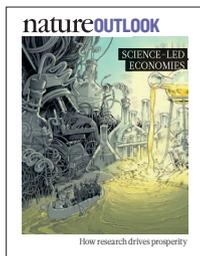


natureOUTLOOK

SCIENCE-LED ECONOMIES

1 September 2016 / Vol 537 / Issue No 7618



Cover art: David Parkins

Editorial

Herb Brody, Michelle Grayson, Richard Hodson, Jenny Rooke

Art & Design

Wesley Fernandes, Mohamed Ashour, Andrea Duffy

Production

Karl Smart, Ian Pope, Matthew Carey

Sponsorship

Janet Cen, Ruby Han, Samantha Morley, Helen Zhang

Marketing

Nicole Jackson

Project Manager

Anastasia Panoutsou

Art Director

Kelly Buckheit Krause

Publisher

Richard Hughes

Editorial Director, Partnership Media

Stephen Pincock

Chief Magazine Editor

Rosie Mestel

Editor-in-Chief

Philip Campbell

A country without science is like a car without an engine: it's not going anywhere. This Outlook surveys the global scene (see page S2) and then embarks on a world tour, examining countries' achievements, and mistakes, as they attempt to harness the power of science for economic growth.

China is focusing on collaborative centres that tap into the success of its basic research labs and spin out their findings into practical technologies (S8). Australia has travelled a similar path, making strides in capitalizing on its research foundation — but has ended up overcompensating, robbing its basic-research effort to pay for applied work (S14).

Proving that past trauma needn't prevent a robust research effort, just 22 years after the genocide against the Tutsi, Rwanda is emerging as a scientific spark plug for central Africa (S4). Countries in the Middle East, long buoyed by oil revenues, are girding themselves for the post-fossil-fuel era (S6). Singapore has made outstanding progress towards putting science at the centre of its economy — but it's not clear how the small city-state can afford to continue on this trajectory (S16).

Countries with revered scientific pasts have their own stories to tell. Post-Soviet era, Russia is struggling to keep its scientific enterprise reputable (S10). Germany has abandoned its tradition of egalitarianism and is giving some institutions elite status, much to the dismay of many researchers (S12). In the United States, applying research to economic development rests largely at the state level — Massachusetts is an example of the dynamism possible with decentralized authority (S18). And globally, leaders need to be mindful of perverse incentives that run counter to research excellence (S20).

This Outlook was produced in partnership with the National Natural Science Foundation of China (NSFC). As always, *Nature* has sole responsibility for all editorial content.

Herb Brody

Supplements Editor

CONTENTS

- S2 RESEARCH AND DEVELOPMENT**
Big science spenders
- S4 RWANDA**
From killing fields to technopolis
- S6 THE MIDDLE EAST**
An end to oil dependency
- S8 CHINA**
High-tech transformation
- S10 RUSSIA**
A faltering recovery
- S12 GERMANY**
Equality or excellence
- S14 AUSTRALIA**
Balancing act
- S16 SINGAPORE**
The brain-gain game
- S18 MASSACHUSETTS**
Mass effect
- S20 PERSPECTIVE**
Fix the incentives

RELATED ARTICLES

- S22 Science stars of China**
- S28 Russia's crackdowns are jeopardizing its science**
F. Kondrashov.
- S29 Science hubs win in major research revamp**
Q. Schiermeier
- S31 Good governance powers innovation**
A. Mungju-Pippidi
- S34 Industry-funded academic inventions boost innovation**
B. D. Wright et al.
- S37 Boost basic research in China**
W. Yang
- S40 Path dependence in energy systems and economic development**
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CITING THE OUTLOOK

Cite as a supplement to *Nature*, for example, *Nature* Vol. XXX, No. XXXX Suppl., Sxx–Sxx (2016).

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