Subsea UK – Inside Industry
Presentation

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Introduction
Overview of Subsea 7
Graduate Engineer Development Scheme (GEDS)
My GEDS Experience
Questions
Introduction – My Background

University Education:

- **Undergraduate Degree (2004–2008):**
  BEng (Hons) in Mechanical Engineering

- **Postgraduate Degree (2009–2010):**
  MSc in Subsea Engineering

**Sept 2010:** Subsea 7 – Graduate Engineer
Overview of Subsea 7
Who are Subsea 7?

- International Company
- Work in Global Oil and Gas sector
- Subsea Engineering & Construction
- Diverse range of ‘seabed-to-surface’ operations
- Employs circa 12,000 people worldwide
- Diverse range of assets
Our Business Areas

- Pipeline Design & Installation
- Riser Design & Installation
- Engineering Design & Installation Analysis
- Geotechnical Engineering
- Welding, Materials & Fabrication
- Bundle Design & Fabrication
- Diving/Remote Intervention
- Structural Design
- Structure Installation

... and many more!
Our Assets

- over 40 vessels
- 150 ROVs
- 12,000 people
- 1,500 engineers
Graduate Engineer Development Scheme (GEDS)
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- **2 Year Scheme:**
- Fundamentally comprises:
  - "On-the-Job" Development
  - "Off-the-Job" Training
Graduate Engineer Development Scheme (GEDS)

“On-the-Job” Development

- Principal part of the scheme – “Learn by doing”
- Complete a range of work placements in various departments
- Opportunity to complete 4 x 6 month placements over 2 years; examples:
  - **Working on a project:** pipelay, subsea construction, etc.
  - **Working within a discipline:** analysis, design, etc.
  - **Working offshore:** Pipelay Vessels, Dive Support Vessels
Graduate Engineer Development Scheme (GEDS)

“Off-the-Job” Training

• Unique to Subsea 7 GEDS Scheme
• 3 x 2 week modules during the first year of GEDS
• Attended by all Subsea 7 graduates from locations all over the world: UK, Norway, France, Australia, Singapore, USA, Canada, Brazil
Graduate Engineer Development Scheme (GEDS)

“Off-the-Job” Training

- Held in external venues: Stavanger, Aberdeen and Paris
- Technical and non-technical training by Subsea 7 experts
  - Classroom Lectures
  - Group exercises and field trips
- Formal dinners, sightseeing and fun!
My “On-the-Job” Training
My “On-the-Job” Experience – Pipelay


- Worked on project team that focused on 2 pipelay projects
- North Sea, Dutch Sector
  - 12”/2” Rigid “Piggyback” line (21km)
  - 14”/2” Rigid “Piggyback” line (14km)
- Water depth ~30-40m
- Falcon Pipelay Vessel
My “On-the-Job” Experience – Pipelay

- Piggy back pipelay:
  - Main line – Transports hydrocarbon (oil/gas) from A to B
  - Piggy back line – Transports chemicals (prevent corrosion)
My “On-the-Job” Experience – Pipelay

- Primary tasks involved engineering and sourcing equipment required for pipelay
- Writing procedures for pipelay operations
- Tasked with overseeing: design, fabrication, onshore testing and final use offshore
My “On-the-Job” Experience – Pipelay

- Worked offshore: 2 week trip on Falcon
- Great opportunity to see everything I had been working on for previous 5 months
- Given responsibility of overseeing abandonment operation (carried out due to bad weather)
  - Pipeline cut and lowered to seabed
  - Supervised installation and use of required equipment offshore
  - Great learning experience!
My “On-the-Job” Experience – Subsea Construction

DONG Siri Permanent Support Project

- Siri Platform operated by Danish Oil and Natural Gas (DONG) Exploration and Production
- DONG Siri platform located in North Sea – Danish Sector (approx. 220km from coast)
- Water depth: 60-65m approx.
More Offshore Experience – Seven Havila

- Worked offshore: 2 week trip on Seven Havila
  - Brand new Dive Support Vessel (DSV)
  - Equipped with a state of the art diving system
- Engineered seabed preparatory work around Siri platform
  - Briefed offshore personnel and divers on required work
My “On-the-Job” Experience – Current Work

- Gained a lot of practical “hands-on” experience
- Main goal is to become a Specialist Engineer
- Recently moved to Subsea 7’s Pipelines Department:
  - Pipeline Installation Analysis (Orcaflex)
  - Pipeline Design
  - Structure Installation Analysis
Why Subsea Engineering?

- Provided an overview of Subsea 7 and my experience as a Graduate Engineer
- Why become involved in Subsea Engineering? Some key points:
  - Very interesting and challenging work
    - A lot of hard work – every day is a test
    - Ever-evolving and ever-advancing work
    - Always opportunities to try different things
  - Opportunities to travel all over the world
    - Meet and work with many different people and cultures
  - Good benefits
  - Totally unique
  - Great Fun!