

Lessons for captains of industry from captains of aircraft

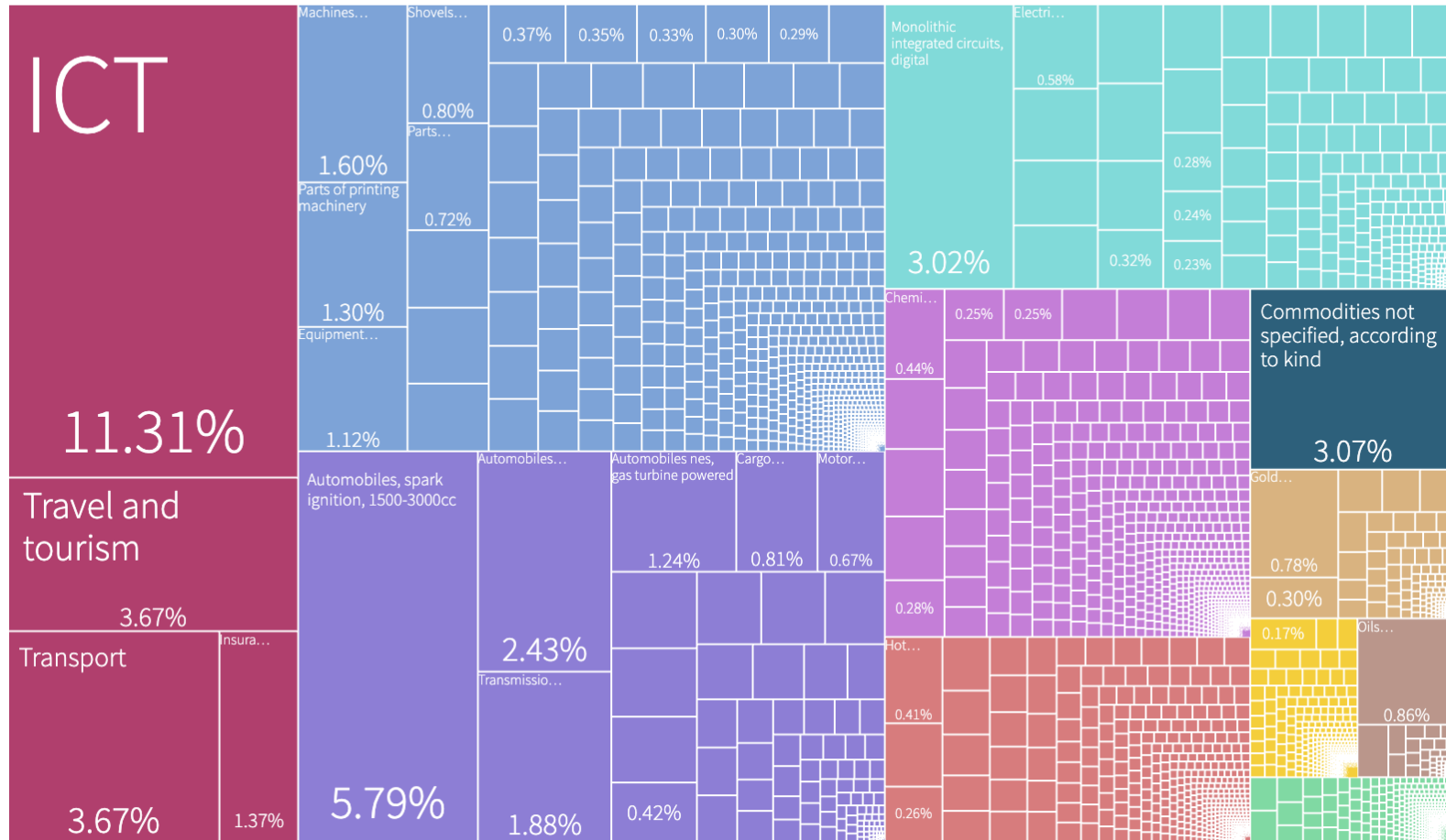
Jon Foster-Pedley

Dean and director of Henley Business School in Africa

SEP 20 2018

What did Japan export in 2017?

Share Download Feedback Data Notes



PRODUCT SECTORS



What did Vietnam export in 1995?

Share Download Feedback Data Notes

Shown: \$5.17B | Total: \$5.17B

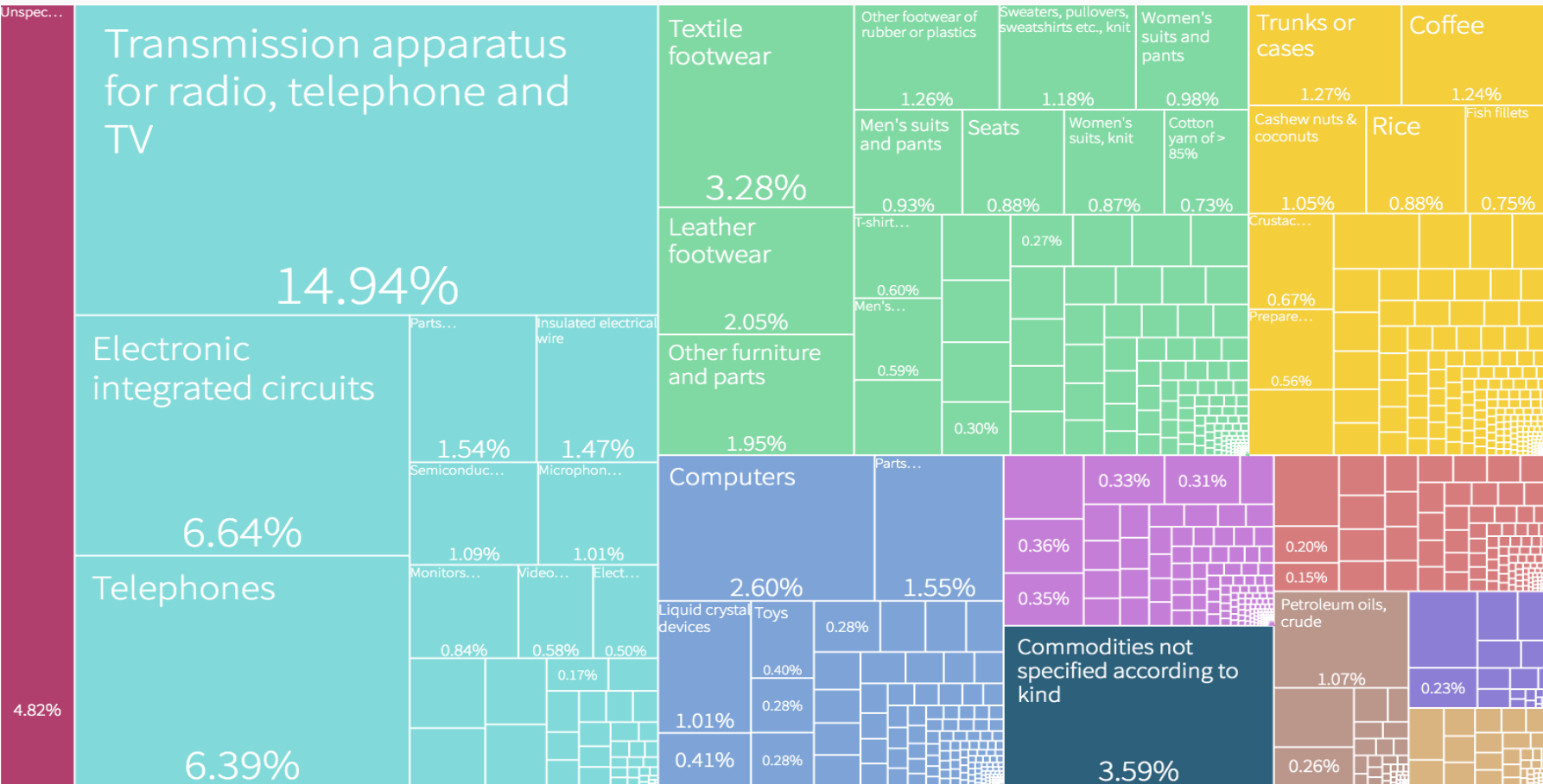
PRODUCT SECTORS



What did Vietnam export in 2017?

Share Download Feedback Data Notes

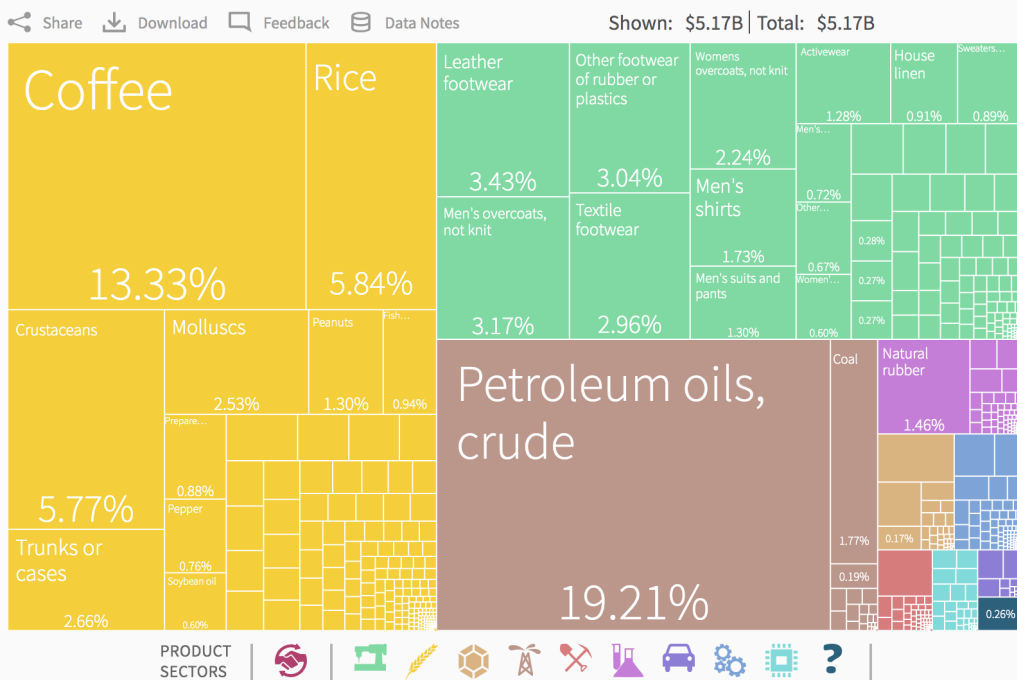
Shown: \$272B | Total: \$272B



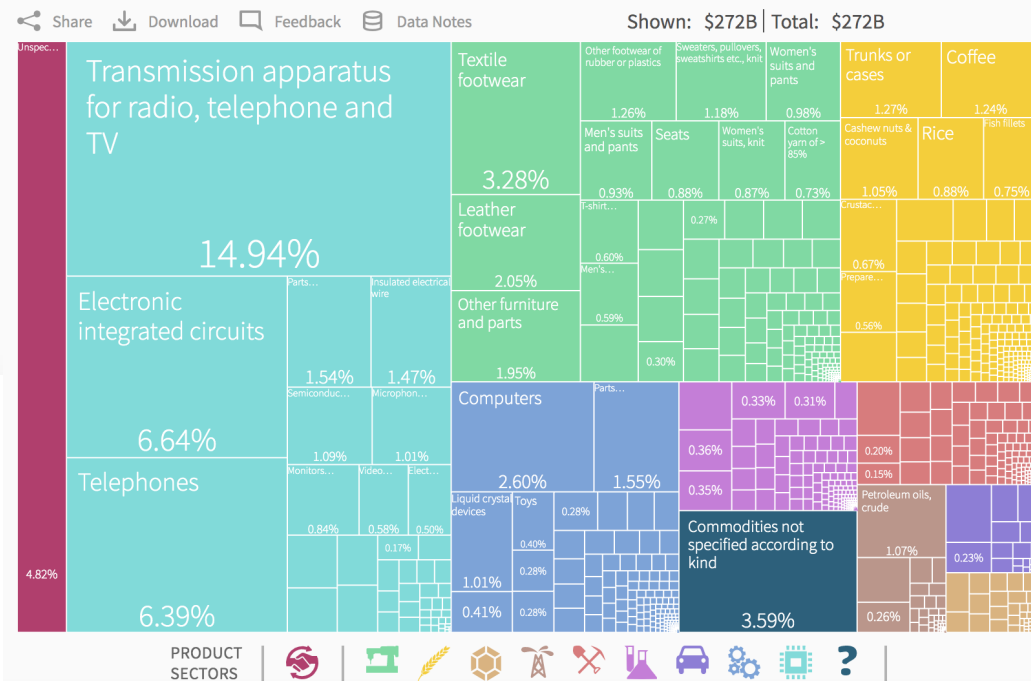
PRODUCT SECTORS



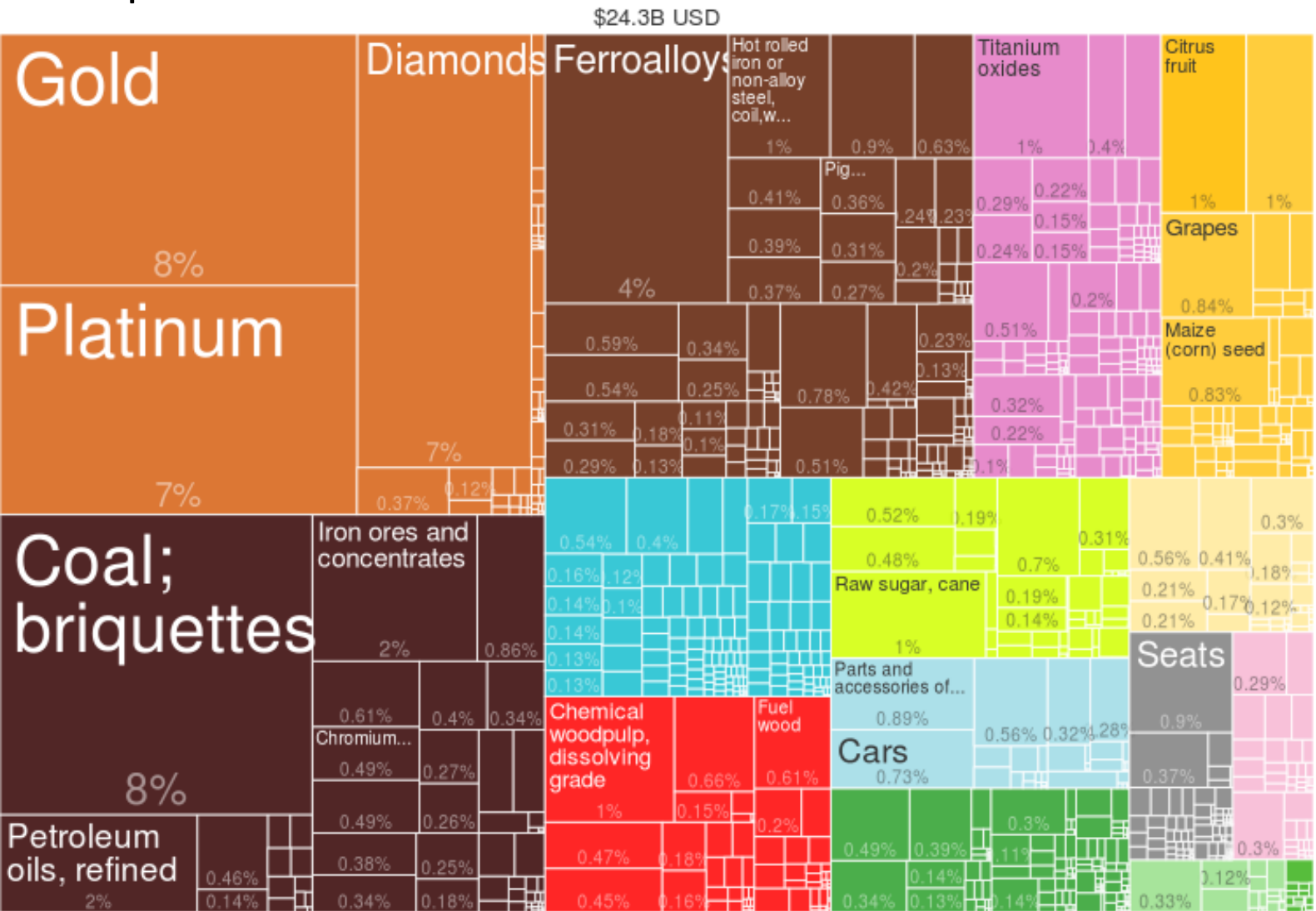
What did Vietnam export in 1995?



What did Vietnam export in 2017?



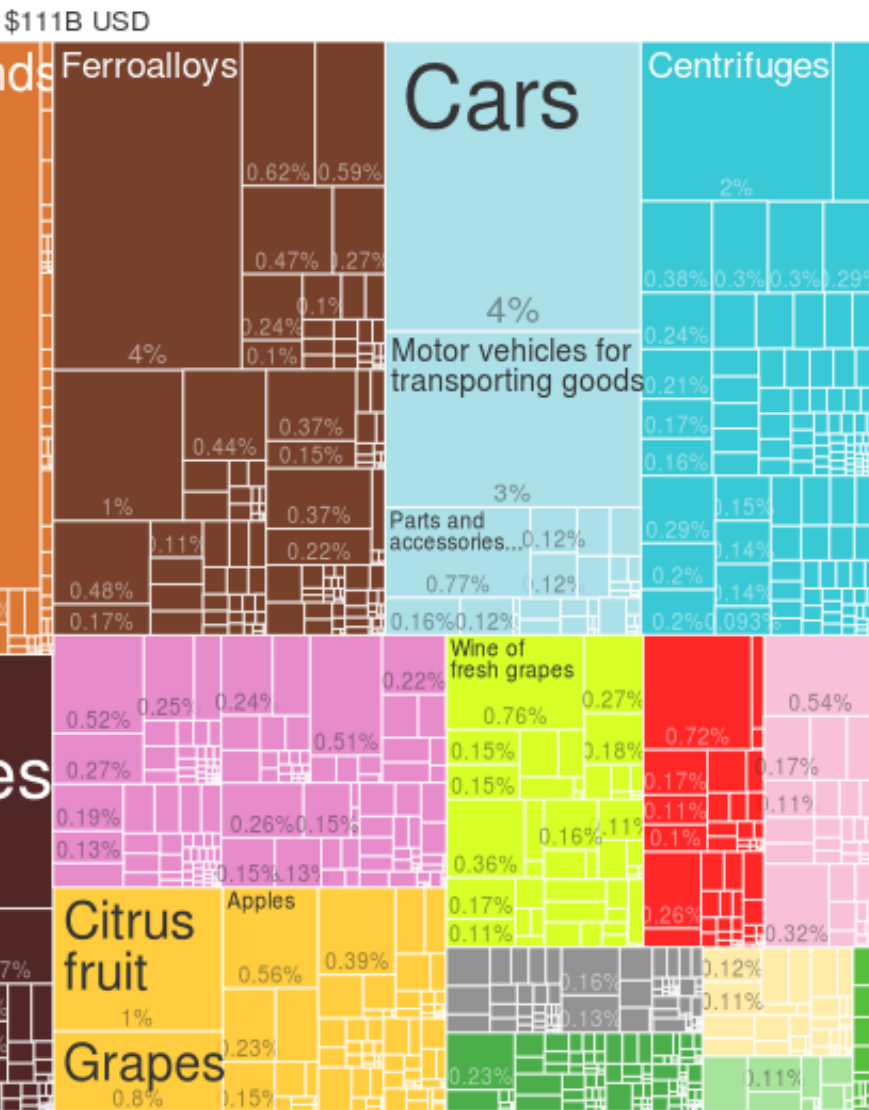
ZA exported in 1994



ZA, in-the-middle economy



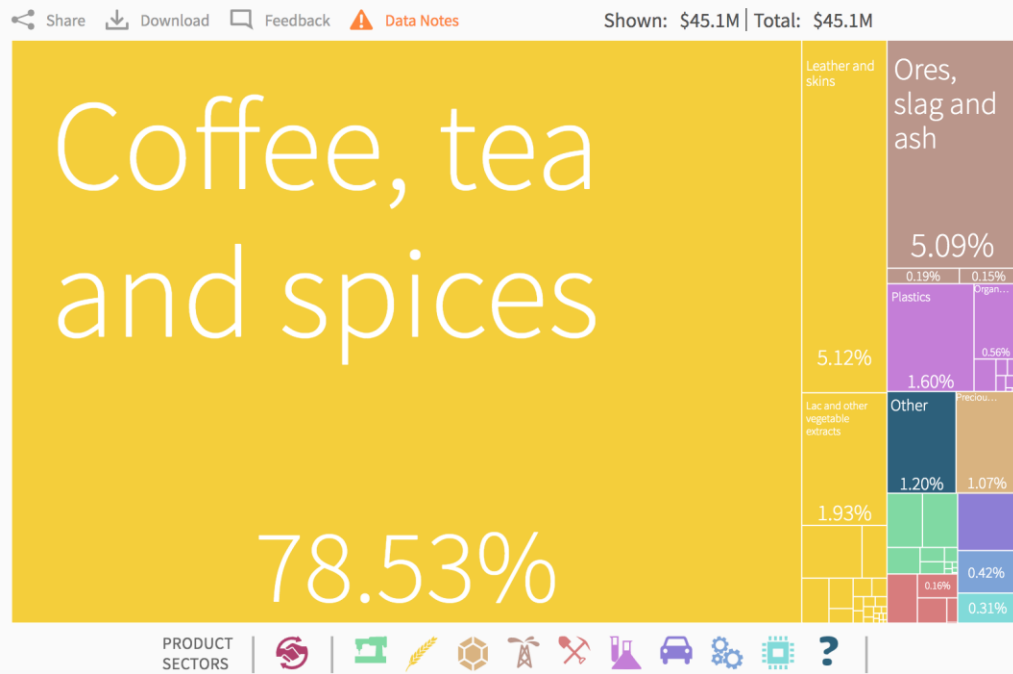
ZA exported in 2014



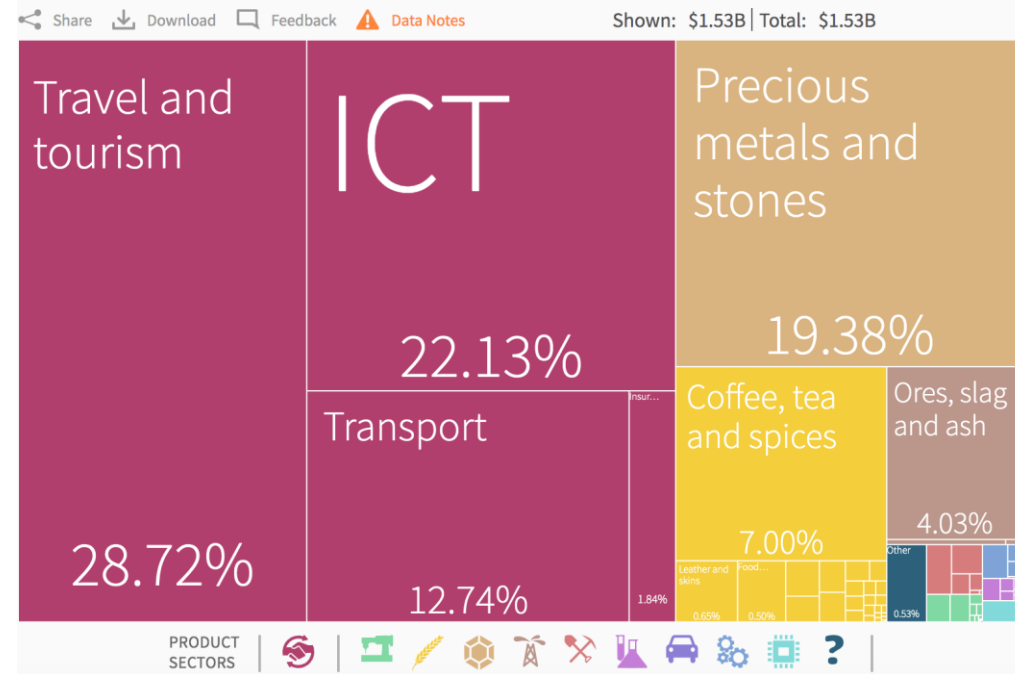
ZA, still mostly in-the-middle economy

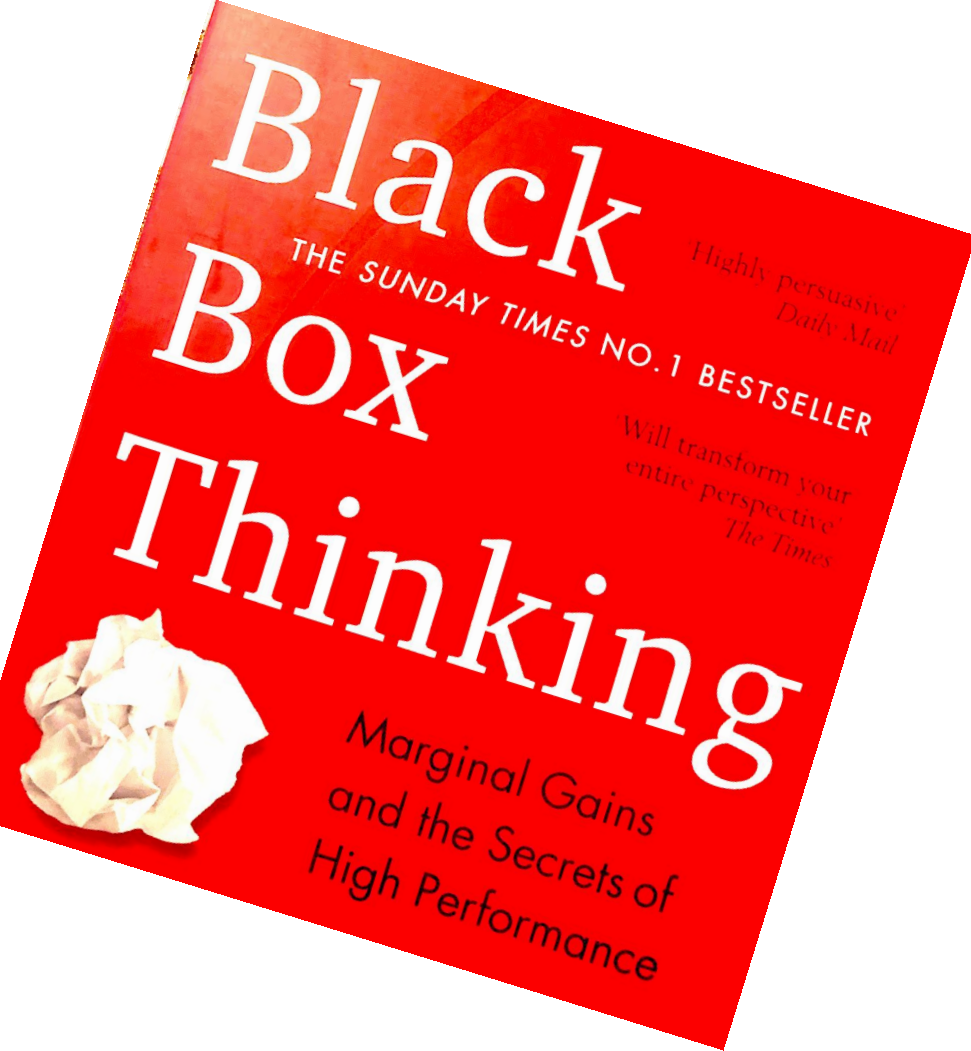


What did Rwanda export in 1995?



What did Rwanda export in 2017?





Why most people
never learn from
their mistakes

Jon Foster-Pedley dean and director,
Henley Business School Africa

jon@fosterpedley.com #AfricaDean

Why is flying safe?

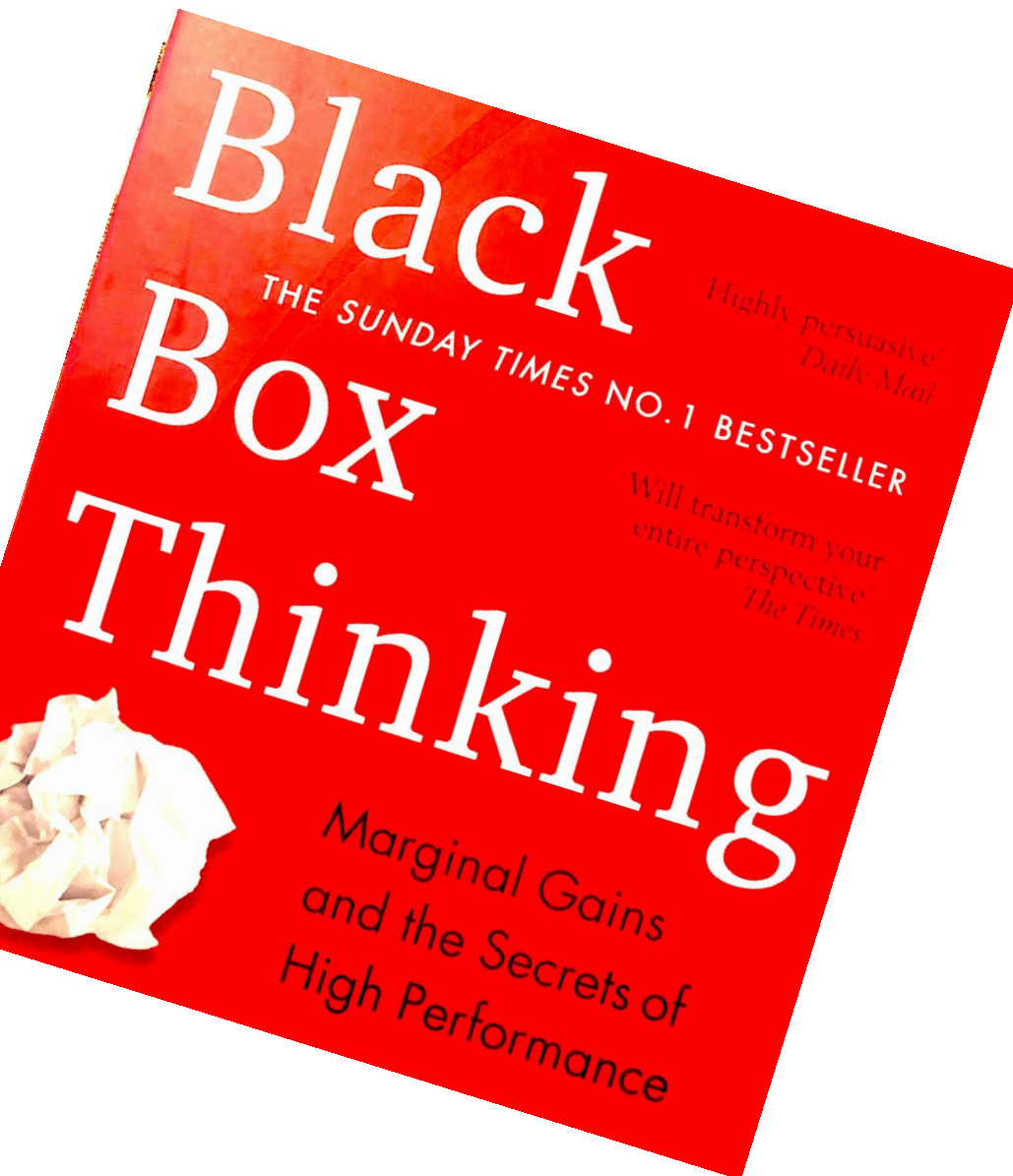
Aviation Between 2013-2018
on average, per annum, **worldwide:**

- **410 people died** in 14 fatal commercial aircraft crashes. 37 million flights p.a. carrying over 3 billion people, that's one fatal crash per 2,500,000 flights

Medicine

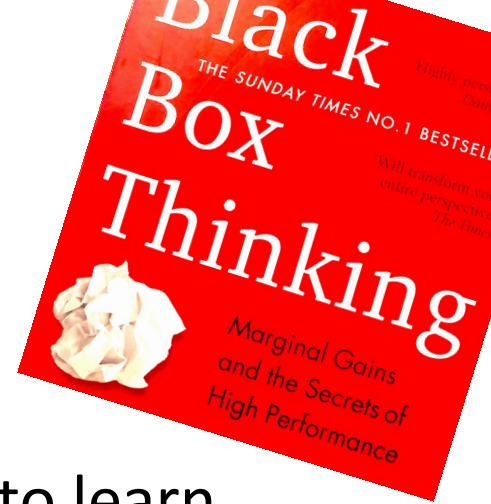
- In **USA alone**, medical studies by Harvard and others calculate **400,000 premature deaths** per annum by preventable medical harm.
- That's like two 747s falling out of the sky daily

The Book in Three Sentences



1. Success can only happen when we confront our mistakes
2. More people die from mistakes made by doctors and hospitals than from traffic accidents.
3. Aviation, on the other hands, has created an astonishingly good safety record because mistakes are learned from rather than concealed.

The Five Big Ideas



1. The single greatest obstacle to progress is failing to learn from mistakes.
2. A cornerstone to success is a progressive attitude to failure.
3. “Only by redefining failure will we unleash progress, creativity, and resilience.”
4. “When we are confronted with evidence that challenges our deeply held beliefs we are more likely to reframe the evidence than we are to alter our beliefs.”
5. “Marginal gains is not about making small changes and hoping they fly. Rather, it is about breaking down a big problem into small parts in order to rigorously establish what works and what doesn’t.”

David Beckham. Before the age of 16 – **50,000** practice kicks at his local park



Black box thinking



Lesson one: collect data about everything you're doing.

'Black boxes' + dispassionate analysis = info without guesswork or politics

Lesson two: depersonalise this information, and don't use it to shame people

The fear of shame leads to the deliberate concealment of errors, so everybody loses opportunities to learn.

Lesson three: learn by building, make marginal gains, iterate often, create theories and try to falsify them.

'If I want to be a great musician, I must first play a lot of bad music. If I want to become a great tennis player, I must first lose lots of tennis games'

Lesson four: understand, accept and eliminate cognitive dissonance.

Resist the temptation to spin failure as a success, or deny that something went wrong. Accept such failures as an opportunity to learn and improve.

If a thing's worth doing, it's worth doing badly, to begin with.



This openness and **lack of blame culture** is key to keeping the team together, Wolff believes.

Wolff ascribes the team's success to "**permanent scepticism**" and says the "relentless pursuit of excellence" is "something that is very ingrained in the team".

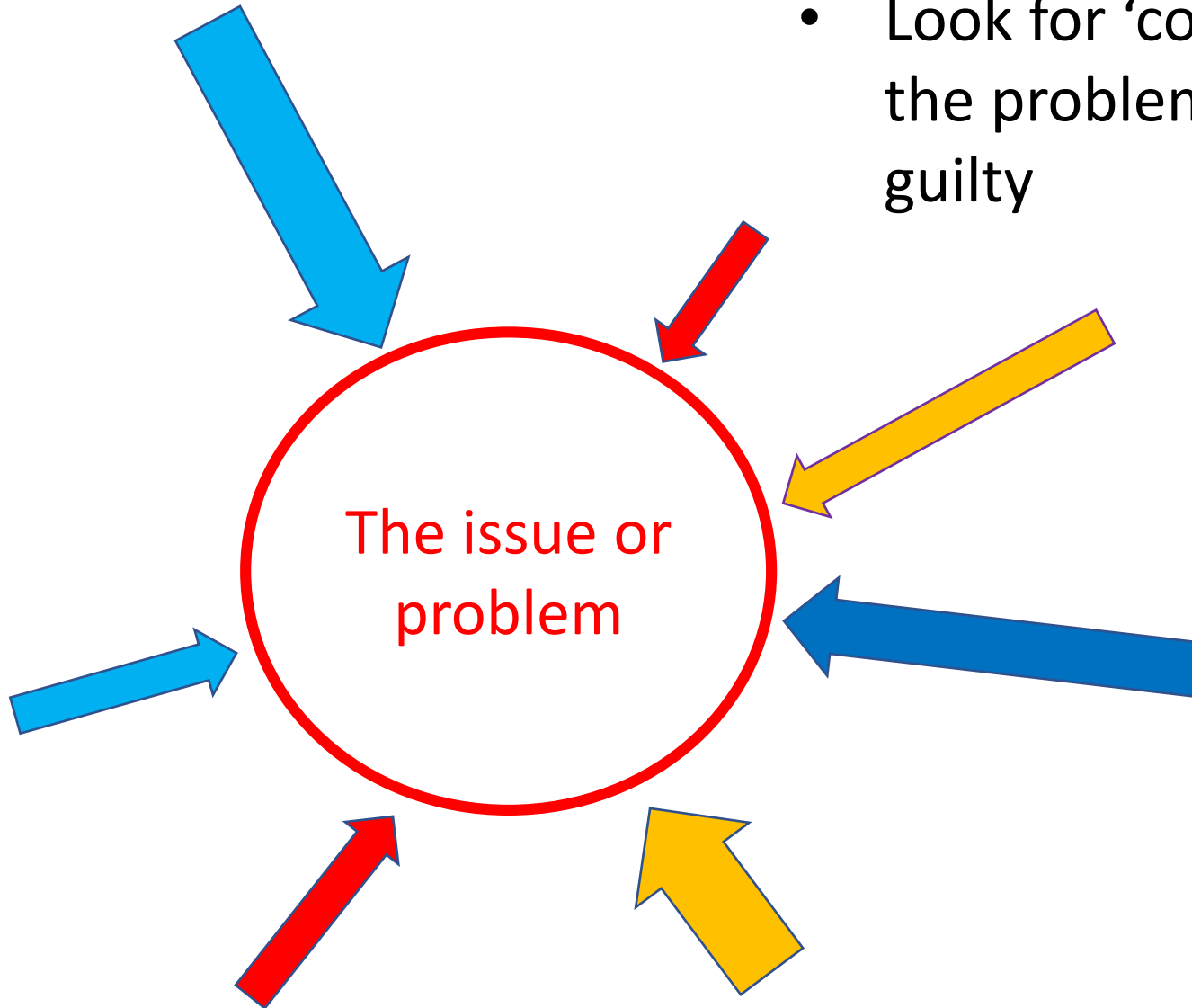
"See it, say it, fix it" mantra,

You need to **utilise those marginal gains** in order to extract the most out of your group of people."

"We do **mindfulness**," Wolff says. "We have actually rolled out meditation across the whole team over 1,000 people.

Search for **causes**

- Drive out fear and blame
- No scapegoats
- Look for 'contribution' towards the problem, not search for the guilty



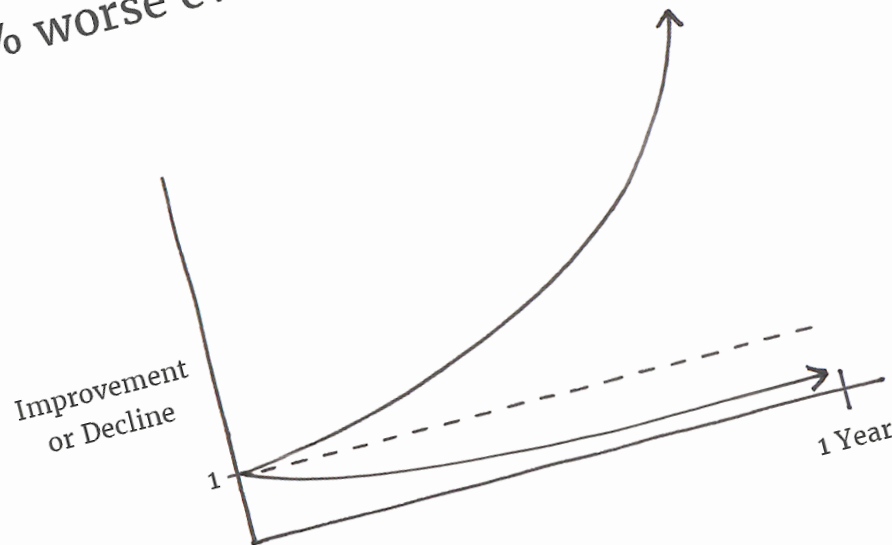
The magic of marginals

The Power of Tiny Gains

1% better every day
1% worse every day

$$1.01^{365} = 37.78$$

$$0.99^{365} = 0.03$$



JamesClear.com

Matthew Syed

Black Box Thinking

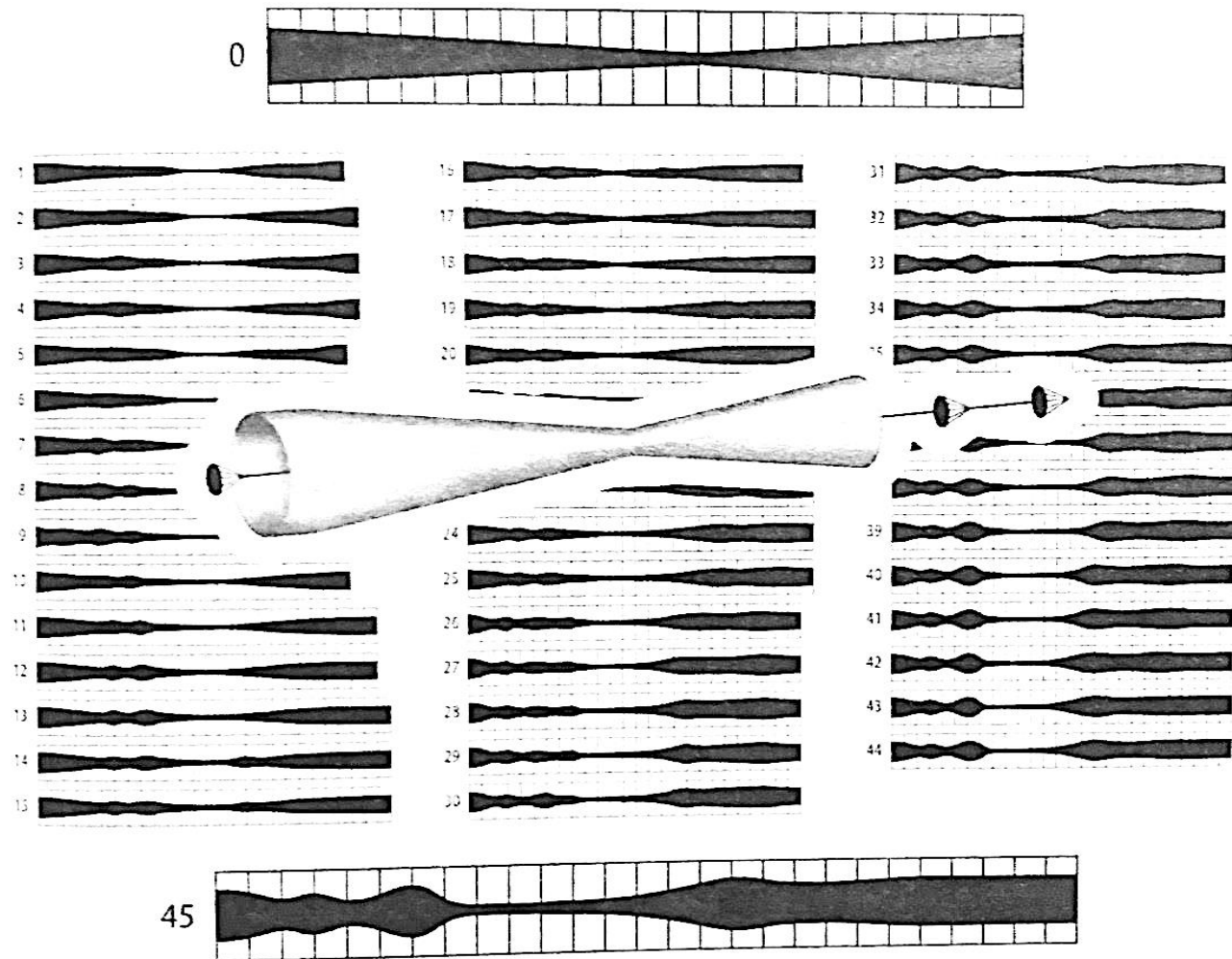
'Highly persuasive'
Daily Mail

THE SUNDAY TIMES NO.1 BESTSELLER

'Will transform your
entire perspective'
The Times



Marginal Gains
and the Secrets of
High Performance



(The original nozzle is at the top. The final nozzle, after 45 generations and 449 rejected designs, is at the bottom. It has a shape no mathematician could possibly have anticipated.)

Their **coach improved**
everything by **1%**

This is the **remarkable**
difference it made



Pre-mortems

- Think about why your ideas may fail before you implement them.
- How would you destroy your own company?
- By picking away at the shortcomings, early ideas are made more efficient and likely to succeed.

If a thing's worth doing, it's worth doing badly – to begin with

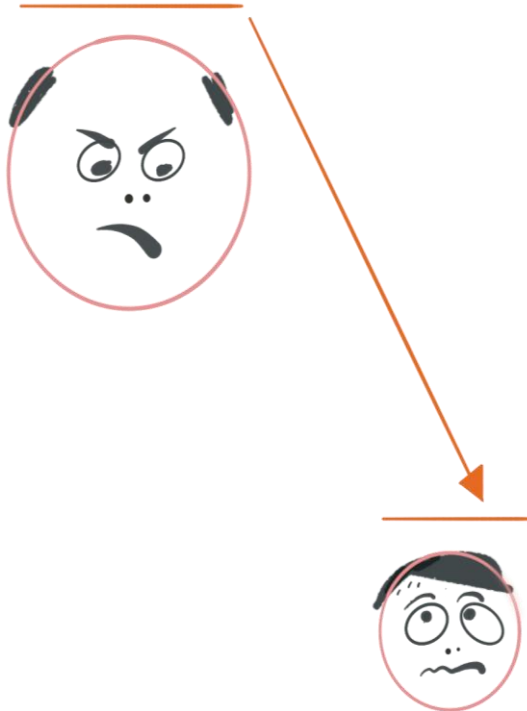
- Don't be afraid of early failure. Many of today's largest and most successful companies – Facebook and Amazon for instance – released **minimum viable products (MVPs)** early in their development.
- There are distinct benefits with going to market with an imperfect product, rather than sheltering your product from the market until its 'perfect'.



Power distance... AF 447



1



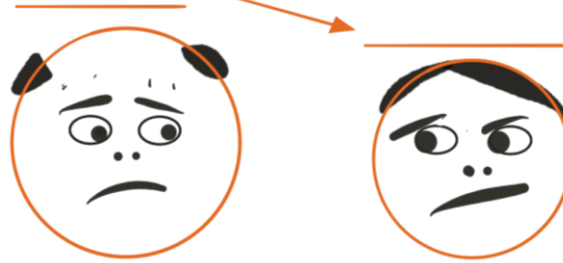
High power distance

Silence of dissent

No feedback

7 Autocratic decisions

2



V. Low power distance

No authority

Too little respect

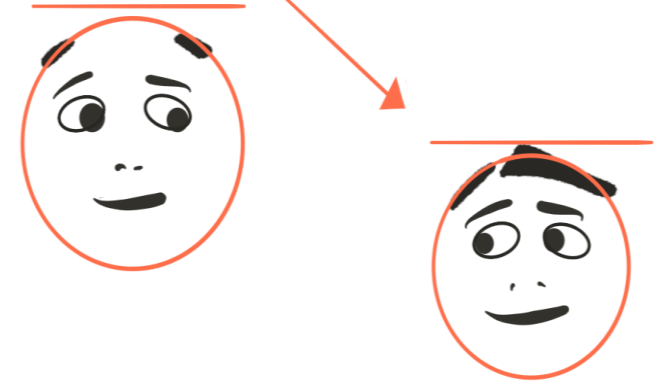
Feedback confused

Decisions not challenged

Or over-challenged

Power distance

3



Low power distance

Open communication

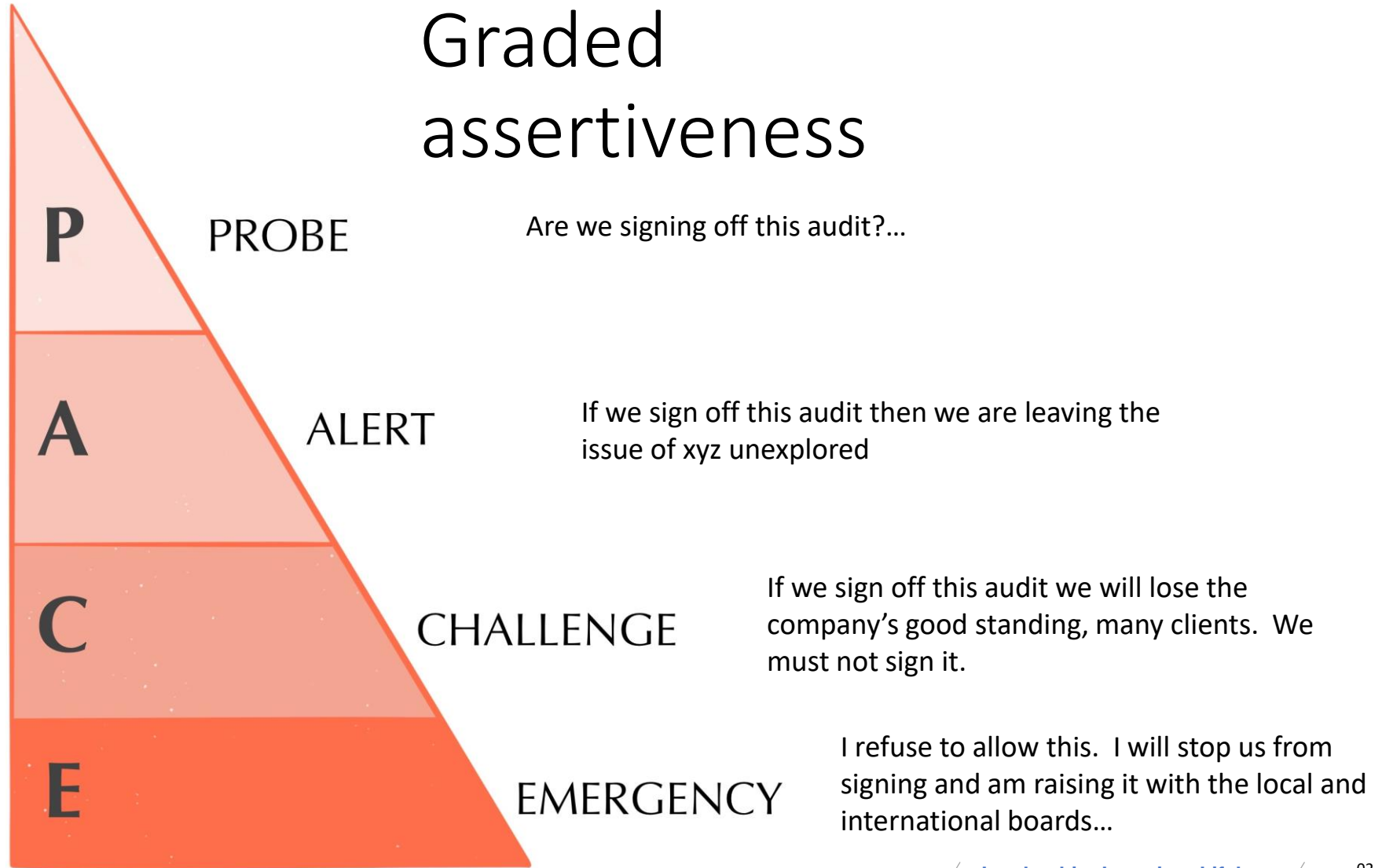
Appropriate respect

Good feedback both ways

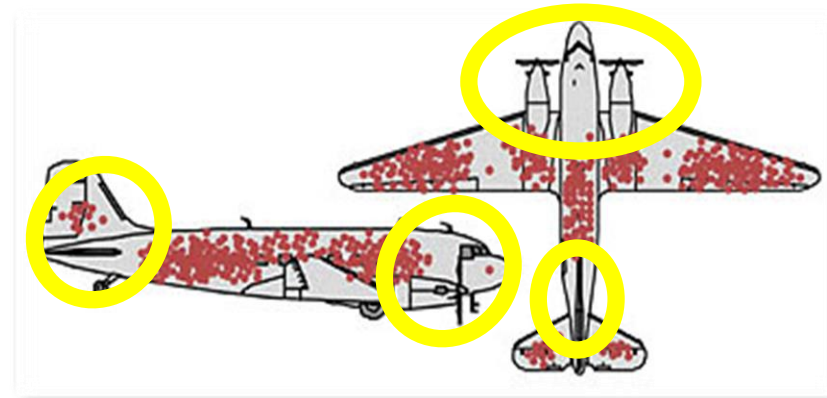
Sufficient authority

Fast corrections

Graded assertiveness



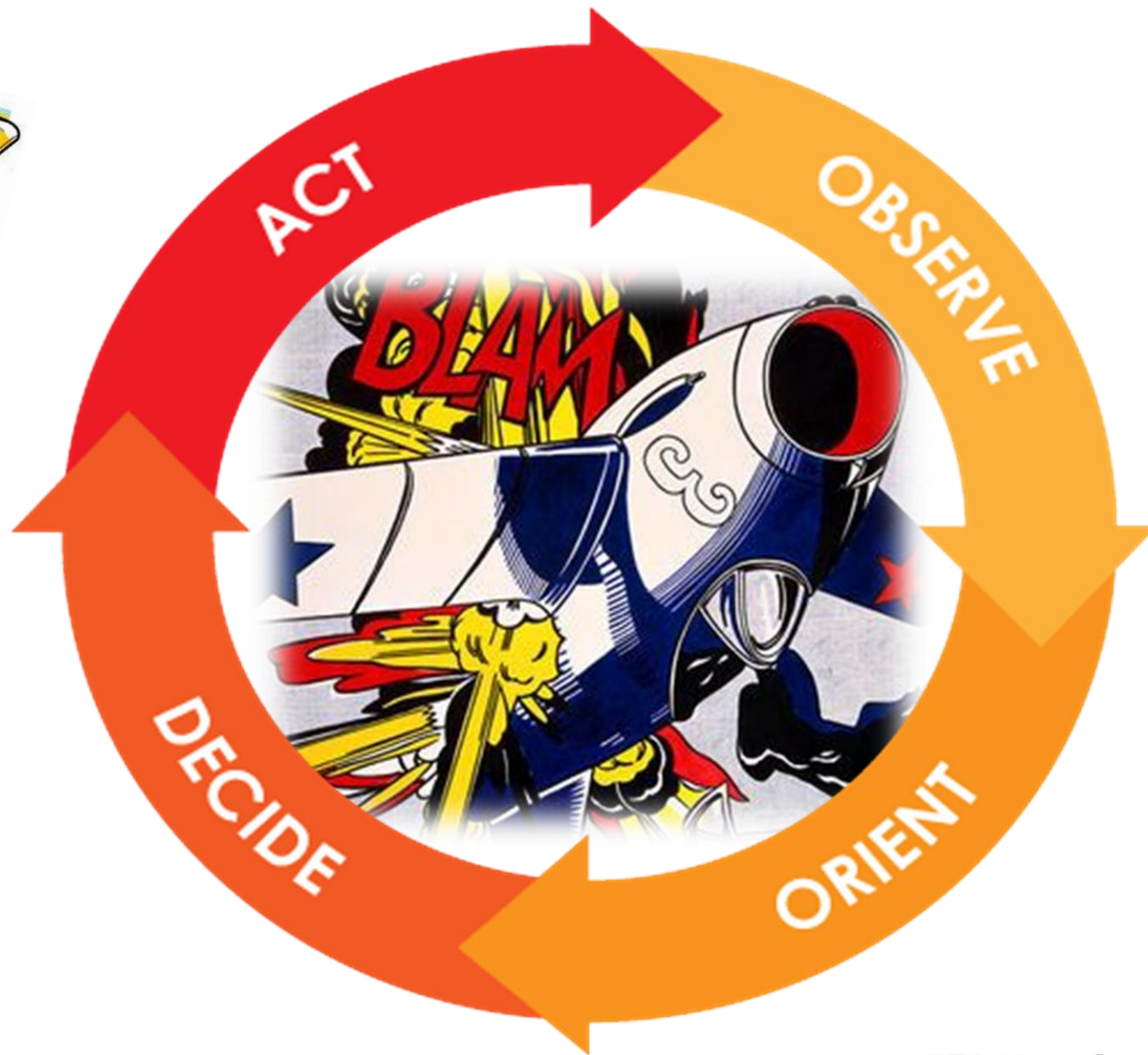
Thinking straight...



Aircraft with bullet holes

Colonel Boyd and the OODA loop





E



Power distance... AF 447



Mr. Burman



United 173 and Eastern 401



Distraction and lack of awareness



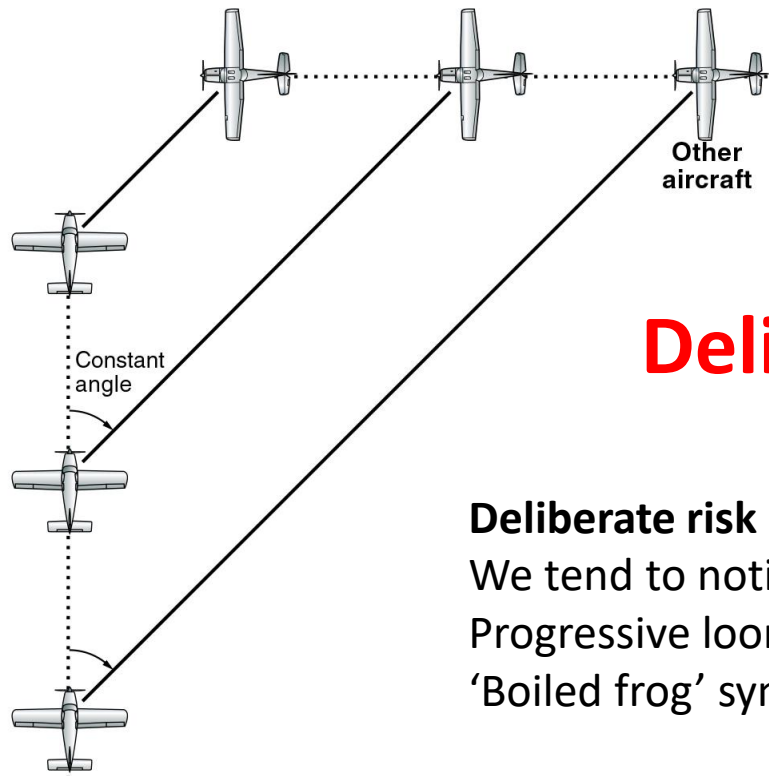
Introduction of Crew
Resource
Management

United Airlines Flight 232



Awareness, improvisation,
communication & collaboration

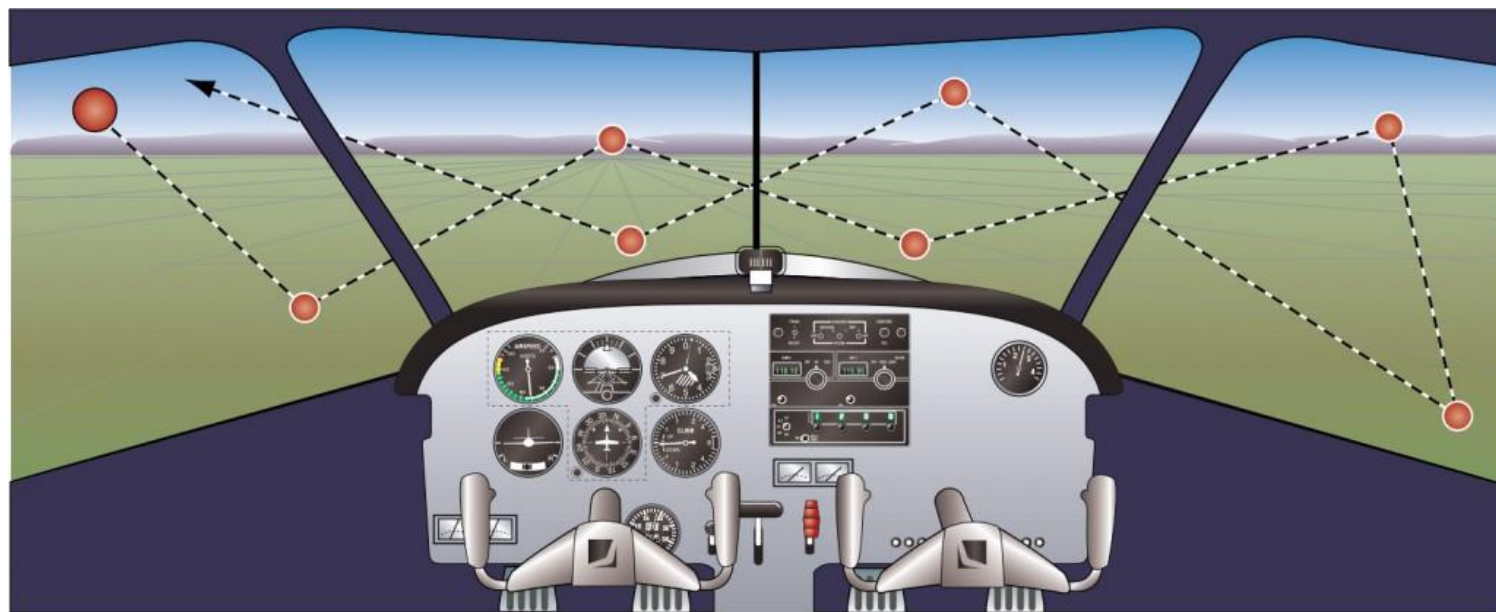
SCAN



Deliberate Risk Scanning

Deliberate risk management and scanning is essential
 We tend to notice **relative movement** or the **new**.
 Progressive looming risks aren't noticed, or are discounted.
 'Boiled frog' syndrome

Pilots scan deliberately



PLAN

FLIGHT PLAN

1. TYPE X VFR	2. AIRCRAFT IDENTIFICATION N123DB	3. AIRCRAFT TYPE C150X	4. TRUE AIRSPEED 115 KTS	5. DEPARTURE POINT CHICKASHA AIRPORT	6. DEPARTURE TIME PROPOSED (Z) 1400Z ACTUAL (Z)		7. CLOSING ALTITUDE 3500
8. ROUTE OF FLIGHT Chickasha direct Guthrie							
9. DESTINATION (Name of airport and city) Guthrie Airport Guthrie, OK		10. EST. TIME ENROUTE HOURS MINUTES 00 35		11. REMARKS			
12. FUEL ON BOARD HOURS MINUTES 4 45		13. ALTERNATE AIRPORT(S)		14. PILOT'S NAME, ADDRESS & TELEPHONE NUMBER & AIRCRAFT HOME BASE Jane Smith Aero Air Oklahoma City, OK (405) 555-4149			15. NUMBER OF PASSENGERS 1
16. COLOR OF AIRCRAFT Red/White		17. CLOSE VFR FLIGHT PLAN WITH <u>McAuliffe</u> FSS ON ARRIVAL					

PPPPPPP

Proper
Prior
Planning
Prevents
Pretty
Poor
Performance



Managing awareness

ANSWER: make it all visible

CHIRP – Confidential & Independent Reporting

CHIRP

Air Transport FEEDBACK

Issue No: 120

4/2016

CONTENTS

Editorial

Aircraft Maintenance during Redundancy Consultation Period

Social Media

Inappropriate Use of Mobile Phones

When is an Engine Failure not an Engine Failure?

The Impact of Poor Passenger Behaviour

EASA FTLs –Acclimatisation and Rest Away from Base

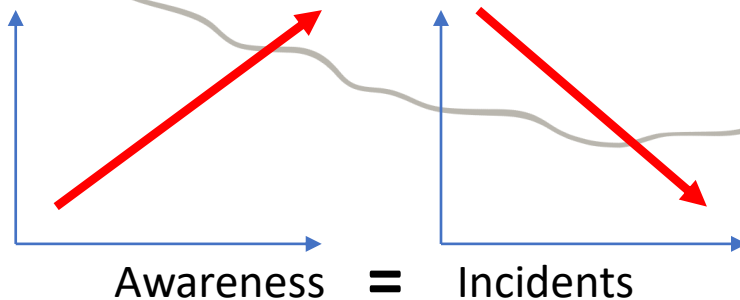
Rostering

Life Jacket

Increase transparency
reporting by driving out fear

Suddenly – there seems to
be danger everywhere

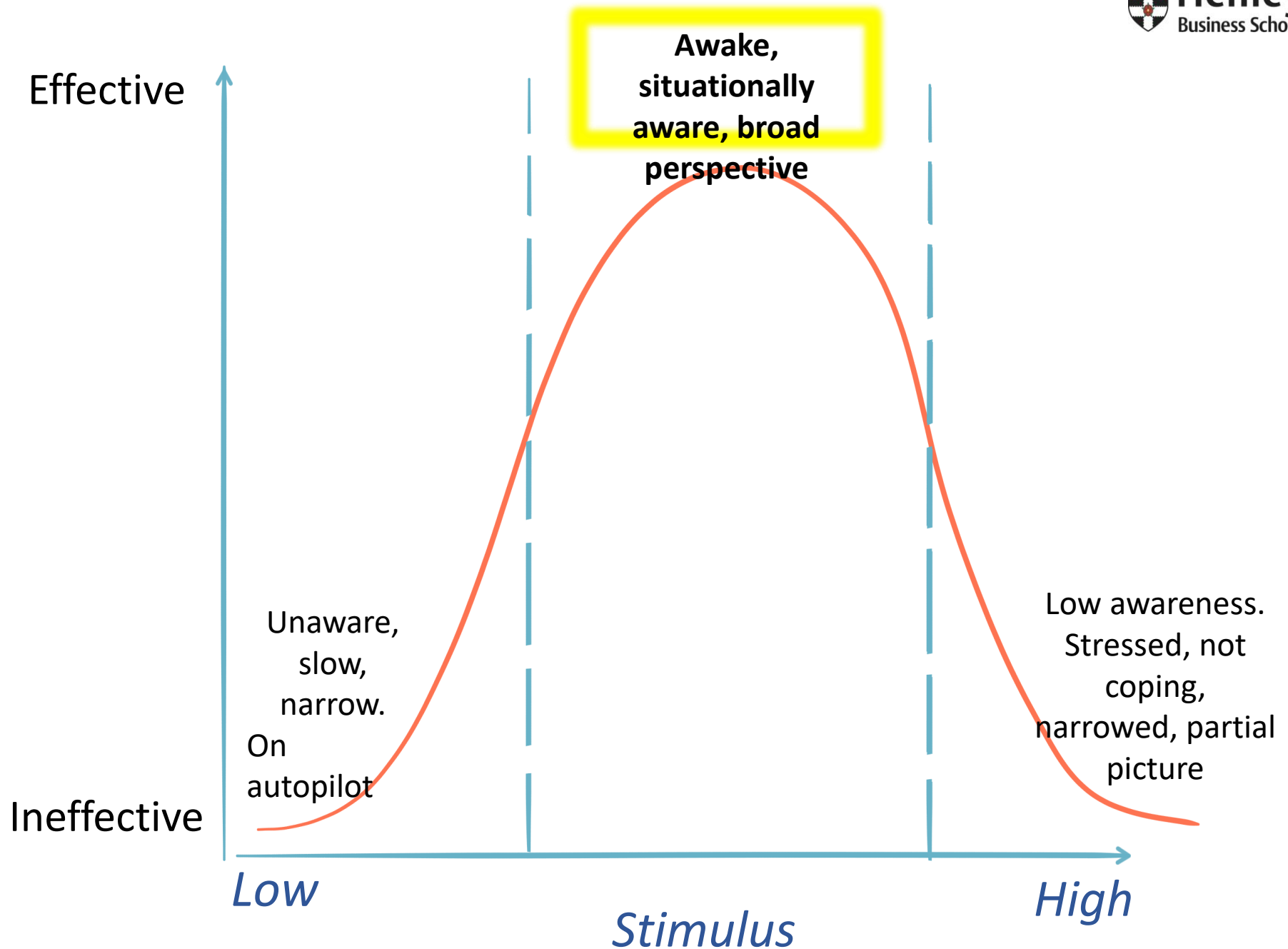
But then our natural self-organisation
kicks in.....



Managing Arousal



Situational awareness and stress



Managing Self State

I'M SAFE acronym

I – Illness

M – Medication

S – Stress

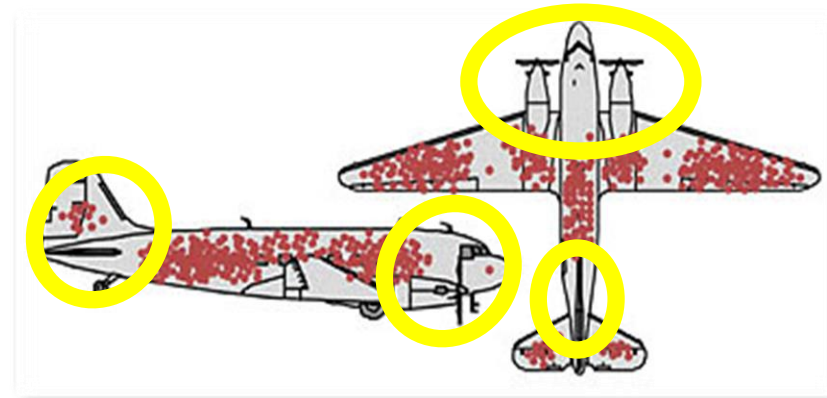
A – Alcohol

F – Fatigue

E – Eating

Managing Thinking Habits

Thinking well...



Aircraft with bullet holes