

**Report on
Department of Industrial Economics and Strategy (IVS)
Copenhagen Business School**

submitted by

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Background

This report was written in connection with a round of evaluations of the research departments within the Copenhagen Business School at the request of Dean Jens Aris Thisted. The report deals with the Department of Industrial Economics and Strategy (IVS). The purpose of the evaluations is to identify opportunities for developing excellence in research, teaching and administration. Our assessment is based on the growth potential of IVS, our familiarity with international standards, our assessment of IVS research output, our extensive interviews and discussions with IVS faculty, PhD students and administrators, and our review of resource-allocation processes and decisions in IVS.

In his letter of February 17, 2006, requesting our evaluation, Dean Thisted asked us to consider the following two principles as we developed our report:

- Our recommendations should be unified by a vision for how IVS can develop a distinctively excellent research environment and record
- Our recommendations should be developed in a dialogue with the Department.

In our meetings, Dean Thistel and Department Chair Peter Lotz asked us to make recommendations that are designed specifically to enhance and support IVS in achieving its potential as an internationally recognized leader in its academic field. The purpose of the dialogue is to assure that our recommendations can be implemented successfully given the academic climate of the Department. We were invited to be direct and clear in our recommendations, and we have endeavored to meet these requests.

In conjunction with our report, we visited the Copenhagen Business School during the week of June 19th, 2006, and met with more than 22 members of the Department, including faculty, doctoral students and administrators. We also met with a faculty member from outside the Department, the Dean of Faculty, and the Associate Dean of Faculty for Research. In addition to individual interviews, we met twice with the Department as a whole, and we attended several sessions of the DRUID conference which was occurring concurrently. Our interviews were confidential but our report reflects many ideas and suggestions that originated in these interviews. Throughout our visit at CBS, we were impressed with the collegiality and directness of both the faculty

and staff. We want to express our thanks to those we met for their candor and constructiveness.

Our recommendations were also informed by the excellent report of Department Chair Peter Lotz entitled "Self-Assessment Report, Department of Industrial Economics and Strategy, Copenhagen Business School, June 2006." We endorse this report as an accurate, thorough and comprehensive statement of the activities of IVS that conforms in both its details and overall message with our assessment. We extend special thanks to Professor Lotz for this document and for hosting our visit to CBS.

Overview

The IVS Department has the potential to become a leading center, known around the world, for its expertise and leadership in the field of Innovation Economics and Strategy. Publications in internationally regarded journals, supported by deeply grounded insights that are also disseminated locally, will be essential for actualizing this potential. Achieving international leadership will require several worthwhile investments. As we write this report, the Department is at a unique moment in its history as international leadership is currently feasible. We therefore recommend that the required investments be pursued vigorously.

Below we offer a series of recommendations that are designed to capitalize on the existing strengths of the Department and to achieve international standing for both the Department and the School in the field of Innovation Economics and Strategy. While many of the recommendations are within the control of the Department itself, some can only be implemented at the level of the School. We believe that each of our recommendations will yield a significant return, and that all should be implemented in a unified initiative that is designed to propel IVS – as well as CBS – into the international forefront of business education.

History

The Department of Industrial Economics and Strategy (IVS) has developed through several phases over the past decade. Between about 1995 and 2000, the Department developed a strong commitment to academically-directed research. Between 2000 and 2006, several capabilities emerged as particularly significant: the development and retention of key faculty with outstanding research records; international visibility; and a wonderfully collaborative culture within the IVS Department. We view these capabilities as three pillars that stand at the foundation of IVS's capacity to become internationally renowned for excellence in academically-directed research.

The development and retention of key faculty occurred principally as a result of idiosyncratic investments in particular individuals. We applaud the excellent judgment of senior faculty who led in this process.

The international visibility of the Department has occurred principally through DRUID's international networking activity, which has been supplemented by several key visits by IVS faculty to other Universities during their sabbaticals. The DRUID annual conferences (and particularly the DRUID summer conferences) have become institutionalized among scholars in the fields of innovation, strategy, and related areas. Increasingly, over the years, the keynote speakers at the DRUID conferences have been leading scholars of worldwide recognition, editors of major international journals in these fields, and scholars who have made prominent contributions in these disciplines. In turn, these people mingle with many young scholars and PhDs, who have the opportunity to meet with more senior researchers, present their papers, and participate actively in a collegiate research atmosphere. The size of the DRUID conference is also noteworthy. It gathers several hundred young and senior scholars, which corresponds to a large fraction of the academic community in these areas. Thus, with DRUID, CBS has already invested to create a superbly unique and inimitable asset that can become a foundation for the Department's further development.

We also are impressed by the deeply respectful and collegial personal relationships among members of the Department. It was vividly clear to us throughout our meetings that extensive social relationships and friendships define the IVS culture.

Vision

As IVS moves into a new phase of its development, we recommend that it be guided by a clearly defined vision for achieving international excellence as a center of academically-directed research. The recommendations that we offer below are designed with the specific target of supporting IVS as a leading center in the world for conducting research based on rigorous economic methods and that unifies researchers who are working on leading topics in innovation, strategy and economics.

The field of Innovation Economics and Strategy is currently developing within a number of business schools around the world. Motivated in part by the pioneering work of such scholars as Professors Richard Nelson, Sidney Winter, Keith Pavitt, Giovanni Dosi, Rebecca Henderson, David Mowery, and Brownyn Hall, the field stands at the intersection of economics, technology & innovation, and strategic management. Unifying intellectual concepts include technological trajectories and path dependence; standardization and the emergence of dominant designs; theories of the firm; endogenous industry structures; risk management and investment paths; research management; portfolio investment; technological and organizational competence; and the geography of innovation. This list of scholars and of research themes is far from comprehensive but conveys information about the ideas that distinguish this newly emergent field from related disciplines.

Research in the area of Innovation Economics and Strategy has its center of gravity in applied theory and rich empiricism. Its leading scholars are typically trained in

neoclassical economics with advanced coursework in methodological extensions from economic theory such as dynamic statistical analysis, routine-based theory, simulation analysis and non-linear econometric modeling. The research published in this area is frequently supplemented by detailed case analysis and fieldwork, and characterized by collaborations among researchers at Universities that are diverse geographically.

The vision at the heart of this document is that IVS efforts focus on a goal of achieving international leadership in this field over the next five years by building on the three pillars of capability that have become established in the Department. We see this opportunity as an extension of a trajectory that has already been established in the Department rather than a sea change at its core.

The constituents for the insights that will develop over the next five years include academic researchers from around the world, local academics, international companies, local companies, and the students in CBS's extensive array of programs. One facet of our set of recommendations is that IVS focus first on academically-directed research. As IVS develops stature in the international academic community, it will attract interest in the international business and policy communities and, as a result, become even more influential in the Danish business and policy communities. Similarly, the Department will attract students into its programs from a range of geographic backgrounds, and thus become an educational center that offers an even greater range of experiences and opportunities to Danish students. For these reasons, we hope that the opportunity that we describe for IVS can serve as a model for CBS as a whole.

In developing our recommendations, we strove toward suggestions that would meet a test of feasibility. While some might stretch the resources of the Department and of the School, we feel that all are essential to the opportunity.

Recommendations

Our recommendations are grouped here under seven related headings:

- 1) Define a research identity;
- 2) invest in the research culture;
- 3) enhance collaboration within CBS;
- 4) revise the approach to recruiting new faculty;
- 5) restructure the PhD program;
- 6) refine teaching opportunities;
- 7) invest in administrative capability.

1. Define a research identity

The research themes in the Department today are substantially coherent, and yet they also reflect historical developments such as the integration of sub-scaled initiatives and the idiosyncratic interests of particular individuals. A core recommendation is

that IVS define a target identity for the next five years that can shape resource-allocation decisions, hiring decisions, teaching assignments, and other critical questions that confront the Department's leadership team.

a. Define IVS's principal research identity as "innovation and strategy" with a reliance on economic methodologies

A large number of faculty and PhD students in the Department are currently working on research that is unified by the theme of "innovation and strategy." We believe that this theme describes a powerful set of ideas with relevance for academics, practitioners and students. Many major business schools have established Departments in this field over the past ten years (for example, MIT has a Department of Technology, Innovation Management and Entrepreneurship consisting mainly of economists). We hope that each faculty member within IVS defines his or her research agenda in relation to this core theme and that the Department cultivates new initiatives that are aligned with it. Just a few of the ideas that would fall under this theme include the development of intellectual property, standard-setting, models of open innovation, the geography of innovation, and University-industry collaborations.

Equally important, we believe that the Department must embrace economic methodological training as central to the success of its faculty. While faculty in the Department may elect to pursue research that relies on innovative methods that depart from the neoclassical model, we believe that the rigor and discipline that are cultivated by training in economics are essential to the Department's success.

b. Consider changing the name of the Department to Innovation Economics and Strategy (retaining the acronym IVS)

We are aware that changing the name of a Department within CBS is sometimes difficult, and yet we feel that the current title of the Department ("Industrial Economics and Strategy") reflects an historical emphasis on industry analysis that is no longer as central to the identity of the Department.

Our recommendation for a new title, "Innovation Economics and Strategy," is accompanied by the suggestion of retaining the acronym IVS. We suggest this particular name for four reasons.

First, we believe that this new title reflects capabilities that already exist within IVS in innovation and in economics. These capabilities form the core of a new assertion of identity that capitalizes on the themes of innovation and of economics.

Second, the word “strategy” is essential as it signals that the work of the Department reflects the trade-offs that firms face rather than processes that create organizational effectiveness and efficiency (such as those that would be appropriate for an Operations Management Department).

Third, this will emphasize the new vision in which the primary focus of analysis in IVS will be the firm rather than industry. In this respect, retention of the word “strategy” (which signifies firm-level analysis) is important. At the same time, these words naturally imply a reference to industry as the environment in which firms operate. As a result, the Department’s tradition in industry studies will not be diminished, even though the shift of focus will be better aligned with the type of research that is presently prominent in the Department and for which it is internationally recognized.

Finally and most importantly, the retention of the cadence of the prior title and of the IVS acronym signals that this new phase of IVS’s development is an extension of its established capabilities rather than a radical change of direction.

c. Create a new administrative center within IVS called Knowledge Management Studies with a separate identity and separate administrative and teaching responsibilities

We recommend the creation of a new center populated by various members of the IVS Department, but with a distinctive administrative structure and a close association with IVS. While initial funding for this center would come from CBS, we envision that the initiative could be funded by many of the same agencies and institutions that currently fund DRUID. Indeed, the vision for this center is that it would be populated by faculty members who are currently deeply involved in DRUID, and that it would draw back some of their energies and funding opportunities into CBS itself. The creation of the Center would also create an opportunity for leadership contributions for newly tenured members of the Department, and an opportunity to define distinctive teaching and administrative responsibilities for a core group of active researchers.

Several other features of the Center that we envision are worth noting. First, we suggest that the new center be defined on an intellectual theme such as Knowledge Management rather than in an industry area. This recommendation is aligned with our general sense that the Department’s current orientation toward industry centers (eg, COMBI and IMAGINE) cultivates a slightly risky identification of research with Danish business and policy centers. By defining the new center on an intellectual theme, the Department will balance the industry centers with a new intellectual initiative, and thereby emphasize its academic orientation.

Second, we recommend that the new center be co-located with IVS and that it draw initially *only* on scholars who are affiliated with IVS. Our understanding is that centers at CBS are designed to support initiatives over a three- to five-year horizon. Knowledge Management is currently a centrally important research area that is extending the field of Innovation Economics and Strategy. We believe that, within the next five years, significant insights in this area will develop and become integrated into the core of the field. Thus, a five-year horizon for the center is consistent with the objective of developing new ideas in this area. At the end of this period, we expect that faculty members in the center would rejoin the IVS Department.

Finally, one of the major purposes of the center should be to rebalance workloads and to support active research faculty with teaching assignments that support their research agendas. As a result, we recommend that the faculty head of the center work directly with the Dean's office to develop appropriate teaching assignments.

d. Invest in the research connections between IVS and IMAGINE

One of the most potent impressions that we developed during our visit to the IVS Department was the energy and enthusiasm of the faculty associated with the IMAGINE initiative. We heartily endorse and appreciate this enthusiasm, and believe that there is great potential for research that is aligned with the core themes of the IVS Department in creative industries.

We recommend that IVS and IMAGINE cultivate research projects that anchor the IMAGINE initiative in the core discipline of economics. In particular, it is important that PhD students affiliated with IMAGINE fulfill the requirements for grounded training in basic tools of economics, and that IMAGINE supports research projects that culminate in academic publications as well as industry-directed studies. IMAGINE must retain an intellectual heart that is directed by research-active faculty to remain successful.

2. Invest in the research culture

Most social relationships among members of the IVS Department are strong and supportive, and thus provide an excellent foundation for renewing the Department's commitment to academic research on innovation economics and strategy. We hope that the culture develops around a core belief that academic publications in leading journals will enhance the standing of the Department in the international community, and thereby lead to new kinds of relationships with a diverse range of companies as well as to new academic projects. The majority of our recommendations under the heading of "invest in the research culture" support these objectives.

As noted below, one area for concern is that the Department is developing strong relationships with companies and government agencies that are funding research

projects with specific deliverables that are aligned with the funders' current objectives and priorities. While some amount of faculty consulting and of the writing of industry reports is a normal component of academic activities, we are concerned that the amount may be growing disproportionately to research output. As a result, we have included a number of initiatives here that are designed to support the Department on a firm course of academic publications.

a. Increase the engagement of senior faculty

The IVS Department currently includes a number of vibrant senior faculty members who are engaged at various levels in the central activities of the Department. We recommend that the School and Department undertake a number of initiatives that capitalize on the energies of these unique individuals and that create opportunities for contributions among senior faculty that can support the core agenda of the Department.

First, some of the senior faculty are contributing and can contribute in greater measure to the research activities of the Department. The Department Chair, with support from the Dean's Office, should provide these faculty members with direct feedback that emphasizes the potential for their contributions. For example, we hope that Professor Peter Abell would agree to become more involved in teaching assignments in the doctoral program. (See also our discussion of the PhD program below.) Similarly, we hope that Visiting Professor Ron Sanchez will become more involved in the Department's seminar series. Yet other senior faculty may be interested and demonstrate capability in the publishing of research in academically directed journals. In some cases, the publication of research findings in books also may constitute an area of opportunity.

Second, we recommend that, in connection with the Dean's Office, the Department define a dignified and respectful model for contributions by senior faculty who are not publishing in the field's top, peer-reviewed journals, but who seek to support the activities of research-active faculty and who endorse the core direction of the Department. By necessity, the specific plan for particular faculty in this group should be tailored to the person's unique profile. The model could include activities as diverse as a commitment to additional teaching responsibilities, the development of an administrative trajectory, and a commitment to use research time for cultivating external research funds that could be shared by members of the Department. It might also include collaborations with research-active faculty who are working on particular theoretical problems by providing illustrative case examples and by introducing research faculty to sites where fieldwork can occur. The critical opportunity here is in finding ways that research-inactive faculty can realistically contribute to the core agenda of the Department as it pursues international leadership in academic research. We

also wish to emphasize that any collaborations between junior and senior faculty should be initiated by the junior member.

Please note that we do *not* recommend any wholesale re-allocation of the 70/30 burden of non-research and research activities across members of the Department. In our experience, a rule-based reallocation of responsibilities within a Department based on criteria such as research activity and/or seniority status can lead to a souring of the climate in a Department. Instead, we recommend a person-by-person, ad hoc negotiation with each senior faculty member that involves the Department Chair and a representative from the Dean's Office. Our hope is that these negotiations are developmental and that they continue the in strong tradition of collaboration that characterizes the culture of the Department.

Finally, we also recommend that the Dean's Office, in consultation with the IVS Department (and perhaps other Departments as well), develop an attractive early-retirement program that celebrates the contributions of senior faculty who seek new challenges in their lives or who aspire to emeritus status. In some instances, a facet of retirement may be the establishment of a small endowed fund in the retiring professor's name that could be funded by contributions from the retiree's former students, sponsoring corporations, etc., and that could become the basis for an annual Departmental Award to a research-active faculty member (see point (i) below).

b. Establish a senior research committee to refine and clarify promotion criteria to align with research priorities, and to administer various evaluations of research within the Department

As we interviewed members of the CBS community, we were struck by the depth of awareness among faculty members about the research content of projects pursued by other faculty: You have read one another's research! We heartily endorse the idea that assessments of research are based on the content of research projects rather than on only a count of "hits" in ranked journals. This approach is consistent with an attitude of tolerance and judgment in the assessment of research projects that are "high risk but high return."

Yet despite your successes in this approach, there is also a risk that a qualitative assessment about the research profile of each individual also could lead to a reduction in the standards for research quality. Within the IVS Department, there is a concern that, in the future, social relationships may be as important as research quality in promotion and tenure decisions.

We believe that a productive research climate depends on the institutionalization of a research committee composed of research-active senior faculty within the Department. This committee should be charged with responsibility for obtaining advisory reviews by qualified members of the

international research community (i.e, through “outside letters”) when members of the Department apply for promotion. The goal of this committee should be to provide a recommendation to the Dean’s office regarding each promotion application that combines scholarly judgment about research quality with a balanced perspective on the candidate’s potential for future productivity. The purpose of establishing a committee to steward the process of interpreting these letters is to ensure a fair and balanced interpretation that is bolstered by thoughtful, confidential discussion among the committee members.

In connection with this process, we recommend that the committee be convened immediately to refine and clarify the kinds of research profiles that would qualify a candidate for promotion. Once these criteria are developed, they should be communicated clearly to the junior members of the Department.

We also recommend that this committee convene annually to make recommendations to the Dean’s Office on the distribution of annual salary supplements to reward researchers within the Department. This approach would cultivate fairness and help to assure a strong relationship between academic impact and compensation bonuses. The committee would also determine the recipients of various Departmental awards for excellence in research (see point (i) below).

c. Pursue relationships with companies only if they support academically-directed research priorities

As senior members of the research community, we have seen several departments become adversely affected by the interests of corporations that provide funding for particular research projects. We are particularly concerned about commissioned research on topical areas that might otherwise be conducted as a consulting project, as well as about industry reports that are closely aligned with the commercial interests of a particular company.

We believe that IVS can avoid this trap by pursuing external funds from corporations only when the projects also generate journal submissions, and only when the companies expressly support the faculty member’s right to make independent judgments regardless of their alignment with the corporation’s commercial interests. In this respect, we also encourage the Department to take a pro-active and communicative attitude with companies in which the firms understand that what they can gain from an academic relationship is not what they normally obtain from a consulting company or an employee. One reason for investing in this communication is that in Nordic countries companies are often open and enlightened, and therefore understand the advantages of supporting research that may have no direct financial return, but that, by developing knowledge about the society as a whole, can yield

important indirect returns. We advocate that consulting and industry reports should be minimized unless they are collateral work product to research published in refereed journals.

To support the Department's activities, we advocate that IVS pursue research grants from funders that are not directly aligned with Danish corporations. Examples of such funders include the European Union, government agencies, and industry associations.

d. Continue to invest in DRUID a major vehicle for international visibility of the Department

As noted earlier, DRUID is a "crown jewel" at CBS. Through international conferences, an extensive catalog of working papers, doctoral workshops, and research symposia, the DRUID consortium has had a major impact on the intellectual community, and has advanced CBS's reputation as a leading academic institution on the world stage. We recommend that CBS continue to invest in this essential resource for the IVS Department and for the School as a whole.

e. Attract external research funds into the Department directly to fund research initiatives outside Scandinavia

Several of the academic publications by members of the Department rely on datasets, case examples, and fieldwork conducted within Scandinavia. We endorse this setting as an appropriate research site for members of the Department. We also recommend that the Department pursue funding from institutions that encourage research from diverse geographic settings. The purpose of this recommendation is to provide a foundation for developing generalized research findings that apply in a range of settings, and to guard against a perception in the research community that IVS is a Department with a principal focus on Scandinavia.

f. Support a seminar series with prominent speakers that lead in publishing internationally and start a brown-bag lunch program among faculty and PhD students

The Department's seminar series has changed over the past several years. In 2000, eminent international scholars such as Professors Oliver Williamson, Marco Delmastro, Richard Langlois, Robert Gibbons and Anna Grandori (to name just a few) visited CBS and the Department to give research seminars. Recently, the seminar series has involved both international scholars of this stature as well as CBS PhD students, CBS faculty, and other local faculty.

We also appreciate the benefits of interaction with both international and local scholars, and also understand that the proliferation of seminars can lead to a problem of “information overload.”

We therefore recommend that IVS work with its affiliated centers (including IMAGINE, COMBI, and the new Knowledge Management Center) as well as other CBS Centers and Departments (such as SMG and IB) to coordinate a seminar series that regularly attracts scholars of international standing. By combining resources, we hope that these centers can generate the funds to pay for international travel by visiting scholars from the US, other parts of Europe, and even Asia and Australia. When seminar speakers visit from particularly remote parts of the world, we recommend that their visits be extended by supplementary research workshops and short doctoral courses that can serve as a platform for fostering research collaborations. Our vision is that visits by eminent, internationally known scholars would occur during the core academic year on a schedule of about twice a month.

We also recommend that the IVS Department institute a weekly or bi-monthly brown-bag luncheon program where local faculty and PhD students present works-in-process to one another. The purpose of this program would be to generate feedback on early-stage research projects and to facilitate mutual knowledge of research projects.

g. Support and encourage faculty at all ranks to visit leading business schools around the world while on sabbatical

CBS has supported faculty on sabbatical in visiting business schools around the world (for example, Prof. Peter Maskell has visited Stanford, and Prof. Lars Bo Jeppesen has visited MIT). These experiences are important in building the international visibility of the IVS Department even when they do not lead immediately to research collaborations. We recommend that the Department and the School continue to endorse them.

h. Continue to support attendance at leading academic conferences

During our interviews on campus, we were heartened to learn that the IVS Department has a tradition of supporting faculty whose papers are accepted to leading conferences such as the Strategic Management Society, the Academy of Management, and the Academy of International Business. This kind of support is crucial to the international standing of the Department and to the acceptance of international publications, and we recommend that this practice continue.

i. Begin a program in which faculty apply for research stipends that reduce teaching load

There are important untapped opportunities within IVS (and even CBS as a whole) to acknowledge productive researchers with special, one-time rewards. The purpose of these rewards is to create an incentive for academic research and to generate signals by the senior faculty of the Department's about quality.

Ideally, these rewards would take the form of a release from teaching duties, and thereby cultivate additional research productivity. Yet we appreciate that resources are constrained at CBS and within the Department, and recognize that constraints may prevent a release from teaching duties. In the event that these resource constraints are binding, we recommend that the IVS Department issue small cash and plaque rewards to acknowledge research excellence.

3. Enhance collaboration *within* CBS

The IVS Department is part of a constellation of research centers and sister departments with complementary interests and capabilities. We recommend that IVS lead in the cultivation of relationships with other organizational units within CBS along lines that are discussed below.

a. Cultivate and develop research collaborations with international researchers who are exposed to IVS through DRUID

The DRUID conference brings outstanding scholars of eminent reputation to CBS. We recommend that IVS offer research workshops, seminars and other programs that coincide in timing with the beginning and ending of the DRUID conferences to capitalize on the presence in Copenhagen of these scholars.

b. Explore opportunities to collaborate with COMBI and IMAGINE to hire, retain and support new faculty in areas of common interest

COMBI and IMAGINE have an interest in hiring research assistants and other staff to support various projects. IVS has a complementary interest in promoting research that is directed at academic outlets. We recommend that IVS explore possibilities for hiring, retaining and supporting particular faculty by aligning interests with the research centers. This process may require some time, as IVS researchers may generate academic publications that are not accessible in the short run to the firms that sponsor projects in the centers. However, through the creative definition of new projects and through the cultivation of new sources of funding, alignment may emerge.

Please note that we feel it important that the research-active faculty of IVS should cultivate relationships that support publications in academic journals. We recommend that faculty avoid involvement in research projects that could distract them from a focus on academic publications.

c. Engage scholars from the Center for Strategic Management and Globalization in the research and teaching activities of the Department

Scholars in SMG pursue projects that are often aligned with those of IVS. Through our interviews, we were impressed by the range of mutual interests among scholars in SMG and IVS. We recommend continuing collaborations with researchers in SMG.

d. Invest in *Industry and Innovation* as an opportunity to enhance visibility within the international community

The journal, *Industry and Innovation*, is an important vehicle for enhancing the international visibility of IMAGINE and of IVS, and for strengthening academic connections between researchers in IMAGINE and the international community. A number of opportunities come to mind for the journal:

- i. Attract an internationally diverse editorial board of scholars who work on issues of particular interest in creative industries, such as risk management, capability development within project-oriented environments, project control systems, trademark policy, and intellectual-property protection
- ii. Continue to focus the editorial mission on these issues
- iii. Generate annual special issues that report on the results of the debates held at DRUID
- iv. Call on members of the editorial board to stimulate interest in submissions among their graduate students and colleagues

4. Revise the approach to recruiting new faculty

The report issued on the Department by Professor Lotz indicates that 7 of the 15 tenured members will retire in the next eight years (i.e., by 2014). This wave of retirements will create a large and important burden on the remaining tenured faculty. As a result we recommend that the Department initiate a period of hiring now to develop faculty who can assume senior responsibilities during this period. We wish to emphasize that this may require a temporary increase in departmental headcount in advance of the retirements.

In addition, we believe that this wave of hiring represents a crucial opportunity to diversify the base of applicants and candidates for various positions through recruiting in the international academic community. In our interviews, we learned about entry-level salaries and also of an incorrect perception among some members of the Department that salaries were not competitive on international markets. Within its current salary structure, we believe that IVS can compete effectively on international markets to hire assistant professors from internationally recognized Universities.

In our visit to the School, we also became aware of an undercurrent of concern that diversifying the hiring pool might ultimately lead to a change in the culture of the Department. For several reasons, we feel that risks of hiring internationally are far outweighed by the benefits. First, the culture of the Department is deeply embedded in its norms and processes, and we believe that a new recruit from anywhere in the world would adopt and adhere to these behaviors. Second, the advantages of international hiring include exposure to new research tools, methods, theoretical approaches, datasets and relationships. The IVS Department needs these new perspectives. These advantages are so significant that they would yield benefits for faculty across the Department. Third, the recruitment of faculty with diverse backgrounds will significantly promote the Department's ambition of international leadership by introducing existing faculty to scholars with a broader range of experiences, relationships, contacts, and ideas.

Our recommendations in support of this objective fall into several categories.

a. Hire at least three tenured and/or tenure-track faculty (assistant professors) within the next five years from the international job market in core research areas

We recommend that the Department focus its hiring at the entry level to maximize the chances of success in attracting rigorously trained faculty with an interest in the core research areas of the Department. Entry-level faculty are also attractive because of the length of time over which the Department can assess compatibility before making the long-term commitment of tenure.

These young scholars should be hired through the job markets in Economics and/or Business disciplines that occur annually at the American Economic Association, the Academy of Management, and increasingly at the European meetings of both economists and business scholars. Even more important, we recommend that the Department adhere to the processes established as norms by the leading business schools that base their hiring on the markets that are created during these meetings, and especially:

- * for each position (based on a well-defined job profile) 4-6 candidates are interviewed at the academic meetings and then invited (with all expenses paid by CBS) for a seminar at the school,
- * all Departmental faculty have a voice in the decision of whom to make an offer
- * candidates who receive offers are "courted" by the school in additional campus visits
- * contracts offered are specified clearly, with a clearly stated number of non-tenured years eventually leading to a tenured post if given conditions (typically in terms of publications and teaching) are met.

Of course, there should be no guarantee of the tenured position when the hiring takes place, but the clock for tenure has to be well defined and the possibility of obtaining the tenure has to be stated clearly. We also expect that this mechanism will ensure a natural turnover in the younger faculty of the Department, and that it will lead to variety among hired faculty in backgrounds, skills, specializations and national identities.

In our interviews with members of the Department, we were exposed to a perception that IVS may not be successful in international hiring because of its location and history. While we appreciate that there may be a short learning curve in the hiring process that leads to missteps, we also wish to point to several great advantages that CBS can offer to candidates: a sociable and amiable Departmental culture; involvement with prolific and successful academic researchers; a diverse range of teaching responsibilities; a wonderfully international city; the opportunity to shape the evolution of the Department; exposure to international scholars through DRUID; the opportunity to join the new Knowledge Management center; and a competitive entry-level salary. These advantages are substantial and, we believe, will lead to successful hiring on the international job market if IVS pursues the activities necessary to compete effectively.

Competing effectively requires that the Department first identifies candidates with skills, training, and ideas that fit the environment and research interests of IVS. An increasing number of young scholars exhibit these characteristics. Potential reservoirs of talent include the leading PhD programs in Europe and the CCC-Consortium Meeting where PhDs in these subjects regularly meet on a yearly basis.

b. Begin the process of attracting at least one tenured full professor from the international community in core research areas

The hiring of tenured faculty is often a long process that requires significant mutual investment before success materializes. We recommend that the Department begin the process of recruiting a like-minded and compatible Full Professor who shares an appreciation for the three major pillars of capability within the Department. This may even require the early granting of tenure to a highly capable and compatible researcher with a demonstrated record of collaboration with other members of the Department.

c. Create a policy that makes hiring a CBS-trained PhD an extraordinary event

Under point #5 below, we recommend a restructuring of the PhD program in ways that change expectations about placement upon graduation. In conjunction with these suggestions, we also recommend that IVS adopt a

policy that makes the hiring of CBS-trained PhD's as assistant professors an extraordinary event.

The purpose of this policy is to encourage and stimulate the introduction of new capabilities and methods into the Department. When a Department hires its own graduates repeatedly, it bears a risk of becoming increasingly insular and less engaged with the broader research community. We believe that IVS is at risk on this front, and that the important opportunity created by the development of the three pillars for research will ultimately fade if IVS continues to hire its own PhD students as entry-level faculty.

To create a market for its PhD students, we recommend that IVS begin to collaborate with other European departments that share similar objectives. The goal of the collaboration should be to develop placement opportunities for PhD students in the research community. (The purpose of focusing first on European schools is to take advantage of their similar features such as salary structure and intellectual culture. Nonetheless, we also recommend that IVS should not neglect opportunities to develop relationships with US departments (or departments elsewhere). We wish to note that success in placing PhD Students internationally will depend on improving the PhD program in ways that are outlined under point # 5 below.

d. Emphasize core research areas in recruiting, and aggressively recruit in the area of econometrics of innovation

We recommend that hiring over the next five years occur in the core research areas of the Department rather than in complementary areas. For example, we hope that the Department can attract established junior co-authors of current faculty into the Department. All viable candidates should carry the potential to collaborate successfully with the research-active members of the faculty in their areas of core interest (i.e., on subject areas that are integral to the theme of innovation economics and strategy).

The Department urgently needs a new faculty member (ideally, an Assistant Professor) with capabilities in the econometric methods that are applied in his or her research to the empirical analysis of innovation and strategy. Model faculty in the field with relevant qualities include Professors Pierre Azoulay of MIT and Ray Fisman of Columbia.

In his report on the Department, Professor Lotz indicated questions about whether hiring should focus on the central research agenda of the Department or on complementary areas. We believe that hiring into the core areas represented under the theme of "innovation economics and strategy" is critical. The IVS Department does not yet have the critical mass of active researchers necessary for international leadership in these areas. By hiring

junior faculty, the Department can scale up its research programs and achieve a coordinated and broad impact.

e. Involve new faculty in research programs and centers

As new faculty enter the Department, we recommend that they become immediately integrated into affiliated research programs and centers. In particular, we recommend that newly hired faculty become immediately affiliated with the new Knowledge Management Center, as the established scholars in this area can serve as mentors for incoming researchers.

5. Restructure the PhD program

Prominent research departments in the world are those with PhD programs. There is a tight interdependence between good research and good PhD training. Thus, IVS must concurrently promote high standards in its PhD program and in its faculty research agenda.

The PhD program in IVS is a major asset of the Department. Yet the structure of the Department reflects an outdated model in which a PhD serves as a trial period for Danish students who expect to be hired into faculty positions within the Department. We recommend that a significant restructuring occur to align the PhD program with the research trajectory of IVS along the lines described below.

The approach that we recommend here involves a comprehensive revision of many elements of the PhD program. Some of these initiatives may not be implemented until entering students mature through the program. Others may require some additional financial support both for the students themselves and for faculty who work with PhD candidates. We recommend that the School implement a broad strategy for enhancing the quality of PhD programs, and that it use the IVS Department as a test case for upgrading the PhD program across the School.

The implementation of these initiatives will enhance the effectiveness of the PhD program in training young researchers with the potential to become leading faculty in business schools around the world. Yet our recommendations were developed with a special respect for the culture of IVS as a Department within a uniquely Danish University. We hope that IVS can achieve a balance between imposing structure and retaining flexibility.

a. Recruit PhD students from a broader geographic area and with solid training in economics

A major challenge at IVS is that PhD candidates are funded for just three years in the Department. Three years is not enough time to earn a PhD that qualifies the candidate for an assistant professorship on the international job market. IVS must therefore admit PhD students with stronger backgrounds in

economics, and particularly in basic economic tools and methods. We therefore recommend that new students enter the program with at least one year of training in a basic Master program in Economics, such as those at Pompeu Fabra (Barcelona) or Coripe (Turin).

- b. Examine entering students for their understanding of basic economics and provide access to a master's-level course as a prerequisite for entering the program for remediation if necessary**

To assure that entering PhD students meet the standards required for advanced study in the Department, we recommend the establishment of an entrance examination that tests admitted candidates for basic mastery of fundamental concepts in economics. This examination should be developed in consultation with leading economists from programs such as Harvard's PhD program in Business Economics and Berkeley's PhD program in Organizational Economics.

Students who fail to pass the test should be offered admittance to a qualifying Master's program in Economics for additional study prior to admittance into the PhD program. This study should occur at the student's own expense. Subsequent admittance into the PhD program should be contingent on passing the entrance examination. If a student fails the examination twice, then admittance to the PhD program should be foreclosed.

There is a belief among some members of the Department that these requirements might discourage entrance of qualified candidates into the PhD program. While this may be true for some students (and particularly for Danish students), we are confident that CBS could easily attract students from other countries where the payment of salary to PhD candidates is unusual. In particular, many qualified students from the United States would find the prospect of earning a salary during doctoral study to be unusually attractive.

- c. Create a document for incoming PhD students that describes the structure and requirements of the program, including lists of available courses and descriptions of representative trajectories**

During our visit to the School, we met with six PhD candidates. Each told us that he or she was confused and disoriented at the outset of the PhD program. One student told us that he/she wished he/she knew half as much at the beginning of the program as at the end of the program. Clearly, there is unnecessary confusion about the requirements and nature of the program. Given the short timeframe for study (i.e., three years), no time should be wasted.

We advocate that the Department create a document for incoming PhD students that describes the structure and requirements of the program. This

document should clearly describe the detailed requirements of the program with a timetable for progress, and also offer profiles of recent graduate theses that can serve as models for incoming students.

- d. Create a mandatory semester-long program for the first semester of required graduate-level courses in economic theory, theory of the firm, econometric methods (static and dynamic), taught by economists and econometricians**

Students in the IVS doctoral program do not have sufficient training in the advanced methods of economics. Remediating this problem is essential to the success of the program. We recommend that the PhD program be restructured to require a semester-long series of courses in advanced microeconomic economic theory (including basic concepts in Industrial Organization), macroeconomic theory, and econometric methods. We would note that the kinds of econometric methods necessary for study in innovation economics are significantly advanced from basic statistics. As a result, we recommend that specialized IVS faculty (such as Professor Peter Abell) teach these courses.

Our understanding is that CBS requires that at least 12 students be enrolled in a course for faculty to achieve teaching credit. We hope that the School would suspend this requirement for doctoral-level courses. If this is not possible in the short run, and if the IVS Department cannot attract enough students into its doctoral courses to meet the 12-student minimum, then we recommend that students be sent to other Schools and University courses in Europe to acquire the skills needed to succeed in publishing.

We also recommend that students be encouraged to attend doctoral workshops and seminars that are currently offered by European Universities and Consortia to supplement the required curriculum. Also, IVS should seriously consider the possibility of developing agreements with other European Universities for providing or exchanging doctoral level courses.

- e. Admit PhD students in cohorts each January (on the expectation of graduating three years subsequently in June) to facilitate the achievement of a critical mass for coursework**

The introduction of a course curriculum into the IVS doctoral program requires the achievement of a critical mass of students who enter contemporaneously. As a result, we recommend that IVS admit students who begin in cohorts each September or January. If funding for PhD students in their third years can be extended for a semester, then a January start date would be ideal as it would facilitate enrollments in a slate of Winter/Spring courses among a group of students who would graduate three years hence in June.

We also recommend that IVS work with sister Departments within CBS to increase enrollments of PhD students in the required courses. In particular, we recommend that IVS create a month-long required course in conjunction with the Center for Strategic Management & Globalization and other Departments in CBS on research design

f. Relax the requirement that PhD students study abroad

We think that the requirement that students spend a period abroad may have adverse effects on their training. A PhD student benefits from study abroad only when the student works collaboratively with an established scholar who is interested in the student's research agenda and who is willing to advise and interact with the student. This is not common. Thus, the requirement for study abroad may lead to a student spending time at the margin of an international school, with limited benefits and a significant expenditure of resources. We believe that, with some exceptions, a student may receive more effective training by interacting with IVS faculty who are committed to the student's welfare.

We therefore recommend that students spend a semester abroad only under a well-defined program of activities that involve either a clear link to a faculty member (or a group thereof) in the host institution, or a well-defined set of courses in the host institution. In the latter case the student should report back to IVS the grades obtained in these courses, and the Department should evaluate the student based on his/her performance.

In summary, we recommend that study abroad by PhD students should be an unusual event. Students should apply to the IVS senior research committee (as described under point #2b) to evaluate student proposals for study abroad on the basis of a specific program of activities.

g. Relax the target that PhD students publish 3 papers in refereed journals during their PhD years to 1 paper

This is another unnecessarily tight requirement that finds no equivalent in leading PhD programs worldwide. An unrealistic implication of this requirement is that the student postpone the date in which he/she can defend the thesis and obtain the PhD degree. In turn, this may push her too far in time before she can apply for jobs (whether academic or not)

h. Move from 4- to 6-peer-reviewed, publishable paper model for the thesis to an American model of 3 strong papers

The IVS Department currently requires its students to write dissertations comprised of 4- to 6-peer-reviewed publishable papers. This standard is

unattainable, in our opinions. Furthermore, if enforced, this unnecessarily tight requirement has the potential to delay excessively the date in which the PhD is conferred.

We recommend that this requirement be replaced by the American model of 3 strong papers. This approach would be aligned with international standards.

i. Create requirements for comprehensive examinations at the end of year one and a proposal defense at the end of year two

The implementation of examinations at the end of the first and second years of the program has several implications. First, it helps tighten the schedule of the PhD program, and provides the student with intermediate milestones. Second, it provides the students and the professors with a way to assess progress and achievements.

Comprehensive examinations in the first year should be oriented towards evaluating the student's understanding of basic tools, concepts, methods, techniques and subjects. The proposal defense at the end of year two provides the student with "marching orders" for completing the thesis. The expectation should be that, by fulfilling the agreement for research agreed upon by the thesis committee during the proposal-defense examination, the student will fulfill the requirements for the degree. Thus, the second-year examination should direct and focus efforts on research.

j. Assure that each PhD candidate works with a committee of three engaged advisors, including, if possible, a target of one advisor from outside the school and with international visibility

Students within the PhD program should work with three or more faculty advisors. Ideally, one advisor would be stationed at a University other than CBS. This is another important requirement that is designed to provide the student with a full consort of resources and a well-defined framework to guide research activities. In our interviews, we learned that almost all of the PhD students would benefit by greater guidance by faculty advisors. Increasing the number of members of each committee would provide each student with access to more involved faculty.

6. Refine teaching opportunities

Through our visit to the school and through our review of various CBS documents, we developed a strong awareness of the constraints that shape teaching assignments at CBS. As a result, we have just a few recommendations in this area.

a. Involve entering new faculty in attractive teaching assignment through a mentoring program with senior faculty

Our understanding is that teaching assignments at CBS are developed with a lead time as great as a year in advance of the actual execution of teaching duties. As a result, we recommend that IVS develop a targeted profile for new recruits at least as far in advance, and that each targeted new hire be “shadow mentored” by a tenured member of the Department in the allocation of teaching duties on the regular schedule of the School.

Let us clarify this idea: We are recommending here that IVS define the research profile and characteristics of ideal new hires as part of the recruiting strategy well in advance of the actual recruiting process itself (and in alignment with our recommendations under point #4 above). In particular, we recommend that these definitions be established long enough in advance to influence the assignment of teaching duties, i.e., as long as a year in advance of the start-date of the new hire. We also recommend that a tenured member of the Department be assigned as a “mentor” for each new position when it is created. This mentor would then represent the prospective hire in the allocation of teaching duties by, perhaps, assigning his or her own name to a teaching slot that might ultimately be filled by the recruited person. New recruits would also be mentored as they enter the Department in a broader sense by the senior faculty member.

b. Assign untenured and research-active faculty to the PhD courses and to targeted Master’s courses

As normally occurs in many academic departments, the senior faculty -- with their greater longevity in the Department and their interest in teaching -- sometimes come to dominate especially interesting assignments that carry the greatest potential for synergy with research activities. Today, there is an opportunity to review the assignment of teaching responsibilities so that the most research-active of the faculty have access to opportunities to teach in PhD courses and in advanced Master’s courses.

c. Invest in specialized Master’s programs that create new assignments with the potential for synergies in research

The specialized Master’s programs such as MIB and CBP carry significant start-up risk, and should be led by faculty who absorb this risk and invest in the programs. When possible, the research-active faculty should be involved in these programs to capitalize on their potential to contribute to student learning through courses that are aligned with their research interests.

d. Create a mechanism for senior teachers to contribute to the Department through teaching leadership

In some instances, research-inactive faculty with significant teaching capabilities may be particularly suited – and may especially enjoy – taking responsibility for leading large required classes in the undergraduate and master’s programs. We heartily endorse the creation of a mechanism, such as the exchange of overload teaching for research responsibilities, that may particularly suit senior faculty in this position.

7. Invest in administrative capabilities

The Department’s research and teaching activities have expanded significantly over the last decade, and yet administrative resources and capabilities have not expanded at the same rate. As the Department continues to grow, a few limited opportunities to enhance administrative capabilities also arise.

a. Re-allocate administrative responsibilities with IVS to relieve the IVS Secretariat of the duties of applying for research funding and then of administering and managing obtained research grants

The Secretariat of IVS carries responsibility for managing the Department’s regular administrative activities such as the budget, computing equipment, workspace, archives, and student interactions. These responsibilities require that the Secretariat demonstrate superior organizational skills as well as the kindly patience needed to deal effectively with the large numbers of students who interact with the various faculty members of the Department. Our impression, after meeting various members of the administrative staff at IVS, is that the Secretariat has been executing these duties admirably.

We also noticed that the growth of research activities has generated a substantially newer set of administrative duties within the Department in applications for research grants and in the management of obtained grants. Our sense is that these new activities require a great deal of last-minute activity as faculty respond to grant announcements, and as both PhD students and faculty struggle to interpret and fulfill the complex requirements of obtained grants. Our assessment is that these activities are not aligned with the skills and cadence of the regular duties of the Secretariat. The skills needed to execute the regular administrative duties of the Department differ from those needed to attract research grants and to administer them effectively.

We therefore recommend that the IVS Secretariat be relieved of the duties of applying for research funding and then of administering obtained research grants.

b. Hire a professional with specialized capabilities for applying for funding from diverse external grantors, and with the capacity to administer and manage grants subsequently

The recommendation in part (a) of this section raises a question about where responsibility for managing grants should lie within IVS. Ideally, IVS – in collaboration with COMBI, IMAGINE, SMG and other research centers within CBS – would marshal the resources to hire a professional with specialized grant capabilities.

In this post, a newly hired professional would join the Department and would assume responsibility for working with faculty to document research projects that carry the potential to attract funds from quasi-governmental and governmental bodies, international corporations, and industry associations. The ideal candidate for this post would have a demonstrable track record of success in raising research funds from these sources as well as an advanced degree in a field related to the research agenda of the Department. The job description for this role would also include responsibility for administering obtained grants in conjunction with the faculty and PhD students in the Department.

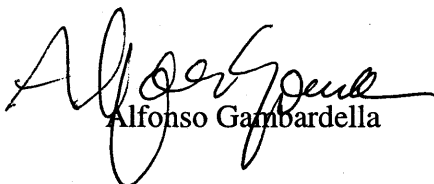
If funding for a new post cannot be obtained immediately, then we recommend to the Dean's Office that a faculty member be assigned responsibility for managing obtained research grants, with compensation in the form of administrative credit toward the 70% requirement (i.e., a release from some teaching duties).

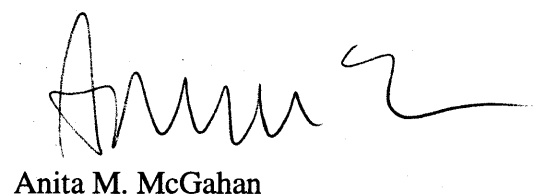
Conclusion

The IVS Department is poised for a crucial new phase of development, and carries the potential to propel CBS forward as a major, internationally ranked business school with a central presence in the international business community. Success in promoting academic publications in leading journals will enhance the reputation of the Department and the School among a variety of constituents, including international academics, international corporations, domestic corporations, and students from diverse geographic backgrounds.

Thank you for the opportunity to comment on this potential and to offer recommendations on the future of the IVS Department.

Respectfully submitted,


Alfonso Gambardella


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