



Over-engineering & over-requiring?

What is good enough?

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Subsea 7

- Who are we?
- Why should I come with my views?



Background

- Maturing industry with more knowhow then ever, however still limited standardization on equipment, spec and documentation
- PM&E levels have grown last years in the industry, who is to blame? What is the root cause?
- New developments on hold, cost levels are all time high and new marked player affecting us
- Serious head count reductions in our industry and no immediate resolution
- Coming off an all time high
- Safety focus in the industry – ‘never good enough’
 - linked to Quality
 - Linked to level of detail

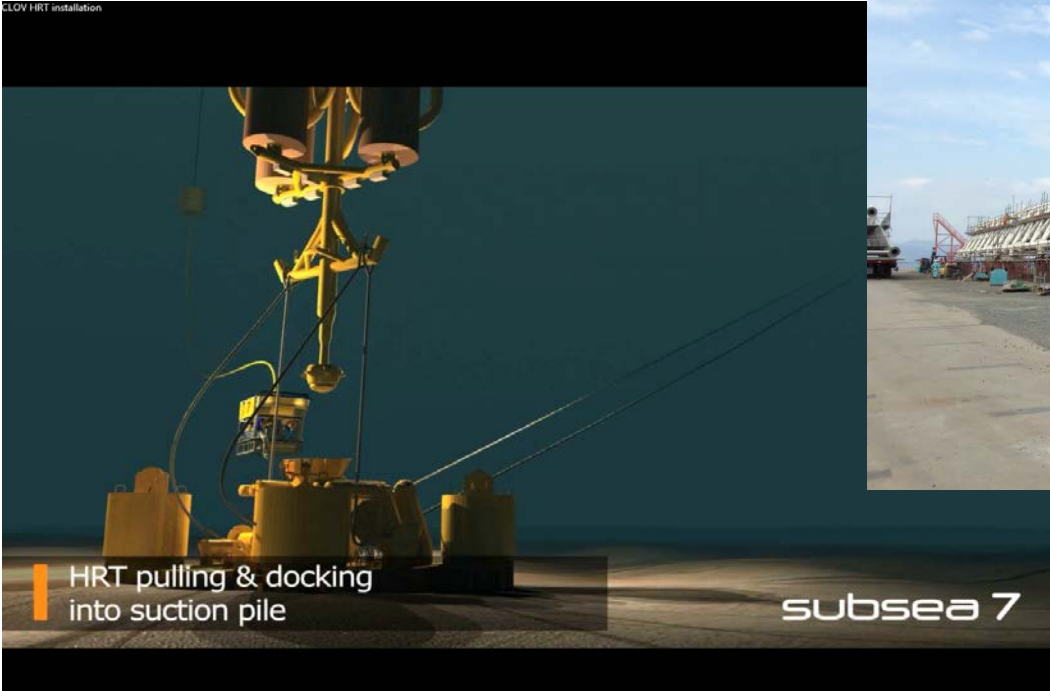
Premise

Safety leads the way – and quality philosophy is too similar to safety



Premise

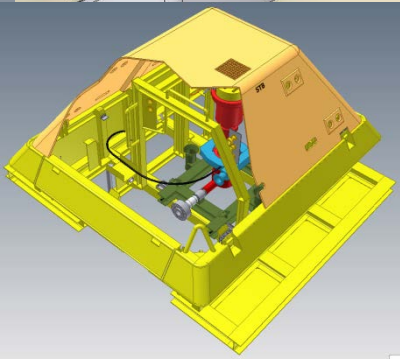
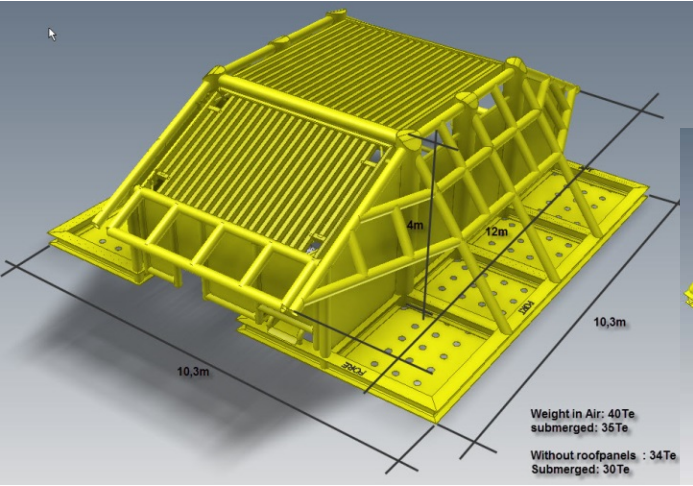
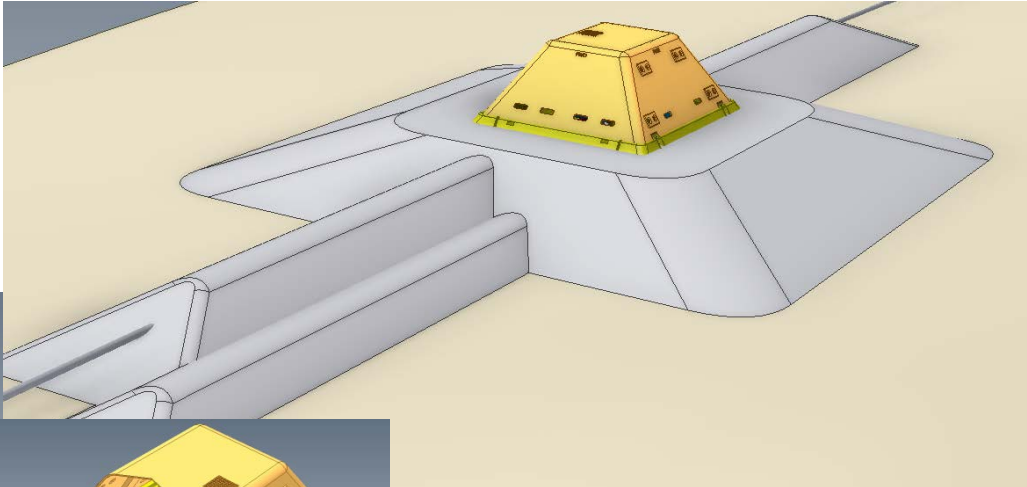
Our engineering adds too much gold plating



Premise

Our engineering adds too much gold plating

SSIV structure



Premise

Our engineering adds too much gold plating

Why:

1. Because we can
2. Because we are unaware of the consequences
3. Client's profile

Let's look at these simplistic answers in more detail...

The Arguments

Our engineering adds too much gold plating.
Some possible reasons:

1. Because we can, why?

- Inexperienced personnel take the long way
- A 'luxurious' suite of tools to use and hide behind?
- Lack of adequate supervision driving the commercial realities?
- Too compliant with client requests, too many document reviews?
- Mirroring oil company cultures, rather than a lean contractor culture?

The Arguments



The Arguments

Our engineering adds too much gold plating.
Some possible reasons:

2. Because we are unaware of the consequences, why?

- More focused on design then budget?
- Nurturing the detailed oriented nerd in me? Demanding more detail adds hours
- The cyclical nature of the industry
- Solving a problem with something new – so hard to eliminate

Client Profile

- Individual specifications and requirements from company to company
- Tendency that company specific lessons learned are filtered down into company specific requirements
- Why are the industry standards not good enough?
- Ability/will to standardize across companies?
- LS vs PS contracts
- Staff vs contractor ratio

Are there enough built-in incentives to commonly reduce cost?



Summary

Efficiency

SUMMARY



SUMMARY

- Operators have to lead the way to agree common standards – move away from company specific standards
- We Contractors have to stand firm and trust our own technology and competence
- Mind-set – Zero tolerance on safety **but only right quality**
- Stop tailormaking – re-use technology and standardize
- Mind-set – not about better but about **minimizing total cost**
- Conducting the right level and quality of engineering
- Fit for purpose, without unnecessary gold-plating
- Being pragmatic, being rationale and intelligent



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