



Response to Consultation on the
future FP8, CSF on Research and
Innovation Funding

To whom it may concern in,
DG Research
ETP on Forests, Plants and Biofuels

The role of bioenergy in the Common Strategic Framework for future EU Research and Innovation Funding

We believe that bioenergy production from forest-sourced biomass should be a core area in the next European Research Framework Programme from 2014.

By bioenergy production we mean the entire process of developing integrated biorefinery processes, starting from the design of resilient trees that will grow rapidly and provide a raw material of high quality, to commercialisation by industry of biofuels and bio-based products that will perform to high energy-efficiency standards and produce no or minimal polluting emissions.

In a perfect world, no one might have even thought to chop down trees to cover human needs for energy and products. In this one, we need to tackle challenges such as climate change and biodiversity loss while sustaining growth and feeding the world population.

This is something that the EU has recognised and we, in turn, are committed to contributing to the achievement of its Europe 2020 Strategy, including the climate-change and energy-related goals in the flagship initiative on resource efficiency that we are in a position to address.

To do so, we want to tap the potential of northern Europe's forest resources and bank of technological know-how to develop non-food-based biofuels and "green" specialty chemicals. At present the foundations are being laid for one of world's largest research environments in bioenergy and forest biotechnology. It includes three leading universities in the Swedish north, as well as a wealth of industrial companies and organisations in research and innovation.

We feel certain that we are on the right track. In its 2011 Technology Roadmap on Biofuels for Transport, the International Energy Agency estimates that the share of biofuels in transport will have to increase from today's two per cent to 27 per cent by 2050, to achieve a global reduction of greenhouse gas emissions (stated as the reference gas, carbon dioxide) of 50 per cent on present levels.

Moreover, in its comparison of global averages of land-use efficiency of different biofuels crops and expected yield improvements, the IEA singles out cellulosic-ethanol (based on lignin) as the crop that will yield the greatest average improvement per year (1.3%) between 2010 and 2050. This is almost double the IEA's estimate for sugar beet and corn (both 0.7%).

To us this constitutes further evidence that drawing on forest resources to produce biofuels instead of food-based ones not only could prevent conflicts of interest between fuel and food production, but also lead to a more efficient use of the biomass per unit of output.

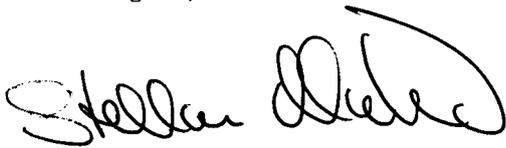
But—and this is a big but—we will not achieve our aims by continuing to do business as usual. We must produce processes that, unlike today's mainstream forestry operations, make use of the whole tree. This will include harnessing waste streams, turning them into either energy-efficient consumer products or energy that can be recovered, and using catalytic processes to eliminate environmentally harmful emissions.

As far as possible, we must design methods that do not exhaust the forest resource and nor its biodiversity. This includes designing resilient, superior quality trees, educating forestry operators in sustainable forest management, never clear felling and, as far as possible, saving old-growth forests.

Given the financial means to realise this agenda, Sweden, and its partners across the world, can set the example in developing integrated, sustainable, biorefinery processes. We can be a source for technology transfer to regions that possess similar forest resources but not the technical know-how.

The Swedish government has singled out bioenergy and biomass-based biotechnology as a strategic area for research and development during 2010-2014, and appointed the research programme Bio4Energy to create a corresponding research environment, by drawing together national and international scientific and industrial expertise, as well as organisations that foster innovation. Moreover, specific training programmes are being created in order that the expertise acquired may be passed on to a new generation of bioenergy scientists.

Best regards,



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