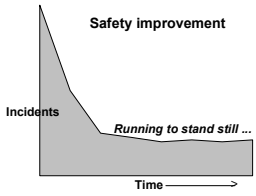
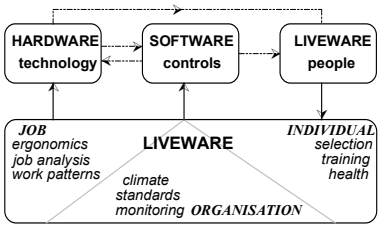
HUMAN FACTORS IN SAFETY AND QUALITY

Running hard to stand still

When an industry or organisation is in its pioneering phase, dramatic safety improvements can be achieved by technology advance, or regulation. But a law of diminishing returns sets in. Organisations find themselves running hard to stand still. Safety programmes, incentive schemes, training blitzes, unsafe act audits, may all have a temporary effect, but lasting improvement is harder to achieve. The unsafe factors inherent in any organisation reduce or negate the long-term impact.



The sharp end or the blunt end?



Most research has aimed at the 'sharp end' of human factors - at ergonomics or at individual stress. Analysis of major disasters such as TMI-2, Bhopal, Challenger, Chernobyl, Zeebrugge, and King's Cross, suggests that their *roots* did not lie in the actions of people at the 'sharp end', but in the fallible decisions of high-level decision-makers, managers, and designers. Accidents are not *directly* controllable. Organisations can only defend against hazards, they cannot remove them. They can try to reduce unsafe acts, but they cannot eliminate the basic human inclination to commit errors.

Control the controllable

Rather than try to control LTIs, and accidents, organisations should focus on the *controllable* factors which cause systems to fail - such as incompatible goals, error-enforcing conditions, inadequate information, design defects, unclear accountability, lack of competence, inadequate defences, or poor work control procedures.

There are no 'Quick-fix' solutions. Some people bring in consultants to write management systems and procedures. 'Workforce involvement' may mean simply posters, publications, and presentations, exhorting people to follow systems and procedures they do not own. Managers look in vain for new tools to help overcome apparent blockages. But what is needed a new paradigm. The blunt end needs first attention.

"Safety starts with the unfailing commitment of the most senior management." [Lord Cullen]

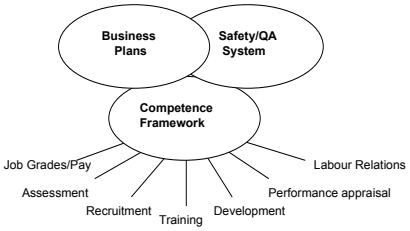
Many of the things described as 'organisational influences' are actually about competent management. Companies often assess competence only of people at the 'sharp end'. Management systems need competent managers. Start to tackle general failure types by reviewing the competence with which you expect managers to:

- *set business and safety objectives and priorities*
- *identify hazards and assess risks*
- *involve people in safety and quality*
- *assess the competence of staff (including contract staff)*
- *clarify accountabilities*
- *use control information and performance indicators*
- *manage safety and quality information*
- *manage client/contractor interfaces*

"Here, the people who spend the most time learning about quality are at the local level. They get the 5-day course on statistical process control. Their bosses get the 3-day course, and the CEO gets the 2-hour briefing. In Japan, by contrast, it is exactly the opposite. This is very significant symbolically. The leaders are the learners."

[Peter Senge]

Review your personnel systems



Personnel systems have a powerful influence on general failure types. But they are seldom planned in an integrated way to generate a safety culture.

Use a competence framework, based on business plans and the management system, to integrate your people processes, so that they support continuous improvement. Review *all* your people systems. Remember that agency staff and contractors are people too, and form part of your overall people system. Contrary to popular belief, directors and managers are *also* human!

It's only a start. Organisations constantly change, even in 'steady state'. They need to learn continuously about the changes going on within and around them. Most real safety and quality improvements can't be bought.

Real improvements must be learned, and learning starts at the top of the organisation.