

Ad hoc analysis of the European Commission's draft concept for the seventh Framework Programme

Draft_v1.2

Fit of the FP 7 proposal with policy objectives of the Greens / EFA

1. Overall fit of the proposed FP 7 with policy objectives of the Greens / EFA

- Green policy guidelines support the proposed significantly increased investment in **European research** with the objective to secure the achievement of the Lisbon objectives and competitiveness of European economies.
- However the proposed **FP 7 focus** on research contributing to economic growth and competitiveness of European industries represents an obvious danger that reduced attention will be paid to the other pillars of the Lisbon agenda, 'social' and 'environment'. This would be in conflict with important overall objectives of the Greens/EFA. Therefore from a Green perspective, there is a need for clarification/correction of this point¹.
- The proposed **budget increase** is only compatible with Green policy guidelines if it is not achieved at the expense of other important policy measures ("Undressing one saint to dress another one").
- A Green policy objective which is not addressed explicitly by the FP 7 proposal is **open science**. Maximum sharing and transfer of scientific knowledge and technical information, in particular the avoidance of 'patent thickets' that can chill innovation in fields like software protection or genetics, and the open access to all scientific and technical information are an important elements of Green research policy.
- Green policy guidelines also suggest a further strengthening of the **Science in Society** elements of FP 7, aiming at a stimulation of the reflection and debate on science and technology and of their place in society to increase involvement and participation of all stakeholder groups, including the public, in science policy making.
- The proposed increased attention to the socio-economic dimension of research is in line with the high importance of a **sustainable development** in Green policy guidelines. But it could be further extended to a systematic approach to a **'responsible research'** by (1) insisting on a consensus on critical questions of importance for European societies (e.g. ethical questions related to some aspects of biotechnological research), (2) enhancing the role of technology assessment as a systematic approach to understanding the future impact of new technologies on our societies in all relevant aspects and (3) a stronger focus on health and safety aspects of emerging technologies where appropriate (e.g. toxicity/future environmental impacts of certain nanomaterials).
- Green research policy guidelines request that the **funding of small laboratories, smaller universities and SMEs** and the creation of clusters and networks should be a clear priority. Even though the SME-related elements of the 'resources' programme support this, the design of many of the core elements of the 'cooperation' programme, including for example the European Technology Platforms, favours the participation of large laboratories and companies. In addition, the 'excellence' criterion (dominating the selection of projects according to the Commission's proposal) might be more difficult to fulfil for such small actors. Therefore Green research policy would suggest to work towards a set of instruments and project selection criteria which provides more opportunities for smaller research organisations.

¹ See statements by David Hammerstein in "In-search for Green re-search" Minutes of a seminar aiming at developing a policy on the FP7 for the Greens Brussels, 24 January 2005: "...economic activity fuelled by research can be built on social and environmental sustainability...", "...competitiveness can be intertwined in time and space with equality and ecology...".

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- Green policy guidelines also support a dedicated effort to promote curiosity-driven research on a European level as a complement to applied research and technology development. Therefore the establishment of an independent **European Research Council**, identifying and selecting appropriate projects from all scientific disciplines in a highly transparent way while avoiding duplication of already existing national efforts in this area is in line with Green priorities.
- For the implementation of FP 7, Green policy guidelines also support strongly the objective of **less bureaucracy and more transparency** and the measures proposed for this purpose by the Commission.

2. In detail: Ad hoc observations and recommendations for the nine FP 7 research areas

2.1 Health

- The shift of emphasis from a mostly (bio-)technological research focus towards more **integrated approaches** to major challenges of the health sector is in line with the Green position. This position recognises the importance of progress in pharmaceutical research and related sciences. But it puts research on other factors (for example the reduction of environmental pollution causing diseases and allergies, etc.) at an equal level of importance. This green position would suggest to further expand the orientation of research in 'health' to such research areas.
- For this purpose, complementary approaches like **precautionary research** and **research in preventive medicine**, including toxicological and epidemiological studies, should receive higher attention in FP 7.
- A consequent resolution of **ethical questions**, especially in the field of biotechnological research, is a clear 'must' from the viewpoint of the Green position. In particular Green policy guidelines concerning the deployment of **genetically modified material, stem cell research**, etc. are in clear contradiction with the current FP 7 proposal. A Green research policy would rather suggest a redirection of research efforts towards the development of alternatives to such technologies.
- To account for the aspect of **social responsibility**, the efforts to address health challenges beyond their economic importance, for example in the field of 'neglected diseases' should be further pursued and intensified under FP 7.

2.2 Food, Agriculture and Biotechnology

- The Green position is in line with the proposed extension of the FP 6 priority 'Food quality and safety' to a broader approach under FP 7 to build a '**European Knowledge Based Bio-Economy**', promoting the idea of addressing social and economic challenges like the growing demand for safer, healthier and higher quality food and for sustainable use and production of renewable bioresources, the increasing risk of epizootic and zoonotic diseases and food related disorders; threats to the sustainability and security of agricultural and fisheries production resulting in particular from climate change, taking into account animal welfare and rural contexts.
- However Green policy guidelines are against the deployment of genetically modified material and therefore would rather encourage a research approach reconciling the unexploited potentials of **organic farming and natural resource management** with biotechnological research and with necessary complementary contributions from **social and behavioural sciences** where appropriate.

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2.3 Information and Communication Technologies

- As a key element of European economy, the proposed **support for Information and Communication Technologies** (ICT) is in line with the Green's position on the future development of European economy.
- However Green policy guidelines request that research in this area is open for a multitude of actors, including SMEs, start-ups, etc. For this purpose from a Green perspective research approaches in ICT should encourage such structures, for example through **open source** projects.
- A possible additional element might be to add an element of research into the **reduction of environmental impacts of ICT products**, especially under the aspects of a reduced use of potentially environmentally hazardous materials and of improved recycling capabilities (for example through amended manufacturing and recycling technologies, product design, etc.)

2.4 Nanosciences, Nanotechnologies, Materials and new Production Technologies

- As important **enabling technologies** for competitiveness of other sectors and for the future development of European economy, nanosciences, materials and production technologies should receive appropriate support also from a Green perspective.
- To account for the aspect of social responsibility, an element of research into the **long term technology impact** of nanomaterials under various relevant aspects to identify early future development needs, potential hazards, etc. would further strengthen the alignment with Green policy objectives. In particular, research on **health aspects of nanomaterials**, especially with a view on recently raised concerns about health hazards and ways to avoid them, should therefore be strengthened.
- In the area of new production technologies, Green policy objectives suggest a strengthening of research into **innovative manufacturing solutions** with the potential to **reduce pollution, hazards, waste and resource consumption**.

2.5 Energy

- To meet the challenges of alarming trends in global energy demand, of emissions with devastating consequences for climate change and of the damaging volatility of oil prices, the necessary **transformation of the current fossil-fuel based energy system into a more sustainable one**, the development of a diversified portfolio of energy sources and carriers, combined with enhanced energy efficiency, is one of the core items on the Green agenda. Therefore research in this area with a high priority is fully supported by Green policy guidelines.
- However Green policy guidelines are in a fundamental conflict with the Commission's proposal how to pursue this objective:
 - The focus of research efforts should be on **renewable energies and sustainable energy systems**, because they offer a realistic potential to make rapidly contributions to environmental (reduction of pollution) and economic (economic growth, employment) objectives.
 - As **nuclear fusion** will not be able to make such significant contributions in the next decades, Green policy guidelines suggest not to withdraw completely from research in this area, but to refrain from the proposed multi-billion Euro investment.

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- A programme to develop new technologies for a next generation of **nuclear fission** power plants is in clear contradiction with Green policy guidelines- therefore it cannot be supported by the Greens.
- To realise Green policy objectives, a **dedicated own programme element for renewables and sustainable energy** systems with a significant budget, addressing the specific research needs of this sector should become the core of the energy research part of FP 7.

2.6 Environment (including Climate Change)

- 'Science for a good climate' is at the heart of Green policy. Therefore **research in the area of climate change** should be one of the centres of European research programmes.
- For this purpose, an integrated research programme should reconcile contributions which can be made (1) by the development of **new environmental technologies**, (2) by enhancing the **understanding of eco-systems**, (3) by developing **integrated solutions for environmental challenges**, for example through the development of 'zero loss' processes, modified consumption patterns, etc.

2.7 Transport (including Aeronautics)

- Green policy guidelines support a strong focus on research for integrated, **"greener" and "smarter" pan-European transport systems** for the benefit of citizens and society, respecting the environment and natural resources; and securing and further developing the leading role attained by the European industries in the global market.
- However research in this area should go beyond technological development and emphasize **interdisciplinary approaches** to integrated transportation systems, use of modern ICT-based communication, telematics, etc. and also address questions of growing importance for society (e.g. safety). Green guidelines suggest that research in this area should not be limited to efficiency improvements of transport systems, but should also address for examples possibilities to avoid unnecessary transport.

2.8 Socio-economic Sciences and the Humanities

- Green policy guidelines emphasize the importance of in-depth, shared **understanding of the complex and interrelated socioeconomic challenges** Europe is confronted with. The proposed strengthening of this research area as an own programme element of FP 7 is therefore in line with Green research objectives.
- For this purpose and to be able to deliver the variety of inputs to the solution of the challenges of European societies required by the Green research priorities described in other sections of this document, a further **increase of the budget** for SSH would be appropriate.

2.9 Security and Space

Space research

- Under the assumption that Space research under FP 7 is not duplicating or competing with research funded under other policies (e.g. by ESA), Green policy guidelines suggest a focus on research in areas where the application of Space technologies contributes to the **solution of important challenges of European and global societies** (e. g. through earth observation, etc.).
- However to justify the budget for space research proposed by the Commission **more clarity** is required as further details of the proposed research areas will become available.

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Security

- Green policy guidelines recognize in principle the importance of appropriate security measures and of research for this purpose. However there are several major concerns:
 - As details of the proposed research areas and approach under FP 7 are only expected later this year, it is not yet clear, how the **proposed annual budget** is justified by the Commission and how it will be allocated to research themes. As a provisional Green policy guideline, recent statements from representatives of the party suggest that the Greens suspect that this budget proposal might be based on an exaggerated assessment of threats and resulting research needs.
 - Another concern from the viewpoint of Green policy guidelines is that the proposed focus on technology development might contribute to a feared **lack of democratic insight** in and **control** of how technologies resulting from this research effort are used. An issue of particular concern for the Greens here is a potentially intransparent interface between the civilian and the military sector.
- Current considerations are mostly based on a technology driven use of the term 'security research', highlighting technologies for security of persons, infrastructure, etc. against terrorism and other threats. In a wider definition, 'security' should include for example efficient measures against pandemic diseases or natural disasters like the recent surge catastrophe in Asia, etc. Therefore the focus of such a security research programme should be on **integrated, interdisciplinary approaches**, combining the potential of advanced technologies for example with socio-economic approaches, political sciences, etc.