TAPPING ALL OUR TALENTS
Women in STEM* in Scotland

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RSE study and report

This study was initiated by Royal Society of Edinburgh Council, in conjunction with the Chief Scientific Adviser for Scotland – then Professor Anne Glover.

We have focussed on the postgraduate employment of women in science, engineering, technology and mathematics, but excluded medicine.

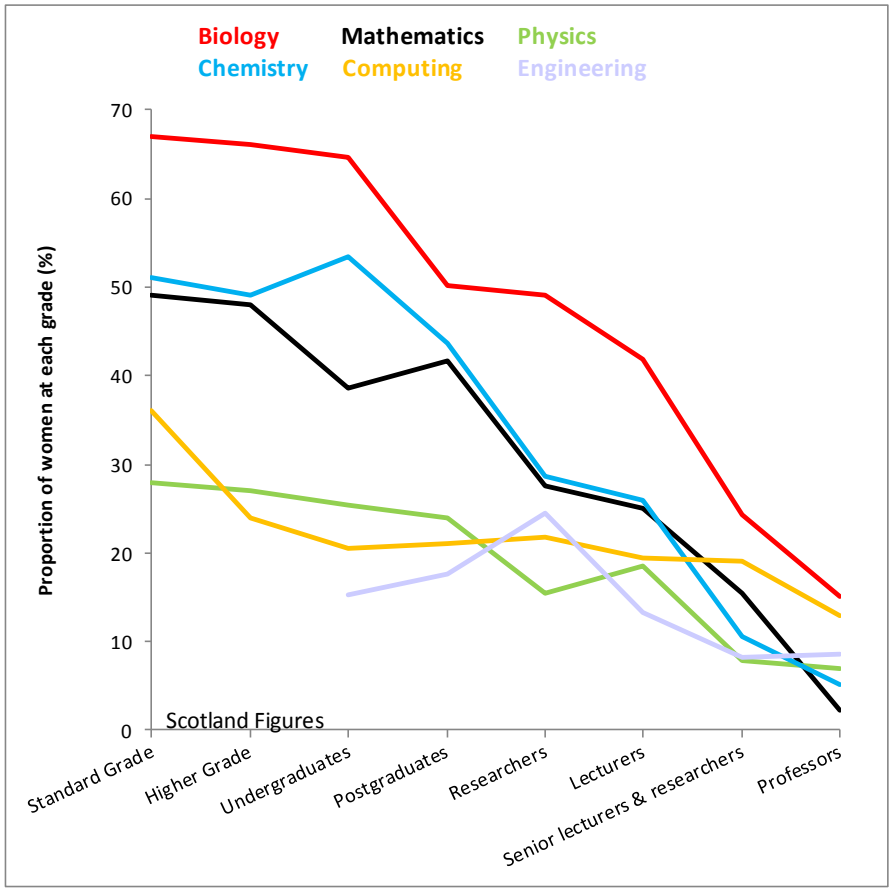
Why Scotland?

Scotland is an identifiable unit

There is an opportunity to develop a coherent and comprehensive strategy for change with key stakeholders working together.

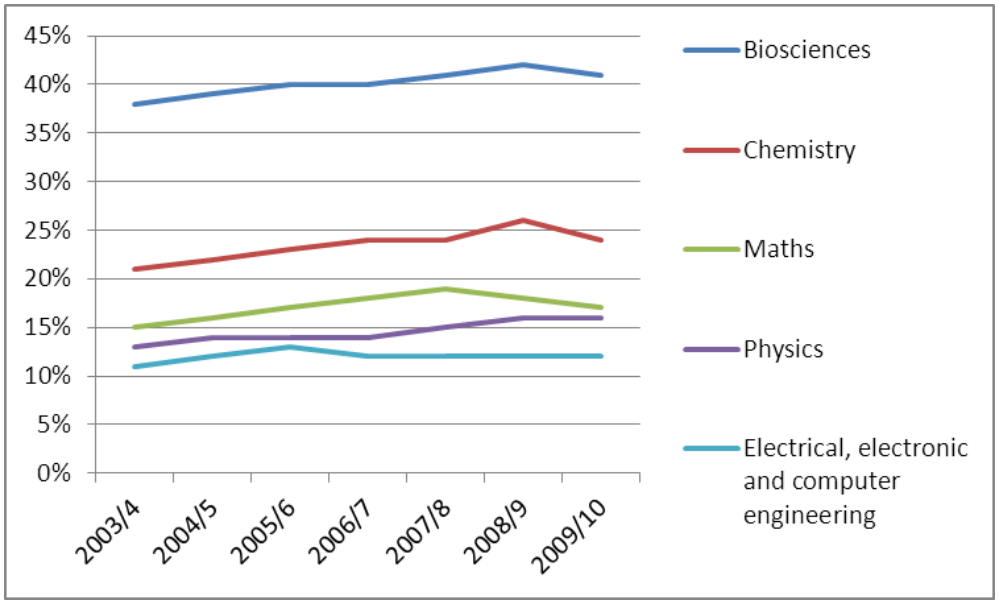
Would benefit Scottish women, Scottish business and industry, its economy and Scottish society in general.

Leaky pipeline – Scottish data



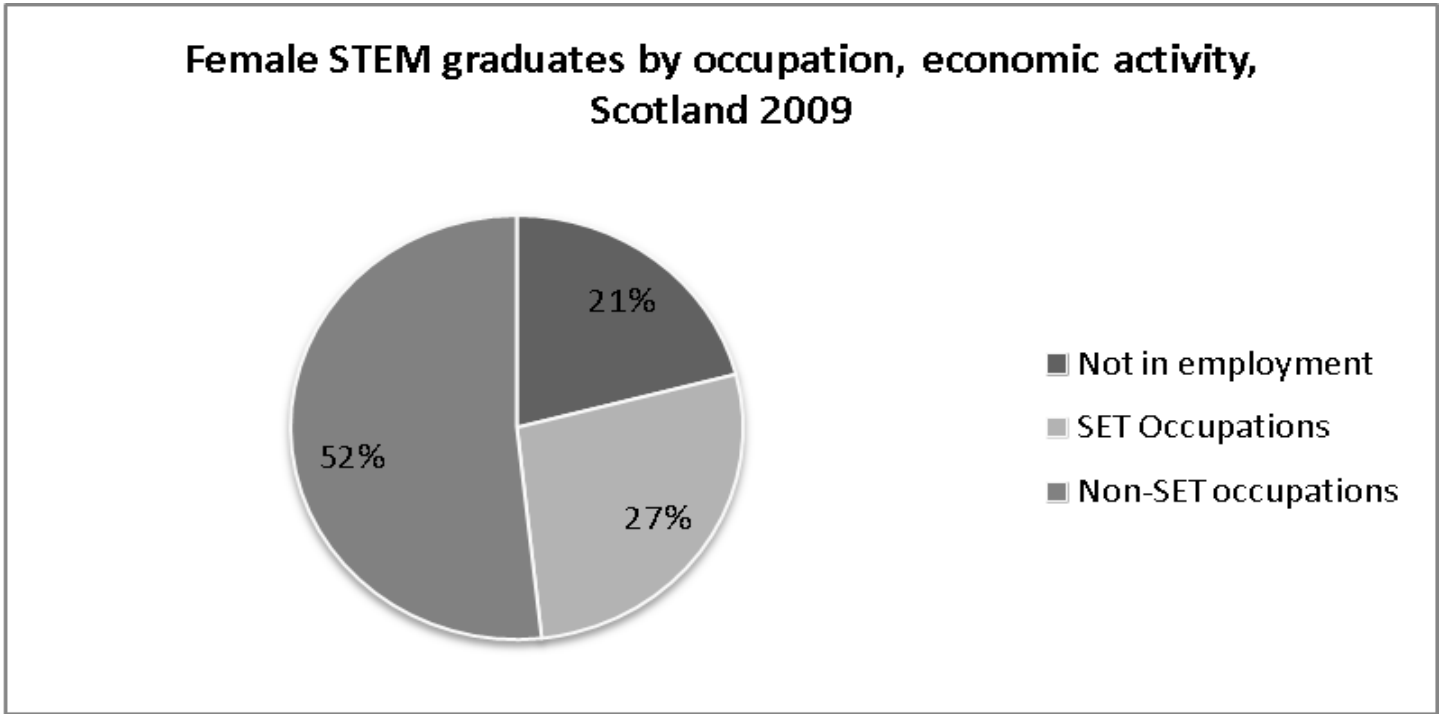
Proportion of each cohort that is female from Standard grade to Professor, by STEM subject

Slow growth in academia



The proportion of academic staff which is female, by STEM subject and by year

73% female STEM graduates leave STEM



[48% male STEM graduates leave STEM]

Economic arguments

We use economic arguments to make our case – probably the ones most likely to be heard

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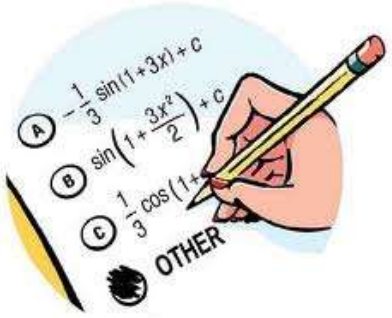
- Science, technology vital to future; STEM essential for a smart economy
- Leaky pipeline
  - waste of education and training costs
  - loss of talent

Economic arguments contd

- Diversity (gender, ethnic) makes an organisation more robust, more flexible
- In Scotland, doubling the number of women in STEM economy would add £170 million p.a.
- At the same time there is a growing skills and experience shortage facing Scottish STEM employers (e.g. ITC sector, energy)



It can be done!
USA – NSF Advance Program

- E.g. University of Michigan:
- 2 years before Advance program, 9 out of 71 hires (13%) in science and engineering were female
- 8 years since, 95 out of 327 hires (29%) female
- Funding promoted institutional transformation – focus on women in science and engineering – recruitment, retention, climate and leadership (M and F) skills.

We call on…..

The Scottish Government: to commit itself to a national strategy, led by the appropriate Cabinet Secretary

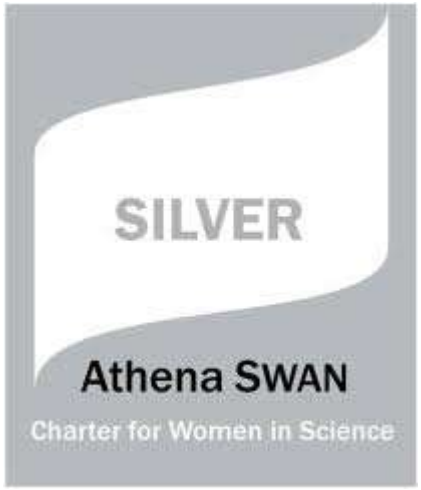
And to use its position as the purchaser of a wide range of goods and services to ensure that contractors and suppliers meet the public sector equality duty

We call on…

- **The UK Government:** to introduce legislation that recognises the co-responsibility of mothers and fathers in parenting
- **Business and Industry:** to introduce quality part-time employment at all levels for men and women

We call on:

- **The UK Research Councils the European Union and other funders:** to make the achievement of an Athena Swan silver award, or equivalent, a condition of a grant
- **Universities and Research Institutes:** to develop strategy to get their STEM Depts to this level



And finally…

- **Learned and professional bodies:** to agree and publicise a statement welcoming and encouraging the full participation of women in that body and its academic discipline; and
- The qualities expected of successful candidates should be made publically available, ensuring the language is gender neutral and does not use adjectives or verbs more usually associated with one gender only

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