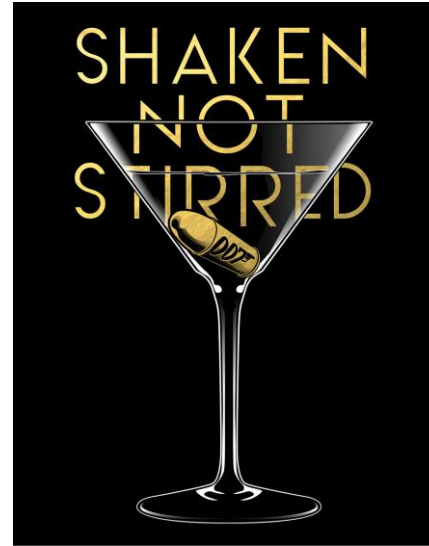


## SE Cocktails -



Bridging from the proven to future of development with confidence

Sven-Olaf Schulze



A table tennis ball is bigger in diameter than a golf ball

YES

NO

How confident are you with your answer?

No conf. / less  
(Scale 1-3)

Confident  
(Scale 4-6)

100% / Certain  
(Scale 7-10)

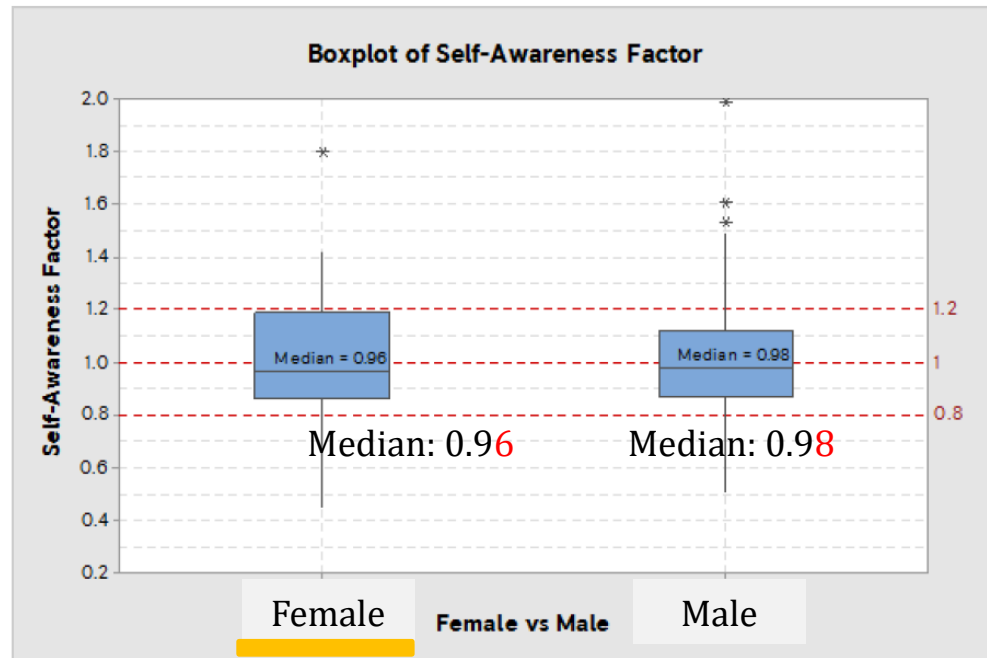
Correct answer: NO  
Accuracy

- 10 questions
- **Self-awareness factor** =  
Avg. Confidence/ Avg. Accuracy

- Grouping for self awareness
  - Humble (< 0.8)
  - Self-aware (Calibrated; 0.8 to 1.2)
  - Bold (>1.2)

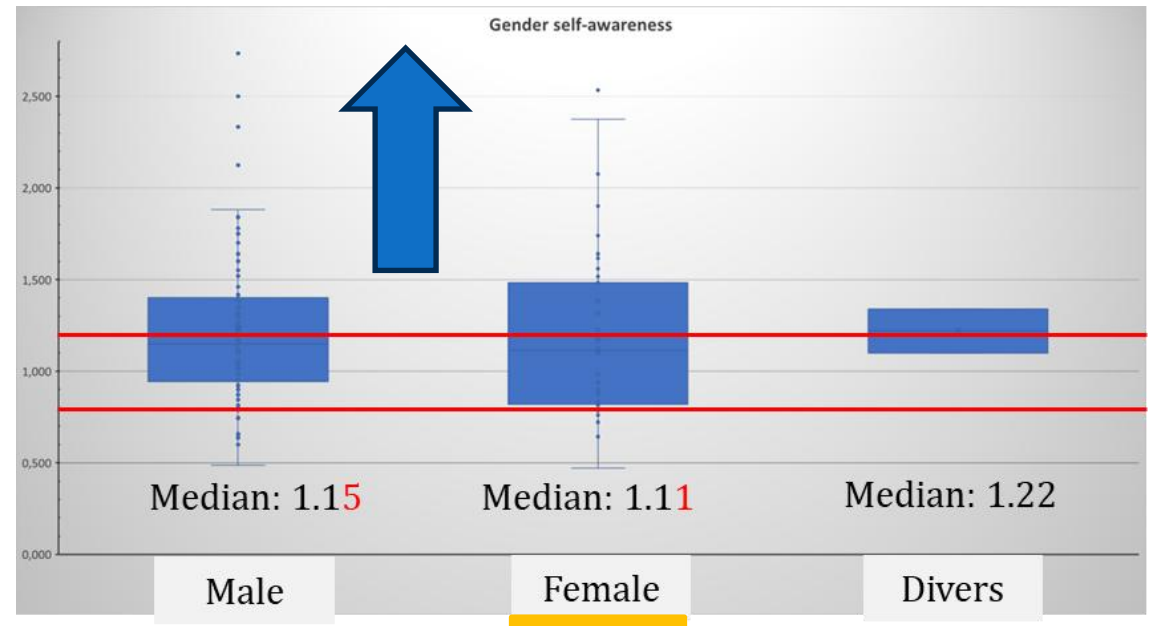
# Gender self-awareness effect

## 2019 Paper



INCOSE Symposium 2019 „The Good, The Bad and The Ugly“ (A. Nolan, J. Russel, J. Nolan und T. C. Pruitt)

## 2024 survey



No change compared to 2019 – female and male on the same level  
**Trend to become BOLD in self- awareness (independent of age)**

# Self-awareness summary



Self Aware:

Know when they know and know when they don't know



EUROPE

BOLD:

Know less than they think



AFRICA

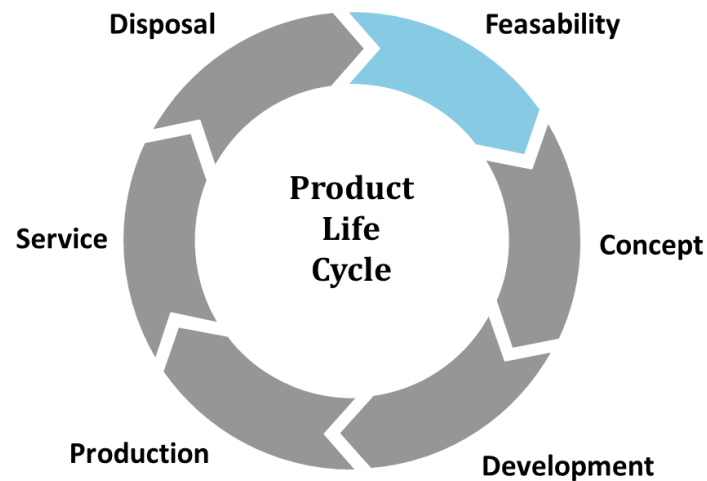
Humble: Know more than they think

**91% of the population is using “Judgement” as a technique and it is the most sensitive one!**

# Existing and upcoming challenges for every enterprise



**HYPERLOOP**TT



Business Model



Right to repair

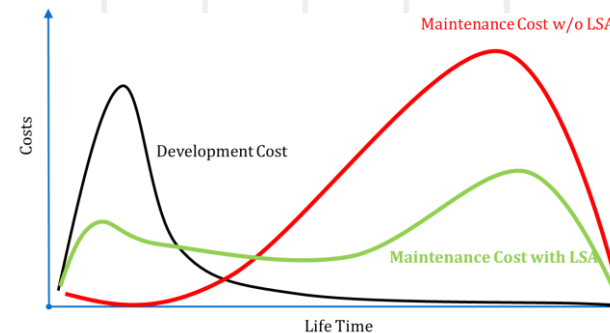
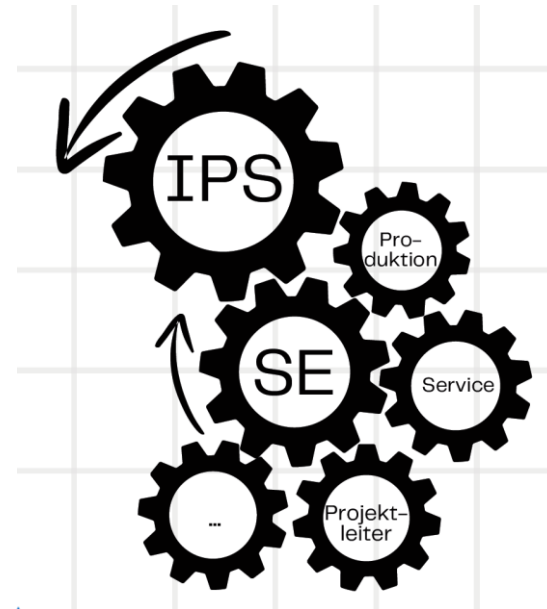
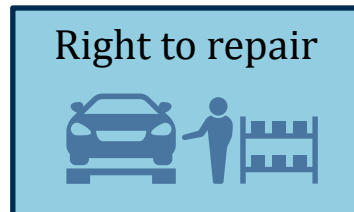


Standards

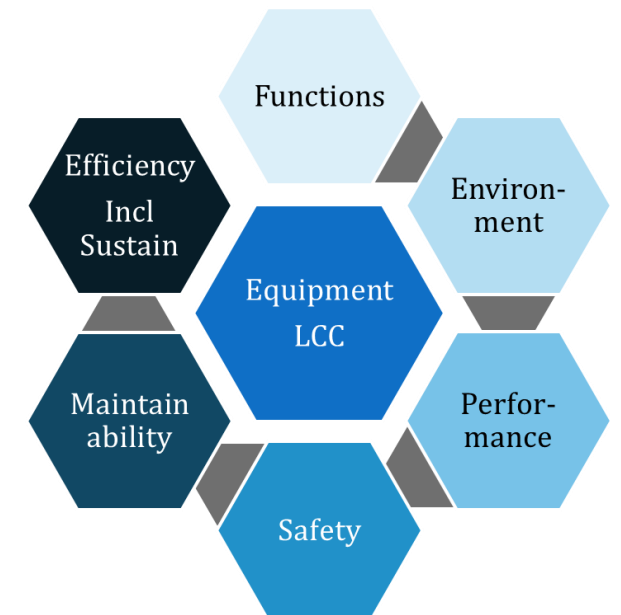


Autonomous – SMART – Interoperability – Sustainability – Circular Economy - Digitisation - you name it!

# The forgotten enablers for a project



## Loss-Driven SE



Loss-Driven Systems Engineering & IPS is getting more important and a driver of future business  
“Analyse function to success” in development to judge for the global optimum and fit to enterprise strategy

Madrid Spain is north of Beijing in China

YES

NO

How confident are you with your answer?

No conf. / less  
(Scale 1-3)

Confident  
(Scale 4-6)

100% / Certain  
(Scale 7-10)

Correct answer: YES

YOUR self-reflection:

- Are you more sensitive to Confidence scoring?
- Self-awareness? Tent to be ....

100% accurate (right) & Conf > 7 = **Calibrated**

100% accurate (right) & Conf < 6 = Humble

50 % accurate & Conf. > 7 = Bold

50 % accurate & Conf. between 4 and 7 = **Calibrated**

50 % accurate & conf < 3 = Humble

0% accurate & conf > 4 = Humble

0% accurate & conf. < 3 = **Calibrated**

# Be a calibrated Engineer

- Integrate confidence in judgement
- Integrate IPS in an early phase
- Challenge models and consider standards as input
- Focus on the problem statement
- Improve your engineering toolbox (methods)

Stir your project – avoid shaking

# Thank you – Discussion appreciated



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**Known as operationalizer**

