

Senate Standing Committee on Economics
ANSWERS TO QUESTIONS ON NOTICE
Innovation, Industry, Science and Research Portfolio
Additional Estimates Hearing
26 February 2009

AGENCY/DEPARTMENT: COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION

TOPIC: Nanotechnology

REFERENCE: Question on Notice (Hansard 26 February 2009, E127 – E128)

QUESTION No.: AI-65

Senator ABETZ—Yes, now. But was there a proposal at least for CSIRO to have a nanotechnology—

Dr Clark—No, that is not right.

Mr Whelan—Just to clarify that answer: the Niche Manufacturing Flagship—which has now been renamed the Future Manufacturing Flagship—did have a large proportion of nano material based research. Some people might have described it as a nanotechnology flagship, but it was called the Niche Manufacturing Flagship and has been renamed Future Manufacturing.

Senator ABETZ—Thank you very much. A bit has been revealed here. Did that actually ever get started?

Mr Whelan—It is up and running. It has a director and it has people working in it.

Senator ABETZ—When did it get started?

Mr Whelan—Funding was provided I think about two years ago. We have had research programs in our operational plan.

Senator ABETZ—Why was it that I was under the apprehension, or misapprehension, that the funding for it had been cut by the incoming government?

Mr Whelan—I am not sure, but there have been no reductions in funding as a result of any budget cuts.

Senator ABETZ—There is a very good question that Senator Bushby has given me. Is nanotechnology still a major part of this new—

Dr Clark—Yes, it is.

Senator ABETZ—And what do we call ‘major part’? Is it 50 per cent of the budget?

Dr Clark—I met with over 200 of our scientists involved in that area, and we cover all aspects of nanotechnology in that. New materials, our advanced materials work, our advanced coatings work and our polymer work are all involved in that flagship.

Senator ABETZ—But you do work in it on matters other than those related to nanotechnology?

Dr Clark—We do, but a large proportion of what we do involves new materials and advanced materials.

Mr Whelan—Three out of the five research programs have ‘nano’ in their name.

Senator ABETZ—I reckon that qualifies, doesn’t it, as a large part—

Dr Clark—It does, indeed.

Senator ABETZ—Is it 60 per cent? Can you provide me with the detail of that? So I do not get conned just by the names of the projects, what about the monetary allocation to those three out of the five? Does that represent 60 per cent of the budget or—

Mr Whelan—No, it does not, but I am happy to provide those details on notice.

Senator ABETZ—What percentage of the budget does it represent? I might be on to something here, that it is only 20 per cent of the budget.

Mr Whelan—It is a substantial, proportion. I have not done the maths.

Senator ABETZ—I just thought I would take you up, Senator Cameron.

Senator CAMERON—He is very excited.

Senator ABETZ—Small things amuse small minds, so forgive me, Senator Cameron.

Dr Clark—Senator, I am not sure that—

Senator CAMERON—That's what I'm watching happening with you!

Senator ABETZ—If you could provide that to me on notice, that would be helpful.

ANSWER

Approximately \$9 million or 52 per cent of the Future Manufacturing Flagship's work is in the area of 'nanotechnology'. All Themes within the Flagship undertake projects involving various aspects of nanotechnology. The title, budget, staffing and goals for each Theme are:

Future (Niche) Manufacturing Flagship (~ \$18 million, 68 EFT)

Electroactive Materials (~\$9 million, 35 EFT)

Theme Goal:

This Theme will help develop new platform technologies that provide a basis for the creation and growth over the next 5-10 years of world-leading companies in Australia based on (printable) polymer electronics. This will build on CSIRO's Materials' platform by developing new materials, rapid prototyping and fabrication expertise for use in the energy, water, climate change, health, manufacturing, communication and security domains. Nanotechnologies are some of the tools being used to meet these goals.

Nanomaterials for Medical Delivery (~\$2.5 million, 9 EFT)

Theme Goal:

By 2015, the Theme will help deliver superior therapeutic outcomes for patients by developing and transferring to industry a new generation of therapeutic delivery technologies through the design and development of well-defined polymer-therapeutic conjugates.

Analysis at Point of Sampling (APOS) (~\$3.2 million, 10.5 EFT)

Theme Goal:

By 2020, to help transform the Australian instrumentation industry into a sensor industry based on advances in nanotechnology to enable real time, in situ assessment of chemical, biochemical and biological species at laboratory quality (the "laboratory to sample" transformation in sensing).

Carbon Nanotube Yarn (~\$1.7 million, 6 EFT)

Theme Goal:

To establish a new Australian business activity in the production and use of carbon nanotube yarn.

Nanosafety (~\$1.8 million, 8 EFT)

Theme Goal:

Using sound science, help Australia capture the benefits of nanotechnology in a safe and socially responsible way, in which appropriate risk strategies are in place for research, manufacturing, consumer use, community and environmental impact.