The Innovation and Entrepreneurship Group

Imperial College Business School

- Imperial College, regularly ranked in **Global Top 10**, comprises only science, engineering, medicine and business

- Business School ranked **joint #1 in UK** for research and thought leadership

- Its Masters programme **ranked #1** in the world for entrepreneurship (*FT*)

Research Productivity

Themes	Since inception of the Centre, 2000-2010		Since 2005	
	Number of papers	ISI cites	Number of papers	Total ISI cites
Knowledge for Innovation	111	1144	88	267
Project Business	37	369	28	98
Design and Service Innovation	37	200	27	110
Entrepreneurship, Transfer and Adoption	114	1243	66	447
Total	**299**	**2956**	**209**	**922**

40000+ Google Citations as of December, 2011
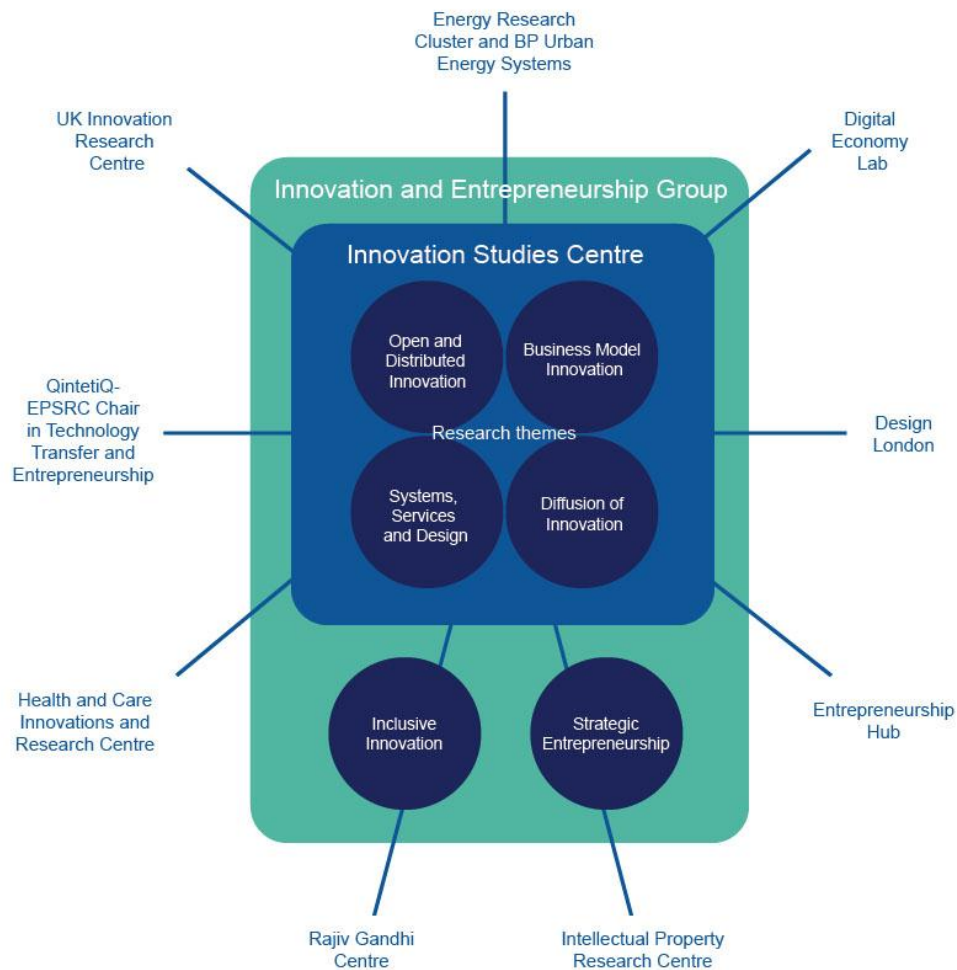
Strategic, Operational and Transactional Partners

STRATEGIC

OPERATIONAL

TRANSACTIONAL

The Group has a number of core strategic partners

Our Themes

Funded by the Core ISC Grant (EPSRC)

- **Open and Distributed Innovation**
- **Business Model Innovation**
- **Systems, Services and Design**
- **Diffusion of Innovation**

Non-ISC

- **Inclusive Innovation**
- **Strategic Entrepreneurship**

Theme: Open and Distributed Innovation

How knowledge is created, exchanged and combined in the innovation process.

Open Innovation and Intellectual Property (IP)

- Harnessing External Inventors Project - how external inventors can be integrated into the innovation process in large multinational companies
- Capturing and Exploiting External Knowledge – identifying search and networking strategies and mapping knowledge flow
- Capability and Emergence in Research and Development – how knowledge is transferred and strategies for assessing value

Social Networks and their Impact on Practice

- Online Communities and the Dynamics of Distributed Innovation – how networks shapes distribution

## Theme: Business Model Innovation

What enables organisations to develop new business models, and what are the sources and consequences of such innovations.

Organising the interface between academic-science and industry:

- The role and process of university knowledge transfer in industrial innovation
- New models for university industry collaboration
- Business models for not-for-profit R&D organisations in the pharmaceutical industry

Business Model Innovation:

- Organisational design as a collaborative process
- Business model innovation in the pharmaceutical industry
- Business models for Low Carbon Energy
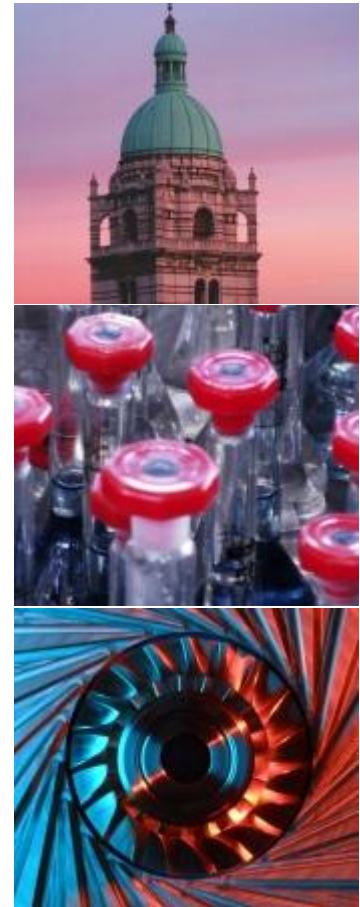
Theme: Systems, Services and Design

How project-based firms design concepts, tools and frameworks to improve the innovation process.

## Innovation in Mega-Projects

- How innovative project management contributes to project success, creating frameworks to transfer knowledge between projects – used in:
    - Heathrow Terminal 5 (completed)
    - Dongtan Eco-City Project (completed)
    - Construction of the 2012 Olympic Park
    - Transport Innovation

Platforms for Innovation

- Developing complementary product and service components that can be easily combined.

Design and Service Innovation

- Examining perceptions of fairness and the servitisation in the manufacturing sector
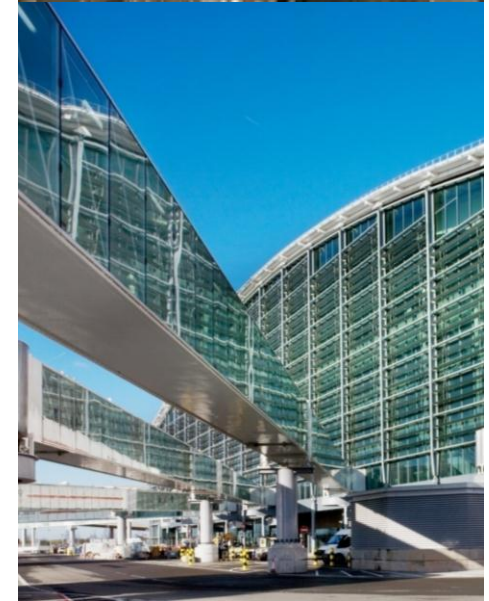
Theme: Diffusion of Innovation

Innovation and technology commercialisation strategies in platform and ecosystem contexts

Innovation Momentum, Value Creation, and the Role of the CxO

- Building momentum around new technologies in complex adoption environments.

- The role of the Chief Innovation Officer in distributed innovation ecosystems and the requirement for strategic integration.

Energy Services

- Purchase motivation and how user lifestyles lead to the adoption and use of sustainable technologies.

Theme: Inclusive Innovation

Emphasising inclusivity to examine how socially and economically disenfranchised communities can be served through low-cost or resource-constrained innovation.

- Resource-Constrained Innovation for Inclusive Growth
- Rural Electrification
- Health System Innovations
- Public Private Partnerships

Theme: Strategic Entrepreneurship

Develops and translates technology entrepreneurship into practical tools and guidelines for the innovation community

- The co-evolutionary process of technology and market creation
- Improving the commercialisation of entrepreneurial research its benefits for social and economic prosperity
- Acquisition decisions of established companies entering new technological domains or adjacent markets
- Growth strategies of technology ventures in adjacent markets and the valuation patterns of these ventures.

![Imperial College London Business School]

Our Centres

- UK Innovation Research Centre (UK~IRC)

- Intellectual Property Research Centre

- Digital City Exchange

- Rajiv Gandhi Centre

- Entrepreneurship Hub

- Design London

Centres: UK Innovation Research Centre

A focal point for policy-relevant innovation research in the UK and internationally.

- Jointly run with the **University of Cambridge**

- **Research projects** on
  - Service Innovation in KIBS
  - Open Innovation
  - Networks in Open Innovation Communities
  - Evidence-base for Innovation Policy

- **Knowledge Hub** provides user engagement and a forum to discuss ideas. Key activities include:
  - Innovation Summits for the policy, practice and academia community to discuss key issues – the 2011 Summit included IBM, GSK, Pfizer, Microsoft, Xerox, Vestas and Arup
  - Workshops, conferences and meetings
  - Publication of reports from our core research projects including our taskforce with the CIHE

Centres: Intellectual Property Research Centre

Examining the role of IP in the knowledge and information economy - measuring and quantifying the role and impact of investment in IP for the UK, firms, and industry

The Open Platform: a15-month collaboration with the Grantham Institute, IBM and the Met Office to build a web-based marketplace for buying and selling standards-compliant data, applications, models and value-added services.

Intellectual Property Office (IPO) funded two studies on the role of Intellectual Property Rights and value of copyright investments in the UK economy:
  • The Role of Intellectual Property Rights in the UK Market Sector.
  • Film, Television & Radio, Books, Music and Art: UK Investment in Artistic Originals

Life of Brands

Centres: Digital City Exchange

Digitally linking utilities and services within a city, to focus on harnessing next generation digital systems to combine and repurpose city data, ultimately transforming the planning and use of cities.

Understanding current and future technology (sensors) and data sources maps the 'data landscape' by identifying the sources and characteristics of data

Understanding Users and Adoption Paths for Digital Services focuses on ways that organisations participate in platform technologies such as a digital exchange, and how they interpret the incentives provided.

Analytic requirements in different sensors – new standards for integration aims to develop a model-based data integration layer that can support decisions on new services and interventions.

Centres: Rajiv Gandhi Centre

A portal for Imperial College London's strategic commitments in India for joint research initiatives, technology commercialisation and educational programmes.

- **Energy:** The Centre was awarded a major research project by the EPSRC (£600,000 over 5 years) on the *Replication of Rural Decentralized Off-grid Electricity Generation through Technology and Business Innovation*

- **Public-Private Partnerships:** The project *Governance and Performance of Road Contracts*, in collaboration with the Indian School of Business (ISB), involves researching various ways of organising infrastructure projects

- **UNAIDS** and the Global Fund on *Organisational Design for Effective Prevention of Mother-to-Child Transmission of HIV* in India has been initiated to look at improving the existing treatment programmes.

- **Low cost innovation:** This £400,000 ESRC funded project examines low cost innovation practices in emerging economies, and how such practices can be applied into the advanced economy context.

Centres: Entrepreneurship Hub

Technology transfer and technology based entrepreneurship research disseminated to a wider community of academics, practitioners, researchers and students

- **IE&D Programme** teaching and coaching MBA
- **IE&D Toolbox**, an assisted online entrepreneurial journey
- *The Smart Entrepreneur,* written by Bart Clarysse and Sabrina Kiefer, was published in May 2011.
- **IE&D Business Plan Competition** with a £10,000 prize
- **Best Practice in Innovation, Entrepreneurship & Design** aimed at early-stage entrepreneurs, policy-makers and practitioners.
- **IE&D Bootcamps** in entrepreneurship and technology transfer
- **The IE&D Fellows' Programme**
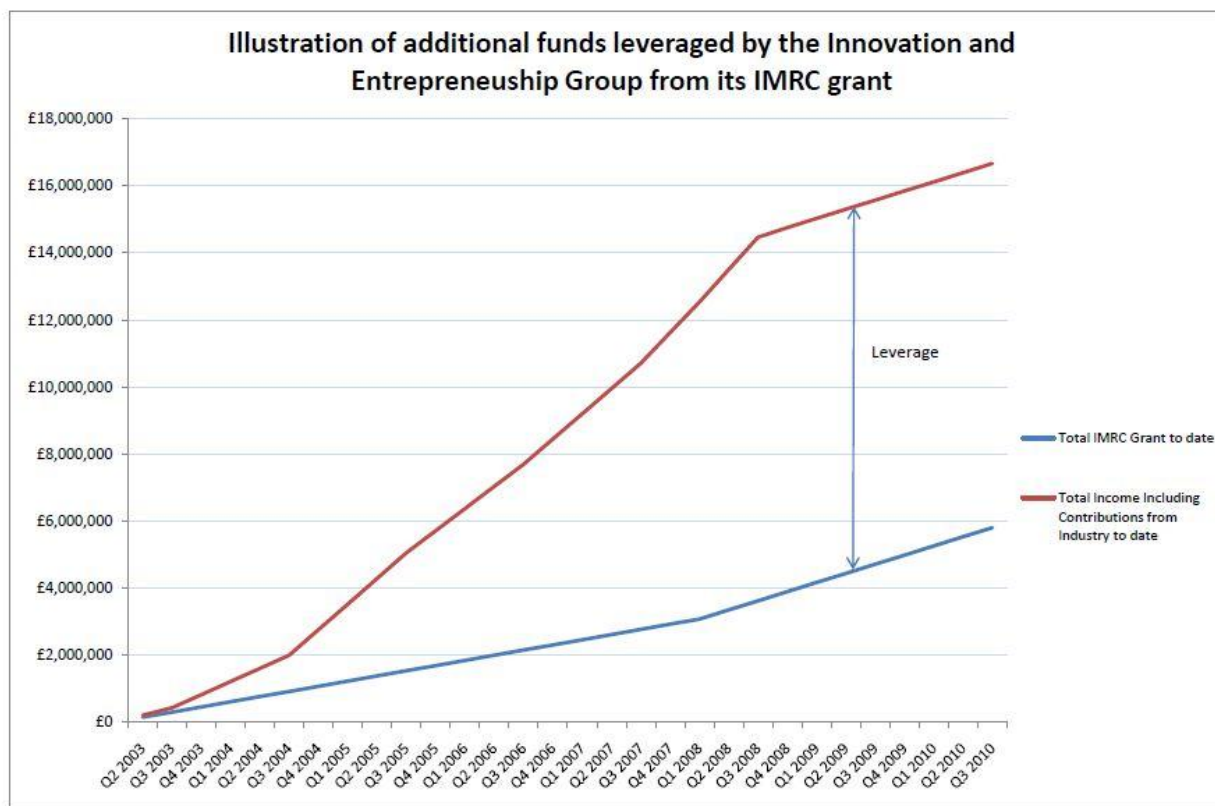
Centres: Design London

A multidisciplinary centre of excellence for understanding how design, engineering and business processes can inter-relate more effectively.

A collaboration between Imperial College Business School, Faculty of Engineering and the Royal College of Art:

- **Simulation** - Innovation Technology Centre

- **Teaching** - MBA, Masters and Executive Education

- **Incubation** - developing next-generation technologies in the market with an 80% success rate for new ventures

- **Research** on engaging with users - value capture and value creation

Imperial College London
BUSINESS SCHOOL

Collaborative Data

Illustration of additional funds leveraged by the Innovation and Entrepreneuship Group from its IMRC grant

Key to Building Entrepreneurship

- Intellectual Leadership
  - *create a vibrant scholarly community that pursues interesting questions*
- Corporate Engagement
  - *build a strong bridge to business as co-creators*

Strategy

- Put together interesting themes
- Differentiate at the front end
- Integrate at the back end
- Make it relevant!
- Its not all about papers, neither is it all about engagement