

## **Working Group on Research Capacity**

### **Statement of Attainment of Strategy for Science, Technology and Innovation (SSTI) Human Capacity Targets**

**October 8<sup>th</sup> 2008**

#### **Summary**

The SSTI sets ambitious targets for the delivery of additional researcher numbers over the period 2006-2013. The Working Group on Research Capacity (WG) has completed a data collection exercise which relates cumulative increases in the number of Higher Education Researchers in the areas of Science, Engineering and Technology (SET) to the targets set out in the SSTI for the period 2008-2013. The data collected is presented below in accordance with the classifications and years of the SSTI. The Working Group, having reviewed the results of this data collection exercise, is confident that the targets proposed by the SSTI can be achieved.

Attainment of these targets is contingent on agency funding profiles as outlined in the NDP being provided.

#### **Overview of Data Collection Process**

Data was collected from the following Government Agencies;

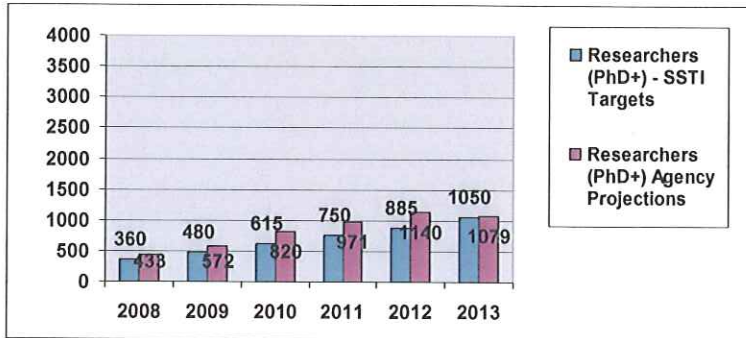
- DAFF
- DCENR
- Enterprise Ireland
- EPA
- HEA
- HRB
- IRCSET
- The Marine Institute
- SFI
- Teagasc

Agencies provided year on year "stock" numbers of researchers funded. The differentials between these annual stock numbers generated the data for 'new & additional' researchers. This 'new and additional' data was then cumulated for each year of the SSTI period.

#### **General Caveats**

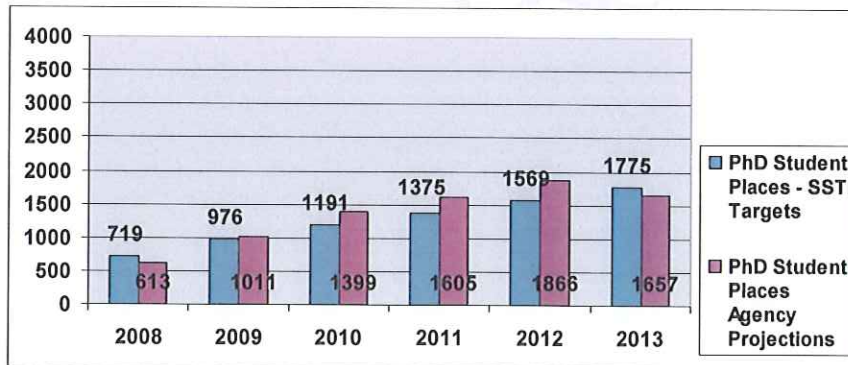
These projections reflect provisions under agency funding profiles as outlined in the NDP being provided and are contingent on these profiles remaining unchanged. The main numbers provided for 2009-2013 have been projected on the basis of the historical

### Researchers PhD Plus



Data collected under the PhD+ category show that agency’s projections for this category will reach SSTI targets. There is a possibility that a small number of those researchers classed as PhD+ could be described as PIs in some instances. This issue relates to a lack of clarity on the definition of a Principal Investigator and is a matter for further work and resolution by the working group on Research Indicators.

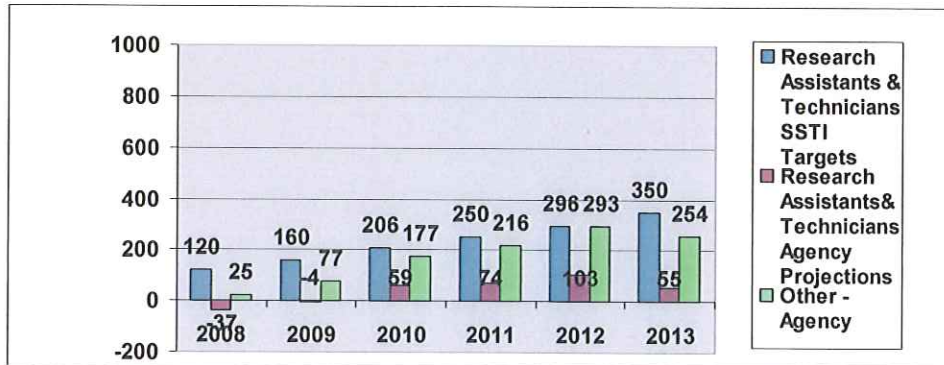
### PhD Student Places



In presenting this information, the WG was cognisant of the fact that in order to attain 100% of target for PhD output, that the system would need 105-110% (depending on discipline) of students in place. This requirement is based on the historical experience of higher education institutions and funding agencies. Data collected under the PhD student places category show that SSTI targets are broadly attaining targets in the mid years of the strategy but that a divergence emerges in the final year of the strategy period – this potentially reflects a more conservative projection by agencies of intake growth in 2013<sup>1</sup>.

<sup>1</sup> In a number of instances agencies did not have a profile beyond 2012.

## Research Assistants and Technicians



Based on information provided by agencies, projections for the numbers of Research Assistants and Technicians fall short of SSTI targets.

In investigating this matter, agencies have provided data in relation to other categories of researchers/support staff funded – labelled as ‘Other’<sup>2</sup>. These latter data have been noted and are also presented in the graph above. There is a possibility that individuals in this ‘Other’ category could be classed as Research Assistants and Technicians. Consequently there may be less of a divergence between SSTI targets and agency projections. However it is not possible to characterise this further at this time but clearly this finding warrants further investigation.

There is of course no corresponding SSTI target for this ‘Other’ category. The Working Group noted that whilst ‘Other’ were not a subset of the SSTI targets they are none the less critical, as stated in the SSTI text, as part of the infrastructure and research capacity of research performing institutions.

## Conclusion and Recommendations

Attainment of the SSTI targets is contingent on agency funding profiles as outlined in the NDP being provided. The results and analysis of the data collection exercise, carried out by the Working Group on Research Capacity, in relation to projected additional researcher numbers over the period 2008-2013 support the Working Group’s confidence that the system is broadly on track towards achieving the ambitious targets set out in the SSTI, given sustained levels of public sector funding.

The Working Group does make recommendations that would benefit a similar data collection exercise in the future:

<sup>2</sup> The Working Group identified Research Nurses, Administration staff, Statisticians and Project Managers as examples of the career profiles that are encompassed within this ‘Other’ category.

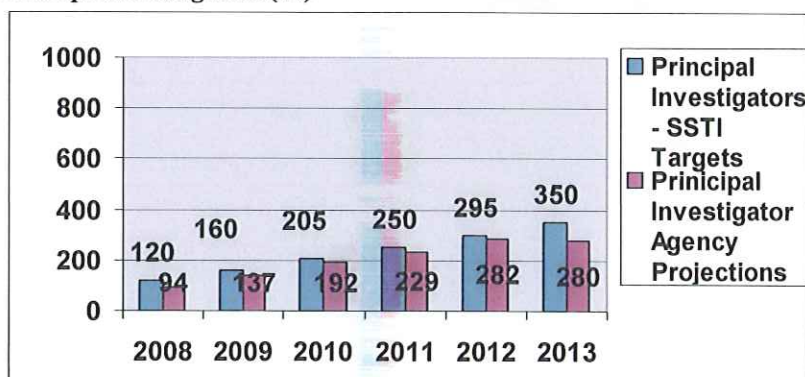
pattern and/or provision under previous funding programmes. For 2008, data in some instances reflects actual and in others projections to year end.

Data for the PhD student places category has been calculated by taking four year funding of PhD students into account from 2009 onwards. In a small number of cases, student numbers have been referenced on a three year funding cycle.

Many difficulties were encountered in collecting data due to the lack of commonality in methodologies for tracking and monitoring human capital among agencies. In the absence of more robust data sets, data collected for this exercise must only be viewed as indicative.

**Outcomes of Analysis**

**Principal Investigators (PI)**



Data shown in the above graph reflect individuals at PI level who are directly funded by the relevant agencies. The data collected from agencies under this researcher category, where PIs are directly funded, show that projections are broadly on track towards attaining targets in the early years of the SSTI but that there is a divergence in the later years. It is the view of the Working Group that this divergence will be addressed by an increase in the number of tenured academic staff serving as PI's in institutions receiving funding awards as PIs. These individuals are not directly salaried by agencies but by the higher education institution block grant. Data received from HRB support this view. It indicates that 38% of successful applicants for research project grants in 2006 at the HRB were between 26 and 35 years of age and were effectively new PIs in the system. Other agencies have indicated similar experiences.

- The WG needs to, on the basis of the approved HERG definitions from the Working Group on Research Indicators, provide clarification on the definition of SSTI Categories for further data gathering exercises. This is especially important in the case of a definition for the PI category.
- Progress needs to be made towards more common data collection systems between agencies. A consistent approach across Departments and agencies to this matter is required to enable SSTI reporting.
- Upon application for agency funding by a PI, information on other sources of project funding held by that individual should be collected and recorded.

ENDS

DRAFT