

A case study in successful industry-academia collaboration

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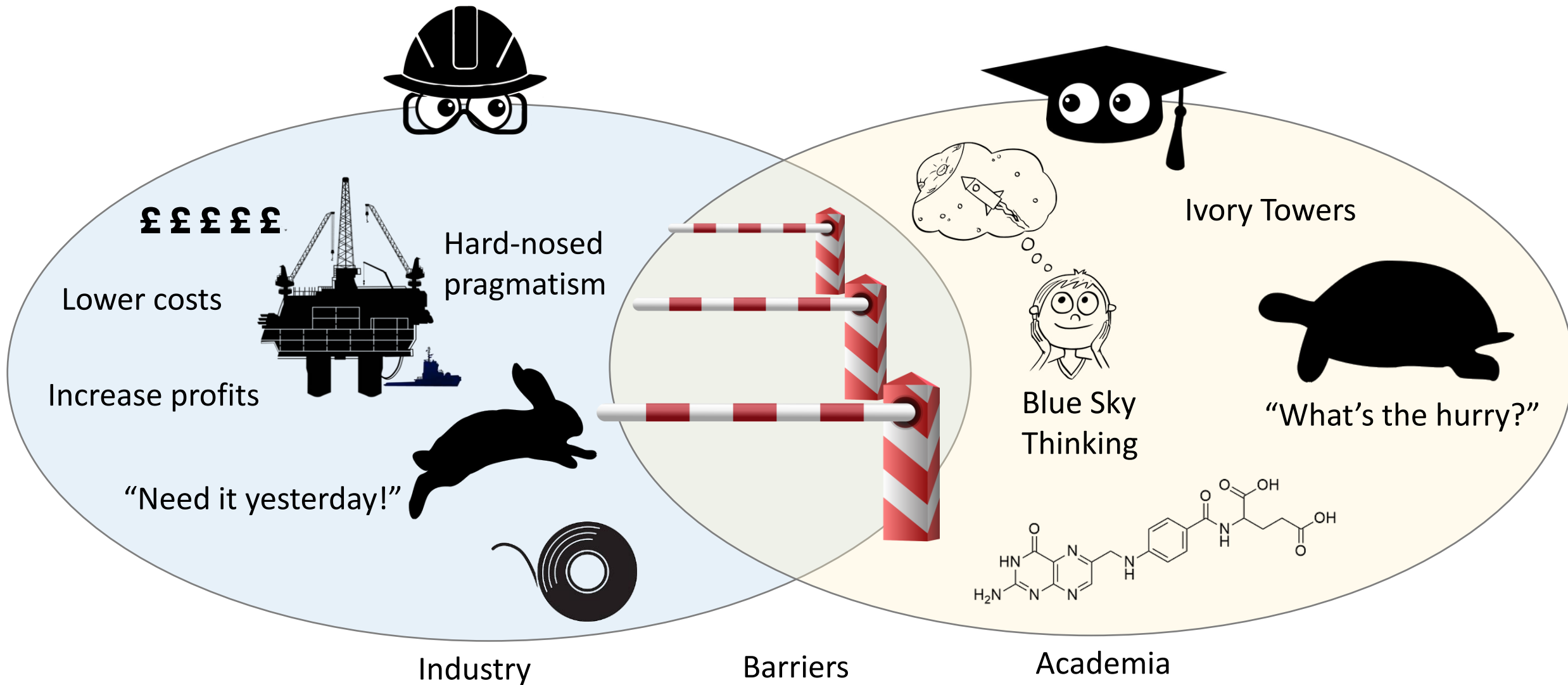
Dr. Andrew Jaffrey - Chief Technology Officer, Sentinel Subsea Ltd., Aberdeen

What was the challenge?

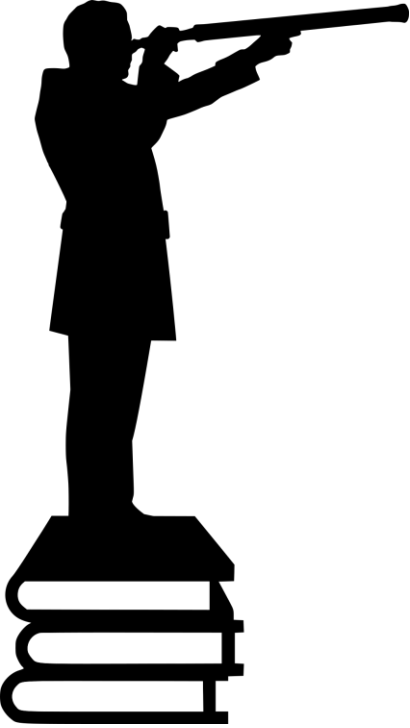


Stereotypes & Perceptions (however unjust)

How the "two sides" can see each other



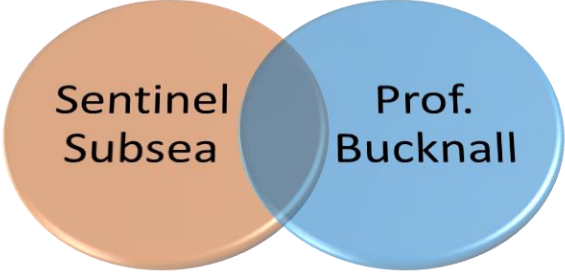
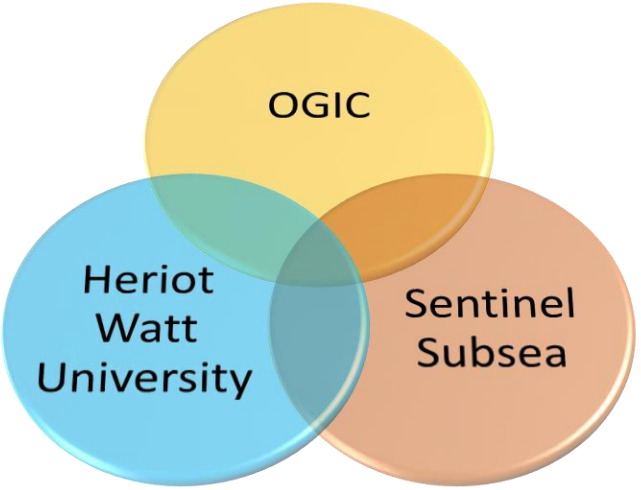
How did Sentinel find Heriot-Watt University?



Why did Sentinel choose Heriot-Watt University?



The 'awkward' bits...



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G01F 1/86 (2006.01)

(54) Title of the invention:
Apparatus and method for monitoring wells or fluid sequestration sites

(71) Applicant:
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(57) Abstract:
A passive detection system is used for monitoring the integrity of abandoned, suspended, subsea wells or cables through sequestration reservoirs, where the system utilizes a passive detector that is positioned chemically to respond to hydrogen. The system travels under pressure to the sea surface, and is an operator to alert the operator to a potential loss of integrity at the site. The system can include a trigger mechanism, that disintegrates in response to contact with the predetermined threshold. The system can include and devices that collect the leaking chemical and direct the collected chemical towards the trigger, facilitating core and trigger and resulting disintegration. Once the trigger has disintegrated sufficiently, it has triggered a response to the operator.

FIG. 30

SENTINEL subsea

EP 3 775 489 B1

GB 2573661 B

UK Patent GB 2573661 B

Apparatus and method for monitoring wells or fluid sequestration sites

Application No: 190601.0
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Priority Date: 07.05.2019
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Owner's Name: SENTINEL SUBSEA LIMITED
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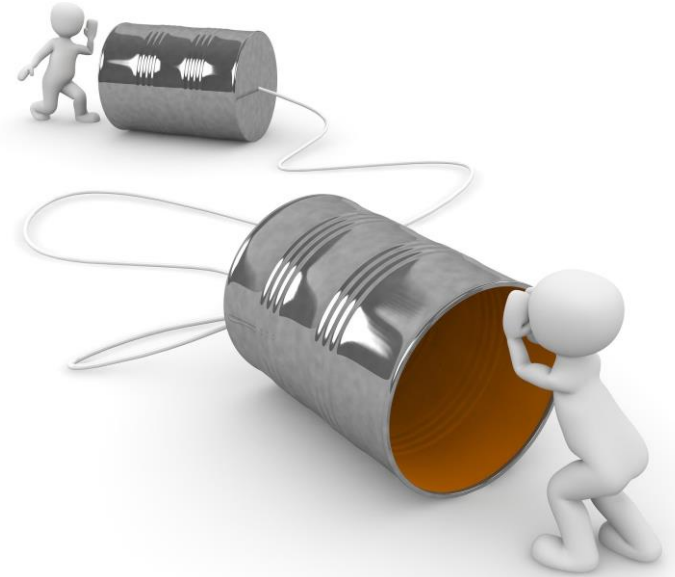
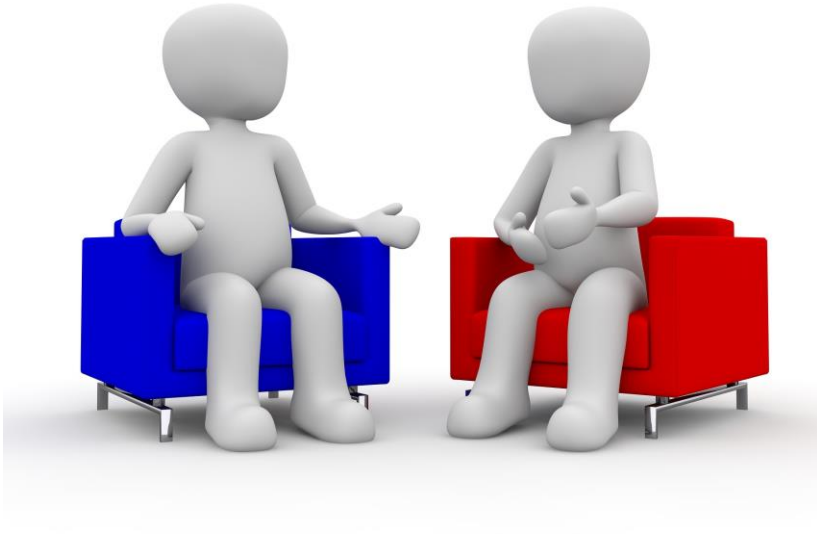
CLASSIFIED

TOP SECRET

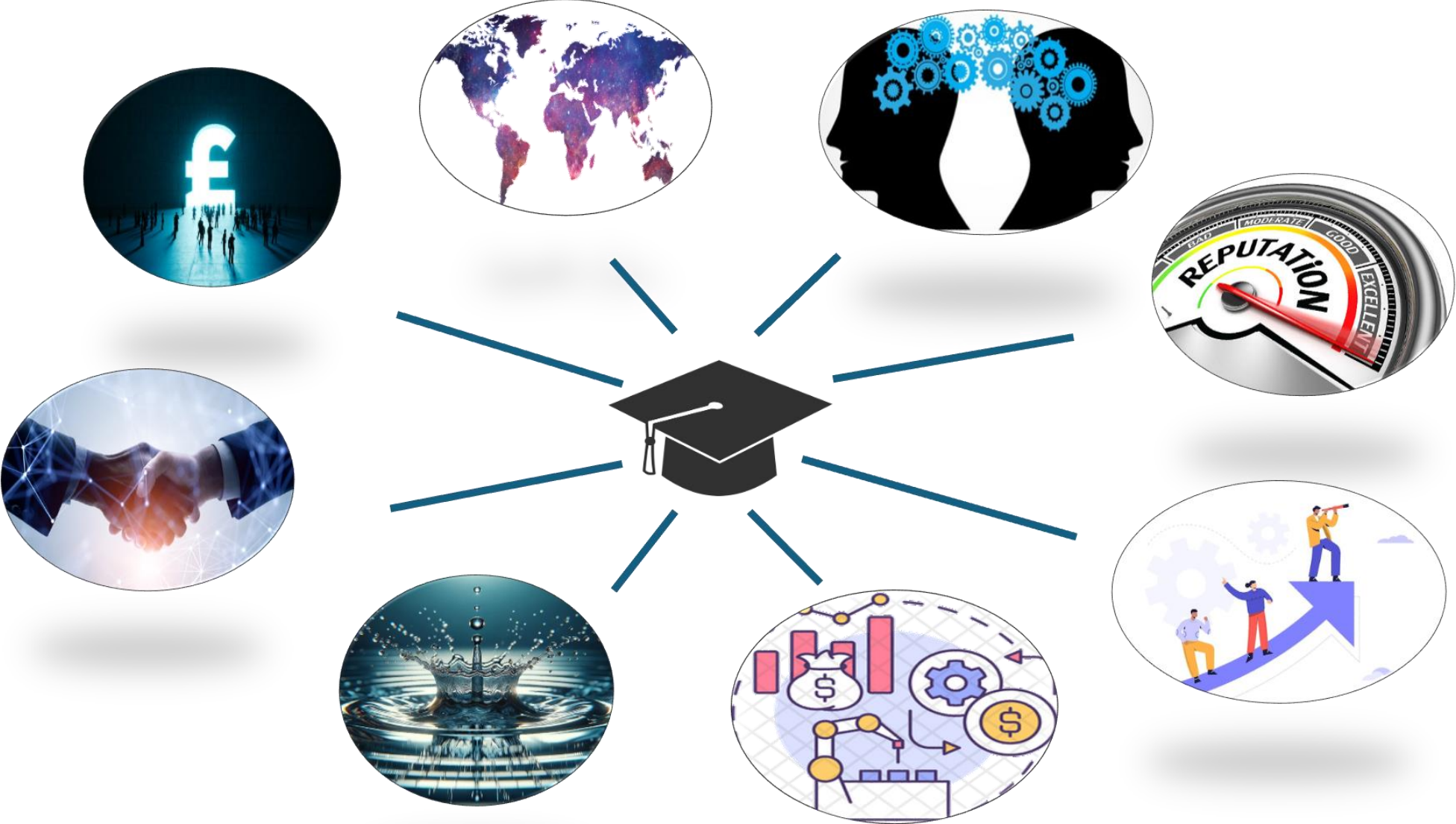
CONFIDENTIAL



Managing the relationship



The university's perspective



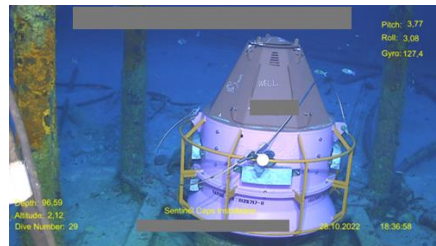
Collaborative track record speaks volumes

- Risks, costs and emissions reduced: saved some operators £10's M

Summary	
Companies	7
Countries	5
Styles	5
Systems	19

Regulator scrutiny
HSE / OPRED
BSEE
ANP
NOPSEMA

Year	Style(s)	Region(s)	Systems
2021	Coral	UKCS	1
2022	Coral	Campos Basin, GoM	9
2023	Coral, Hybrid, Clam	GoM, Caspian Sea, Timor Sea, UKCS	9

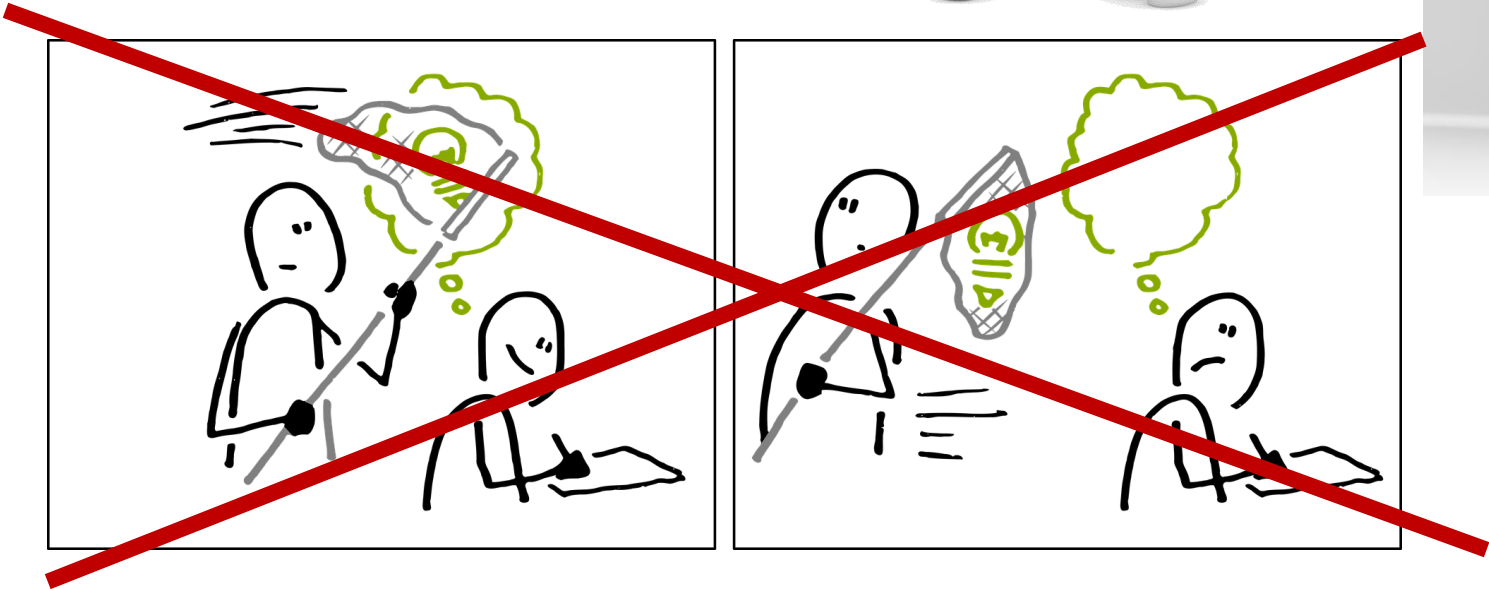
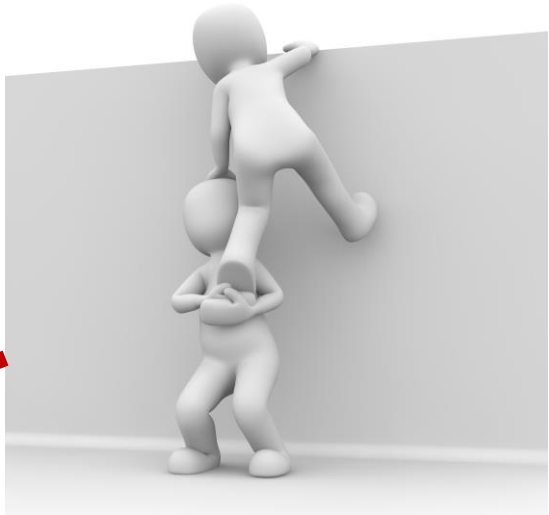


SPE Offshore Achievement Award winner 2023 and 2024

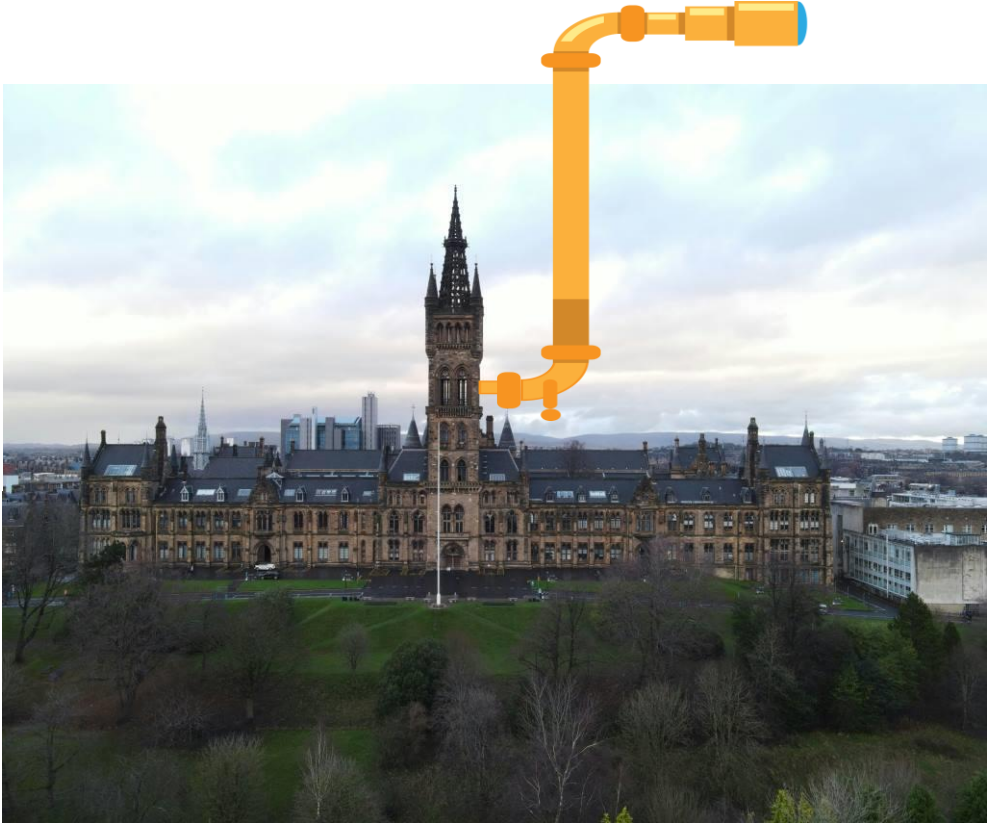
What's next?



Lessons learnt – the essentials

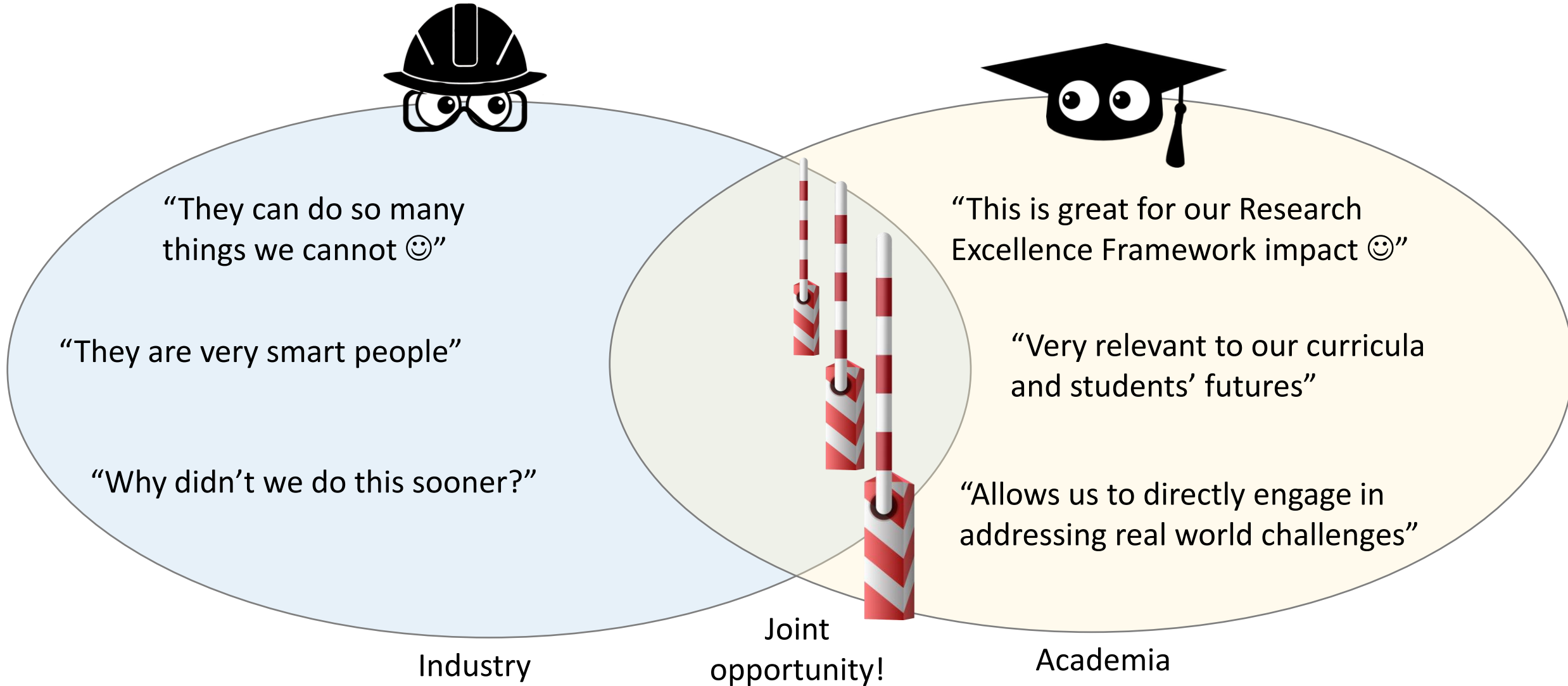


Recommendations



Stereotypes & Perceptions – an Alternative view

How the “two sides” can /do see each other



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