

Correspondence

Restore public files on animal welfare

The US Department of Agriculture's sudden removal of thousands of public records relating to animal welfare, supposedly based on a "commitment to being transparent" (see go.nature.com/2ktvzhp), undermines the very purposes of the Animal Welfare Act (see Nature.doi.org/bzg3; 2017). If the department fails to repost the information swiftly, more than one million animals used in research, the wholesale pet trade and exhibitions stand to suffer inhumane treatment.

Access to these records helped consumers and state and local governments to make informed decisions and, crucially, allowed public oversight of the government's implementation of this significant animal-protection law. The act is also intended to ensure that the public is aware of how animals are being treated.

The agriculture department's own Office of Inspector General has repeatedly condemned implementation of the act as "ineffective". The department can be held accountable only if its public records are restored and public access is reinstated.

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Trump: a confluence of tipping points?

Dramatic change can suddenly happen when there is a confluence of factors reaching a 'tipping point' — the fall of the Berlin Wall in 1989 is an example. As climate change and societal change both move towards tipping points, the crisis prompted by the election of US President Donald Trump could open the door to a transformational shift.

Climate change and other biophysical factors, including the loss of biodiversity and ecosystem

services, are leading to a tipping point that poses an existential risk for society (J. Rockström *et al. Nature* **461**, 472–475; 2009). As society learns to deal with these risks, a positive tipping point is also approaching.

Sustainable solutions are already being implemented at various scales around the world (see go.nature.com/2tndj8q). Their full realization calls for a marked shift in shared societal goals and governance (see go.nature.com/2kwjxxy). The current US administration poses a threat to the climate, the environment, equity and sustainability. Should the administration fail, this could provide the necessary push for change. That possibility must be widely communicated so that we are ready if the opportunity arises.

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**On behalf of 7 correspondents (see go.nature.com/2jvhztg for full list).*

Corporate culture: threat to researchers

Early-stage researchers in Denmark are particularly vulnerable to the 'creeping corporate culture' of universities (*Nature* **540**, 315; 2016). Managers are tightening spending after government budget cuts last year ended individual postdoctoral grants from the Danish Council for Independent Research.

Furthermore, the increasing focus on the business case for funding schemes forces researchers to follow short-term strategies that might give an immediate return on investment. A growing mission of universities is to nurture entrepreneurship, encouraging researchers to determine key questions and apply scientific outputs. A short-term view is unlikely to solve global societal challenges that call for a long-term perspective and strategy, such as mitigating climate change.

Politicians, academics and higher-education managers must recognize and support the long-term role of sustainable science in society.

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Corporate culture: research can benefit

We disagree that a 'creeping corporate culture' is harming the University of Copenhagen (*Nature* **540**, 315; 2016). Its continuous rise in the international rankings argues against this suggestion. If the art of science is indeed under corporate pressure, we should ask whether such mutual interactions are beneficial or not.

For example, we helped EIT Health (the European Institute of Innovation and Technology's health initiative in Munich, Germany) to set up a consortium of business, research centres and universities to boost enterprise, health-care systems and quality of life. This initiative might be seen as an example of how enterprise tries to optimize science by using the logic of managers at the cost of intellectual and creative freedom, but it is not.

To identify the essential steps towards success, EIT Health applies Technology Readiness Levels, a system developed by NASA to assess the technology that took Neil Armstrong to the Moon. Independent research is just one of these steps.

Innovation in health care is a co-evolutionary endeavour: there is no progress without understanding the root cause of infirmity. Implementation depends on aligning basic knowledge with the needs and desires of citizens; and innovation must be woven into the public and private fabric of communities. When scientists invest in interaction with societal stakeholders in this way, it further encourages

research freedom to thrive.

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Biodiversity at risk from austerity law

In December 2016, Brazil's government amended its constitution to freeze public spending on biodiversity protection for the next 20 years, along with funding for scientific research, education and health care. As conservation scientists in Brazil, we believe that the country's remarkable biodiversity is an important natural heritage that should be at the top, not the bottom, of the government's spending priorities — especially in light of the Aichi Biodiversity Targets (go.nature.com/2jrstb).

Called PEC 55 (see *Nature* **539**, 480; 2016), the law will limit expenditure by the main environmental agencies, such as the Brazilian Institute of Environment and Renewable Natural Resources and the Chico Mendes Institute for Biodiversity Conservation. No more staff can be recruited to perform inspections and enforce regulations. This means that land exploitation, wildlife trafficking and biopiracy will increase markedly over the next 20 years.

PEC 55 cannot be reversed or modified to incorporate exclusions, despite the public outcry (more than half a million people signed a petition before the law was passed; see go.nature.com/2lnk66r). However, changes relating to expenditure may be considered ten years after the amendment was enacted. This may be too late for the country's biota, given Brazil's already poor record of environmental protection.

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Supplementary information to: Trump: a confluence of tipping points?

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