

# Correspondence

## Plan S: don't ignore Latin America

We share the spirit of Plan S to achieve full open access to scholarly publications (see [go.nature.com/2hszsaf](http://go.nature.com/2hszsaf)), but we disagree with its implementation guidelines. The plan's design ignores more than 20 years of widespread experience in open-access publishing in many developing nations, as well as Latin America's widespread ethos of free-to-publish and free-to-read research.

To rectify this, the Plan S guidelines need to tackle the long-standing issues of conventional scholarly publishing, including the high concentration of articles in commercial publications. Funders should promote open-access practices that are more globally inclusive, while improving the quality of editorial processes and keeping their control within the scientific community.

Plan S has yet to demonstrate that it will also support the advancement of non-commercial open-access initiatives. We call for discussions to commit leading institutions and funders to global publishing that is more community-based and not commercial. Latin America should postpone any adhesion to Plan S until it can be sure that it will not be detrimental to less-privileged researchers, countries and institutions. (See also H. Debat and D. Babini *PeerJ Preprints* 7, e27834v2; 2019.)  
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## Sky's the limit for drone applications

A range of promising applications are adding to the rapidly growing research and economic potential of drones (N. C. Coops *et al.*

*Nature* 572, 433–435; 2019).

For example, drones are moving into GPS-denied indoor environments. They use advanced software that allows simultaneous localization and mapping, extremely lightweight sensors, and electronics and swarm topologies. Coverage of ever-larger mapping areas is now possible using hybrid drones, which combine the strengths of fixed-wing and multi-rotor drones. And drones with sophisticated on-board units for processing imagery and other sensor data can even select flight paths and mapping strategies without operator input.

A fusion of drone technology and robotics is spawning aircraft with actuator arms that can place sensors on an object's surface, manipulate valves or similar mechanical devices, and carry out limited repairs of infrastructure. Tethered drones with a continuous power supply facilitate such repairs, or can be turned into cleaning robots with an air or water hose.

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## Rare climate event was forecast

A large polar stratospheric warming is under way in the Southern Hemisphere. It is expected to be on a par with the last large event, in 2002, according to the Australia Bureau of Meteorology, the US National Oceanic and Atmospheric Administration and NASA, the UK Met Office and the European Centre for Medium-Range Weather Forecasts, and the Japan Meteorological Agency. The ability to forecast these rare occurrences has improved hugely in the past decade owing to dramatic advances in the fusion of weather and climate prediction.

Sudden stratospheric warmings can affect surface weather for weeks to months. Typically

occurring once every two years or so in the Northern Hemisphere, the 2002 event is the only comparable one to be observed in the Southern Hemisphere. It was associated with hot and dry extremes across Australia, as well as rises in Antarctic ozone concentrations (R. S. Stolarski *et al. J. Atmos. Sci.* 62, 716–720; 2005). The 2019 event is predicted to be no less remarkable (see [go.nature.com/2kjhupn](http://go.nature.com/2kjhupn)).

A weakening of the vortex in the upper stratosphere in late August has already resulted in record-high polar stratosphere temperatures for early September. This weakened vortex is forecast to move downwards towards the surface over the following months. It is expected to reduce the severity of this year's Antarctic ozone hole, Antarctic sea ice and weather across the Southern Hemisphere over this year's austral spring.

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\*On behalf of 11 correspondents; see [go.nature.com/2jkhdtm](http://go.nature.com/2jkhdtm).

## Shore up research co-production

Innovative science designed to make the food system more socially, economically and environmentally resilient needs input from farmers and other co-producers (see, for example, H. Schnyder *et al. Nature* 571, 326; 2019 and C. Vera *Nature* 562, 9; 2018). In our experience, however, a growing reluctance to work with researchers is jeopardizing such joint initiatives.

There are several reasons for this. Farmers might already be saturated with research collaborations, or feel that these have been of little benefit to them. Scientists, for their part, do not always seem to appreciate the pressures farmers are under, and frequently fail to communicate research results to them. The declining share of the world's population working in agriculture

(see, for example, [go.nature.com/2ffe7yb](http://go.nature.com/2ffe7yb)) is likely to make the situation worse.

One solution would be to make co-designed research processes more highly structured, while keeping them flexible and based on an equal footing. This could be achieved with the help of regional communication hubs in farming areas (see, for example, [go.nature.com/2ii4dp3](http://go.nature.com/2ii4dp3)), along with education in co-design methods and their implementation.

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## Aim to practise what you preach

Many of us look forward to our print copy of *Nature* dropping through the letter box every week. However, I notice that the journal is still using a plastic-based wrapping material. Although it might be possible to recycle this in certain parts of the United Kingdom, doing so is currently not an option where I live. I find it strange for a journal whose editorial pieces routinely highlight the all-too-familiar problems associated with plastic to be using such a material in this day and age. When will we see *Nature* do what so many other periodicals have, and make the switch to fully biodegradable packaging fabricated from potato starch, for example?

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**Editorial note:** Springer Nature has been reviewing the way it packages its journals and is currently trialling compostable packaging. It will be running additional tests in the coming months. The company reports annually on steps it is taking to reduce the environmental impacts of its publishing in its Responsible Business Report (see [www.springernature.com/responsiblebusiness](http://www.springernature.com/responsiblebusiness)).