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A thirst for a fuller and more nuanced understanding of the Universe is a powerful motivation for research. But pursuit of commercial success is also a compelling driver. The ability of these forces to interact and reinforce one another is propelling scientific enterprise forward.

Universities, industry and government, each with their own objectives, cultures and strengths, are locked together in a synergistic embrace that is fuelling a push to extract commercial value from academic research (see page S6). Companies are under pressure to uncover the next business-sustaining product before their competition, and universities are being pushed to deliver a pay-off for their research outlay. As a result, academic institutions are improving their ability to transfer science into the commercial sector (S13). Many are nurturing entrepreneurs, and, in turn, benefiting from the spin-off companies that they launch (S10).

Despite the speed and ease of communication offered by the Internet, researchers still congregate in geographical clusters, suggesting that there is an advantage to proximity that modern technology cannot yet overcome (S40).

Governments are motivated by economic growth, reflected by their status as the principle funders of science and technology. But the economic value of research, and what it means to get a return on research and development, is a matter of discussion (S20). And with science funded by the super-rich on the rise, governments may find themselves facing competition for primacy in funding (S43).

Different parts of the world face different challenges. Despite their research prowess, China (S32) and Australia (S22) have struggled with commercial translation, whereas Europe still needs to better align its policies, habits and business cultures with the goal of efficiently capitalizing on the fruits of cutting-edge research (S30 and S47).

Herb Brody
Supplements Editor

CONTENTS

S6 INNOVATION

Cashing in on science

How countries differ in their approach

S10 START-UPS

A sense of enterprise

Universities are training entrepreneurs

S13 TECHNOLOGY TRANSFER

The leap to industry

Bridging the gap between research and application

S20 ASSESSMENT

Academic return

Measuring the benefit of investment

S22 AUSTRALIA

Engagement upgrade

Although a research leader, Australia struggles with commercialization

S30 Q&A

Bavarian biotech

Horst Domdey on nurturing entrepreneurial spirit

S32 CHINA

Building an innovator

A focus on a Shanghai forum on innovation and entrepreneurship

S40 COLLABORATION

The geography of discovery

The importance of working face to face

S43 FUNDING

Donor drugs

The rise in science funding by the super rich

S47 Q&A

Embrace uncertainty

Helga Nowotny discusses the pressures of capitalizing on research.

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