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GLOBAL

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The Nature Index is a unique database that tracks affiliations in research publications in a select group of scientific journals. The Index can provide an indicator of high-quality research contributions from institutions, countries, regions and disciplines. In this Global Nature Index supplement, we present a snapshot of the Index for the calendar year 2014.

We have grouped countries into nine regions. The strongest performances come, not surprisingly, from North America, North & West Europe, and East & Southeast Asia. In fact, these three regions accounted for 91% of the Index's weighted fractional count (WFC), a metric that apportions credit for each article according to the affiliations of the contributing authors.

Papers from across the natural science disciplines contribute to the Nature Index: chemistry, life sciences and physical sciences each represent about one-third of the total, with earth and environmental sciences accounting for less than 10% (due to the interdisciplinary character of research, some articles count in more than one category; as a result, the total adds up to more than 100%). As the Global Overview (page S2) shows, there are some striking differences in strengths between regions. For example, North American institutions (page S4) as a group are strong contributors in the life sciences. By contrast, almost 90% of

the contribution from Central & South Asia comes in chemistry or the physical sciences.

The Index also provides insights into how scientists team up with colleagues from other regions. Contributions of researchers from regions that lack a strong scientific infrastructure often result from collaboration with better-resourced colleagues in better-resourced parts of the world. Indeed, the highest level of collaboration was found in Africa (page S28), where scientists' contributions to Nature Index papers were almost three times more likely to occur in papers with researchers from other regions than were contributions from North American scientists.

Funding is a big driver of publishing performance. For example, Israel's GDP ranks 37th globally, but it placed 17th for WFC in the 2014 Index. Much of that imbalance comes from investing in science and technology: Israel put 3.9% of its GDP into science and technology, a higher percentage than any other country.

The Nature Index 2015 Global helps us start to more deeply explore the relationships that have an impact on high-quality research output.

Mike May
Guest Editor

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CONTENTS

- S2 OVERVIEW**
A world of achievement in graphics
- S4 NORTH AMERICA**
Overwhelmingly dominant, but funding curtailed
- S10 NORTH & WEST EUROPE**
Strong performance from big collaborators
- S14 EAST & SOUTHEAST ASIA**
Chemistry at the fore as China's output soars
- S18 CENTRAL & EAST EUROPE**
Russia's lead unassailable despite turmoil
- S20 AUSTRALASIA & PACIFIC ISLANDS**
Funding cuts for unsettled leaders of region
- S22 WEST ASIA**
International projects promise improvements
- S24 CENTRAL & SOUTH ASIA**
Brain drain hits results as top minds lured away
- S26 LATIN AMERICA & CARIBBEAN ISLANDS**
Enormous universities yield patchy results
- S28 AFRICA**
Focus on disease, but desperate shortages
- S30 GUIDE TO THE INDEX**
How to get the most out of the data
- S34 TOP 100 COUNTRIES**
- S42 TOP INSTITUTIONS**

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