"How can efficiency strategies reinforce the University's capacity to deliver on its core missions?"

A TRADITION OF INDEPENDENT THINKING

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Presenters and an overview of our presentation

Presenters

- Diarmuid Collins, Bursar / Chief Financial Officer
- Denis Sheehan, Project Manager

Content

- UCC and its environment
- University Funding in Ireland – overview
- UCC Specific Challenges and our Approach to achieving efficiencies
  - Cost Control
  - Lean Initiatives
  - ICT efficiencies
  - Income Generation
- Next Steps & Conclusions

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University College Cork (UCC) - Introduction

- Founded in 1845
- One of seven universities in Ireland
- Ranked in top 3% of universities worldwide
- Voted as top university in Ireland by Sunday Times three times in past decade
- 20,000 full time students, 2,800 staff
- Income c€330m p.a.
- Research income c30%
- City Pop. 250,000

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UCC AT A GLANCE

20,700 registered students

13,972 undergraduates

4,390 postgraduates

1,196 PhD students

3,317 international students from 104 countries

2,739 adult and continuing education students

130,000 Alumni worldwide

€88m annual research income

2800 Academic, research & Administrative staff

€330m annual income

TOP **3%** In the world

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Findings from 2016 Government Report on Future Funding of HE

- Current funding System is not fit for purpose
- Pressures are seriously threatening the quality of our system
- There is a need and a desire for urgent reform of the funding landscape
- We need to invest significantly more resources &
- We need to demand that we get better quality and better outcomes for our investment
- Doing nothing is not an option

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Irish Funding Picture : Universities - 2007 to 2014

	2007	2014	
State Funding	€723m	€522m	(28%)
Student Numbers (FTE)	78,577	93,023	+ 18%
Staff/Student Ratio	17:1	20:1	(18%)

- In spite of greater fee contribution, net resource available per student has fallen by €1,838 pa across all HE
- National Expert Group on HE Funding
  - Report published 2016
  - Recommendations under consideration

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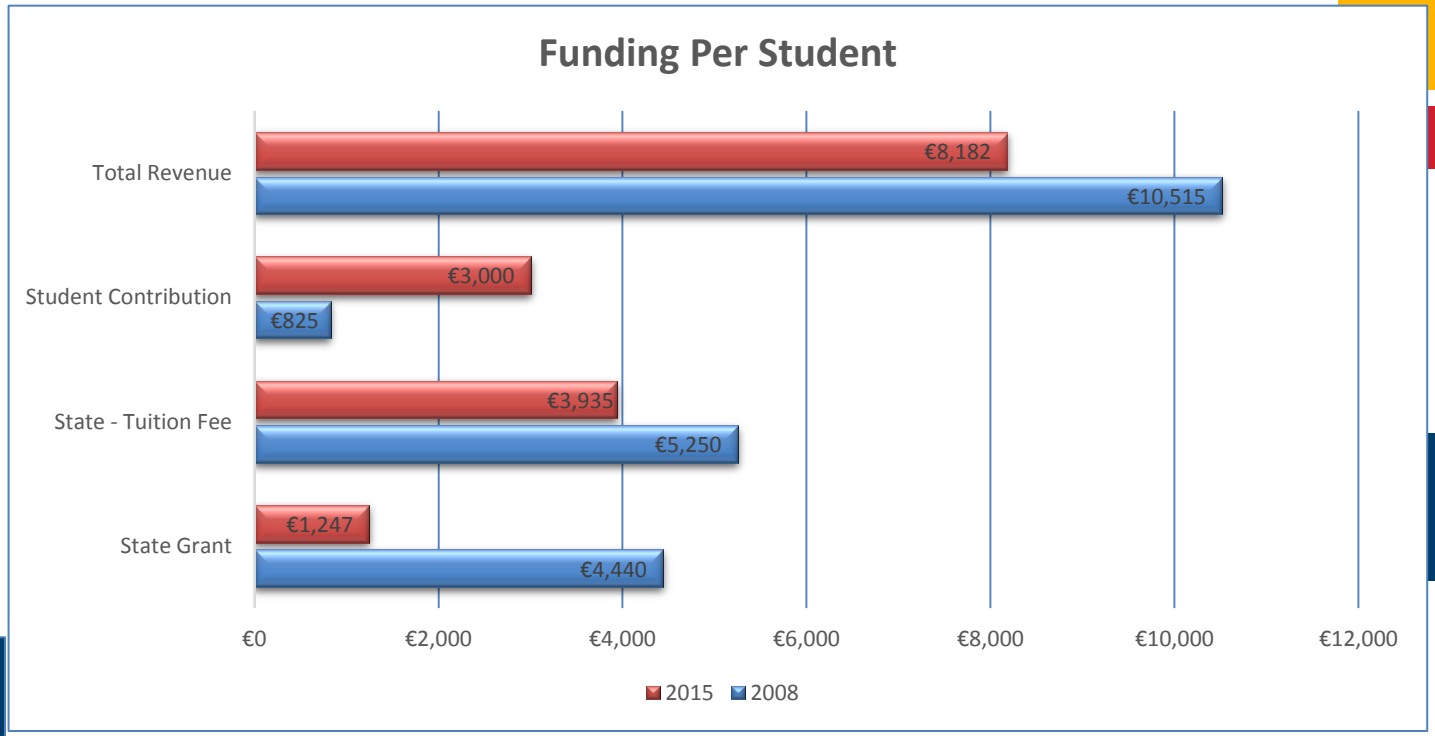
Funding Per Student UCC - 2008 - 2015



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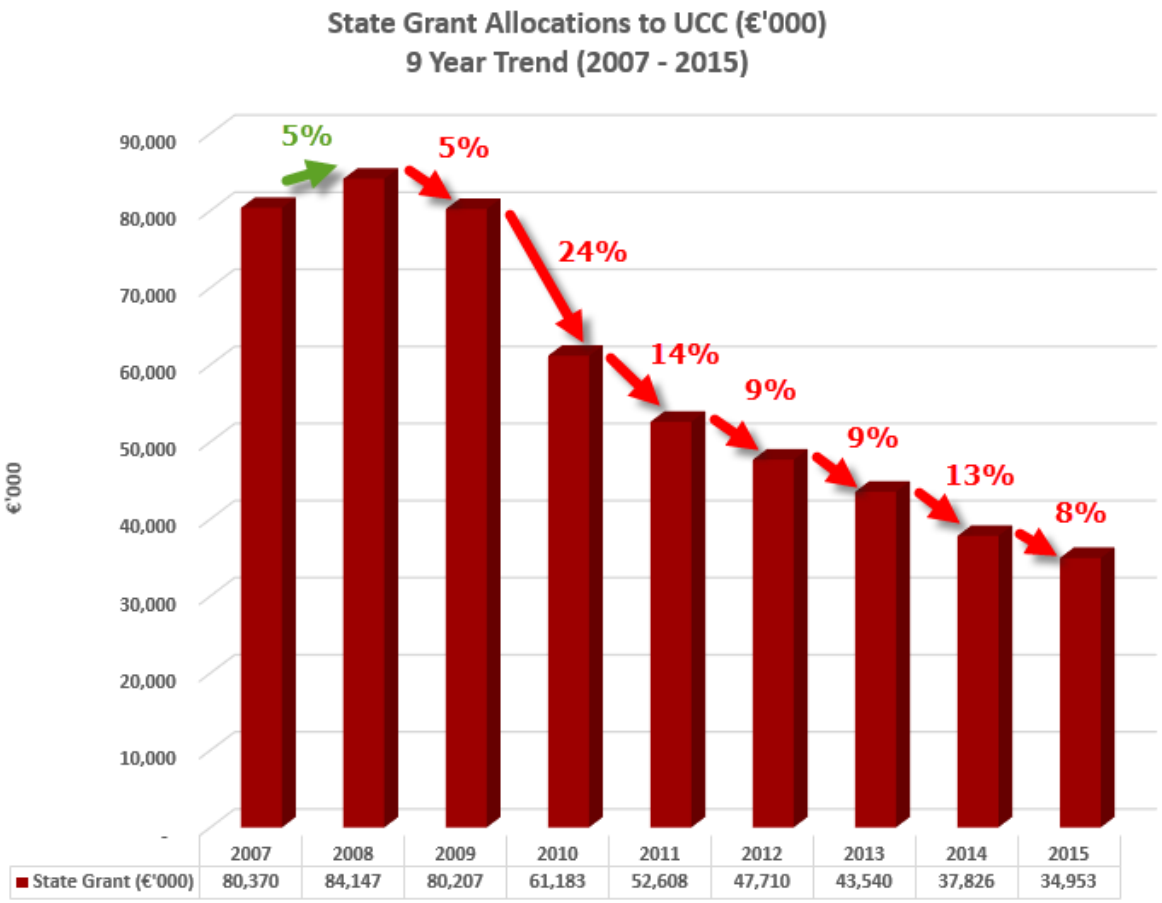
Irish State Grant Allocations to UCC



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In addition to national issues, UCC had other problems to solve

- Recurrent Funding Deficit - €14m, to be addressed in same period as funding decline
- Liquidity/Treasury pressures
- Demand pressures
  - Participation targets & demographics increasing student intake
- Infrastructural deficit
  - Space per student below accepted norms
  - IT and Other facilities had suffered from under investment

However

- Seriousness of issues were accepted by university staff
- Resolution of situation was seen as an internal issue
- Committed Management Team
- Staff flexibility key to working through difficult challenges
- Buy in across all staff

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Approach taken by UCC to get back to sustainability

- Over 2 Strategic Planning Cycles 2007 – 2017, the University

1. Introduced an immediate aggressive Cost Reduction Programme

2. Pan University Continuous Improvement Programme via Lean techniques to optimise all processes – Academic & Non Academic

3. Once position stabilised – Focus on reducing Exchequer dependency

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Cost Reduction Programme - Actions & Impacts – Pay Costs

- National Initiatives applied across sector
  - Pension Levy, Pay Cuts, Increased Taxes, Employment Control all reduced pay

- Specific UCC Actions
  - Staffing (Recruitment Freeze, Other Leave, Backfill, Retirees)
  - Overtime (Changed practices and rosters to reduce/eliminate)
  - Stopped all sabbatical leave for academic staff
  - Developed Workload Allocation model
  - Abolished Academic Travel Grant
  - Employee Travel Expenses (Subsistence, Mileage Rates, Corporate Entertainment)
  - Part time Pay, Allowances, Additional Pay all reviewed and reduced

- **These initiatives delivered €8m pa in savings by 2014 in addition to national reductions**
- **Staff Costs as a % of income fell from 76% to 71%**

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Actions & Impacts – Non Pay Costs

- We undertook an in depth review under key areas of expenditure/activity.
  - Value for Money focus on all activity – particularly Central Costs
  - Procurement (10% target reduction across categories)
    - Energy, Insurance, Consumables, Capital
    - Sectoral Negotiation
  - Utility Spend – “Good Housekeeping” & Procurement - 15% Cost Reduction
  - Space Utilisation
  - Consultancy & Professional Fees (7% reduction)
  - Travel Subsistence & Corporate Entertainment (33% Reduction)
  - Eliminated many “free activities” –
    - printing, photocopying, repeat exams, etc

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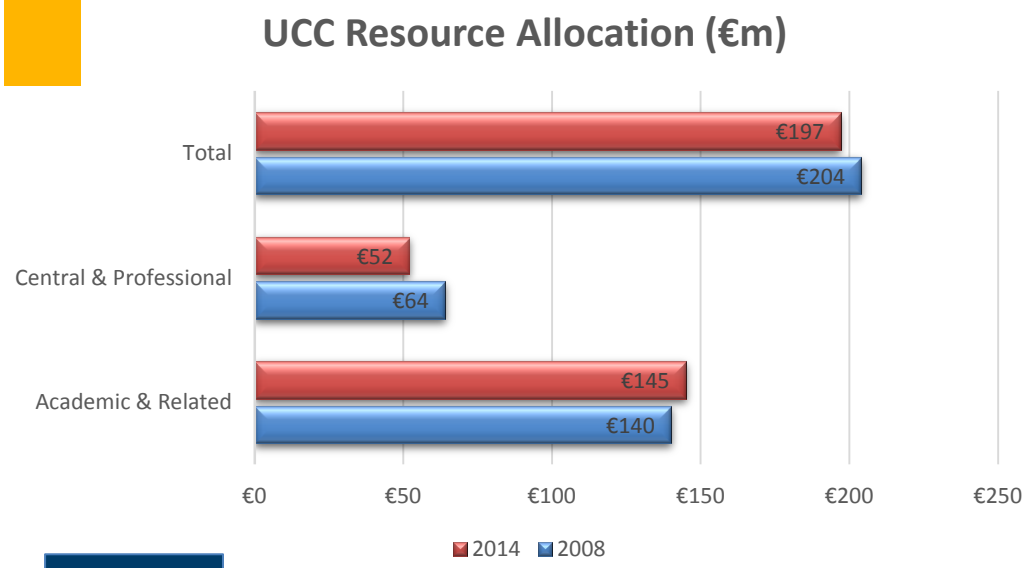
Priority to protect Academic & Student Services



- In 2008, 31% of our resource allocation went to central and professional services, by 2014 this was 26%. A reduction of €12m
- Academic Allocation increased from 69% to 74% over the same timeframe

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Lean & Programme of Continuous Improvement

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Lean Overview

- Key element of Strategic Plan
- Highlighted by staff during Strategic Plan consultation
- Technique to simplify complex processes
- Collaborative team approach to identify waste
- Goal of saving time & money
- University wide Governance model
- Budget holder support
- Staff Development Opportunity

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Lean Journey UCC : 2013 - 2016

- 197 staff members now formally trained in Lean techniques
- 39 Green Belt, 46 Yellow Belt and 112 White Belt
- Early Adopters were Academic & Central Areas
- Deliverables to date across 4 main areas
  - Finance Office
  - ICT
  - Registrar
  - College of Medicine & Health
- Green Belt Training earns formal UCC accreditation credits
- Key benefit for staff engagement and career development

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Lean - Sample Projects & Outcomes

Project	Outcome / Benefits
Shorten the lead time for Minor Curriculum Changes in Medicine & Health	Curriculum changes reduced from average of 7.4 weeks with a range of 23 weeks, to 3.8 weeks with a range of 5 weeks
Postgraduate Research Application are taking too long at 10 weeks	Process cycle time was reduced by 60% to 4 weeks
Placement of Clinical Rotations for Medical students taking 8 weeks with a defect rate of 25%	Placement reduced to 4 weeks with a substantially improved defect rate
Eliminate duplicate Procurement & Financial System in large University Research Centre	Process cycle time reduced by 25%, saving of 1.2 FTE , eliminate software costs & overall savings of €330k over 5 years
Reduce cycle time for applying research funding to student accounts	Cycle time to process student accounts reduced by 48 working days & eliminating 8 days in processing time
Research related expense claim process time needs improvement	Lead time per claim reduced from average of 13 days to 8 days

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Lean Journey Learnings

- Vital to have sponsor and senior management engagement
- Focus on academic & non academic areas
- Formal credit for career advancement a key incentive to be involved
- Multi-disciplinary teams work best
- Focus on end to end process and eliminating wasteful activity
- De-personalise activity
- Communication of revised process essential

Next Steps

- Looking at a series of Inter Disciplinary Projects
- Projects that will improve student experience
- Ensure changes and improvements are embedded and sustainable
- Continue Training Support with formal certification
- Dedicated University senior role to champion lean
- Green Belt Mangers to become advocates and mentors
- Goal of embedding CI in the way all business is done

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Information & Communications Technology & delivering and efficient Procure to Pay Process

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The Challenge

- Financial Position required us to defer investment in IT
- Existing hardware and software were only replaced where absolutely necessary
- However demand for Services kept growing
  - Incoming Millennial Students (Digital Natives)
  - Increasing demand and expectations for Digital Services
  - 15% Increase in student numbers, 20% decrease in Staffing numbers
  - University became a “digital downgrade for students”
  - “Wi-Fi” the service students value most
- Major Changes in legislation and technology
  - Strengthening of Data protection accountabilities
  - Growth of Cloud Computing Services

Decisions Taken

- Centralise infrastructure procurement
  - Extract maximum volume benefit by standardising and bulk buying
  - Use the Cloud and move from Capex to OpEx costs
- Prioritise projects that Generate Income:
  - 6 Online learning programme’s
  - Student Printing and campus smartcard services developed
- Not a long term approach
  - Costs of maintenance continued to grow, vendors increased costs
  - Overall loss of productivity due to excessive time spent on Maintenance
  - Opportunity Cost (Inability to respond to market needs due to aged/restrictive systems)

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Outcomes & Benefits

- Invest €5 Million in strategic ICT Infrastructure investments.
- Designed to enhance the student digital services and improve our appeal and scalability.
  - UCC students possessing stronger digital skills for the workforce
  - Using technology in the classroom to drive stronger learning outcomes
- Feedback from Students and Academics, positive about ICT improvements
  - Student satisfaction ratings for IT in UCC have increase by 10%, amongst highest in the state
- This is a long term commitment in our goal to become a “Digital University”

Project Description	(€m)
Classroom Technology Upgrades *Audio Visual Equipment, Digital Classrooms, BYOD in Class*	1.5
Network Upgrade *Wi-Fi, Network Core upgrades*	2.65
Computer Lab Upgrades *Virtual Student Computers, Lab upgrade*	0.4
Website *Upgrade for the Priority pages on the UCC website*	0.2
IT Security *Firewall, network security*	0.25

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Procure to Pay Challenges

- No Standard Process
- 70,000 invoices, 4,000 Vendors, 10 Vendors comprise 30% of invoices, 3,000 vendors with less than 5 Invoices
- Aging system, lots of manual workarounds required
- Procurement Office focused on contracts & tenders
- Poor Management Information
- Audit of grant claims, time consuming
- No committed spend available

Decisions Taken to deliver efficiencies

- Digital Process – Try to eliminate paper
  - Requisitions, PO, Invoice
- Devolve procurement but enforce compliance
  - VAT, Tax, Approvals
- Scanned Invoices available on system for all purchases
- Workflow based on category and value
  - Integrated with Outlook email system
- Fully automated process with major suppliers (XML)
- Electronic communication mandatory

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Outcomes/Benefits/Impacts

- 30% of our invoices, involve direct integration between UCC and supplier
  - Punch out, Catalogues, XML Invoices
  - Straight through Processing
- Web based – self service – Requisition entry
- PO transmitted via XML or email
- Committed expenditure recorded on Agresso
- Invoices scanned and electronic workflow to approvers
- Automated Tax checking & compliance

Next Steps

- Look to automate the procurement process for our top 100 Suppliers
  - This will cover 66% of our invoices
  - No missing orders, No missing/copy invoices
  - Invoices received same day as goods delivered
  - No scanning, no data entry in AP
  - No errors
- Automate process for internal procurement

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Full Economic Costing Process as driver for Income Generation

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Income Generation – as a means to sustaining mission

- Post stability to University finances – change of focus from cost reduction to investment
- Resources applied to areas that were ultimately self sustaining and
- Had limited exchequer dependency
- Income Generation Report 2011
- 29 opportunities considered for period 2012 – 2017
  - 5 areas of real investment and focus
  - Internationalisation, PG, Philanthropy, CPD and E-Learning

- Investment made and target set for income growth 2012- 2017
- Exploited FEC to maximise return from these opportunities

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Full Economic Costing as an enabler to drive a more efficient delivery model via AWDM and maximise income generation

- Efficient Academic Resource Allocation - AWDM
  - Developed and implemented an automated process for recording and collating data on academic activities
  - AWDM Academic Workload Distribution Model - allocation of academic time and workload
  - Provided insight into academic individual workload and enable intra and inter departmental comparison
- Resulting In
  - More efficient use of time
  - Optimising lectures, tutorials, examining etc
  - Reduced duplication
  - Provides Visibility and transparency
- Took national FEC project and developed modular costing with AWDM data as a key cost driver
- Other Data from source: financial, staff & student FTEs, Estates, etc.
- Integrating all the non financial data with GL and drivers to deliver modular costing

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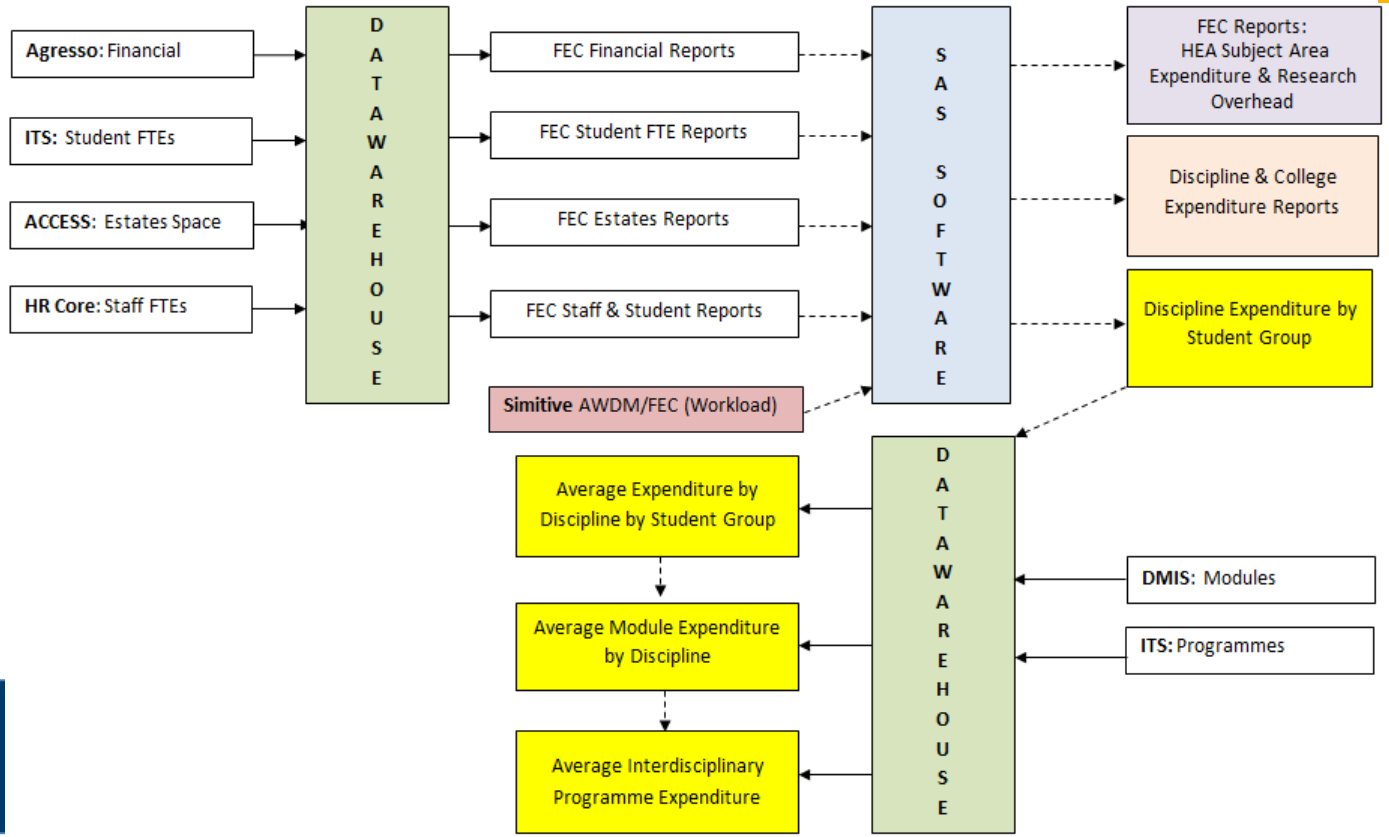
Module & Programme Process



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Modular Costing delivered a range of benefits

- Costing as a tool to aid decision making
  - Enabled University cost all programmes to module level
  - Allows us assess gross margins and contributions by programmes and student types
  - Assess cross subsidisation of Research into Teaching
- Benchmarking & Pricing changes – particularly non EU Programmes
- Reduction in modules – duplication
- Further assist embedding of financial awareness
- Inform internal decision making on new teaching programmes
- Better informed research funding proposal pricing

Longer term assist sector in recovering the full economic costs of activities by redressing funding shortfalls:

- Grant/fee levels
- Research Overhead
- Capital Investment

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Concluding Remarks

Impact of past 8 years

- Delivering a sustainable Financial position and over past 8 years via efficiencies and savings has arguably damaged core mission of the University

- As a result of living within a reducing level of resource – we have seen

  - Decline in University rankings
  - Real deterioration in Staff Student Ratio's
  - No investment in infrastructure – space pressures
  - Growing waiting lists for ancillary services
  - Deterioration of student experience

- In current funding model – various trade offs

  - between a quality academic offering to students and a "quality" financial position
  - alignment of societal needs versus funder requirements
  - education as public good or individual benefit

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Looking ahead - Significant Challenges Remain

- There remains a real challenge in avoiding further deterioration to core mission given demographic pressures and the continuing absence of an appropriate funding model
- University needs to ensure it remains competitive in attracting students and building for future demand
- Demographic profile, technology changes and participation targets putting pressure on infrastructure and resources
- Part of main campus built in 1845 requires regular upkeep
- Non investment means we will not deliver on international student intake – vital for University to remain sustainable and competitive
- In absence of state support – can't standstill – must allow student invest in themselves
- Students only get one chance to be 18 - 24

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