Review of Governance Options for Collaborative Research Ventures
Review of Governance Options for Collaborative Research Ventures

March 2007
### List of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>CFO</td>
<td>Chief Finance Officer</td>
</tr>
<tr>
<td>CLG</td>
<td>Company Limited by Guarantee</td>
</tr>
<tr>
<td>CLS</td>
<td>Company Limited by Shares</td>
</tr>
<tr>
<td>CSET</td>
<td>Centres for Science Engineering and Technology</td>
</tr>
<tr>
<td>CTO</td>
<td>Chief Technology Officer</td>
</tr>
<tr>
<td>DMMC</td>
<td>Dublin Molecular Medicine Centre</td>
</tr>
<tr>
<td>EI</td>
<td>Enterprise Ireland</td>
</tr>
<tr>
<td>GOFO</td>
<td>Government-owned Contractor-operated</td>
</tr>
<tr>
<td>GTRI</td>
<td>Georgia-Tech Research Institute</td>
</tr>
<tr>
<td>HEA</td>
<td>Higher Education Authority</td>
</tr>
<tr>
<td>HEI</td>
<td>Higher Education Institute</td>
</tr>
<tr>
<td>IDA</td>
<td>Industrial Development agency</td>
</tr>
<tr>
<td>IP</td>
<td>Intellectual Property</td>
</tr>
<tr>
<td>JVC</td>
<td>Joint Venture Company</td>
</tr>
<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
</tr>
<tr>
<td>NIBRT</td>
<td>National Institute for Bioprocessing Research and Training</td>
</tr>
<tr>
<td>PRTLI</td>
<td>Programme for Research in Third-Level Institutions</td>
</tr>
<tr>
<td>SFI</td>
<td>Science Foundation Ireland</td>
</tr>
<tr>
<td>SME</td>
<td>Small to Medium Enterprise</td>
</tr>
<tr>
<td>SAB</td>
<td>Scientific Advisory Board</td>
</tr>
</tbody>
</table>
Foreword

There is a growing recognition of the importance of networking, partnerships and collaborations between researchers and research institutions and the private sector to exploiting synergies, developing critical mass and achieving excellence in research in Ireland. These collaborations range from small scale collaborative research projects to multi-institutional research programmes and infrastructures of international scale.

In tandem with the growth in collaborative research in Ireland, the complexity of the organisation and management of these collaborations is also increasing. They increasingly involve a range of partners, including multiple research and academic institutions, funding bodies, enterprise and other private sector involvement. Good governance arrangements are therefore essential to the success of these initiatives. There are currently a range of mechanisms in use ranging from memoranda of understanding to the establishment of independent legal entities, each of which has benefits and limitations.

This review of governance arrangements for collaborative research sets out the range of potential establishment models for such multi-institutional and public-private collaborative research partnerships and reviews governance factors to consider in establishing them. It provides an assessment of best international practice, current practice in Ireland and options to consider from a legal perspective. The options presented draw on consultations with the public and private sector research performers, research funding and development agencies and Government Departments.

We hope that this review will be used as an aide memoire for the partner institutions in preparing for a collaborative research venture. In particular it highlights issues to be considered by the partners in advance which should be the subject of formal agreement, such as protecting the interests of partner institutions, the commercialisation of intellectual property and the management and scientific oversight of initiatives, all of which will be essential to maintain good working relationships and to ensure the success of the venture.

As our national research system further develops and experience is gained in collaborative research activities over the coming few years, additional governance options and factors to consider, appropriate to Ireland, are likely to emerge. In this context, we would welcome feedback on the options and alternatives presented in this review.

Martin Cronin
Chief Executive, Forfás
March 2007
Executive Summary

This paper provides a review of the factors to consider when developing appropriate governance, management and scientific oversight structures for multi-institutional, public-private and collaborative research ventures, based on a review of international best practice and consultations nationally.

Increasingly, research funders and the development agencies in Ireland are supporting the establishment of collaborative research projects, centres, institutes and networks that involve a number of partners, including multiple research institutions, funding bodies, hospitals, enterprise and other private sector involvement, e.g. SFI’s Centres for Science, Engineering and Technology, EI’s enterprise-led research networks, IDA Ireland’s National Institute for Bioprocessing Research and Training (NIBRT) initiative, etc. Determining the most appropriate structure and best governance mechanisms at the outset is essential to achieving the various scientific, and where relevant, economic objectives of such ventures.

While the most appropriate structure for a given collaboration will depend on the purpose and desired outcome of the venture and on issues relating to its proposed composition, intended lifetime, how the venture is to be financed, access to facilities and equipment, the need for independence, etc., there are broadly three potential establishment models\(^1\) to consider:

- **Higher Education based collaborative ventures that are part of a parent institution.** These can be attractive from the point of view of minimising additional cost and complexity, and/or enabling institutions to retain a high degree of control. In effect, the research is carried out pursuant to a contract, a “contractual joint venture”. However, given the constraints implied by university-based collaborative ventures in terms of differences in culture between the higher education institution and other partners, differences in terms and conditions of employment etc., a number of steps are advised to ensure the success of these approaches. Such ventures should have a memorandum of understanding (MOU) or consortium agreement setting out the roles and responsibilities of each of the parties. Such ventures should have their own management Board and there should be clarity as to the roles and responsibilities of any other boards/committees of the venture and of the parent institution. Scientific advisory committees are also advisable for such ventures with external participation encompassing a range of scientific and business skills.

- **Separate legal entities, either a company limited by shares (CLS), a company limited by guarantee (CLG) or a joint venture company (JVC) which has the benefits of limited liability whilst retaining the advantages of a partnership.** The CLG structure is attractive for publicly-funded R&D organisations as its members liability is limited by an establishment memorandum and it offers autonomy, flexibility and scope for partnerships and gives the CEO management freedom. On the other hand, a CLS can establish a responsive, customer-focused, entrepreneurial ethos appropriate to a start-up venture, and can offer better incentives to staff. In general, it is best suited for a venture where the objective is to commercialise research backed by relevant intellectual property. The JVC approach is attractive for multi-party ventures as it can provide independence from associated academic institutions, a business-like approach to research performance and provides a neutral platform for partners.

Before any legal entity option is selected the impact of the State Aid regulations on the proposed structure needs to be considered.

- **Government-owned, Contractor-operated entities,** in general involves a private sector organisation taking over the operation of an entire facility, and is intended to introduce private sector practice into governmental functions. It can be attractive for example where a number of higher education institutions may come together to create a research centre which is itself expected to generate revenue from contracts with enterprise.

\(^1\) Appendix 1 details the advantages and disadvantages of each model.
The governance and oversight of collaborative research ventures will vary as appropriate to their structure and purpose, e.g., to advance science in a particular field, or to undertake knowledge transfer, to develop intellectual property, to commercialise the outcomes of research, etc. However, a core governance structure can be advised for most arrangements. Terminology may vary depending on the governance model selected. Typically the governance structure will include the following:

- a Board – (Board of Directors in the case of a legal entity or Oversight Board for a venture which remains part of the host institution).
- a Scientific Advisory Board (SAB) – (or Scientific Oversight Board or Scientific Advisory Committee may also be used)
- an Executive Management – (team or committee) which, in the case of a company, may include the titles: CEO, CTO and CFO), and;
- various committees (which will usually be sub committees of the Board) to support the different functions of the venture.

Composition and voting rights of members of boards should reflect the purpose and goals of the venture and consideration should be given by the funding agencies as to whether they should have a board seat or be represented on the board and/or have voting rights.

In the case of a venture that is part of a parent institution, the Board Chairman should report to the president or CEO of the parent institution. In the case of a separate legal entity, the Board of Directors is responsible, ultimately, to its shareholders. Care should be taken to avoid circumstances where the Board of Directors reports to an individual who is a Board member, and conflicts of interest in appointments should be avoided or identified and actively managed so as to ensure the independence of the Board.

The Scientific Advisory Board should be comprised of high level scientific personnel in fields related to the scientific focus of the venture with international reputation in their fields. The balance between academic and industrial representation should reflect the core mission and objectives of the venture. It may be appropriate to have a Technology Oversight Board in addition to the Scientific Advisory Board to provide oversight and advice in relation to commercialisation opportunities and viability of commercialisation approaches.

An Executive Management should oversee the day to day operation of the venture. It should be comprised of the management staff and a scientific Principal Investigator representative of each academic and industrial partner. In addition, good practice is to establish an Intellectual Property Management Committee comprised of appropriately qualified representatives from the academic and industrial partners and the Executive Management.

As there is considerable scope for variation on each of the models presented, each should be regarded as a starting-point for consideration and negotiation. It is essential that there is clarity as to the purpose of the venture and clear agreement between the partners as to what each partner is responsible for, their respective roles and restrictions, together with a strong governance structure comprising the management head of the venture and representatives of the partners.

---

2 See Appendix 3 for detailed checklist of items to consider when establishing a limited liability company.
Contents

1 Introduction and Background 1

2 Models for establishment of collaborative research arrangements 2
  2.1 Higher Education based collaborative ventures: “Contractual Joint Ventures” 2
  2.2 Separate Legal Entity 4
    2.2.1 Company limited by share 4
    2.2.2 Company limited by guarantee 5
    2.2.3 Joint Venture Company 6
  2.3 Government-owned, Contractor-operated entities 7

3 Choosing an appropriate model 8

4 Management and scientific oversight mechanisms 9

Appendix I: A comparison of the models 13
Appendix II: Possible Governance Models 19
Appendix III: Checklist of items to consider when setting up a limited liability company - CLG or CLS 20
Introduction and Background

This paper provides a review of the factors to consider in setting up multi-institutional and public-private collaborative research partnerships and potential structuring and governance models for such initiatives.

As the intended purpose and desired outcomes of such ventures varies greatly, this paper does not attempt to suggest structures for use in specific instances, rather it points to issues that should be considered in establishing collaborative research ventures and developing appropriate governance, management and scientific oversight structures.

The Government’s Strategy for STI, 2006-2013 outlines the range of collaborative initiatives currently underway and to be progressed in the future to meet strategic and enterprise research and innovation requirements. These include a range of new research initiatives and collaborative research ventures being established by SFI, HEA, EI and IDA including NIBRT, GTRI, Systems Biology Initiative, DMMC, CSETs and Clusters and other changes and restructuring of research centres such as the Tyndall Institute and the National Diagnostics Centre, Galway. In addition, EI is actively progressing the establishment of industry led research networks. In the health research system a number of new clinical research centres are being established to facilitate increased focus on translational or ‘bench to bedside’ research involving biomedical and clinical researchers and industry.

Increasingly, collaborative projects, centres, institutes and networks involve a number of partners, including multiple research institutions, funding bodies, hospitals, enterprise and other private sector involvement.

There are a range of establishment options for such ventures, from memoranda of understanding between the partners defining how they will work together to establishing an independent legal entity with its own legal personality. Similarly, the governance and oversight mechanisms to ensure the venture effectively fulfils its intended purpose will vary considerably, for example, the governance and oversight mechanisms may be more extensive in situations where the collaborative research includes clinical trials involving humans as opposed to, for example, collaborative research to create a general software product.

Section 2 of this paper sets out the potential establishment models to consider, ranging from collaborative ventures that are part of the host institution, to separate legal entities and government-owned contractor operated entities. Section 3 provides guidance on the factors to consider in choosing an appropriate model and section 4 provides guidance on the establishment of appropriate management and scientific oversight mechanisms.

The paper is based on a review of best international practice, current practice and options from a legal perspective in Ireland and draws on consultations with the research funding and development agencies, government departments and existing research collaborating and performing entities.

---

3 International good practice review completed by Arthur D Little Consultants, UK and Irish legal review provided by Arthur Cox Solicitors.
Models for establishment of collaborative research arrangements

Potential models for collaborative research entities range from memoranda of understanding (MOUs) and consortium agreements outlining how potential partners will work together (which are sometimes referred to as “contractual joint ventures”) to the establishment of separate legal entities to carry out defined research. Time and attention given by the parties at the outset of a collaborative research arrangement to determining the most appropriate structure and the best governance mechanisms for the proposed venture proves more than worthwhile in the long run.

Three broad types of model are outlined here covering principal approaches that may be adopted and some merits and drawbacks of each are identified as follows:

- Higher Education based collaborative ventures (“Contractual Joint Ventures”) that are and remain part of a parent institution;
- Separate legal entities, whether a company limited by shares, a company limited by guarantee or joint venture company;
- Government-owned, Contractor-operated entities.

The most appropriate structure for a given collaboration will depend primarily on the purpose and desired outcome of the venture but also on issues including its proposed composition, intended lifetime, how the venture is to be financed, access to facilities and equipment, the need for independence, ability of the parent institution to sign any agreement/contract with third parties, the statutory framework (and restrictions) applicable to the participating institutions, etc.

There is considerable scope for variation on each of the models presented and therefore each should be regarded as a starting-point for consideration.

Appendix 1 compares in summary format the key features of each model and respective advantages and disadvantages and Appendix 2 presents a structural schema of the models below.

2.1 Higher Education based collaborative ventures: “Contractual Joint Ventures”

Conceptually, an apparently simple model is for the collaborative venture to remain part of a parent institution, typically a university. This can be attractive from the point of view of minimising additional cost and complexity, and/or enabling them to retain a high degree of control. In effect, the research is carried out pursuant to a contract and the structure is best classified as a “contractual joint venture”. It is worth remembering that (from the legal perspective) it will be the institution that will enter into the contract and not a department within the institution, as typically a department within an institution will not be a separate legal entity. It is important to correctly identify the legal entity that will execute the contract on behalf of the institution as some institutions may have dedicated research companies in their structure for the carrying out of research with third parties.

It can also be attractive to venture staff, who value the security of employment associated with being part of a large and established organisation. Often, academic researchers that are part of the new venture will also be principle investigators (PIs) in the associated academic institution. If venture staff are to receive additional compensation (e.g., salary increase, share of profits from commercialisation, payments by third party research partner etc.) for carrying out collaborative research then it needs to comply with the applicable rules that apply to the institution (including Department of Education and Department of Finance guidelines/rules on staff compensation).

---

4 A “contractual joint venture” is where the parties agree to carry out the research pursuant to a contract without creating a separate legal entity. Each party executes the “contract” (which is usually the collaborative research agreement) and the rights and obligations of each party are set out in the “contract”. Typically it is the parties themselves that carry out the actual research.

5 Some collaborative research agreements provide for the creation of a new legal entity and the research is carried out by the new legal entity as opposed to the parties themselves.
Conversely, host institutions may have some concern that risks associated with the venture are not ‘ring-fenced’ and liabilities rest with them. In this regard it is important that the institution confirms that it has the appropriate insurance (and level of insurance) to carry out its obligations under the collaborative research agreement. In addition the presence of the venture may affect other activities in the host, such as teaching or access to equipment in a third level institution. If the venture is to be state funded, funding agencies may have a concern that funds may not be appropriately ring fenced for the venture and may be diverted to other areas. This is an important issue as, in many research projects, grant aided assets or assets provided by third parties may only be used in the research and in accordance with the rules that apply to such equipment. This all forms part of the governance of the research.

Depending on the nature and scale of the venture, it might be governed by the host institution and/or it might be more appropriate to establish its own governance structure. In many cases a particular department of an institution will carry out the research and it should be remembered that the reporting procedures and other governance measures that apply to the day to day running of the department will typically continue to apply to the department in carrying out the research (unless a derogation has been obtained from the institution). As a practical point the governance procedures deployed in a particular research project need to be consistent with the pre-existing governance procedures that exist within an institution.

However, a number of significant disadvantages to such an arrangement may be encountered. If the institution is a university, academic culture may conflict with that of industry. For example, when recruiting staff, terms of employment may need to be in line with those of other academic researchers, which may prevent the group from attracting the best talent. There may be restrictions on providing additional compensation to employees of the institution whereas there may be more flexibility (depending on the institution) to provide additional compensation through a separate legal entity that is not a subsidiary of the institution. Systems and procedures that may be necessary in a large organisation can be entirely inappropriate to a small, entrepreneurial group, and may consume a great deal of the attention of the venture team to the detriment of its mission. The venture may have to compete for senior management attention and priority with larger, financially more significant matters. Moreover, slow processes and slow decision making, as well as approaches to risk, may conflict with the ethos of a new venture and that of industry partners. There may also be issues with regard to quality of accommodation and concerns about confidentiality and leakage of Intellectual Property.

A situation may also arise if the venture needs to sign an agreement/contract, such as a non-disclosure agreement, with a third party. The issue is whether a third party will be required to sign an agreement with each of the partners who are party to a contractual joint venture or whether a mechanism satisfactory to all partners can be agreed to enable one university to sign an agreement on behalf of all concerned.

Further, balance between different stakeholder interests can be hard to achieve. For example, where a venture involves several universities and remains a department of the host university, management and control of the venture should be sufficiently inclusive to ensure that wider support for the venture and enthusiasm for its work does not suffer. It can be a challenge to integrate the management and control of different departments in different institutions where there are different governance models deployed.

Where this model is adopted, several steps can help alleviate these difficulties:

- A memorandum of understanding (MOU) or consortium agreement should set out the roles and responsibilities of each of the parties. It is important that these roles are clearly set out with a clear level of detail and not drafted as general aspirational roles. The requirement for, composition of, roles and responsibility of appropriate boards and committees; accountability, autonomy/authority and reporting structures, how conflicts of interest are to be avoided, etc. should all be included.

Mechanisms that could be considered include; appointing one member of the venture as an agent for the others to sign certain categories of agreement, granting power of attorney to one institution to sign agreements under written power of attorney or granting signing powers to an individual holding a specific position in the venture in accordance with the internal rules of the relevant Institution, in effect, an delegation of signing powers by each member. Any mechanism considered would be subject to the statutes and internal rules of the member institutions and other legal considerations and would typically place financial and other limits on the types of agreements that could be signed. It is important to check the statutory basis of each academic institution before choosing any specific model or research model.
The venture may have its own Management Board/Committee with clarity as to the role and responsibilities of any other boards/committees of the ventures and the parent institution. The interaction between the various committees and boards that are involved in the research needs to be clarified and clear boundaries should be established. Where there is a significant overlap between the authority of two or more committees/boards then disputes, delays and inefficiencies may arise. Some research will require the establishment of an “advisory board” in addition to a “management board” and if the “advisory board” is purely advisory, it may not attract sufficient high-level external participation and commitment, as it may be perceived as a ‘talking shop’. Some research projects will combine the management function of the research and the advisory function into one board. Other research projects will appoint a project manager to look after the day-to-day management of the research and the Management Board will effectively act as an Oversight Board. It very much depends on the type and complexity of the research, the existence of industry partners and the number of partners involved.

A Scientific Advisory Board/Committee may also be formed, with broad external participation encompassing a range of scientific and business skills.

A strong ‘brand’ and external profile can be developed

Notwithstanding these measures, the constraints implied by university-based collaborative ventures frequently outweigh advantages, and are generally best avoided except where the venture is on a small, perhaps trial scale, or where it is specifically envisaged as having a strictly limited lifetime, say up to 2-3 years. This model could be envisaged as a necessary interim step however, e.g. where external backers want to get the venture up and running before the necessary approvals and measures are in place to establish a new legal entity.

2.2 Separate Legal Entity

The Community Framework for State Aid for Research and Development and Innovation (2006/C 323/01) was issued by the Commission on 30/12/06. It has a significant impact on the type of structure that may be proposed for collaborative research projects. Section 3 of the Framework sets out the possible impact on future state funding for Universities, Institutes of Technology (IOTs) and publicly funded research organisations which set up independent entities that engage in economic activities including not for-profit making activities. It is imperative that the impact of Section 3 is taken into account by the research partners before any final decision is taken.

2.2.1 Company limited by share

At the other end of the spectrum from a university based initiative is a regular commercial undertaking, a company limited by shares (CLS). The two primary types of companies used are; Companies limited by share (CLS) and Companies limited by guarantee (CLG) which are discussed below. In a CLS, members’ liability is limited to the amount paid for the shares (plus any amount unpaid on shares) they hold. The Memorandum of Association sets out the company’s name, the aims of the company, and the liability of the members. The Articles of Association sets out the rules for the internal governance of the company, such as voting rights, Annual General Meetings and the proceedings of directors. A Board of Directors controls the management of the company and is the primary decision making body. The Board of the Company can typically establish committees of the Board of Directors and also appoint management to run the day-to-day operations of the Company (e.g. Chief Executive Officer, Chief Financial Officer, Chief Technical Officer etc.). Some Boards of Directors may establish an “advisory board“ (with no decision making powers) and it is possible for a Board of Directors to sub delegate certain authorities to designated individuals. It is worth noting that certain decisions cannot be taken by the Board of Directors and require the approval of a defined number of shares held by the shareholders of the Company. For example a change to the Articles of Association will require the approval of shareholders holding in excess of 75% of the voting shares in the Company. There are a variety of other decisions that will always require shareholder approval and appropriate advice should be
obtained on these prior to setting up a company to ensure that the company structure fits in with the needs of the research programme. In addition any decision to use a company (and in particular when deciding to use a CLS or a CLG) should always involve the tax advisors of the stakeholders.

Another key factor to consider when using any form of Company (whether a CLG or a CLS) is the composition of the Board of Directors and who will form part of that Board. Irish Company law imposes duties and obligations on directors of all Irish Companies and specific advice should be obtained on these requirements and provided to the prospective directors in advance of them taking up the position on the Board of Directors. Irish Company law in conjunction with the Articles of Association (and any shareholder agreement) control the appointment and removal of directors. Again it is recommended that specific advice be obtained in relation to these aspects. The details of all directors appointed to the Board of a company must be filed in the Irish Companies Office, which includes the person’s home address, date of birth and a list of all their directorships over the last 10 years. Further details on the filing aspects can be obtained from www.cro.ie.

A checklist of matters that should be considered when forming a company is set out in Appendix 3.

Clearly, a for-profit company can establish a responsive, customer-focused, entrepreneurial ethos appropriate to a start-up venture, and this can be a major advantage. Staff can be attracted on commercial terms and conditions, and incentivised accordingly which (subject to the rules of the institution) may include the grant of options over shares in the company. Stakeholders can look to the venture to generate financial value through a share of profits and/or equity, and investment can potentially be sought from outside sources such as venture capitalists.

Against this, State Aid rules can limit Government’s scope to provide support, and the venture’s management can be drawn too strongly towards income generation and profit maximization rather than the pursuit of the scientific objectives of the venture itself. Most for-profit companies will be subject to corporation tax/capital gains tax on profits. Over time a for-profit company may be more likely to compete with universities and other research carried out by universities than under other governance models, and there may be generally less trust among academics in the motives of a for-profit organisation, particularly where there are ethical considerations (e.g. medical and biotechnology research). This can naturally weaken relationships with some stakeholders, create rivalries and conflicts of interest, and diminish the scope for partnerships.

The typical application of this model is a start-up or spin-out venture from a university, company or R&D organisation, with a view to commercializing an area of research backed by relevant intellectual property and as a means of attracting third party funding to progress the company. This approach has been extremely popular with policymakers in many countries: arguably, it has assumed too great a prominence in comparison to other commercialization routes (such as licensing or joint ventures with established firms), as it is high-risk and can often result in disappointment.

2.2.2 Company limited by guarantee

A company limited by guarantee (CLG) is an organisational form often suited to organisations which do not exist primarily for commercial gain (and should only be used once appropriate tax advice has been obtained). They are non-profit distributing and typical examples would include trade associations, scientific bodies and organisations pursing some public good. Many also enjoy charitable status. The CLG model can be applied to publicly-funded R&D organisations, for example NIBRT, where it is one of a number of options representing different degrees of independence from government. Industry parties will typically not use a CLG where the company is required to commercialise intellectual property or where the creation of profit is an aim of the company as a CLG cannot pay dividends to its members.

A CLG does not have a share capital, and its members are guarantors instead of shareholders (limited to the amount that they agree to guarantee). A CLG offers autonomy, flexibility and scope for partnerships, such as with universities, and gives the CEO management freedom. The same considerations also apply regarding the appointment of directors (which are set out above) and the checklist (Appendix 3) before setting up a CLG. While a CLG will have a Board of Directors similar to a CLS, clear decision-making is essential and
strong leadership is required. The guarantors do not necessarily have to be the on the Board of Directors: typically they will be chosen to represent the main stakeholders. A CLG cannot distribute its profits to its members, and may therefore (subject to various conditions) be eligible to apply for charitable status and more suited to organizations which do not exist primarily for commercial gain. The liability of the guarantors is limited by the memorandum to contribute a nominal amount towards the assets of the company in the event of a shortfall upon cessation of business when the company is wound up. Thus the guarantors do not normally have personal financial responsibility for contracts and debts incurred, and individuals enjoy considerable protection from liabilities. This is because a CLG is a legal entity in its own right. Agreements and contracts can be taken out in the name of the company rather than the name of individual directors or members. However, there may still be personal liability, in certain situations, for directors e.g. reckless trading. Ideally each prospective director should be informed of his or her duties and responsibilities as a director prior to taking up the position. The regulatory environment that governs directors of CLG or CLS is a material difference to the regulatory environment that governs the management of a “contractual joint venture” such as the Higher Education based collaborative ventures.

The requirement not to distribute profits does not prevent the venture from making profits: they just have to be recycled in support of its core mission. Neither does it prevent appropriate incentives being developed for staff.

The main benefit of CLG status as compared to a for-profit company (CLS) is the availability of charitable status. However, charitable status is not guaranteed and is not without drawbacks, the most severe being the requirement that the charity's Governors – in essence the members of its Board – are not remunerated other than for expenses. This can result in difficulties in securing the services of suitably qualified and experienced individuals.

Another important issue relates to movement of staff from a public sector organisation to a CLG. The employment liabilities, pension entitlements and potential redundancy liabilities that go with public sector staff can be extremely significant, so that to transfer these to a new entity may require major financial transfers too. In practice, this could lead to the necessity for staff to remain employees of the venture partner originally employing them but be seconded to the research institute. This may be attractive or limiting for reasons outlined in the earlier sections.

2.2.3 Joint Venture Company

Where two or more parties set up a CLS or a CLG then the new company will often be referred to as a joint venture company (JVC). A JVC is still a registered company (and will typically be a CLS or CLG) offering the benefits of limited liability whilst retaining the advantages of a partnership. Typically a JV will be a limited company. [The DMMC is an example of a joint venture company limited by guarantee and is a registered charity, founded for the promotion of molecular medicine research. It functions as a virtual network. The DMMC is funded by the HEA PRTLI but indirectly through the DMMC partner institutions as the HEA cannot fund companies. This has the potential to present difficulties in controlling budgets, allocating resources, ringfencing the centres activities and incentivising venture research staff. This however, can be overcome by a clear agreement between the centre partners as to what each partner and the centre is responsible for and their respective roles and restrictions and a strong governance structure where the Executive Management is comprised of the CEO of the DMMC along with key representatives of the collaborating institutions. The DMMC is however eligible for EU Funding.]

Advantages of structuring the DMMC as a legal entity are that it provides an independence from the associated academic institutions, provides a professional or business like approach to research performance, forces the partner academic institutions to take it seriously and provides a neutral platform to bring collaborating parties together.

On balance, the management of the DMMC views its legal status as an advantage.
Another model to consider is where a CLG is established and it in turn enters into contractual joint ventures with industry parties on a case by case basis – the institution keeps the charitable status through its company limited by guarantee structure and allows the share of profits to move to industry parties through its “contractual joint venture” structure.

A further model is a “partnership structure” (which is very similar to the “contractual joint venture”) or a Limited Partnership Structure which is rare and generally tax driven – this structure is popular in institutions to fund infrastructure development with third parties to allow tax allowances to flow back to investors.

2.3 Government-owned, Contractor-operated entities

A Government-owned, Contractor-operated (GOCO) model involves a private sector organisation taking over the operation of an entire facility, and is intended to introduce private sector practice into governmental functions. The GOCO model provides a private sector management style without raising concerns about the privatisation of key national functions. Employees working for a GOCO may be relatively insulated from political concerns, and thus more objective. The contract typically provides for a minimum volume of work from the Government body, and for efficiency savings by the contractor. Although GOCOs retain public ownership, some operational risk is transferred to the contractor. The Government commits to broad indemnification for financial risks and liabilities, but the contractors are responsible for ‘bad faith’ actions by their management and are also legally liable for contract losses and overruns. There is some suggestion from the US experience with GOCOs that this partial risk transfer to the contractor can lead to a greater need for oversight, increasing costs for both government and contractor.

In the UK, the National Physical Laboratory (NPL) and the Atomic Weapons Establishment (AWE) are examples. GOCO status is seen as appropriate in some instances where the establishment concerned has a central national role, such as NPLs as the ultimate national reference laboratory in matters of metrology. In the latter case, the contractor leases the site and employs the staff.

While concerns arise about major facilities of public importance being run by private contractors, those contractors can develop a high degree of expertise and transfer learning from one venture to another. Incentives for contractor performance must encourage this transfer while ensuring that the long term mission of the venture concerned remains centre stage.

In particular, the GOCO model could be used where a variety of “non profit parties” (e.g., universities) come together to create a research centre which is itself expected to be revenue generating from contracts with industry. This model may be attractive where the collaborating entities do not wish to receive the profits back for their own use but instead are happy for all profits to go back into the designated research area. For example, this model may be of interest where medical research/clinical trials are involved if the stated aim of the non-profit making participating parties is to reinvest all profits into further medical research.
3 Choosing an appropriate model

The first and overriding consideration is of course the purpose of the collaborative arrangement in question, how it will achieve its goals, what each participant will seek to get from it and what sort of contribution they will need to make in order to achieve their desired objectives. Will it be profit making? – If yes then tax consequences need to be considered. Even if it will not be profit making other tax issues such as VAT and stamp duty should be considered with appropriate advisors. For example, is it a project with defined goals?, is it a longer term research programme designed to facilitate and encourage research in a particular field with no predetermined outcome? or is it intended to be a venture that provides infrastructure and facilities? or a ‘platform’ for potential partners to come together to collaborate? These details should be clearly articulated at the outset and each partner must recognise their role and responsibilities in relation to the venture and crucially, those of other partners.

Consideration will need to be given to whether the venture should be a distinct legal entity with its own legal personality. Does the institution want to ring fence any potential liability from the research by carrying out the research in a limited company as opposed to directly carrying out the research? As discussed above, whether or not the research venture is a separate legal entity will have a bearing on and be guided by several factors, such as alignment with its core purpose or mission, proposed strategic direction, proposed funding model including whether it is to be solely publicly funded or whether securing private investment and therefore, attractiveness to investors will be important, whether it will be required to generate its own income, governance of the venture and autonomy of the management and of the Board, ability to enter into 3rd party agreements, employment of staff, acceptability to regulators, liability, costs, and so on.

Other factors that should be considered in deciding how a venture is structured include:

- whether the collaborative venture is a physical or virtual organisation;
- the intended lifetime – is the venture designed to last indefinitely or will it have a set lifetime;
- recruiting staff, reporting structures and incentivisation;
- costs of maintaining the chosen structure;
- where the venture will be located (host institute premises vs greenfield site) - and cost implications, including accommodation charges, overheads, administration including financial/accounting procedures, taxation and auditing, service agreements, etc.;
- liability and how it will be managed and indemnity provisions;
- arrangements for ownership, management and exploitation of intellectual property;
- conflicts of interest;
- the statutory basis of the academic institutions.
- the impact of the Community Framework for State Aid for Research and Development and Innovation
Management and scientific oversight mechanisms

Governance of collaborative research ventures will vary, as appropriate to their purpose (e.g. to advance science in a particular field; to undertake knowledge transfer; to develop intellectual property; to commercialise the outcomes of research; etc.) and how they are structured. However, a core governance structure will likely be common to most arrangements (regardless of the legal structure deployed). This will include a Board (usually referred to as a Board of Directors in the case of a company or an Oversight Board in the case of a venture which remains part of the host institution), a Scientific Advisory Board (may also be called a Scientific Advisory Committee or Scientific Oversight Board) and an Executive Management team - team or committee, (which may include the following titles where a company is used: CEO, CFO and CTO), and various committees (which will usually be sub committees of the Board) to support the different functions of the venture.

Board (Board of Directors (for companies) or Oversight Board (for “contractual joint ventures”))

Depending on the nature, structure and purpose of the collaborative venture the role of the Board can range from ensuring contractual obligations are met in the case of a university based collaborative venture to providing full oversight on the strategic direction and management of the venture in the case of a company.

Composition and voting rights of members should reflect the purpose and goals of the venture and consideration should be given by the funding agencies as to whether they should have a Board seat and/or voting rights. The Board should be appointed by agreement by the sponsoring parties and key partners. Composition should be such as to ensure ownership of the initiative by its key stakeholders and clients, a balanced academic and enterprise view, and should include some independent individuals, including an independent chairperson. In the case of a venture that is part of a parent institution, the Board Chairman should report to the president or CEO of the parent institution. In the case of a separate legal entity, the Board is responsible, ultimately, to its shareholders. Care should be taken to avoid circumstances where the Board reports to an individual who is a Board member, and conflicts of interest in appointments should be avoided or identified and actively managed so as to ensure the independence of the Board.

At a minimum, the Board should oversee administration and management of the venture to ensure it fulfils its purpose and goals. In the case of a venture which is structured as a separate legal entity, the Board should be the primary decision making body (subject to any decisions that require stakeholder or shareholder approval). The role and autonomy of the Board will be a significant factor in attracting and retaining high calibre individuals to serve on it.

Clear “terms of reference” should be developed and clear Articles of Association should be drafted to set out the detailed role of directors, proceedings of directors, appointment of directors etc.

Typically, the role of a Board of an independent legal entity should be to:

- Approve, influence and review the venture’s mission and short and long term strategic objectives.
- Influence strategic objectives and oversee the implementation of the operational plan including the allocation of resources and reporting to parent or host institutions and funding agencies as appropriate.
- Appoint or approve the appointment of senior management and the delegation of responsibilities to such management.
- Support the Executive Management.
- Approve all strategic operations and major investments.
- Assess the success and benefit to the venture of all constituent functions.
In the case of a venture that is part of the parent institution scientific oversight is usually provided through the review mechanisms of the funding agency.

Review performance and contribution of academic and industrial partners and approve additional partners. Review performance of management.

Approve the annual budget and business plan (where commercialisation is a key objective).

Ensure that all venture functions are managed in a manner consistent with best operational practice and that appropriate governance and oversight mechanisms are in place.

Ensure optimum financial controls are in place and continuously review internal research funding mechanisms.

Oversee resource and funding strategy.

Promote the venture’s public image and brand.

Determine matters which are not resolved at management level or refer the matter to stakeholders/shareholders for resolution.

Provide advice on commercial applications of venture IP.

Assess own performance.

In the case of a venture that remains part of a parent institution, the role of the Board may encompass some or all of these functions or may be limited to just overseeing that contractual obligations of the venture with its sponsors are met and that the parent organisation fulfils its obligations to and management of its employees that are part of the venture.

Scientific Advisory Board (typically for a separate legal entity)

The Scientific Advisory Board (SAB) (or in some cases may be called Scientific Oversight Board or Scientific Advisory Committee depending on the venture model) should be comprised of high level scientific personnel in fields related to the scientific focus of the venture with international reputation in their fields. It may also be appropriate to include a small number of members with interests outside the core scientific focus area. The balance between academic and industrial representation should reflect the core mission and objectives of the venture. It may be appropriate to have a Technology Oversight Board in addition to the SAB to provide oversight and advice in relation to commercialisation opportunities and viability of commercialisation approaches. The Technology Oversight Board composition would then reflect its purpose, and have more industry representation. Clear terms of reference are required and care needs to be taken to ensure that the role of the SAB does not usurp the role of the Board or of a Technology Oversight Board – generally the final decision making board should be the Board of Directors (in the case of a separate legal entity).

The total number (and provisions that apply to the appointment) of SAB members would be at the discretion of the Board of Directors/stakeholders and a quorum of members should be agreed.

The remit of the SAB is to provide:

- Critical review of research results.
- Advise on strategic direction of research.
- Provide independent scientific advice to the venture’s senior management.
- Support and champion the venture’s research.
- Advise on commercial opportunities presented by IP generated from the research.
- Such other functions as may be relevant to the progress of the specific research.

---

7 In the case of a venture that is part of the parent institution scientific oversight is usually provided through the review mechanisms of the funding agency.
The SAB should meet annually or biannually. In addition the SAB should be provided with regular updates on research findings and publications and invention disclosures and should be invited to provide regular feedback.

The composition of the SAB should be reviewed on an annual basis to ensure alignment with the core focus of the research and strategic direction of the venture.

Individual members of the SAB could also be consulted by the management when external scientific advice is required.

**Executive Management**

An Executive Management team or committee should oversee the day to day operation of the venture (and for example in the case of a CLG or CLS it will usually comprise the CEO, head of finance, head of research, head of human resources, head of sales). It should be comprised of the management staff and a PI representative of each academic and industrial partner. The Executive Management should meet monthly and be chaired by the CEO or equivalent. A quorum of members for decision should be agreed in advance.

The role of the Executive Management includes:

- Developing the venture’s mission for approval by the Board of Directors.
- Developing the short and long term strategic objectives of the venture for approval by the Board.
- Defining the annual budget for approval by the Board.
- Management of the research project budget.
- Assessment of the scientific output and review the management of projects.
- Agree policies and planning recommendations to be presented to the Board.
- Responsibility for obtaining the required resources and funding.
- Promotion of the venture’s public image and brand.
- Responsibility for assessing the operations of the venture on a day-to-day basis.
- Manage the venture’s interaction with industrial partners and attract new industrial partners.
- Support to the Board.

**Other Committees**

Various other committees might be set up to support different functions of a collaborative research venture. An example of this might be an Intellectual Property Management Committee to oversee identification, protection and exploitation of commercial opportunities. In the case of the CLS or CLG the Intellectual Property Management Committee will either be a sub committee of the Board or Directors or will be a committee set up by the Board of Directors with delegated powers to deal with Intellectual Property matters. In other forms of research (e.g. where clinical trials are involved) then additional specialist committees may be formed to suit the particular research (e.g. ethics committee). Care needs to be taken to ensure that there are not too many committees or too many people on each committee as this can lead to inefficiencies and slow decision making.
Intellectual Property

An Intellectual Property (IP) Management Committee should be comprised of representatives from the academic and industrial partners and the venture’s management. The committee is typically chaired by the CEO or equivalent and in the case of a company it is often a sub committee of the Board of Directors. Clear terms of reference should be drafted for the IP Management Committee and any other committee that is involved in the research.

The IP Management Committee should have responsibility to ensure that an intellectual property policy with appropriate training provisions is developed for the venture, that IP agreements are put in place with all partners and staff and that IP generated is identified, protected and exploited to the maximum capacity in line with the venture’s mission and agreements amongst the partners.
## Appendix I: A comparison of the models

### Table 1: Key features of the governance models

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Department of a parent institution</th>
<th>Company Limited by Shares (CLS)</th>
<th>Company Limited by Guarantee (CLG)</th>
<th>Joint Venture Company (JVC)</th>
<th>Government owned, contractor operated (GOCO)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Typical circumstances of use</strong></td>
<td>Entity small and/or with limited life; desire for close control by parent; based on tax advice.</td>
<td>Focus on commercial income generation; need to attract commercial investment; where third parties may wish to have a share in the profit created by the research; based on tax advice.</td>
<td>Scientific and ‘public good’ organisations; to ring fence the research within the CLG; to collect distinct categories of IP rights and to hold them in an industry specific CLG; based on tax advice.</td>
<td>Scientific and ‘public good’ organisations, inheriting staff or requiring close association with parent; based on tax advice; where research institute has grown out of embryonic institute already operating at a HEI.</td>
<td>Introduction of private sector practice into nationally important functions.</td>
</tr>
<tr>
<td><strong>Strategic direction</strong></td>
<td>External Advisory Board</td>
<td>Board of Directors; from shareholders through the Memorandum of Association.</td>
<td>Board of Directors; from shareholders through the Memorandum of Association.</td>
<td>Board (with influence from parent); from shareholders through the Memorandum of Association.</td>
<td>Government ‘customer’ through agreement with contractor.</td>
</tr>
<tr>
<td><strong>Scientific / academic oversight</strong></td>
<td>Scientific Advisory Committee.</td>
<td>Scientific Advisory Board.</td>
<td>Scientific Advisory Board.</td>
<td>Scientific Advisory Board.</td>
<td>Arrangements agreed with contractor.</td>
</tr>
<tr>
<td><strong>Day to day management</strong></td>
<td>Director.</td>
<td>Chief Executive.</td>
<td>Chief Executive.</td>
<td>Chief Executive.</td>
<td>Contractor appointee.</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th><strong>Criterion</strong></th>
<th><strong>Department of a parent institution</strong></th>
<th><strong>Company Limited by Shares (CLS)</strong></th>
<th><strong>Company Limited by Guarantee (CLG)</strong></th>
<th><strong>Joint Venture Company (JVC)</strong></th>
<th><strong>Government owned, contractor operated (GOCO)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountability and risk ownership</td>
<td>Parent organisation e.g. university.</td>
<td>Company or outsourced.</td>
<td>Company or outsourced.</td>
<td>Company or outsourced.</td>
<td>Company or outsourced.</td>
</tr>
<tr>
<td>IP management</td>
<td>Parent, e.g. university technology transfer office.</td>
<td>Same as parent university.</td>
<td>Company.</td>
<td>Company.</td>
<td>The CLG itself.</td>
</tr>
<tr>
<td>Employment of staff</td>
<td>Same as parent university.</td>
<td>Same as parent university.</td>
<td>Same as parent university.</td>
<td>Same as parent university.</td>
<td>Same as parent university.</td>
</tr>
</tbody>
</table>

**Table 1 continued: Key features of the governance models**

Risk will probably have to remain with the public body, or the contractor, if the contractor is to take on the project risk.

Risk will probably have to remain with the public body, or the contractor, if the contractor is to take on the project risk.
Table 2: A comparison of models indicating potential advantages and disadvantages

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Department of a parent institution</th>
<th>Private company limited by shares (CLS)</th>
<th>Company Limited by Guarantee (CLG)</th>
<th>JVC</th>
<th>Government owned, contractor operated (GOCO)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clarity / transparency of governance</strong></td>
<td>Can be problematic to partners other than parent (e.g. investors) and on occasion to venture staff.</td>
<td>The Articles of Association sets out the rules for the internal governance of the company, but transparency to partners can be limited.</td>
<td>Similar to company but usually better-regarded than CLS.</td>
<td>As CLG with own staff but some potential difficulties due to unclear staff allegiance.</td>
<td>Heavily dependent on contract arrangements.</td>
</tr>
<tr>
<td><strong>Ability to secure wide range of national public funding</strong></td>
<td>Likely to be able to secure funding but may not be eligible for some proof of concept schemes.</td>
<td>May have access to SME support funding and/or R&amp;D support funding. Likely to be problems obtaining public sector funding (e.g. State Aid restrictions).</td>
<td>With charitable status, likely to be able to secure funding. Excluded from some types of funding due to CLG status. Could have a commercial subsidiary if necessary.</td>
<td>With charitable status, likely to be able to secure funding. Excluded from some types of funding due to CLG status. Could have a commercial subsidiary if necessary.</td>
<td>Potential difficulty securing grant funding as a commercial contractor. Unlikely to receive R&amp;D or SME support funding.</td>
</tr>
<tr>
<td><strong>Access to European (and other international) funding</strong></td>
<td>Likely to be able to secure funding.</td>
<td>More positive if SME (e.g. able to benefit from targeted schemes).</td>
<td>With charitable status, likely to be able to secure funding. Excluded from some types of funding due to CLG status. Could have a commercial subsidiary if necessary.</td>
<td>With charitable status, likely to be able to secure funding. Excluded from some types of funding due to CLG status. Could have a commercial subsidiary if necessary.</td>
<td>Potential difficulty securing grant funding as a commercial contractor.</td>
</tr>
<tr>
<td><strong>Ability to secure private sector funding</strong></td>
<td>Some capacity to secure private sector funding on contract basis; can be difficult to attract collaborative research funding where outputs are to be commercialised.</td>
<td>For-profit companies are not restricted to borrowing against their assets, and can take an entrepreneurial approach to new opportunities in the Ireland and abroad. Attractive structure for venture capitalists.</td>
<td>Harder to raise money than for a for-profit company- can only borrow against assets; will not attract venture capital investment.</td>
<td>Harder to raise money than for a for-profit company- can only borrow against assets; will not attract venture capital investment.</td>
<td>Lower ability to secure private sector funding into the venture than a privatised company.</td>
</tr>
</tbody>
</table>
**Table 2 continued: A comparison of models indicating potential advantages and disadvantages**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Department of a parent institution</th>
<th>Private company limited by shares (CLS)</th>
<th>Company Limited by Guarantee (CLG)</th>
<th>JVC</th>
<th>Government owned, contractor operated (GOCO)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acceptable to regulators</strong></td>
<td>Likely to have high acceptability provided, if a university, that charitable aims not compromised.</td>
<td>Regulator attention likely. State Aid concerns - a for-profit company with public sector support could be seen to distort the market.</td>
<td>Likely to be acceptable.</td>
<td>Likely to be acceptable.</td>
<td>Regulator attention likely.</td>
</tr>
<tr>
<td><strong>Clarity of financial flows</strong></td>
<td>May be low; some concerns about cross-subsidy are possible.</td>
<td>Financial flows likely to be clear at the level of reporting requirements, but less transparent to external groups.</td>
<td>Likely to be clear and transparent. If a charity, annual submission of accounts to the charity regulator.</td>
<td>May be less clear than for CLG with own staff due to salaries being paid to seconded staff. If a charity, annual submission of accounts to the charity regulator.</td>
<td>Contract-dependent.</td>
</tr>
<tr>
<td><strong>Attractiveness to staff</strong></td>
<td>Staff likely to be existing staff of parent organisation but there may be some element of distraction from the mission.</td>
<td>Some long term advantages (e.g. incentives) likely to be outweighed by job security concerns.</td>
<td>Independence may help build team spirit.</td>
<td>Despite staff being seconded, degree of independence may help build team spirit.</td>
<td>Some long term advantages (e.g. incentives) likely to be outweighed by job security concerns.</td>
</tr>
<tr>
<td><strong>IP management</strong></td>
<td>Parent organisation may lack experience of and expertise in managing IP in a commercial situation especially in highly regulated sectors.</td>
<td>Easier to manage IP and ensure confidentiality in a separate company.</td>
<td>IP management easier as it is within an independent company. May not be experienced at managing IP.</td>
<td>IP management easier as it is within an independent company. May be problems of confidentiality with seconded staff.</td>
<td>Likely to have IP management experts in place. Complex to manage IP as a contractor to a public body.</td>
</tr>
</tbody>
</table>
**Table 2 continued: A comparison of models indicating potential advantages and disadvantages**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Department of a parent institution</th>
<th>Private company limited by shares (CLS)</th>
<th>Company Limited by Guarantee (CLG)</th>
<th>JVC</th>
<th>Government owned, contractor operated (GOCO)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>with own staff</td>
<td>with seconded staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Organisation and culture</strong></td>
<td>May be a problem with being a subunit of a larger institution- i.e. may fail to nurture an independent, innovative culture and team spirit and be &quot;treated as an outsider&quot;.</td>
<td>Staff will have full commitment to company. Potential to create innovative and entrepreneurial culture. Independent therefore is able to develop its own culture and team spirit.</td>
<td>Potential to create a distinctive innovative and entrepreneurial culture. Independent therefore is able to develop its own culture. Seconded staff may bring their own business culture with them, and may be less committed to the company.</td>
<td></td>
<td>Primary aim will be to make a profit on the contract, rather than be innovative. Probably not an innovative culture.</td>
</tr>
<tr>
<td><strong>Tolerance of risk</strong></td>
<td>Strongly risk averse owing both to culture and regulatory constraints.</td>
<td>Can tolerate considerable risk if shareholders allow.</td>
<td>More risk averse than a company limited by shares.</td>
<td>More risk averse than a company limited by shares.</td>
<td>Variable risk aversion depending on contractor.</td>
</tr>
<tr>
<td><strong>Location issues</strong></td>
<td>May be preferred if access to collaborating staff / facilities is key.</td>
<td>May be preferred if staff and facilities largely free-standing. Needs 'own front door' and appropriate business premises.</td>
<td>May be preferred if staff and facilities largely free-standing. Needs 'own front door'.</td>
<td>May be preferred if staff and facilities largely free-standing. Needs 'own front door'.</td>
<td>May be merit in proximity to other operations managed by contractor.</td>
</tr>
</tbody>
</table>
Table 2 continued: A comparison of models indicating potential advantages and disadvantages

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Department of a parent institution</th>
<th>Private company limited by shares (CLS)</th>
<th>Company Limited by Guarantee (CLG)</th>
<th>JVC</th>
<th>Government owned, contractor operated (GOCO)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>with own staff</td>
<td>with seconded staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deliver cost effective management and minimise transitional costs</td>
<td>Public sector day-to-day management style. Transition costs likely to be low, i.e. staff transferred from parent institution.</td>
<td>Potential efficiency gains from private sector management style.</td>
<td>Could be blend of private and public sector day-to-day management style.</td>
<td>Could be blend of private and public sector day-to-day management style, nearer to the latter if staff are seconded public sector employees.</td>
<td>Potential efficiency gains from private sector day-to-day management style. Government agency would need to guarantee minimum amount of work. GOCO deals are competitive and costly; costs are incurred directly by Government and also by the contractor who will expect to recover the bidding costs and transaction costs.</td>
</tr>
<tr>
<td>Overall cost</td>
<td>May be high due to large overheads and administrative burden.</td>
<td>Efficiencies and lower administrative costs, but tax liability.</td>
<td>Can be advantageous especially if charitable status secured.</td>
<td>Can be advantageous especially if charitable status secured.</td>
<td>Depends on contract negotiation.</td>
</tr>
<tr>
<td>Ability to sign 3rd party agreements</td>
<td>Will need to explore options such as • “principal/agent” relationship, • one partner has “power of attorney”, • one individual be granted signing powers options need to be examined by each partner against its own rules and statutes.</td>
<td>Governed by Company Law.</td>
<td>Governed by Company Law.</td>
<td>Governed by Company Law/Statute Law.</td>
<td>Governed by Company/Statute Law.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>STRONGLY POSITIVE</th>
<th>SLIGHTLY POSITIVE</th>
<th>NEUTRAL</th>
<th>SLIGHTLY NEGATIVE</th>
<th>VERY NEGATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of a parent institution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private company limited by shares (CLS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Company Limited by Guarantee (CLG)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JVC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government owned, contractor operated (GOCO)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix II: Possible Governance Models

A  Department of Host Institution

- University President or equivalent
- Oversight Board
- Executive Management Committee
- MD/CEO and support staff
- Knowledge Transfer
- Education
- Research
- IP Committee
- Education/Training Committee
- Research Committee
- Scientific Advisory Board
- Technology Oversight Board

B  Separate Legal Entity

- Board of Directors
- Executive Team (CEO, CFO, CTO)
- Research
- Education
- Knowledge Transfer
- Research Committee
- Education/Training Committee
- IP Committee
- Scientific Advisory Board
- Technology Oversight Board

See Appendix III  Checklist of items to consider when setting up a limited liability company with multiple parties.
Appendix III: Checklist of items to consider when setting up a limited liability company - CLG or CLS

A. Preliminary Issues
1. Confirm the precise name of the vehicle and shareholders.
2. Are there any conditions to the final establishment of the company? - finance? licences? transfer of intellectual property?
3. What is the impact of the State Aid regulations on the proposed structure?

B. The Business
4. What are the objects of the company - principal activities and corporate goals. Will it be one specific project or a continuing business?
5. Are any ancillary agreements required between the shareholders and the company e.g. will the shareholders be involved in the provision of staff, services, premises, assets, etc. from their own resources?
6. Are any of the shareholders required to refer business opportunities to the joint venture?
7. There should be a clear description of the role of each shareholder.

C. Management
8. Decisions: What will be the decision-making entity? - Board? - Management Committee? How will the parties be represented on that entity? Voting rights? What decisions must be referred back to the shareholders? What will be the relationship between the Managing Director and the decision-making entity? i.e. to what extent will the Managing Director have autonomy? Who should appoint him/her? What and how often should he/she report back to the Board? Control of accounts? Authority to draw cheques? Upper limit imposed? Who will have authority to sign contracts on behalf of the company?
9. Directors: Is each shareholder to be entitled to appoint the same number of directors (and therefore risk a deadlock situation)?
10. Meetings: Quorum required for meetings of Board and shareholders? What should happen if meeting is not quorate? Period of notice for meetings - regular meetings required? Location? Who is entitled to attend?
11. Chairman: Should the chairman have a casting vote at Board and/or shareholder meetings? Who should appoint the chairman? Should the holder rotate?
12. Voting: Should all votes be decided on a simple majority basis, or, to protect any future minority shareholding, will certain fundamental matters require unanimous approval? - at Board or shareholder level?

Examples:
- Major capital expenditure/disposals (over a certain limit)
- Formation of subsidiaries
- Appointment or dismissal of key employees
- Entry into and termination of major contracts
- Voluntary winding up of the company
- Change in major businesses activities or pricing/trading terms
- Alterations of share capital and reconstruction including new share issues
- Alteration of constitutional documents
- Entry into charges or other encumbrances or increasing bank borrowings beyond specified limits
- Variation of dividend policy
- Approval of budgets/business plan required for subsidiaries?
If any particular individuals are key to the success of the business, consideration should be given to securing their continued commitment by way of a service contract.

D. Shareholdings

14 Share rights: Will the shares rank pari passu in respect of right to income and profit, voting rights, right to a return of capital, etc.?

15 Transfer to Related Entities: Ability to freely transfer shares to members/associated companies?

16 Pre-emptive rights on purchase of shares: Should shares be freely transferable? No transfers within a certain period? Will other members have the benefit of pre-emptive rights? May part only of a shareholding be transferred? Can the seller revoke the pre-emption procedure at any time?

17 Additional Parties: Is it contemplated that further shareholders may be permitted to join the venture e.g., to raise capital? May part only of a shareholding be transferred?

E. Dividend Policy

18 No dividends for an initial agreed period? Full annual dividends? Annual dividends of a certain % of profits available for distribution? Do employee share-plan shares carry voting and/or fixed dividend entitlements?

19 Left to Board to decide?

F. Finance

20 Initial funding - issue of shares for non-cash contributions? Valuation required? Structure of future funding - by the parties and/or third party financiers? Any grants available?

21 Whether each shareholder is required to commit to a certain percentage of funding via capital or debt? Should shareholder funding be in proportion to shareholdings? Which entity makes the decision? - e.g. Board, Management Committee? Is failure to comply, a default, triggering the option to purchase that defaulting party's shareholding? Is it simply contributed by others and then deducted from future profit share?

G. Ancillary Agreements/Intellectual Property

22 Are any assignments or licences in respect of intellectual property rights required from a party? Scope? Degree of exclusivity? Royalty payment? Any warranties required? Right to sub-licence? Right to improvements? The duration of the licence and the consequences of termination of shareholders' agreement must be considered.

23 If it is possible the company will develop know-how etc., how will this be owned? Would each shareholder be automatically entitled to a licence to use such? On what terms? Consequences of termination? - If one party acquires all the intellectual property, consider restraint of trade on others.

24 Secrecy provisions.

25 Secondment of personnel.

26 Provisions of accommodation/facilities/support services.

H. Dealing with Related Parties

27 Will dealings between the company and parties related to a shareholder be on an arm's length basis/preferential terms?

28 Notification and approval of terms vis-à-vis the other parties. Consequences of breach/termination of shareholders agreement. Ability to amend terms.

29 No Company loans to directors, employees.
I. Accounts
30 How often are accounts to be prepared? To whom should they be presented?
31 Kind of reports required by shareholders. What frequency?
32 Financial and tax year-end.
33 Auditor to be nominated.
34 Ability of shareholders to inspect company records.

J. Non-competition
35 Shareholders not to compete with the Company? In which business area? Geographical territory?
   For how long after one venturer ceases to be a shareholder?
36 Name of Company and protection of name if use is licensed by one party.

K. Deadlock Mechanism
37 If parties cannot agree on a matter which is fundamental to the continued operation of the company
   how should matters be resolved?

L. Term and Termination
38 Is the venture of finite duration?
39 Grounds for termination: e.g.:
   a material default: pending rectification, should voting rights be lost? penalty interest on unpaid
      amounts? loss of a percentage of profit rights? dilution of interest;
   b liquidation of venturer: at what stage should right be triggered e.g., as soon as venturer
      appears to be in financial difficulties, when official manager appointed or when winding-up
      order made?
   c change in control or management of joint venture;
   d failure to subscribe for additional share or loan capital;
   e deadlock;
   f loss of licence or any necessary authorisation.
40 Consequences of termination of a joint venture company (JVC) e.g. repayment of loans, termination
   of ancillary agreements, use of trademarks, business names, etc.
41 Will one shareholder acquire all shares or will the company be liquidated?

M. Costs
42 Who will bear the costs? Stamp duty? Registration fees?

N. Guarantees
43 Any guarantor required of the obligations of a shareholder? e.g. for nominee/off-the-shelf corporate
   shareholder.

O. Taxation Considerations
44 On the structure of the financing e.g. equity or loan? On distribution of profits? Repatriation of
   funds. On utilisation of tax losses of venture by individual participants - group/consortium relief
   available? Debt/equity ratio. Consequences of preferential pricing between the parties?
Forfás Board Members

Eoin O’Driscoll (Chairman)
Managing Director, Aderra

Pat Barry
Communications Adviser

Martin Cronin
Chief Executive, Forfás

Sean Dorgan
Chief Executive, IDA Ireland

Sean Gorman
Secretary General, Department of Enterprise, Trade and Employment

Anne Heraty
Chief Executive, Computer Placement Resources (cpl) plc

Dr Rosheen McGuckian
Chief Executive Officer, GE Money

Rody Molloy
Director General, FÁS

William O’Brien
Managing Director, William O’Brien Plant Hire Ltd.

Frank Ryan
Chief Executive Officer, Enterprise Ireland

Jane Williams
Managing Director, The Sia Group

Dr Don Thornhill
Chairman, National Competitiveness Council

Michael O’Leary
Secretary to the Board, Forfás
Forfás Publications 2006 and 2007

Promoting Enterprise-Higher Education Relationships
Advisory Council on Science, Technology and Innovation  
April 2007

Research and Development Statistics in Ireland 2006 – at a glance  
March 2007

Research and Development Performance in Business Sector in Ireland 2005/6  
March 2007

Perspectives on Irish Productivity
A selection of essays by leading Irish and international economists  
March 2007

Waste Management in Ireland
Benchmarking Analysis and Policy Requirements  
March 2007

Tomorrows Skills: Towards a National Skills Strategy  
February 2007

Expert Group on Future Skills Needs
Business Continuity Planning – Responding to an Influenza Pandemic  
February 2007

Advice to Businesses on Preparing for a Pandemic  
February 2007

State Expenditure on Science & Technology and Research and Development 2005 and 2006  
February 2007

Annual Competitiveness Report 2006, Volume 2 – Ireland’s Competitiveness Challenge
National Competitiveness Council  
February 2007

Enterprise Statistics – at a glance, 2006  
January 2007

Electricity Benchmarking Analysis Report  
December 2006

Overview of Ireland’s Broadband Performance  
December 2006

SME Finance Equity Survey  
November 2006

Towards Better Health: Achieving a Step Change in Health Research in Ireland
Advisory Council for Science, Technology and Innovation  
November 2006

Annual Business Survey of Economic Impact (ABSEI) 2005  
November 2006

Overview of Ireland’s Productivity Performance
National Competitiveness Council  
October 2006

Annual Competitiveness Report 2006, Volume 1
National Competitiveness Council  
October 2006

Services Innovation in Ireland – Options for Innovation Policy  
September 2006

Forfás Websites

The publications of Forfás and the independent advisory councils to which it provides administrative and research support are available on the Forfás website www.forfas.ie.

Email notifications direct to your inbox are available on the latest announcements, press releases and publications. To sign up for our email alerts contact us at info@forfas.ie or through the website.