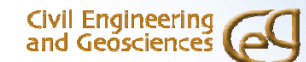


## The School of Civil Engineering and Geosciences

- Over 160 staff
  - Annual turnover of £12.5 Mill.:
    - 25% undergraduate teaching
    - 20% postgraduate teaching and CPD
    - 50% research including postgraduate research
    - 5% industrial support
- Around 400 delegates attended CEG CPD courses in 2007/08
  - Some courses developed with Partners, e.g. Leica



## Geomatics continuing professional development; a UK perspective



Alison Bird, Stuart Edwards and Henny Mills  
School of Civil Engineering & Geosciences  
Newcastle University



## Why should Universities offer CPD courses?

### + Benefits:

- Esteem: increase reputation within professional bodies
- Networking
- Strengthen connections to industry
- Transfer research outputs to industry
- Additional income to Schools and Universities
- Promotion of Master and Undergraduate courses
- Strengthen Alumni
- Positive promotion criteria for staff at UK Universities (third strand)



## Inhibitors and barriers to CPD activities at UK Universities I

- Staffing resources and motivation:
  - No time commitment of academic staff
  - Academic staff intensive to develop materials
  - Research and teaching seen as more important for career progression
- Financial:
  - Risk of financial loss
  - Expensive academic staff costs at full economic costing
  - Attracting sufficient delegates
- Promotion and Demand
  - High advertising costs
  - Lack of awareness of competition
  - Difficult to identify demand
- Master modules as CPD
  - Not necessarily appropriate for CPD courses
  - Inflexibility of scheduling



## Inhibitors and barriers to CPD activities at UK Universities II

- Logistics
  - Suitable facilities
  - Car parking
  - Timetabling
  - Computing support
- Match expectations of clients
  - Academics not always aware of industry
- Clients
  - Five day courses too long for industry
  - Internal training preferred
  - Geographical location of Newcastle
- Financial
  - Difficult to set competitive fees
  - Financial viability depends on number of delegates



## Support of CPD activities at Universities

- Leeds University offers funds for staff to develop CPD
- Bespoke accommodation and facilities at Loughborough and Cranfield University
- IESSG (University of Nottingham) received £6Mill. of local development agency to develop CPD and industrial links

## Institute of Engineering Surveying and Space, IESSG, (Nottingham University)

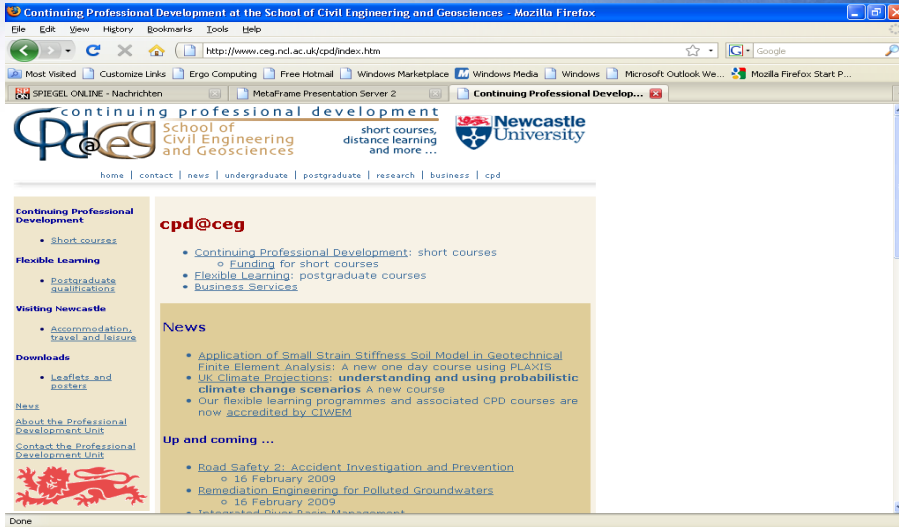
- Central location
- Courses in all areas of Geomatics
- Often combined with Master courses
- Building of Grace: dedicated CPD Building
- <http://www.grace.ac.uk/about/webcam.php>
  - Business Support and Development Services
  - To be launched in Sept. 2009
  - £9.2 Mill costs
    - £ 3.5 Mill of local development agency
    - £ 4.2 Mill. Nottingham University
    - £ 1.5 Mill support of industry
    - Spend: £4.5 Mill on Building and £ 1 Mill on Equipment
  - 5 dedicated staff members
  - Intense advertisement for a long list of CPD courses

## CPD Course at CEG: staffing and costs

- Professional Development Unit
  - promote and facilitate delivery of CPD courses
  - Development of CPD (fees, promotion, funding opportunities)
  - Delivery of CPD (course materials, logistics, administration)
  - Promotion of CPD (website, promotional material etc.)
- Consist of 3.2 staff full time members
- Costs:
  - With increased team will be approx £100k pa
  - Team Leader (0.6FTE)
  - Materials/ Publications Development Officer (0.6fte)
  - Business Development Officer
  - Secretary
- Academic staff deliver CPD courses



## CPD at CEG: Promotion



## CPD Course at CEG: structure II

### - Exclusive CPD courses

- + Tailored towards clients needs
- + Flexibility in scheduling and duration
- + Attracts higher number of delegates
- Higher financial risk to cover all costs
- Additional time commitments of academic staff

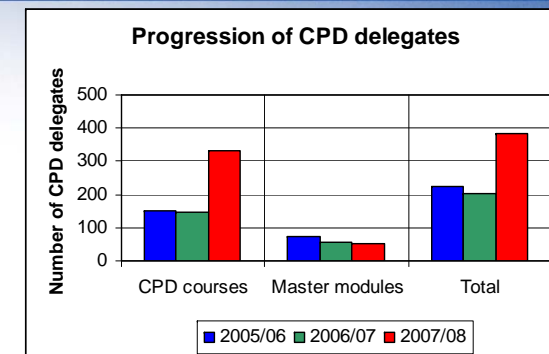
### - All CEG Geomatics courses

## CPD Course at CEG: structure II

### - Combined with Master block courses

- Five consecutive days, open to external people to attend
  - + Low financial risk
  - + Little additional academic staff time required
  - + Promotes Mastercourses
  - + CPD delegates bring additional experience into potential discussions
- Difficult to attract CPD delegates to Master courses
- Less flexibility in duration and scheduling
- Longer 'run in' time
- Content not always appropriate for CPD delegates
- Geomatics CPD at Nottingham

## Progression of number of CPD delegates

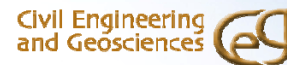


No. of delegates	2005/06	2006/07	2007/08
CPD courses	150	146	333
Masters modules	73	55	52
<b>Total</b>	<b>223</b>	<b>201</b>	<b>385</b>

### Geomatics CPD course:

#### Introduction to GIS, Intermediate GIS, GIS with Spatial Analysis

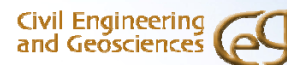
- Developed initially to request of local council
- Content: Most common task used within a GIS
  - Utilisation of more advanced GIS features
  - GIS systems for quantitative analysis of geospatial data
- Duration: 2+2+1
- Frequency: three times per year
- Costs: £495 and £245
- Delegates: 88 attended in 2007/2008
- Promotion: website
  - + good attendance
  - + attendance of a wide range of industry
  - Requires staff to free time in research and teaching



### Geomatics CPD course:

#### Unlocking precise GPS Network RTK and post-processed positioning

- Developed with Leica Geosystems UK as a partner
- since 2002
- Content: theory and practise of Leica GPS instruments
- Duration: three days
- Frequency: by demand, about twice a year
- Costs: £700
- Delegates: 40 delegated in 2007/2008
- Promotion: through Leica
  - + effective marketing
  - + Credit crunch led to decrease in numbers in 2008/2009
  - Difficult to schedule
  - Demand on staff during teaching period



### Geomatics CPD course:

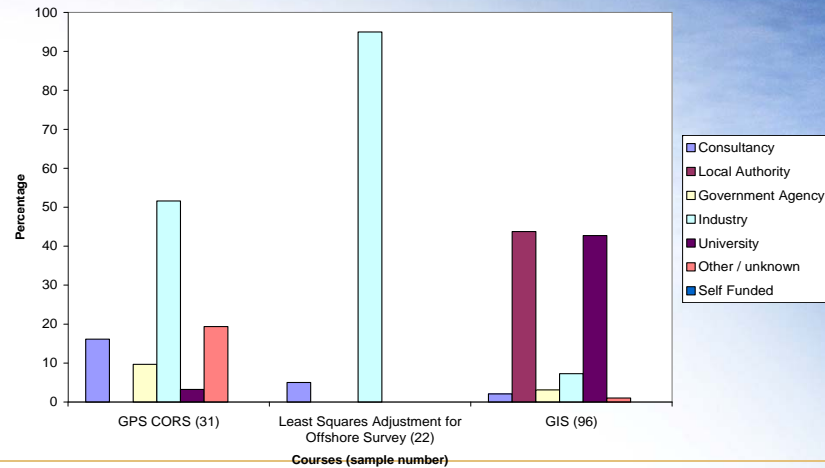
#### Unlocking precise GPS Network RTK and post-processed positioning





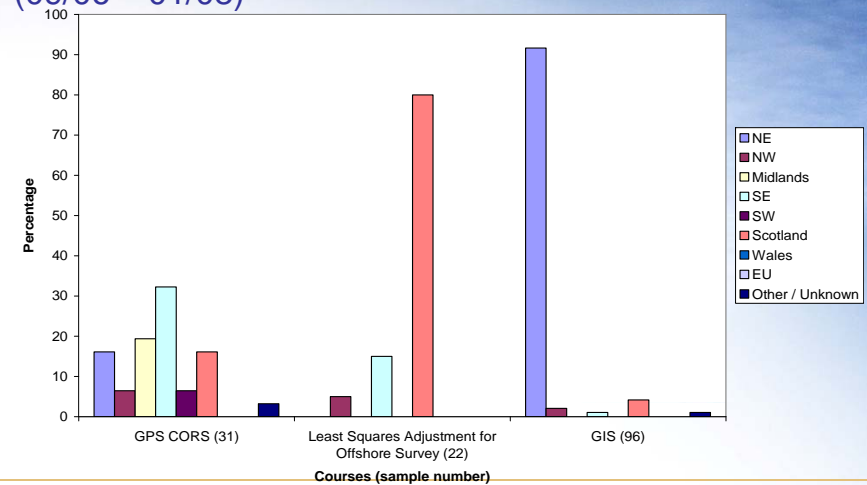
## CPD courses at CEG: Delegates

Distribution of delegates by employer category and course (09/06 – 01/08)



## CPD courses at CEG: Delegates

Distribution of delegate numbers by region and course (09/06 – 01/08)



## CPD course at CEG: Fees

- CPD courses:	Course Type	Fee
- Small groups	2 day CPD courses	£475 - £500
- CPD delegates only	3 day CPD courses	£700
- Dedicated course material		
- Fee Level 1:	Masters module Fee level 1	
- Run with Master students	5 days attendance	£1,150
- Special course materials	4 days attendance	£920
- small groups	3 days attendance	£690
- Assessment available	2 days attendance	£460
	1 day attendance	£230
- Fee level 2:	Masters module Fee level 2	
- Large groups	Masters module	£775
- No special course material		

## CPD at UK Universities

### Course fee comparison – Academic institutions

Institution	Duration (Days)	Typical Fee (£)	CEGS Fee (£)
Aston University	1	£229	£235
	2	£425	£475
Cranfield University	5	£1,295	£1,100
Edinburgh University	3	Range, e.g. £400	£675
Leeds University	3	£499	£675
Manchester University	5	£1,685	£1,100
Nottingham Trent University	4	£600	£880
Nottingham University	5	£800	£1100

## CPD at commercial training organisations

- Often for in-house specific software and instrument development
  - Leica will offer free four Laser scanning training courses with every ScanStation2



## Is it worth running CPD courses at Universities?

ISPRS workshop  
'E-learning tools, techniques and applications'  
17-19 June 2009, Potsdam  
Abstract deadline: 1<sup>st</sup> March 2009