The Contribution of HIFAR to University Research

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SUMMARY

1. Activity in neutron scatteringscience in Australia has increased in the last three years since the McKinnon Report, and continues to engage first-class scientists whose world standing is recognised by their ability to access overseas facilities.

2. Neutron scattering is an important research area for Australia, with increasing importance in new materials and processes, but industrial appreciation of neutron scattering's role in material science is lacking.

3. Neutron scattering resarch needs access to an Australian reactor neutron source for local and regional activities and if continued access to advanced overseas facilities is expected.

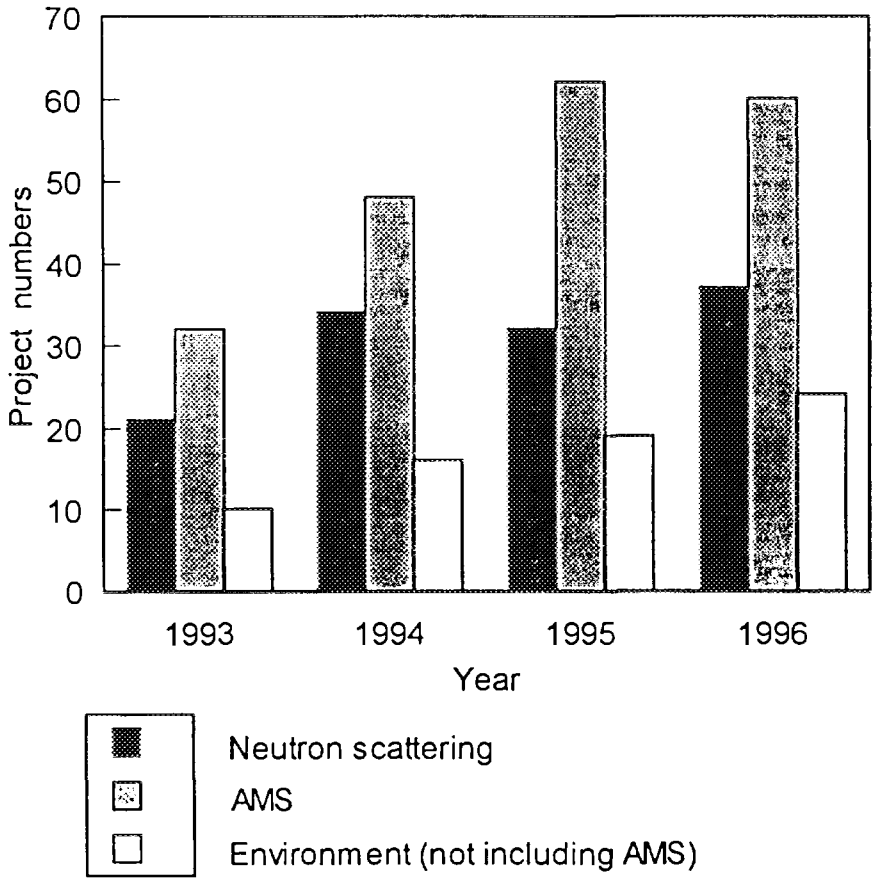
4. A reactor neutron source is complementary to, rather than superseded by, access to synchrotron radiation sources or spallation neutron sources.

5. A new Australian facility should be designed to fulfil a regional role, building on Australia's strengths in instrumentation and experience in operating such a research facility.

6. The promotion of neutron scattering techniques, especially in an industry context, and issues relating to access to the current facilities need to be addressed.

7. Questions remain about the future state of physical sciences in Australia, and of the organisation of the funding of Australian science, which are relevant to neutron science but whose outcomes cannot be determined at present.

8. The presentation will refer to the four key Figures attached which are provided from the report commissioned by the Executive of AINSE and completed in February 1997 by Professor G. S. Laurence, University of Adelaide.



Comparison of selected AINSE project areas

Figure 1

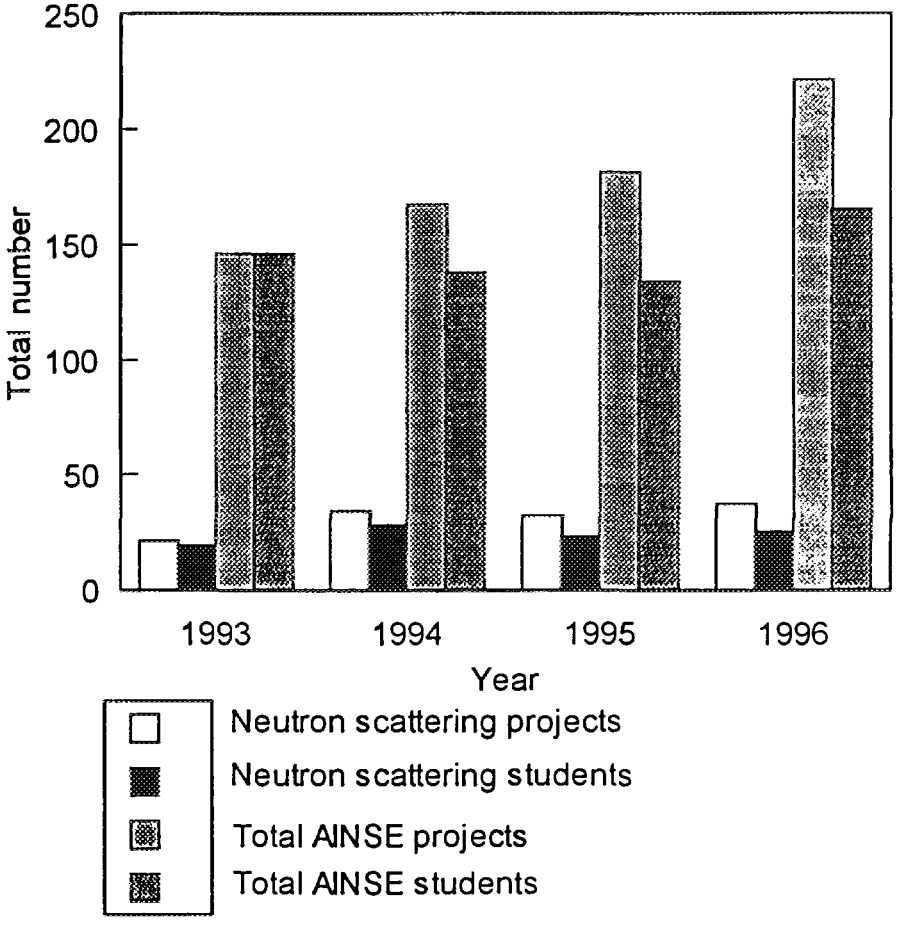

250
200
150
100
50
0
Total number
1993
1994
1995
1996
Year
Neutron scattering projects
Neutron scattering students
Total AINSE projects
Total AINSE students
Neutron scattering and all AINSE projects and students

Figure 2

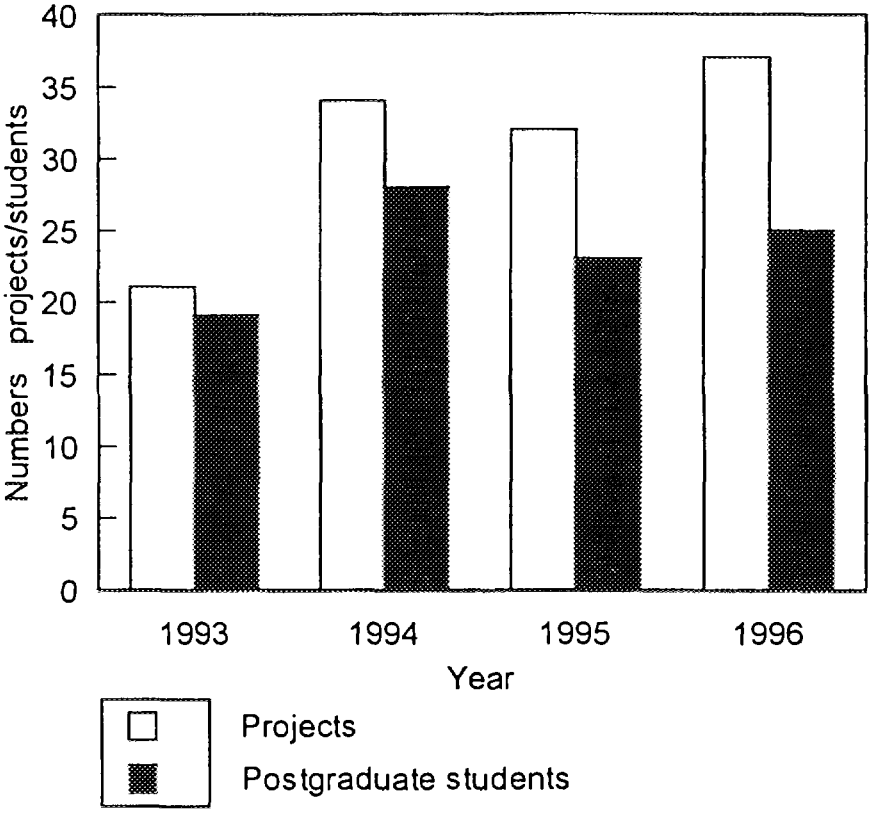
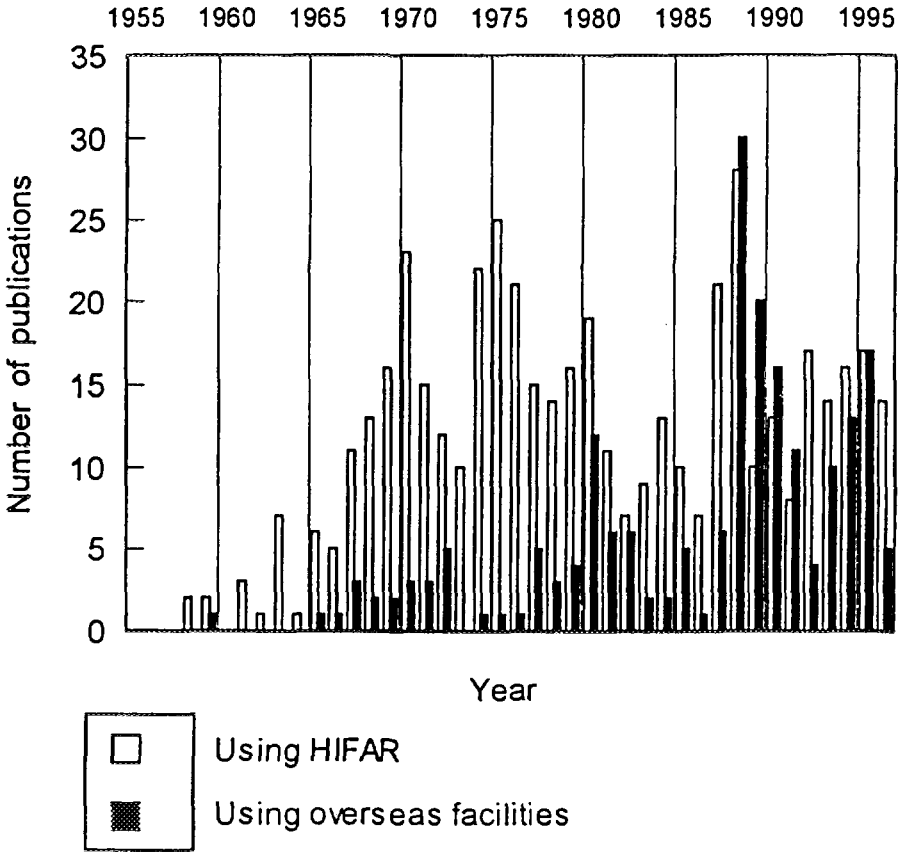

40
35
30
25
20
15
10
5
0
Numbers projects/students
1993
1994
1995
1996
Year
Projects
Postgraduate students
AINSE neutron scattering projects

Figure 3



Neutron scattering publications from Australian researchers 1958 - 1996

Data kindly supplied by Dr. Margaret Elcombe

Figure 4