ABSTRACT
The delivery of Business Project module to Applied Engineering & Management students across different programmes is carried over two terms in two years. During this time students are exposed to a variety of subjects and topics covering all aspects of business from basic theoretical principles to real life application including Economics, Entrepreneurship, Product Development, Innovation, Law, Social & Corporate Responsibility, Marketing, Finance, Accounting, etc. The delivery of such a multi-content module by a single person would mean: (i) a stale delivery by-the-book and/or (ii) that the students do not get the best experience in all offered topics. Considering the above and following reflection into enhancing and flavouring students’ experience it was decided to utilise ‘PRO’ approach in delivering Business Project module, which meant that each week the lecture on a specific topic was delivered by a specialist in the field. Additionally, students were expected to obtain ‘HANDS-ON’ experience and become exposed to Group Business Project (GBP), where second year students formed a company and employed first year students, to work collaboratively for a real client and the business project they offered to students. The client would effectively be an external company or organisation, which in many cases was an SME based in Kent or London, and keen to collaborate with local students who potentially can become their interns and employees. Students have found these changes ‘beneficial and encouraging’, lectures ‘much more interesting’ and agreed that GBP is providing them with ‘confident of securing graduate employment in their area of interest’.

Keywords
Module delivery, real-life learning, interaction with industry, group business project.

1. INTRODUCTION
Business Project is defined as a collaborative effort at an enterprise, involving research or design, which is carefully planned to achieve a particular aim at a set cost or budget, on time and meeting other possible limitations [1, 2].

What does it take to deliver the knowledge of what a business project is and how business is administrated? A textbook, a lecturer and some tutorial hours? What does it take to achieve effective understanding and confidence of all the above with the students? Professional evaluation of knowledge, review of top-spec case studies, personal experience in the field of Business Project & Management and many practical hours before the baseline process can be mastered.

Business Project 1 and 2 (BP1 & BP2) is a module compulsory for nine programmes (BA H (E) Bus Admin, BA H Bus Admin Acc & Fin, BA H Bus Admin Mktg, BA H Business Admin, BA H Project Mgt, BSc H Info Tech For Bus, BSc H Information & Comm Tech, FDA Bus Admin, Acc & Fin, FDA Business Admin) at levels 4 and 5 respectively, in the Applied Engineering & Management Department (AEM), Faculty of Engineering & Science (FES), University of Greenwich at Medway (UGM). The following programmes are aimed at students who are willing to pursue a career in engineering or other sector in SME, taking the roles of low to mid-level managers or becoming entrepreneurs.

The importance and support of SME’s in economy of the UK was once again reassessed and evaluated after the recession or ‘credit crunch’ in 2008 [3-5]. ‘SME’s represent over 99% of all private sector businesses, accounting for 59.3% of private sector employment and 48.1% of private sector turnover at the start of 2013. As well as making a disproportionate contribution to job creation they play a key role in growth by driving competition and stimulating innovation’ [3]. The latest data shows a total of 587,500 employee jobs or 2.3% of those available nationally were located in Kent in 2014 [6]. ‘Around 75% of jobs in Kent and Medway as a whole are with SME’s employing less than 200 people’ [7]. Generally in Kent in 2015 there was an increase of 22.5% of new businesses being opened compared to a national average of 28.6% [8]. These services in Kent are responsible for the majority of growth in employees: Administrative and support service activities including IT and online training and professional service outsourcing +25.5%, Accommodation and Food Services +19.3% [8]. Apart from the above, overall, relative to the UK as a whole, Kent has significantly higher proportion of employees in: Primary Industries (Agriculture/Mining/Utilities), Wholesale and Retail Trade, Construction, Transportation and Storage and Education [8].

The above statistics where considered when tailoring the module and Group Business Project to the latest trends and needs of our students taking Business Project.
2. MODULE DELIVERY
Overall, there are 65 students in level 4 taking BP1 module (this number usually varies in the range of 65-100, from year to year) and 50 students in year 5 taking BP2 module (this number usually varies in the range of 45-65, from year to year).

2.1 Lectures
BP1 & BP2 are both 30 credit modules where the lectures are delivered over two terms for 1 hour per week. In BP1 the concepts of business structures, organisations, business models, planning, economics, accounting and finance, product features, innovation, marketing and entrepreneurship are introduced and explained. The content of BP2 builds further on what is delivered in BP1 and expands in the areas of business strategy & analysis, law, corporate social responsibility, environmental issues as well as product design & development.

To offer the best possible experience on these subjects, each of the topics listed above is delivered using the ‘PRO’ approach, i.e. by the specialist in that particular subject area. The specialist is either a person with a relevant post-graduate qualification in the field and/or an active practitioner who holds or previously held a post in the relevant subject area. Considering the above, the team of AEM academics was strengthened by the selection of Visiting Lecturers from industry, making a total of 9 lecturers delivering the BP1 and BP2 modules (BP Team Members).

At every lecture students are exposed to the new experience of teaching style and receive the front end knowledge from the ‘PRO’. Specialists build the lecture around the applicable theory, real life examples and scenarios enhancing the understanding and providing the complete picture of the topic. In many cases a personal story helps the students to remember the topic and assess the credibility of actions in similar scenarios.

2.2 Tutorials
Every lecture is followed by a tutorial, where the class is divided into 2-4 groups of no more than 24 students each. The delivery of the tutorial is shared between the BP Team Members. The tutorials follow informal study process, where: (i) In term 1 students are building on the lecture material by reading and reflecting on case studies, followed by Q&A and group discussions. (ii) In term 2, tutorials are used to ‘invent & present’ rather than ‘reflect & discuss’. Students are invited to create their own products, marketing campaigns, content for social-media presence, define business models, startup businesses and predict the possible risks as well as project financial benefits. This involves direct application of learned theory, personal experience, and knowledge in the wider context. As a result of these hands on tutorials, students create a canvas illustrating their ideas and are allowed 2 minutes to present and defend it in front of their peers.

2.3 Assessment
Following the lectures and tutorials: (i) In term 1, students are required to carry out three online based quiz tests, spread across the term. Each test is compiled from 15 multiple choice or free from questions, all based on the specific lecture material that was presented. Each test weights 10% of the total mark for the Business Project module. (ii) In term 2, the 70% of the mark for the module is awarded through Group Business Project (GBP).

2.4 Students Feedback
The decision to review the way in which the module was run was taken after the module review, Course Satisfaction Survey 2013-2014 [9, 10], which revealed that the students were generally ‘not happy’ or ‘displeased’ with the way by which the module was organised.

The new form of teaching on this module, as described in this paper, was adopted for the first time in 2014-2015 academic year. The students who experienced the change, i.e. level 4 in 2013-2014 progressing to level 5 in 2014-2015, have suggested through the subsequent module review [11, 12], that:

- ‘This year I enjoyed the lectures, tutorials & weekly tests’.
- ‘Module is well organised with good case studies & tests’.
- ‘Tests helped to learn and remember the work’.
- ‘Being taught by experts in a particular field was a good idea’.
- ‘I'd like to say how much more enjoyable business project was this year compared to last year’.

In general, the overall satisfaction of the students for this module rose from 2.2 to 3.5 point out of 5, with 11% of students participating in this review [11, 12] and further 42 students (65%) left positive comments via GBP survey [13].

Further to this, in 2015-2016, the satisfaction for the module rose from 3.5 to 4.2 point out of 5, with 28% of students participating in this review [15, 16]. Apart from addressing the multiple-choice questions, students have also provided the following comments:

- ‘The element of challenge and competition makes the tutorials much more interesting to attend.’
- ‘The module has helped with identifying future career opportunities and ways to achieve future goals and will help in future real life exposure to work.’
- ‘The fact that each lecture has been taken by a different lecturer each week is a positive and unique. This innovation makes the module a great deal more interesting which encourages us to attend lectures each week.’

3. GROUP BUSINESS PROJECT
GBP is a consultancy-like project, where groups of 5-9 students of diverse backgrounds and programmes of study (group number varies from year to year) are requested to deal with a real business challenge presented by UK based SME’s over a 12 week period in term 2. Student groups (called ‘companies’) are working independently on the project and are co-tutored by an academic member of staff (called ‘consultants’) and a relevant corporate representative (called ‘client’).

During GBP the students are expected to take full control and responsibility for the project including initiating the communication with the consultant and the client, share the workload between all company members fairly and equitably and strive for excellence. The GBP offers the practical experience of the steps necessary in forming a company, getting a job, working for that company as part of the team, delivering the result to the client on time and within set budget as well as getting recognition, awards and promotion. The GBP activity aims to simulate the real business world environment and provides the taste of it, therefore students are offered the opportunity to gain insight into business structure and dynamics, apply theory into practice, become confident in research methods, obtain analytical & problem-
solving skills, experience project management as well as redefine their future career goals.

To help and guide students through the process, the ‘Book of Rules’ is made available at the start of the GBP via online file-share university system (Moodle) and also provided in hard copy. The schematics of GBP is shown in Figure 1.

As a result of GBP, top companies, based on performance, are awarded certificates of excellence with the GBP Cup being the top prize.

![Figure 1. Group Business Project Schematics.](image)

### 3.1 Clients

Based on the average national statistics of SME’s are set to take the leading role in business and the economy as a whole. Local to Medway, Kent and Greater London area based SME’s were targeted and invited to participate in the Group Business Project as part of Business Project 1 and Business Project 2 modules.

The SME’s were approached by the Module Leader in a conventional way, using postal, e-mail & telephone means of communication and working through the contact list developed through attending the local businesses networking events and professional exhibitions.

In communicating with the prospective clients it is emphasised, that the GBP, follows the win-win strategy, where both the students and the client get the best out of the process, free consultancy for the first and real experience for the second.

In 2014-2015 the following businesses were selected to participate in the GBP: Legend Removals, Medway Council, Orbital Training, Konetic and Construction Support.

In 2015-2016 a newly developed post for FES, Employer Partnership Manager, has contributed to the provision of industrial links and clients: Woogard, Wood Interior Solutions, Innovation Centre, Fort Amherst, Loughborough University.

### 3.2 Stage 1

In preparation stage BP2 students (Senior’s) are forming a company and employ BP1 students (Junior’s) to work within their team. Before Senior’s are able to employ Junior’s during the Employment Day (see Section 2.3), they require to complete a number of activities (see Figure 1).

Grouping is performed amongst Senior’s where the roles of Chief Executive Officer, Chief Finance Officer, Chief Communications Officer and Chief Operating Officer are distributed based on team members personal strengths.

Clients and project scopes are released online, for Senior’s and Junior’s to review and decide on the preferred projects during the Selection process.

Senior’s are further required to attend an outsourced Pitch Workshop and prepare a Project Pitch presentation to secure their top-choice project. The companies are assessed on their presentation skills, appearance, performance, demonstration of subject skills and professionalism.

Once the projects have been allocated to Senior companies, they are requested to produce job vacancies for the Juniors to apply for, a process which commences after Senior’s attend the outsourced HR Workshop.

Further to Senior’s releasing job vacancies, Junior’s are required to attend CV, Self-Pitch and Mock-Interview Workshops before they are allowed to attend the Employment Day.

### 3.3 Employment Day

During the Employment Day Senior companies are required to hire Junior’s to fill in all of their job vacancies. The event takes place in a single auditory which resembles a professional employment fair.

The day starts with a welcome talk, Junior’s are encouraged to approach employers for 5-10 min interview with at least 6 top employers of their choice. This activity takes place for 2 hours. At the end of it, Senior’s will have to provide a list of their top candidates and the awarded mark from 0-100% for each candidate based on 10 different employment criteria demonstrated by the Junior during the interview. Further, Junior will be provided with their personal performance chart and if they have been offered a job/jobs, they can return to the company of their choice and sign the GBP employment contact.

At the end of the Employment Day all of the Junior’s will be allocated a job with Senior companies.

### 3.4 Team Building Day

The Team Building day follows the Employment Day, where a ‘surprise event’ is organised that sets the day as full of fun, excitement and competition. The aim of the Team Building event is to facilitate the building of special bonds and trust between the new team members which is important in order to achieve success in a joint project. For example in 2015 the companies were asked to build paper rollercoasters based on a set of rules, and in 2016 the companies were offered the opportunity to develop businesses with a start-up capital of £30.
3.5 Stage 2
During the Stage 2 of the GBP, Senior companies are required to undertake group work in order to meet set project objectives. This is the time when students meet their consultants and clients, and take full control of the further progress of their work and are required to produce weekly minutes of progress meetings financial reports etc.

The role of all of the Senior’s is to take the leading elements in carrying out the project, make strategic decisions and distribute the tasks fairly among all of the Junior’s. This is the time of enhanced ‘learning curve’ where students build on their theoretical skills in a real life environment.

As a deliverable of Stage 2 students are expected to perform the group presentation (open to fellow students, staff and public) as well as produce a group report that is shared with the client.

3.6 Assessment
The mark for the GBP, which accounts for 70% of final grade for Business Project, is linked directly to student engagement in the activities and to specific performance. The grade is compiled from Personal Performance in Stage 1 (15%) and Group Work vs. Peer Review grading in Stage 2 (55%).

Personal Performance accounts for individual attendance and engagement in activities as part of Stage 1. Group Work (GW) accounts directly for the delivery of results, aims & objectives of the project, in Stage 2, compiled from the Presentation (20%) and the Report (35%). These are also adjusted based on individual Peer Review (PR) in Stage 2, collated from five activities: attending Company meeting (20%), attending Consultant meetings (20%), presentation input (20%), report input (20%) and inter-personal skills (20%).

The Peer Review system is judged as ‘fair’ [15] by the students and flags those individuals who attempted to take the credit for the group work without effectively contributing themselves.

3.7 Students Feedback
Following GBP 2016, the above feedback was extracted from the optional GBP survey section [13]:

- ‘This provided me with an opportunity to see how SME work’.
- ‘My project was exciting and I have enjoyed social surveys’.
- ‘GBP was tough, but I have leaned many things from it’.
- ‘More focus and resources should be directed at the GBP, especially in involving more major companies to work with.’
- ‘I am not enjoying the group project work due to being in a group run by a CEO who is a bully and a control freak.’
- ‘The presentation were scary, especially in front of everyone’.
- ‘The peer review was fair and motivated all to contribute’.
- ‘GBP was beneficial to me in identifying further career’.
- ‘I was pleased to have a chance to master CFO duties’.

The feedback suggest that students overall found the GBP beneficial when the offered project was of interest and the student company management was adequate. It should be also noted that there were much more disputes between the team members in GBP 2015 than in GBP 2016, as the Junior’s from 2015 became Senior’s in 2016 and had encountered the mistakes of their inexperienced predecessors.

4. CONCLUSIONS
To recreate a ‘5 star’ Business Project experience for the students, the whole module was treated as a system with a number of key input components and measures of outputs that are considered beneficial to our specific group of students. Between inputs and outputs the ‘black box’ processes of designing the ‘hands-on’ and ‘PRO’ module delivery took place. As such, the Business Project module was separated into two distinct parts: lectures and tutorials delivered by the subject experts in term 1 & 2, and the Group Business Project taking place in term 2.

Following the changes, it is interesting to review comments made by the students which highlight the positive aspects of the module, suggesting that [13-15]:

- ‘Selection of different lecturers makes module very interesting’.
- ‘Module(s) is well organized and balanced making it explicit’.
- ‘Interactive tutorials are very interesting’.

Also, students have commented that the GBP provided them with a great opportunity to ‘live’ Business Project through experience, helping them to enhance their CV and interview confidence, identify and benefit from employment opportunities with client’s and make decisions on their future careers path.

Furthermore, GBP helps to reinforce the partnership between UGM and local SME’s in jointly guiding students’ learning processes though Business Project.

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6. REFERENCES


