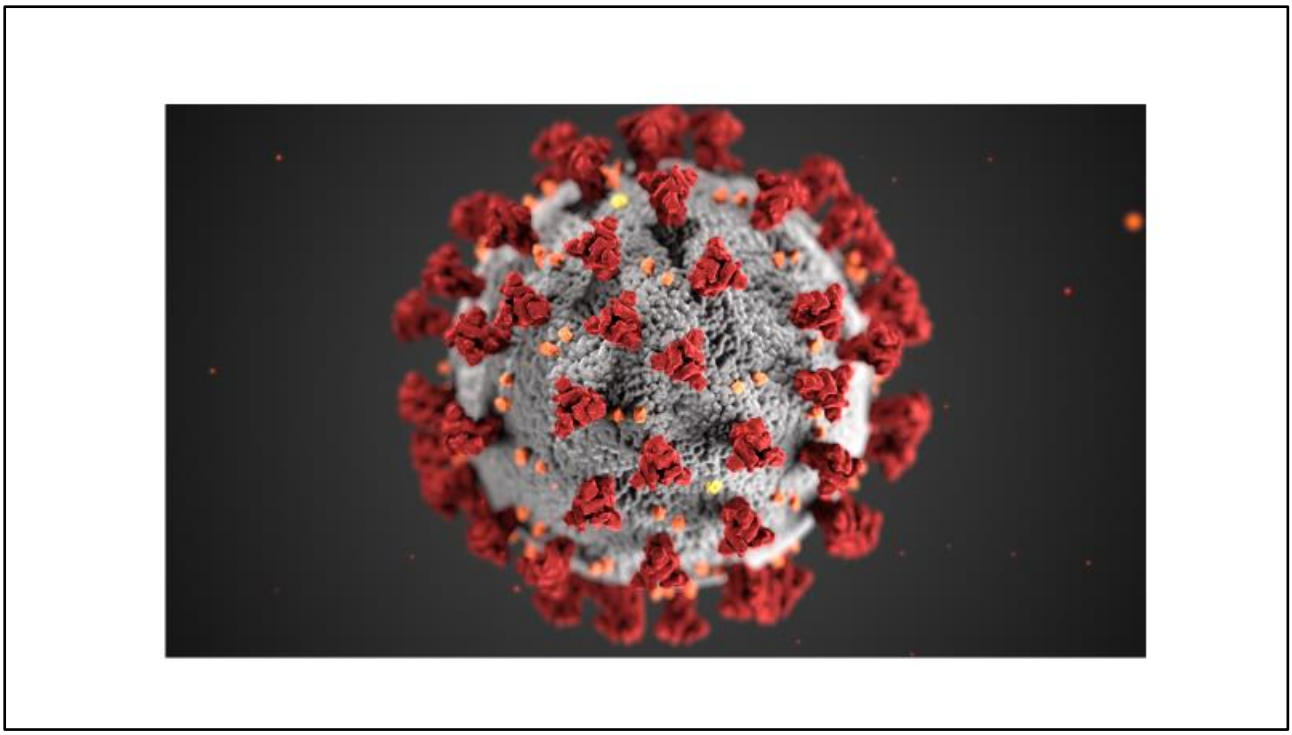
- the scale of potential harm in terms of numbers affected
- catastrophic versus non-catastrophic impact
- new versus known risk
- immediacy versus delayed effects
- individual versus multiple people exposed (and any associated vulnerabilities)
- level of supervisory oversight necessary
- focus of regulatory oversight on the risk owner

The choices, each tailored to a specific set of risks, also illustrate that while solutions may share certain characteristics, they are not endlessly flexible. Transactions are an important design parameter.

One-to-one interaction with an inspector, provides a tight, controllable and repeatable mechanism to apply consistency. When there is distance between the regulator and the dutyholder, that may not remain the case, so intermediaries become extremely important – and potentially vulnerable - parts of the system.

But with 5 million workplaces from which to choose, a one-to-one philosophy is as pointless as it is ill-conceived.

And while the regulator can play a significant role in shaping how the overall health and safety system performs, others have to play their part too. There are multiple important players: employers, trade associations, trade unions, health and safety professionals and many others. The regulators themselves are far too small to do all the heavy lifting on their own.



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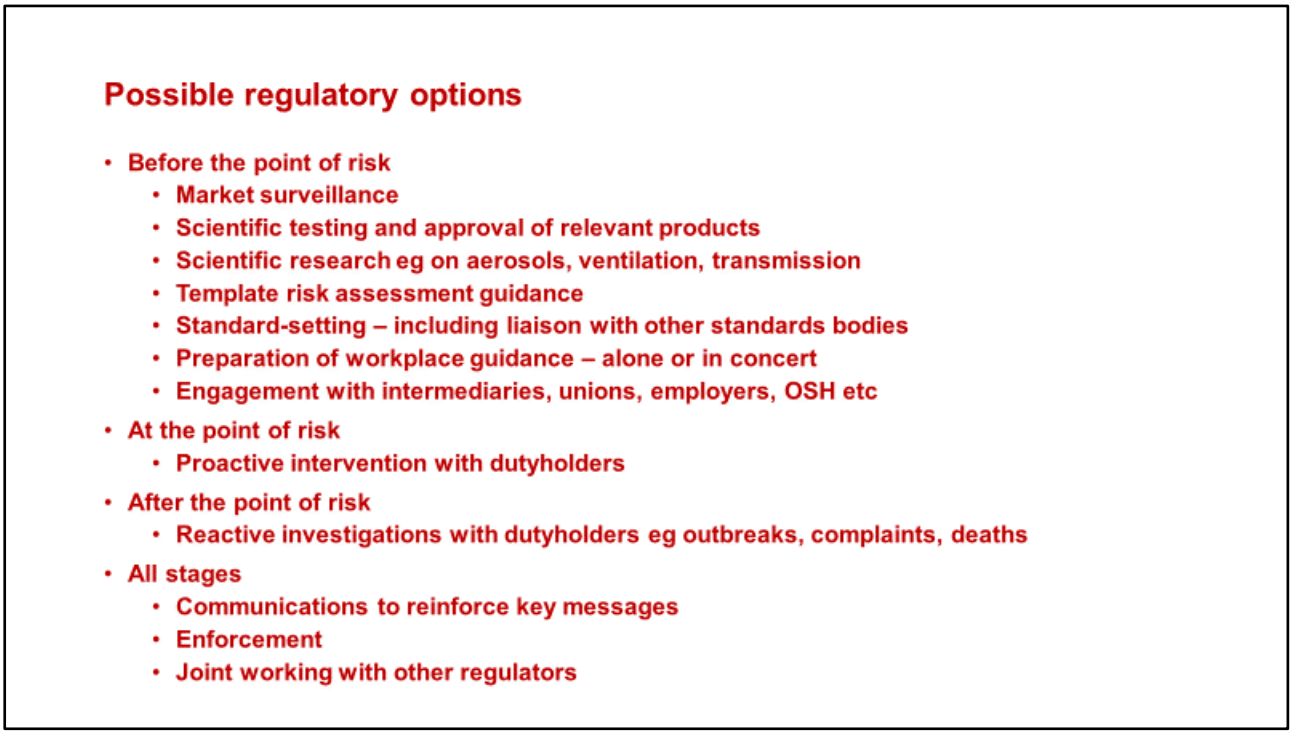
Applying this thinking to COVID there are opportunities to act unilaterally or in collaboration at different points in the risk 'cycle'. The sooner the intervention, the greater the prospects for successful removal of risk.



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HSE has published general material on this [lvii]. Based on published information [lviii] the scope of current activity is wide. The first thing to note is how much risk-reducing activity can be addressed before risk materialises where you can develop tactics to assist those duty holders who will instinctively want to do the right thing.

The list makes clear another point: you can seldom simply inspect your way through or out of a risk.

Before the point of risk exposure

- Market surveillance eg of PPE
- Scientific testing and approval of hand sanitisers
- Scientific research eg on aerosols, ventilation, transmission
- Template risk assessment guidance
- Standard-setting or standard creation for new risks
- Preparation of workplace control guidance
- Engagement with intermediaries, unions, employers, OSH professionals etc

At the point of risk exposure

- Proactive interventions with duty holders to gauge performance

After the point of risk exposure

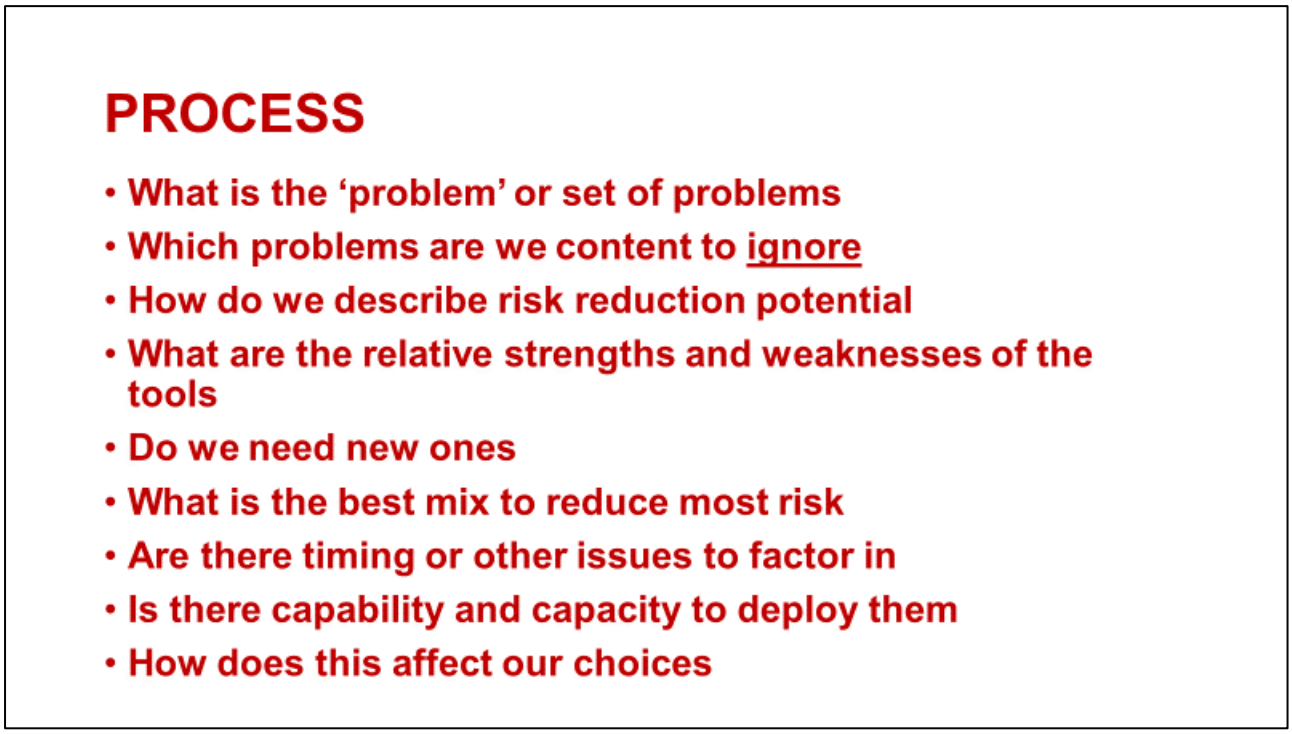
- Reactive interventions to investigate failure eg outbreaks, complaints, ill-health cases, deaths

All stages

- Enforcement including prosecution
- Communications to reinforce key messages
- Joint working with other regulators

This range of possibilities raises important tactical questions. You would expect a smart regulator to want to maximise front-end activity to head problems off but to be very mindful of the need to back this up with targeted face to face interactions where high or higher risks might be present or have been realised.

We could address the options through reverse engineering - 'what can I use this tool for?' But in keeping with my overall theme, how do we come at it from the front? This is what we are actually trying to do:



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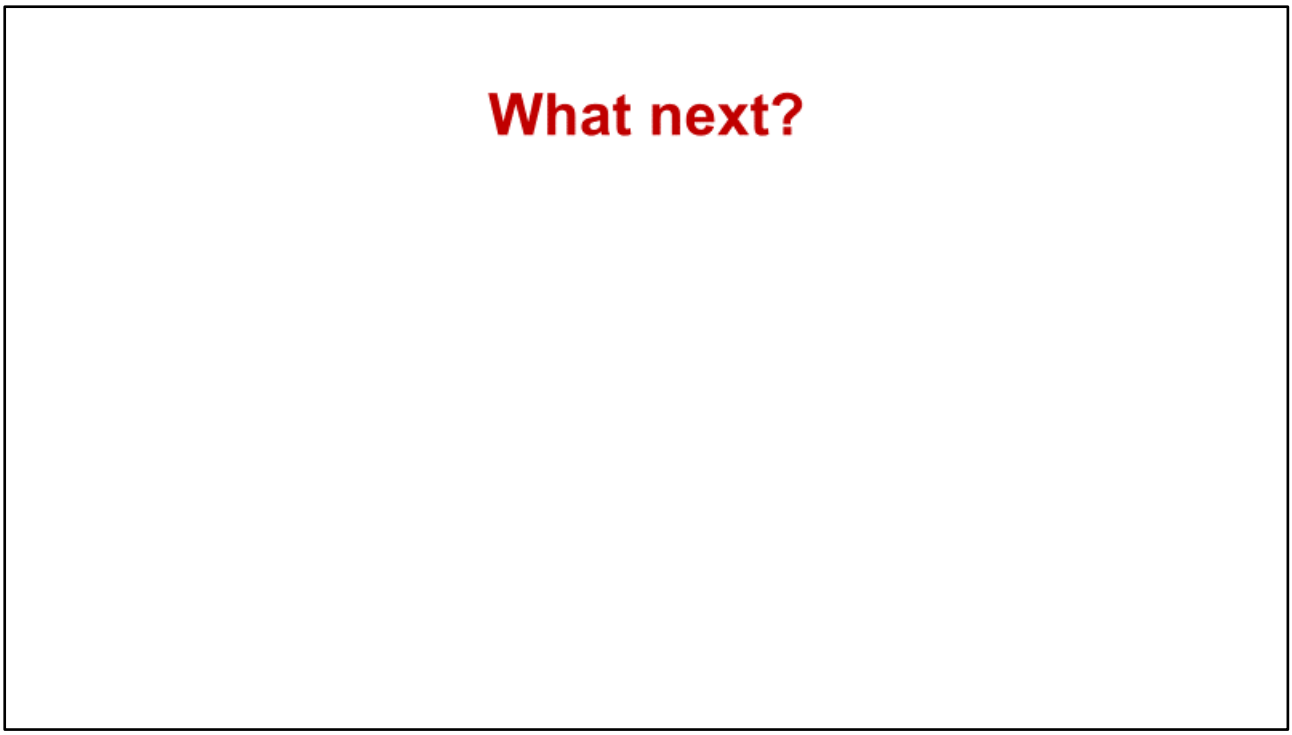
- What is the ‘problem’ or set of problems we want to address
- Which problems are we content to ignore
- How do we define problems in terms of risk reduction – what will happen if we do this?
- What are the strengths and weaknesses of the tools in the box
- Do we need new ones – if only we could…
- What happens when they are used in concert – do we get appreciably more risk reduction
- What is the best mix at any given time to reduce most risk
- Is there capability and capacity to make best use of the available choices
- If not, how does this affect our choices

Slide 26

This conjures an image to me not of a hammer but of a music engineer’s desk with different activities faded up or down depending on where they are needed and in what mix at different points in time to create a blended result. Nothing is ruled out but the balance is crucial.

A mix of skills and knowledge is needed to deliver different routes to regulatory effectiveness. To coin a phrase, this menu needs different chefs if it is to work. Regulators need good design teams and analysts as well as good scientists, inspectors and policy makers.

And that inevitably raises questions about how to secure the necessary resources to do the work.



Slide 27

My final theme is focused operational research

If the regulator successfully aligns risk with a tailored and proportionate regulatory response, what comes next? Is the job done? How do we get ready for the next set of workplace risk challenges while eliminating or suppressing the ones we already know about? What transferable knowledge is there? What risks will require completely new solutions?

That leads to my third question: what research does the regulator need to be doing to maintain capabilities and to develop new ones?

Good regulation is not static and does not come free or cheap. The more successful the regulator becomes in removing workplace risk, the less visible the wins, the more likely that the work is unappreciated and the greater the existential threat. It just gets harder. Where do you look?

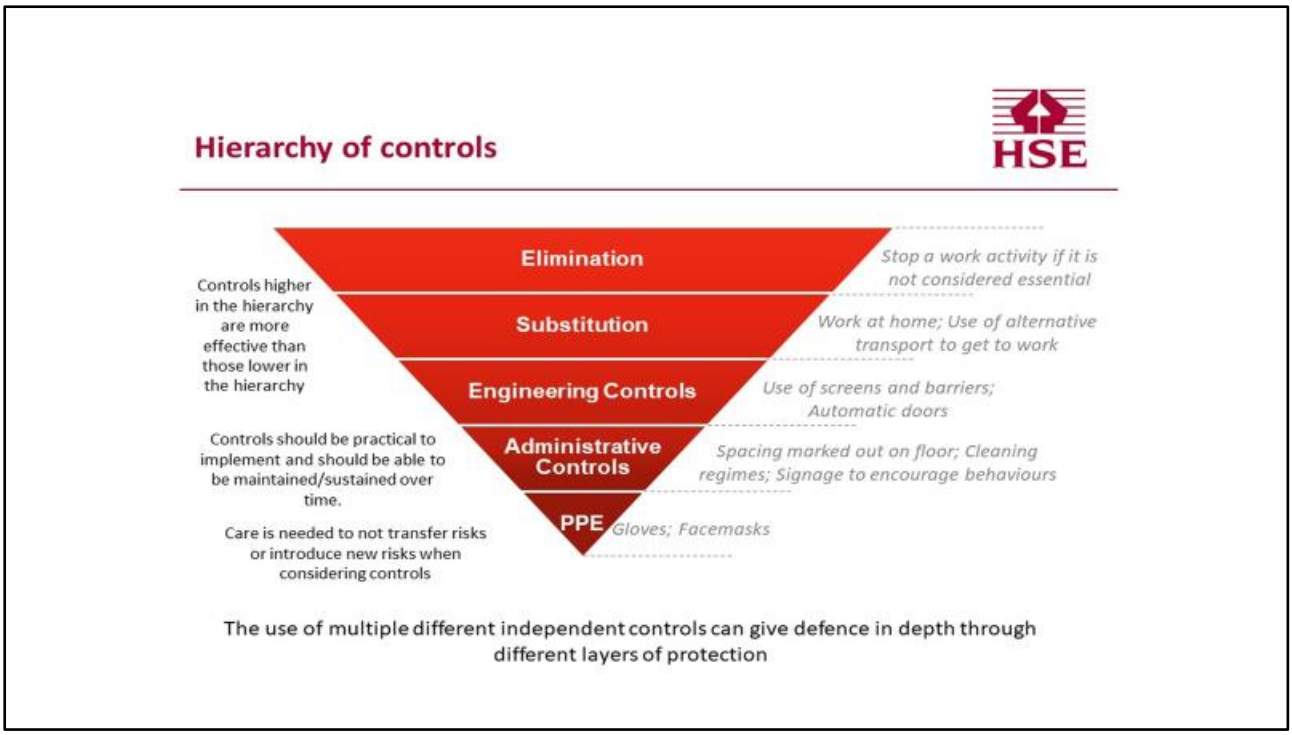
Slide 28

It's obvious that you need to think hard to make sure you know what effect you are having. How do you know if you are hitting the right targets or just firing arrows randomly at a problem? Being busy rather than being effective?

This is not just about making good choices. It is also about recycling and learning from experience to better specify what success looks like and how to develop better interventions.

And that is where it can get very messy indeed, because it is easier to count things than tell compelling stories about what positive good has been achieved. That's not necessarily the regulator's fault. They are routinely held to account for doing 'stuff'.

When my son was young and I picked him up from school I'd ask him what he'd done that day. Invariably, the response was a single all-purpose word: 'stuff'. The volume of 'stuff' was a very poor proxy for his burgeoning knowledge and curiosity. Likewise for a regulator, 'stuff' is a much less compelling response than 'here's how we changed the world of work for the better'.



Slide 29

How easily can regulators tell the stories that show what they achieved in reducing risks? The language already exists in part in the control hierarchy.

COVID has shone a bright light on the continuing importance of this hierarchy. This was relevant in pre-pandemic times so it should not be a surprise. The basic framework already existed to manage risk in the workplace [lix]. Words like 'eliminate, substitute, reduce, control' are all powerful. We might also add 'leave alone".

Research areas

- **New and emerging risks in the workplace**
- **Patterns of exposure to different risks and associated vulnerabilities**
- **Economic/social landscape and the changing world of work**
- **Positive and negative experiences in risk suppression**
- **Innovative ideas about measuring impact**
- **Risk communication and risk literacy**
- **Behavioural interventions**
- **How other parts of the OSH protection system are functioning**
- **Regulatory 'craft'**
- **Regulatory design frameworks**

Slide 30

As for where to go looking for problems, I'd offer these – with apologies for the length of the list:

- New and emerging risks in the workplace

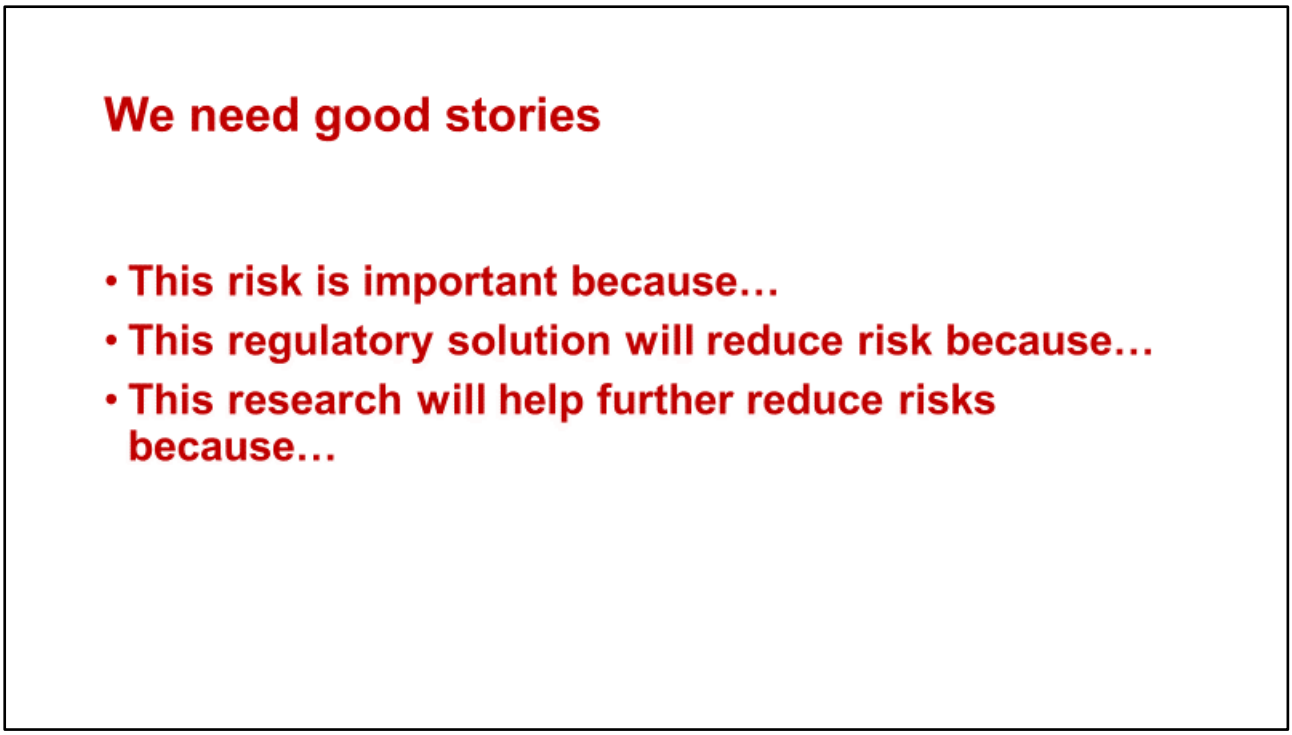
- Patterns of exposure to different risks and associated vulnerabilities
- The wider economic and social landscape and the changing world of work
- Positive and negative experiences in risk suppression
- Regulatory 'craft'
- Innovative ideas about measuring performance
- How other parts of the OSH protection system are functioning
- Regulatory design frameworks

This might conceivably expose gaps or examples of problems that cannot be addressed by a single regulator. But if the risks are messy we cannot expect the corresponding response to be easy.

The obvious example in the OSH field is the overlap with labour protection [lx] and with public health. We have seen how coronavirus impacts on different groups to amplify pre-existing inequalities and the extensive media coverage of poor conditions in certain types of workplaces where employees have not been able to self-isolate or are unable to forego loss of wages if they are too frightened to come to work. There have been positive wider moves on improving workers' rights such as the decision on PPE provision to workers [lxi] and the Uber decision [lxii].

Slide 31

Welcome back to my initial challenge to look at how the jigsaw pieces intersect.



Slide 32

At some point the COVID risk will presumably 'stabilise'. I was impressed to see a recent BBC website article explaining precautions in terms of the Swiss Cheese model [lxiii] - a well-known process safety technique getting mainstream attention.

So - is work getting safer?

The chances of seeing improvements must surely be better, though, if regulators can confidently select, mix and apply all the available tools to give persuasive and compelling accounts of their successes (and failures!).

The regulator who can pull that off is in a more powerful position both to describe and to demonstrate their value – and to win resources to do what they think is needed [lxiv]. So, in the slimmed-down version of this lecture, can they can complete the following sentences:

- This **risk** is important because…
- This **regulatory** solution will reduce risk because…
- This **research** will help further reduce risks because…

Implicit in everything I have covered is the importance of developing and sustaining a proper sense both of curiosity and of proportionality in devising effective ways to make work safer and healthier. I have argued that this means regulators have not only to use all the tools in the box but to constantly assess whether or not they are working as intended and to adjust the mix accordingly.

Slide 33

This year is the 20th birthday of the publication of HSE's seminal document called R2P2 [lxv] –not to be confused with the Star Wars robot R2D2. Considered to be ground-breaking at the time the conversation about risk has nonetheless developed significantly in the intervening years.

It would be a shame if our experience did not improve our collective ability to frame, shape and improve our understanding and control of work-related risk.

Final insights

- **Focus on the outcomes: reduce significant risk/harm**
- **Properly define the problem**
- **Exercise choice carefully**
- **Maintain the USP**
- **Tell compelling stories**
- **The basics - risk assessment and risk control**
- **Stay on top of the evidence**
- **Regulatory activity is dynamic**

Slide 34

Based on observing the experience so far, for me the insights would be:

- Stay focused on the outcome – reduce risk
- Properly and exhaustively define the problem – for and against doing something

- Exercise choice carefully – especially the activities only regulators can perform
- Focus on risk assessment and risk control
- Tell compelling stories
- Stay on top of the evidence
- Regulatory activity is dynamic

Slide 35

For many years I started many talks with this quote by Professor Malcolm Sparrow from his book '*The Regulatory Craft*'. Today I am finishing with it. I hope it is obvious why:

Regulators should pick important problems and fix them. As for unimportant problems they should leave them alone.

Several ex-colleagues offered helpful comments on earlier drafts of this lecture. They are absolved of any responsibility for what I have said in this version.

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