The Journey So Far

“Industrial Thinking”

Illustration 42784970 © Phill Burrows | Dreamstime.com

Output focused

Safety = reliability

Bureaucratic constraint

People as components or product

Communication as transmission

The Aim of Safety

*That as few things as possible go **wrong***

No harm, no problem

We make things brittle…

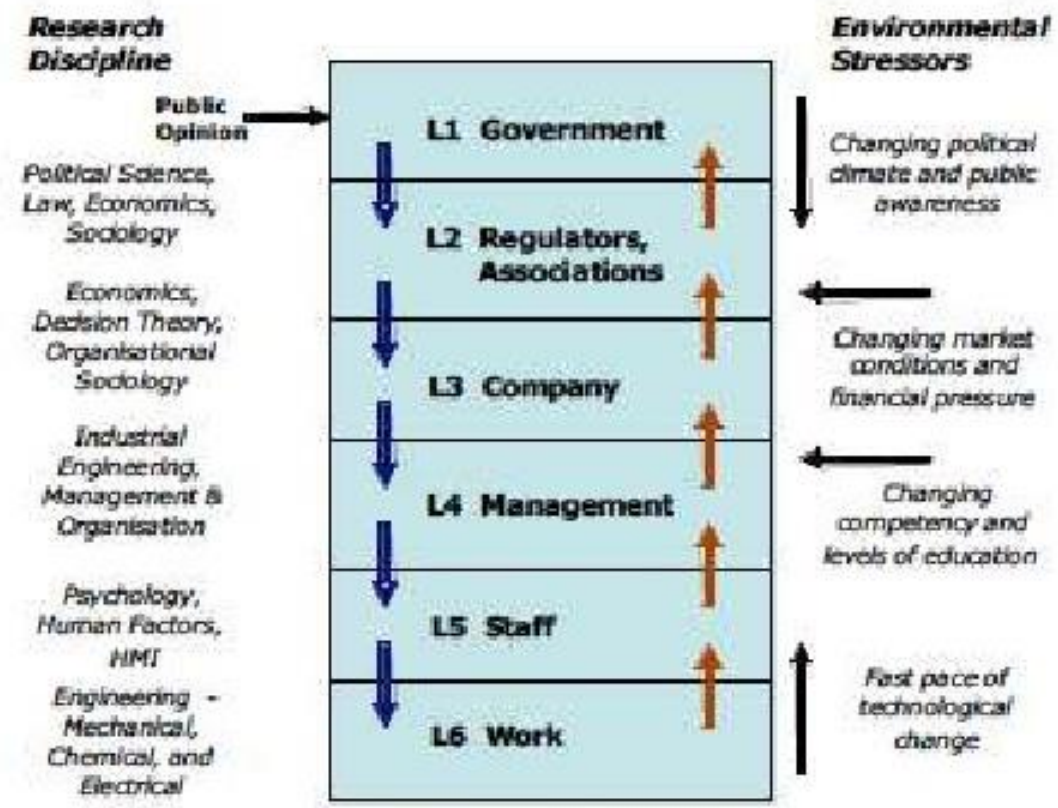
when we don’t understand the sources of
Adaptability and Innovation

Safety = Reliability

“Bureaucratic Safety”

- Proceduralised approaches to safety
- The demands of ‘bureaucratic closure’
- Rituals of verification e.g. audit

HIERARCHICAL MODEL OF SOCIO-TECHNICAL SYSTEMS

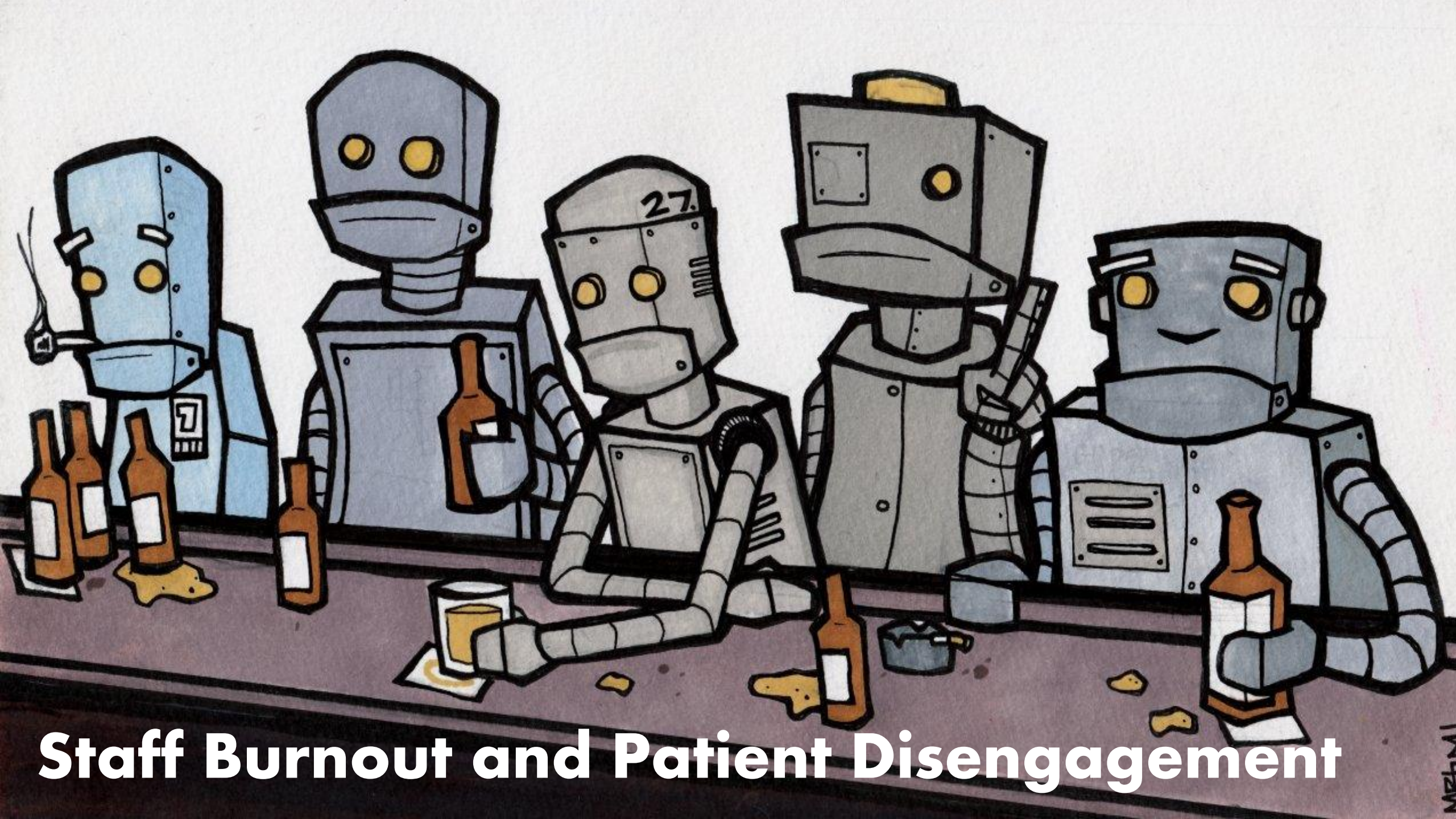


(Rasmussen, 1997)

Blind to the Wider Influences

'You can't-- there's a certain there's a certain altitude you can go to and then you can go no further. You certainly can't say, "Well, this is all because the CEO didn't decide to invest X number of health bucks in... promulgating a just culture in the organization". You certainly couldn't have ever said that.'

Not Meeting the Needs of those Harmed



Staff Burnout and Patient Disengagement

Multiple Issues

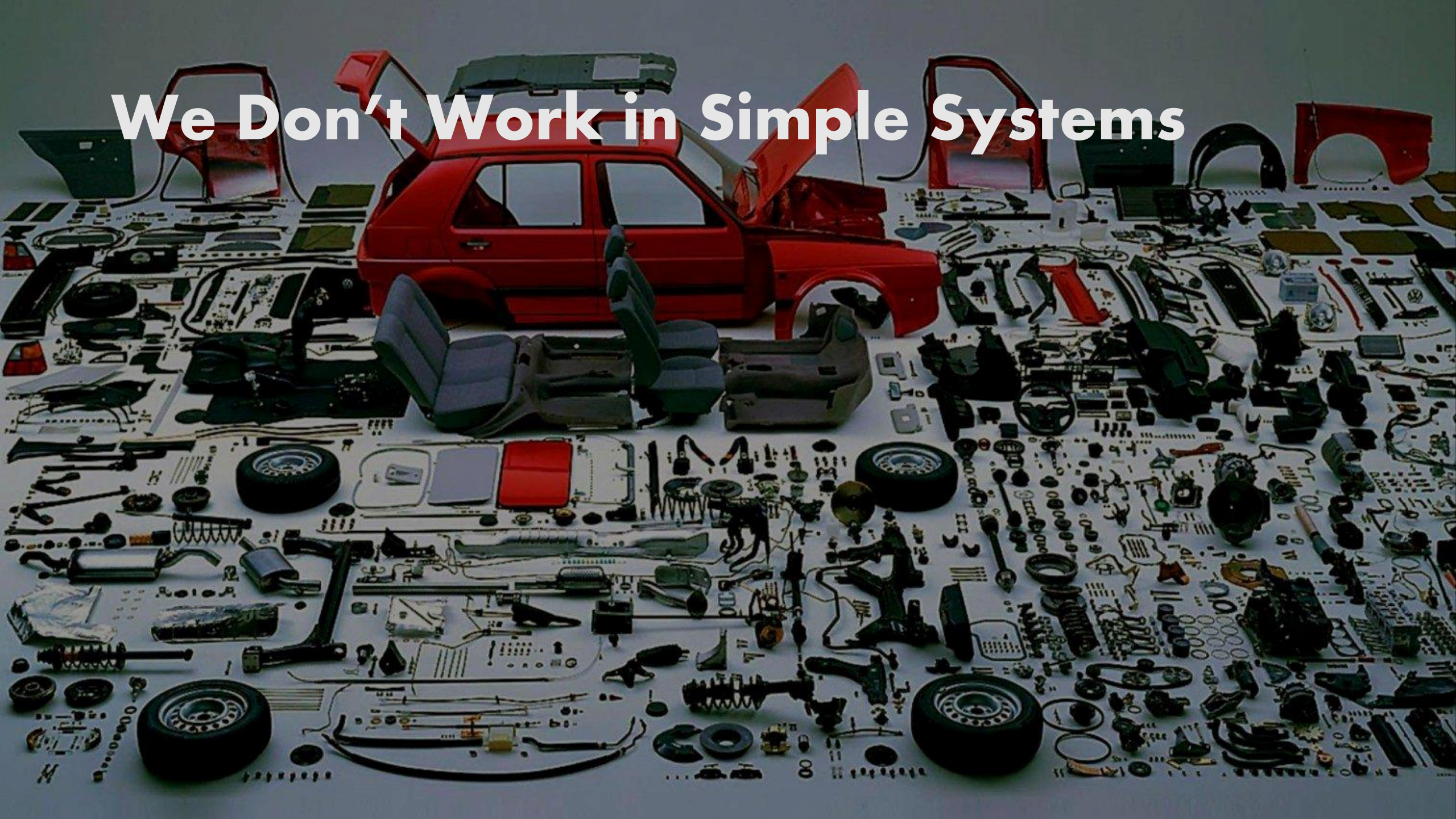
Safety
Equity
Productivity
Quality Improvement
Burnout
Staff Engagement
Patient Experience

“When we fix the wrong thing for the wrong reason, the problems continue to happen.

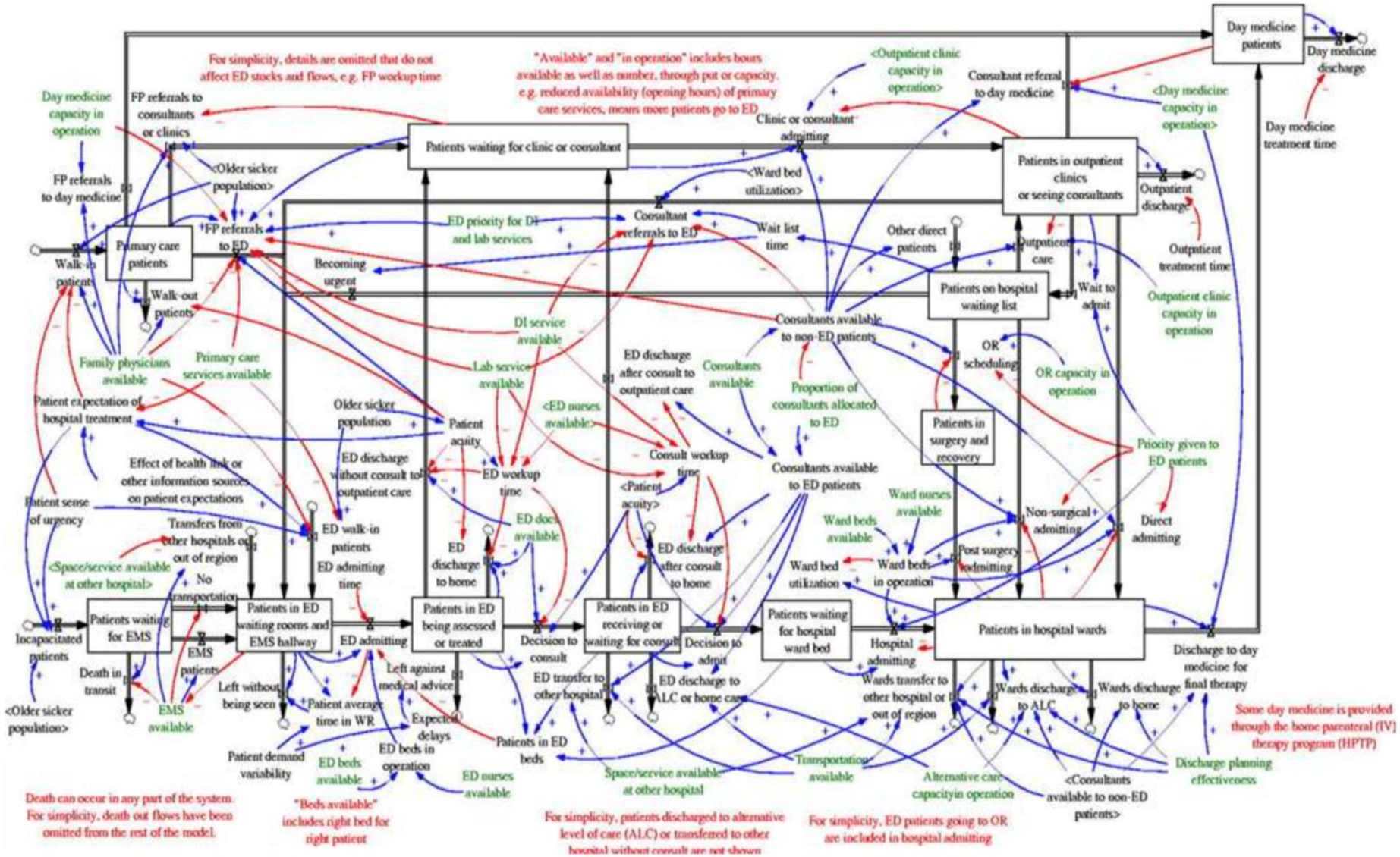
It’s costly and demoralizing”

Brene Brown, **Dare to Lead**, 2018

We Don’t Work in Simple Systems

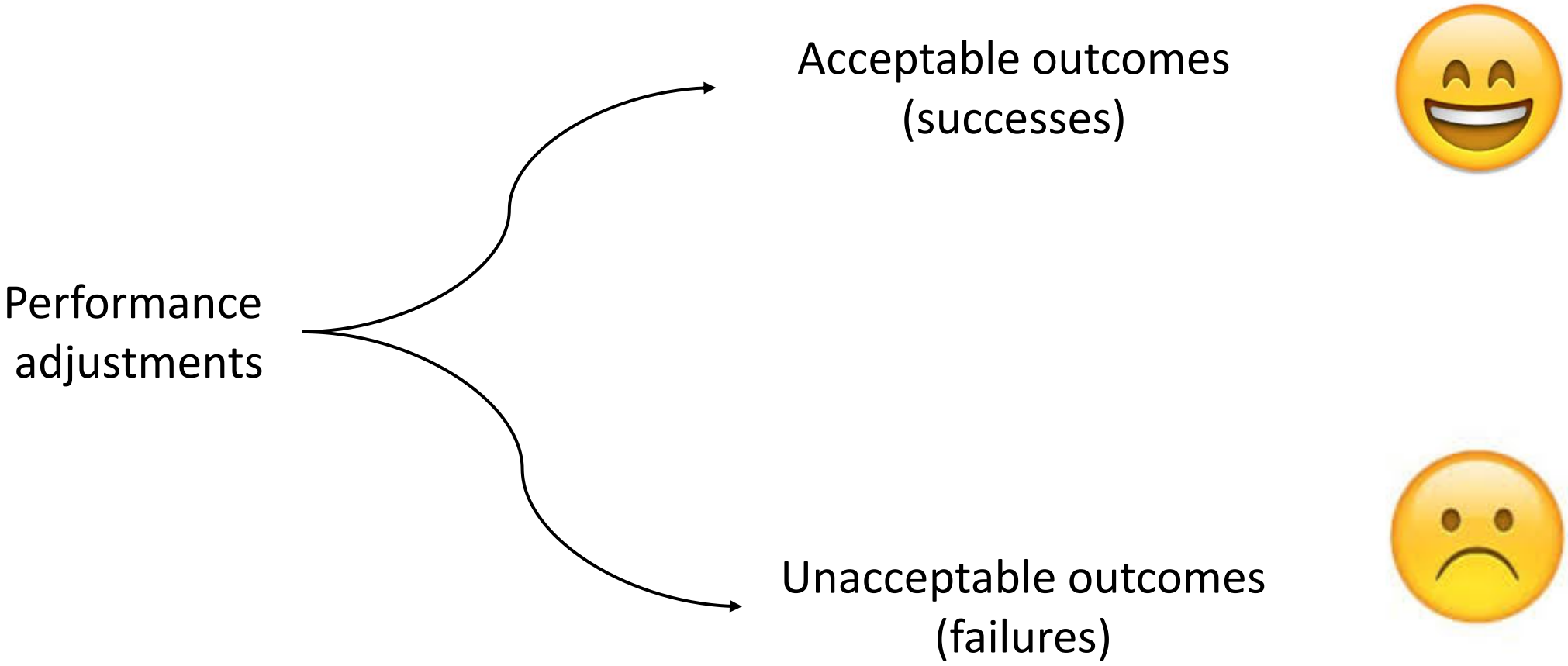


“Work-As-Done”


Day medicine patients
Day medicine discharge
Day medicine treatment time
For simplicity, details are omitted that do not affect ED stocks and flows, e.g. FP workup time
"Available" and "in operation" includes hours available as well as number, through put or capacity, e.g. reduced availability (opening hours) of primary care services, means more patients go to ED
<Outpatient clinic capacity in operation>
Consultant referral to day medicine
<Day medicine capacity in operation>
Day medicine capacity in operation
FP referrals to consultants or clinics
Patients waiting for clinic or consultant
Clinic or consultant admitting
Patients in outpatient clinics or seeing consultants
Outpatient discharge
<Older sicker population>
FP referrals to day medicine
<Ward bed utilization>
Consultant referrals to ED
ED priority for DI and lab services
Wait list time
Other direct patients
Outpatient care
Outpatient treatment time
Primary care patients
FP referrals to ED
Walk-in patient
Becoming urgent
Walk-out patients
Patients on hospital waiting list
Wait to admit
Outpatient clinic capacity in operation
DI service available
Consultants available to non-ED patients
OR scheduling
Family physicians available
Primary care services available
Lab service available
ED discharge after consult to outpatient care
Consultants available
Proportion of consultants allocated to ED
OR capacity in operation
Patient expectation of hospital treatment
Older sicker population
Patient acuity
<ED nurses available>
Patients in surgery and recovery
Priority given to ED patients
Consult workup time
Effect of health link or other information sources on patient expectations
ED discharge without consult to outpatient care
ED workup time
Consultants available to ED patients
Patient sense of urgency
ED walk-in patients
<Patient acuity>
Ward nurses available
Non-surgical admitting
Direct admitting
Transfers from other hospitals or out of region
ED docs available
ED discharge to home
ED discharge after consult to home
Ward beds available
Post surgery admitting
<Space/service available at other hospital>
ED admitting time
Ward bed utilization
Ward beds in operation
No transportation
Patients waiting for EMS
Patients in ED waiting rooms and EMS hallway
Patients in ED being assessed or treated
Patients in ED receiving or waiting for consult
Patients waiting for hospital ward bed
Patients in hospital wards
Incapacitated patients
ED admitting
Decision to consult
Decision to admit
Hospital admitting
Discharge to day medicine for final therapy
EMS patients
Left against medical advice
ED transfer to other hospital
Wards transfer to other hospital or out of region
Wards discharge to ALC
Wards discharge to home
Death in transit
Left without being seen
Patient average time in WR
Expected delays
ED discharge to ALC or home care
Some day medicine is provided through the bone parenteral (IV) therapy program (HPTP)
<Older sicker population>
EMS available
Patients in ED beds
Patient demand variability
ED beds available
ED beds in operation
ED nurses available
Space/service available at other hospital
Transportation available
Alternative care capacityin operation
<Consultants available to non-ED patients>
Discharge planning effectiveness
Death can occur in any part of the system. For simplicity, death out flows have been omitted from the rest of the model.
"Beds available" includes right bed for right patient
For simplicity, patients discharged to alternative level of care (ALC) or transferred to other hospital without consult are not shown
For simplicity, ED patients going to OR are included in hospital admitting

Hollnagel *The ETTO Priciple: Efficiency Thoroughness Tradeoff* 2009

How Safety Is Really Created



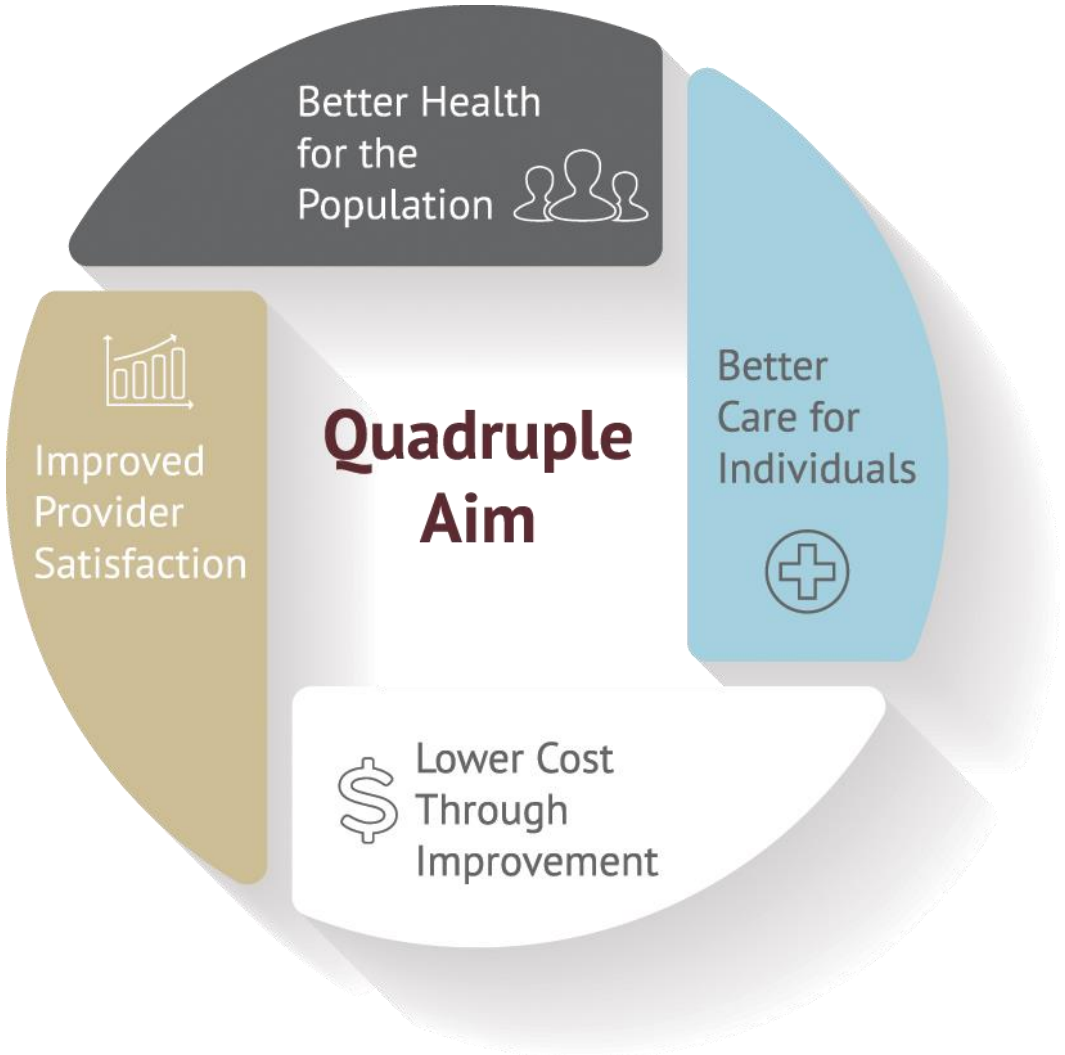
Hollnagel E. *Safety-I and Safety-II; the past and future of safety management* 2014

The New Aim

*That as many things as possible go **right***

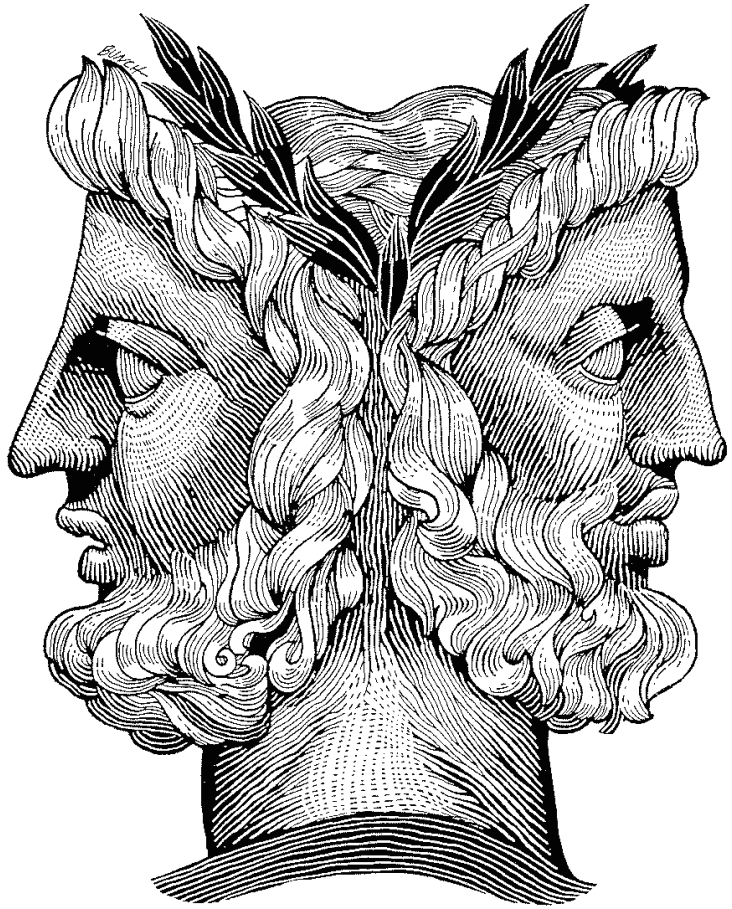

When you change your perspective,
you see different things
Erik Hollnagel

1. A Move to System Safety

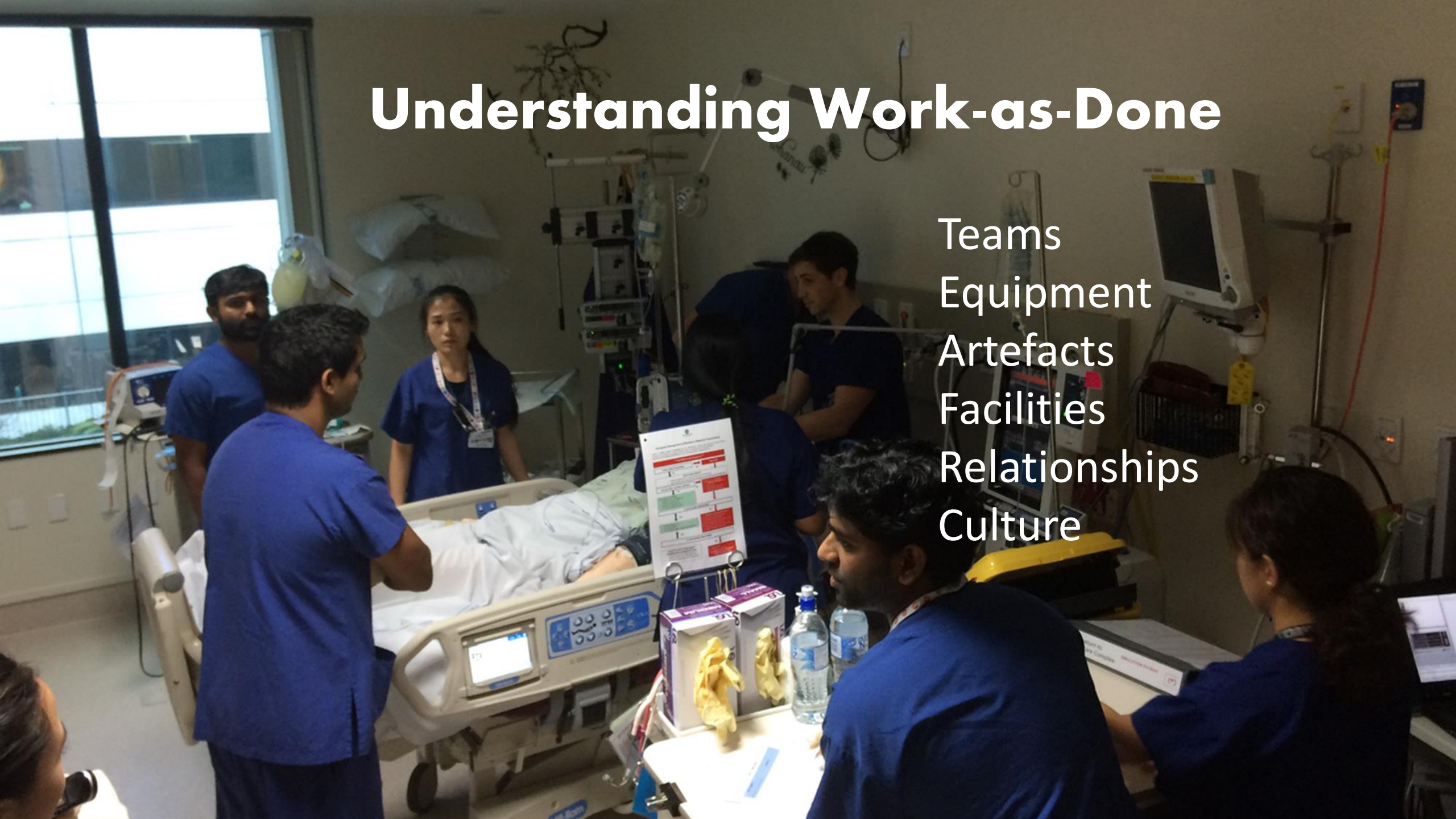

Better Health for the Population
Better Care for Individuals
Lower Cost Through Improvement
Improved Provider Satisfaction
Quadruple Aim

2. Supporting the Conditions for Success

Are you making **failure** less likely?



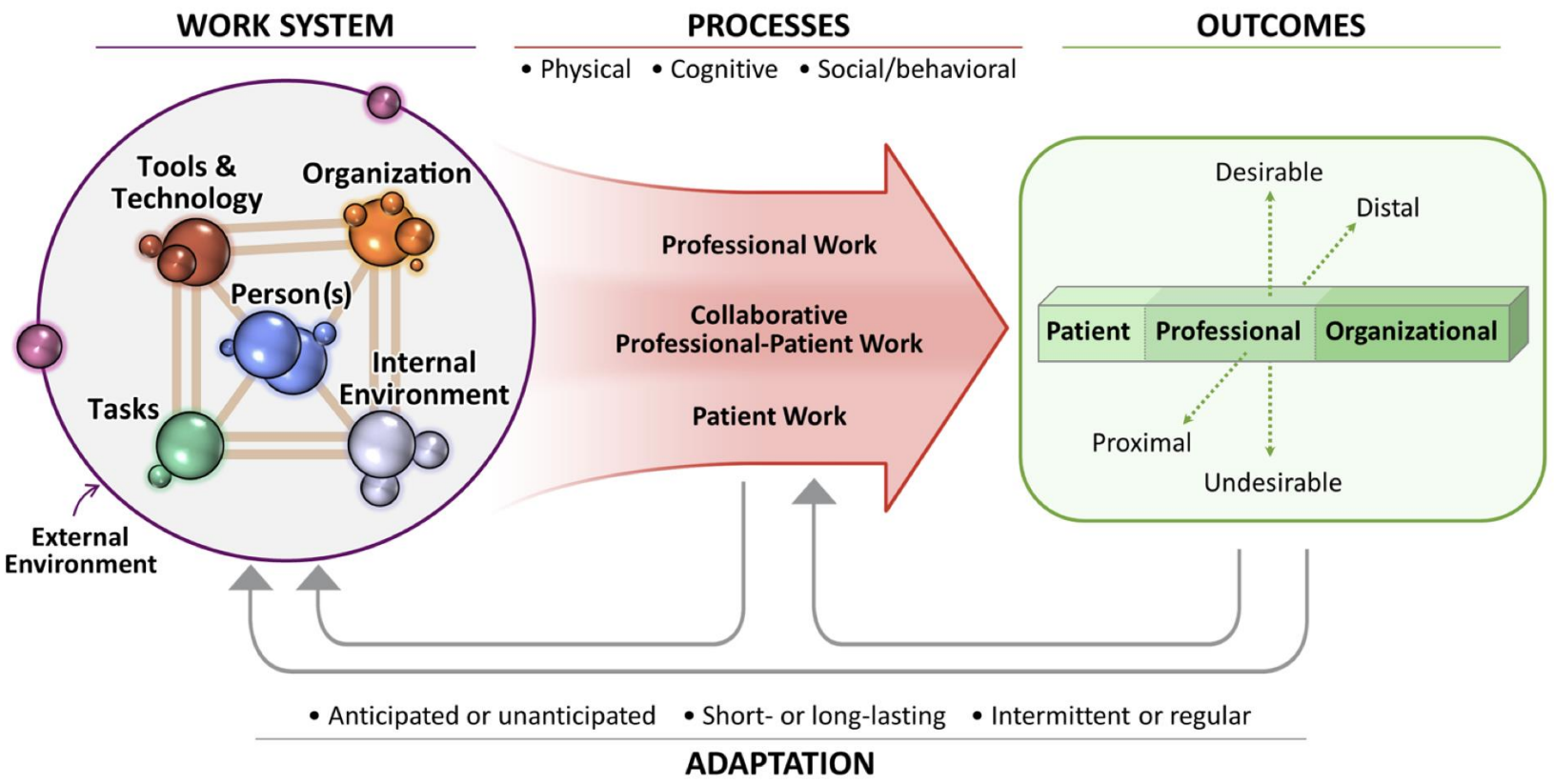
Or usual **success** more likely?



Understanding Work-as-Done

Teams
Equipment
Artefacts
Facilities
Relationships
Culture

Thinking in Work Systems



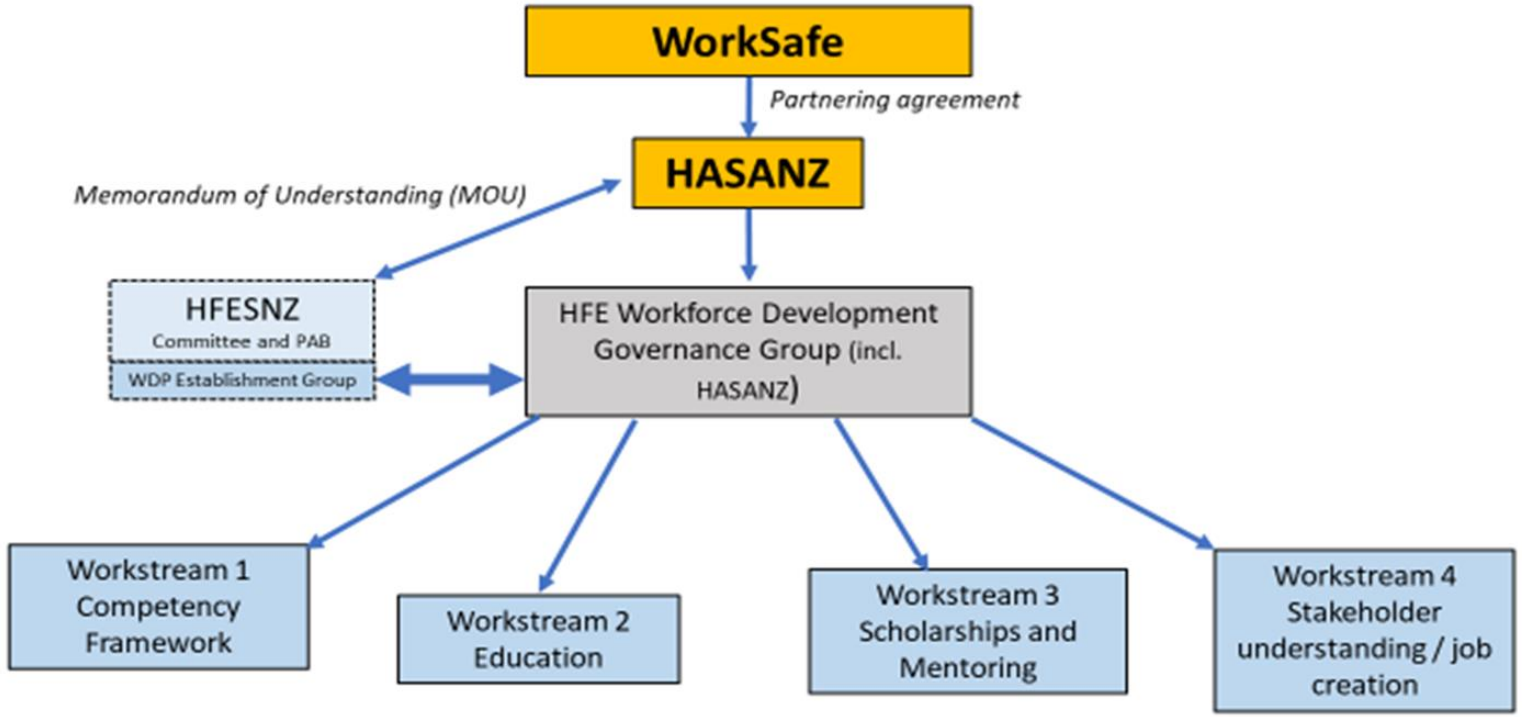
Holden, R. J et al, (2013). SEIPS 2.0: a human factors framework for studying and improving the work of healthcare professionals and patients. *Ergonomics, 56*(11), 1669-1686

Human Factors/Ergonomics

…the scientific discipline concerned with the understanding of interactions among humans and other elements of a system…

to optimize human well-being and overall system performance

Building HFE Capacity in Healthcare



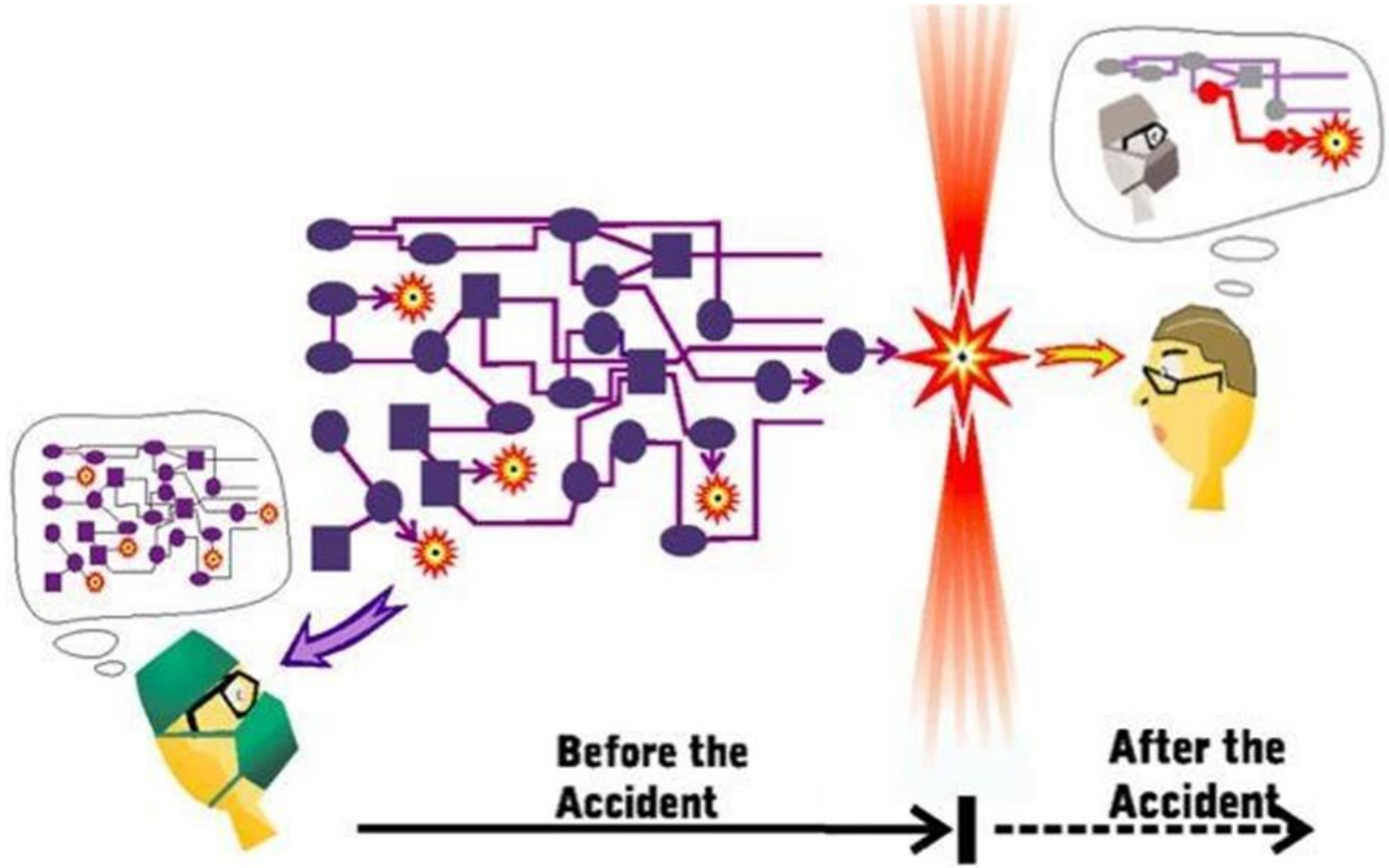
Health Quality & Safety Commission New Zealand
Kupu Taurangi Hauora o Aotearoa

HFESNZ
Human Factors and Ergonomics Society of New Zealand

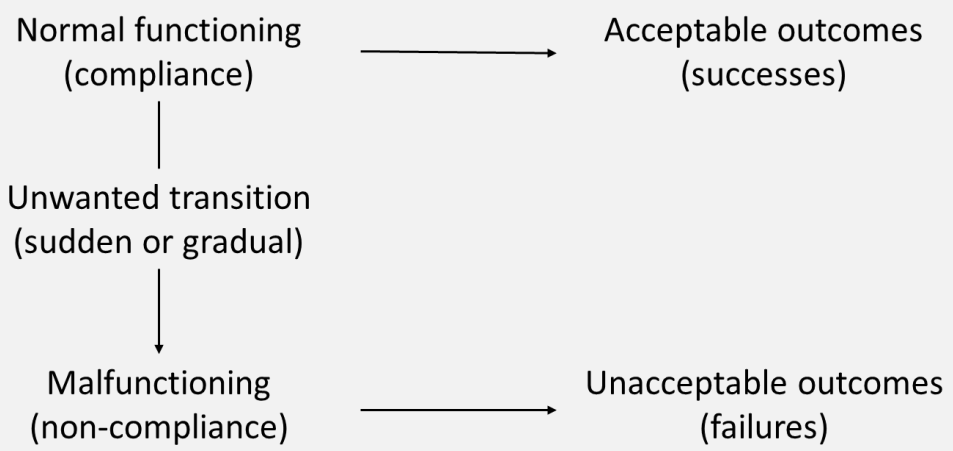
WorkSafe New Zealand | Mahi Haumaru Aotearoa

He Kaupare. He Manaaki. He Whakaora.
prevention. care. recovery.

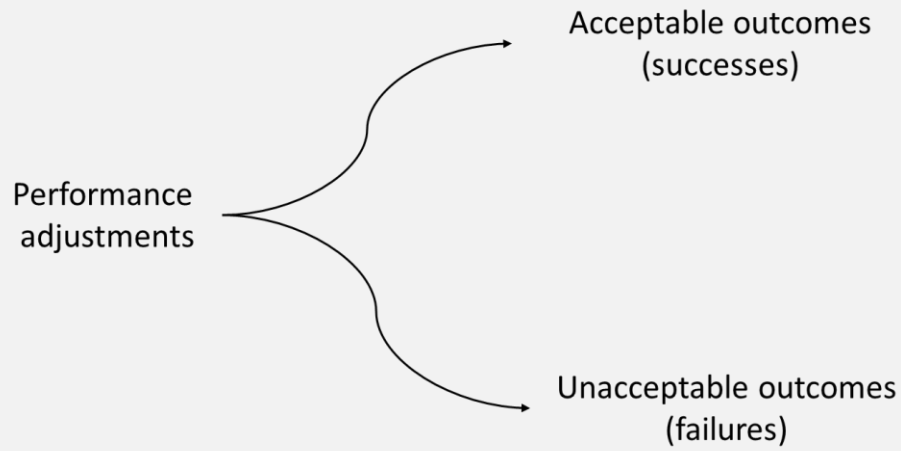
3.Learning Different Lessons


Before the Accident
After the Accident

Do You Want To Know…



What was so different about this case?



What was so usual about this case?

Learning Reviews

How did that seem the

right thing

to do at the time?

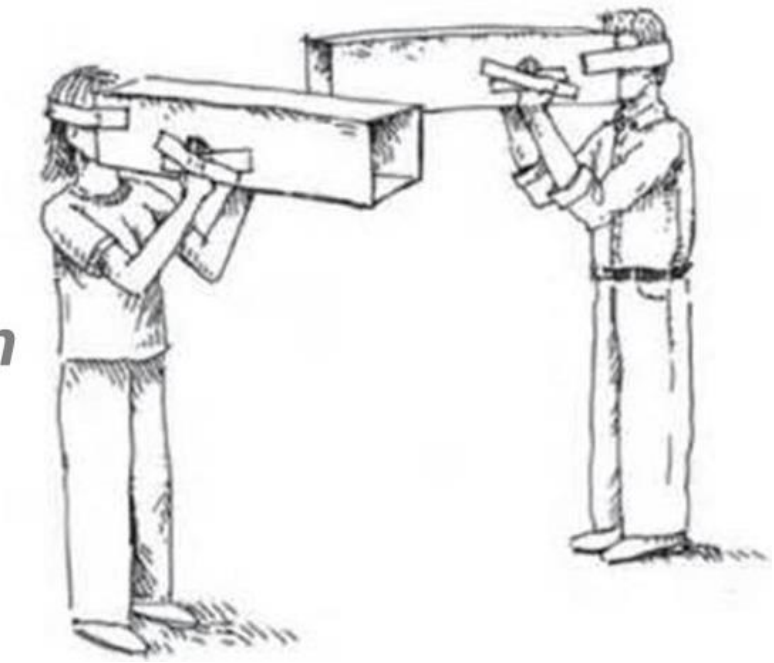
Dekker *A Field Guide to Understanding Human Error* 2014

Local Rationality

People do things that make sense to them, given

their goals,
understanding of the situation
and
focus of attention

at that time.



Meeting the Needs of All Those Harmed

Restorative Practice

Adverse Events Policy Review 2022

4. Building Resilient Systems

Lora Zombie (lorazombie.com)

It’s not about individual resilience…

Resilience is a System Capacity…

CRITICAL CARE COMPLEX

COUNTIES MANUKAU HEALTH

Health and Disability Commissioner
Te Toihau Hauora, Hauātanga

Coronial Services of New Zealand
Purongo O te Ao Kakarauri

Medical Council of New Zealand
Te Kaunihera Rata o Aotearoa

Te Kaunihera Tapuhi o Aotearoa
Nursing Council of New Zealand

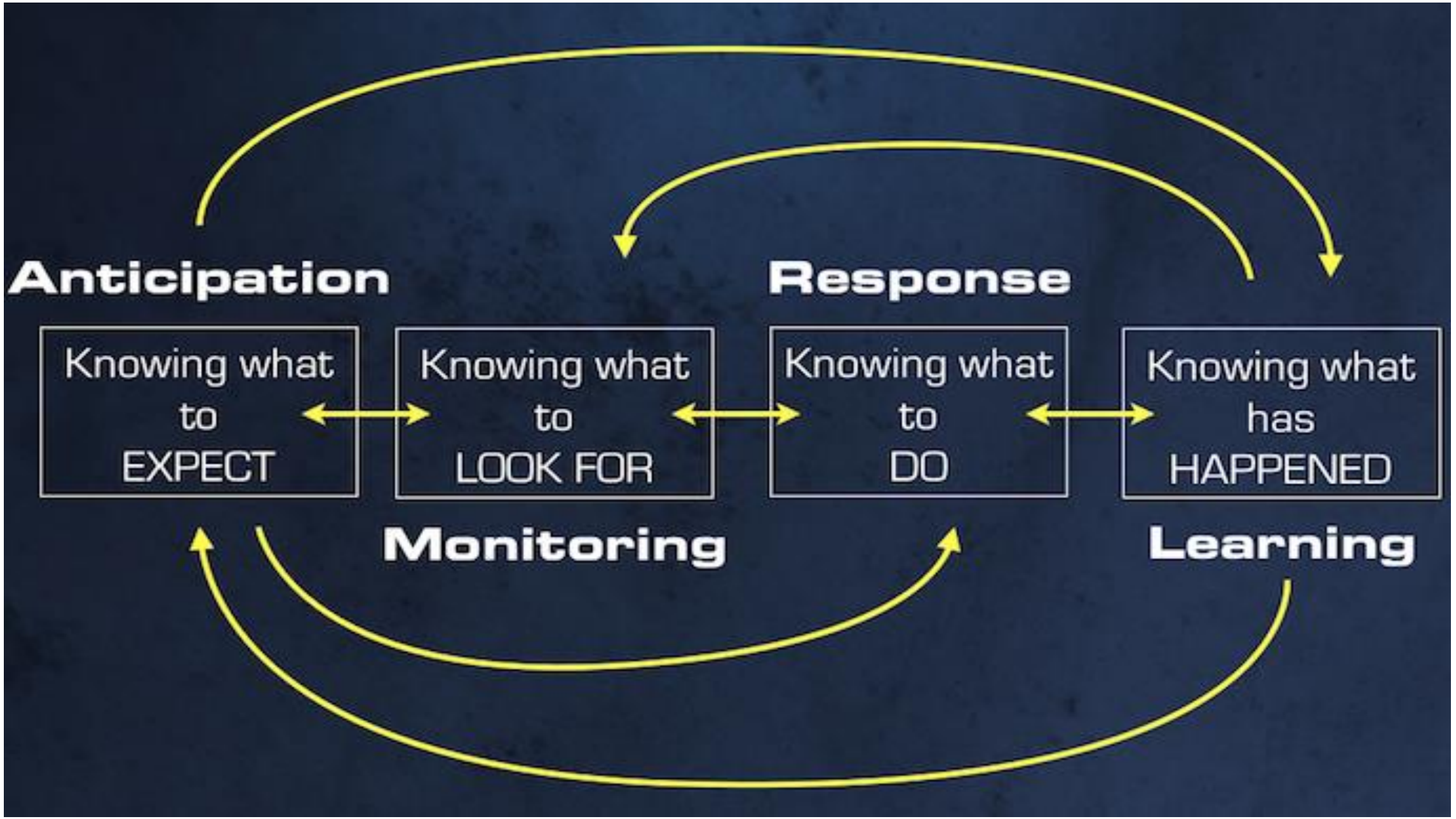
HEALTH QUALITY & SAFETY COMMISSION NEW ZEALAND
Kupu Taurangi Hauora o Aotearoa

MINISTRY OF HEALTH
MANATŪ HAUORA

ACC
He Kaupare. He Manaaki. He Whakaora.
prevention. care. recovery.

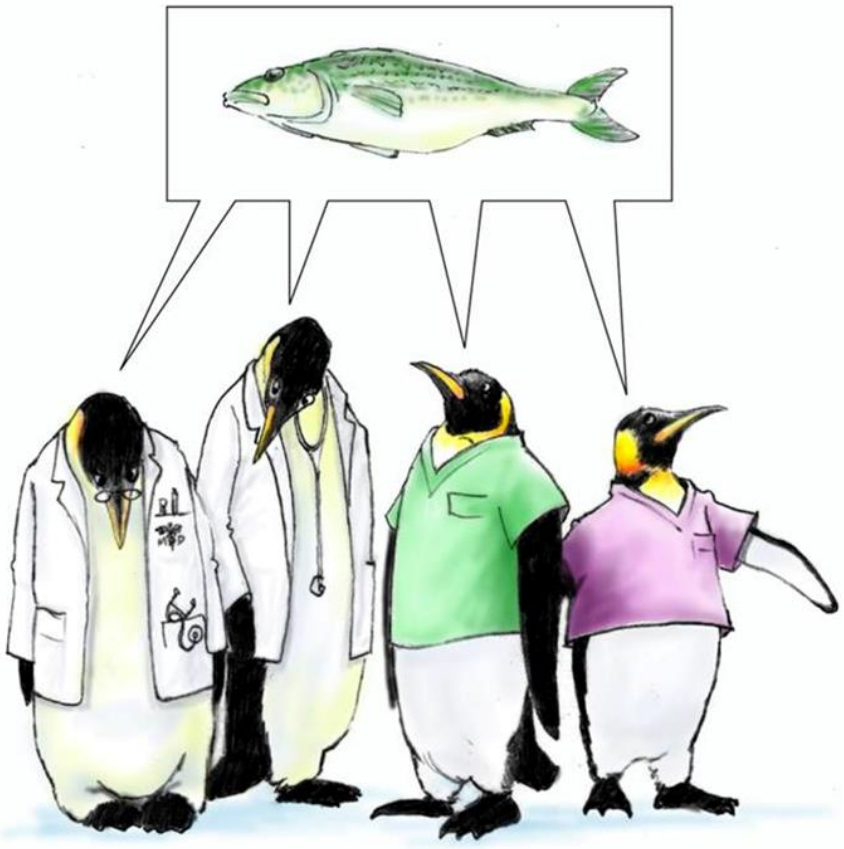
WORKSAFE NEW ZEALAND | MAHI HAUMARU AOTEAROA

Public


Anticipation
Response
Knowing what to EXPECT
Knowing what to LOOK FOR
Knowing what to DO
Knowing what has HAPPENED
Monitoring
Learning


Diverse teams

Anticipatory Action



Hinges on building a shared understanding of:

- The current situation?
- What should happen?
- What might happen?
- What will we do if things change?

A Change in Communication

Data for Resilience

What to measure?

Data for who?

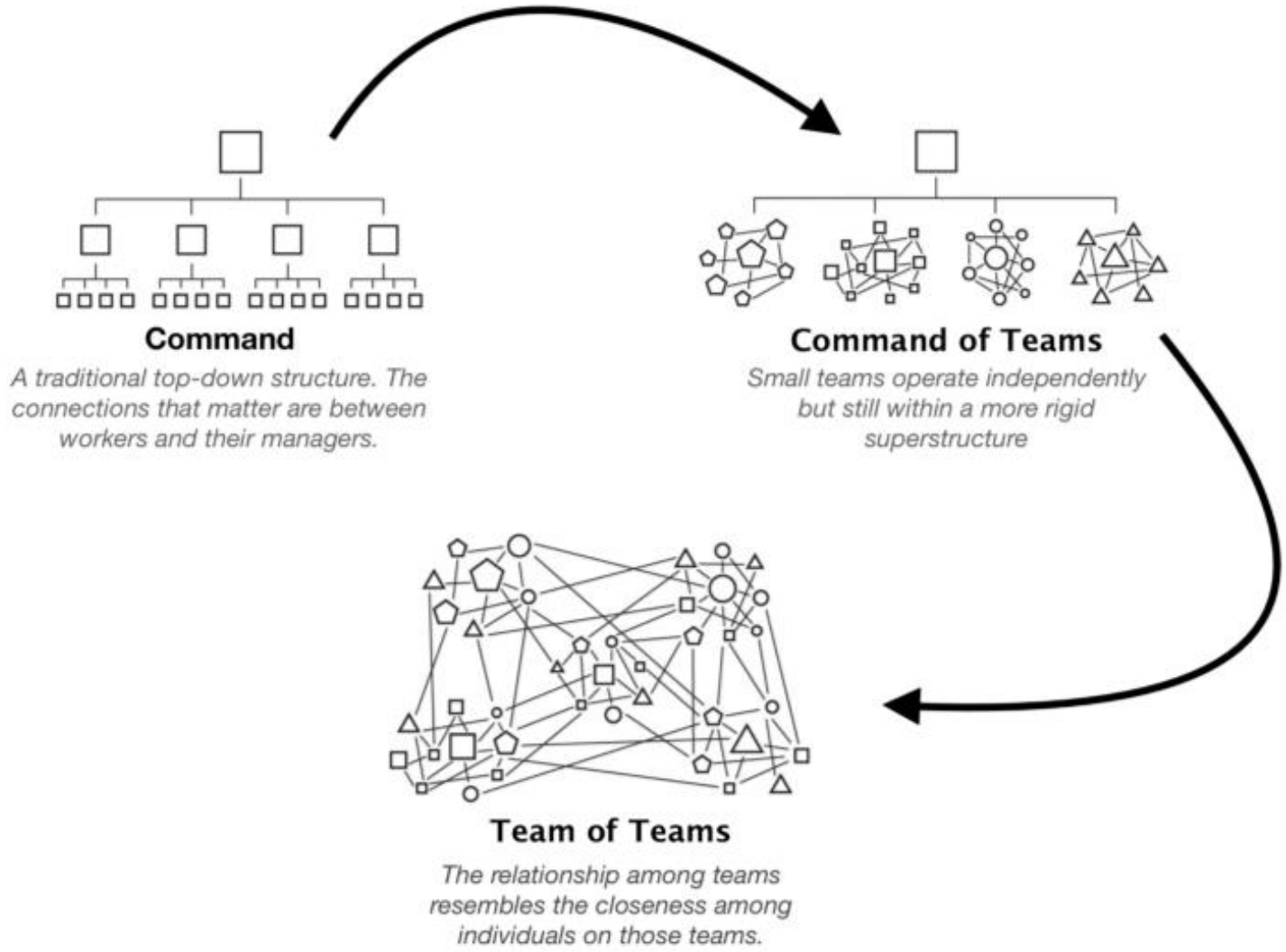
Data for what?

Building understanding?

Leadership

- Goals, not tasks
- Creating the space for adaptive work
- Balancing creativity and constraint

Bridging Power Practices in Collective Leadership Carroll B, (in press)



Gen Stanley McChrystal *Team of Teams* 2015

… building the relationships between teams.

- Safety System Leadership Rōpū
- Quality Forum

Resilient Healthcare Thinking

Outcome focused

Safety as the ability to match conditions

Balancing creativity and constraint

People as the purpose

Communication as co-construction


“The mind, once stretched by a new idea, never regains its original dimensions”
Oliver Wendell Holmes
@HorsleyCarl
chorsley@middlemore.co.nz