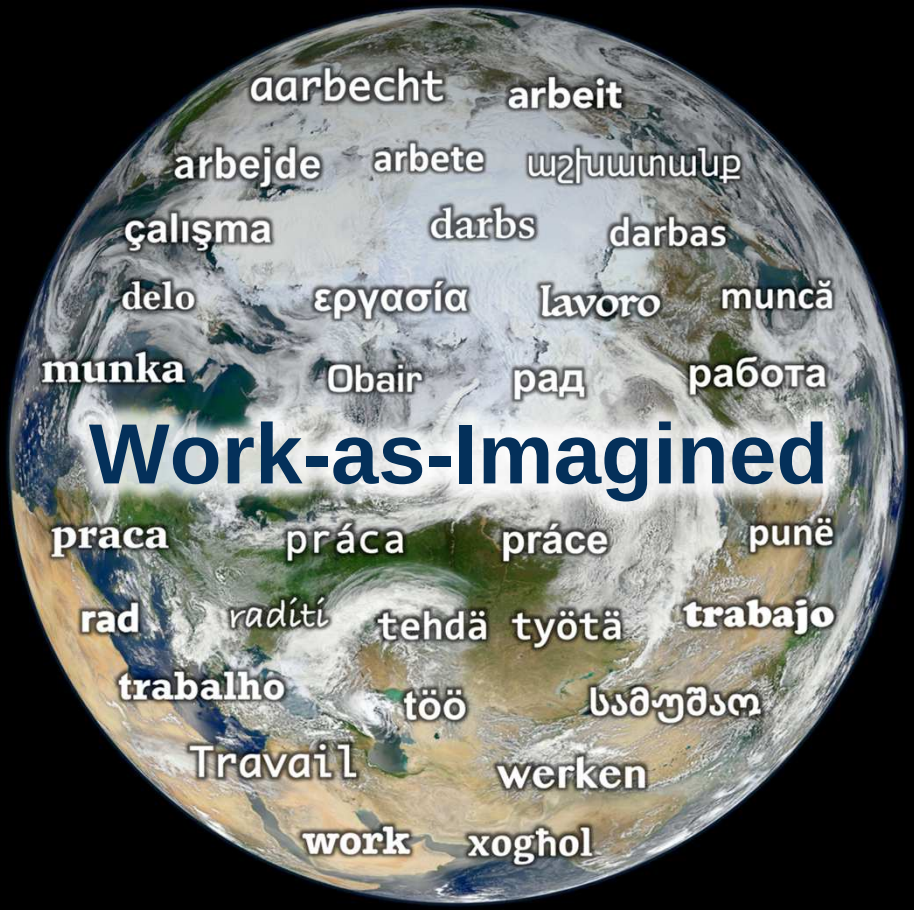
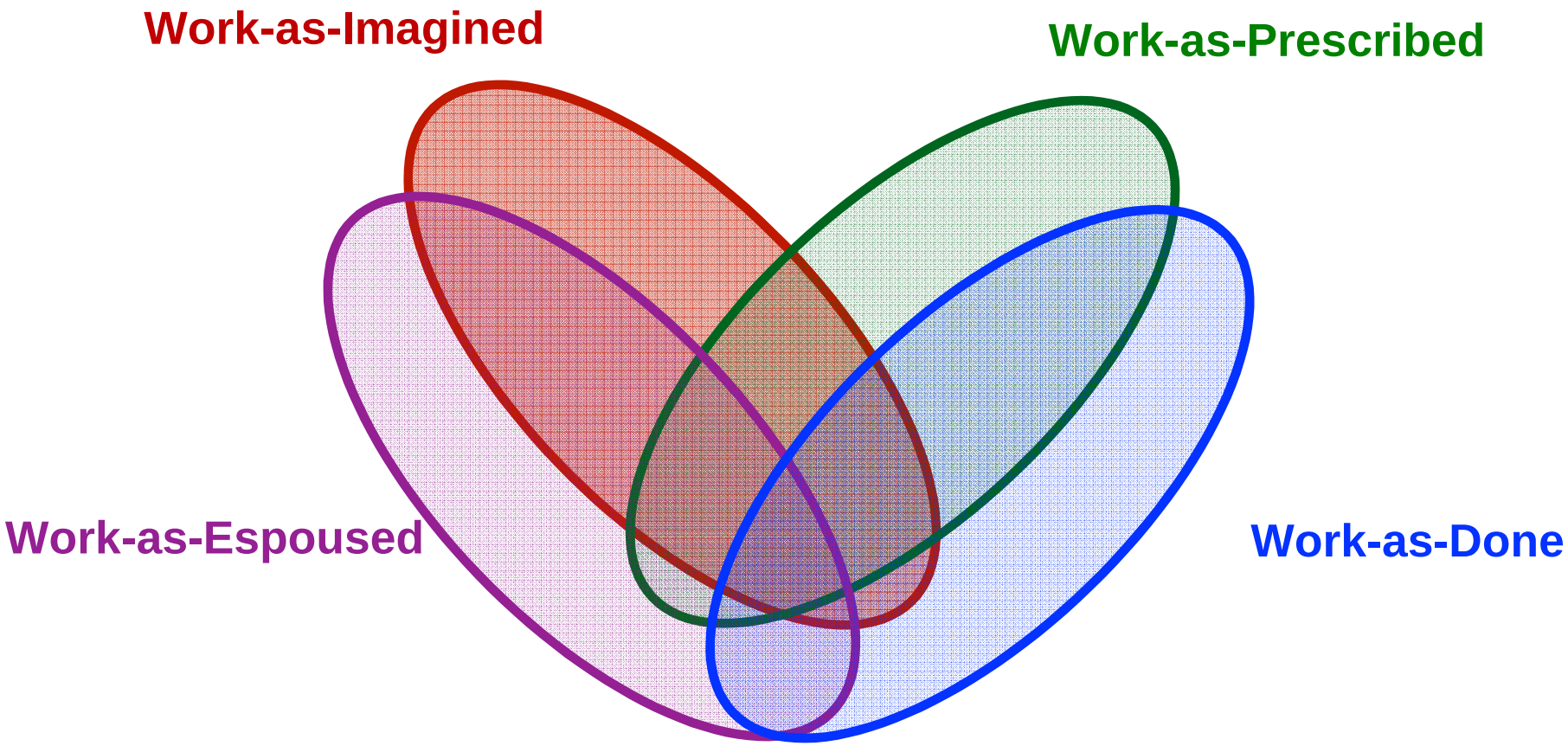
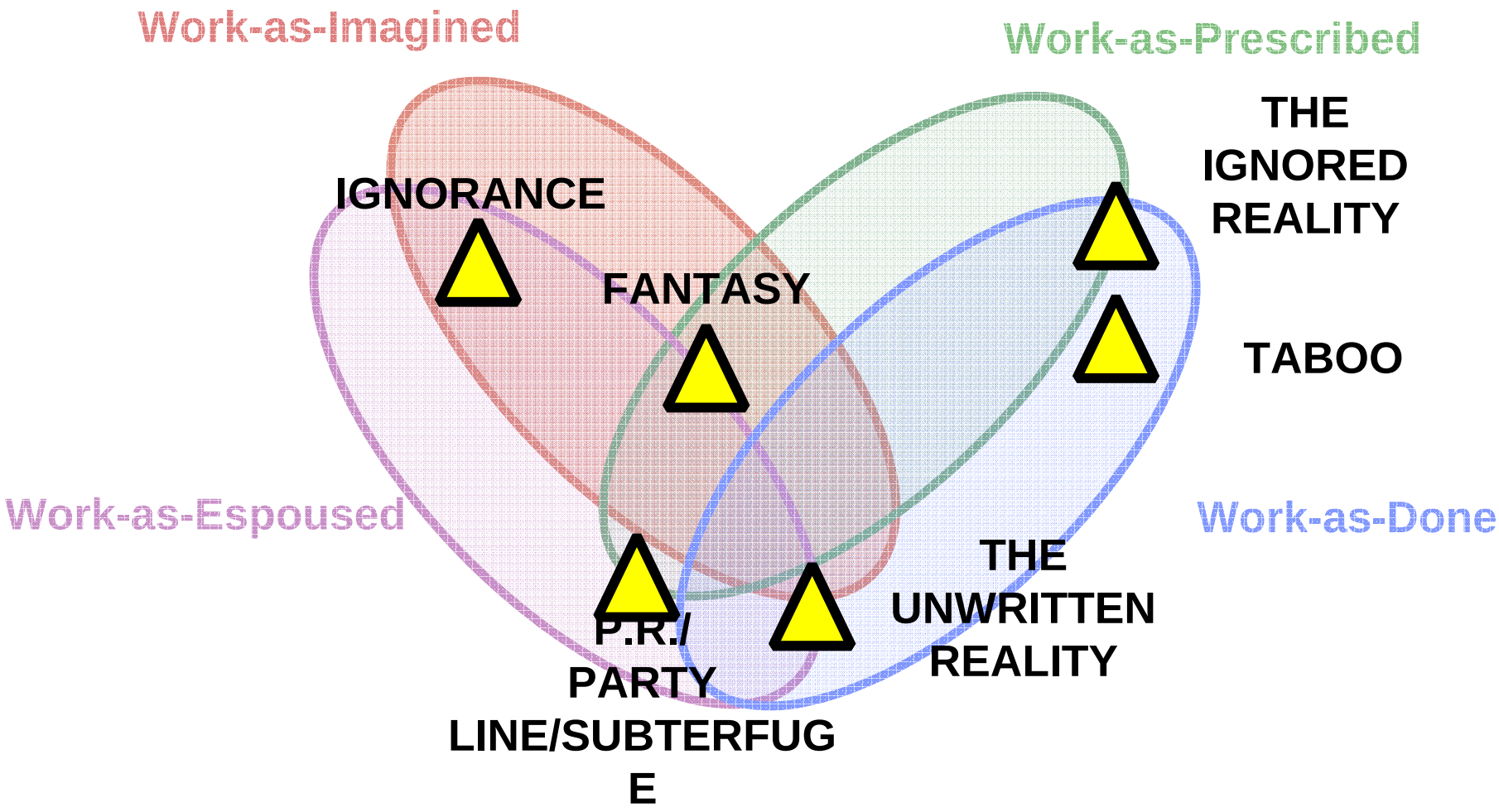
Work-as-Imagined, Work-as-Done & Just Culture

Just culture across industries: Learning from each other




Work-as-Imagined
Work-as-Prescribed
Work-as-Espoused
Work-as-Done


Work-as-Imagined
Work-as-Prescribed
THE IGNORED REALITY
IGNORANCE
FANTASY
TABOO
Work-as-Espoused
Work-as-Done
THE UNWRITTEN REALITY
P.R./ PARTY LINE/SUBTERFUGE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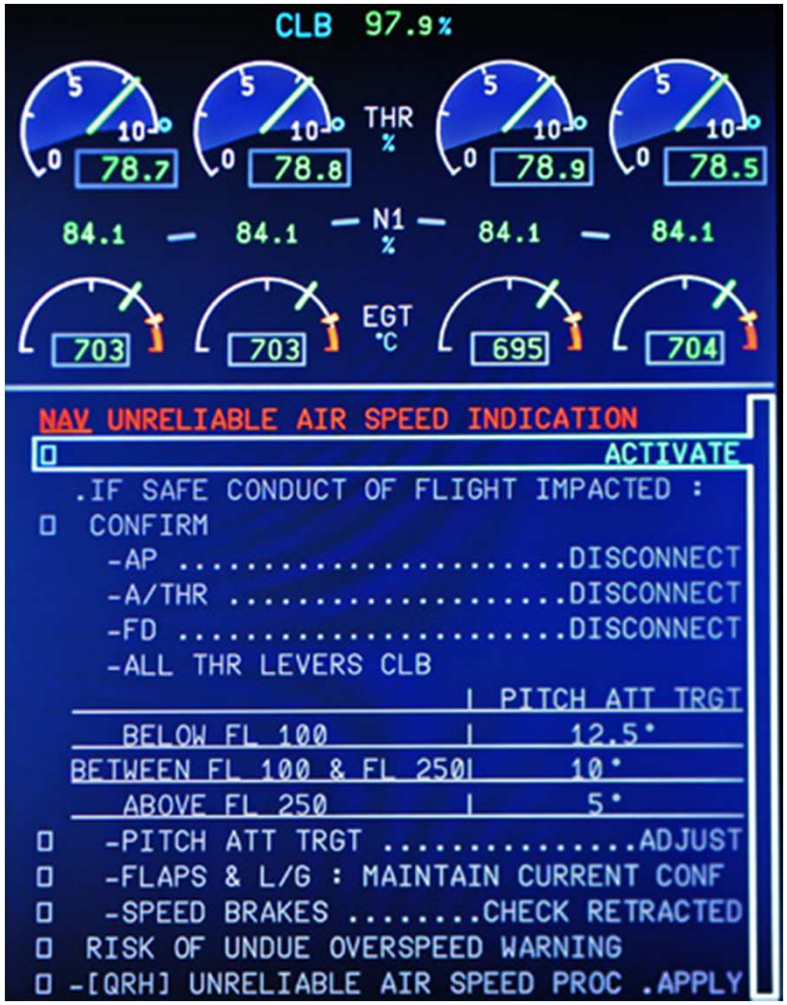
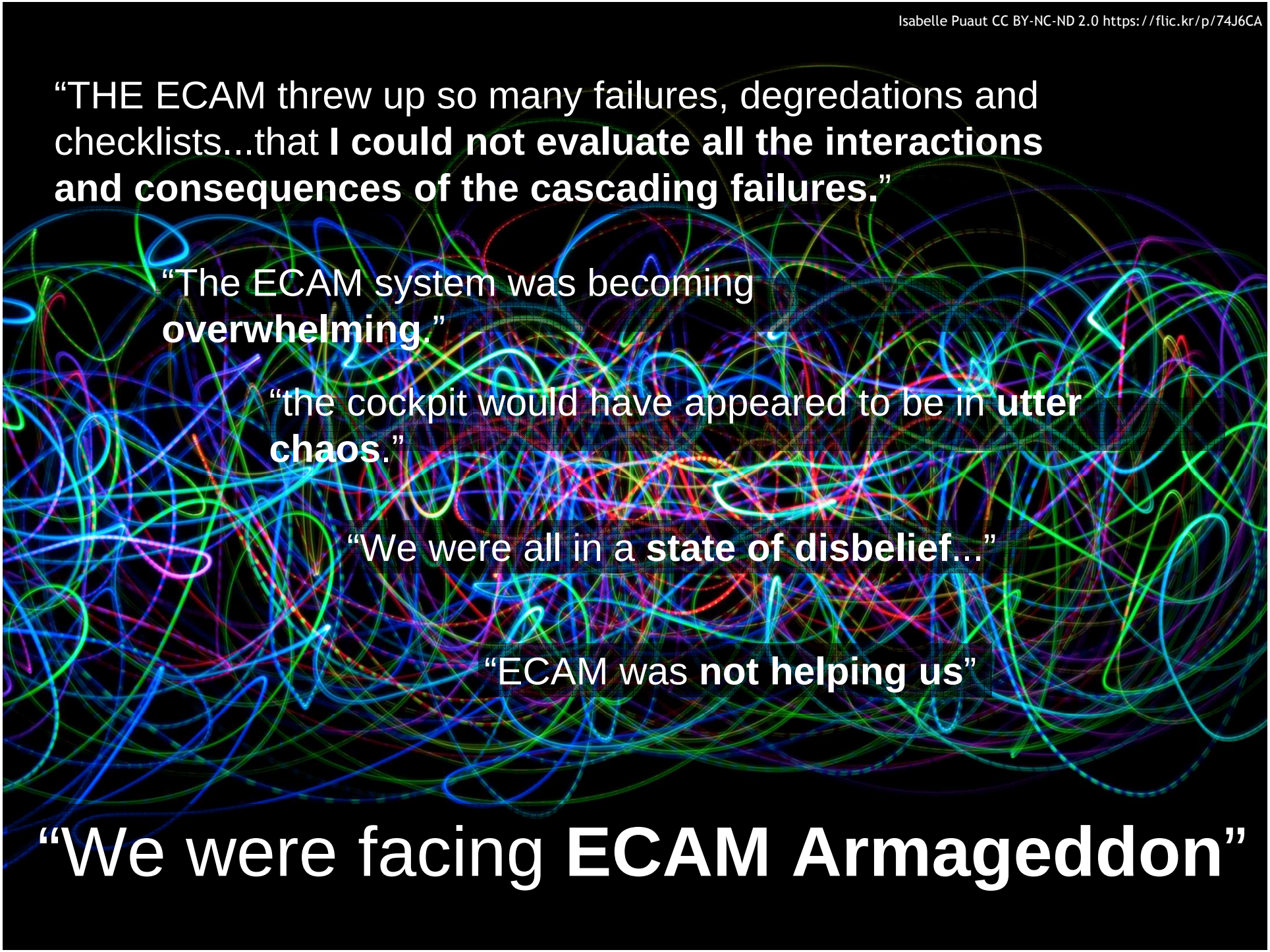
Procedures & Computers
QANTAS
Spirit of Australia
Nancy-Bird Walton
http://bit.ly/hstoads

Electronic Centralised Aircraft Monitor (ECAM)



Richard de Crespigny http://bit.ly/QF32ECAM With kind permission



"THE ECAM threw up so many failures, degredations and checklists...that **I could not evaluate all the interactions and consequences of the cascading failures.**"

"The ECAM system was becoming **overwhelming**."

"the cockpit would have appeared to be in **utter chaos**."

"We were all in a **state of disbelief**..."

"ECAM was **not helping us**"

"We were facing **ECAM Armageddon**"

"Clearly the **ECAM was not programmed to cater for this many concurrent failures**...It didn't make sense…**I started to have doubts** about ECAM."

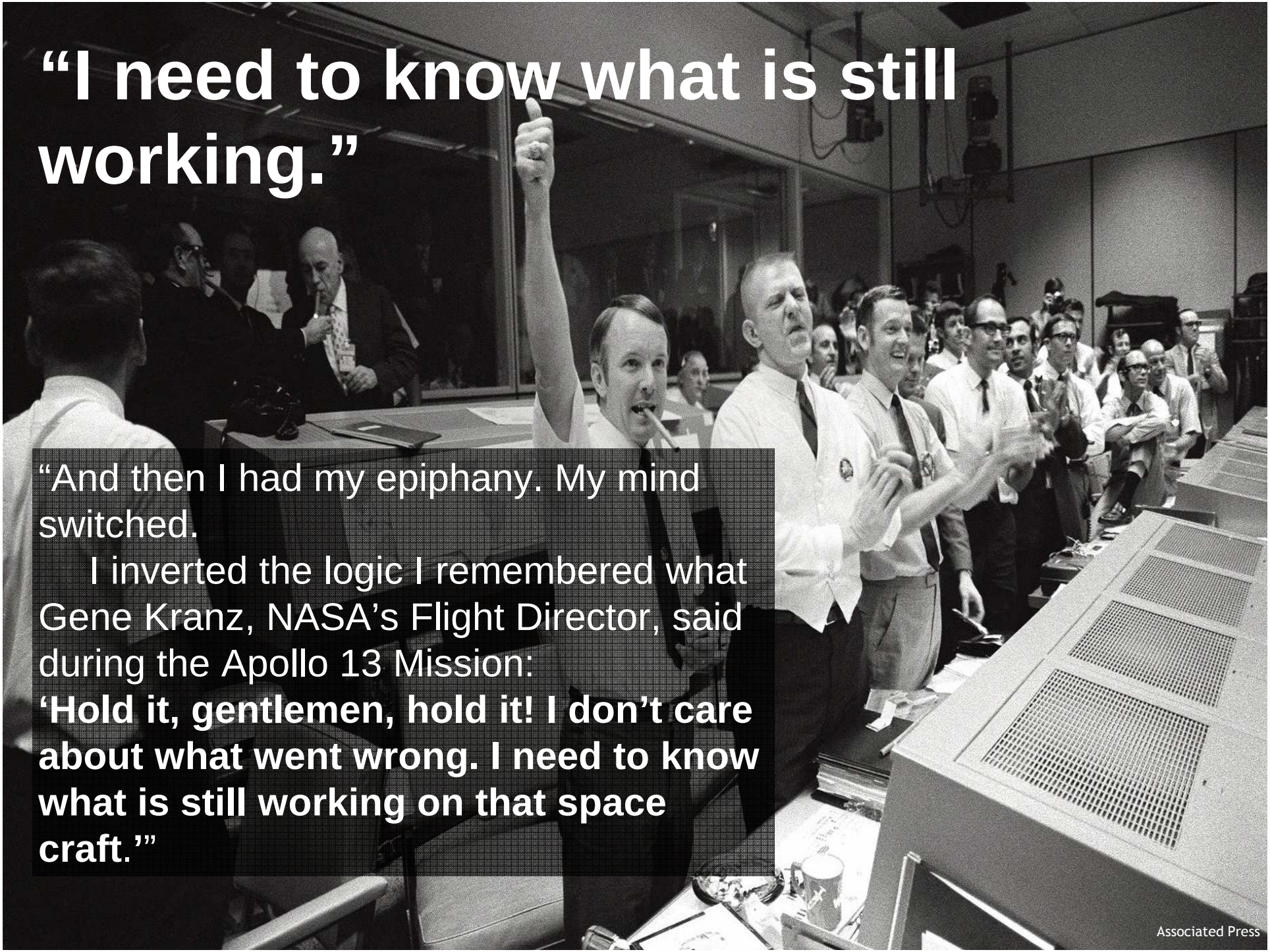
"**We were chasing a computer program** around when perhaps we should have been flying the plane and just landing."

"My confidence in ECAM was waning. **It was just a computer program, it was just a checklist**, it couldn't adapt for multiple failures in one system..."

"We'd all become overwhelmed with the sheer number and layered complexity of ECAM alerts, and **the "logical" way ECAM was trying to check and fix the aircraft**."

"It was just a computer program"

“I need to know what is still working.”



“And then I had my epiphany. My mind switched.

I inverted the logic I remembered what Gene Kranz, NASA’s Flight Director, said during the Apollo 13 Mission:

‘Hold it, gentlemen, hold it! I don’t care about what went wrong. I need to know what is still working on that space craft.’”

Associated Press

“Pilots have judgement”

“By **inverting our logic and looking at what was working**, we we able to build out basic Cessna aircraft from the ground up.”

“Pilots make mistakes and they cannot process data as fast as a computer. **But pilots have judgement**.”

“**There is no computer, manual, autopilot or carefully crafted standard operating procedure** that will ever replace that key responsibility: to keep the aircraft in the air and in one piece.”

In the midst of the crisis, with the crippled Airbus A380 leaking fuel while he maintained a holding pattern and the crew tried to sort through a torrent of computer-generated cockpit alerts, Capt. Richard de Crespigny switched tactics. Rather than trying to decipher the dozens of alerts to identify precisely which systems were damaged, as called for by the manufacturer's manuals and his own airline's emergency procedures, he turned that logic on its head—shifting his focus to what was still working.

Qantas Capt. Richard Champion de Crespigny, here with the repaired A380 last year, said he decided after the engine explosion to focus not on which systems had failed but which ones still worked. *REUTERS*

The issue, the commander of Qantas Flight 32 recalled in an interview last summer, was whether the plane's other engines and damaged flight controls were dependable enough to fly a stable landing approach.

"At the point of maximum stress, the cockpit displays didn't make a whole lot of sense," he said. The audible and visual alerts were incessant, inundating the crew.

By looking beyond those warnings, "we basically took control," he said, and that is when he realized the flight would end safely.

"Symbolically, it was like going back to the image of flying a Cessna"—a simple plane that doesn't require wading through complex computerized fault messages.

Skeptics later would ask, "How could you not follow what the computers were telling you?" the captain recounted. "But I don't trust any checklist naively."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Performance Targets
http://bit.ly/hstargets

THE MID STAFFORDSHIRE
NHS FOUNDATION TRUST
PUBLIC INQUIRY

Chaired by Robert Francis QC

Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry

Executive summary

HC 947

“Nurses were expected to break the rules”

“**Nurses were expected to break the rules as a matter of course in order to meet targets**, a prime example of this being the maximum four-hour wait time target for patients in A&E. **Failure to meet “breach” the target, the length of waiting time would regularly be falsified on notes and computer records**.”

Whistleblower **Staff Nurse** Donnelly

“**The nurses were threatened on a near daily basis with losing their jobs if they did not get patients out within the 4 hours target … the nurses would move them when they got near to the 4 hours limit and place them in another part of the hospital** … without people knowing and without receiving the medication.”

Dr Turner, then a **Specialist Registrar in emergency medicine**, 2002-2006

"The culture driven by the leadership of the CQC (Care Quality Commission) is **target-driven** in order to maintain reputation, but at the expense of quality … We are made to feel guilty if we are not achieving one inspection a week and **all of the focus is on speed, targets and quantity**"

Amanda Pollard, then **Specialist inspector** at the HCC, and then at the CQC

"As Chief Executives **we knew that targets were the priority** and if we didn't focus on them **we would lose our jobs**."

William Price, **Chief Executive of South West Staffordshire Primary Care Trust**, 2002-2006


"…Government policy has too often given the impression that
there are priorities, notably hitting targets
(particularly for waiting lists, and Accident and Emergency waiting), achieving financial balance and achieving Foundation Trust status,
which are more important than patient safety."
House of Commons Health Select Committee report on patient safety, June 2009

Mid Staffordshire NHS Trust Opinion

Mid Staffs shows everything that's rotten in the house of management

Simon Caulkin

NHS management failures stem from the same flawed system that gave us Enron and Lehman Bros in the private sector

"Targets always result in gaming"

"the knee-jerk reaction on the part of everyone from politicians to top managers is to **tighten supervision to identify and root out offenders**."

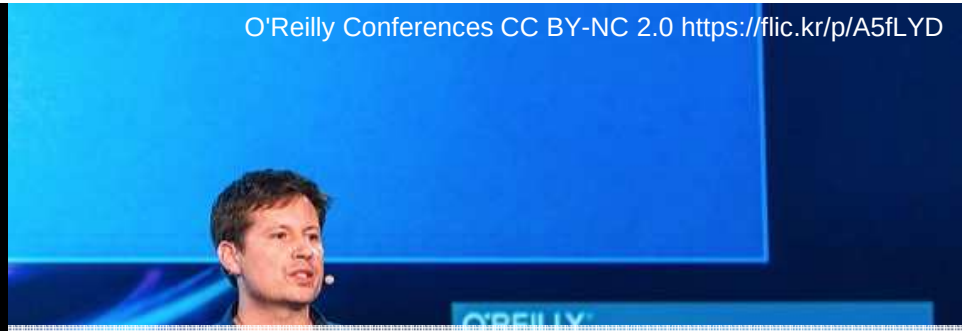
"… **in overall performance, individuals are far less important than the system in which they operate**."

The Guardian, 1 March 2013 http://bit.ly/2fk40ey


MIND THE GAP - DAS

"in most current industrial processes, strict adherence to pre-established action guidelines is unattainable, incompatible with the real efficiency targets, and insufficient to control abnormal situations."

Jean Pariès & Brent Hayward



"no singular overarching regulatory, standards, or policy-making body for these services."

John Allspaw

"People choose what they want to say to regulators … The regulator can start to believe that 'work-as-imagined' should always match 'work-as-done'. The right position lies somewhere in-between.."

John Wilkinson

"As clinicians the world over have reviewed my late wife's case, many have stated that "I wouldn't have done what they did…in a simulated scenario with the same real-world disorder…most actually do."

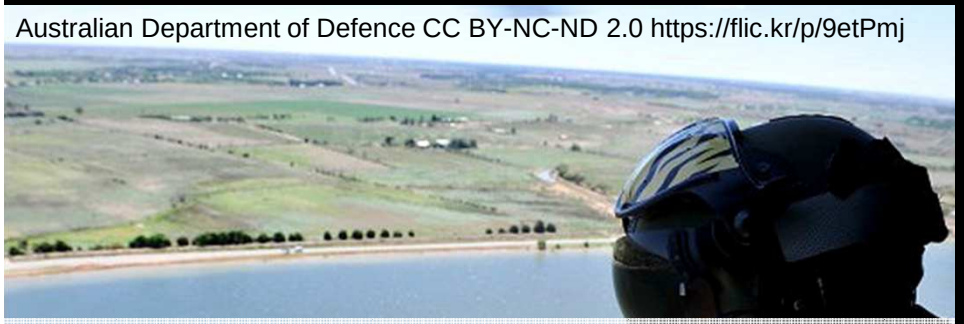
Martin Bromiley

"there is a difference between policy and practice … administrators may not be aware of the latter."

Ken Catchpole & Shelly Jeffcott

"…contractors may not receive direct feedback on the success of, or problems with, their previous designs in the field, and most engineers designing the asset will not have worked on or even visited an operating installation."

Rob Miles & Ian Randle



"many well-intended shortcuts and deficient workplace practices are routinely not detected during audits … major system failures may be associated with this gap."

Ben Cook & Ryan Cooper

"…can be a practical necessity or a mark of expertise … [but] sometimes the motivations for the way that the work is actually done are not laudable."

Ben O'Flanagan & Graham Seeley

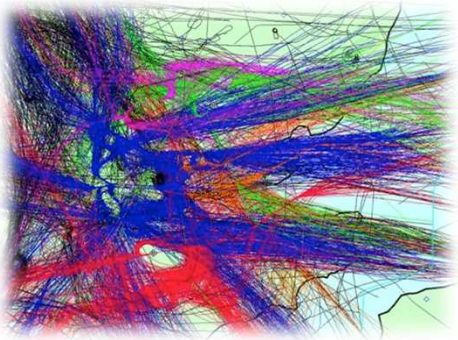
Further reading

From Safety-I to Safety-II:
A White Paper

Systems Thinking for Safety: Ten Principles
A White Paper
Moving towards Safety-II


May I see your human factors assessment for this task?

bit.ly/ ST4SAFETY



steven.shorrock @eurocontrol.int

Thankyou