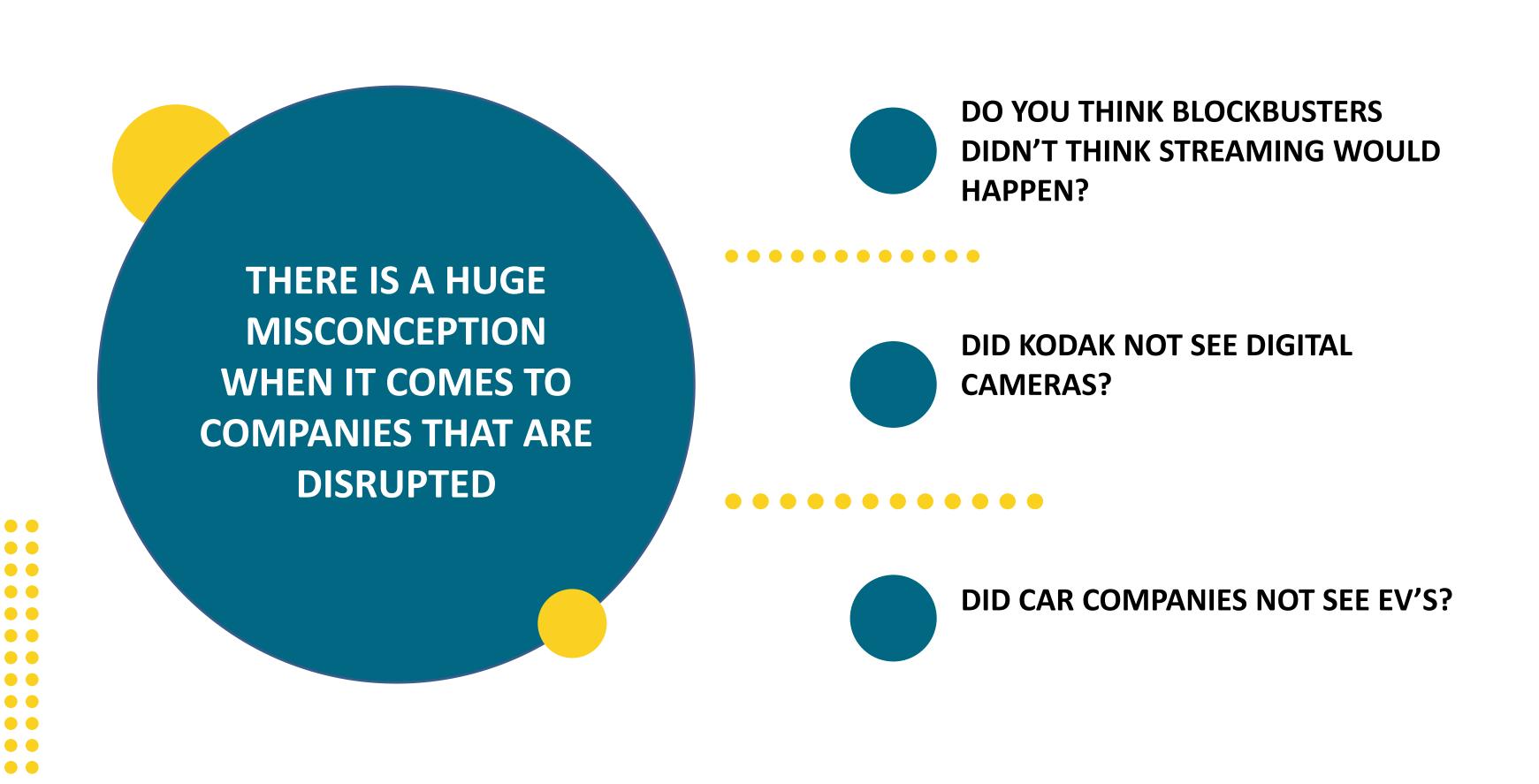
The 3 Cs of future markets

Challenge Collaboration Crossovers

Megan Goodwin



OF COURSE THEY DID.
THEY JUST HAD NO IDEA HOW TO CHANGE

HOW COMPANIES RESPOND TO CHANGE IS THE ISSUE.

- THEY ARE NOT SET UP TO.....THEY ARE OIL TANKERS
 NOT SPEED BOATS, THEY HAVE THEIR MOMENTUM AND WAYS OF
 DOING THINGS AND CAN'T CHANGE
- THIS PRESENTATION HELPS EXPLORE HOW THEY CAN

AGENDA

- **ME**
- CONTEXT
- WHY THE 3CS MATTER
- WM EXAMPLES OF THE 3 CS
- TAKEAWAYS

ME – CONSTANT CHANGE



Convincing people to change behaviour



Facilitate interactivity around TV shows – bridge between
 2 worlds



- Rejuvenate by translating books into games
- Constant change
- Tech is an enabler
- Understanding People is crucial

We live in a world of constant change



The great disruption has only just begun"

History has shown that stability is, more often, the exception

GILLIAN TETT



AlixPartners – surveyed 3,000 business executives around the world:

34 are facing a high level of disruption from world events right now

70 % think their jobs are at risk.

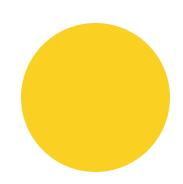
98 % believe their business models will have to change in the next three years.

88 % of respondents think they should reconfigure their supply chains to cope with deglobalisation

56 % think that tech innovation is happening so fast that their company cannot keep up



CHANGE CREATES CHALLENGES



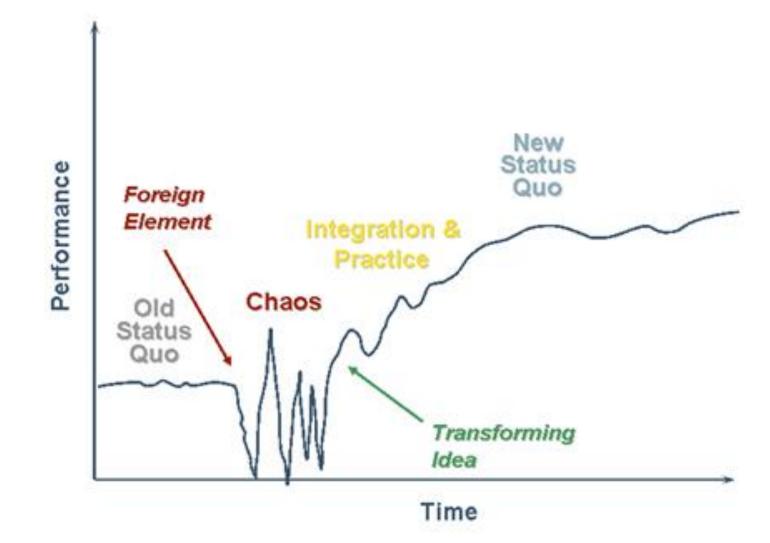
CHANGE IN THE CONTEXT OF TECHNOLOGY

- 1 Confusing
- 2 Apply it to what we did before
- 3 Think of new things to do with it (slowly)

Internet

- Meet on Zoom but re-think meetings?
- Stream TV but re-think the shows?
- Put homework on google classroom but re-think education?

Satir Change Model – Anticipating change

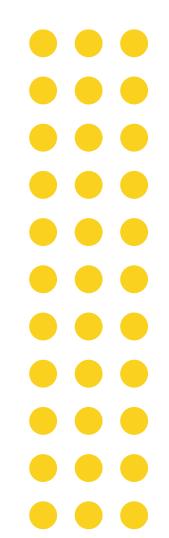




ARGOS: STORY OF CONSTANT CHANGE

- By 2012 looking at the dark hole of irrelevance
- A seamless retail experience "more choice, available faster"
 - Screen experience kiosks/web/mobile
 - Accuracy of stock availability
 - Mobilisation of stock- "hub and spoke"
- Acquired by Sainsbury's in 2016 multichannel strategy.
 - Standalone replaced within Sainsbury's.
 - eBay click-and-collect in-store.
- Xmas 22: 50% + people due postal strikes and unreliable
 Amazon deliveries





COMPANY CULTURE

 Adapt to changing customer habits by trialling new ideas and embrace transforming technology where it makes sense for the customer.

CHALLENGES

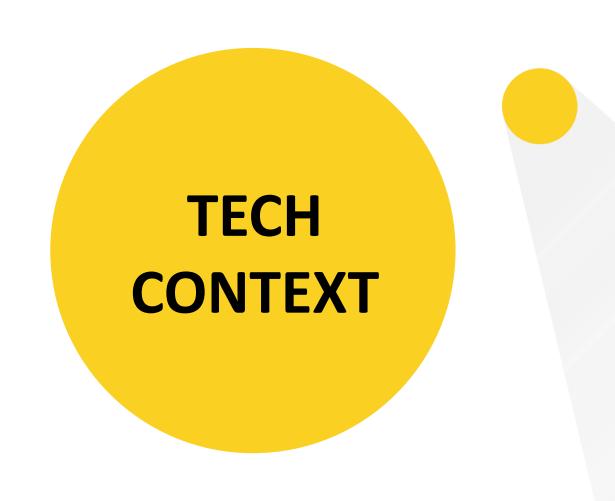
MANY OF THE RULES HAVE CHANGED

COMPETITION IS NOW DIFFERENT

DIFFERENT CULTURES ARE REQUIRED

BUSINESS CONTEXT

- Interest rate hikes and recession
- Energy crisis political instability
- Automation reduction in manual/physical processes
- Increase in near shoring
- ESG going mainstream as push for net zero



AI – CHATGPT

NFT

MOBILISATION

Technology is evolving so rapidly

Having the knowledge to which to use and why

METAVERSE/SCANIVERSE DIGITAL TWINNING?

GEONOME SEQUENCING



GAME CHANGER IS TALENT MANAGEMENT

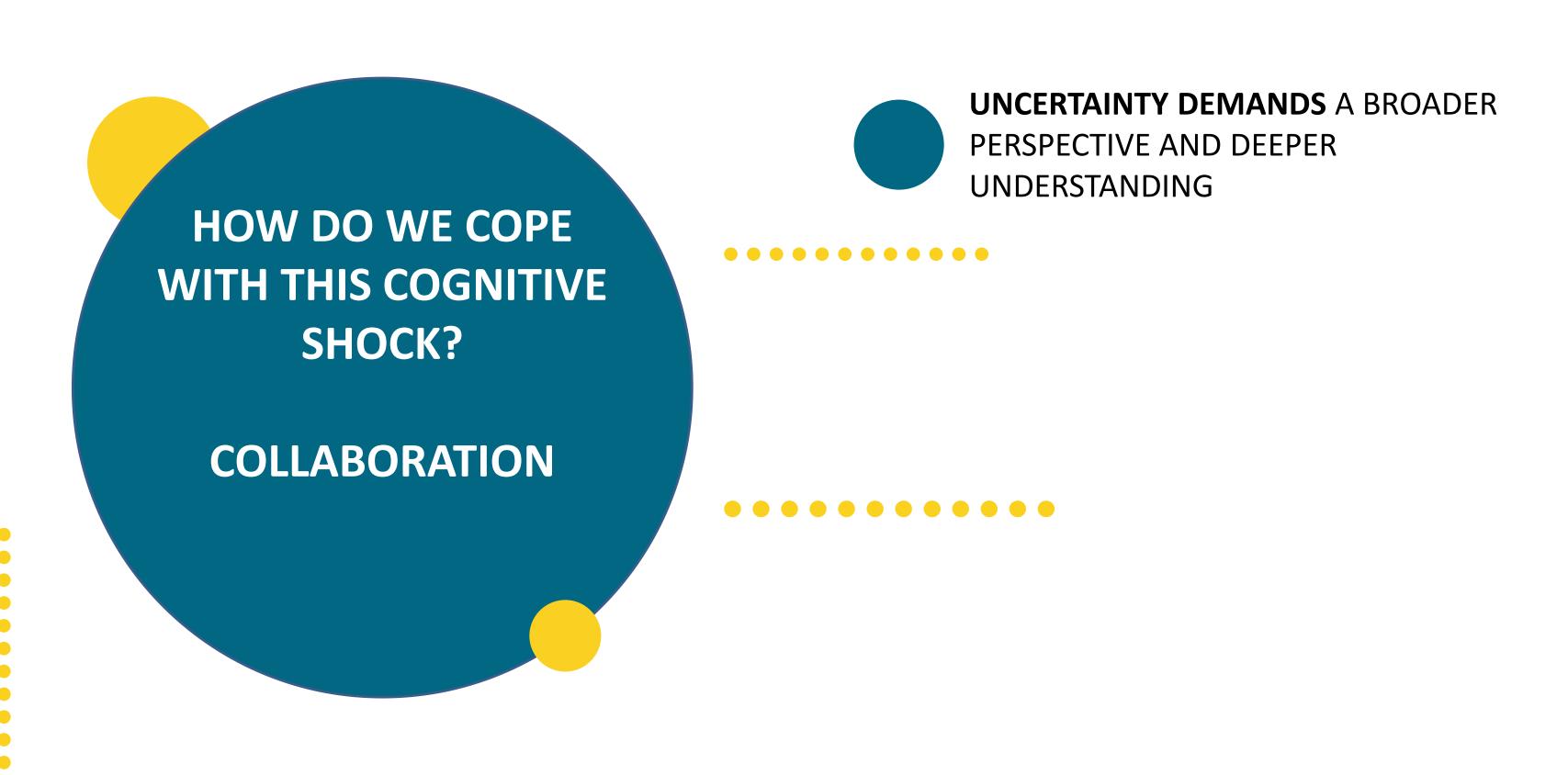
Re-Skilling

- 94% of work force re-skilled by 2030
- Education?

Talent Management

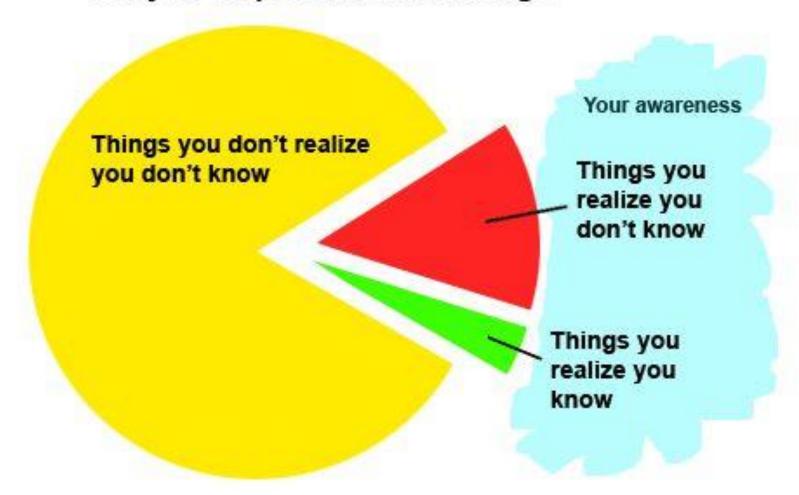
- Fractional work
- Intergenerational motivators
- Flexibility/empowerment /trust





DO YOU KNOW WHAT YOU DON'T KNOW?

Body of all possible knowledge

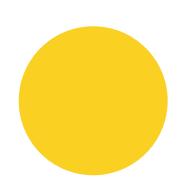


 COLLABORATIONS mean more likely to find out

NASA

• Over 70% complex problems solved by experts from other disciplines

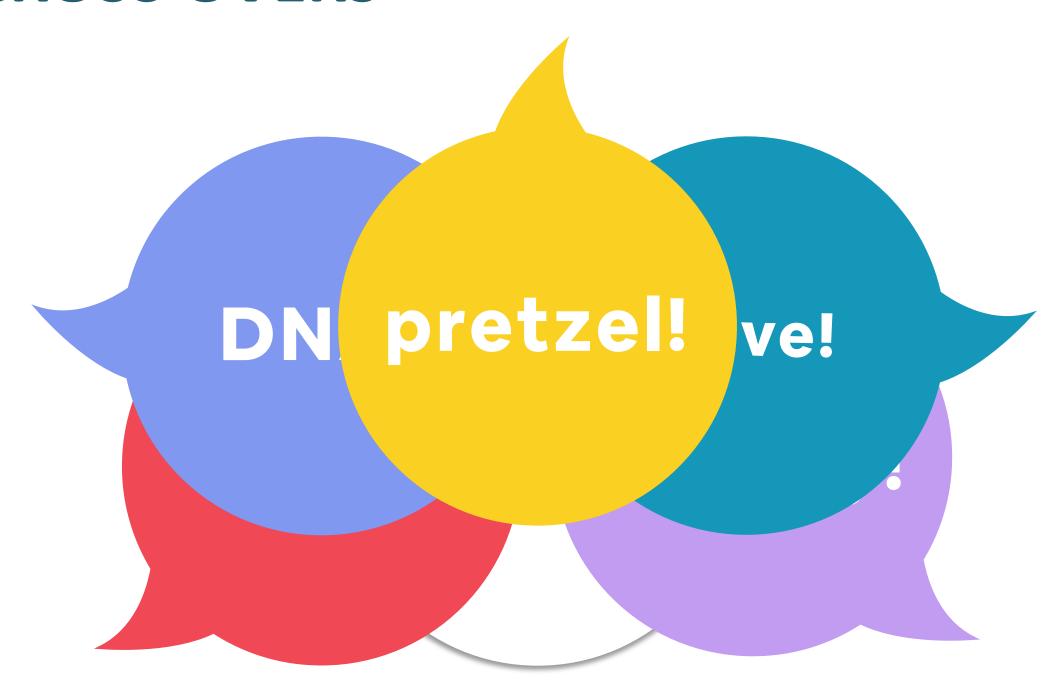
- Different disciplines unlock maximum insight due to exponential no of innovations
- Culture of open innovation

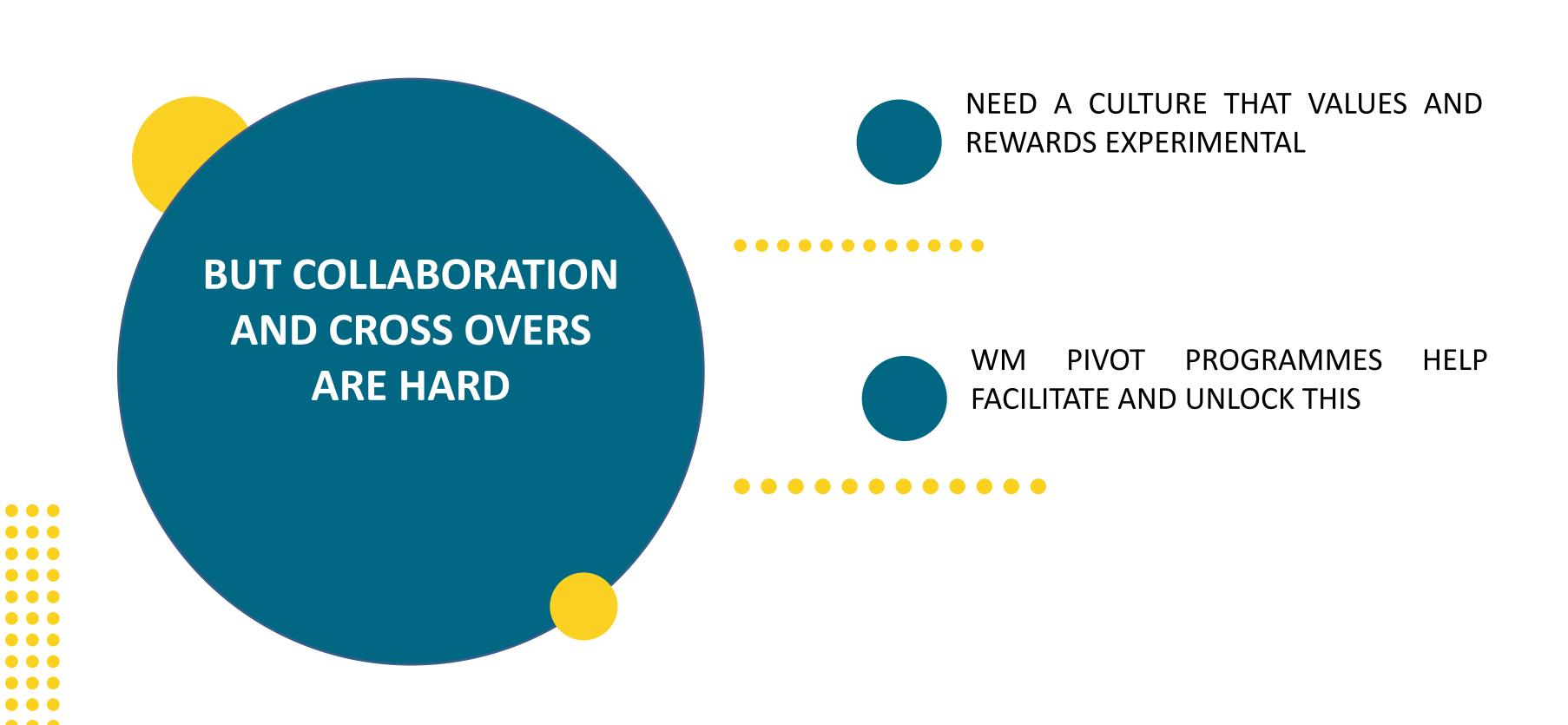


THE POWER OF CROSS OVERS

Maximize possibilities

Maximum insight





CASE STUDIES

- Quanta Dialysis Technologies
- Kew Technology
- Impression Technologies



STORY OF CHALLENGE/ COLLABORATION AND CROSSOVERS

Prof Clive Buckberry: Game changing approach to kidney dialysis (2022 MacRobert Award)

Human context

- Hospital visits 2/3 times per week for 4 hours to cleanse blood
- Massive impact on life; work, holidays, families
- At home = liberation of lifestyle

CHALLENGE 1 - cleaning valves that get clogged up with deposits during dialysis.



CHALLENGE, COLLABORATION AND CROSSOVERS

- But team identified valves which filter pulp in juice dispensers
- The fact they are disposable means that are sterile and removes the need for cleaning!
- CHALLENGE 2 simple and intuitive Smallfry helped develop the usability

BEFORE AND AFTER:



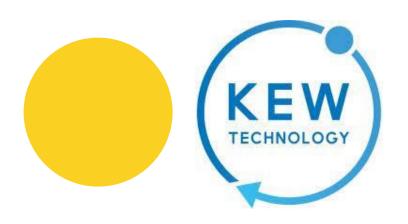




CHALLENGE, COLLABORATION AND CROSSOVERS

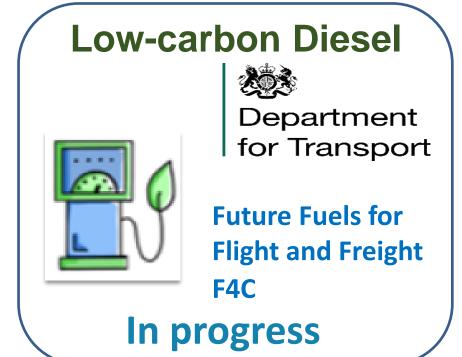
CHALLENGE 3 – Brilliance is also the vulnerability - data

- > 40 sensors monitor dialysis session and feeds into central health-checking system.
- Cybersecurity and data security risk enhanced for FDA approval.
- External collaboration Dr Philip Bennett FREng
- CROSS OVER Physics meets Engineering meets MedTech



CHALLENGE, COLLABORATION AND CROSSOVERS

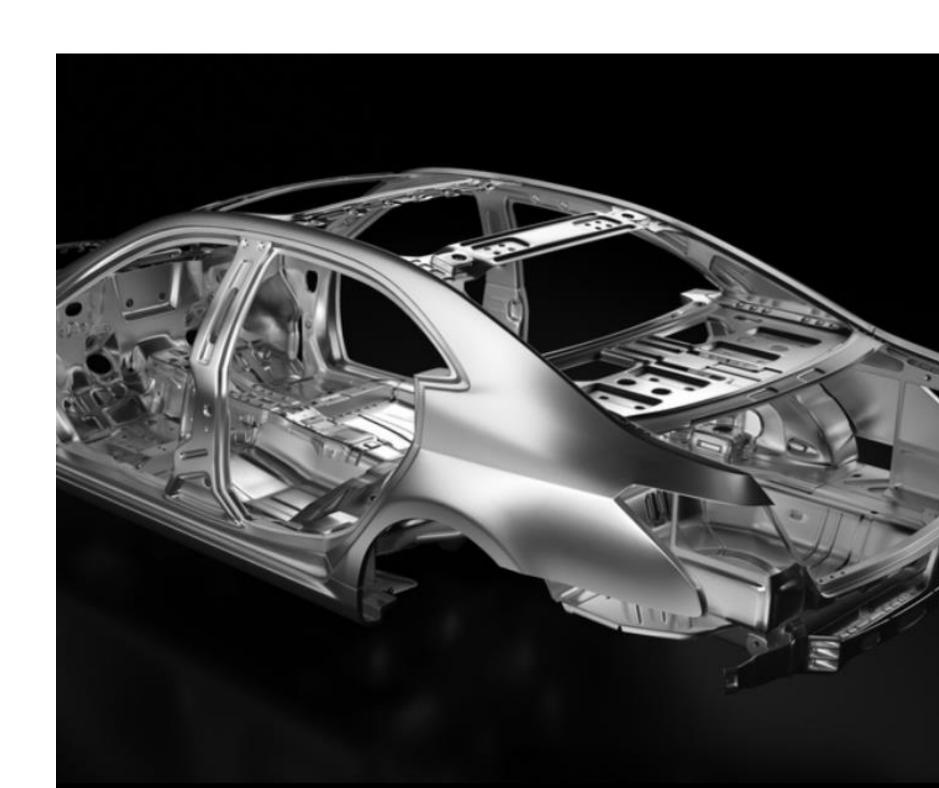
- Challenge: de-carbonise HGV and Aeroplanes Electrification?
- Part of PIVOT scheme and Aerospace UP funding to turn domestic and agriculture waste into low grade fuel
- Kew Tech facility (£28M) makes "syngas" from waste, then converted using The Fischer–Tropsch (FT) process into liquid hydrocarbons.
- Using crossover technology developed in South Africa (expertise built under apartheid sanctions making oil from coal)
- Waste-management to transport and automotive to aerospace







- Impression uses engineered aluminium forming to make high speed forming, light weight, complex parts; car bodies
- PIVOT applied Hot Form Quench (HFQ)[®] to aerospace industry i.e. aircraft seat back.
- Main challenge cultural understanding certainty and measurability/regulation



WHAT ARE YOUR CHALLENGES?



CROSS THINKING

- Better decisions are made faster by teams with Cognitive diversity*
- Individuals process information in different ways
- ! Optimum levels

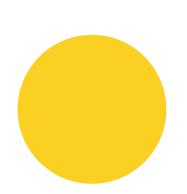
3 axis

- Attitude to risk
- Gut vs fact
- Thinking vs action



^{*} Reynolds and Lewis 2017 Study in HBR

CHALLENGE YOUR CULTURE



1. WHY IS IT HARD TO DISAGREE AT WORK WHEREAS IT IS CONSIDERED HEALTHY AT HOME?

TRUST? LONGEVITY? EXPECTATION? HIERARCHY? CARE?

2. DO YOU ACTIVELY ENCOURAGE CRITICAL THINKING AT WORK?

ALGORITHMS/CHATGPT/ECHO CHAMBERS

ENGINEERING A CROSS THINKING DECISION-MAKING ENVIRONMENT

Be aware;

- **Hierarchy** blocks debate.
- Conformism bias (group think)

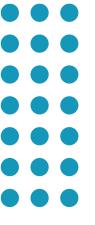
Best method is safe space – How?

- **Different** backgrounds and cognitive styles
- Prepare before in isolation
- Use a structure -assign roles; time-keeper, facilitator, recorder, metaobserver; roles stop loudest voices having most influence
- Encouragement to contradict





create a culture of cognitive dexterity"



DOES YOUR ORGANISATION HAVE COGNITIVE DEXTERITY?



www.thevision.biz