

Election 2014 – SMC science Q&A with political parties



The Science Media Centre put questions on key science-related issues to the political parties ahead of the 2014 General Election scheduled to be held on September 20.

Not all parties responded. Late responses will be added to the [Science Media Centre website](#).

Please click on the links below to find the answers from responding political parties

[Science priorities](#)

[Marine sustainability](#)

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Q1: Science priorities

The Government has developed the [Draft National Statement of Science Investment](#), setting out current and future priorities for science funding (e.g. Callaghan Innovation, the National Science Challenges).

Does your party support the current approach? If not, what alternative policies would your party implement to direct science investment?

NATIONAL: No policy given.

LABOUR: The current government's National Science Challenges have become a resounding failure. Scientists are overwhelmingly dissatisfied with the whole process, have little confidence in the Challenges' ability to deliver and feel that that this investment is not even aligned to science objectives. There is no option for New Zealand to get this wrong. These challenges are set to consume \$1.3 billion of science funding over ten years. Money has been recycled from all over the science system into them.

Labour will review and reform the National Science Challenges, on the basis of advice from the science community and building on the success of respected funding bodies such as the Marsden Fund.

Too often our Crown Research Institutes, universities and businesses are disconnected from each other, despite there being clear national advantage from collaboration. Some public institutions hold on to intellectual property developed with taxpayer money with the result that good ideas are not commercialised as successfully as they would be in the private sector. Businesses are often reluctant or face obstacles to access and use research expertise in CRIs and universities, which inhibits high quality R&D that might have been undertaken. There are a number of areas where closer collaboration – or clustering – may generate

benefits. New Zealand companies are highly specialised in some areas of health technology as are leading universities.

Labour will provide integrated support for innovation across the Crown Research Institutes and tertiary institutions, and through private - sector research activities, and sectoral and regional initiatives.

GREEN: Investing in smart green innovation is one of our core election priorities. We feel the current National Government is stifling scientist-led innovation by directing hundreds of millions of dollars of scarce innovation funding into hand-picked National Science Challenges, instead of increasing funding to the highly successful, investigator-led Marsden Fund. National has also stifled business-led innovation by replacing R&D tax credits with grants that is allocated by the Ministry.

Government should be there to allow scientists and businesses to get on with innovation. We will work with R&D experts to design the delivery system, not control it centrally. The Green Party will give scientists and businesses the freedom to research and innovate - more information on our plan to invest in smart green innovation is detailed in our answer to the innovation question below.

NZ FIRST: New Zealand First believes that the application of scientific knowledge is fundamental to New Zealand's future prosperity and success. We support additional science funding, and that the focus must be on science and not on creating extra layers of bureaucracy and management.

As a new institution, Callaghan Innovation is still to demonstrate its capacity to deliver results. We consider the performance of Callaghan Innovation must be closely monitored to see what real results are being achieved.

UNITED FUTURE: UnitedFuture broadly supports the current science funding approach. We want to encourage new scientists to the profession by promoting science as a viable profession in New Zealand by reducing the costs of study, through our zero fees zero tuition fees policy, introducing bonding schemes that reduce student loan debt for those who are qualified in such fields in return for a continuous period of work in New Zealand, and establishing a system of research scholarships between tertiary providers and the private sector. We see Callaghan Innovation and the National Science Challenges as critical to New Zealand's scientific community. New Zealand is a small country and it makes sense to have some centralisation of resources in order to best maximise them. Furthermore we are pleased there is now a role of Chief Science Advisor to provide strategic advice on science and science policy to the Prime Minister and Cabinet. Having the CSA play a role in important funding decisions is appropriate given that office's inherent expertise.

CONSERVATIVE: Not pushing for changes at this time. Do not consider ourselves well enough informed to promote a change at this time.

INTERNET: The Internet Party supports the proposed seven objectives but does not have a specific policy on achieving it and looks forward to joining the conversation with scientists and others.

We believe the private sector tends to undertake too narrow a portfolio of research and development, which underlines why governments must maintain a diverse research portfolio in their public research institutions and universities. The government must fund untargeted academic research in universities and state research laboratories to maintain diversity.

The Internet Party will promote university-centred innovation hubs attached to every major New Zealand University. Modelled on the Stanford Research Park in California and the Cambridge Science Park in UK, it takes the next step forward from existing centres such as the Waikato Innovation Park.

These innovation hubs will encourage close relationships between academia, talent, and collaborative communities of scientists and technologists who are encouraged to interact, and work in teams. Hubs facilitate moving around within academia and employment circles, ensuring knowledge is portable, shared and available to stimulate enterprise within companies and research organisations.

Innovation hubs, as part of the wider innovation ecosystem, will be directed to maximise strong networks that are key to creating spill-over effects to the wider community. The innovation hubs and networks will expand to include successful New Zealand companies and sectors to create virtual clusters.

Q2: Marine sustainability

Government and industry have signalled increased effort in offshore petroleum exploration and seabed mining.

What policies will you implement to help preserve the health of the oceans surrounding New Zealand, and how will you gauge the environmental impacts of exploiting mineral resources on New Zealand's continental shelf?

NATIONAL: No policy given.

LABOUR: Labour is committed to strengthening the New Zealand economy and protecting our oceans and beaches. Labour aims to have 30% of our marine area in some form of protection by 2020 – both in the territorial sea and the EEZ. At least half of the 30% will be in an ecologically representative and effective network of marine reserves. We will create a marine reserve in the EEZ around the Kermadec Islands.

In terms of minerals, Labour's vision is for a low-carbon clean tech economy that provides world class living standards for Kiwis and protects our unique environment. We know it's

not going to happen overnight, and we acknowledge that oil and gas have a role in the transition to this new economy

GREEN: New Zealand has one of the largest EEZs in the world, over 15 times the size of New Zealand's landmass. The Green Party will ensure this is protected adopting a precautionary approach to marine activities; massively expanding the area covered by marine reserves, including creating marine reserves representing all ecosystem types; and consulting with all stakeholders to create a comprehensive marine protection strategy.

As a part of our environmental priority this election we want to protect our beaches from oil spills, which means we will prohibit deep sea oil drilling. We also have a plan to save the endangered Maui's dolphins, which includes prohibiting fishing methods lethal to Maui's dolphins, new oil and gas exploration, and mineral mining throughout the Marine Mammal Sanctuary.

We'll also amend the EEZCS Act to ensure the environmental management framework for the sea beyond the 12-mile limit better implements New Zealand's international responsibilities to preserve and protect the marine environment.

NZ FIRST: Oil and mineral research must be subject to the rigorous regulation and oversight.

UNITED FUTURE: We will continue to allow offshore oil exploration as long as the environmental risks associated with these activities can be managed effectively, by ensuring that operational best practices are implemented and enforced through regulation. We believe the current EPA process is the best process to make decisions as long as we ensure there are more stringent environmental protections for all offshore drilling. This should include building the capability of Maritime NZ, greater resourcing for inspections (health & safety and environmental) to ensure regulations are strictly adhered to and the appropriate strengthening of legislation.

CONSERVATIVE: Our policy on Thriving Oceans (Fishing in New Zealand) provides changes as follows:

End Gill netting

Standard size for commercial and recreational

End inshore trawling and make Hauraki Gulf commercial fishing free

In respect of minerals we support development of untapped resources rather than the more risky extraction of deep sea reserves.

INTERNET: The Internet Party will impose an immediate moratorium on environmentally risky mineral extraction including deep-sea exploration, undersea mining and deep-well injection until the recommendations of the Commissioner for the Environment about these industry processes are debated publicly and acted on by Parliament. The objective is to achieve a social mandate for processes that are safe, properly consented and monitored, and to ensure modern and environment-friendly methods – if they are available - are given greater priority as emphasis on fossil fuels is phased down.

If or when moratoria are lifted on environmentally hazardous resource extraction methods, a partially refundable bond system will apply to companies seeking permits and consents to

ensure government, ministry and local government organisations have sufficient resources in hand to remedy damage from accidents, without having to rely on the legal or moral obligations of the extractors. A part of the bond funds will pay for world-class equipment to be held in New Zealand for immediate deployment in worst-case scenarios.

Q3: Innovation

The [latest OECD figures](#) show New Zealand ranks 29th in terms of expenditure on Research and Development (R&D) as a percentage of GDP, spending just 1.27%, almost half the OECD average.

What is your party's approach to encouraging R&D in general, and in particular, among New Zealand businesses? What policies would you implement to encourage private sector R&D?

NATIONAL: No policy given.

LABOUR: Our research and development spend is too low. Overall we spend about 1.3% of GDP on R&D – half of what Singapore and Denmark invest. Labour recognises that funding for science needs to grow and particularly within the private sector.

We will prioritise an increase in our public science spend to link New Zealand to the OECD average, over time as fiscal conditions permit.

R&D in the business sector is particularly low – just 0.51% of GDP or one - third of the OECD average. Although Kiwis are an inventive people, our low level of business expenditure is a drag on New Zealand's ability to innovate and grow.

Labour will introduce an R&D tax credit at the rate of 12.5%. It aims to lift New Zealand's lagging R&D expenditure by encouraging businesses to research and innovate. Labour will also encourage investment by providing tax deferrals in the form of accelerated depreciation to encourage industry to invest in new technology and plant. We will also boost innovation by working with the industry and public science bodies to develop new products and technologies.

GREEN: Investing in smart green innovation is one of our key election priorities. Innovation lies at the heart of a smart, green economy. Economies that innovate do better over the long term, creating good jobs that pay well.

Our plan to build a more innovative economy has at its centrepiece \$1 billion of new government funding over three years for R&D to kick-start a transformational shift in how our economy creates wealth. We'll also promote a collaborative partnership approach to innovation between government and the private sector with R&D funding made up of tax credits and grants, a requirement for firms that go into overseas ownership to repay their grants, and a new voluntary option for large grants where companies that receive significant taxpayer funds agree to the government taking an equity stake in their business.

We'll also launch a major national campaign promoting the benefits of a career in the sciences, maths, and engineering professions, which will include funding an additional 1,000 places at tertiary institutions in these fields. Importantly, this funding will not impact students hoping to study in the humanities. We value the creativity and the ability to analyse and integrate knowledge that is fostered in the arts.

NZ FIRST: New Zealand First would give tax incentives to encourage research and development.

UNITED FUTURE: We see it as very important for New Zealand to maintain a strong Research, Science and Technology (RST) sector, now more than ever. With significant issues such as climate change facing our energy, primary and export sectors, it is imperative that scientific research is given the long-term certainty of funding to successfully meet those challenges. To that end UnitedFuture proposes increasing government funding of Research, Science & Technology (RST) to at least the OECD average as a proportion of GDP. Our policy also includes:

- Investigate ways to increase the amount of privately-funded RST. Current government policy is to reduce public funding of research that benefits industry, assuming that producers will contribute directly, but it can be difficult to attract industry funding for projects with a longer-term horizon from private enterprise, as they often seek more immediate benefits in productivity;
- Simplify the different funding mechanisms for research. These have been allowed to develop in an ad hoc manner over a period of time to fill perceived gaps, but the result is a system that has become inefficient and difficult to navigate;
- Ensure the scope and operation of the current range of Crown Research Institutes (CRIs) maintain a balance between public good activity and commercial applications;

CONSERVATIVE: We support R&D being tax deductible and Public Private Partnerships in developing research.

INTERNET: The Internet Party will provide vision, leadership, and determination to make New Zealand a prosperous country again by becoming a global leader in the Digital Age. This will involve a 'whole of New Zealand' transformation, powered by R&D and innovation.

The Internet Party will lift New Zealand's R&D expenditure to the OECD average (2.4%) over 7 years.

Over the next 3 years, to take a big step towards the 7 year target, the Internet Party will support the Green Party's proposal to increase government expenditure on R&D by \$1 billion, taking total R&D expenditure to between 1.65% and 2% depending on the amount invested by businesses. There is an opportunity to go even further, raising the first year expenditure from \$100 million to \$300 million, taking the 3 year total to \$1.2 billion.

R&D tax incentives, including tax credits and accelerated depreciation, are widely used by OECD countries and need to be re-introduced in New Zealand with sufficient safeguards to ensure the expenditure is genuinely going into R&D. However, tax credits will be insufficient for non-government R&D expenditure to allow New Zealand to reach the OECD average. For

that, other elements of our policies- including taking an NZ Inc approach, boosting the digital economy (ICT firms invest four times the average for all sectors), and innovation hubs- are essential.

Q4: Water quality

Freshwater quality has been a high profile issue over the last year.

What policies would your party implement to protect and improve the quality of New Zealand's rivers and lakes? How would this be balanced with agricultural practice?

NATIONAL: No policy given.

LABOUR: Labour says clean waterways must not be allowed to get dirty, and dirty waterways should be cleaned up over a generation. But as presently proposed, the national objectives framework is woefully inadequate and will allow the degradation of freshwater to toxic levels. Important measures of freshwater health are not included – e.g. invertebrates through a Macro Invertebrate Community Index, and freshwater fish. Labour will rectify this and implement national freshwater quality standards, with dates by which they will have to be met.

Labour will introduce a revised NPS on water quality based on the principles of the Sheppard version. That means:

- Clean rivers and lakes will not be allowed to get dirty;
- Dirty rivers and lakes will be cleaned up over a generation; and
- Increases in intensity of land use will be controlled rather than permitted as of right.
- Improvements to farm practice will be required to offset the additional environmental burden caused by more livestock, fertiliser and effluent.

GREEN: The Green Party wants our rivers to be clean and healthy enough for our children and grandchildren to enjoy in the future. Nearly two-thirds of New Zealand's monitored river swimming spots were too polluted for swimming last summer, according to the Ministry for the Environment.

This is why one of the Green Party's top election priorities is to make New Zealand rivers clean enough to swim in again. To do this we will establish a protected rivers network to permanently safeguard our most precious rivers, similar to the permanent protection given to national parks. The protected river network will stop the destruction of rivers from irrigation, dams and pollution, above and beyond the normal protections afforded by minimum standards, while retaining the full right of all New Zealanders to use the protected rivers for food gathering and recreation.

We will also limit the amount of water being taken from rivers and limit the amount of pollution going into them so that our river quality is safe enough for swimming by overhauling and strengthening the current weak National Policy Statement for Freshwater

Management, and implementing a strong National Environmental Standard for both water quality and water flows in rivers.

NZ FIRST: New Zealand First has a National Water Use Strategy setting out detailed policy in relation to water use and quality.

UNITED FUTURE: United Future recognises the social, cultural, recreational and economic benefits of keeping our rivers, streams and lakes full of clean water for current and future generations. UnitedFuture believes that the environmental value of our freshwater must be considered paramount. This is the only way to assure both the future health and wealth of our nation.

- Vesting the ownership of all freshwater, its beds and margins to the Crown and placing its management in public hands. The Crown will lease water takes while prohibiting the private ownership, sale or trading of freshwater such as tradable water rights;
 - Continue to oppose proposed changes to the Resource Management Act (1991) to ensure that the ecological, environmental, scenic, wilderness and recreational values of freshwater systems have primacy when assessing proposals to dam, divert, abstract, append, change or in any way modify the flow, quality or characteristics of that waterway;
 - Create a National Environmental Standard for Land Use, which sets out rules to determine the ecological sustainability of that land use and to ensure it has no adverse effect on any water bodies;
 - Re-allocate the Irrigation Acceleration Fund towards contestable grants which promote sustainable and environmentally positive on-farm operations, such as water use reduction, pasture improvement, soil and effluent management;
- Encourage environmental innovation and sensibility by introducing user pays for all water-takes and polluter pays for any individual or entity who introduces point or non-point polluting discharges into rivers or lakes.

CONSERVATIVE: Our policy Drinkable Water promotes the cleaning up of all waterways and beaches. We see this as a staged process. We do not support any new tax on farmers but rather a co-operative approach that sees better stock management and planting of riparian strips.

INTERNET: Current approaches being taken by government, local government and private organisations to remedy water quality issues will be the subject of a public review conducted by the Office of the Commissioner for the Environment. Public submissions will be encouraged and hearings held. The objective will be to produce a national 10-year Water Quality Plan by 2016, with a key aim the resolution of water environment issues linked to agriculture and industry by 2025. Recent changes to the Resource Management Act will be reviewed to ensure that environmental protection has not been diminished.

The Internet Party supports using a part of the revenues from a carbon tax (details in the climate change question) for subsidising water quality remediation and other environmental initiatives.

Q5: Infectious disease

Research has shown that unlike most developed countries, New Zealand has seen an increase in the [rates of infectious disease](#) in recent years.

How will your party address the relatively high rates of infectious diseases in New Zealand?

NATIONAL: No policy given.

LABOUR: More and more families are finding it hard to get a warm, dry home, and struggling to pay the bills. Studies have shown that cold, damp houses and overcrowding and infectious diseases are linked. So not only is the housing crisis a major cause of child poverty, it is also directly responsible for shocking rates of children being hospitalised for infectious diseases. Since 2008, more than 40,000 children have been hospitalised for poverty-related illnesses. Sadly, those figures have been rising.

Labour will ensure that every Kiwi kid has the opportunity to grow up in a warm dry home. We're introducing our Best Start package to actually give kids the best start in life. And we're making GP visits and prescriptions free up to 13 years of age – and for those over 65. All will help ensure people are healthy and so stop the increase in infectious diseases we've seen recently.

GREEN: There is very strong evidence that the increase in rates of infectious disease is a result of successive decades of worsening socio-economic inequality, and inadequate provision of the basic drivers of good health - warm, dry housing that is not overcrowded, access to primary medical care, a liveable wage, affordable nutritious food, and incomes above the poverty line. Rates of infectious diseases, especially skin infections, are highly sensitive to changes to social policy that reduce poverty and overcrowding, and preventable with proper primary care.

The Green Party has made a \$1 billion commitment to reduce poverty - the lifelong driver of poor health, which includes a \$500 million annual investment in children's health and education, which includes access to free doctor's visits up to the age of 18 and establishing school hubs at low-decile schools that will include a school nurse and a free lunch.

We also want to improve the standard of housing to make sure everyone has a warm, dry and safe place to call home. We will do this by introducing a Warrant of Fitness for all rented houses, providing extra funding to help families taking action against substandard rental housing, and insulating another 200,000 homes.

NZ FIRST: New Zealand First is committed to fund a first class public health system able to counter infectious diseases.

UNITED FUTURE: UnitedFuture believes that maintaining wellness is fundamental to the quality of life of all individuals and families. Health policy should be as focused on prevention as much as cure – UnitedFuture therefore encourages healthy lifestyle choices. We also advocate that access to treatment should happen in a timely manner and include access to all health facilities and services across New Zealand. The increase of infectious

disease is a systemic failure and requires a range of changes. We support the moves to extend free doctor's visits for children and want to see a free annual health check-up for over 65s. We also have a robust range of policy to improve rental and owner occupied housing across the country including supporting funding to retroactively insulate housing for example. These initiatives will contribute to ensuring infectious disease rates fall.

CONSERVATIVE: In health we promote the restoration of frontline health services (such as Plunket and karitane nurses) where these services go to the home. We also support benefits being tied to parental performance in terms of bringing young children in for health checks.

We also consider poor housing a contributing factor and promote the redevelopment of state houses.

INTERNET: The Internet Party has no specific policy on this and looks forward to joining the conversation using a data and evidence based approach.

Q6: Fluoridation

Community Water Fluoridation has become a contentious policy issue in recent years. Some local bodies [have argued](#) that health authorities, rather than local councils, should be responsible for deciding whether fluoride is put into local water supplies.

Should community water fluoridation be decided by local councils, or should the decision rest with central government? Does your party have a specific view on fluoridation?

NATIONAL: No policy given.

LABOUR: Under a Labour Government, the Ministry of Health will work with Local Government to make District Health Boards responsible for setting standards around water quality monitoring and adjustment to meet World Health Organisation standards for optimal levels of fluoridation of water supplies.

GREEN: The Green Party's policy is written via a consultative process with the membership. There are a range of views on fluoride within the party and Caucus, and our official policy reflects this. It is a consensus position and states: the issue of fluoridating community water supplies requires a difficult balance between the public health effects and the rights of individuals to opt out altogether or avoid excessive intake.

This means, that when considering fluoridation proposals, the Green Party caucus will have particular regard to the public health benefits of fluoridated community water supplies, the potential public health risks of excessive fluoride consumption via community water supplies and the ability of individuals to opt out.

NZ FIRST: NZ First policy is that fluoridation is a matter for local councils to determine with their community.

UNITED FUTURE: UnitedFuture supports transferring the decision on water fluoridation to District Health Boards, a far more appropriate place and group of people to make decisions on such matters.

CONSERVATIVE: We support the role of local councils to deliver local services including local water supply. This enables communities to become involved in these matters and determine their preference.

INTERNET: The Internet Party has no specific policy on this and looks forward to joining the conversation using a data and evidence based approach.

Q7: Climate Change

The Intergovernmental Panel on Climate Change this year released its [fifth assessment report](#) warning that increasing global temperatures will see New Zealand experience increased flooding, drought and negative human health impact in some areas.

What are your party's policies in relation to mitigating the impacts of climate change? Would your party support, change or abandon the current Emissions Trading Scheme?

NATIONAL: No policy given.

LABOUR: Labour will future-proof the New Zealand economy by, as a top priority, transitioning us away from our reliance on greenhouse gas polluting fossil fuels to a high-tech, low-carbon economy. Our core priorities are to:

- establish an independent Carbon Commission, which would establish a carbon budgeting process for achieving significant emissions reduction targets
- restore the ETS so it puts an effective price on carbon, so that we move away from carbon-polluting goods and services towards low or zero-carbon options
- seek to play a leading role in international climate change negotiations for binding reductions in greenhouse gases, in a comprehensive and effective treaty.

Labour will restore the ETS so that it does what it was intended to do – put a price on carbon that drives behavior change away from carbon-polluting goods and services towards low or zero-carbon options. Specifically we will:

- as a matter of urgency move to restrict international units by requiring at least 50% of all units surrendered to meet obligations under the ETS to be NZUs
- strengthen the ETS by bringing agriculture in on 1 January 2016 (agriculture being the country's largest greenhouse gas emitter at 46% of the total)
- base the amount of free emissions units allocated to agriculture on 90 per cent of its 2005 emissions
- continue with free allocations for carbon-intensive industries exposed to export competition, such as steel and aluminium.

GREEN: The Green Party's Climate Protection Plan will protect our climate, achieve carbon neutrality by 2050 and leave Kiwi families better off. Central to this plan is establishing an

independent Climate Commission to provide expert and independent advice to the government on carbon prices, carbon budgets, and complementary measures to achieve carbon neutrality by 2050.

We will also phase out the failed Emissions Trading Scheme and instead put a meaningful price on carbon through a charge on polluters. We would set the price of carbon at \$25 per tonne of CO₂e excluding biological emissions and forestry. For biological emissions, we will set the starting price at \$12.50 per tonne CO₂e initially only covering dairy. This would be matched by a forestry sequestration credit of \$12.50 per tonne of CO₂e with a tax of \$12.50 per tonne for deforestation.

We will recycle all revenues raised from a carbon charge back to families through a \$2,000 income tax-free band and a 1 percent company tax cut. This will see households on average \$319 better off every year. Our policy is about future-proofing our economy and putting New Zealand firmly back in the global green race, while leaving households better off.

NZ FIRST: New Zealand First supports development of a comprehensive national plan with specific targets to decarbonise the economy. We are opposed to the ETS.

UNITED FUTURE: UnitedFuture does not pretend to be able to predict precisely all the consequences or outcomes of climate change, but through the growing scientific and economic evidence we understand the risks and the need for a timely response. It is UnitedFuture's opinion that the benefits of responsible and practical action now will be realised in the long-term health and prosperity of New Zealand's environment and its people.

UnitedFuture supports the current CO₂ emissions trading mechanisms to provide economic incentives to reduce greenhouse gases and boost carbon capture. But we want to ensure the pricing of carbon on the ETS remains at a level high enough to reduce emissions. To this end we will initiate a review of the ETS one which will consider minimum pricing. We oppose the introduction of a carbon tax.

CONSERVATIVE: We do not support, and would repeal, the Emissions trading scheme. We see no evidence that it has reduced carbon emission but consider it has imposed extra costs on New Zealanders through petrol and power price increases. At the same time it has disadvantaged us in comparison with our trading partners.

While we are happy to support calls for reduced carbon emissions we support the Canadian approach which saw them withdraw from Kyoto and focus on improving the local environment. Given we are a small nation with low total emissions we think the local environment (toxicity and water quality) should be the first concern.

INTERNET: New Zealand urgently needs a strategy to achieve a net zero emissions economy. The Internet Party supports the Green Party's call for a 100% reduction in net greenhouse gas emissions from 1990 levels within New Zealand by 2050, with a two-yearly review of progress towards these national targets and technology incentives so the country can be kept up with the latest developments in science and technology. We also support the call

for an international agreement that aims to reduce greenhouse gas concentrations to a safe level of less than 350 parts per million as soon as possible.

The Internet Party supports in-principle the Green Party's climate protection plan. According to the BERL report on replacing the Emissions Trading Scheme with an Emissions Levy, the increase in cost (dairy, electricity and fuel) for an average household will be \$101 per year. The Internet Party proposes that the net tax revenue raised of \$955 million per year is used for compensating the lowest income households for the increased costs, subsidising water quality remediation, other environmental initiatives contained in its environment policy such as the goal of 100% of electricity generated from renewable sources by 2025, and investment in transition from fossil fuels.

Q8: Animals in research

Last year saw heated national discussion on the use of animals in research.

What is your party's stance on the use of animals in scientific research? Does your party have any specific policies regarding animal testing, scientific or otherwise?

NATIONAL: No policy given.

LABOUR: Labour has a strong record on animal welfare. Earlier this year, Labour forced the current government to remove untested psychoactive substances from sale, then forced a backdown on plans to allow testing of those products on animals. Labour will:

- ensure that no cosmetics sold in New Zealand have been tested on animals
- uphold the ban on testing psychoactive substances (recreational drugs) on animals
- ban cruel shark finning.

For more about our animal welfare policy, please visit:

http://campaign.labour.org.nz/caring_for_animals

GREEN: The Green Party supports a complete ban on animal testing where there are suitable alternatives. We have called for this in the Animal Welfare Amendment Bill that is currently before parliament. Mojo Mathers, our animal welfare spokesperson, has submitted two amendments to this bill - the first bans animal testing of cosmetics in New Zealand, and the other requires suitable alternatives to be used where these exist to reduce the number of animals used in testing and research.

We supported the ban on testing of party pills on animals, and when this bill was originally before parliament last year we did put forward an amendment to ban animal testing for party pills, which was voted down by National.

We have a full policy on Animal Experimentation as a part of our Animal Welfare policy that focuses on drastically decreasing the use of animal experimentation with the ultimate aim of eliminating all animal suffering. This includes shifting government funding away from animal experimentation to non-animal research methods, and supporting the development

of non-animal experiments for testing products.

NZ FIRST: New Zealand First stands for the humane treatment of all animals and has a clear policy in the area.

UNITED FUTURE: Where there are no viable alternatives we support the use of animals for medicinal product testing.

CONSERVATIVE: Although we have no formal policy as yet we have concerns about animal testing.

INTERNET: The Internet Party believes that animal cruelty should not be tolerated for economic practicality or impact. Decades of scientific evidence, undertaken around the world, proves animals are sentient beings (that animals can feel pain and distress). This concept of sentience (and the acceptance of) has also been recognised by many governments around the world. In order to be one of the global leaders in animal welfare therefore, New Zealand must ensure that this concept of sentience becomes an important foundation for the development of its protection policy for all animals.

Animal testing of recreational products including psychoactive substances and cosmetics will be banned in line with many other countries.

Q9: Private vs public science

The New Zealand science system is shifting towards a greater focus on [research meeting the needs of the commercial sector](#). There is concern that real and perceived conflicts of interest may increasingly lead to tax-payer supported research being withheld from the public, or government scientists being prevented from engaging transparently with media and the public.

Does your party have a policy regarding the balance of private vs public interest in government science institutions and the availability of information? What about policies regarding government scientists and communicating with the media?

NATIONAL: No policy given.

LABOUR: Labour believes that too often our Crown Research Institutes, universities and businesses are disconnected from each other, despite there being clear national advantage from collaboration. Some public institutions hold on to intellectual property developed with taxpayer money with the result that good ideas are not commercialised as successfully as they would be in the private sector.

Businesses are often reluctant or face obstacles to access and use research expertise in CRIs and universities, which inhibits high quality R&D that might have been undertaken.

Labour will explore how better collaboration between CRIs, universities and businesses might be encouraged without imposing artificial coordination that wastes time.

We will also encourage closer association between business and university

commercialisation centres to ensure 'discoveries' within the universities are most effectively brought to market and have the best chance for success.

GREEN: Our Innovation package, mentioned in previous answers, is about giving scientists and businesses the freedom to research and innovate. As well as our \$1 billion investment in R&D, we want to look at the funding model for research to that 'public good' research is split into base and contestable pools, with base funding to only be available to the public sector. We'd also like to see multi-disciplinary environmental and social issue projects emphasised, and ensure that fundamental and applied science research is publically funded, whilst private funds develop the resultant technologies.

NZ FIRST: New Zealand First has a concern that science in New Zealand has been poorly served by endless 'restructuring' funding around changing bureaucratic structures. New Zealand First would see additional funding going to scientific research, not more administrative overload.

We would also support a Chief Science Advisor to the Prime Minister.

UNITED FUTURE: See answers above.

CONSERVATIVE: No policy on this.

INTERNET: As previously answered, the Internet Party governments must maintain a diverse research portfolio in their public research institutions and universities. The government must fund untargeted academic research in universities and state research laboratories to maintain diversity.

The Internet Party supports openness and transparency. Government scientists must not only be able to communicate with the media openly but should be expected to do so, particularly in matters of public interest.

The Internet Party will mandate that all taxpayer-funded research be open access with the public able to freely access and reuse it, unless prohibited under any required ethical consent or approval. There may be a period of transition and a Task Force will be created to support and accelerate implementation of the mandate. The Task Force will also examine and address issues related to funding, peer review, and evaluation of academics and academic works resulting from the mandate.

Q10: Biotechnology

At the moment there is a moratorium on the commercial release of genetically modified organisms (GMOs) in New Zealand. A recent [Environment Court decision](#) raised the possibility of local councils regulating GMO field research through Regional Policy Statements.

*Would your party seek to change the existing legislation governing genetic modification?
Should local government bodies be responsible for deciding whether genetically modified organisms can be trialled in their region?*

NATIONAL: No policy given.

LABOUR: The Royal Commission on genetic modification (GM) reported in 2001. The Commission recommended a precautionary approach whereby New Zealand's unique environment would be protected but future options to take advantage of this new science would not be closed off. Labour endorsed that approach, and still does.

Labour strengthened New Zealand's system of managing genetically modified organisms (GMOs) to being one of the most robust and stringent in the world. We believe accountability and traceability of GMOs is necessary to protect New Zealand's unique environment.

Labour will:

- insist on zero tolerance of unapproved GMOs
- protect farmers who do not wish to adopt GM technology by ensuring the liability regime for use of GMOs that cause harm is strengthened
- ensure that the EPA can set conditions for the use of GMOs that align with any relevant policies put in place by local government.

Non-GM producers must be able to maintain GM-free production and identify their products as such. We must ensure New Zealand's credibility as a market supplier of high quality, GM-free products in a world that is increasingly demanding such products.

Labour will:

- ensure a robust segregation and traceability regime for GM crops
- ensure mandatory labelling of GM propagation material at the point of sale
- ensure mandatory labelling of GM foods, as the current regulatory system requires.

GREEN: The Green Party believes that the environmental and ethical issues around the release of GMOs should not be managed at a local level and that it's disappointing that Regional Councils are being forced to carry the burden of protecting our agricultural sector because the National Government hasn't been showing leadership on this issue.

New Zealand's clean green image is important for our agricultural exports, and an acknowledgement of the risks of GMOs is central to this.

We think that GE should occur within a contained laboratory setting only, and that our food and our environment must be kept GE Free. It is our policy to ban the commercial release and field trials of GE organisms, prohibit field-testing or production of GE foods within New Zealand, and work towards a ban on GE food imports.

NZ FIRST: NZ First's approach to GM/ME is to proceed with extreme caution, and only under secure confined laboratory conditions.

UNITED FUTURE: It is UnitedFuture policy to proceed with caution on all aspects of genetic modification technology using the Environmental Protection Agency's (EPA) robust case-by-case assessment regime. We support more decisions being made locally and will within strict parameters support the ability for local government to make such decisions.

CONSERVATIVE: We do not support this matter being delegated to local councils. As a party that supports binding referendum we would like this matter to be put to the public and have government policy that reflects their wishes. We have concern that commercial release of GMO's would carry a risk to our clean/green brand. We suspect the New Zealand public would share this concern.

INTERNET: The Internet Party has no specific policy on this and looks forward to joining the conversation using a data and evidence based approach.