



EFMD Quality Improvement System

Solvay Brussels School of Economics and Management,
ULB - Université Libre de Bruxelles

PEER REVIEW REPORT

Presentation to the **EQUIS Accreditation Board** on 15 June 2016

**Solvay Brussels School of Economics and Management,
ULB - Université Libre de Bruxelles
Peer Review Visit
15-17 March 2016**

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1. Introduction

1.1 Composition of the Peer Review Team (PRT)

An EQUIS Peer Review Visit was conducted on **15-17 March 2016** at Solvay Brussels School of Economics and Management, ULB - Université Libre de Bruxelles by a 4-person team:

- **Professor Tim Brailsford**, Vice Chancellor & President, Bond University – Chairman of the Peer Review Team
- **Professor Jean-Philippe Bonardi**, Dean, HEC Lausanne, Université de Lausanne
- **Professor David Oglethorpe**, Dean, Management School, University of Sheffield
- **Mr Jules Croonen**, Former Director Human Resources, Shell Nederland BV – Corporate representative

All team members arrived on time and actively participated in all meetings and activities. The recommendation and the contents of this report are made with the unanimous agreement of all members of the Peer Review Team.

1.2 EQUIS related Background

The Solvay Brussels School of Economics and Management (hereafter SBS-EM) was initially reviewed by EQUIS and subsequently awarded three-year accreditation in 2005.

The next EQUIS review was conducted in 2008 and it resulted in a further three-year accreditation under the then conditional route.

The third EQUIS review took place in 2011. While the report of that Peer Review Team recommended a further three-year accreditation, the Awarding Body decided not to support further accreditation. Examination of the reports at the time reveals the major concerns were:

- The core faculty at the School was too small given its mission and too narrow in its focus. This matter had been initially noted in the 2008 review and subsequently in 2011 but it had not been sufficiently addressed.
- There was a need for the School to improve its workload planning and overall management of faculty.
- The vision and mission needed improved articulation and the strategic plan required better alignment.
- The area of internationalisation was in need of improvement.

The letter from the Awarding Body in 2011 emphasised that further accreditation of SBS-EM would require the “successful establishment of the new School as an independent and autonomous Faculty [within the University] with strong internal management systems.”

Of note, the original accreditation was given to the Solvay Business School in 2005. In 2008 that organisation merged with the Department of Economics resulting in the SBS-EM becoming a University Faculty in 2010. Hence the review in 2011 was undertaken in quite a different context from the first review in 2005 (and subsequent review in 2008).

The School was placed on deferral in 2012 following the unsuccessful accreditation decision and it subsequently exercised the option for a further independent review. That review occurred in March 2013. The report of that Peer Review Team recommended renewal of accreditation for three years which was a recommendation supported by the Awarding Body at its meeting in June 2013. Hence, the current review is the School’s fifth EQUIS review in just over ten years.

The report from the last review in 2013 noted the following areas for continuous improvement which were confirmed by the Awarding Body:

- Internationalisation: defining what internationalisation means to the School and developing a coherent international strategy.
- Faculty: increasing the size of the core faculty while improving the international and gender diversity.
- Research: developing a research strategy and defining the focus/distinctiveness of the School’s research.

Thus, the two areas of core faculty and internationalisation have been fairly constant themes throughout the School’s engagement with EQUIS.

1.3 Institutional Scope

The SBS-EM is one of twelve Faculties at the Université Libre de Bruxelles (ULB). The University is one of six state funded universities in the jurisdiction of the Federation Wallonie-Bruxelles (the French-speaking community of Belgium). The University is arguably the most prestigious and largest of these public universities and has a well established reputation and respected credentials.

SBS-EM is clearly identifiable within the organisational and governance structure at ULB. Since the 2011 EQUIS review the School has developed a much clearer and identifiable presence. The merger between the old Solvay Business School and the Department of Economics is complete and there is now a single, integrated school. In the words of one faculty member, “the merger is well and truly behind us now.”

There are no issues of scope that materially impact on the review. While business students enrolled in programmes at the School undertake some subjects taught outside of the business school, particularly in the Bachelor of Business Engineering, these subjects draw upon specialist science-based curricula where it is appropriate for these subjects to be taught by specialists in the Science Faculties.

1.4 Acknowledgements

The Peer Review Team thanks the senior management of SBS-EM particularly the Dean, Professor Bruno van Pottelsberghe who was highly engaged with the PRT and the visit. The Dean's staff and office resources were made available for the visit. Faculty, staff and students were engaged and professional in their interactions.

The Peer Review Team acknowledges the efforts of the Accreditation Team at SBS-EM particularly Professor Nicolas van Zeebroeck and Romy Genin for the SAR and Ikram Sefiani for the visit. The visit ran smoothly and attendees to the meetings were prompt and well prepared. Discussion was open and good natured which provided the PRT with a degree of confidence that the School has a good culture. Food and accommodation were of a high standard.

On the Tuesday evening, a corporate dinner was held at the historical home of the Solvay family. The Peer Review Team thanks the corporate supporters for their attendance and the lively discussion. Many of the attendees occupy senior positions and some travelled distances to attend including from the UK, Germany and Paris. Particular acknowledgement is made to the CEO of Solvay, Mr Jean-Pierre Clamadieu for hosting the dinner, and to the Chair of the

International Advisory Board, Ms Dominique Leroy who is also the CEO of Proximus – Belgium’s largest telecommunications company.

1.5 Comments on the SAR and Base Room Materials

The SAR was sent ahead of the visit and delivered both in hard copy and in soft copy. The School followed up with the Peer Review Team to ensure the report had been received.

The SAR was very comprehensive and somewhat lengthy. Despite its length, the SAR itself contained an absence of hard data and lacked associated tables and figures. While these data were included in separate appendices, the disjointed nature of the text from the data made reading the SAR a little challenging.

As an aside, the PRT notes in its experience a growing tendency for Schools to write more in order to address the expanding list of sub-points in the EQUIS standards. The PRT emphasises that sometimes “less is more” and a succinct approach is preferred.

Some supplementary information was requested during the visit and this was supplied promptly by the School. This supplementary information included Master theses, statistical data concerning international students, some additional financial data, programme fees and information concerning the programmes in Vietnam.

The Base Room and associated materials were well prepared and appropriately indexed. The School’s administrative staff had clearly undertaken a significant effort in preparing for the review.

1.6 Comments on the Student Report

The Student Report was compiled by 16 students from a range of programmes including both Bachelor and Master. Those students tended to hold various positions with student clubs and unsurprisingly are active members in committees and forums around the School.

The Student Report covered the main areas of the EQUIS standards and followed the EQUIS template questions. The report had been submitted through the administrative office, however it appeared that no significant editorial amendments had been made by staff.

Two issues were apparent from the Student Report. First, the student association known as the *Bureau Etudiant Solvay* is very involved in the organisation of student events and activities, and it is also very involved in the life and decision-making of the School itself. Secondly, there are a range of opportunities for students to engage in academic and professional activities, however

these tend to be targeted at, and available for, students in their later years of study. These matters are further discussed below.

2. General Assessment

2.1 Executive summary of the report

The Self-Assessment Report presents a comprehensive picture of the history, development and current status of the School. The report is very detailed and covers all aspects of the EQUIS standards. The report provides a good insight into the strategic development of SBS-EM incorporating a transparent assessment of the School's past and present challenges.

The School presents as a well-managed and well-functioning business school that has national prominence and strong international ambition. The School possesses a distinctiveness driven by its history and founder that is centred on the quantitative disciplines and associated approach to scientific inquiry. This distinctiveness is a strength and one that permeates the many activities at Solvay including its research focus, programme orientation, industry and corporate relevance, and international partnerships. The foundations of the past combined with the innovations of the present are a powerful combination that should serve SBS-EM well into the future.

The School enjoys competitive positioning in the national market and has quickly developed a range of initiatives that are cementing Solvay's position in the international market. The academic programmes are underpinned by two strong Bachelor degrees in Business Engineering and Economics. These programmes attract a large first-year cohort of around 1,200 students whose origin is mainly from Belgium with a small concentration of French-speaking international students that comprise around 20% of the cohort. The majority of these students progress into the Master programmes where a range of opportunities exist to undertake exchange, participate in an internship or join the international flagship programme QTEM. These students have very good outcomes with placement rates in the vicinity of 90% and many students securing employment prior to graduation.

These state funded programmes sit alongside a range of specialist Master and Advanced Master programmes that are designed to appeal to students seeking professional careers who pay private tuition. The revenue generated by these tuition fees provides a flexible pool of discretionary funding that allows the School to invest in its future. Part of the School's strategy is to grow this source of income by around 50% over the next three years. The PRT believes these targets are credible and underpinned by specific strategies.

The doctoral programme at SBS-EM comprises around 120 students each of whom is heavily linked into the research activities of an impressive set of core faculty. These students undertake research at a high level and their placements are generally into quality international business schools across Europe and North America.

The core faculty at SBS-EM have a strong research orientation. Since the previous EQUIS review, the School has formulated a series of research centres which house the researchers, providing for critical mass and the interchange of multi-disciplinary ideas leading to collaboration. The focus of the research is quantitative in nature and this underpins the School's hiring strategy.

The executive education activities are housed in a special purpose company, fully owned and controlled by SBS-EM. The range of executive programmes includes both open enrolment and customised programmes. While executive education activity is currently material in volume, there are ambitious growth targets set for expansion which will necessitate investment in business development, sales and marketing. It is important that expansion be consistent with the strengths of the School and the engagement of core faculty in this process is important. Currently executive education tends to be serviced by a range of industry professionals, adjunct professors and part-time appointments. The executive education strategy is largely focussed on responding to the market. However, Solvay has an opportunity to leverage its expertise, reputation and distinctiveness to carve out a niche. This strategy will critically rely upon the School's ability to demonstrate the impact of its research and associated relevance to the business community.

As detailed elsewhere, the School's scope and scale of internationalisation is now impressive. There have been very extensive developments in recent times and the School and its leadership team deserve commendation. Particular examples include:

- Double and joint Masters degrees with partners in China, Italy and France.
- Credited international internships available to all Master students.
- The requirement for all new faculty appointments to possess at least two years of previous experience abroad.
- Structural embedding of international content in curricula as part of course design requirements.
- The Solvay Business Game and Solvay Summer School, which both attract students from all over the world.

The School's activities are supported by a professional group of administrators who are sufficiently resourced. The main activities of the School are housed within a purpose-built structure, completed in 2010, comprising five floors. The building is spacious and modern. Computing and learning facilities are current and appropriate. The School's location is close to the city centre and approximately 30 minutes from Brussels airport.

The School and its constituents have a strong commitment to CSR. There are a range of internal and external activities that demonstrate this commitment. Examples include long-standing development programmes in Vietnam, the centre for microfinance and its associated programmes targeted at countries in Africa, and a research agenda led through two Chairs in the area of sustainable development.

In summary, SBS-EM has all the ingredients for continued success. The transformation of the School through the EQUIS process which spans over a decade is a great story of the positive impact of continuous improvement embedded in the spirit of EQUIS. The School is a genuine force with a positive trajectory.

2.2 Assessment of progress

As noted above, the last EQUIS PRT identified the areas of internationalisation, core faculty sufficiency and research strategy as the key areas for development.

In relation to internationalisation, throughout the visit the PRT addressed this issue with most of the interview panels to assure a consistent understanding of what internationalisation means to both core faculty and adjunct faculty, administrators, external stakeholders and indeed students. Considerable discussion centred on how the plan for greater internationalisation has been developed and enacted.

It is clear from these discussions that internationalisation of the School has developed substantially in the last three years and that the dimensions of internationalisation are recognised by all stakeholders as critical. The developments have had the purpose of extending the cultural diversity of the student body and faculty, enriching the content and context of learning materials, facilitating the production and co-production of research, and creating international corporate connections. The School set a clear plan in 2013 about how it would achieve an integrated international strategy that spans all areas of activity. This plan has been based on the philosophy of "learning abroad and learning from the world". There are now active and participative initiatives which demonstrate that substantial improvement has been made.

Further, the School has developed an international 'roadmap' and scorecard against which it tracks and continually improves its internationalisation key performance metrics.

A major influence over the School is the International Advisory Board (IAB). This Board has been totally revamped since the previous EQUIS visit. In June 2014 a new Charter for the IAB was adopted which provides clear direction as to a strong governance role of the IAB covering strategy, budget, appointments, scientific direction, fundraising and, importantly, the search responsibility for the Deanship. The IAB now comprises a collection of 23 impressive individuals all with either significant corporate experience or international academic experience.

The current Chair of the IAB is Ms Dominique Leroy, the CEO of Proximus which is the largest telco in Belgium and a top ten listed company. Ms Leroy is in her second year of a three-year mandate and she intends to seek a further term. She is highly engaged with the School (and also an alumna) and she is surrounded by fellow CEOs and prominent figures. The significant advancement of both the role and the composition of the IAB since the previous EQUIS review is a major achievement. This has provided for cultural change, strong governance, improved international linkages and stability over strategy. Moreover there is now strong accountability of the Dean and more broadly the School to the corporate sector.

The number of core faculty has increased by 20% over the past three years. Moreover the new faculty are impressive and have been recruited from a range of quality institutions and backgrounds. The requirement for new faculty to possess international experience adds a dimension to the breadth of cultural understanding, different systems and alternate paradigms.

These additional faculty members have been recruited in disciplines that complement the School's existing strengths and hence add critical mass to the research agenda. The core faculty now number 66 members and there are credible plans to continue to grow this number. It is noteworthy that the quality of the new faculty is high, meaning that the School has not had to compromise standards when achieving this growth.

Finally, with respect to research, SBS-EM has always had a strong focus on quality research in quantitative disciplines. Research strategy is now overseen by an Associate Dean who is part of the School's executive team. As noted above, researchers can identify with one or more of the School's research centres that are vehicles for cross-disciplinary collaboration and critical mass. These centres provide a sense of identity for the various research themes while also providing for mentorship and nurturing experiences for early career researchers and doctoral students.

2.3 Area of excellence

The PRT highly commends the School for excellent practice in relation to the development, driving and establishment of the QTEM network. This is a novel and valuable advancement for the School which has wide contributions to internationalisation, student employability and corporate connections. In doing so, this programme within three years, has simultaneously integrated these three key areas of activity important to EQUIS accreditation. It also has a critical focus which aligns to the mission of the School that is centred on the development and advancement of quantitative methods and skills.

3. Recommendation to the EQUIS Accreditation Board

In view of the knowledge about the School that the PRT has been able to gather, it recommends that the **Solvay Brussels School of Economics and Management in its present situation and under the current EQUIS criteria be granted EQUIS Accreditation for a further five years.**

As noted above, SBS-EM has had a long history with EQUIS. In some ways SBS-EM is an ideal case study to highlight the philosophy and positive impact of EQUIS accreditation.

The School engaged with the EQUIS process initially, in the early 2000s, perhaps motivated in part by a hint of credentialism. However, the School received a wake-up in the 2011 review which culminated in the deferral process. By the School's own admission, this decision was a shock and forced SBS-EM to genuinely reflect on many of its core dimensions including its vision, mission and strategy. The School has always possessed some core attributes that align with the goals and standards of EQUIS including an emphasis on quality, strong corporate connections, quality students with good graduate outcomes and a core faculty with strong research ambitions. However the School lacked an overarching strategy that brought together the various strands of activity and wrapped these under an agenda of internationalisation.

Following the 2011 review, a new Dean was appointed who possessed energy and vision. He brought a new leadership team including a bevy of Associate Deans who are aligned to the Dean's reform agenda. The subsequent successful re-accreditation review in 2013 reflected this reform agenda. However, that PRT had to base some of its judgment on the basis of plans, as opposed to achievements, and its report and continuous improvement objectives reflect the circumstances of that time.

This current review has tested whether those plans and the overall strategy have now evolved into actions, new structures, and importantly achievements, which give credibility to the continual improvement process at SBS-EM. As detailed in this report, the PRT finds that this is indeed the case.

SBS-EM is now a mature organisation with strong and much improved set of governance structures, a genuine international agenda which is highlighted by several significant new initiatives introduced since the previous EQUIS review, an expansion of core faculty both in capacity and capability, a series of new executive programmes that help underpin a healthy financial position and a research strategy that focuses on distinctiveness and international quality.

The PRT believes that SBS-EM has done all of what it has been tasked through the EQUIS process which now spans over a decade, and it has emerged as a high quality business school. It is now time to give the School some breathing space and let it further grow and develop under its own steam. The nurturing process of EQUIS and its impact on SBS-EM is a very good story and the School is genuinely grateful for how EQUIS has assisted it to transform itself and lead it onto the international arena.

In relation to continuous improvement, the PRT endorses the School's current strategic plan and its own identified areas for particular progress and improvement. In addition, the PRT notes the following points in the spirit of continuous improvement. None of these matters are critical to the EQUIS standards and formal accreditation process, but rather are offered as peer observations.

1. Impact of research. While the School has much to commend in relation to its research activities, there is currently a gap between the recognition of the quality of research at SBS-EM within academic circles and the documented impact of this research on business, policy and society. In particular the School has access to a range of influential corporate connections and policy-makers who provide a potential platform for the School to spread its message through research. The School is already working on these connections through its 'Knowledge Alliance' project and it is encouraged to further develop a "research impact strategy" designed to outline ways by which research at SBS-EM can be utilised to drive actual change in business, policy and society.
2. Marketing and communication. SBS-EM is encouraged to develop a holistic plan to more effectively communicate and market the brand of Solvay and share the tale of its successes. There is much to celebrate in the School's achievements yet there is a sense that Solvay is a bit of an untold story. A more aggressive marketing campaign that brings the many facets of Solvay together could form the basis of a major project that

would require some initial investment and probably some longer-term resources for continuity.

4. Detailed analysis following the EQUIS Criteria Framework

4.1. Context, Governance and Strategy

The Université Libre de Bruxelles occupies a prestigious and strong brand in both the Belgium and European markets. It is generally regarded as the number one or two ranked university in its region. SBS-EM is one of twelve faculties at the University and it enjoys prominence within the University. Both the President and Rector of the University commented on their strong interest in wishing SBS-EM to lead the internationalisation agenda of the University and progress an agenda of growth.

The University provides for the overall governance of the School but does so at a high level leaving the School with considerable autonomy over its strategy and operations. The PRT pressed for examples of where the University presented roadblocks that inhibit the School's progress and development but could not identify any major instance. There is clear support for the School from the University.

The School has a long and proud history dating back to 1903. It was founded by the great industrialist of the early 20th century in Mr Ernest Solvay and carries his name proudly. The School has retained links with both the Solvay family and the listed company. Indeed, one of the seats on the International Advisory Board is reserved for a member of the Solvay family.

This history gives the School credibility and a brand advantage that many European competitors would envy. Moreover the roots of the School provide it with a clear sense of mission and a distinctive focus on the quantitative disciplines and associated link with the sciences. The flagship programme at both the Bachelor and Master level is Business Engineering which has an established reputation, at least nationally, for producing well educated graduates capable of adding value to organisations that have a strong quantitative basis and/or a scientific orientation.

The ultimate governance of the School rests with the University's senior executive headed by ULB's President and Rector. This level of governance sets the broad parameters across the University for the budget context in relation to state funding, academic policies and oversight of the general operations. The School enjoys good autonomy in this regard, and certainly better than many other University-based business schools. Indeed there is strong alignment of goals and high level strategy between SBS-EM and the University.

A second layer of external governance is provided by the International Advisory Board (IAB). The IAB was completely reformed in 2014 both in terms of its charter and its composition. The IAB is now a highly influential body and its charter is broad ranging. While the IAB is advisory in terms of its formal powers, the soft diplomacy that it exercises at both the University and the School positions it as a key voice in the School's decision-making. Indeed the PRT was highly impressed with both the profile and commitment of the members of the IAB and its very engaging Chairwoman. The new structure of the IAB is here to stay and it will be very difficult for the School to stray too far from the oversight of this Board. This arrangement provides the PRT with confidence that the long-term strategy will continue to be pursued irrespective of any turnover in the School's leadership.

SBS-EM is currently led by a Dean commencing his fifth year of a six-year mandate. The Dean, Professor Bruno van Pottelsberghe, has embarked on an ambitious reform agenda which has at its heart an objective to move the School from a high performing national school with international reach to a genuine international business school. This transformation agenda is largely complete and it has been very successful. As detailed in this report, SBS-EM has made remarkable progress in many areas and while there is always work to be done, all of the building blocks are now firmly in place. So influential has been the impact of Professor van Pottelsberghe's reforms that there is some concern about continuity of momentum beyond his mandate that concludes in late 2017. However, the PRT received assurances from both the University's leadership and the IAB who will run the search process for a new Dean that continuity of the current strategy and trajectory, with its focus on internationalisation, will be a key criterion in a wide-ranging search.

4.2. Programmes

SBS-EM operates as a full service business school. Degree programmes are offered from Bachelor level through to Master, MBA and a strong doctoral programme. As discussed later the School also offers a range of programmes in executive education.

4.2.1 Overall Programme Portfolio

The portfolio of programmes is coherent. There are opportunities for good students to progress through the various levels. Moreover the programmes are generally designed, particularly at the Master level, to be attuned to the needs of the market. This is evidenced through the relatively recent development of the series of Advanced Master programmes which are highly specialist programmes targeted essentially at European postgraduate pre-experience students.

Apart from the Bachelor programmes (see section 4.2.2 below) the School operates with selective entry. The admission standards are at EQUIS level. The GMAT scores, where used, have a minimum cut-off of 650 and the English language requirements impose a minimum IELTS score of 7.0. There is healthy demand for most programmes except for the MBA.

SBS-EM was a relatively late entrant to the MBA market with its first offering in 1992. Since then it has failed to establish a strong brand and lacks an international positioning in this highly competitive market. As a result, in 2013 SBS-EM formed an alliance with the Ecole des Ponts ParisTech (called the Solvay-Ponts MBA) to offer a joint programme designed on both a full-time and part-time basis. Students spend half of the programme in Paris and the other half in Brussels. Until recently, the programme has been subject to the oversight of a joint committee between the two schools that integrates and coordinates the curriculum. While this model is an interesting innovation, it unfortunately failed to stimulate the market. Enrolments in the programme have not met expectations and currently sit at less than 20 which are uneconomical.

Following a review, SBS-EM has effectively handed this programme to its partner Ecole des Ponts which is now fully responsible for the administration of the programme. The MBA is delivered solely in Paris using the joint academic resources of SBS-EM and Ecole des Ponts and still carries the Solvay brand.

The Solvay-Ponts alliance is not critical to the success of SBS-EM as the financial impact is small. Rather the School faces a strategic question as to whether it wishes to be in the MBA market at all. It would be unusual for an accredited business school not to offer an MBA but given other strengths in the programme portfolio, the PRT believes that the range of Master programmes allow SBS-EM to fulfil its mission. Notwithstanding the PRT suggests that the future of the MBA is a priority issue for SBS-EM to consider.

The doctoral programme is strong with around 120 enrolments. Completion rates are good and the quality of dissertations is high. Placements of PhD graduates are generally into academe and there are several recent examples of graduates securing positions at prestigious international business schools. These outcomes are consistent with the overall high quality of research undertaken in the School.

A relatively recent initiative launched in 2013 is the creation of a series of Advanced Master programmes in specialist areas. These programmes are targeted at the postgraduate level attracting students from a range of disciplinary backgrounds seeking a career in the relevant business field. Teaching is in English thereby designed to appeal to the international market. Currently the programme enrolments average 50% of international students with the major

source countries located in Europe including France and Italy. The microfinance programme attracts students from further afield including Africa and Latin America.

For these Advanced Master programmes, contacts with companies take place, quite often, through programme directors and faculty teaching in the programmes. This reflects the clear applied and managerial orientation of these programmes, and also allows for frequent contacts that keep these programmes close to their placement market.

At the level of Advanced Masters, the School has discretion over admission and tuition fee levels. Four of these five Masters, which have been launched since 2013, have found their market each attracting around 20 to 40 students. The exception is the Advanced Master in Quantitative Finance with only 9 students enrolled in 2015-16 which warrants some attention.

The administration of the School's programmes is undertaken through a combination of academic directors and professional staff grouped into Bachelor and Master service units. Some services such as exchange and careers operate through a shared service model which has improved both the efficiency and effectiveness of the service to the students.

Students appear generally satisfied with the level and range of services. Some services are offered through the University but students are generally unaware of the delineation between School and University services as they operate fairly seamlessly. From information obtained during the review sessions, there appears to be a high degree of cooperation between the School and the University.

The overall approach to educational technology is driven through the University's strategy using the platform Moodle. While there are pockets of teaching innovations in technology within the School, there are also some slow adopters among the faculty. Many business schools face a similar predicament, however the PRT encourages SBS-EM to adopt a more aggressive School-wide roll-out through engaging recalcitrant academics and lifting the bottom end. Such a project would require a dedicated resource with a timeframe of say 12-months designed to have quick impact.

The internal quality assurance processes work and these are built around traditional mechanisms that are embedded through the culture of both the School and the University. However, these processes tend to rely upon internal mechanisms rather than procedures that involve external validation and moderation. These matters do not detract from the overall quality of the teaching programmes or student outcomes. Nonetheless going forward the PRT suggests that the School develops a plan to strengthen the external input into the quality assurance framework.

As a further example, the current external input into programme design, curriculum developments and reviews is achieved through the engagement of business leaders. However, these inputs tend to be informal. The PRT encourages the School to consider the establishment of formal industry advisory boards at the programme level to provide an evidence base for existing practices.

4.2.2 Selected Programme (BA in Business Engineering)

The BA in Business Engineering is regarded by the School as one of its flagship programmes, if not the flagship programme. The programme seeks to educate a broad range of students and assist in their development to become entrepreneurs, managers and leaders. The programme sits comfortably with the original vision of the School's founder Ernest Solvay.

The programme combines a broad education in hard sciences with modern business topics overlaid by a stream of foreign language courses offered in English and Dutch. In the early years of the degree, students must complete subjects in the sciences including physics and chemistry which provide for both a broadening of knowledge and the development of a strong mathematical and quantitative base.

Delivery of the programme is principally through traditional methods with lectures dominating the large first-year classes, moving into seminars, group work and cases as students progress through the programme. The e-learning platform is Moodle but active use of the platform as a genuine learning mechanism appears varied depending on the instructor. There is work to be done to fully integrate e-learning throughout the School.

As noted earlier there is no selective entry to the programme in accordance with requirements in Belgium. The progression rate from first year sits around 30% which ironically provides the programme with a strength as only the most capable of students enter the second year. Around 500 students enrol in the programme each year with only 180 of the cohort progressing all the way through to graduation.

The large majority of Bachelor students move into the Master programme. The proportion of students that progress along the Master route is around 95%. In this sense, the placement outcomes need to be measured at the Master level and not the Bachelor level.

Student outcomes at the Master level are very good. Around 90% of students are placed before graduation and the remaining students are placed within six months post-graduation. The office for corporate alliances plays a role in placement as does the recently introduced credited

internship programme. These observations were supported in discussion with corporate connections who confirmed that Solvay students were in demand.

The business curriculum in the degree has a slant toward quantitative disciplines and paradigms. Economics, econometrics and finance are all prominent subject areas. The syllabi examined in the Base Room are consistent with international standards and modern business practices and theories. However, the coverage of science subjects and the slant toward the quantitative areas means that students in the programme arguably have a more limited understanding of the full range of topics relevant for modern business than some other EQUIS-accredited Bachelor programmes. However, this is not a concern given that the programme is essentially regarded as part of a five-year Bachelor-Master integrated combination and the specialised business majors are the focus of the Master component.

Teaching is in French, although as noted above, students take foreign language courses in either English or Dutch or both. English is gradually introduced with some later year subjects taught in English until the Master level at which all subjects are taught in English. This limits the attractiveness of the Bachelor programme to international students. Nonetheless 14% of the current Bachelor student cohort is from outside of Belgium although many of these derive from neighbouring French speaking regions. There are also some students who come from the French-speaking nations in North Africa.

Assessment is mainly by way of examinations although group work is introduced in the later years. The large cohort in first year acts as a deterrent to more intensive methods of assessment and the reality of constrained resources means that the assessment in first year must be efficient. The students that the PRT spoke to enrolled in the programme appeared satisfied. There were no major complaints. However, the PRT notes that it did not speak to anyone from the large contingent of students that fails to progress from first year.

4.3. Students

The obvious and most significant issue for SBS-EM is the quality of the student intake at the Bachelor level. Under Belgium government policy the School has no direct influence over the quality of the initial intake as it is required to enrol all students who complete their schooling. The combination of high academic standards and poor student motivation leads to an extraordinary attrition rate of somewhere around 70% at first year.

There is little that the School can do about these parameters given government policy (and this factor accounts for the n/a score in the relevant section in the Quality Profile). Belgium is not the only jurisdiction where this policy is in play. However, strategies such as early testing, targeted

pastoral care, remedial and additional classes are not given high priority as the attrition rate is generally accepted as simply being part of the system.

Once the filtering process at first year has run its course, SBS-EM enjoys the benefits of a committed and quality student cohort. These students generally complete their Bachelor degree and then move onto the suite of Master degrees. These later year students are quite engaged and the filtering process creates a cohort that is appreciative of the opportunities and keen to participate actively in the life of the School.

The placement of students at the exit level of Masters appears to be very strong, as most students are hired before graduation. Improved efforts since the previous EQUIS review including the hiring of professional staff in this area have been undertaken with the objective of developing adequate career services. These services are geared not only towards finding internships or first jobs, but also in helping students to set career goals earlier in their programmes. These activities assist students to build their professional resume. Corporate connections also commented that these new services provided by the careers office have assisted in their recruitment activities.

4.4. Faculty

The core faculty in SBS-EM now count 66 full-time members, which is a significant increase since the previous EQUIS visit (the School counted 56 core faculty at that time). The current core faculty composition is more in line with the size of the student body with improved student:staff ratios of 29:1 which drops to 17:1 when supplemented by the various part-time and adjunct faculty members.

An innovative initiative has been the recent introduction of the new role of 'Professor of Management Practice (PMP)' status. Over the past twelve months, the School has recruited six new professors into this role. These professors typically come from managerial positions in the commercial/industrial world, operate under a renewable contract, and allocate a significant portion of their time teaching into the fastest growing part of the School's activity, namely executive education programmes and Advanced Master programmes.

The PMP innovation is a good addition to the faculty base as the positions bring additional corporate experience into teaching. These positions will contribute to both capability and capacity of the teaching resources in addition to assisting with programme development, contributing to applied research and running projects such as the QTEM network. When questioned about the change in internal culture that these positions might generate in the long run, the core faculty are aware of the issues and supportive of the direction.

The PRT commends the School on its progress in formalising the rules and practices governing recruitment, evaluation and promotion. There is now a clear system to review and evaluate past performance. Further, long-term plans have been developed to guide the areas in which new faculty will be recruited. The faculty members spoke positively about their understanding of promotion and career paths and provided an impression of a highly motivated group.

Notwithstanding, the PRT notes two areas where further development might occur. First, the number of non-core faculty teachers (540) remains high. As the School continues to grow, it should ensure that there is commensurate growth in core faculty avoiding any imbalance between the adjunct and core faculty bases. Secondly, evaluation frameworks and promotion paths should be more clearly defined for the PMP path, in line with what has been done for the rest of the core faculty. Comments by some faculty indicated a lack of clarity over the performance targets and promotion criteria for the PMP positions.

4.5. Research and Development

Research at SBS-EM is critical to the achievement of its mission and vision in that it develops a deep understanding and advancement of quantitative theory, empirical analysis and analytical techniques. The quality of both output, in the form of publications, and input, in the form of grant winning and allocation of resources, is of a very high standard. Several faculty members are publishing in world-leading journals at an output rate which would put them on an excellent footing in any international benchmarking exercise. There is evidence of several large competitive grants won over the past three years including four ERC grants, which for a relatively small School is to be highly commended. All of this activity is focused on mission-relevant research and in quantitative theory and empirics.

The previous EQUIS review recommended an area of improvement in research, specifically noting that the School should develop a more explicit research strategy. Whilst this recommendation lacked some description as to how this should be achieved, the School has augmented its existing research centres with a set of seven core themes that run across the School as priority areas for research. The full embedding of this more matrix-like structure is still being finalised but it is clear that given the level and quality of outputs and also the teams which are winning significant and high profile grants, the strategic direction and organisation of research is working well and improvements are evident. There is now a clear and coherent strategy which is shared, understood and followed by the academic faculty and supported by the administrative staff.

The portfolio of research is well balanced across both theoretical aspects and applied, practice-oriented empirical work and there is also evidence of pedagogical advancement. Research is

internally quality audited both through the development of an agreed list of approved high quality journals and through more specific peer-evaluation of research outputs on an individual basis. The latter provides evidence of mentoring by colleagues.

Perhaps not surprisingly, the School's main areas of specialism are economics and management as reflected in the name of the School (i.e. Solvay Brussels School of Economics and Management) which in turn reflects the history of the organisation. There is a clear understanding of these discipline areas as a point of difference and a focus for research activity.

Research operations are directed through a Vice Dean and overseen by a research committee creating an effective governance mechanism. Faculty members are enabled to do research through an adequate allocation in workloads commensurate with other research-intensive business schools. Given the academic workload mix of teaching and research, the PRT has confidence that research is translated into the classroom.

The faculty are encouraged to disseminate to a wide non-academic audience (and indeed some academics have developed innovative ways of doing this) and there is a strong and linked corporate community for which this research can be translated. The recent Knowledge Alliance project is a further step in this direction. However, there is a slight lack of cohesion across this continuum which could be better exploited for creating external impact from research. There is significant potential here which SBS-EM could make more of, and as such, the PRT encourages the School to develop a strategy for drawing research resources, dissemination activities and their access to the corporate and policy world into a single research impact strategy. Such a strategy could outline ways by which fundamental and applied research undertaken at SBS-EM can be used to drive actual change in business, policy and society.

4.6. Executive Education

Executive education forms part of the SBS-EM private arm that is part of the School but formed in such a way as to create separate and distinct reporting lines between state funding and private funding and hence comply with Belgium regulations. The non-profit entity is called Solvay Executive Education (SEE) which has its own Board comprising the Dean and School executive members in addition to some senior alumni.

The programmes offered through SEE are organised into 20 open enrollment programmes, including two lines of degree programmes (Advanced Masters and the MBA), and a series of customised programmes for corporate clients. The traditional executive education offering is defined as short or long non-degree programmes which are targeted at professionals and executives. The programmes fall into three categories including the open enrolment

programmes, customised programmes and a practice in Vietnam where the School, more as part of its social and international development obligations, has been offering a series of open programmes for 20 years.

Teaching in the open programmes is mainly conducted by a range of affiliated staff including senior alumni, professionals employed by companies and adjunct type faculty. The core faculty are also engaged but constitute only 17% of the teaching. When these core faculty members teach into executive education they are remunerated separately from their salaried positions.

The arrangements with core faculty and the relatively low levels of their engagement potentially creates a culture where executive education within the School is seen as a non-core activity and something that is primarily designed to generate revenue. The risk is that over time the core faculty become less engaged and there is little bridging between research developments and the executive education offerings. Hence it is important to ensure that the planned growth in executive education continues to involve and engage the core faculty.

The major competitor in the executive education market is Vlerick Business School and some smaller private training institutes. The competitive advantage of Solvay is its focus, activity and reputation in research. Thus the PRT encourages the School to look at more effective ways to link research and executive teaching, in the spirit of knowledge transfer and thus build a competitive advantage for SEE which could be potentially used to charge premium prices.

Revenue from SEE education has grown impressively in recent years. Since 2012 revenue has grown by €2.3M or around 40%. Much of this increase has been driven by the Advanced Master programme initiative, however €0.5M is attributable to the traditional forms of executive education. The School has set aggressive growth targets for the next three years with revenue forecast to increase from €8.3M to €12.5M, which represents an ambitious increase of 50%. While revenue from the Advanced Master programmes will assist in realising this target, revenue from open and customised programmes is forecast to increase by almost €3.0M.

The increase in SEE revenue is a sound strategy as it will generate surpluses in discretionary funds that can be applied to other developments and new programmes across SBS-EM. This is particularly important in the Belgian context as these private revenues provide flexibility as they are not subject to the same restrictions as state generated revenue. These private revenues are subject to a 15% overhead levy at the University level which is quite reasonable given that many infrastructure and indirect costs are covered by the University.

In order to meet these growth ambitions the School will need to step up their marketing and sales efforts considerably. The PRT encourages the School to look at long-term planning and investment of resources to ensure that the business development activities associated with the expansion of executive education are appropriately funded. Further, these development opportunities should be aligned to the areas of research excellence of the core faculty thereby carving a niche in the market which SEE can exploit in terms of both volume and premium pricing.

4.7. Resources and Administration

The physical resources of the School are generally in good shape. The major activities are located in a purpose-built building in the University's main campus. The building was completed in 2011 and enjoys a prominent street-facing location. The building is spacious and a branding feature. The School has some service areas located in adjacent buildings which would be ideally located on the one site; however the geography of the campus makes it relatively easy for students and visitors to negotiate their way.

The library forms part of a larger campus library but the School has a dedicated floor in a large structure that is sufficient. Students study in a variety of locations including the library area and the School's building itself.

Computing facilities are modern and there is wireless coverage throughout the buildings and the campus. Given the School's positioning in quantitative methods, a real-time trading room would be a significant addition to the resources and this project is in the planning phase.

The administration of the School is run by a professional group of dedicated staff. Support mechanisms and resources are available to students. A recent addition is an office that provides teaching support to faculty members including a focus on educational technology. However as noted above, the engagement of this office with faculty members is on a voluntary basis and more formal mechanisms to lift the overall level of engagement comprehensively across the School are yet to be activated.

Career support which includes internships, placements and career assistance is an advancement since the previous EQUIS visit. Similarly support for international exchanges for both incoming and outgoing students is also a recent initiative. These services are located in a centralised area with reporting lines that share the services across all programmes.

The financial management of the School is overseen through a committee of the International Advisory Board with controls set by the University's central finance office. There is significant

autonomy provided to the School over its finance and budget in respect of non-state programmes including executive education.

The overall budget remains in balance each year with the non-state programmes generating a small surplus. These surpluses are currently reinvested in the growth of executive and Master programmes. Forward projections of revenues provide a positive outlook with increasing annual surpluses. These projections seem realistic and are underpinned by enrolment growth strategies.

The forward-planned budget is used to reflect the School's ambition and key growth areas. The School also produces a rolling five-year plan of anticipated human resource needs in order to deliver that growth. When these mechanisms are combined they provide assurance that adequate resource planning takes place to deliver on the School's strategy.

4.8. Internationalisation

The School has made substantial progress in the area of internationalisation since the previous EQUIS review. Of note the International Advisory Board (IAB) has been revamped and now includes significant representation from a mix of CEOs, business leaders and overseas academics. This change at the top level has both signalled the intent of SBS-EM as well as inducing cultural change. The IAB is active and engaged in the formulation and monitoring of strategy.

The PRT met over half of the IAB during the visit and was singularly impressed by the international scope, reach and significance of the membership of this Board. Its 23 members represent eight different nationalities with the majority of the corporate members being significant senior leaders in multinational corporations and thus possessing global experience and enviable networks.

A further initiative worthy of commendation is the development of an international network of student study and exchange through the Quantitative Techniques for Economics and Management (QTEM) programme. This programme, which is clearly mission-relevant to Solvay, was initiated in 2012 and has been largely driven by the current Dean. In three years it has grown from having five international academic partners to 13 academic partners, each supporting similar missions and each augmented by a further network of local companies to support internships. Selected high performing students are offered the opportunity to access this network and take part of their study abroad and also take an internship with a company in the network. Typically each institution may send (and provide reciprocal places for) around 20

Masters students each year, so QTEM thus now provides a network and community of around 300 students studying and gaining valuable work experience abroad.

Other new and growing internationalisation initiatives include, *inter alia*:

- Double and joint Masters degrees with partners in China, Italy and France.
- Credited international internships available to all Master students.
- The requirement for all new faculty appointments to possess at least two years of previous experience abroad.
- Structural embedding of international content in curricula as part of course design requirements.
- The Solvay Business Game and Solvay Summer School, which both attract students from all over the world.

As mentioned above in section 4.5 (Research and Development), the focus and quality of research is now clearly at an international standard, which together with the new hiring criteria for new faculty provides confidence about the international relevance of the core faculty. Adjunct faculty and additional contributors are also drawn from a cadre of practitioners with substantial international reach and relevance. The culture of the School reflects this change in approach. Interviews with students, faculty and alumni provided the PRT with confidence that there has been significant improvement over the past three years.

This provides the School with a springboard from which they can continue to make further progress. The IAB together with the School Executive have several plans in place to make this augmentation happen, especially through involvement with the School's considerable international alumni network, to further expand and grow the QTEM programme, and to create greater international scope in the executive education portfolio.

The PRT was impressed at the attention to detail and active management of international partners especially concerning student exchange. Many schools fall into the problem of signing up many exchange partners only for several of these relationships to be non-active and ineffective. SBS-EM has established a database and scoring algorithm that assigns points based on student interest and attractiveness, intensity and depth of activity, feedback from students and feedback from administrative staff who handle the institutional relationship. The outcome is an active database where both strong and weak exchange performers can be readily identified. This mechanism allows the School to monitor all international exchange partners and conduct regular reviews. Indeed the PRT was presented with evidence as to how this monitoring had been effective whereby there were instances of exchange partners where the relationship had ceased at the instigation of SBS-EM.

4.9. Ethics, Responsibility and Sustainability

The School has this standard well covered. The location of SBS-EM in Brussels surrounded by the machinery of the European Union creates many opportunities for students to be exposed to global issues and matters of politics, humanity and sustainability. Students have access to contemporary debates and speakers on relevant topics.

More generally the University has a very strong public role within Belgium and has a strong commitment to equity and access of students, in addition to playing a role in the global challenges that we confront through research and debate. SBS-EM is expected to participate actively in this agenda and indeed the PRT was provided with examples where the School leads the University.

The executive programmes in Vietnam commenced twenty years ago as a development objective funded by the Belgium government. The purpose of the programme was to enhance and support the economic development of Vietnam, and hence speed that nation's social adjustment, following its conflict. SBS-EM has continued its commitment to this programme despite the withdrawal of government funding.

A further example of the School's outreach activities is the work on microfinance. SBS-EM has a specialist centre that focuses on microfinance issues (Centre Emile Bernheim). This centre draws upon a critical mass of researchers and teachers that seek to assist developing nations, principally located in Africa, and non-profit entities to better understand and develop financing models. The research in the centre is translated into education through an Advanced Master programme that is targeted at students from developing regions.

The students that the PRT met appeared genuinely motivated to engaging with the modern global challenges. Moreover, evidence was provided by students, faculty and the School of the integration of related topics into the curriculum.

There are numerous events, activities and clubs that allow students to engage and experiment with the reality of the trade-off between idealism of sustainability and the reality of the bottom line. The PRT was impressed by the culture, attitude and commitment of the School generally to this sensitive debate. A good example is the programmes that are offered and the research conducted in the area of microfinance. A further example is the research project that concerns the impact of genocide on the survivors.

4.10. Corporate Connections

The original Solvay Business School was established 112 years ago with the vision of being a strong connector between the academe and business. This has always been a strength of the School but over the past few years there has been a renewed energy to re-position SBS-EM at the forefront of industry engagement.

The alumni of SBS-EM are influential and occupy significant roles within both industry and government. For instance, four of the top 20 listed companies in Belgium have a Solvay graduate as their CEO. The re-engagement of these alumni through formal vehicles such as the Industry Advisory Board, research partners and informally through adjunct and affiliate faculty, advisors and involvement in student internships and placements is admirable.

The International Advisory Board has been substantially revamped and re-positioned since the last EQUIS visit. This Board now contains a prominent list of who's who within corporate circles. Approximately half the Board is genuinely international and around 40% of the Board is female. While the Board meets twice per year in a seminar workshop style, the Chair is actively and regularly engaged with the Dean. The PRT met approximately half of the Board members during the visit at a dinner and the turn-out and strong messaging of support was impressive.

SBS-EM has established an office for corporate partnerships (Office for Corporate Alliances) which is resourced with quality staff. This office is active in both managing existing partnerships and growing new partnerships. The engagement of the corporate world spans all areas of activity including students, placements, research and governance.

The initiative of the credited internship programme has assisted the School to cement its corporate relations. These internships are valued by the firms involved as they provide, among other benefits, an efficient mechanism for the recruitment of good students. Hence the programme provides development opportunities for the students, assists with placements and builds relations with corporate partners.

The number of key corporate partners is around 50. Many of these are Belgium-based or at least have their roots in Belgium. A challenge for SBS-EM is to grow these connections beyond the immediacy of Belgium and its close borders. The PRT was a little surprised that SBS-EM's long presence in Vietnam had not yet resulted in greater corporate engagement in Asia.

Moreover while alumni appear engaged, the School is yet to develop mechanisms that fully leverage these connections. Examples include the role of alumni in fund-raising and the

utilisation of these networks to create larger scale sales opportunities for the growing executive education business.

Further the Solvay Alumni Association sits outside of the School. While the Solvay Alumni Association works collaboratively with the School and assists in fund-raising for projects, it has its own governance structure and separate lines of accountability. While this structure works at present because of goodwill, it has the potential under future scenarios to present challenges. The PRT urges the School and the Solvay Alumni Association to come together under one umbrella and formally unite.

Overall the School's corporate connections are strong and real. Their impact on students and the research agenda is significant. The PRT was impressed by the quality and enviable breadth and depth of these corporate relationships.