

An aerial photograph of a train crash site, showing a train derailed and tilted off its tracks. A large crowd of people is gathered around the scene, and a multi-story building is visible in the background. The entire image has a blue color cast.

# Lessons from the Amagasaki Train Crash

# Context

## Purpose

- Lateral Learning
- A Systems Thinking Lens
- Introduce Countercultures
- Prompt Reflection

## Themes

- a) Countercultures
- b) Bias and Heuristics
- c) Normalisation of Deviance
- d) Blunt End/Sharp End
- e) Local rationality



# Facts and Stats

- Most prominent train crash in contemporary Japan.
- April 25<sup>th</sup>, 2005, at 09:18 on a Monday morning

107

fatalities

562

injured

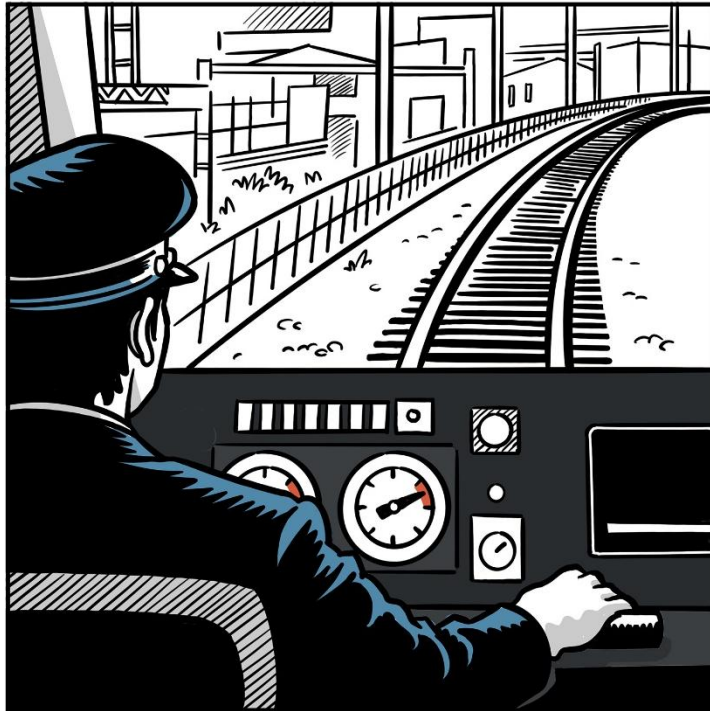
116

Km/hr

11

months

# Proximate Events

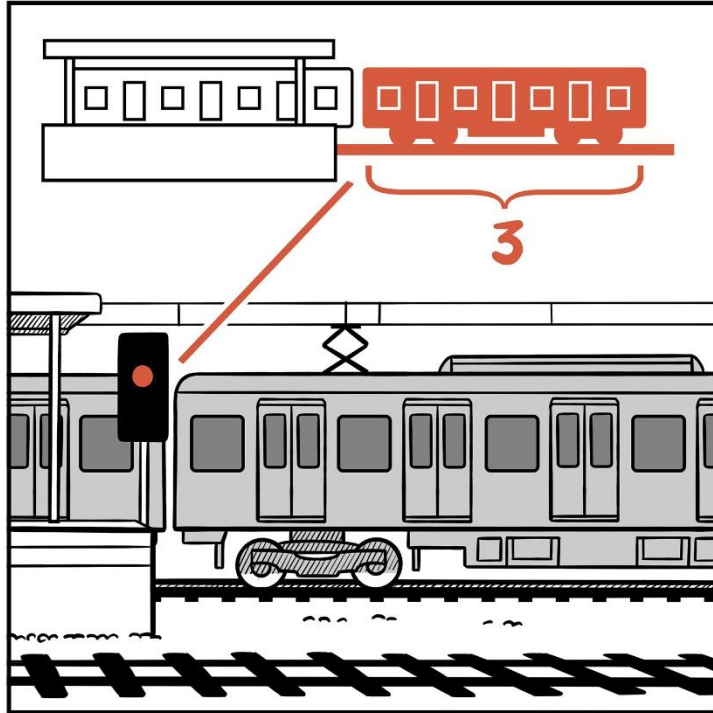


- ① Driver passes a red signal and triggering the automatic train stopping system.



- ② Driver overshoots platform. Must reverse the train back to the platform

# Proximate Events

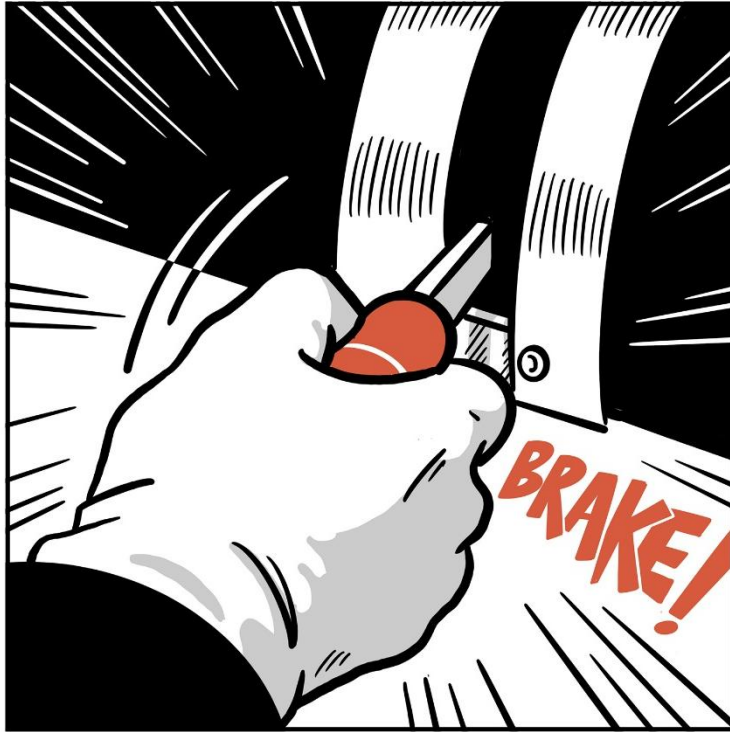


③ Overshoots platform again by three carriages. He has to reverse train again.



④ Train now 90 seconds late. Increases speed and reduces delay to 60 seconds.

# Proximate Events



⑤ Train approaches sharp curve too fast. Driver applies service brake to slow train.



⑥ Train at 116kph on 70kph limit. Begins to derails. Driver does not apply emergency brake.

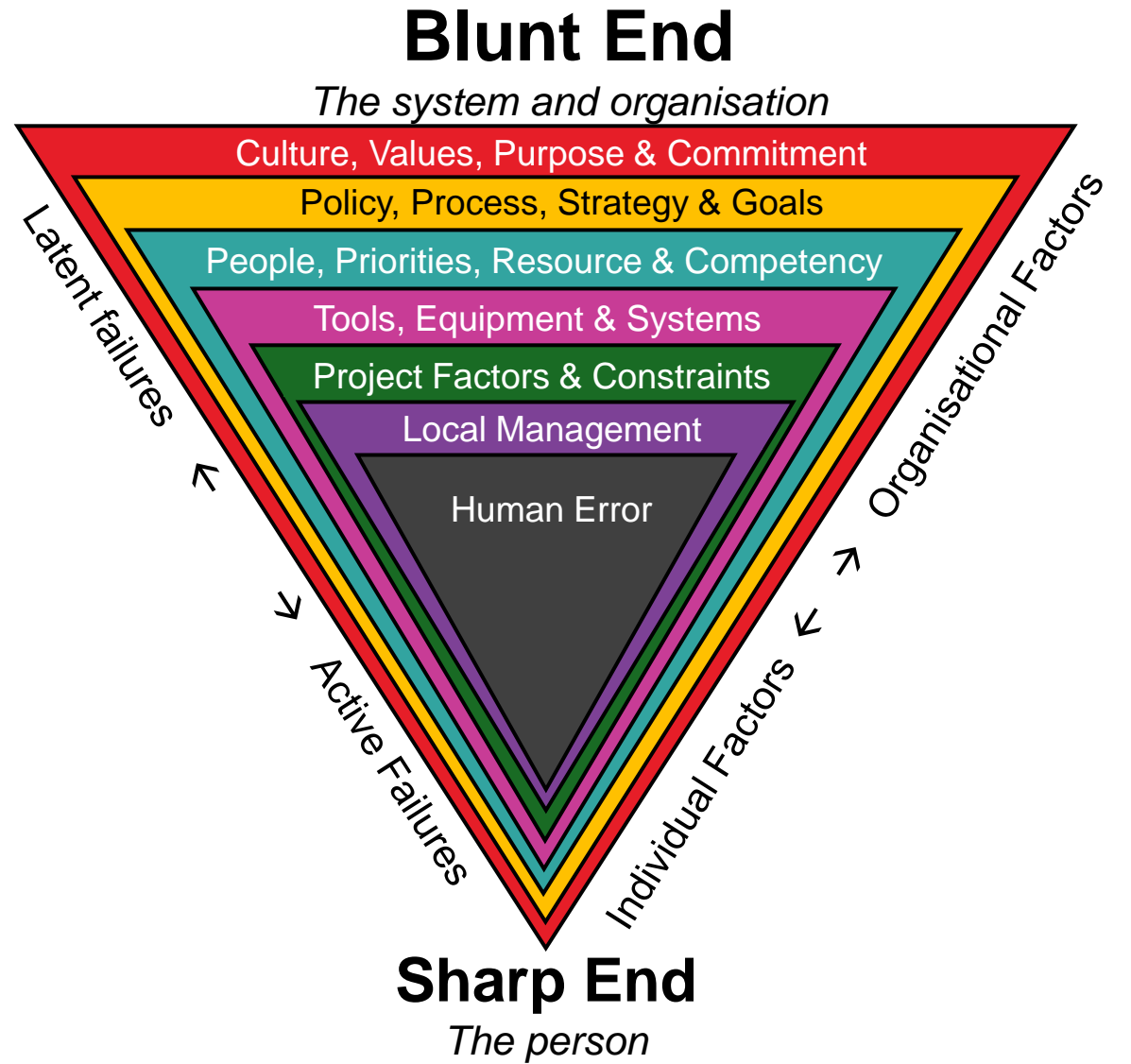
# Initial Findings of Investigation

---



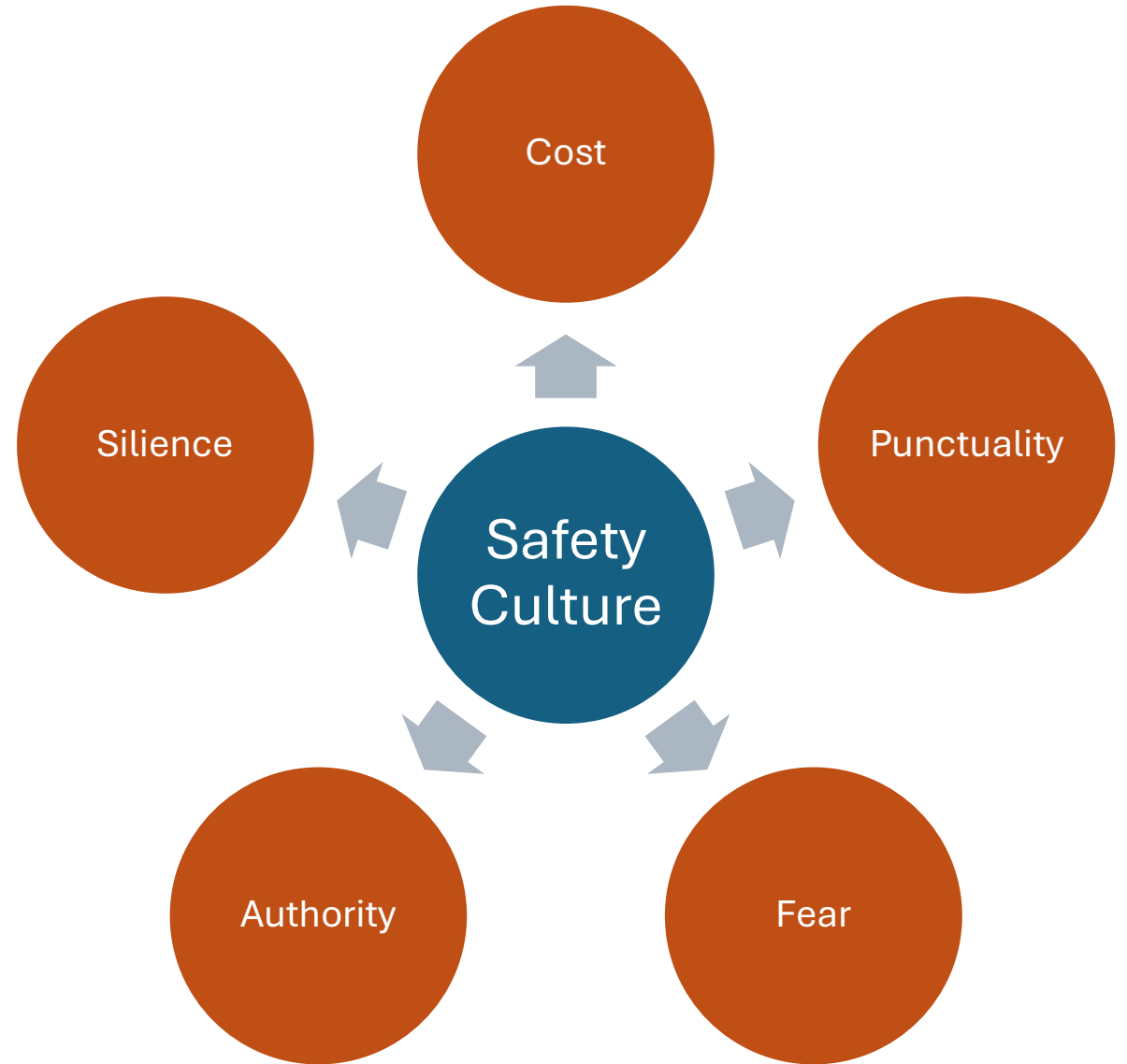
# Holding Curiosity

---



# Countercultures

---



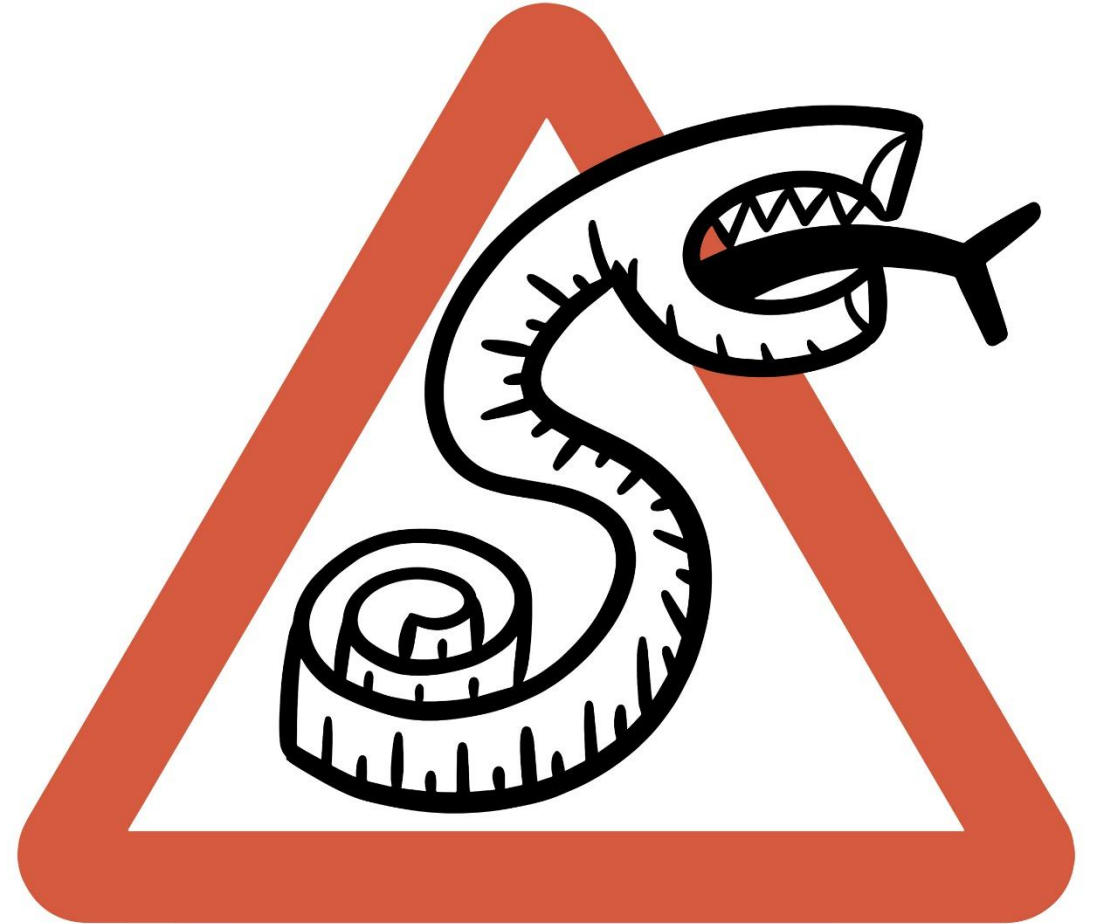
# A Culture of Cost Efficiency

---

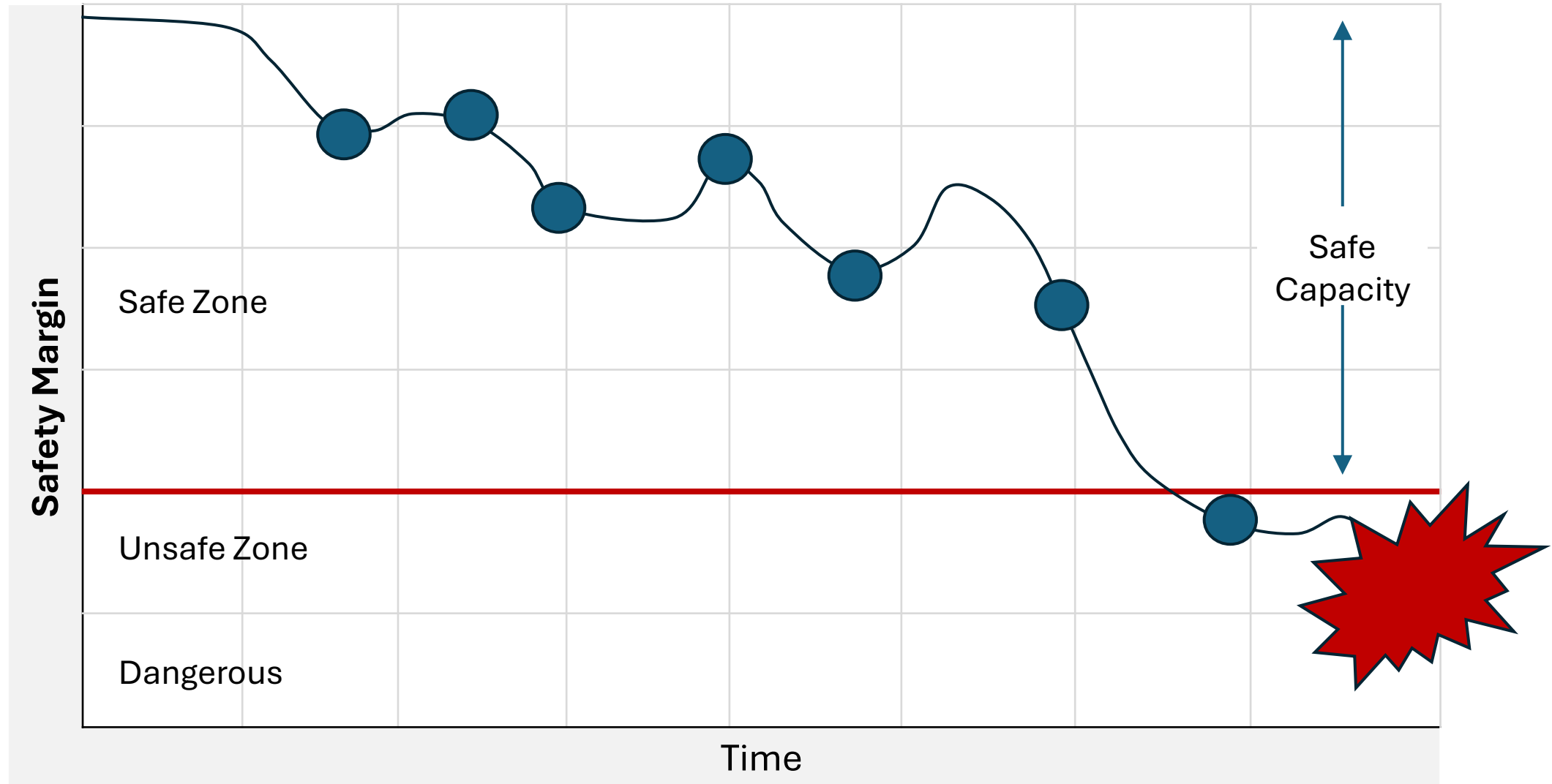


# A Culture of Punctuality

---



# Normalisation of Deviance



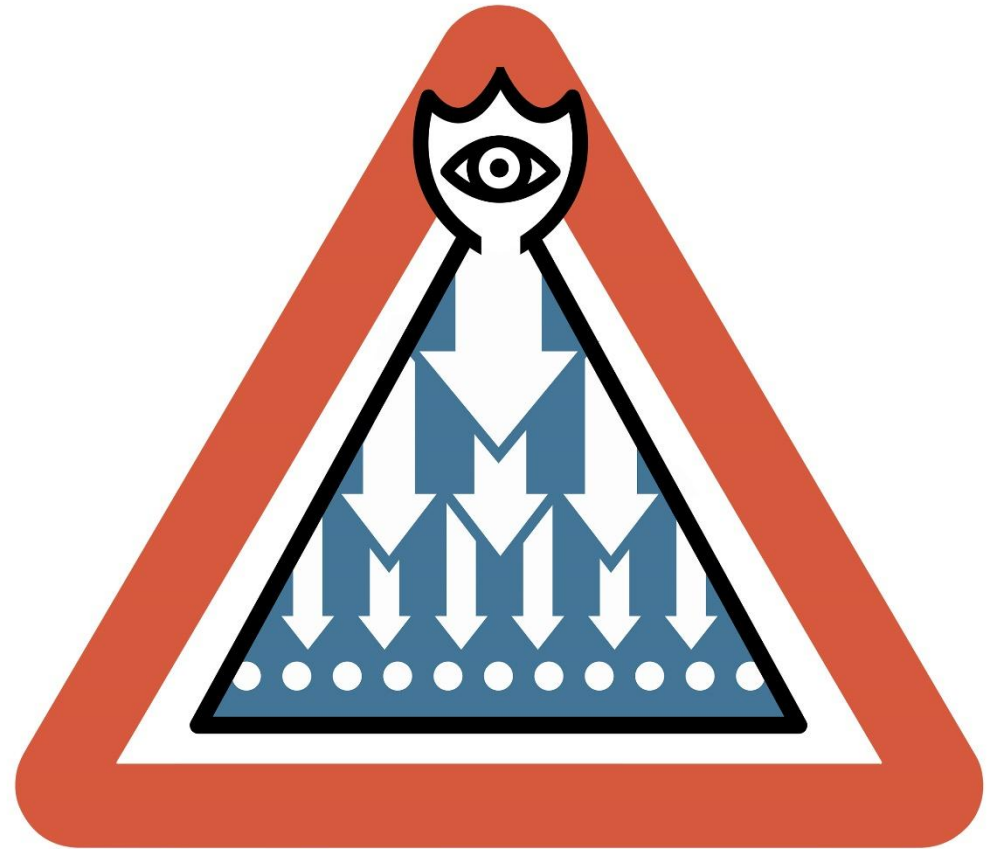
# A Culture of Fear

---



# A Culture of Accountability

---

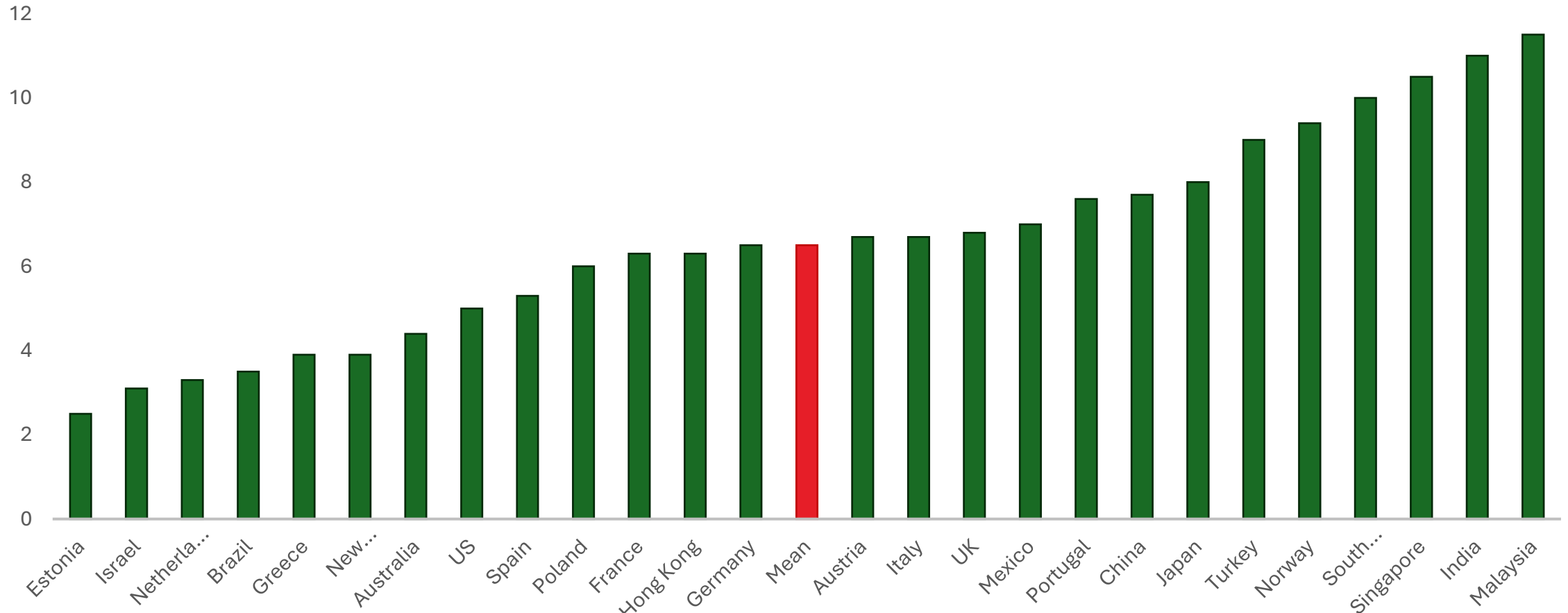


# A Culture of Silence

---



# Loose vs. Tight Cultures



## Loose Cultures

Weak or flexible social norms and a high tolerance for deviance. They allow for greater individual expression and are often more open to new ideas, change, and diversity.

## Tight Cultures

Have strong, pervasive social norms and low tolerance for deviant behavior. They prioritize order, coordination, and conformity.

# Revisiting the Incident

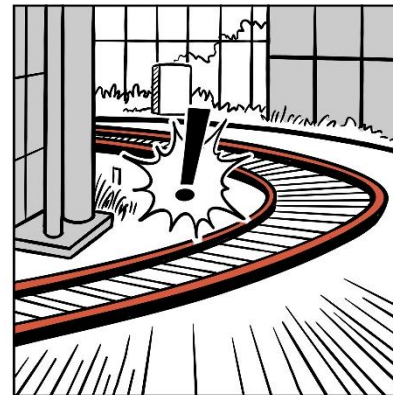
## The Driver

- Young and inexperienced.
- Already struggling.
- Under pressure.
- Feared humiliating punishment.



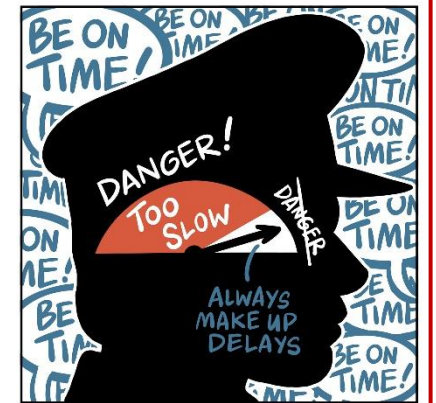
## The Organisation

- Prioritised punctuality.
- Delayed safety investment.
- Focused investments on speed.



## The System

- Speeding was normal, even expected.
- Rewarded unsafe behaviours.
- Suppressed concerns.
- Punished mistakes.
- Blame suppressed learning



# Solutions and Remedies



# Closing Reflections

## **The Real Priorities**

Are the countercultural forces that run against safety within your organisation adequately recognised and addressed?

## **Reward and Praise**

Are the unintended consequences of what's rewarded and what's penalised understood? For example, are unsafe behaviours being subtly praised or rewarded?

## **Culture and Norms**

What is the effect of power structures and hierarchy on your safety programme? Do we understand the influence of local practices, customs and norms?

## **Unintended Consequences**

What is the unintended consequences of metrics and KPIs within your organisation? what behaviours are they driving?

## **Normalisation of Deviance**

How are you considering where work as done may have drifted from your safety procedure and standards. Where has unsafe practice become normalised?



# Questions and Reflections



My LinkedIn article  
on the Amagasaki  
disaster



Connect with me on  
LinkedIn