by Professor Sidney Dekker

I was reviewing data from a site in Western Australia recently, and found, as you would expect, a correlation between levels of production and safety. Most people would think that the correlation would be negative. This has become all but the canon in the human factors and safety literature. It is about production versus protection.

You cannot have high levels of one and of the other: one is always the sacrifice of the other. If production is higher, safety is lower, and vice versa. The data from the site in Western Australia showed me something different, however. The correlation was not negative. On the contrary. As production was ramped up, safety figures improved! The more they produced, the safer they became. It suggested to me that the relationship between these two is at least a bit more complex than a simple opposition.

It probably also has implications for the connection between safety and cost. As I dug deeper, I found, not surprisingly, that the site had invested more as production went up. Producing more costs more, of course. Even as it generates more revenue. But safety does not have to be the casualty: it can in fact get lifted on the tide of such rising investment as well. You might get better technologies, a renewed focus on training, new equipment.

As cost pressure mounts, controllers may be asked to do more with less. Fewer manned sectors, same number of airplanes, for example. In other words, production pressure goes up. And is safety the casualty then? Intu-
Production and safety are not opposites. Higher workloads, more fatigue, more to keep remember. There is, however, something really interesting about many of the people on the front-line of safety-critical organisations. The characteristics that make them suitable for the job in the first place – their willingness to show self-confidence in taking decisions, even under uncertainty and incomplete information, a mastery and control of complex and changing situations, a decisiveness – these are all characteristics that make them willing and able to absorb and accommodate higher production pressures as a “normal” part of their operating culture. This may give operational and other managers the impression that cost pressures and production pressures get absorbed smoothly and unproblematically. The cost, in terms of higher workload, in terms of fatigue, in terms the longer time required to come down from the high of pushing tin, and pushing more tin, might be all but invisible to them. Smoothly accommodating production pressures, design problems, equipment malfunctions, cost cuts – this is what professionals do. It is in part what it means to be a professional.

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