FIN-URB-ACT

Integrated urban actions for fostering and financing innovative economies and SMEs

Edinburgh – Main support structures and actors in the field of innovative start-ups and businesses

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European Union

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The Edinburgh economy - overview

Demographics of Edinburgh (2008)	
Population	471,650
Life expectancy	79.0
Land area	264 km^2
Net migration	2,512
Working age population	317,700
..In employment	..241,900
..Unemployed	..11,800
..Economically inactive	..64,000
Source: GRO, ONS	

Businesses in Edinburgh (2009)				
Sector	0-49	50-249	250+	Total
Primary	205	5	10	220
Manufacturing	565	40	45	650
Construction	1,070	25	35	1,130
Retail/wholesale	2,205	120	290	2,615
Tourism	1,295	50	75	1,420
Logistics	340	30	65	435
Finance	260	30	80	370
Business services	5,990	230	255	6,475
Education/health/ social work	890	80	80	1,050
Personal services	1,370	55	65	1,490
Total	14,190	665	1,000	15,855
Source: ONS				

Economy of Edinburgh	
Gross Value Added (2007)	£15.3 billion
GVA per capita (2007)	£32,697
Median annual pay (2009)	£27,504
ILO unemployment rate (2008)	4.7%
Registered enterprises (2009)	15,870
Business turnover (2008)	£20.0 billion
Business R&D expenditure (2008)	£147.2 million
Tourist visits (2008)	3.3 million
Airport passenger numbers (2008)	9.0 million
Rail passenger numbers (2008)	19.4 million
Average house price (2008)	£215,037
Source: ONS; CAA; ORR; ROS; VisitBritain	

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The Edinburgh economy – overview (cont.)

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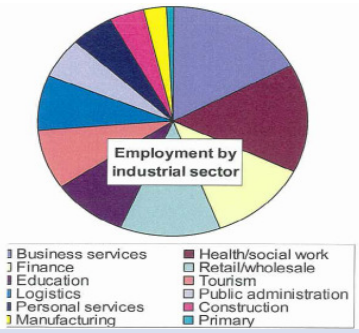
Key sectors in Edinburgh	
Sector	**Major issues**
Cultural and creative industries	Skills gaps, rapid technological changes, lack of understanding of intellectual property rights.
Finance	Declining head office functions, competition from emerging economies, lack of soft skills.
Science and technology	Skills shortages, long times to market, expensive research and development processes.
Tourism	Skills shortages, high levels of staff churn, vulnerable to changes in the weather or exchange rate.



Universities in Edinburgh (2008)			
Institution	**Enrolled students**	**Research income**	**Research strengths**
University of Edinburgh	23,555	£143.3 m	Medicine; life sciences; chemistry; computer sciences; law; linguistics; social work; environmental technologies
Edinburgh Napier University	12,995	£4.0 m	Architecture; civil engineering; Informatics; nursing and midwifery
Heriot-Watt University	10,065	£15.4 m	Pure mathematics; petroleum engineering; built environment; business studies
Queen Margaret University	5,330	£2.6 m	Communication; cultural and media studies
Edinburgh College of Art	1,595	£0.7 m	Architecture; creative industries
Total	53,540	£166.1 m	

Source: HESA; RAE

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Key sectors

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Just how big is science and technology in the Edinburgh City Region?

	Employment	Companies	Annual GVA (mill)
Life Sciences	**10,500**	**146**	**471.8**
Electronics	**18,000**	**70**	**1,192.2**
Aerospace	**4,000**	**-**	**330.8**
Chemicals	**2,000**	**54**	**138.6**
Total	**34,500**	**270**	**2,133.4**

- Estimated value of science related activities, 40,000 plus jobs and £2.3 billion GVA
- University of Edinburgh ranked 5th in Europe and 23rd in the world
- Work Foundation – ideopolis, 9 key drivers present

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Policy context

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EU – Lisbon – Gothenburg Strategy

"To develop the knowledge economy whilst achieving sustainable development."

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Policy context (cont.)

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Scottish Government

National outcomes:
1. The most attractive place for doing business in Europe
2. Realise full economic potential, more and better employment
3. Better educated and renowned for our research and innovation

Scottish Enterprise - Increase in productivity be emphasis on:
- Enterprise
- Innovation
- Investment
- Targeting growth potential

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Policy context (cont.)

Edinburgh City Council – Single Outcome Agreement

"Developing the City and City Region Economy."

Key Vision:
- Developing a successful and sustainable city
- Sustain high quality of life
- Attract people needed to drive talent and knowledge economy
- Creative and connected city

Strategies includes:
- Promoting Edinburgh as competitive location for high-value knowledge industries
- Promoting enterprise, innovation, and new business formation

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Support structures and actors in the field of innovative start-ups/businesses in Edinburgh

The Innovation/Commercialisation Journey

Businesses Start-Ups Universities Research Institution	Pure Research Existing Knowledge Base Company Assets Science push/Society pull	Applied Research Industry Collaboration Technology/Market Trends Idea Generation Opportunities	Product/Process Development Market research Proto-typing Approval Framework Partnering Patents/Licenses	
	Specification Piloting Business Planning Costing Testing Funding Package Vehicle	Business Plan Marketing Joint Venture Approvals Promotion Market Testing Competitor Approval Analysis	New Product New Process/Service Introduced to Market Start-Up/License/Joint Venture Production	

Support structures and actors in the field of innovative start-ups/businesses in Edinburgh (cont.)

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Government Support –

UK, Scottish, EU

University Block Grant (UFC)

Research Council (RC) Grants

Research Assessment Exercise

European Union Support –

- Competitiveness and Innovation Framework
- 7th Framework Research and Technological Development
- Structural Funds

Business Innovation Centre

Cluster Observation

Knowledge Transfer Offices

Knowledge and Innovation Communication (K.I.C)

E.I.I.T Relay centres K.I.C

J.T.I

SMART Funding, Innovation Grants

e.g. Grant up to 70k

R&D support – 600k

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Support structures and actors in the field of innovative start-ups/businesses in Edinburgh (cont.)

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Scottish Enterprise

Sector Support (Key Sectors)

Commercialisation Initiatives/"Prospect

Business Development Officers

Edinburgh Science Triangle

Science Offer/Investment

Business Growth Pipeline-Products

Innovation award – 5k grant

R&D Grant – 40k

"Winning Through Innovation"

University Sector

Knowledge Transfer

Knowledge Transfer Fund

Pre-IncubatorSchemes

E.P.I.S e.g. vouchers

Incubators – Physical and Virtual

e.g. ETTC, Bio-Quarter, Innovation Centre (Alba)

Research Centres e.g. Prospect – SEGEC Scottish European Green Energy Centre

Commercialisation Arms, ERI Technology Research Services. 2TK. QMC-BD

Other Agencies/ Private Sector

Networking Platforms – NEXUS, Connect, Creative Scotland

Contract Funding Consultancy

Business Angels – Venture Funds, **Bank Business Funding**

Business Gateway – Start-Up Advice

Chamber of Commerce, Royal Soc

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Case Study 1
Edinburgh Research and Innovation : University of Edinburgh

Established in 1969
Over 40 years 200 companies formed

Can claim a number of firsts:
- First genetically engineered vaccine against Hepatitis B
- First Scottish University Spin-out Company on Stock Exchange
- Largest Ever Spin-out - £ 7.4 M
- World's smallest TV screen
- Renewable energy – New Generator designed for wind turbines. Make wind power cheaper and more reliable.

08/09 Research Awards	249 m	*Wheelchair
Patents	89	* Pufferball
Spin- Outs	17	
Start – ups	86	

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Case Study 2
Starter for Six - Inspiring Enterprise

Aim: "Taking a creative, innovative idea and turning it into commercial reality"

- Six weeks business training programme in Edinburgh, Dundee, Aberdeen and Glasgow
- Based on NESTA Research
- Creative Industries focus
- Possible 10k feasibility study following programme
- Tailor advice to type of business

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Case Study 3
Edinburgh Technology Transfer Centre

- University and Council Collaboration
- Helping entrepreneurs within the University who have a good idea/ product tot set up companies and spin-out
- Subsidised business accommodation for up to 11 enterprises at the University Campus
- Access to Research facilities (i.e. clean room)
- Targeted business development support and training
- Networking and peer support
- Average 10 – 12 companies per year with 2 – 3 spin-outs/graduations
- All sectors/ departments

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Case Study 4
Edinburgh Bio-Quarter

- Landmark life-science real estate development
- Located next to major new Hospital and Medical training School
- Public/ Private Collaboration
- Over 1Billion of investment over 15 years
- 1.4 million Square feet
- 100 acre bio-medical park
- Creation 6500 high quality jobs on site
- Partners: University of Edinburgh, NHS Scotland, Scottish Enterprise, Alexandria Real Estate
- Proposed Tram link
- Centre for Regenerative Medicine
- European ERDF support (*picture)

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Case Study 5
Edinburgh Science Triangle

Aim: "Science Park/ Local Authority/ Scottish Enterprise Network to promote inward investment and the importance of science to the economy"

- A relevant proposition for the science case
- Web-site/sector networking Inward investment
- International marketing with SDI
- Increased collaboration
- Professional and social networks
- Career development
- Market intelligence
- Public engagement
- Strategic issues
- 7 Major science parks across the region

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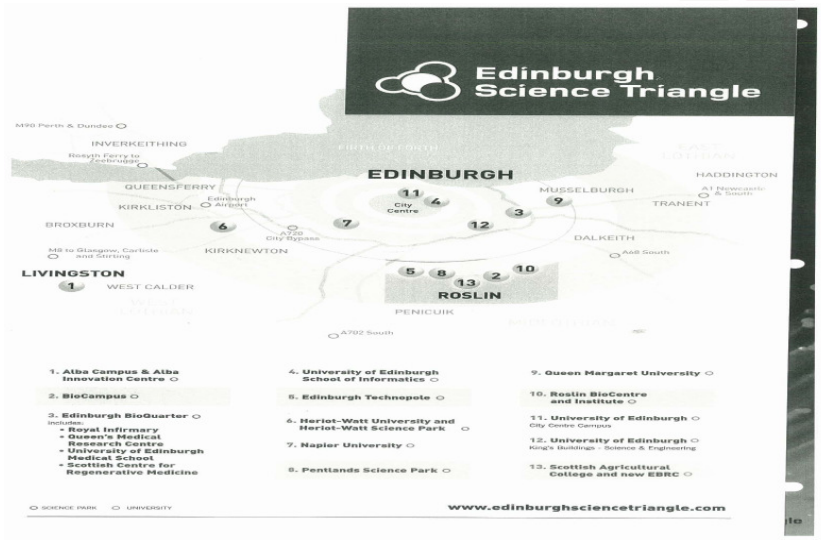

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Case Study 6
Knowledge Transfer Partnerships - Napier

Aim: "Graduate Recruitment Programme enable companies to take a suitable/ high calibre graduate to undertake a commercialisation piece of work relevant to company strategic growth "

Examples – One sector. Timber technology

- To develop and pilot a timber haulage system
- Operational Strategy for company growth
- Design of Whiskey cask to reduce loss
- Secure European Product approval
- Improvements to timber frame housing

KTP detail:

- lasts from 1 to 3 years
- Graduate funded
- Key sectors: ICT, Engineering, Creative Industries

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Conclusions

- Improved interface between academia and business
- Physical and virtual incubation around critical masses
- Innovation around key societal challenges
  e.g. renewables, sustainability, climate change
- Innovation as a driver to business competitiveness and resilience
- More 'up-stream' feasibility / proto typing support
- Development of growth sectoral / sub-sectoral networks or platforms
- More use for 'open' innovation
- European synergies – joint venturing / technologies and markets
- Innovation on key business process at every level and business sector

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