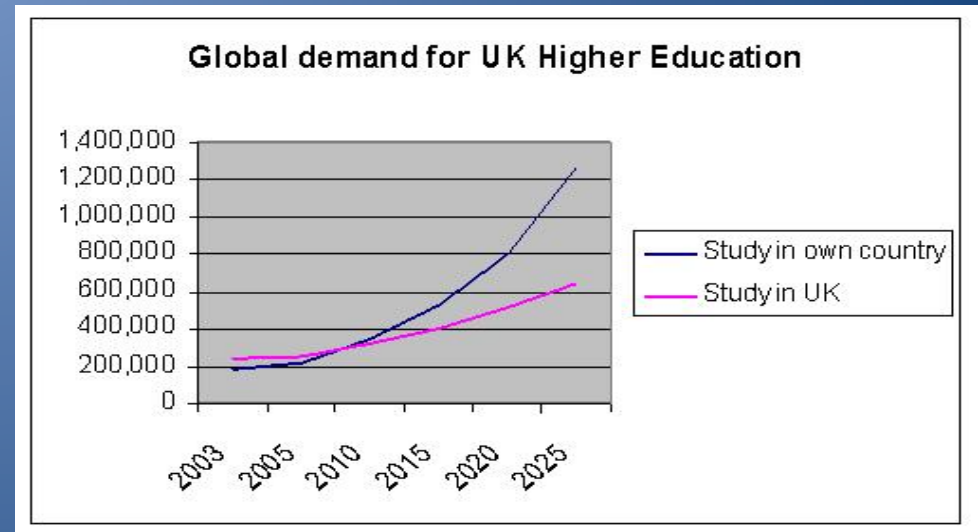


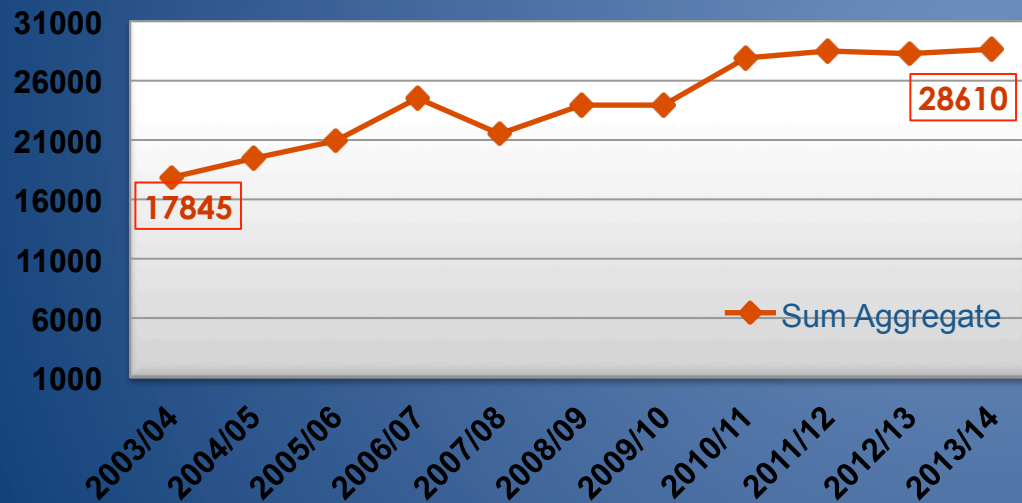
Driver: Expansion of the HE Sector

- **Growth Sector.** 4% increase in UK higher education entrants in 2011-2020
26% increase by 2035 - 368,000 to 460,000 - (Willets 2013)
- **Urban Implications.** H&FE major sector of city economy - 67,000 HEI – at
11% + FE sector - highest for major UK City +500,000
- **19% Glasgow – 42% settle**
- **Glasgow +1000 p.a. – 2020 30,000**
- **International market growth**
- **Key economic sector**
- **Export and inward investment**

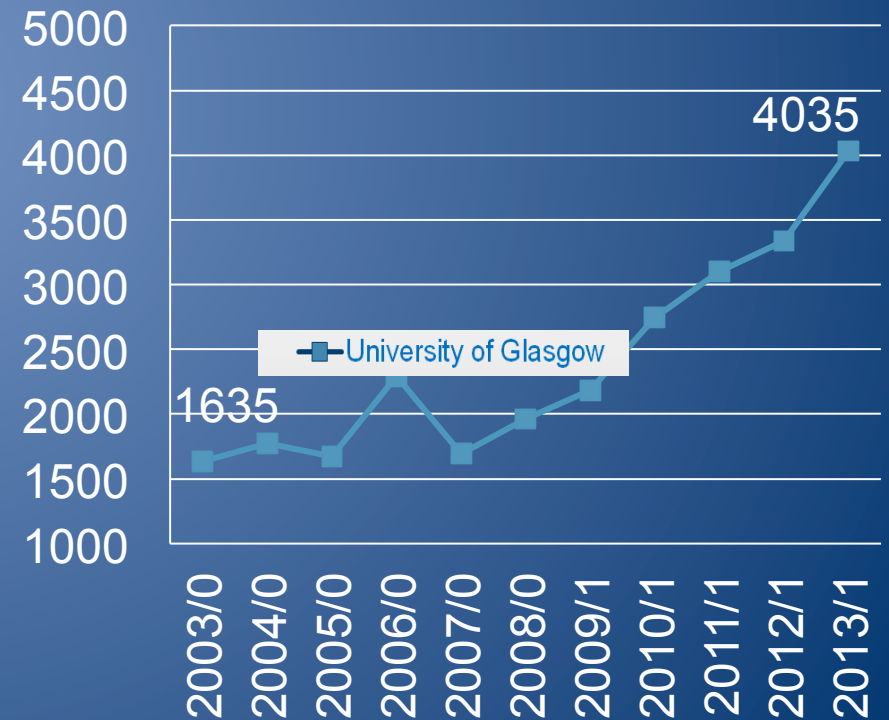


HE Students Full-person equivalent Domicile (basic) Non-EU

Scottish HEIs



University of Glasgow



Location: Glasgow's West End



Mature district in historic city

Largest institution, employer and budget holder

Largest capital project - £800M

Transformative driver

Repurposing the University for future challenges

Positioning the University as the economic and social focus of the district

Rethinking the University model

Scale of opportunity

— Campus footprint

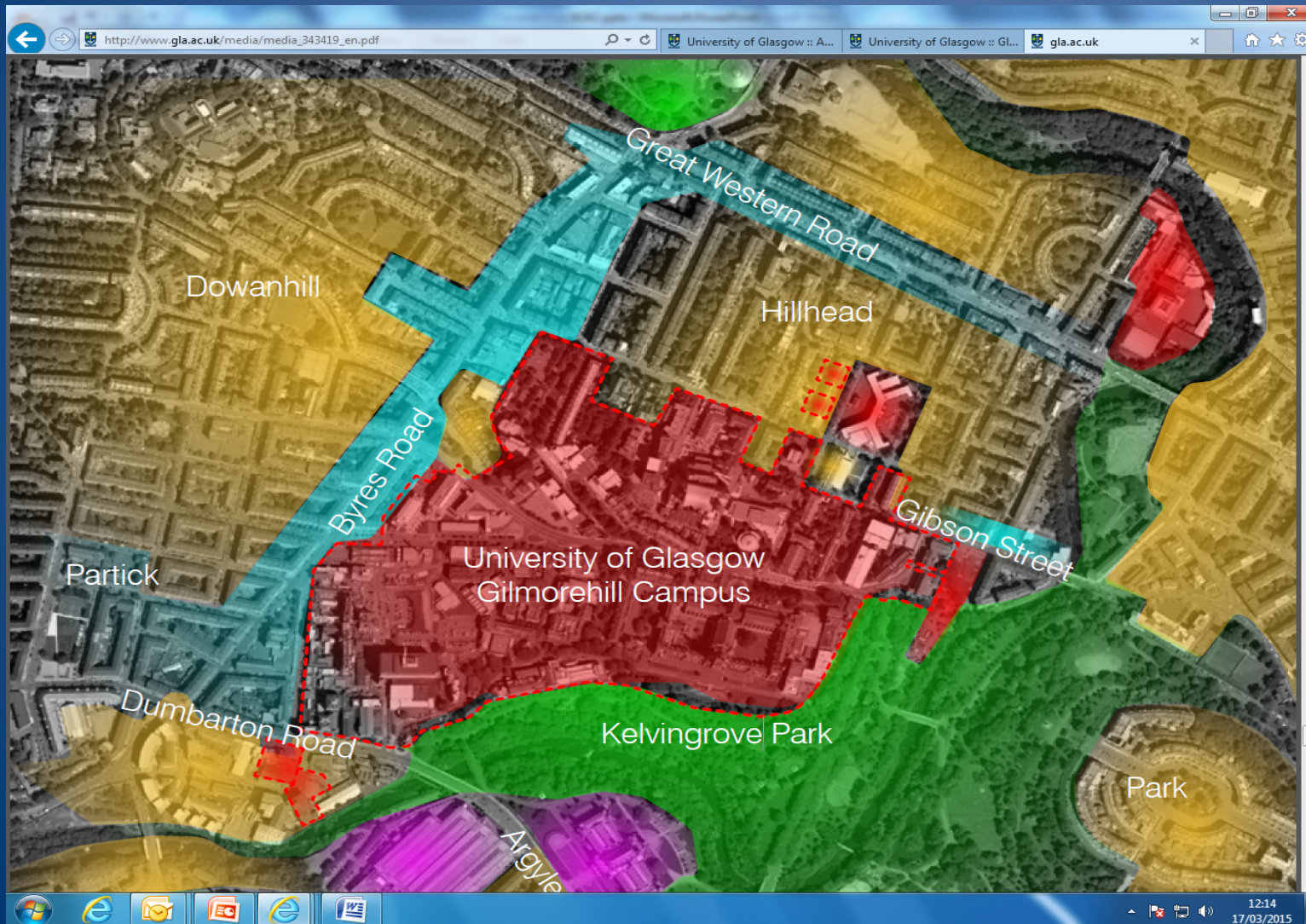
■ Newly Acquired site



60,000-350,000 M2







30,000 students

**Footfall
40,000- 80,000**

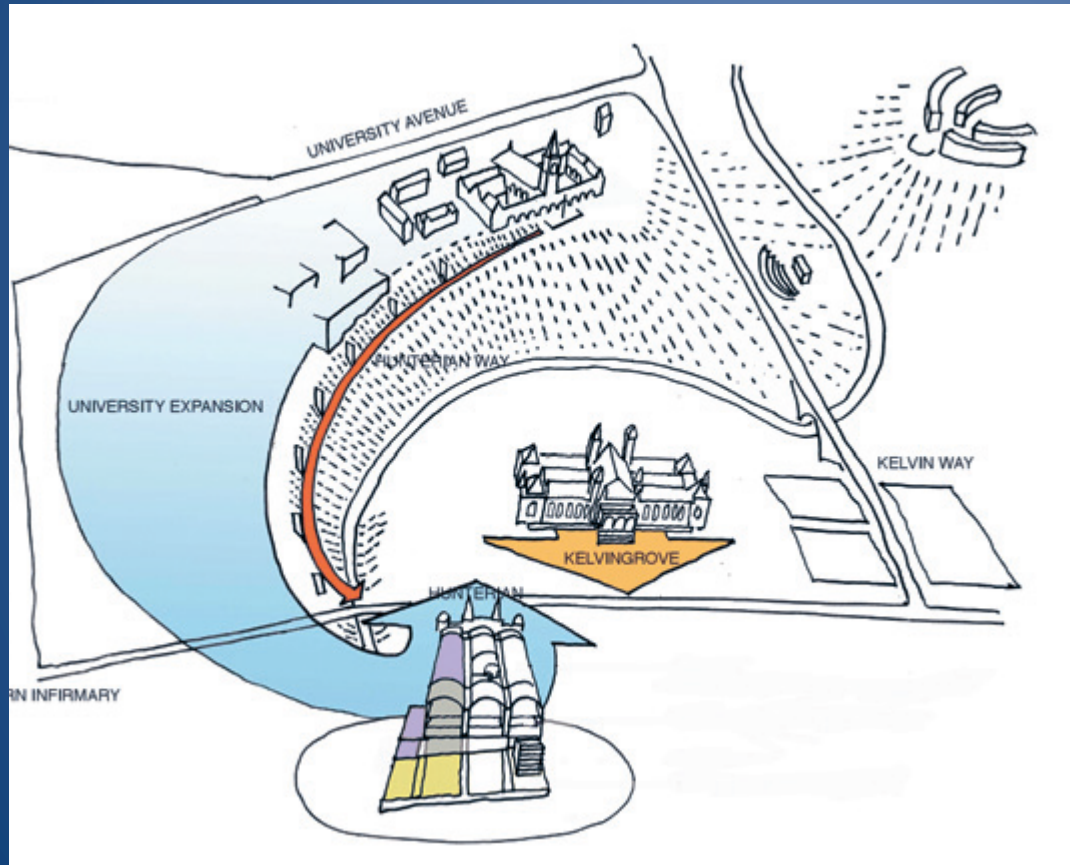
Residential

Leisure

Commercial

Education

**Relationship
with city centre**



Campus complement

Greater west end

Connect with river

The Kelvin Hall development: New cultural and heritage centre for the city



The Scale of Investment

Capital investment over 10-15 years

Research

Learning & teaching

£775m

The civic university

- More space for leading edge research in key areas such as quantum technology, stratified medicine and big data
- Co-location to foster cross-disciplinary collaboration
- New space for industry collaboration

- World class student facilities for learning and teaching, incorporating new technologies
- New social and student activity space
- Providing opportunity for the best local students
- Facilities to attract the best international students

- Public routes through the campus
- Facilities and spaces for residents
- Kelvin Hall collaboration with the City
- Lasting urban legacy

Setting & Urban Form
Landscape & Open Space
Transport & Movement
Historic Assets
Design Excellence
Infrastructure & Sustainability
Community Integration

Learning and Teaching Hub
Research Hub
Data Centre
Consolidation and co-location



Universities as anchor institutions which attract talent - repopulating the city - urbanisation as economic and demographic.

Essential to retain and develop this talent for longer term sustainability of the City (cf KPMG Report 'Magnet Cities')

A major opportunity to build a new city quarter based on education and innovation in a high quality urban environment.

The Innovation District

- **Retention of high value capital - critical importance of city services**
- **Stimulating and supporting economic life - physical, financial, intellectual**
- **Incubation , acceleration, business development and job creation**
- **Providing for longer term needs – survival dependent on the health of the host community**

Arizona State University, UPM Madrid, NYU, UCLA, Chicago, Crick at Kings X, Amsterdam



Houses 2 of Scotland's 3 Innovation Centres: Stratified Medicine, Sensor Systems.

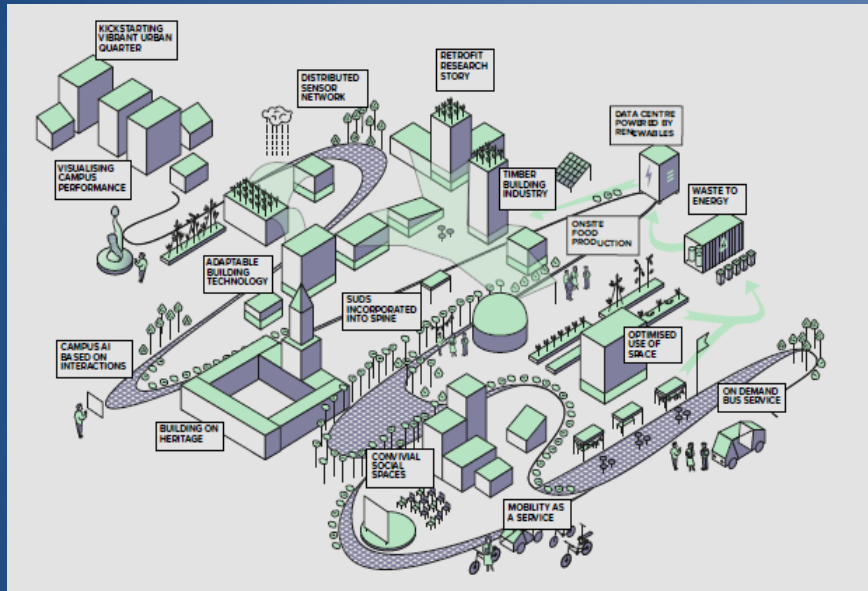
Awarded one of the UK's 4 Quantum Technology Hubs (£29m)

Raised £60 million to secure a clinical academic campus: The Queen Elizabeth University Hospital, Glasgow

Established the:

- **£20m Stratified Medicine Scotland Innovation Centre – a prelude to working with Innovate UK Precision Medicine Catapult**
- **£32m Imaging Centre of Excellence, housing the UK's first 7-Tesla MRI scanner on a clinical site**
- **£30m Queen Elizabeth Teaching & Learning Centre, including dedicated incubator space**





A SMART CAMPUS FOR UNIVERSITY OF GLASGOW

Report summarising the first phase of the Smart Campus programme



Organising around the Opportunity Future Cities Catapult

- **Dedicated Team**
- **Service Platform**
- **A Digital Infrastructure**
- **The Sensing Campus**
- **A Physical Connecting Focus - the campus spine**
- **Decentralised Infrastructure**
- **Social and Economic Benefit**
- **Campus High Street**
- **A University Quarter**
- **External Engagement**

A 'Smart' Campus Strategic Partnership – external partners - Future Cities
Catapult and commercial

Demonstrators

- Energy
- Transport
- Student services: E-matric
- Sensors /IoT
- Construction
- Managing the Built Environment
- Future learn (pedagogy)
- LiveCampus
- Campus engagement (campus conversation)
- Social and Economic Impact



- **Sustainability, Core Infrastructure, Environment and Urban Transformation**
- **The Low Energy, Low Carbon Campus: Energy Efficiency and District Networks**
- **The Connected Campus - built environment, data, sensors and facilities management, Internet of Things**
- **Pedagogy and Internationalisation**

- **Urban Informatics / Big Data**
- **Computing Science**
- **Public Health**
- **Digital Health**
- **Housing**
- **Urban Transportation**
- **Energy and Power Systems**
- **Environmental Statistics / Pollution / Climate Change**
- **Resilience and Disaster Management**

- **Human Geography**
- **Assisted Living**
- **Social Policy**
- **Economic Development**
- **Urban Design and Planning**
- **Sustainable Development**
- **Sensor and Imaging Technology**
- **Water Systems**
- **Education**

The Gilmorehill site already is the equivalent size of 40 city blocks. The new campus will increase this by 25%

The planned expansion over the next 10 years will provide a unique opportunity to

- Design and build a high quality city quarter
- Use the buildings and environment as a test bed for research, development and deployment of 'smart cities' technology and technique

A large scale, internationally significant demonstrator for new models of

- Core infrastructure – energy, water, waste, digital
- Built Environment (urban space, data, sensors and facilities management)
- City services, mhealth, smart mobility, transportation, communications, data, IoT



Academic – U21, UPM Madrid, Nankai, UESTC, SIT, Amsterdam, Lund, Copenhagen.....internationalisation

Commercial - communications, infrastructure, data , energy, built environment, transportation

Policy - FCC

GU/GSoA – research and teaching

Community and City



People attract people.

Opportunity for Glasgow to

- Engage with the host City and communities of interest around common objectives
- Position the University at the heart of an attractive, supportive high quality urban quarter
- Enhance our international reputation as a centre of excellence attractive to prospective staff, students and investors
- Develop a programme of commercial collaboration with international strategic partners in this field
- Develop a teaching and research programme allied to large scale demonstrator
- Opportunity to exploit one of the world's most advanced research and commercial capacities in the field of smart/ future cities

