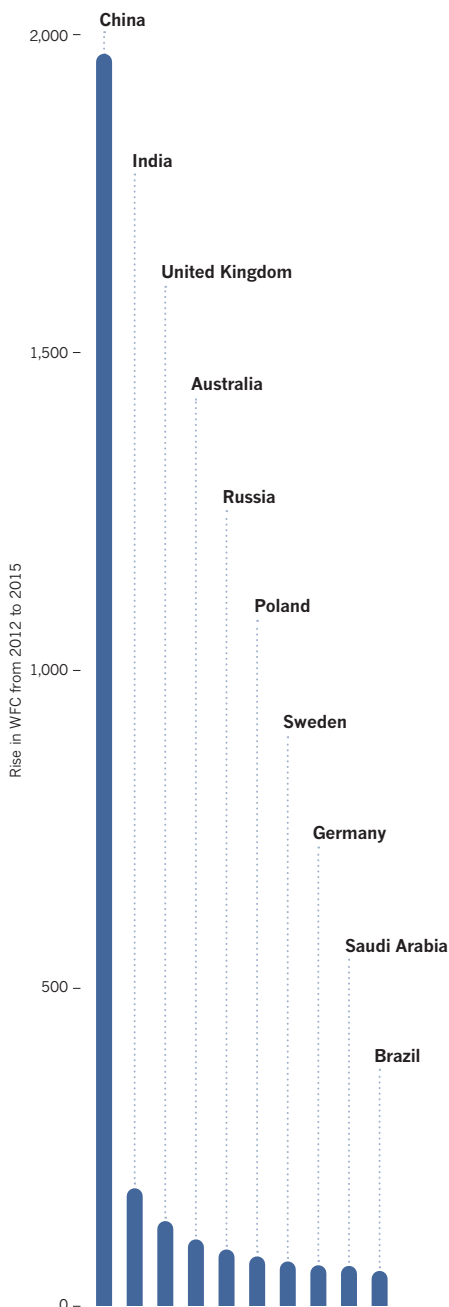


THE NEW CONTENDERS

Nature Index 2016 Rising Stars seeks to pinpoint the ascendant performers of science, using the power of the Nature Index, which tracks the research of more than 8,000 global institutions.

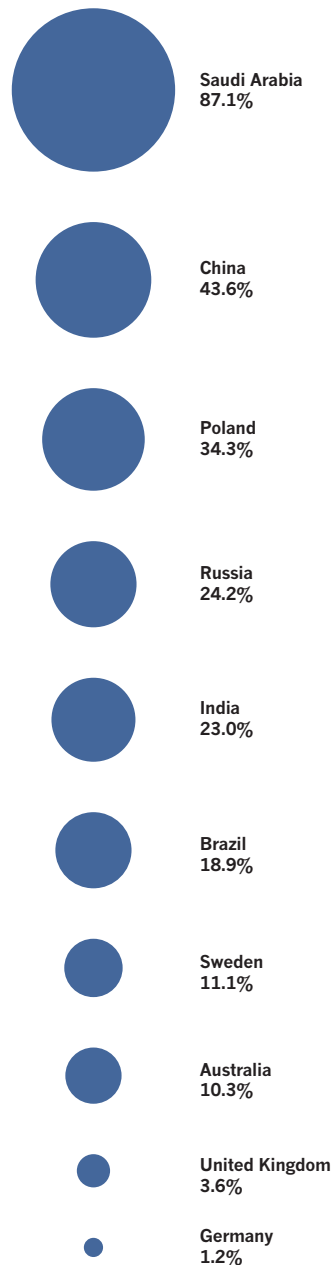
THE BIG HITTERS

Ten countries with the highest absolute increase in their contribution (WFC) to the index between 2012 and 2015. China's huge growth sets it apart from the other nine nations.



RISING STARS

Of the ten countries with the highest increase in their WFC, we consider the 'rising stars' to be those who also experienced a large percentage increase in their contribution to the index over the past four years, such as Saudi Arabia, Poland and Russia. China has also experienced an enormous rise, but its trajectory is well established.



SUBJECT HOTSPOTS

Bubbles show countries with a significant rise in their relative contribution (percentage increase in WFC) to four subject areas in the index – physical sciences, chemistry, life sciences, and Earth and environmental sciences – from 2012 to 2015. Several countries improved markedly in multiple subjects.

▶ 103

countries have increased their WFC from 2012 to 2015

▶ 6,038

global institutions have increased their WFC from 2012 to 2015.

DATA ANALYSIS BY LARISSA KOGLECK

LEGEND



Chemistry



Earth & environmental



Life sciences



Physical sciences

Index metrics

Contribution to 68 journals included in the index is known as weighted fractional count (WFC). Read more on S80.

● Denmark

A centre for biomedical research, the country's contribution to life science articles increased over four years to a WFC of 114.48 in 2015 (**S58**).

● Poland

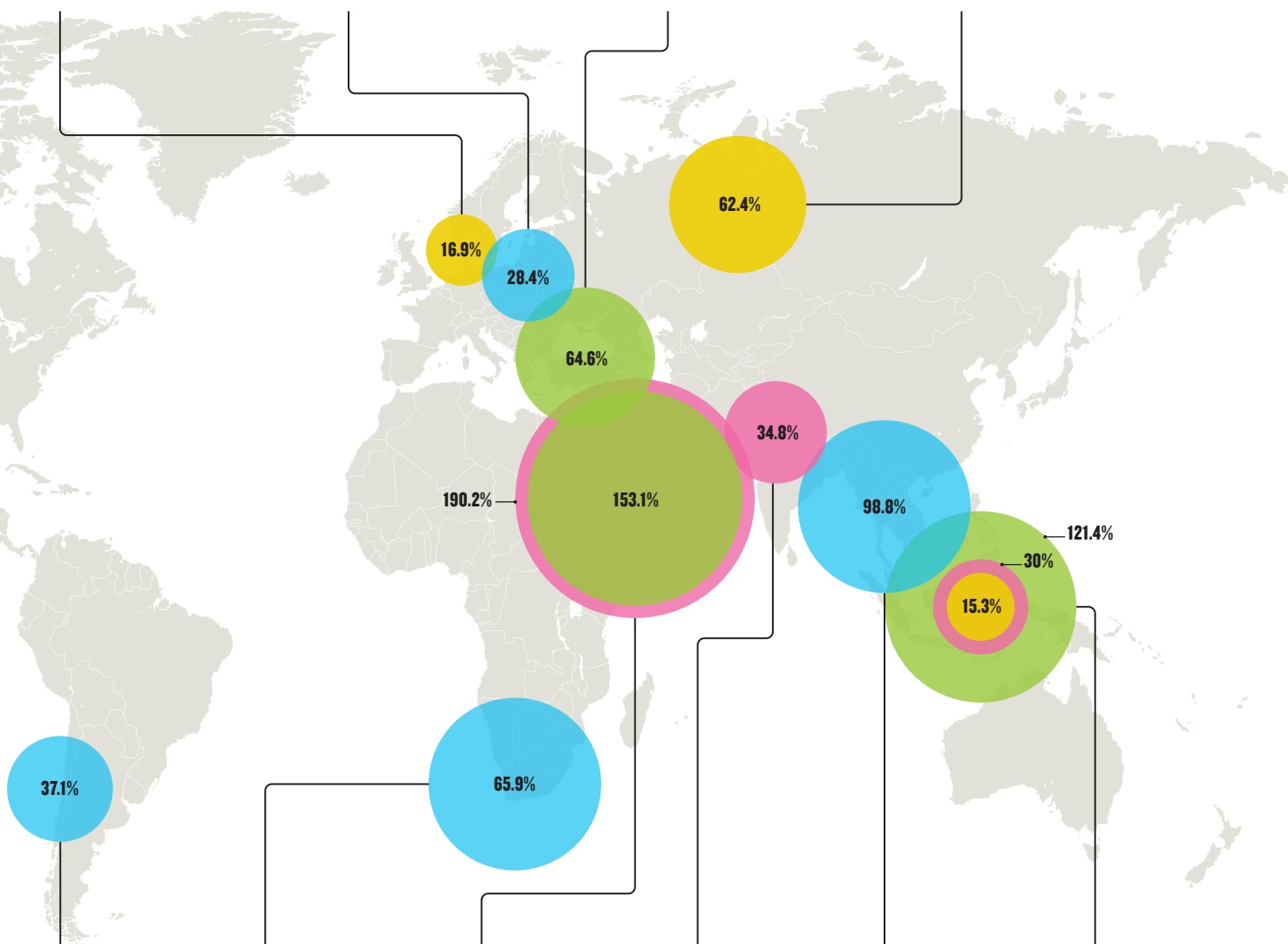
While Poland's output in physical sciences improved most of any subject, the country's overall WFC rise from 176.77 in 2012 to 237.42 in 2015 made it a rising star (**S57**).

● Turkey

Starting from a low base, Turkey's contribution to Earth and environment studies increased to 6.80 in four years. Will this trajectory continue (**S61**)?

● Russia

The former Soviet state increased its output in the life sciences by more than 60% over four years (**S57**), the highest percentage increase of the top 10 countries in this field.



● Chile

The clear skies of the Atacama Desert are the perfect location for some of the world's biggest telescopes. This edge in astronomy helped boost the country's contribution to physical sciences to a WFC of 68.05 in 2015 (**S60**).

● South Africa

The country's overall output in the index grew by more than 40% in four years, driven by a significant rise in its physical sciences WFC, which jumped from 23.70 in 2012 to 39.31 in 2015. This result reflects South Africa's strength in astronomy (**S59**).

● Saudi Arabia

The Middle Eastern kingdom wants to reduce its reliance on oil by boosting science. Its chemistry WFC almost tripled to 66.66 from 2012 to 2015, and its contribution to Earth and environment research climbed from 2.77 to 7.02 (**S58**).

● India

The contribution of Indian researchers to chemistry publications grew from a WFC of 350.39 to 472.48 in four years. The subject made up more than half the country's output in the index in 2015 (**S59**).

● Thailand

Starting from a small base, Thai researchers almost doubled their output in physical sciences in four years, resulting in a WFC of 17.06 in 2015. The country is trying to boost the number of researchers and industry funding for science (**S61**).

● Singapore

With strong government commitment to science, Singapore experienced a significant rise in chemistry and life science output over four years. Its WFC for Earth and environment research was 7.06 in 2015, a doubling of its 2012 performance. (**S60**).