Subsea Engineer Competency Framework

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Subsea Engineering

What is it?
Subsea Engineering

What is it?

• SUT (Perth Branch) response to the NER
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• We identified a need for a career roadmap for students and graduates who wanted to become Subsea Engineers
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• SUT (Perth Branch) response to the NER
• We identified a need for a career roadmap for students and graduates who wanted to become Subsea Engineers
• EA agreed to add the classification of Subsea Engineer on the NER
• Collaboration with industry to define the relevant areas of competency
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• Battery Limits
  – ensure we capture all areas
  – limit duplication/avoid confusion
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• 3 configurations
  – Platform
  – Floating
  – Subsea to beach
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SPE Petroleum Engineering Competency Area:
• Subsea well drilling & completion activities
• Subsea wellhead and well completion systems
• Subsea well operation and production

APGA & SUT areas of overlap are primarily:
• Submarine flexible flowline systems
• Connecting spools, wellhead jumpers, flexible jumpers
• In-line structures, SSIV’s, Tees, Production Manifolds

SUT Subsea Engineering Competency Area:
• In-line structures, SSIV’s, Tees, Production Manifolds
• Subsea umbilical and distribution systems, SDU’s, UTA’s, flying leads, etc
• Subsea control system
• Subsea pumping, compression, separation, processing
• Subsea power distribution systems
• Connecting spools, wellhead jumpers, flexible jumpers and infield flowlines
• Production, water injection or gas lift subsea trees
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• Currently identified 42 competency areas
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• Comprising mandatory (4), core (17) and elective classifications (25)
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• Comprising mandatory (4), core (17) and elective classifications (25)
• Applicants nominate their classifications and are assessed against these
• Competency = Knowledge & Experience
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How does it affect young engineers?
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• The original idea was to provide a road map for students and graduates to understand what a competent subsea engineer needs in terms of training, knowledge & experience.
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• The original idea was to provide a road map for students and graduates to understand what a competent subsea engineer needs in terms of training, knowledge & experience

• Regulations, starting in QLD as the REPQ, is spreading to other states, Victoria and WA are soon to follow
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• Employer in-house competency frameworks where they exist vary in quality and application and tend not to be transferable
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- Provide an industry accepted framework to align your training and work experience
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• Employer in-house competency frameworks where they exist vary in quality and application and tend not to be transferable

• Provide an industry accepted framework to align your training and work experience

• Be transportable across the industry and between employers
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Where is it going?
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Where is it going?

• Focus on Australia, potential to expand
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Where is it going?

• Focus on Australia, potential to expand
• APEC Engineer accreditation
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Where is it going?

• Focus on Australia, potential to expand
• APEC Engineer accreditation
• NER occupational categories
  – Professional Engineer
  – Engineering Technologist
  – Engineering Associate
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• Our aim is to have the Subsea Engineering competency framework completed in 2017
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- Engineers Australia will then make Subsea Engineering available on the NER
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• SUT (Perth Branch) provide SME’s for the assessment process managed by EA
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• Our aim is to have the Subsea Engineering competency framework completed in 2017
• Engineers Australia will then make Subsea Engineering available on the NER
• SUT (Perth Branch) provide SME’s for the assessment process managed by EA
• Ongoing collaboration between EA and industry to ensure relevance
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Thank you