

FACULTY OF SCIENCES PLAN 2012

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1. Overall Statement

In support of the University Institutional Plan, the Faculty will:

- be the leading University for Science, Maths and Engineering education, research and enterprise in Kent (via activity at both the Canterbury and Medway campuses) and play an increasingly important role across the South East region outside London
- continue to build on our world-leading research strengths identified in RAE 2008 and evolve new ones, so that we significantly increase both the fraction and absolute number of staff who are leading researchers, leading to more research income and more 4* outputs
- improve the management structure inside the Faculty and its Schools regarding research, including starting to set goals for all Schools
- provide an excellent student experience through research-led teaching, increased emphasis on student engagement and employability, and by providing attractive progression routes into postgraduate study
- improve internationalisation, for example by encouraging our students to travel abroad and increasing overseas student numbers in our faculty (both EU and from further overseas)
- strengthen innovation and enterprise activities via engagement with the Innovation & Enterprise strategy and the new Health strategy
- continue to develop a more effective, efficient and sustainable administrative and central support infrastructure both inside the Faculty and by sharing across all the Faculties

In addition the Faculty is committed to an increasingly strategic look at our activities, planning 5-10 years ahead. This involves setting goals which include aspirations and outlining paths to achieve them. Accordingly Schools are being encouraged to think ahead as much as possible and to develop appropriate roadmaps. These should cover teaching, research, staff levels, succession planning, admin, estates needs etc.

2. Report on Current Activities in 2011-12

Learning and Teaching (UG)

In the current year the main areas of success lie in the increased UG intake and a higher mean UCAS tariff. The Faculty was supported by award of additional student numbers which permitted this growth in numbers. Most Schools have raised their required entry tariffs and this, combined with increased applications, permitted the rise in the mean UCAS tariff score to 357 (Canterbury) and 317 (Medway).

Specific areas of activity are commented on below:

NSS – The faculty did not have as good a year as previously. Schools have looked at common themes and key areas are in assessment and personal development plans (PDP). In assessment most Schools have now adopted a traffic light system of keeping track of coursework. This model tracks all assignments identified on SDS and their submission and projected return dates. The staff member is explicitly identified. Work which is returned is flagged ok, work in danger of missing the return date is flagged with a warning, and any late return is flagged with greater emphasis. This spreadsheet is typically circulated weekly to all teaching staff in a School. Peer pressure has helped improve return rates in most Schools. Some Schools go further. In Computing a pie chart is prepared which shows the %age of work returned on time and this is displayed for students to see. In most Schools where work looks late senior colleagues intervene and ask the setter to report. In some cases this has led to identification of bottle-necks which can be removed (staggered submission dates etc.).

The new faculty learning technologist has taken PDPs (along with rolling out Moodle 2) as a key objective and is speaking to Schools. Inside each School at least one person is learning more about how to integrate PDPs and Moodle, so that there is an information source on the spot to help progress this.

In general, most Schools now also now have flat screen monitors in foyers and/or student rooms. These circulate information about School activities. These are increasingly used for “you said – we did” style communications with students as well as more traditional news. This helps build community spirit and provides feedback to students on general issues.

Tariff scores- As stated these have risen almost across the board. The highest mean entry tariff is now BioSciences (378). The scores at Medway have also risen, with Pharmacy now achieving 337 and Computing in the Medway scoring 309 (vs. 355 in Canterbury). Whilst still lower than Canterbury, these are closing the gap.

UG Recruitment – This went well last year, with high numbers entering in Autumn 2011. In the current recruitment cycle, the Schools do not in the main look for ASNs; those days are over. The University has ring-fenced UG entry numbers in the Sciences at its set base-line levels and this is welcome. The new targets have two elements, ABB and above and number controlled entry. Schools have been alerted to the need to make sure they get their AAB+ numbers, but given that these are usually small this is not a big risk in most Schools. Indeed in total, Sciences recruited 110 AAB+ in 2011 of whom 25 were in SPS (the largest recruiter). Importantly, given that we recruited significantly extra in total last year (with central agreement) the return to the 2010 base-line levels will mean a notable fall in intake in Autumn 2012. Meanwhile, applications have mostly held up well in the current year (see Appendix I). They are down -1% at end of Feb (Canterbury 3% up, Medway 24% down), but still have 5 home applications per place. Some Schools have seen increases, and only one saw a fall at Canterbury (SPS: which was mostly due to Forensics), whilst there were significant falls in Pharmacy (25%) and Computing (23%) in the Medway. In the case of Pharmacy this may be due to withdrawal of one programme, with a consequent loss of those applicants. And Computing in the Medway have raised their tariff so may be suffering the traditional initial drop in applications when this happens. However, both Schools have noted these declines and need to work on making sure they convert applications in the short term and on growing applications longer term.

Employability: There is increasing evidence that this issue, and not fee levels, is raising more questions at admissions days. Schools are responding by articulating more clearly where key skills are present in the degree programmes. They are also flagging up on websites and in their literature, the experiences of recent graduates. Several Schools are engaging more closely with employers. For example, EDA, at the suggestion of its industry panel, is launching a sponsored student scheme. Under the scheme, sponsored students will be offered a modest bursary by the company, summer internships after year 1, a one-year placement between years 2 and 3, and a sponsored project in year 3. And in the case of Computing, a recent agreement will increase the number of work placements with CISCO in California from 4 to 20; the School will make sure this is heavily flagged on their literature and web site. SPS is continuing its Physics summer intern programme with paid internships in industry (coordinated via SEPNET). Student societies are also helping. Space Soc is hosting a national student Space Soc conference on campus in April and has arranged for stands to be present from leading employers in the space sector.

The heads of some Schools also took part in the survey regarding the Careers Service at Kent and welcome the proposed changes in that provision; we look forward to closer integration with Schools.

New specific issues:

In summer 2011, EG asked all Schools to look at modules with low performance levels. This triggered extensive activity by Schools. Whilst there may be some natural variability from module to module, the same cohort of students taking classes at a set level should have a roughly common outcome, all other things being equal. Accordingly, each School in the Sciences produced a report and where appropriate identified actions at a module level. These are being implemented in the current year.

Specific Matters arising from this section in last year's plan:

Pharmacy: The professional body qualifying exams taken 1 year after graduation had a significantly improved 1st time pass rate. This is now much closer to the national mean pass rate, and further improvement is anticipated for this year. For example, staff are providing more support to students during their graduate training after graduation.

SMSAS: it was decided that the Psychology teaching was to be repatriated and this has had to be accepted.

Post-Graduate Taught (PGT)

There has been a continual emphasis on PGT across the Faculty. BioSciences and EDA have launched their revamped/new courses. SMSAS continues to improve its finance/risk provision and has agreed with Kent Business School to launch a Kent Centre for Finance (working title) – a proposal to EG will be made soon. Computing has maintained the numbers it grew to last year, and indeed has maintained its link with France (EpiTech); because EpiTech send their students to several universities in the UK and Europe, this link is very price (fee) sensitive. MSOP filled a staff post with a Senior Lecturer to take charge of PGT in the School, and progress is keenly awaited now he is in post. SPS however has not done so well. Its Euromaster 2 year MSc has not recruited well despite a major recruitment campaign in Europe, and its MSc Forensic Science will now take its first students in Autumn 2012.

Overall, there is a growing feeling that PGT is vital component of the Faculty provision. But the main era of dramatic growth by Schools starting with low or non-existent PGT and launching new courses or dramatically expanding existing ones is now over. There is a still desire to grow further, but this will mostly come by steady expansion in most Schools (although the proposed joint SMSAS-KBS finance centre offers some hope for faster growth). There is also worry about how the home/EU market will work when the £9k fees work through the system.

Research & Enterprise

There have been notable successes in the current academic year. For example, Professor Sarah Spurgeon (EDA) was appointed IEEE Distinguished Lecturer, Professors Yong Yang (EDA) was awarded the Alec Hough-Grassby award by the Institute of Measurement and Control. Professor Frank Wang was re-elected Chairman of IEEE Computer Society UK & Republic Ireland Chapter (around 8,000 members). Professor Michael Kölling was named as a 2011 ACM Distinguished Member in recognition of his contributions to computer science education (his developed BlueJ has been downloaded more than 10 million times. Professors Malcolm Brown and Elizabeth Mansfield (SMSAS) were elected fellows of the Institute of Mathematics and its Applications and Professor Podoleanu (SPS) won a prestigious Fellowship from his professional body. We have appointed many new faculty members, including several new Professors (in BioSciences and Pharmacy for example).

REF

The preparations for the REF have continued. Schools carried out internal reviews and reported School by School in a series of meetings with the PVC Research. Whilst definitive decisions are not made yet, a picture is emerging. There is welcome improvement with respect to RAE 2008 but the situation is not wholly satisfactory. The goal of 80% submission rate is not being met in all Schools and Schools which did relatively well last time need to increase their submission rate. Even with improvements by current staff this may not change dramatically. In some cases like Pharmacy, this is understandable as it is a new School. New appointments are helping as they are all REF standard (where research is included in their contracts). In most Schools individual plans were agreed with staff on how they could either improve to REF standard, or improve the quality of their current REF standard work. To help with improvements to quality, the faculty has run a £30k REF investment fund in 2011-12 (its normal research investment fund was rebadged explicitly as REF pump-priming),

with a series of rounds to provide small grants to support initiatives which are focussed on short term successes.

Another issue that emerged from the REF planning meetings was that not all Schools have increased the volume of their submission (in terms of FTEs) compared to 2008. This has two consequences in these cases. One is that for them increased QR will only come from better grades. The other is that some Schools are still below what is a critical size threshold in most science disciplines (around 20 FTEs). This is particularly true in BioSciences and more investment will be necessary to improve this.

Research Income

This is not at satisfactory levels across the Faculty. The amount bid for in grant applications is showing long term decline in most Schools, and the awards are not sufficient. In some Schools, such as SPS, this has now reached the stage where there is typically just 1 mid to large award a year (and in some years none). Whilst this is the most extreme example, it typifies a problem. The reduction in applications is partly explained by demand management procedures introduced by some RCs (e.g. EPSRC) and more stringent internal review procedures at Kent. But time is a major resource issue for many Schools. We have built strong economies on the back of UG and PG teaching, and in Schools which lack critical size, this crowds out time for other activities (such as research grant writing). Also, some Schools do not have strong grant writing cultures. Schools increasingly realise this and plan improvements in both areas.

Centres:

The main centres are CMP and CBMI. CMP continues, with one new Professor and another about to be advertised. This will help this project continue to develop. CBMI closed its MSc course and is re-focussing for the future with a change of director to Prof. D. Griffin. In addition, CCNCS has also regained momentum and is aiming to widen its net once more, particularly with one of the new lecturers in Computing in the Medway who is developing an EEG lab there (Medway links with neuroscience in MSOP and with the Centre for Sports Studies are also being explored). In terms of new Centres, Cyber Security is a major concern for UK government and industry, and is a priority for the EPSRC. Computing and EDA have led a bid for recognition by the EPSRC and GCHQ as an Advanced Centre of Excellence for Cyber Security Research. Recognising that security requires more than technical policies and mechanisms, the Faculty has recommended the establishment of a University Centre of Cyber Security, pulling together not only the expertise in Computing, EDA and SPS, but also experts in Psychology, Law and SSPSR.

Equipment:

The injection of investment money in 2011-2012 has helped several Schools replace old and outdated equipment. This has been welcome. However, more needs to be done to get Schools up to date before we can move to a self-sustaining situation. There is therefore another list of equipment bids in this plan (see later). This is vital both to repair previous under-investment as Schools repaired their budget sheets and to accommodate the increasing quality of research in the Schools.

Enterprise:

There has been significant engagement with Enterprise. Some Schools (e.g. MSOP) have arranged their own briefing days from the Enterprise Unit. Others such as BioSciences have started submitting (and winning) large single bids for translational research. A single recent award was for £400k showing the potential from such schemes. However, KTPs have not continued their growth. In parallel, seed-corn money is being made available in Ideas Factory mode and staff in the faculty are trying this route for investment in with new ideas.

Financial position

Great progress has been made in the current academic year. Schools are increasingly taking control of their budgets with activities targeted on growth as well as cost control. The usual action is needed in year to make sure the projected budgets are met, but we can also look at the underlying trends in terms of whether Schools operate in overall surplus or deficit for the future. One distortion for lab based subjects is that the *hefce* top-up of £1400 pa per student is only promised for the 2012 entry

and their time at Kent. This has been built into Fin2 budgets accordingly. But if *hefce* confirms this top-up for 2013 and subsequent cohorts then BioSciences, EDA, MSOP and SPS will all see improvements in their projections. With this caveat, then based on projections discussed in the planning round we can say:

BioSciences: The School has been working hard on its plan to turn around a large projected deficit and move to a planned positive budget situation. They have given up space and increased both UG and PG numbers. This year's out-turn is predicted to be of order £400k deficit. But of this, some £200k is savings targets. However, Fin2 projections show an absolute surplus of £190k in 2012/13. The School has increased its projections slightly for overseas and PGT numbers for next year, so this may grow further. The situation is thus that the School is within sight of a 2% surplus. This is not enough however to finance all the necessary activities for growth in the School, so an investment plan is needed. Key ingredients are: (1) Agree to annul the remaining savings target for the current year. (2) Invest in 3 new academic staff posts with a central credit for their salary costs until 2015 (when REF2014 QR money starts to arrive). (3) An investment to pay for some specified new equipment (see later list). In addition, the School asks to be allowed to set up new budget lines for PhD studentships and an equipment fund. This equipment and PhD fund was deferred at the Planning Meeting and will be discussed further in the 2012-13 School plan when the School can see its budget shape more clearly. They can then make prioritised decisions on how to accommodate this additional spend, as well as to whether it is better being funded as a fixed % of research grant overheads, or as a specific value expenditure each year.

Computing: The School should finish 2011-12 with an absolute budget out-turn of £100-200k. Thus the School continues to be in positive territory. The Fin2 projections show positive balances over the next 3 years. On paper much of this is generated in the Medway, but it was agreed that allocation of costs between the Canterbury and Medway sites is not accurate at the moment (and will be worked on), so in reality both sites will generate surpluses.

EDA: The School has been working hard to increase its budget by growth and prudent management. However, the School still shows an absolute deficit for 2011-12 of order £200k on the projected out-turn. Over £200k of this is generated by an unmet savings target. On Fin2, EDA does not generate surpluses in the projected 3 year forward look. At the planning meeting it was agreed to increase various student numbers to help this. And of course if *hefce* top-ups continue for laboratory subjects this will improve again. An investment plan is needed. Key elements include: (1) The School is to increase overseas and PGT students. (2) The new investment posts agreed in Jan 2012 need a central credit to pay for them (this was one of the agreements about such posts for deficit Schools). (3) We should discuss a one-off wipe out of carry forward saving targets to help move the School. (4) And a major effort to reconfigure the School's estates footprint and invest further in teaching lab equipment is required in summer 2012 to allow the increased student (UG and PGT) numbers.

MSOP: This School operates on a jointly agreed budget with Greenwich. The current year predicts a small £50k absolute surplus this year if all targets are met. The future projections include significantly raised income from research (rising to £1m per year by 2015) and provided this is met as are target student numbers, then there should be absolute surpluses each year in future. However, it is vital that the student load used in financial modelling by the School is the same as allocated by Kent from its student number control.

SMSAS: The School is in excellent financial health and will remain so for the period of the forecasts. The School needs floor space to allow it to continue its growth.

SPS: The School is generating an absolute budget surplus in 2011-12. In 2012-13 the School is predicted to generate an absolute surplus of £600k. The School requested several changes to its 2012-13 budget which will lower this amount (e.g. setting up a PGR scholarship fund) and there are some specific equipment items that are requested to be purchased from School funds next year. In addition however, there is a request for another central investment this summer to continue re-

equipping the School (see later discussions about investment). In future years the surplus falls but this assumes only the 2012 entry cohort attracts a *hefce* top-up, which is unlikely.

Internationalisation

The Faculty appointed an academic (Dr. R. Guest) as its internationalisation expert this year. This has helped focus on overseas efforts. Several Schools have continued strong overseas recruitment, often at PGT level. Some Schools worked hard on increasing UG applications last year, but in the case of SPS this did not lead to an increased entry. Schools are considering this when planning future recruitment efforts.

Whilst many staff and PGR students routinely travel abroad for research purposes, relatively few UG's travel abroad. There are programmes that offer a year overseas, but these are not well supported by the students (with the exception of placements of Computing students with leading US companies). Regarding research, science staff do not tend to think in collective terms about overseas opportunities. Part of the reason for this is that funding models do not traditionally allow this, but for historical reasons do allow individual research needs to be funded. In order to see if this can be changed, the Faculty requests a new budget line for an internationalisation fund of £25k pa. This will be used to fund overseas travel. It is envisaged that a competition will be run asking Schools to bid for support. In the first instance we anticipate activities to get Kent people to go somewhere for a purpose. For example, a School might wish to bid to send some staff to visit our Paris or Brussels campuses to see what opportunities exist. Or to fund some students on a short trip to visit an international laboratory (CERN etc.). Or to fund a short term exchange of faculty with a key overseas partner. Etc.

Staffing

Schools are continuing to recruit staff. Some new staff have arrived this year and several recruitment rounds are underway currently.

BioSciences One Professor arrived this year. In addition another new professorship is currently being advertised and a staff departure is being replaced.

Computing is currently interviewing for a Professor/Reader in the Medway. A new lecturer investment post has been approved and will shortly be advertised. A replacement lecturer post for a retiring staff member is expected to be advertised for this summer. Of these two lecturer posts one will be in Medway and one in Canterbury.

EDA filled a lectureship this year and is about to advertise a new Professorship and a new lecturer post.

MSOP filled both its Professorships. A new lecturer and senior lecturer posts were advertised and filled. A new lecturer post has just been advertised for interview soon.

SMSAS has advertised 3 lectureships, phasing in replacements for soon to retire staff and replacing short term contract posts. *SMSAS* also plans to make forward appointments for soon to retire staff – these depend on firming up of retirement plans and for the overlap period use will have to be made of office space in the proposed temporary structure in the Maths/Cornwallis car park.

SPS recruited a new lecturer in Space Science. It is about to advertise for 3 new Chemistry posts. The search for a new HoS continues – interviews did take place but a new round of interviews is planned.

Athena Swan

Regular meetings of the planning group are taking place. A central awareness raising day was held, attended by Dame Julia Higgins as guest speaker. Some Schools held individual events, e.g. *BioSciences* dedicated its 2nd annual Stacey Symposium day to female academics. A need to consider Athena Swan issues was incorporated into the Annual Planning round with the requirement it featured in every School plan and was an explicit agenda item in each School Planning meeting. Two Schools (*BioSciences* and *MSOP*) will start this summer to plan their Silver Award committees. The

goal is for the University to gain Bronze status via an application in 2013 and for individual Schools to then immediately take the lead on Silver status applications.

Faculty level support

The re-organisation of offices in the Deanery to accommodate the establishment of the Faculties Support Office (FSO) was completed in September 2011. The new Faculty Administration Manager was appointed in the same month. The new structure has worked reasonably well and is operating much more smoothly now that new staff in the FSO have been in post for some time. However, the FSO continues to be under-staffed not least because of the number of additional activities which have fallen on them, e.g. their participation in the monitoring procedures for research students. This latter item has also impacted on Schools and it would seem appropriate for additional resource to be located at the Faculty or FSO level to assist with this additional workload. There is also a need for support to be provided to academic staff on the drafting of programme and module specifications which would require additional resource at a more senior level.

There is also a need for additional support for the Deans and Faculty Administration Managers. The three Faculties have agreed to joint fund a clerical post for a period of six months to gauge whether this is the appropriate level and amount of support required. The post will be funded 50% Social Sciences and 25% from the other two Faculties.

Five Schools within the Faculty have undertaken or are undertaking a review of their administrative support and/or processes. EDA and SMSAS have completed their reviews and implemented the outcomes including a more hierarchical structure and an increase in the administrative fte. The Schools of Biosciences and Physical Sciences have received EG approval for their restructure and are currently drafting revised job descriptions. The School of Computing is about to undertake a review of practices and processes to ensure maximum efficiency and ease pressure on particular staff. All reviews have been undertaken with the collaboration and support of HR.

The Special Interest Groups have continued to meet throughout the year and have been strongly supported by the administrative staff within Schools. There has also been some cross-Faculty contact between SIGs and it is anticipated that this will increase as the Groups become more established. The Faculty Administration Managers continue their monthly meetings with respective School Administration Managers but have introduced a joint meeting to which guests from professional services are invited to address the whole group on particular topics. This has been seen as a very welcome innovation by staff in professional services who no longer have to attend three separate meetings but also by the SAMs themselves as it has enabled networks to be established and more sharing of good practice.

The Faculty Administration Managers have a number of strategic projects which they work on collectively though with one or more taking the lead as appropriate. The business process mapping project stalled after the departure of the previous FAM for Sciences. This has now restarted and a governance structure has been drafted and a Project Management Team established. A Faculties Co-ordination Group is also being set up to co-ordinate and support process mapping across all three Faculties. SIGs are being encouraged to identify processes for mapping either collectively or within their respective Groups and two such projects have already been undertaken.

The Faculty Administration Managers have introduced a number of initiatives on learning and development including a peer mentoring and a pair of fresh eyes scheme and administrative staff are being encouraged to participate. Discussions have been held with HR on the provision of training for peer mentoring. A Service Excellence Conference for all administrative staff in the Faculties was held in January with follow-up sessions to take place in May and September where Schools will report back on projects they have undertaken to enhance their service provision. SPS and SMSAS are participating in a pilot project for a new appraisal scheme.

The Faculty Learning Technologist departed and was replaced. This has enabled a new start on several areas. The Faculty had already heavily adopted Moodle, and is planning more use of it. There is also an increased emphasis on support for personal development plans for students.

The Faculty Outreach Officer has continued her work with local schools, partner schools, the Brompton Academy and support for School specific activities in the faculty. The University has 15 partner schools and has taken on 25 of the ex-Aim Higher schools. We currently get a lot of requests from schools for careers workshops. We also get many requests for large scale events lasting a week so these have to be scaled back to suit the resource the University has available. There is a one day event on 17 April at which PhD students will deliver sessions on particular topics that involve maths as illustration that we need maths to cope with everyday life. We also work with primary schools. In general we try to establish a relationship with the staff and pupils in each school and not just attend to deliver short talks. But this would require a lot of academic staff time, so we also use a lot of PGRs to work on these relationships. As well as work at Faculty level, individual Schools have extensive outreach efforts. For example, SPS saw 6,000 young people in Autumn 2011 alone to help with GCSE physics. And EDA will have a stand at the Big Bang Fair at the NEC Birmingham from 15-17 March 2012. The fair is the UK's largest celebration of science, technology, engineering and maths for young people in the UK. Every year, tens of thousands of 4-17 year-olds take part. Efforts such as these will continue.

Review of last year's risk analysis

The major risks identified last year concerned space and Estates issues. Top of the list was space for SMSAS. This is an on-going issue, but there is now a University plan for a new academic building which includes space for SMSAS. However this will probably not be ready until 2015. In the short term there is discussion of a temporary structure located next to SMSAS.

The other estates issues were:

-The exterior of the Ingram building appears in poor order. **No progress**

-The interior of the Stacey building needs urgent attention. **A plan is in place for perception upgrades this summer.**

-Jennison entrance and foyer are dated, dark and forbidding – not at all student welcoming, this needs attention but has languished with **no progress**. In addition, a **plan is in place for some disability access upgrades this summer.**

In addition, two centrally timetabled teaching areas inside School buildings need urgent attention

-Jennison Lecture Theatre 1 is still very user unfriendly, in poor repair in parts (e.g. old seating) and needs a proper disability accessibility audit.

-BLT1 and BLT2 inside the Stacey building are in need of renewal, minor changes were made to improve a bit.

Some effort on teaching room space was made and TRIG asked all staff for input.

Other specific risks included:

- (i) *Fees*. There is a proposed *hefce* £1400 per student top-up for laboratory disciplines. This is only promised for the 2012 intake so far, but if confirmed for subsequent years as well would remove the serious issues of the new £9000 max fee representing an effective income cut for laboratory disciplines.
- (ii) *Research consolidation*. Schools have formed various alliances. The SEPNET alliance in Physics is on-going and a successor is being discussed for after 2013. SPS has also signed a MoU with UCL regarding materials research. BioSciences made a bid for a DTC with SEBNET, but was un-successful. Other groupings which may serve strategic needs are being considered by Schools on a case by case basis.
- (iii) *Senior Level recruitment*. MSOP and BioSciences filled Professorial posts, but SPS and Computing have on-going recruitment campaigns at the moment. SPS did use various

academic and professional networks (as well as advertising) to try to source its new HoS, but the post was not filled after interview and is still vacant.

- (iv) *Sustainability*: Schools are moving towards a significantly improved financial situation. They have also in most cases restructured admin support. Growth in faculty numbers is occurring, helping Schools reach critical mass. More concrete forward plans are being developed by Schools to aid them in achieving more sustainable futures in a shape they desire.
- (v) *Leadership*: HR have started a new leadership training programme for mid-level staff and 3 Science academics are attending this year.
- (vi) *Library periodical provision*: An intense effort has been made by the head of Information Services to revamp the management of this. The University has also contributed funds to this. This has been greatly appreciated by the Schools. Closer library liaison is anticipated and is being worked on by all concerned.

3. Five-ten year forward look:

Last year Schools started to look to their future. The goals for a successful School are roughly: A balance between UG teaching, PG provision and research. A budget surplus. 40+ faculty members to provide critical mass. A ratio of students : research active staff close to the 94 Group median. Over 80% of all faculty members at REF 3* or 4* level, climbing by the end of the period to 90%. Enough space to operate in. Well equipped facilities. Well maintained, friendly, carbon efficient buildings. Etc.

In order to achieve this we plan the following actions:

UG Teaching and Learning

Schools will focus on high quality, research led UG provision. Accordingly, Schools will work towards:

- a) student: faculty ratios of 20:1 or better. This requires Schools to sustainably increase faculty numbers without paying for it by UG growth.
- b) UCAS entry tariffs of 380+ at Canterbury and 350+ at Medway for 2012 entry, rising towards 400+ at Canterbury and 370+ at Medway in the longer term. For 2012 entry, this effectively means every student needs 1 higher grade at A level. And the same again in 2013. ***We propose that a central credit safety net is offered to any School who decides to raise its tariff offer level. In such cases if student numbers fall in the first year, the budget target is automatically restated (without penalty) to accommodate this and if it leads to a deficit there would be a 1 year RAM central credit available worth up to £200k which would help make good a short fall in income.***
- c) Increased entry at AAB+ A level tariff (or recognised equivalent). Effort needs to be made at all stages of recruitment from advertising through to admission to achieve this. Outreach to high performing Schools needs to be increased. Offer levels may need to increase. More applications are required. Any entry via clearing has to be strictly controlled (and raise the tariff score in a School). Foundation Year entry may have to be reduced or eliminated (BioSciences have suspended their FY programme for 2012-13 and MSOP closed its Foundation degree).
- d) Continue to meet or exceed the University OFFA letter target of 10.6% LPN1 entrants. More outreach to key partner Schools is needed. If Foundation Years are run down, effort needs to be made to ensure this does not weaken LPN1 participation.
- e) Laboratory based disciplines will provide well resourced facilities in modern settings. SPS rebuilt its teaching labs in 2011. SPS, BioSciences and EDA all spent over £100k on new teaching lab equipment in 2011. EDA has requested changes to its teaching lab space in 2012 to improve its provision.

Postgraduate

- a) PGs will provide 25%+ of the student body in faculty. In some disciplines this will be hard as nationwide some subjects do not follow this model. However, each School will aim to increase its PG provision.
- b) All Schools will run PGT programmes. There should be 20+ students on each distinct set of programmes (a programme may have several actual MSc awards based on minor variations in content or the nature of the dissertation).
- c) Schools will identify potential bottlenecks to growth and act to remove them. E.g. In 2012 EDA has requested extra teaching lab space for PGT.
- d) Schools will increase their PGR numbers.
 - 1) The University initiative on Scholarships is very welcome.
 - 2) Schools should estimate what a reasonable size PGR body is for their discipline. For example, 2 (or whatever) PhD students per research faculty member. This sets a baseline in their planning.
 - 3) Schools will also aim to join bids for DTCs as appropriate and seek other external providers. E.g. BioSciences (un-successfully) tried a SEBNET DTC in 2011.
 - 4) Schools will try to establish their own PGR scholarship funds at School level, within a balanced overall budget for the School. SPS aims to achieve this for 2012-13 within its predicted large surplus. BioSciences is discussing this and if the budget improves as planned intends to do so in 2013-14.

Research and Enterprise/Innovation

There are several, interlocking goals to support strong research.

The Faculty will:

- a) Increase the role of the Faculty Director of Research, Enterprise and Innovation. A new director was appointed in 2011-12. At present this post is only a 10% FTE position. This will be increased to 30%. The director will interact more strongly with Schools and the Research and Enterprise offices. **A budget change needs to be made to accommodate this.**
- b) Continue with its Research Support Fund in 2012-13. This was a centrally provided £25k pot of money in 2011-12. It acts as seed-corn for small activities to improve research to REF 3* or preferably 4* level. Whilst the REF is almost upon us, it acts as a very positive stimulant for research so we want to repeat this. **We request that this credit is continued in 2012-13.**
- c) Ensure that all academic appointments at faculty level are REF 3* or 4* level.
- d) Ensure new faculty members have appropriate probationary plans.

Schools will:

- a) (For the start of the 2012-13 academic year) Ensure a School Research Plan exists and ensure similar plans exist for each research group and each faculty member with research in their contract (who will be responsible for their own plan). These should be on file in the School. The School and research group plans should be supplied to, and discussed annually with, the Faculty Director of Research and Enterprise/Innovation. The individual academic plans should be discussed inside the School each year by a group including the School Director of Research, HoS, Head of Research group etc. The individual staff member should receive feedback on this and be able to discuss the outcome. The Dean and pVC Research should have access to all these plans on request. Some Schools already have such plans in detail.
- b) (For the start of the 2012-13 academic year) Ensure a School Enterprise and Innovation Plan exists. This should be on file in the School and should be supplied to, and discussed annually with, the Faculty Director of Research and Enterprise/Innovation. The Dean and Kent Innovation and Enterprise Office should have access to these plans on request.
- c) (For the start of the 2012-13 academic year) In addition to the well established Director of Research, have a clearly identified Director of Innovation and Enterprise whose workload is reflected in the WAM. This may be the same person as the Director of Research.

- d) (For the start of the 2012-13 academic year) Establish a target for research income for the School. This will be subject specific and should be based on a comparison to the School's aspirational peer group (or a mixture of subjects to reflect the composition of the School, but should be externally bench-marked against high quality, successful peers). Once the value per FTE academic is established by bench-marking, the School should multiply by the number of research active faculty members to obtain a target. This will be communicated to the Dean, Faculty Director for Research and pVC Research.
- e) (For the start of the 2012-13 academic year) Plan a strategy to enable academics to prepare well written grant bids in sufficient quantity such that, after discounting for typical success rates (e.g. 20% or what is appropriate for that discipline), they will deliver the desired income. Such a strategy might include: use of year long sabbaticals, use of shorter 1 semester sabbaticals, 1 month study breaks, reward in the WAM for submission of grants, reward in the RAM for award of grants, etc.
- f) (For the start of the 2012-13 academic year) Ensure staff have support mechanisms to encourage good grant preparation. For example, internal peer review inside the School. Some relief from teaching and marking just before grant deadlines, school level workshops. Etc.
- g) Plan ahead to ensure a balanced budget which explicitly supports investment in research facilities and infrastructure.
- h) Make proactive use of the WAM to support successful researchers.
- i) Support staff who wish to move to Teaching and Scholarship contracts.
- j) Assign PhD studentships strategically.

Internationalisation:

Each School will work on an internalisation strategy. They should prepare this in Autumn 2012 and present it to the Dean by the end of that semester. It should then be incorporated as an explicit item in next year's School Plans. During the academic year 2012-13 each School will have at least 1 specific internationalisation goal which they will aim to achieve in that year.

In addition, in 2012-13 we anticipate Sports Science joining our Faculty from Social Sciences. Currently a Centre, we hope this move will coincide with a change of status to being a School in their own right. There are already links with Computing research in the Medway and we look forward to forging stronger links between them and other Schools in the faculty. To help with the transition, the Dean of Sciences attended the Sports Science REF and annual planning meetings. The Deans of Science and Social Science have discussed the transfer and are making sure nothing falls through the cracks in the interim. The Dean of Science has visited the Sports Science facilities and the Head of Sports Science has been invited to the monthly HoS meeting in the Sciences and added to the Sciences HoS email list.

4. Strategic Investment

To assist the Faculty achieve its goals, there are areas that require investment on scales beyond current budgets, or which lay outside current School budget arrangements.

Before moving to individual Schools, we summarise the Faculty level requests:

- 1) The REF/research investment fund (which is allocated to each Faculty from a central budget) to be continued as planned. This is providing a good stimulus for research.
- 2) A £25k internationalisation pot to be allocated to the Faculty to try to kick start some generic overseas links and activities for staff and students.

Staff

Several Schools have asked for strategic investments in new staff.

BioSciences has asked for 3 new staff posts (lecturers) all REF standard. These are vital to help the School reach critical mass in the REF. Given the state of the budget for the School, we ask that the salaries are paid by central credit until 2015 when REF QR money should flow. Space can be found for offices and labs (see below).

Computing: 2 Senior Lecturer posts (1 Canterbury and 1 Medway) both REF standard. Office and Lab space can be found from existing space at Canterbury. The School has submitted a bid for space in Medway.

EDA has asked for 2 new REF standard lectureships. The space reconfiguration plans (see below) allow the School to accommodate these posts. Given the financial situation of the School a central credit is requested to support these posts until either 2015 (when REF QR money flows) or staff retirements occur (whichever is the earlier).

SPS has asked for 3 new Physics staff all REF standard. This will help grow the School in critical research areas and reduce the student:faculty ratio from 28:1 towards 25:1 or better. The areas would be Optics or Materials Physics (theory or applied in both cases). Space for offices and labs can be found (see below). Given the budget situation for 2012-2013 it should be possible to adjust the School budget targets to pay for this, provided *hefce* awards the £1400 student top-up in future years after 2012 entry cohort.

Equipment:

Schools are not yet in a sufficient financial health to afford all necessary investment in new equipment. There are priority items required from two Schools. These are:

BioSciences: £325k (no VAT as exempt)

The School needs £25k as part of matched funding for a piece of equipment included on a BBSRC grant awarded to Dr Xue. The money will result in an improved atomic force microscope (AFM). The School has identified other pieces of equipment that would significantly assist its research aims, including a new MALDI mass spectrometer (£200k) and a robotics system for yeast genetics (£100k). Both pieces have been included in previous research grant applications.

EDA: £162,800 (incl. VAT)

The capacity expansion of UG and PGT within EDA will not only require space but also the replacement / addition of a significant number of computer systems and associated infrastructure. A list of key IT equipment to complete the expansion is indicated below:

- i. Refit engineering lab with circa 60 (depending on final design) experiment connected PC's: 60x £680 = £40,800
- ii. Increase in UG/PGT computer lab provision in combined G3+G6: 50x £680 = £34,000
- iii. Build of new 70 seat high-end PGT digital media master lab: 70x £1,000 = £70,000
- iv. Adjustments to gigabit network infrastructure as a result of major changes and capacity increase: £18,000

This results in a requirement of £162,800 to fully exploit these areas with teaching more students.

SPS £158k + £60k + £204k + £150k = £572k (incl. VAT)

1) Optics: Total: £158k incl. VAT

Fusion splicer for polarization maintaining fibre, including a High Precision Fibre Cleaver (Vytran).

This will allow splicing of polarised fibres which is a technique not currently available in Optics.

Approx. £90k incl. VAT. **Optical spectrum analyser** (Anritsu, Agilent) to allow Applied Optics to

replace aging and limited bandwidth equipment and remain competitive. £50k (incl. VAT). **Digital**

(PC based) oscilloscope (Applied Optics has 2 but the size of the group needs more, they are in daily use and represent a bottle-neck). £18k (incl. VAT).

2) Materials: £60k (incl. VAT)

Synthetic laboratories infrastructure investment: Inc. Ball milling machine (1), Hotplate stirrers (6), Vacuum oven (1), Vacuum oil pumps (2), Rotary evaporator (1). Furnace (1), closed cycle cryostat (1), negating the need for liquid helium making this a cheaper option in the long term and variable environment sample measuring set ups (2) to update the current impedance spectroscopy instrument. This will give the school increased analysis capabilities and will be used by 6 faculty members of the Functional Materials Group (FMG) and be available to other groups.

3) Materials: £204k + incl. VAT

X-ray diffractometer (XRD). XRD is a fundamental characterisation tool in functional materials, one which is heavily used by the FMG group. This system offers the three most common powder diffractometer configurations in one setup: Transmission / Debye Scherrer, Micro-Focus and Bragg-Brentano geometry. The data obtained from this XRD would be of high, publishable quality and would be used by many members of FMG for sample identification and analysis. This system is also capable of variable temperature studies, which will complement our existing state-of-the-art Raman equipment.

4) Optics: £150k incl. VAT

OPA (optical parametric amplifier) **laser for CARS** (coherent anti Stokes Raman scattering). No current work on CARS takes place in AOG, however there are synergies between OCT and CARS microscopy. AOG is well placed to launch research in this direction, which can deliver novel insights into the properties of materials and tissue using nonlinear optics interactions. This is essential for being competitive among other groups performing high resolution measurements of materials and OCT in the world. This will make us more attractive to the local NHS in evaluating function of organs. OCT provides structure information, while CARS can provide function information, being sensitive to crystal structure symmetries, so able to characterize different molecular species. Assembling CARS for multiple imaging channels will allow progress in cell imaging and biofilm characterization, a line promoted jointly with staff in Biosciences.

Infrastructure (Estates):

There are major issues arising from aging buildings. We can only repeat what we said last year. These projects are vital. We are reaching a critical moment.

- (1) The Ingram building (housing mostly SPS and some BioSciences) is badly in need of exterior refurbishment. Its fabric is peeling off in some places; windows are increasingly warped in their frames and have to be sealed. It is the least energy efficient of all major buildings on campus and has the lowest possible rating in the national energy efficiency scheme whose results are displayed in the foyer of every building on campus. And as well as this, it is an increasing eye-sore for visitors, UG applicants etc., so is negatively impacting the campus as a whole. **This is a very urgent priority.**

- (2) The interiors of Stacey building and the Stacey/Ingram link building. The interiors have not been extensively refurbished for many years. The state of the building is increasingly generating adverse comment from visitors, UCAS applicants and their parents etc. The perceptions upgrades should address some of this, we need to see after it is complete how much more remains.

In addition, when these extremely urgent tasks are completed we have two more priority tasks due to aging buildings, a plan needs to be drawn up now which includes these items rather than wait for a crisis:

(3) The Stacey building needs double glazing.

(4) Jennison needs double glazing.

As well as these capital projects, in order to continue with our core business of teaching and research there are a host of alterations required in summer 2012 to continue operations. These are

vital. A long list of all the bids from all faculties has been sent to Estates and this needs to be prioritised and agreed by EG as rapidly as possible to enable Estates to complete work this summer. For the Sciences, School by School we summarise:

- 1) BioSciences. The liberation of space after the rationalisation last year is not yet complete. Surveys have shown asbestos in some rooms. They are safe but further surveys have to be undertaken before any work can be done in those rooms which may disturb the dust. This has held up some of the work. Assuming it is completed shortly the School will have significantly altered its space use. In order to accommodate the proposed 3 new staff posts, a plan has been drawn up and sent to Estates. It identifies rooms for offices and labs. Some refurbishment is needed but has been requested.
- 2) Computing. Its needs have been communicated to Estates.
- 3) EDA. **This is a serious issue. In order to allow EDA to maximise its performance a whole package of minor to mid range works need to go ahead this summer.** We can't unpick the package, it is needed. The Jennison building is poorly configured to allow growth. The School needs to significantly extend some labs (research and teaching), move some staff, expand into more space in the Jennison extension middle floor, and extend out the front of the building at ground floor level to provide space. All of this is needed to allow the planned increase in space to occur. Without it the School cannot accommodate the already approved new academic staff, nor can it recruit more PGT students, nor can it handle the planned influx of UG from China on a programme already signed. A discussion of the requirements is in Appendix 2. It also requires some SPS Optics staff to move from the middle floor of the Jennison extension. This "cork" has to be removed to allow much to happen. Part of the solution is a temporary structure next to the Jennison extension to provide offices for the Optics PDRA's and PGR students whose labs will remain in Jennison ground floor. This is vital as there is now no-where else to house them and they should be near their labs (albeit no longer in the same building). So this is a package and has to be considered as such. Without any element it all falls apart and the School cannot move forward. In the mid-term, space would have to be found in the R&D building after KBS move into a new building. Or another permanent building built next to Jennison. In addition, this bid needs £90k for Optics equipment and 2 months PDRA salary, both for the Optics Group in SPS to make the move work.
- 4) EDA: Toilets – This is a special plea. Every Safety Committee, Staff meeting etc in the School now complains about these. The HoS gets regular complaints about these. They desperately need refurbishment; please do not forget them and think offices are more important. Once the basic infrastructure in a building reaches the limit it is a potential single point failure. Please get them done this year.
- 5) MSOP: Strictly speaking this is not our Estates issue. But the School has suffered from leaks from plant in its roof areas. Greenwich repairs when it happens, but does not remedy a known deficiency in advance, instead it waits for an incident. The Faculty supports that a proper remedy is found for this known problem, before it causes an expensive flooding incident which damages equipment or research facilities.
- 6) SMSAS. While a new build is awaited, it is proposed that a temporary structure is erected in the SMSAS car park. Estates are aware of this. **This is a really acute issue and is vital.**
- 7) SPS. The situation of the Optics group has been discussed above. There are also plans to house new Chemistry staff (already approved by EG) and their labs in space vacated by BioSciences. SPS has requested 3 new Physics posts be approved, and their offices and labs would also be in space vacated by BioSciences. Estates have been informed of the relevant offices and labs. There is no conflict between the two Schools over this usage and there is just sufficient space to accommodate them provided academics share offices and labs.

Summary

The Faculty has made significant progress this year. The improved UCAS entry tariff was a very good sign. New academic staff have arrived and more will do so, improving our research profile. However, research income is clearly too low and will need a major initiative to improve. There are also growing issues surrounding the buildings we inhabit. It is clear SMSAS has passed crisis point and is now unable to develop properly. EDA needs substantial work over the summer to allow the School to maintain its development, or it too will reach grid-lock and stop progressing. SPS and BioSciences are in buildings (particularly Ingram) which have critical external problems (double glazing and cladding). Stacey and Jennison buildings will soon come into a similar age related issue. **Looking just 1 year ahead shows no more room for growth in any of the Schools due to Estates issues.** Indeed, as stated some have reached that point already (SMSAS, EDA) and all the others are about to join them (BioSciences, Computing, MSOP and SPS) this summer. From 2013 onwards increasingly imaginative solutions will be required to permit more growth. Then in 2015 SMSAS will get a new build, but Computing will wish to expand into some vacated space in Cornwallis and EDA will wish to expand into the Research and Enterprise building. That leaves no solution at all for BioSciences, MSOP or SPS. It is clear all will want to expand immediately after the REF result, so we need to start considering options now. In addition, we need to plan for the Centre for Molecular Processing and its building needs.

Recommendation: We need a plan with a timeline to be agreed now on the issues such as cladding Ingram, double glazing and Jennison toilets. Otherwise annual prioritisation exercises will rule these out as too expensive and not as vital as individual office conversions. And yet except for new build (like SMSAS+KBS build) it is not big enough to get onto the major works list. And each year the fabric decays a bit more. This planning blight needs to end.

In addition, we ask that EG helps Estates with extra money if necessary to fulfil the essential works requested for this summer to allow normal business of teaching etc to continue next academic year.

As well as our own needs we have identified some activities elsewhere we would like to comment on. The 100 PhD Scholarship programme is excellent news. We would like to see this continued every year. We propose that a decision on this is made at the start of each academic year, so that all arrangements can be made in the Autumn for a roll out in January each year of the call for applicants.

We also welcome the support of the research office for our research work. We would welcome some extra resource there which allows them to keep more material on shareware such as banks of good grant applications etc. This is up to them of course, but we do recognise the value of investment in that area.

Setting targets and prescriptive actions is a new part of the plan. It is novel and has arisen in this form recently. The Dean will discuss the implications further with HoS who will in turn liaise with their staff. We will probably have a HoS away day (or ½ day) to discuss how this will evolve further. At the moment we are still at the supportive stage of setting targets, but there will be a need to discuss openly and widely what happens when targets fail to be met – this is a very significant part of target setting but has not yet been addressed. In some areas we need to make sure we focus resources onto the targeted tasks (e.g. goal of increasing research grant income) - clearer planning and investment will help us to do that.

In conclusion, part of the forward look strategy is already emerging. In Appendix III each School has provided a 5 year timeline to cover their immediate future. The approaches differ, but the key point of looking ahead and having goals and milestone is established. With a clearer direction emerging, we can now focus our efforts more coherently in that direction.

Appendix I: 2012 application data as of end Feb 2012
Data supplied by P BIO

Faculty of Sciences - Adjusted Headcount method			FT UG Home applications (as at end of Feb)			FT UG Home total applications per place (as at end of Feb)		FG UG Home target 2012		FT UG Home AAB+ registered	
			2011	2012	% +/-	2011	2012	Total	Below -AAB	2010	2011
UKC	15	Computing	537	566	6%	5	5	111	97	16	14
	16	EDA	384	393	2%	-	3	126	121	5	8
	17	SMSAS	823	1,007	22%	7	6	159	140	25	18
	25	Biosciences	1,021	1,064	4%	8	8	131	117	14	22
	26	SPS	1,123	981	-13%	5	5	217	201	15	25
UKC Total			3,888	4,011	3%	7	5	744	676	75	87
UK M	15	Computing	144	111	-23%	2	2	60	55	5	2
	24	Pharmacy	467	353	-25%	4	4	80	79	4	21
UKM Total			611	463	-24%	4	3	140	134	9	23
UKC +	15	Computing	680	677	-1%	4	4	171	152	21	16
UK M	16	EDA	384	393	2%	-	3	126	121	5	8
	17	SMSAS	823	1,007	22%	7	6	159	140	25	18
	24	Pharmacy	467	353	-25%	4	4	80	79	4	21
	25	Biosciences	1,021	1,064	4%	8	8	131	117	14	22
	26	SPS	1,123	981	-13%	5	5	217	201	15	25
Faculty of Sciences Total			4,498	4,474	-1%	6	5	884	810	84	110

Appendix 2: EDA Space Plan

The time for minor re-jigs of space use in Jennison are now past. Only a major realignment of space use including some major work will allow progress in the School to be maintained. As part of this the SPS (Optics) use of the mid-floor of the Jennison extension needs to cease, although the ground floor use will continue. The whole package is needed to complete the exercise otherwise the chain falls apart.

EDA have sent plans to Estates, but these have evolved slightly. We summarise here:

Space is required to accommodate two new posts (Professor and Lecturer, investment bids agreed by EG in December 2011) plus expansion in PGT (needed for budget target) and UG (exchange programme with China plus existing home numbers who are in cramped space) for the next two years.

1 - PGT computer animation lab to be moved out of the Jennison building to the middle floor of the Jennison extension. Computing rooms to be moved into a combination of the vacated space and JCS3 and the UG engineering lab to be extended into the current JCS2.

2 - Adrian Podoleanu (SPS) and his team to be moved out of the middle floor of the Jennison extension. Their Prep room to go into G14 in the clear air suite in the Jennison building. There is already 1 fume cupboard in G16 and one more fume cupboard from the extension should be transferred to G16 as well. In the small lab next to the prep room in the Jennison middle floor is a small optics lab (with 3 optics tables). This lab needs to be moved to G16. To allow this to work, a PDRA needs to be paid for two months to dismount equipment on optics tables and then reassemble at the far end. In addition, as work is now spread over 2 distinct sites some equipment previously moved from room to room needs to be at both sites (fibre splicer £35k, spectrum analyser 50k, Standford research generator 5k, IR viewer 2k,). This needs an injection of £92k to purchase this.

3 - Adrian Podoleanu's PGRs and postdocs need to be moved from their offices in the Jennison extension middle floor. They need to be housed near their lab and there is no space in nearby buildings. There is a clear ground space next to the Jennison extension which previously housed a portable structure. So a temporary building would be placed here (90 – 100 m²) to house the equivalent of a the office and meeting room space being given up in the Jennison extension middle floor. To allow for coats as the PGR and PDRAs come from their new offices, a metal cupboard needs to be provided in the ground floor for coats etc. Also there is a need for better mats at the ground floor entrance to help keep dust down from shoes etc. In addition, back in the Jennison extension, the Ground floor needs to be closed off to EDA PGT students so they don't try to access facilities (e.g. toilets) and bring dust etc. into proximity of the lab space. SPS staff and students should have access via this stairwell however so they can move to the main Jennison building carrying samples from the moved Prep Room back to their main labs.

4 - The top floor of the Jennison extension to remain as is.

5 - The overhang of the front of the Jennison building to be built in. J Seminar Room 1 to be transferred to EDA and administrative staff to be moved from the first floor to JSR1 and the extension on the ground floor. This would also require amendments to the foyer area. The new

chair and lecturer to be allocated offices in the vacated administrative offices on the first floor which would require modification and modernisation.

- 6 - IT room and post room to be relocated to ground floor store room area which has skylights. (Some internal space adjustments required). Experiments in the store room to be transferred to the AV room which is completely internal. AV room to be “lost” and function to be incorporated into new computer rooms.
- 7 IT room and post room on the first floor to become the lab space for the new appointments.

The above would accommodate the School’s space needs for two years. A longer term solution will then be required – possibly use of the R&D building.

As well as the space issues, note that the above plan includes extra capital for:

£92k for equipment for Optics use
PDRA salary for 2 months (approx £6k)

Appendix III: 5 year Plans

Bioscience

5 year plan – timeline and milestones.

2012:

Oct- start of two new MSc courses

Dec – All staff appointed to allow submission of 20 FTEs for REF2014

2013

Mar – Kent enters first Igem team from second year vacation project students

Sep – All UG years running revamped modules reflecting greater research interface

Oct- REF submission – with add-ons, total submit = 25

Dec – Review of Biosciences and possible reorganisation

2014

Mar – Obtain funding for new CMP build

July – NSS scores in top decile for all codes

Dec – REF result placing Biosciences in top third of unit A5

2015

Plans for Biosciences to get into top 20% in REF2020 drawn up

Biosciences part of new BBSRC GTP

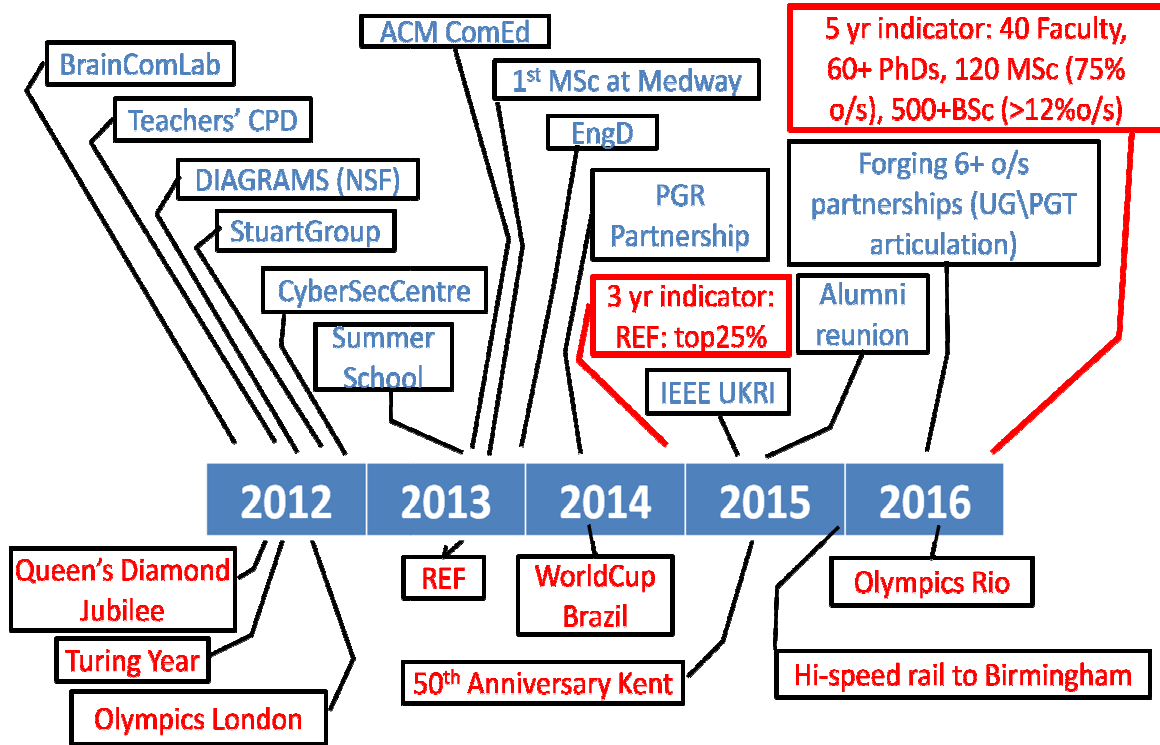
2016

New CMP build complete

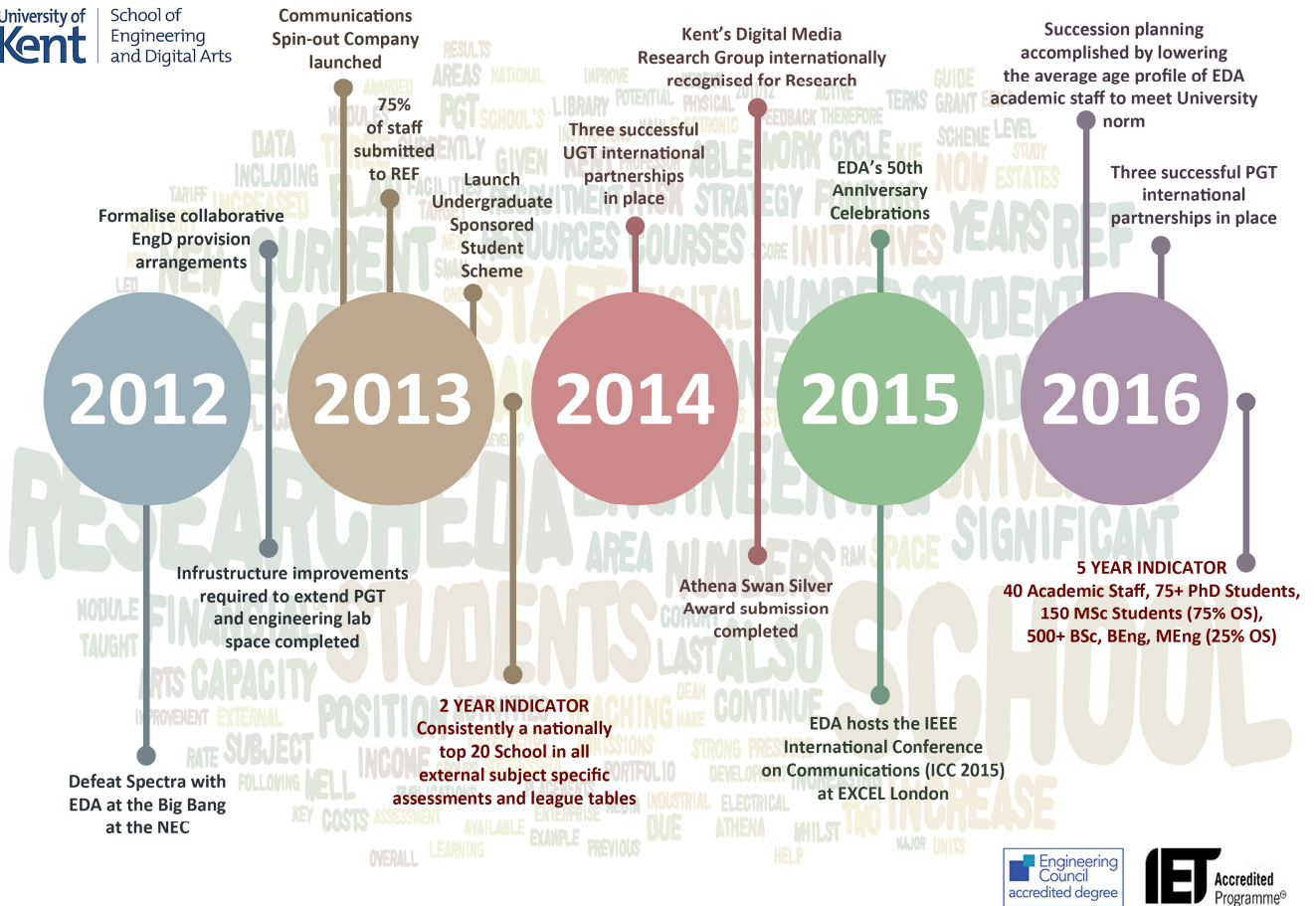
Third of academic staff now women – including several professors.

School of Computing's Vision

A School has to be excellent in teaching to produce new kinds of scientists/ engineers and excellent in research to conduct new generation computing.



EDA



Medway School of Pharmacy “DRAFT” Plan 2011-2016

KPI – (INDICATOR)	2011	2016
Student Entry Tariff - Average	340	380
% Good Honours degree	48	65
% Retention – All	90	95
% Retention – 1 st year	84	92
% Employability (DLHE)	100	96
NSS Score (Q22)	90	92
% Academic Staff with a doctorate	75	85
% Academic Staff returnable to REF	50	70
Research & Enterprise Income	£600k	£1.8M
Number of PGRs	33	50+
3 year rolling surplus as % of Income	7%	3%

2012 – Significant decrease in 1st Year Attrition Rate; Launch new MSc “Applied Drug Discovery”

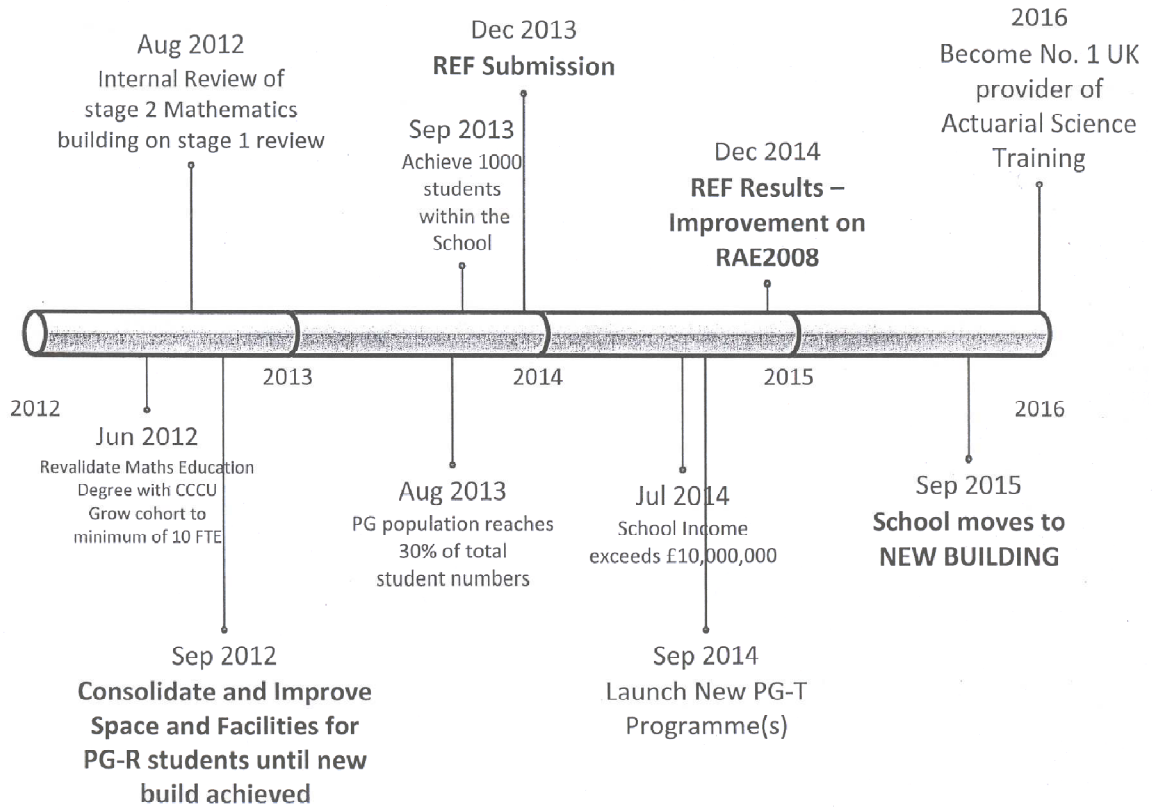
2013 – Significant increase in % Good Honours degrees; Successful Reaccreditation of MPharm degree from GPhC

2014 – Finalised working structure for School; >50% of Staff Returned to REF; MSOP 10th Anniversary Event; Athena Swan Silver Award;

2015 – Recognised as a Top 15 School of Pharmacy (League Tables)

2016 – 5yr Size Indicator: 40 Faculty, 650 UG’s, 150 PG’s, 50+PhDs.

School of Mathematics Statistics and Actuarial Science's Vision



SPS 5 Year Aspiration Look

Faculty: 25	29	32	32	35
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PGT: 4	10	15	20	20
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2011	2012	2013	2014	2015
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Research Grant Applications Value	£5m	£6m	£6m	£7m
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External SEPNET Materials+Astrophysics	UCL	SEPNET II Physics	Overseas partner(s) with joint grants written
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