

# Learning Through Exchanges: New Academic Partnerships for the Yacht Engineering Department

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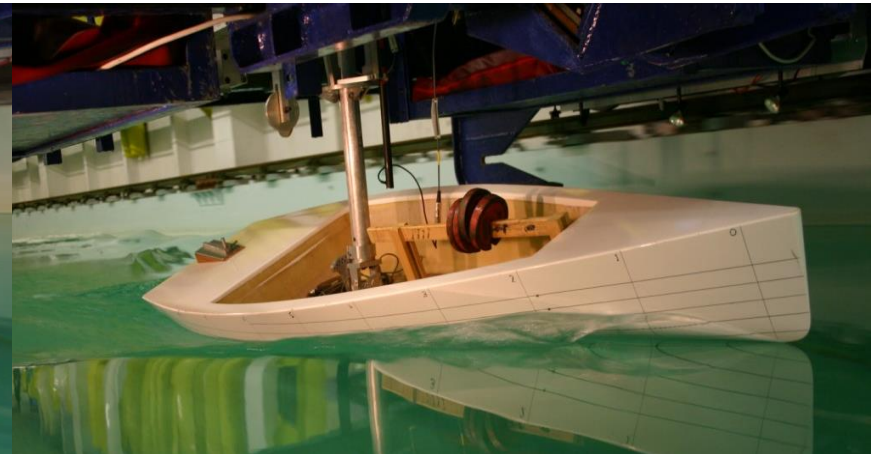
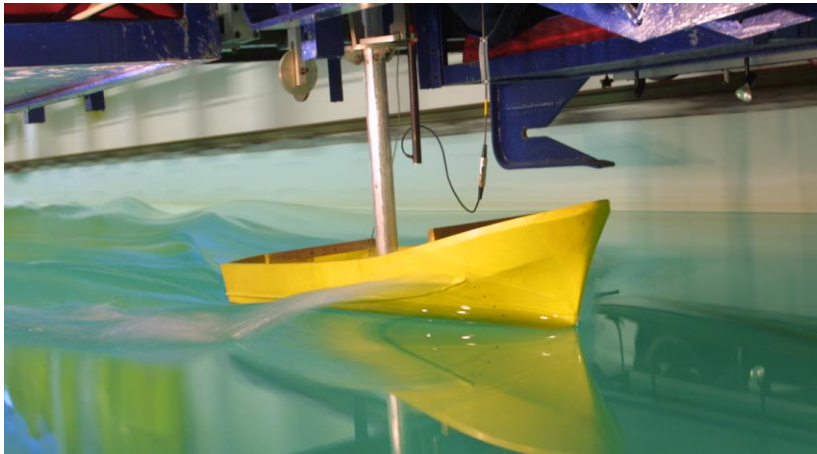
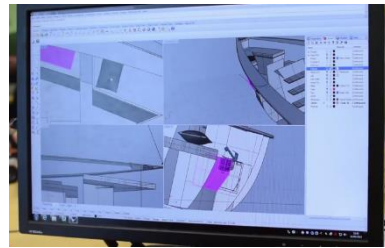
# Introduction

- Yacht Engineering Programme at Southampton Solent University
- Exchange programme with the International Boatbuilding Training College Portsmouth
- Partnership with the EMship Master in Advanced Ship and Offshore Design



# Yacht Engineering Programme

- 2 Degrees
  - BEng (Hons) Yacht and Powercraft Design
  - Beng (Hons) Yacht Design and Production
- Original course established in 1969
- Built on specialist facilities





- Strong links with industry
  - Professional body accreditation, membership and prizes
  - Work placements
  - Part time jobs
  - Full time jobs
  - Large range of industry speakers
  - Very large proportion of the industry is alumni
  
- But not so much with Academia... Until now!
  - Local Exchange Programme: International Boatbuilding Training College Portsmouth
  - International Partnership: EMship Master program

- International reputation for traditional boatbuilding
- Started in Lowestoft in 1975
- Opened a second branch in Portsmouth in 2015

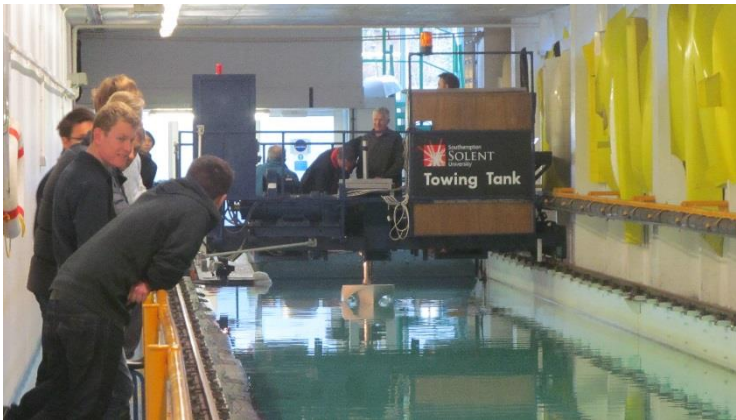




- Background
  - Half-day visits organised in January (enrichment week)
- One Week Pilot Exchange in March
  - 12 IBTC students coming to SSU
  - 13 SSU students going to the IBTC
  - Survey/Feedback

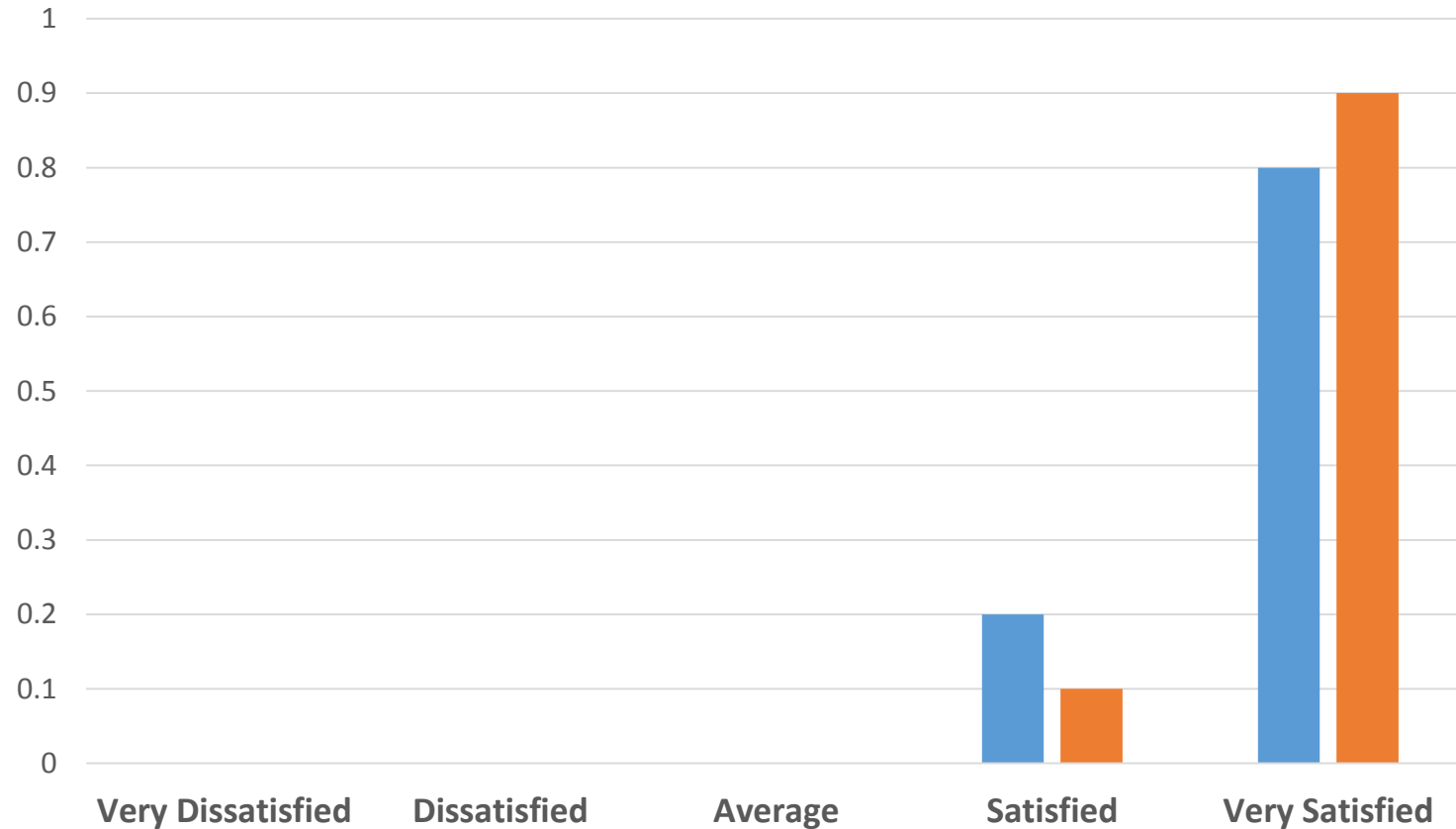


- Lectures supporting their boatbuilding studies
  - Basics of naval architecture and yacht design
  - Timber as an engineering material
  - Advanced production methods
- Composite manufacturing
  - Practical exercises, including model yacht hull
  - Awareness of the range of materials and techniques
  - Advanced processes demonstrations



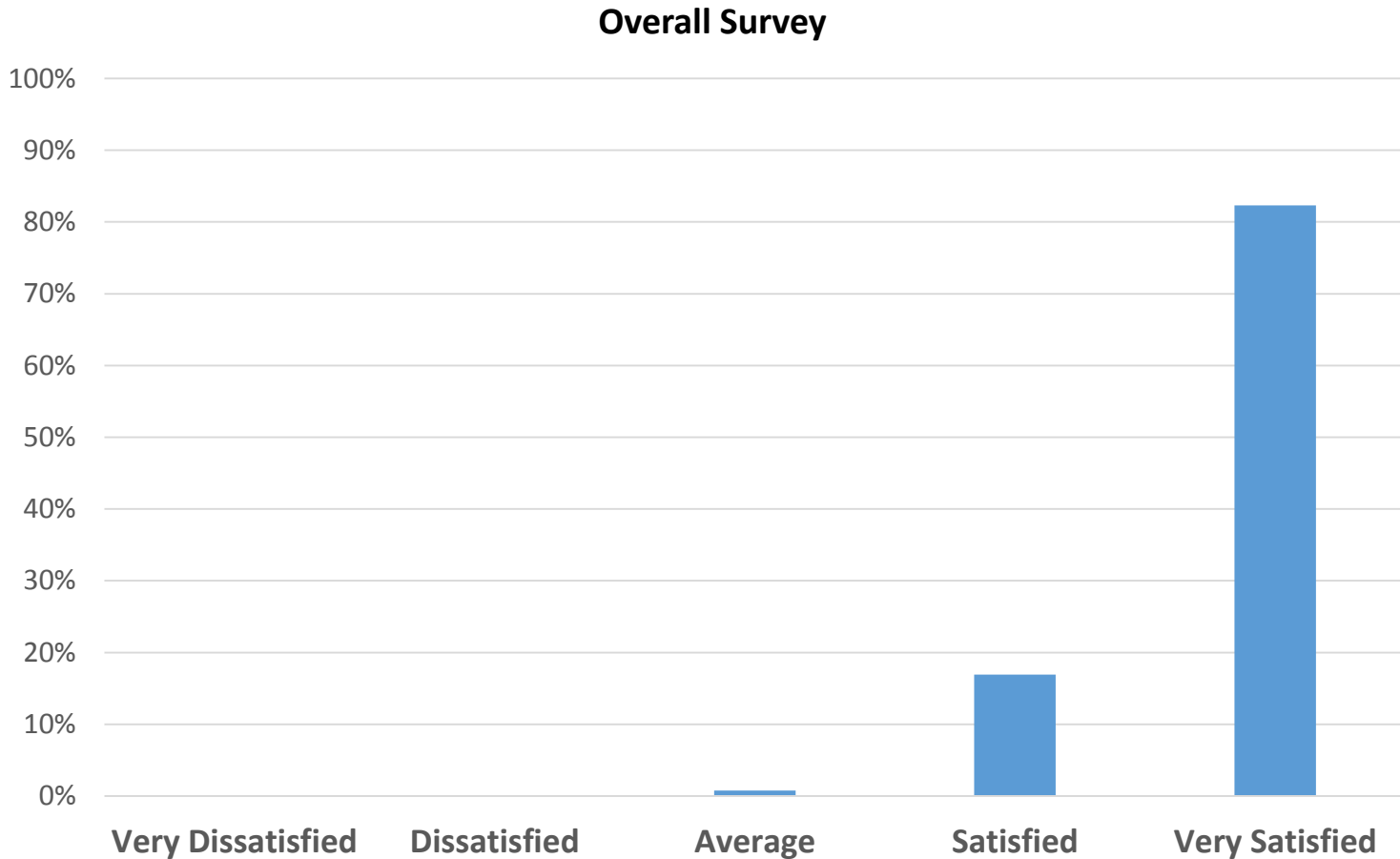
# IBTC Students Feedback

**Academic (blue) and Professional (orange) relevance of the exchange?**





# IBTC Students Feedback



- Extremely positive feedback, led to 2 applications.

## SSU Students at IBTC

- Traditional Mallet
  - Introduction to wood and hand tools





- Roving and steam-bending
  - Key skills in traditional boatbuilding

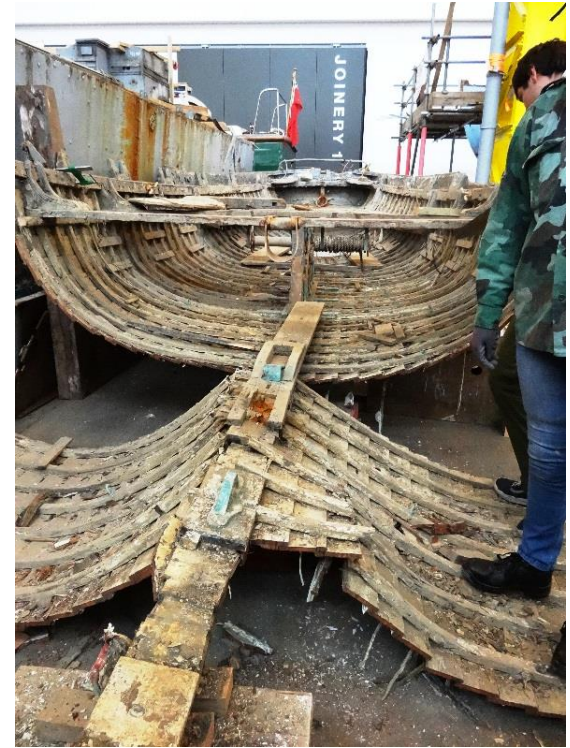




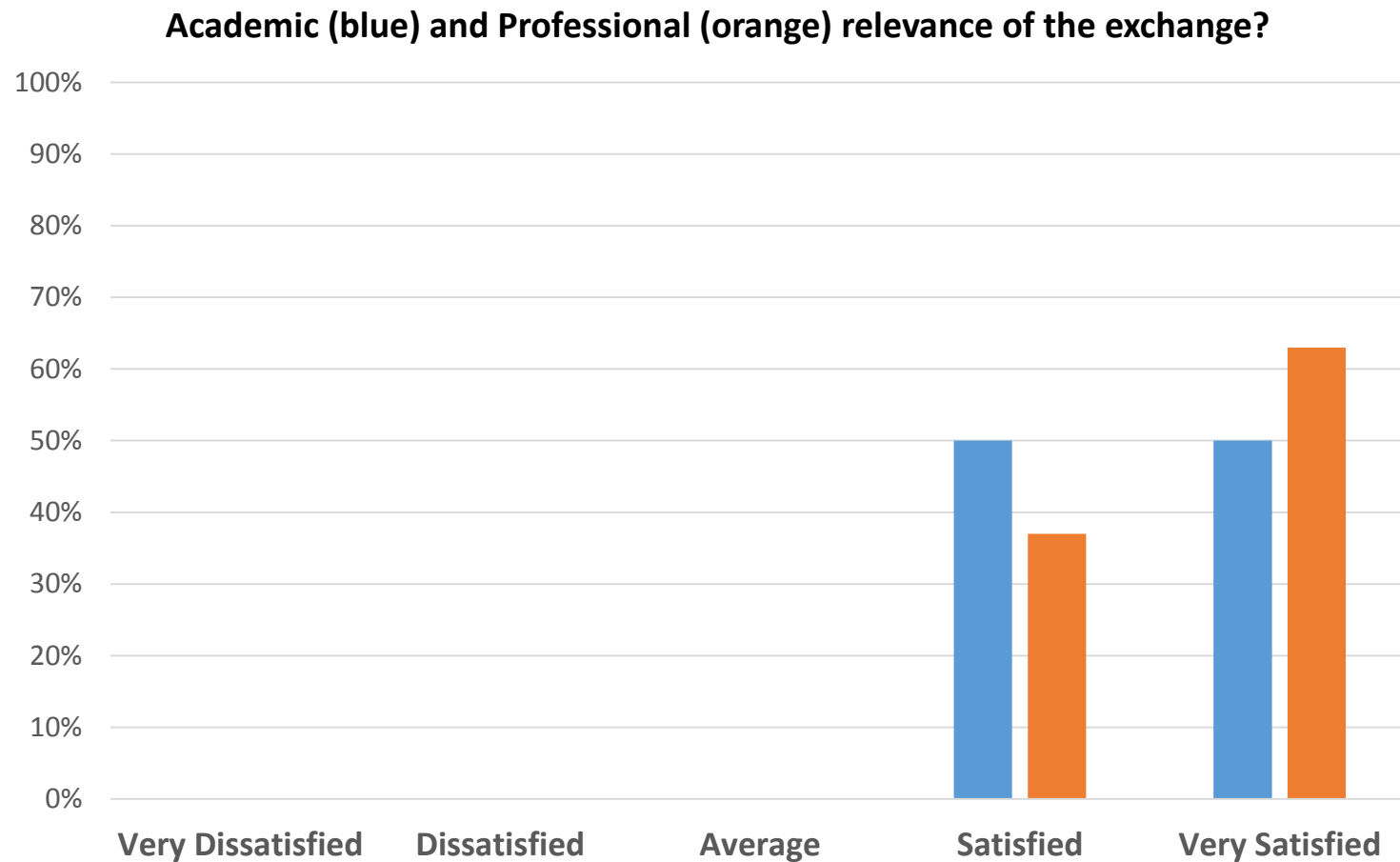
- Taking scantlings
  - Measuring and drawing the existing structure for the purpose of making a replica



- “Deconstructing” a boat



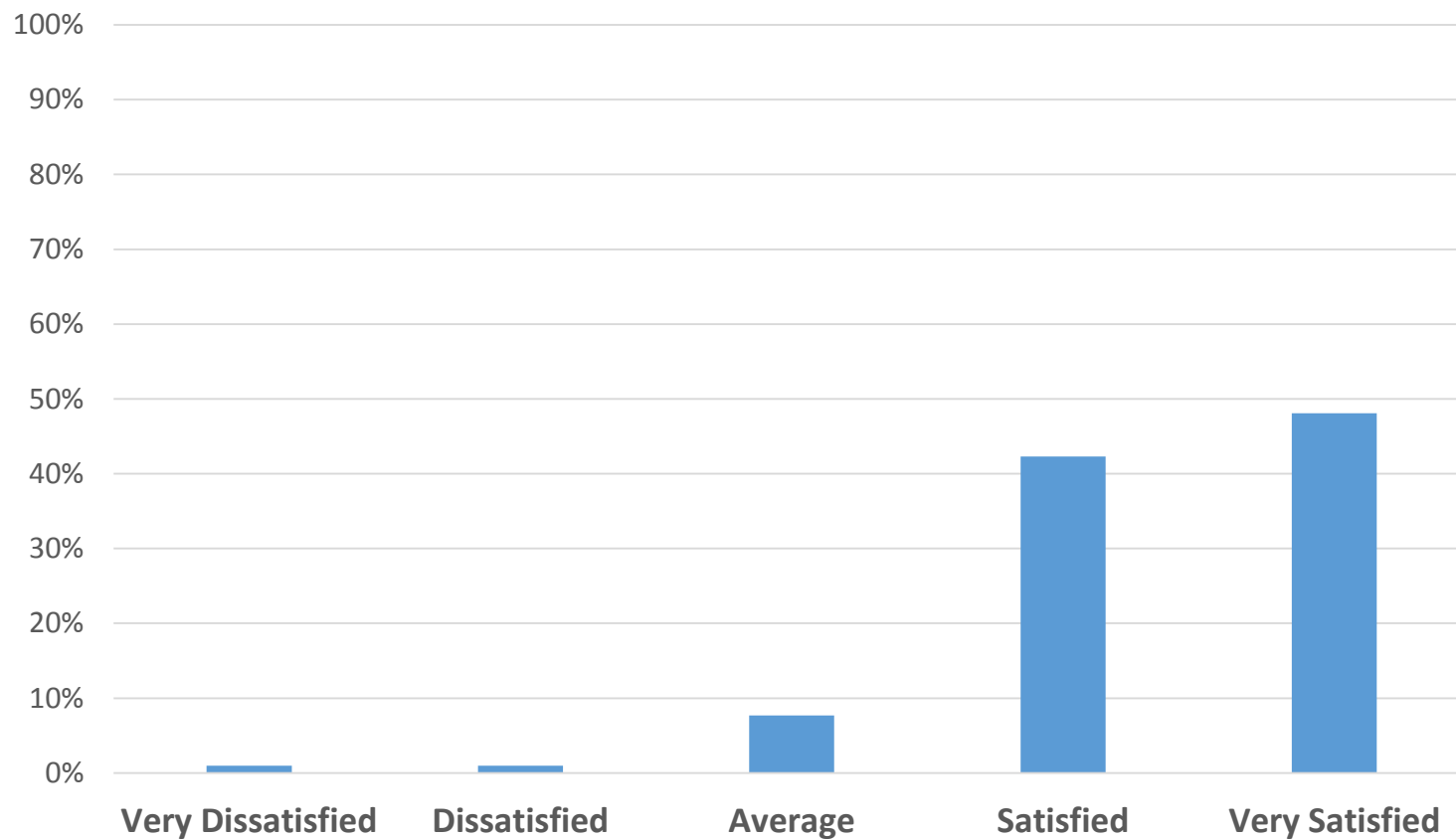
# SSU Students Feedback





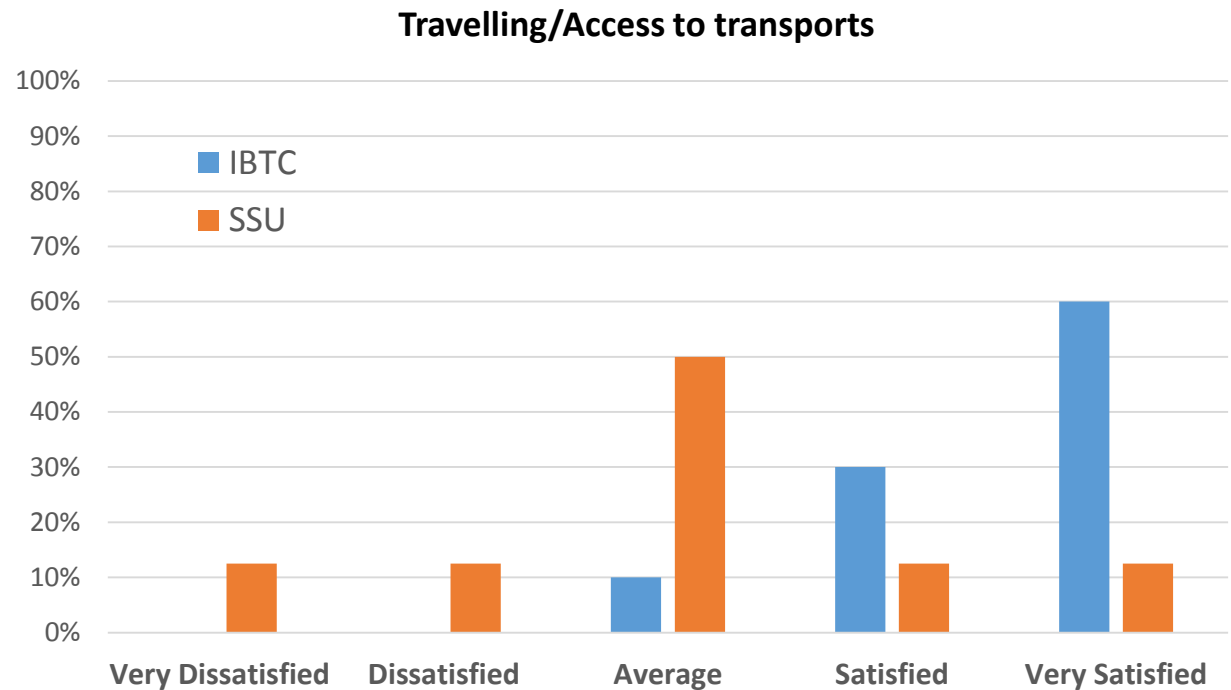
# SSU Students Feedback

## Overall Survey



# Students Feedback

- The only negative point
- IBTC
  - Mostly British
  - Average age: 43
- SSU
  - Mostly overseas
  - Average age: 22



- Incontestable success and very positive feedback from the pilot exchange
- Now planned as a yearly event
  - Part of the IBTC syllabus
  - SSU 1<sup>st</sup> year enrichment week





- Erasmus Mondus Master in Advanced Ship and Offshore Design

- Semester 1

- Taught at the University of Liege, Belgium
  - Ranked 5<sup>th</sup> in Belgium, Top 300 in the world

- Semester 2

- Taught at the University of Nantes, France
  - Ranked 18<sup>th</sup> in France, Top 500 in the world

- Semester 3

- Master thesis research
  - Undertaken in a partnership university worldwide



# EMship Partner Universities



- Teksan
  - Turkish
  - MSc Naval architecture and Marine Engineering
  - Research Topic: America's Cup design (with our industry partner Land Rover - BAR)
- Rani
  - Indonesian
  - MEng Mechanical Engineering
  - Research Topic : Sustainable materials for yacht production (with our industry partner Ant-Arctic Lab)
- Luis
  - Brazilian
  - MEng in Mechanical Engineering
  - Research Topic : Design conversion of traditional crafts (with our academic partner IBTC Portsmouth)



- Part of an international network of universities
- Summer placement opportunities for SSU students
- Guest lectures for SSU students
- Access to partner Universities' research facility
  - SSU Towing
    - Length: 60m
    - Speed: 4.6m/s
  - University of Liege Towing Tank
    - Length: 100m long
    - Speed: 5.4m/s
  - University of Nantes Towing Tanks
    - Length: 148m
    - Speed: 8.0m/s
- Fully in line with our strategic plan as a University
  - Internationalisation, Postgraduate, Research, etc...

- Two academic partnerships set in 2016
  - Locally with the IBTC Portsmouth
  - Internationally with the EMship Master
- All those support our ambitions as a University
- **Internationalisation:**
  - *“In preparing our students for an increasingly globalised world we will achieve an increase in our international student numbers and build sustainable partnerships.”*
  - Now part of a network of 14 Universities across 5 continents.
- **Research:**
  - *“Research will be one of the defining features of our University, underpinning the curriculum, informing teaching and contributing to innovation of regional, national or international significance.”*
  - Now attracting postgraduate research students, working in collaboration with our industry partners.



## ■ People experience

- *“The people experience strand of the strategy will deliver an excellent experience for those who work and study at Solent University.”*
- Extremely positive feedback from very happy students.

## ■ Learning and teaching

- *“We will provide excellent and engaging learning opportunities, integrating theory and practice through delivery of innovative, inclusive and intellectually stimulating teaching to develop self-confident and highly employable graduates, who have maximised their educational potential.”*
- Students recognised the academic and professional value of the partnerships.

## ■ Reputation

- *“Enhancement of our reputation will come from success in delivering on the strategic priorities”.*
- Improving the yacht engineering local and international reputation in both industry and academia.





Learning Through Exchanges:

**New Academic Partnerships for the Yacht Engineering Department**

**THANK YOU**

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