



SCIENCE & TECHNOLOGY

Objectives

ST100 The basic aim of policy on Science and Technology is to encourage and promote research, development and application of science and technology which will:

1. increase knowledge and understanding of ourselves, our planet, and all its life.
2. help conserve the finite resources of the world
3. help preserve the fragile interdependent network of life
4. halt pollution of the environment
5. assist progress towards a sustainable decentralised society
6. bring about a better quality of life for all the peoples of the world.

Science

Principles

ST200 We believe that people are naturally curious about the world, and enjoy extending their knowledge by scientific study. This research is a worthwhile cultural activity in its own right. It can, and should be, life enhancing, not life endangering. The current rush to explore at all costs should be tempered by an awareness of what kinds of discovery might have the potential to lead to harm to people, the planet, or life thereon, and might be beyond the capability of today's society to control.

ST201 Science and technology are deeply integrated into our society and will play an important role in a Green society. Scientific

research is essential to measure and predict the impact of technology and pollution on the biosphere, and to force political acceptance of the need for an appropriate response.

Policies

ST210 Fundamental research in science will be funded from central and regional resources. There should be several routes for obtaining funds, including universities, research councils, technology commissions (see ST321) & environmental commissions (see ST310). A wide range of projects should be chosen and unconventional ideas given fair consideration. Funding should encourage research to become more interdisciplinary and de-compartmentalised, yet also more decentralised. There should be opportunities to fund individuals, and not just projects, and for constructive dialogue between funding agencies and researchers to facilitate greater flexibility in funding, use of resources, and collaborations.

Ethics

ST220 Ethical Boards will be set up at institutional, regional and national levels to evaluate scientific and technological research. All scientific research should be ethically justified. It will be up to researchers to justify their intended research on ethical grounds measured against an accepted list of criteria. The evaluation will apply to a full range of activities, including industrial, military, educational, scientific, medical and veterinary investigations.

ST221 The ethical criteria would be developed with full public debate and participation, and would include consideration of human and animal welfare, the protection of the environment, local and global public sensibility, and the empowerment of people and communities rather than the concentration of power into already powerful hands.

ST222 Membership of the ethical boards would be broadly based, and include non-scientists and non-technologists. The boards would be constituted so as to maintain a genuine independence and public accountability. They would publish all findings.

ST223 The process of acquiring ethical approval should be enabling and flexible, and could benefit researchers by clarifying the aims of their research and adding social purpose to their motivation. The ethical boards will be sufficiently funded to minimise delays.

Military

ST230 Military ("defence") research into science and technology has traditionally formed a substantial proportion of projects funded by the Government. The Green Party would reduce this to a low level sufficient to sustain the country's defensive conventional forces (see PD400s). Research resources no longer required for the military would be converted to civilian.

Ecology

ST240 Fundamental and applied

research into the environment and the ecology of the biosphere and threatened habitats will attract a high level of funding. Research infrastructure will be developed to facilitate the long term multi-disciplinary research necessary for increasing our understanding of the requirements of a sustainable society.

ST241 Other areas of research that will be specifically targeted include: waste recovery and disposal, and resource-saving manufacturing techniques (see NR422); renewable raw materials (see NR302); environmental health hazards; sewage processing and recycling (see AG619, NR413); integrated pest management (see F311, AG402); hardwood forestry and forestry impact (see 'Forestry' section) and management techniques for forest ecosystems; timber use (see F311-12); food, health and disease (see FD400); organic food production (see 'Agriculture' section, FD403); biological and sustainable methods in agriculture (see 'Agriculture' section); renewable energy (see EN805) energy efficiency and conservation; recycling, and the utilisation of waste products.

ST242 International collaboration in research will be increased and free movement of ideas, knowledge and researchers between countries will be maintained and facilitated. Research in the Antarctic will be restricted to its environment and ecology (see IP512).

Education and Careers

ST250 Some people feel ignorant of science and technology, and overawed by it. People should feel in control of the technology that pervades their lives. Education should be sufficiently holist-

ic to end the perceived division between the arts and sciences, and to integrate science teaching with everyday life. Science education itself should be less specialised and more interdisciplinary, and should foster a socially and environmentally responsible attitude in scientists. Education should enhance the openness of the scientific process and the public's participation in it.

ST251 Non-standard career structures will be encouraged, including movement between disciplines and entry and re-entry into research from other activities, without artificial constraints on age. Professional bodies will be encouraged to avoid domination by male hierarchies and closed sub-cultures. These measures should facilitate the equal participation of women in science and technology.

ST252 A pledge will be introduced by which all scientists and technologists will promise to respect the Earth and life upon it.

Technology

Background and Principles

ST300 We believe that people enjoy making things, and making them efficient, simple and elegant. We naturally use tools to make tasks possible, easier or more fun. However, the application of science and technology so far tends to cause the disruption of natural processes, and increases the impact of people on the world environment.

ST301 Modern technology can be valuable, but there must be a conversion to sustainable and human-scale techniques. We support a role for technology in replacing repetitive, boring and dangerous

jobs, and improving working conditions and work satisfaction.

ST302 We support the development and use of appropriate technology to ameliorate the damaging impact of modern industry, while recognising that an environmentally benign society cannot be achieved by adding technological fixes to our current system. Technology alone cannot avert the fundamental threats facing our fragile planet.

ST303 Technology is seductive to western society. Institutional and cultural inertia tends to perpetuate technologies even when they are malign. Technology must not only be regulated but also continually reassessed from as long-sighted a perspective as possible. Both regulation and assessment will require the consistent application of the Green philosophy (see 'Philosophical Basis').

Policies

Environmental Commissions

ST310 Environmental (Protection) Commissions will be set up (see PL410 and PL413). These Commissions will be responsible for assessing the environmental impact of new technologies, licensing products and processes, publishing guidelines on protecting the environment, publicising pollution data locally and nationally, prosecuting offending companies, individuals and institutions, and promoting research into both environmental damage and the technology needed for monitoring the environment.

Technology Commissions

ST320 Scientific and technical methods which are applied in industry should always be on as

small a scale as practically possible (see EC651). Furthermore, they should be conducive to local control in a decentralised economy.

ST321 Technology Commissions will be set up to facilitate the shift in technology required for a sustainable, conserver, decentralised society. They will be particularly concerned with the problems of achieving appropriate scale, self-reliant local economies with full control over their technologies, and "technology with a human face". They will encourage low-impact technology and discourage technology that could contribute to the subjugation of weaker members of world society.

ST322 The Technology Commissions will assess technological innovations for safety and impact. Safety should be inherent in technical systems, rather than being dependent on active control by fallible operators. Impact assessment of new and existing technologies would consider social, economic and inter-regional effects as well as environmental impact.

Product Standards Commission

ST330 All industrial products should be well designed and well made to ensure longevity and optimum use of resources (see NR420s). Goods should be durable and designed with ease of repair or recycling as high priorities.

ST331 Standards Commissions will be set up to assess product designs (see NR425). Design requirements should reflect the need for environmental protection and the need for durable goods to be repairable or recyclable.

ST332 The Standards Commissions would also promote the development and use of labelling and marking systems for materials used in products and packaging to facilitate recycling.

ST333 Taxation policy (see EC700s) will ensure that the prices of products will incorporate the real costs of the use of non-renewable resources, transport, any pollution caused and eventual safe disposal (e.g. recycling).

Commissions

ST340 The Environmental, Technology and Standards Commissions will be autonomous regional bodies, but would form networks between themselves. There will be national commissions to facilitate coordination between the regional commissions, and we will seek the establishment of European and world counterparts.

ST341 Membership of the commissions would be broadly based, and would include non-scientists and non-technologists. The commissions would be constituted so as to maintain a genuine independence and public accountability. They would set up open forums to enable public participation and to consider local feelings. All decisions would be open to public scrutiny.

Craft Production

ST350 Regions would encourage craft work by making administration of small businesses simple and inexpensive, by making sure that public transport of goods to outlets is available to craftworkers, and by encouraging the provision of marketplaces for them.

ST351 The perceived value of craft products is undermined by

the low cost of mass-produced goods. Taxation policy (EC700s and EC900s) would provide some compensation for this effect.

Genetic Engineering

ST360 The EU proposal to extend patents legislation to living matter is unacceptable on the following grounds:

1. The proposals imply a relationship between humans and nature where it is acceptable to manipulate life and to own living things;
2. The patenting of life raises ethical questions regarding the value of human life, notably with the transfer of human gene sequences to other species;
3. Farmers will become dependent on patent holders, primarily big industrial corporations. Monoculture will be reinforced and genetic diversity lost. Traditional animal husbandry will be economically and legally disadvantaged;
4. This legislation will increase pressure to release genetically engineered organisms into the environment, with unknown effects.

ST361 The Green Party would ban the use of bovine growth hormone BST (bovine somatotropin) used to boost milk production. There is no economic justification for the use of this product of genetic engineering. There are risks to the health and welfare of animals which receive it, and its effects on human health are unknown.

ST362 The Green Party accepts that certain aspects of genetic engineering may be benign and may lead to enhanced quality of life, but feels that there is an urgent need for informed public debate

on the issues raised because of the economic, environmental and social control aspects of this technology.

ST363 Pending research into the effects of the release of genetically engineered organisms into the environment, the Green Party seeks a moratorium on such releases through agreement between industry, research establishments and government, as well as a ban on importation of such organisms into the UK. (see AR410)

Aid and Development

ST370 Technological aid to the third world should be appropriate and should avoid exploitation and the generation of dependency. The validity of local knowledge and techniques should be acknowledged, and self-reliance encouraged (see IP222). We will enable benign technologies to be freely transferred to third world countries.