

ISIS

INNOVATION

Technology Transfer from
the University of Oxford

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Isis Innovation Ltd

A company 100% owned by the University of Oxford



Oxford Technology Transfer
IP, Patents, Licences, Spin-outs,
Material Sales, Seed Funds,
Isis Angels Network



Oxford Expertise
Consulting, Services



Isis Consulting Business
Technology Transfer and
Innovation



Isis Innovation Ltd

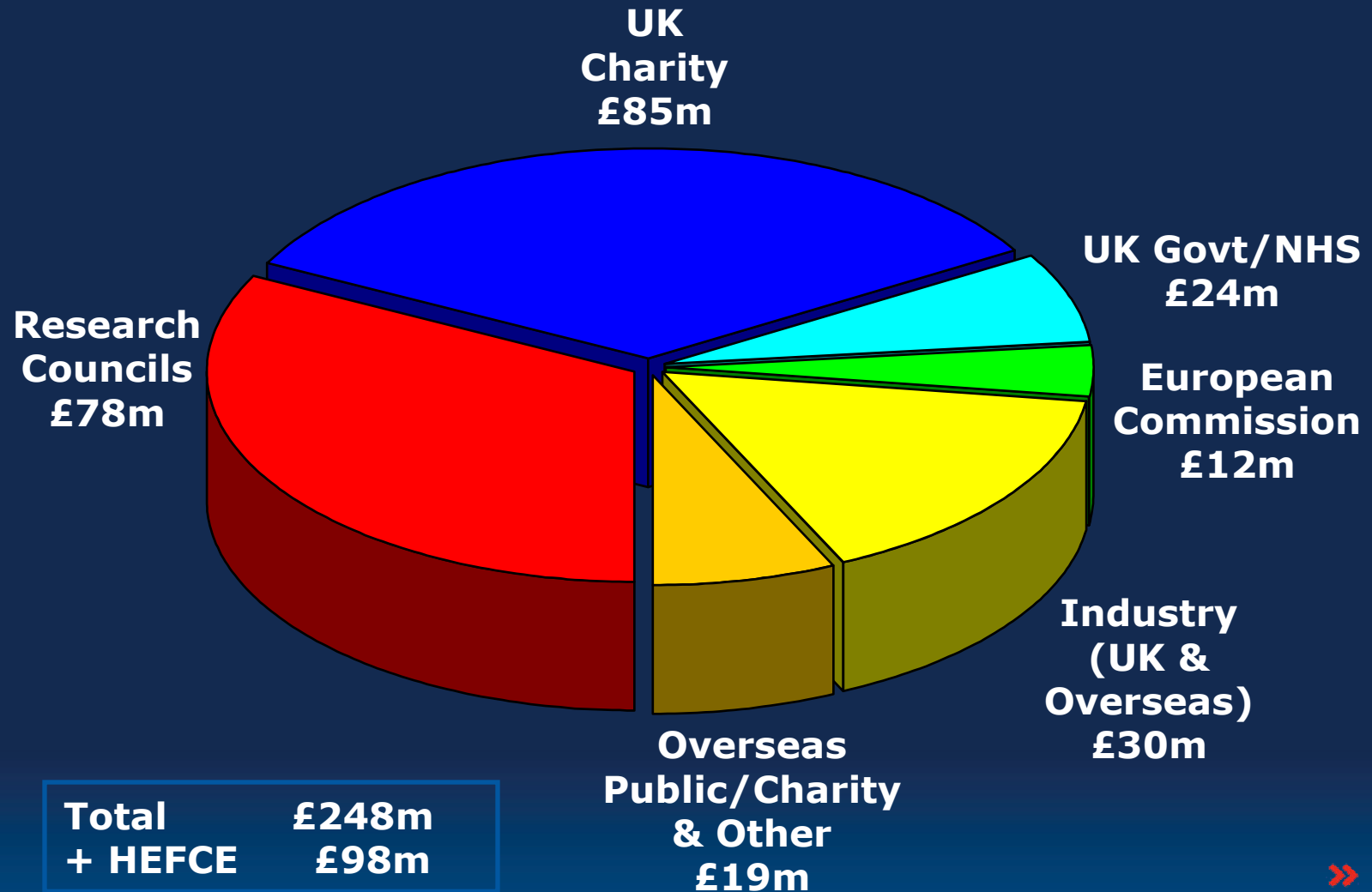
- > A company 100% owned by the University of Oxford
- > Established in 1987
- > Isis helps researchers *who wish to* commercialise the results of their research
- > “Widely regarded as one of the best technology transfer offices in the country”
Lambert Review of Business University Collaboration
- > “The Isis understanding of the major goals of a university is, I believe, the key to their success”
Professor Baruch Blumberg, Nobel Prize Winner
- > World class expertise and patent portfolio
4th highest UK filer of PCT patent applications WIPO (after GSK, Unilever, BT)
100th US patent granted in 2007

Research at Oxford

- > 4,200 researchers
- > 6,700 doctoral students
- > Highest University Research Spend in UK
 - > £346 million (2006/2007)
- > Research Spend by UK Companies, Oxford ranked 12th
 - GSK, AZ, BAE, BT, Unilever, Ford, Shell, Airbus, RR, RBS, Pfizer
 - (DTI R&D Scoreboard)
- > Most Powerful UK Research University
 - > Research Fortnight
- > Most Innovative UK University
 - > Cross Atlantic Capital Competition

Research Funding 2006-2007

£346 million [1993 £83m]



Isis Innovation Staff

Managing Director

Tom Hockaday

Business Support (7)

Head of Group

Matt Simons

Accounts

Gemma Allnutt

Marketing

Renate Krelle

Cynthia Warmington

Legal

Emma Wheatley

Sarah Litchfield

Portfolio Manager

James Mallinson

Central Admin (5)

Office Manager

Jenny Bailey

Office Administrator

Nelson Sa

HR Assistant

Alex Allan

Facilities

Jane Tarry

Reception

Gillian Hicks

Technology Transfer Group (24)

Head of Group

Linda Naylor

Project Manager Teams

Dr David Eastham

Dr Jamie Ferguson

Dr Rakesh Roshan

Dr Mike Gilbert

Dr Adam Stoten

Dr Fiona Begg

Dr Sarah Deakin

Dr Christine Whyte

Dr John Wilson

Dr Cynthia Green

IAN & Seed Fund Co-ordinator

tba

Project Manager Teams

Dr Mairi Gibbs

Dr David Churchman

Dr Emma Sceats

Dr Stuart Wilkinson

Dr Colin Story

Dr David Phillips

Dr Weng Sie Wong

Dr Dina Chen

Ya-hsin Shen

tba

Patent & Licence Administration Manager

Steven Bayliss

Patent Administrator

Jessica Desmond

Oxford University Consulting (7)

Head of Group

Steve Lee

Project Managers

Dr Caroline Jenkins

Andrew Goff

Gurinder Punn

Gill Rowe

Dr Elen Wade-Martins

Administrator

Kerry Antcliffe

Isis Enterprise (9)

Head of Group

Dr David Baghurst

General Manager

Dr Mark Mawhinney

Project Managers

Dr Sarah Macnaughton

Terry Pollard

Dr Roger Welch

Dr Paul Whyte

Dr Suzy Wood

Dr Tim Hart

Administrator

Michaela Jacova >>

Staff: 53

PhD's: 26

MBA's: 12



ISIS
INNOVATION

Isis Innovation 2000 - 2008

Year Ending March	2000	2001	2002	2003	2004	2005	2006	2007	2008
University Investment	£1m	£1m	£1m	£1m	£1m	£1.2m	£1.2m	£1.2m	£1.2m
Staff	17	21	23	34	36	36	36	37	44
Open Projects	319	415	476	629	725	764	784	841	978
Patents filed	55	63	82	65	52	55	57	49	68
Licence Deals	21	36	42	37	31	38	45	50	74
Consultancy				34	50	48	59	89	102
Spin-outs	6	8	8	7	3	4	6	7	4

Isis Returns on Investment to the University

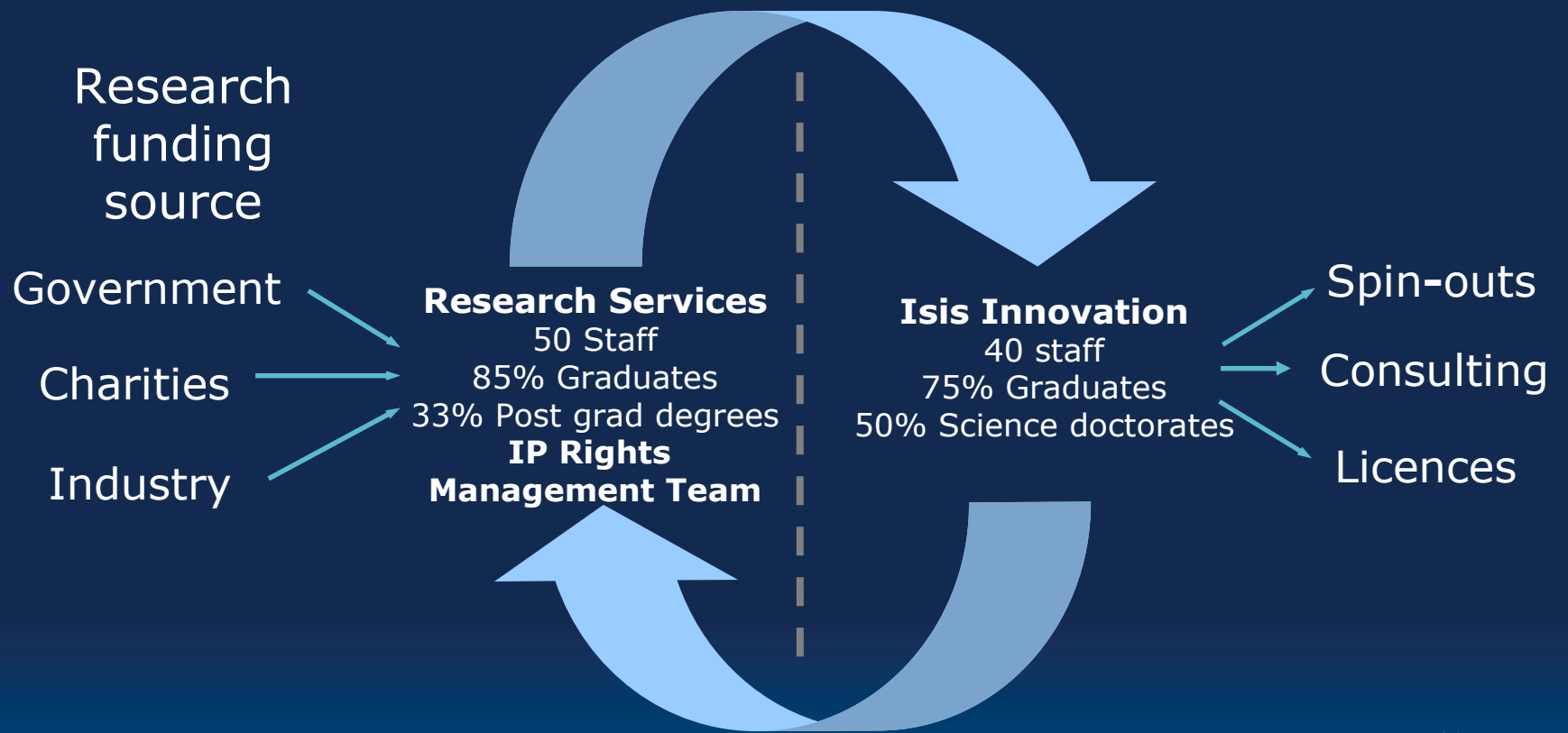
- > University Investment in Isis for Patenting
- > Financial Returns
 - > Distributions back to University
 - > Research Funding from spin-outs
 - > Research Funding from Translation Awards
 - > Hefce Third Stream Government Funding
 - > Spin-outs Cash
 - > Spin-outs Value
 - > Oxford UCSF
 - > New Patents (50% of cost)
 - > Strategic IP Deals Chemistry, IBME
- > Other, non-financial benefits to the University
 - > University PR
 - > Public Good
 - > University staff recruitment & retention
 - > Managing Oxford Innovation Society
 - > Managing Seed Funds

Intellectual Property Policy (October 2000)

- > University claims ownership of all employees' and students' IP rights resulting from University research activities
- > The university assists those researchers **who wish to** commercialise their research
 - > by patenting, licences, spinout companies & consultancy
- > Researchers share the benefits
 - > Royalty shares from licences
 - > Equity in spinout companies
 - > Income from personal consultancy

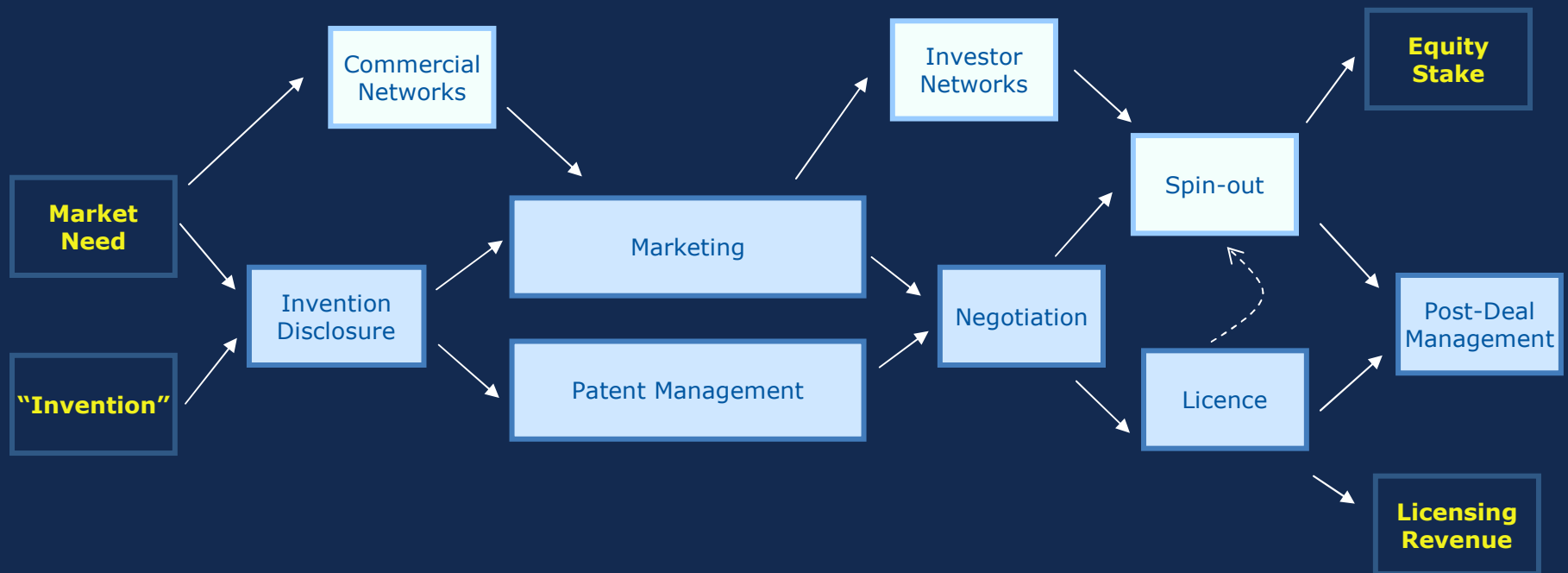
Transfer of Intellectual Property

Inside the University Assignment of intellectual property rights Outside the University



New sponsored research

Isis Project Management



Technology Licensing

- > Licensing out of University of Oxford Intellectual Property Rights
- > Over 300 option and licence agreements signed
- > Technologies marketed to Oxford Innovation Society Members and then other companies
- > Licence partners selected on
 - > Resources and intent to develop technology to market
 - > In healthcare, awareness of access of final products to developing countries
- > Exclusive & Non-exclusive
- > Geographical Territory and Technology Field controls
- > Fees, milestones, running royalties appropriate to technology and marketplace

Technology Licensing

- > Options or licences signed on 300 projects
- > Some will generate over £1m in royalties
- > Benefits to licensee, researcher & University

Royalties

- > Patent budget £1.2m per annum & royalties
- > Isis pays patent costs & recovers these from royalties

Total net revenue	Researchers personally	University General Fund	Department Funds	Isis Innovation
to £72k	61%	9%	0%	30%
to £720k	31.5%	21%	17.5%	30%
over £720k	15.75%	28%	26.25%	30%

Oxford Spin-outs (pre 2000)

1959		Oxford Instruments *
1977		Oxford Lasers
1988		Oxford Glycosciences *
1989		Oxford Molecular *
1992		Oxford Asymmetry *
1994		PowderJect *
1995		Oxford Gene Technology
1996		Oxford Biomedica *
1997		Oxagen
1998	5	Opsys, Synaptica, Prolysis, Celoxica *, Sense Therapeutic
1999	6	Medigene(Avidex) *, Oxxon Pharmaccines, Dash, Oxonica *, AuC Sensing, (

* stock exchange listing

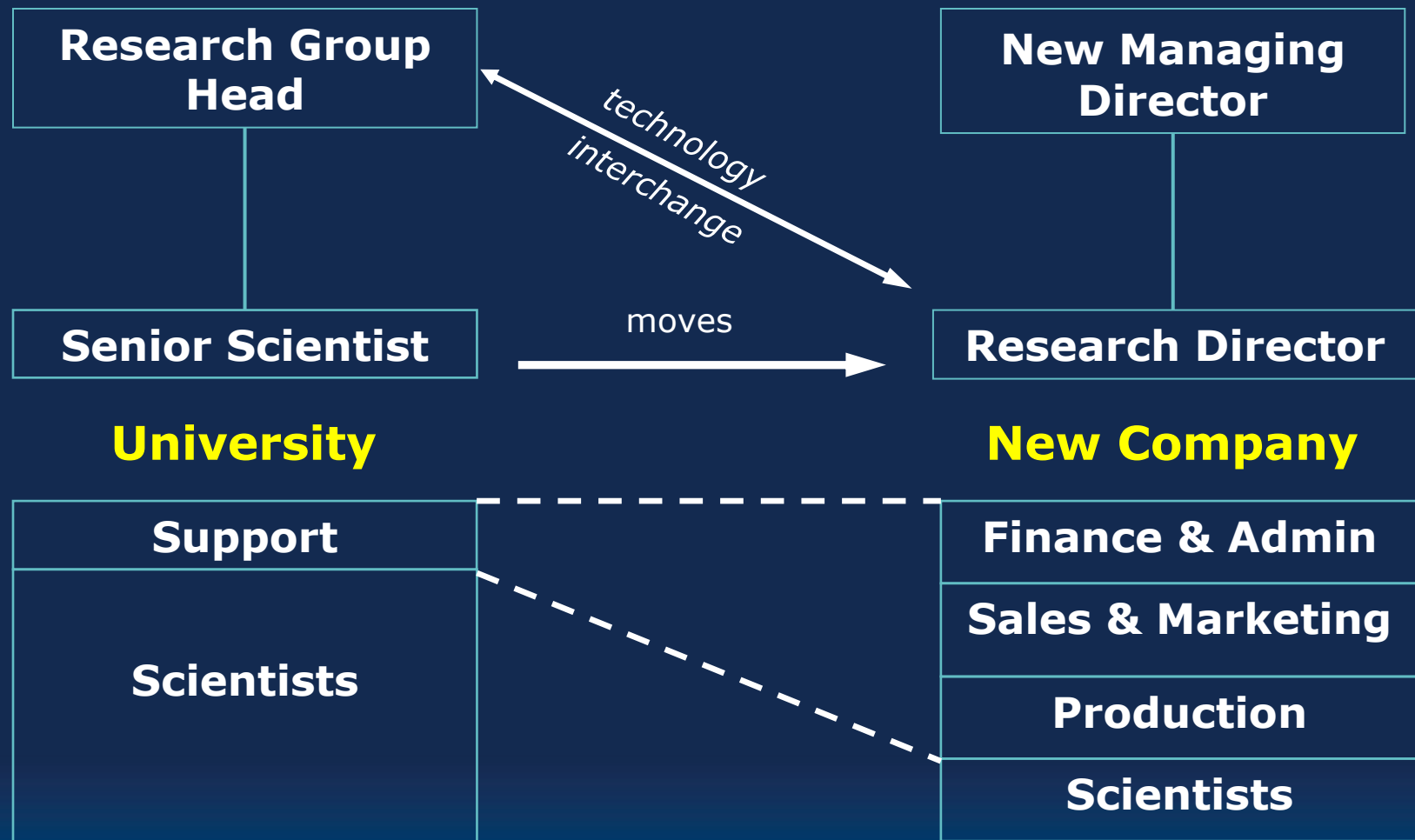
Oxford Spin-outs (post 2000)

2000	7	Third Phase, Mindweavers, Oxford BioSignals, Oxford BioSensors, TolerRx, OXIVA, Pharma DM
2001	7	OxLoc, Oxford Bee Co, Oxford Ancestors, Novarc, Oxford ArchDigital, Natural Motion, Inhibox
2002	9	Pharminox, Minervation, Spinox, Zyentia, Oxitec, Oxford Immunotec, ORRA, GlycoForm, BioAnalab
2003	4	VASTOx *, ReOx, Riotech, OCSI
2004	4	Avacta(OMD) *, G-Nostics, Surface Therapeutics, EKB Technology
2005	5	Oxford Nanolabs, Oxford RF Sensors, Oxbridge Pulsars, Celleron, Oxford Catalysts *
2006	7	TDeltaS, Oxford Medistress, Particle Therapeutic, Aurox, Oxford Advanced Surfaces *, Cytox, OxTox
2007	4	Eykona Technologies, Clinox, Oxford Biodynamics, Crysalin

Total external investment to date in spin-outs Post 1997: £334m
£34m Seed/Business Angels &
£300m Venture/Institution Capital

* stock exchange listing

Spin-out Strategy



Spin-outs – The Players

Founder _____
 Researchers _____

Isis Project _____
 Manager _____

Investor (1) _____
 Investor (2) ? _____

Manager (1) _____
 Manager (2)? _____

Lawyers _____

Accountants _____

Bankers _____

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Shareholder, Director,
 Consultant

University Nominee
 Director

Shareholder,
 Director

CEO, Shareholder

Lawyers

Accountants

Bankers

Shareholders

Advisers

Time →

Investment Sources

Oxford University Challenge Seed Fund £4m

- > Launched in 1999 University £1m Treasury, Wellcome, Gatsby £3m
- > Development projects, spin-out seed equity; in a total of 83 projects
- > £4m investment has resulted in Equity stakes in 22 spin-outs, 7 completed licensing deals & 33 active technology projects
- > These 22 spin-outs have attracted £40m seed/venture investment

Isis Angels Network

- > Business Angels
- > Seed / Venture Capital
- > Private Equity
- > 100 Members
- > Events
- > No Charges

Oxford University Consulting



OXFORD
UNIVERSITY
CONSULTING

- > The consulting arm of Oxford University
- > A division of Isis Innovation
- > Helps Oxford researchers market their expertise
- > Draws on the spectacular depth and breadth of Oxford's world-class multidisciplinary research base
- > Provides expert insight and advice to organisations in the public and private sectors
- > Global client base



Isis Enterprise



- > Isis Enterprise offers consulting expertise and advice in technology transfer, based upon the success of Isis Innovation as Oxford University's technology transfer company.
- > Isis Enterprise clients and services:
 - > Governments:
policy and benchmarking studies
 - > Universities and research institutes:
policy studies, technology audit, technology transfer office partnerships, training and secondment programmes
 - > Companies:
out-licensing or in-licensing support, university relationship management open innovation partnerships
 - > Professional services firms:
market validation studies
 - > Investors:
investor readiness appraisal
- > www.isis-enterprise.com



Isis Enterprise - TTP

- > Technology Transfer Partnership

“package of support services in response to requests from the technology transfer offices of universities, research institutes and funding bodies”

- > Features:

- > Dedicated Relationship Manager
- > Mentoring
- > Technology Transfer Project Management
- > Networking
- > Training

- > Access to all Isis staff and networks

- > **Our approach is to work alongside, and not act as a replacement for, our client's technology transfer activities**

Oxford Innovation Society

- > Established in 1990 to foster University/business links
- > An open innovation network
- > Since 1990 over 100 companies have joined
- > Companies pay an annual fee of £6,800 for membership

Membership Benefits

- > Ready access to the academics and University
- > Interactions with other Members, leaders in technology innovation
- > Advance notification of all marketed patent applications
- > Invitations to thrice-yearly meetings and dinners
- > Customised research presentations and seminars
- > Regular newsletters and portfolios

OIS Meeting & Dinner



- > Tea & coffee reception
- > Academic presentation
- > Sponsor presentation
- > Champagne reception
- > Dinner in College
- > After dinner drinks

Culture Change



- > All three must proceed together but the University must lead the change because..
- > The ideas are in the University
 - > If University provides TT resource, change will happen faster
 - > Oxford pre-Isis 1 spin-out every 4 years, post Isis 6 per year
- > If the University doesn't lead, the University may not receive its share of the benefits

Contacts

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TECHNOLOGY TRANSFER
FROM THE UNIVERSITY OF OXFORD

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"...widely regarded as one of the best technology transfer offices in the country" Lambert Review of Business University Collaboration

Isis Innovation is a wholly-owned subsidiary of the [University of Oxford](#), founded to exploit know-how arising out of research at one of the World's premier research institutions

LATEST NEWS

Isis becomes Carbon Trust Incubator Partner

- > Isis is partnering with the Carbon Trust to create a clean energy incubator whose purpose is to increase the likelihood of successfully commercialising technologies with carbon saving potential

Annual Report 2006

- > Annual Report 2006 (pdf)

Isis eNews

- > Register here to receive Isis eNews

Licensing Opportunities

- > New technologies from the University of Oxford
- > Get Regular Technology Updates by Email

Isis Innovation News

- > New Oxford university Spin-out company to improve road safety
- > New Oxford spin-out to transform surfaces
- > Edition 49 of Isis News available



OXFORD
UNIVERSITY
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