



Des Smith: Instrumental Decision Maker

Combining physics and business is no difficulty, says Des Smith, an ex-head of a Scottish university physics department, now chairman of two companies and planning on founding a third. **Toby Chapman** meets the man with a head for both business and research

Livingston is a town in Scotland not far from the motorway that stretches from Edinburgh to Glasgow. It seems to rain here most days of the year. But the rain, at least, makes the grass green. And it hasn't prevented local industry from blossoming in recent years.

Local industry tends to be small and self-contained electronics manufacturers or software developers. One company, Edinburgh Sensors, designs and makes infrared gas sensors, essential among other things, for mushroom growing.

At the helm of the company is Des Smith, a retired physics professor and now full-time company chairman. Until two years ago he was at the helm of the physics department of Heriot-Watt University, whose campus is not far along the motorway.

Being the head of a physics department and a company chairman are complementary, says Professor Smith. He believes that most researchers share a "deeply imbedded" wish to see their ideas become real in the world of business.

"I started off my research on infrared multilayers in the fifties. And I saw that grow over a period of fifteen years into a major sub-technology, an industry the size

of the laser industry." Watching basic research turn into an industry gave Professor Smith the desire to enter business himself.

He formed his first company thirty-six years ago, to make interference filters. In the late sixties he worked on a meteorological experiment which flew on the Nimbus 4 satellite. He learnt a lot, he says, from working with NASA, it "produced a practical twist to one's physics, because if you fly an experiment in a spacecraft you have to engineer it" – which shares the same problems as engineering a product for business.

Professor Smith then took his experience to Heriot-Watt. The head of the university gave him the task of setting up physics research there, and of developing part of the campus into a science park.

He formed the first high-tech company on the science park in 1971, and called it Edinburgh Instruments (his current project, Edinburgh Sensors, is a spin-off). And he insists that managing both the department and company was no conflict. "It was a case of managing 140 people instead of 100, which was not particularly difficult, particularly as it was on the same site. I would tend to spend half-an-hour a

day in the company and deal with crises as they arose.

"The university's attitude was very supportive; it was possible to [move] people in either direction; for example, the managing director of Edinburgh Instruments was [transferred] to the physics department for several years before he became permanently associated with the company."

Twenty-seven years later, spending most of his time in the daughter company, Edinburgh Sensors, but still chairman of Edin. Instruments, he shows no signs of slowing down. He wants to found another company soon, Edinburgh Photonics.

Fresh-faced and energetic he appears to have no reason to slow down. Shortly after my arrival at Edinburgh Sensors recently, he insisted on giving me a tour (the company is like an extremely tidy physics lab). His lively manner is striking, friendly and endearing. And probably useful in business.

It's clear he would be at home in business anywhere, even among the green hills of Scotland where it rains too much. He has a way with coping with this: he spends his holidays in France. But not resting. He walks, skis and mountaineers.

All of the science features in this issue of *Europhysics News* were prepared by one of the divisions of the European Physical Society – the Quantum Electronics and Optics Division. Its Board members wrote most of the features on following pages. From Schrödinger's cat to high power laser pulses and the smoky plumes of Italian volcanos... discover the world of lasers and quantum optics...