

Research into Knowledge Transfer

The practical application of research



Dr Sean Smith

Acting Associate Dean (Knowledge Transfer) FECCI

NAPIER UNIVERSITY
EDINBURGH

Research into Knowledge Transfer

- Depute Director BPC
- Research Council UK Academic Fellow



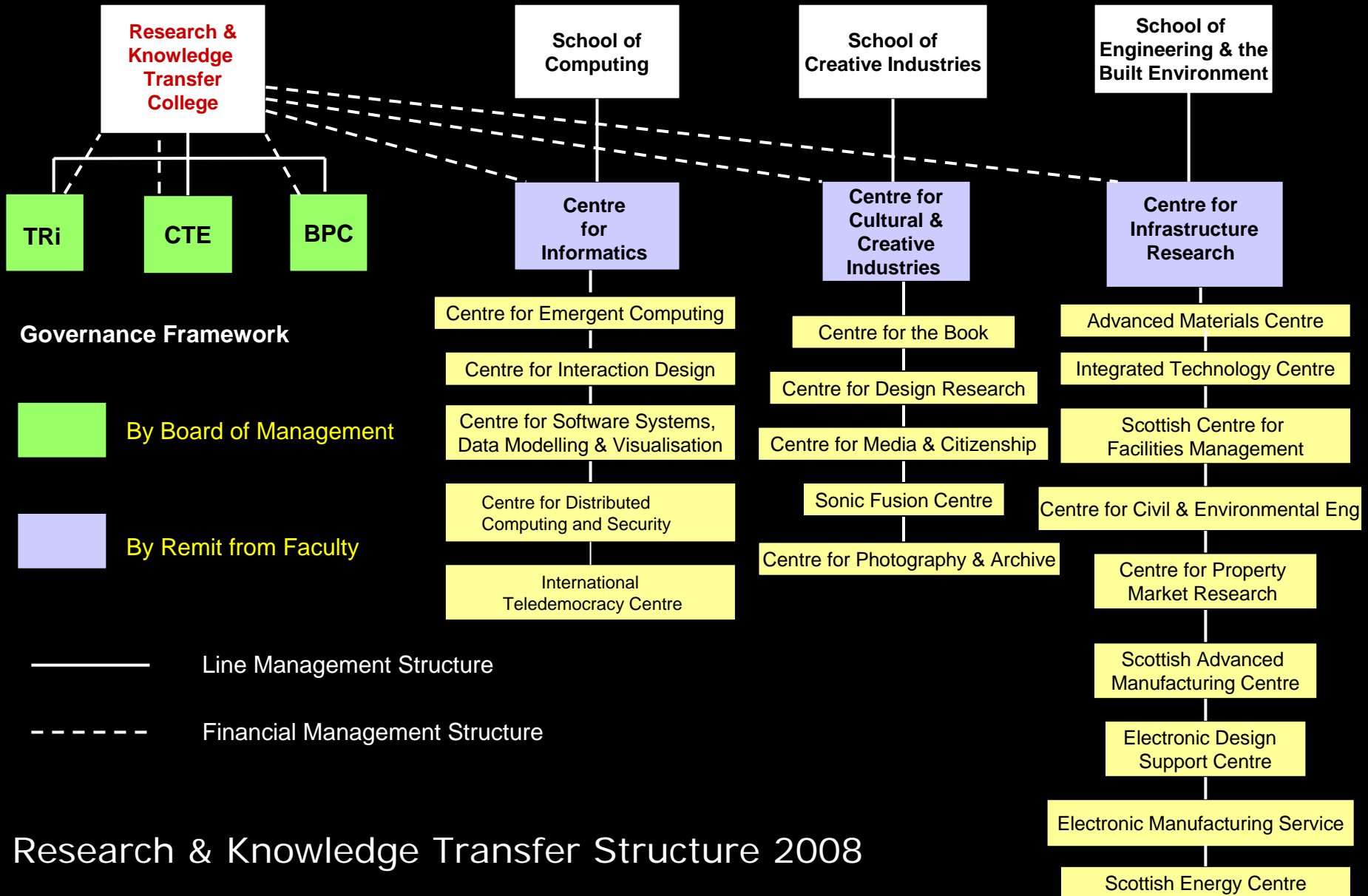
- External Advisor for Belgian Government Science Policy Unit
- Technical Advisor to RDL
- RD Approvals & Assessment Committee
- RD Performance & Monitoring Committee
- IOA Building Acoustics Group
- IOA Scottish Branch Committee
- Assoc. Noise Consultants CPD Committee
- Director of Glendevon Energy Company Ltd
- Director of Robust Details Ltd

Research into Knowledge Transfer

Outline

- *FECCL Structure R&KT Centres*
- *KT Engagement and Landscape*
- *PhD research – where and what will it lead to?*
- *PW Smith and the Saturn 5 Journey*
- *Career journey (PhD.....to?)*
- *Napier University R into KT Output*
- *R & KT to Teaching*

Faculty of Engineering, Computing and Creative Industries



Research & Knowledge Transfer Structure 2008

Knowledge Transfer (Gov. Key Priority!)

- *Passing knowledge & Receiving knowledge*
- *From one sector to another*
- *PoC, KTP's, Joint Venture & Consultancy*
- *Patent, License & Commercialisation*
- *Training, CPD, Skill Transfer & Δ KB*
- *Design, Exhibition and Visual*
- *Web, Interactive media & IT*
- *Written & diverse Tactile formats*
- *Performance, Auditory Landscape & Composition*
- *Government, Business, Industry, Community & Individual*
- *Cultural, Society and Public Engagement*

Research into Knowledge Transfer (FECCL)

$$\text{Knowledge Transfer} = \Delta KB^+ \Sigma_{(t+\text{int_angibles})}$$

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Research into Knowledge Transfer (FECCL)

Transfer Ratio of Research to KT

- ***Scottish Universities – R to KT is 9%***
- ***Napier - R to KT is 35%***

(1) PhD where and what will it lead to?

- *Initially daunting & challenging*
- *Quite unlike UG days*
- *Positive outlook - avoid blinkered approach*
- *Transfer the skills and outcomes*
- *Always ask why and what if?*
- *Tackle the challenges early and identify the opportunities*
- *The Future and Career Pathway*

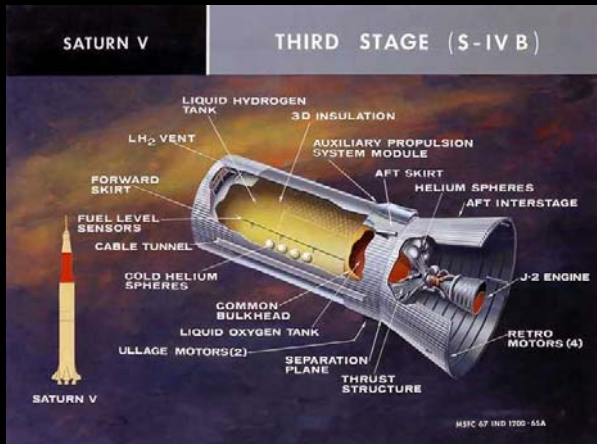
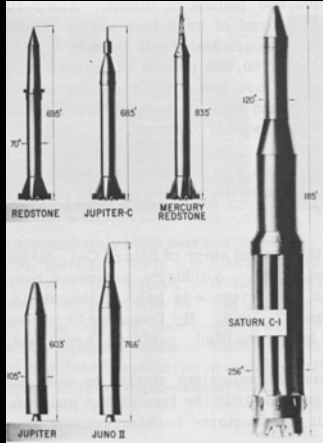


(2) PhD where and what will it lead to?

- *Academia*
- *Industry (Company and Organisation)*
- *Government Departments*
- *Research Institutes*
- *Public Sector*
- *Spin-outs*
- *Self Employed*



PW Smith – Research publication on “coupled oscillators” 1940’s



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Background career pathway (PhD to...?)

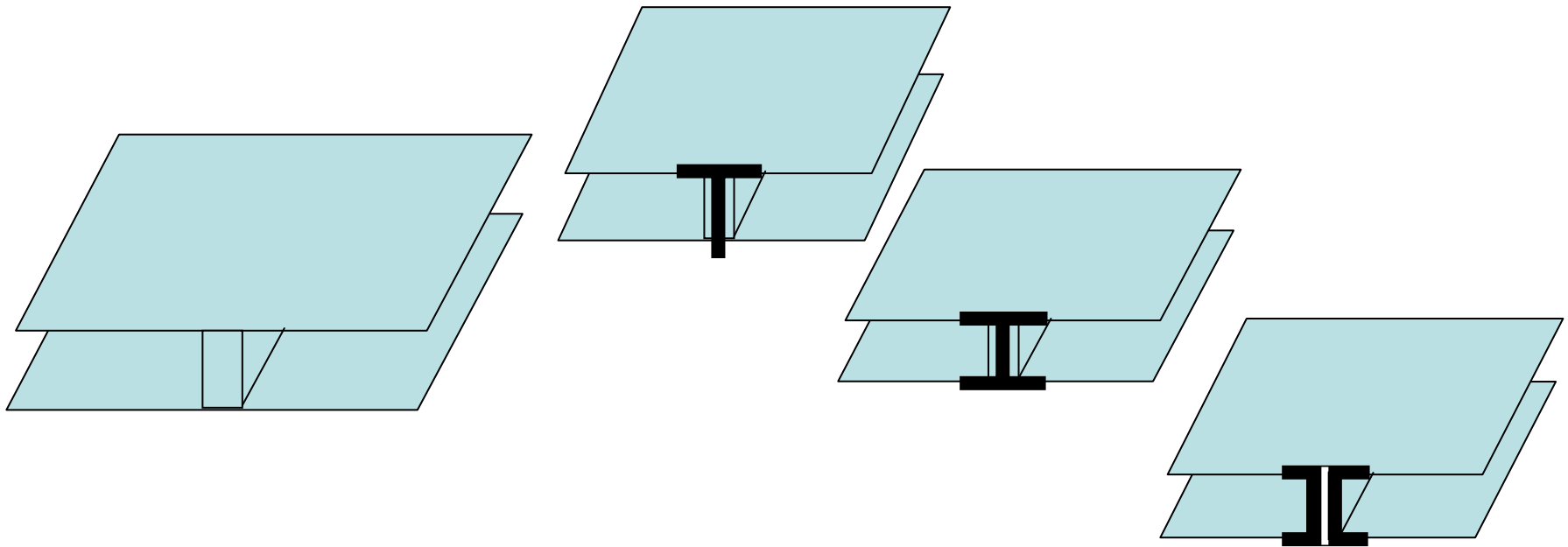
PhD Studentship



Sound transmission through parallel plates

'T – C – H – I' junctions

Statistical Energy Analysis (SEA)



Research into Knowledge Transfer



Knowledge
Exchange



EPSRC PhD Travel Bursary

National Research Council – Canada

Institute for Construction Research – M27

Research into Knowledge Transfer

Res. Assoc



DERA



defence



Knowledge
Transfer

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Invited Post Doc.

Italian Government Research Laboratory

IEN Galileo Ferraris – Torino (Turin) Italy



Physikalisch-Technische Bundesanstalt



NAPIER UNIVERSITY
EDINBURGH

Working with Government and Industry
over 300 companies per year



The **Concrete Centre**



SCOTTISH EXECUTIVE



defence



dti

Knowledge Transfer Partnerships



**Each year over 120,000
UK new homes
incorporate Napier
based design details**



UK Timber
Frame Association



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Research & Knowledge Transfer into Teaching Delivery within Curriculum

Guest lectures provided by research staff

Delivered within Academic term for students

Incorporated within subject module (teaching load)

Subject based (insertion)

Topic included within Exam questions (tracking)

Linked to Dissertation Projects

Research & Knowledge Transfer into Teaching

Student feedback and impact

- Greater interest in research process
- Increased subject knowledge uptake
- Learning to question “higher reason”
- Discussion & wider impact
- Enhanced graduate, +factor for employability

“never realised the impact of such research”

“happening right here – right now”

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