Review of Assistance to Valence Technology:
A Case Study on Inward Investment

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL
NIA 86/08-09 25 February 2009
Review of Assistance to Valence Technology: A Case Study on Inward Investment
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J M Dowdall CB  
Comptroller and Auditor General  
Northern Ireland Audit Office  
25 February 2009

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<th>Full Form</th>
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<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>DED</td>
<td>Department of Economic Development</td>
</tr>
<tr>
<td>DETI</td>
<td>Department of Enterprise, Trade and Investment</td>
</tr>
<tr>
<td>DFP</td>
<td>Department of Finance and Personnel</td>
</tr>
<tr>
<td>DOE</td>
<td>Department of Environment</td>
</tr>
<tr>
<td>IDA</td>
<td>Industrial Development Authority</td>
</tr>
<tr>
<td>IDB</td>
<td>Industrial Development Board</td>
</tr>
<tr>
<td>IRTU</td>
<td>Industrial Research and Technology Unit</td>
</tr>
<tr>
<td>Invest NI</td>
<td>Invest Northern Ireland</td>
</tr>
<tr>
<td>NASDAQ</td>
<td>National Association of Securities Dealers Automated Quotations</td>
</tr>
<tr>
<td>NIAO</td>
<td>Northern Ireland Audit Office</td>
</tr>
<tr>
<td>OEM</td>
<td>Original Equipment Manufacturer</td>
</tr>
<tr>
<td>PAC</td>
<td>Public Accounts Committee</td>
</tr>
<tr>
<td>PME</td>
<td>Plant Machinery and Equipment</td>
</tr>
<tr>
<td>RCA</td>
<td>Resource Cost Analysis</td>
</tr>
<tr>
<td>SEC</td>
<td>Securities and Exchange Commission</td>
</tr>
<tr>
<td>T&amp;EA</td>
<td>Training and Employment Agency</td>
</tr>
<tr>
<td>USABC</td>
<td>United States Advanced Battery Company</td>
</tr>
<tr>
<td>US DOE</td>
<td>United States Department of Energy</td>
</tr>
<tr>
<td>VLA</td>
<td>Valuation and Lands Agency</td>
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Preface

1. Until March 2002, the primary responsibility for the attraction of overseas investment to Northern Ireland lay with the Industrial Development Board (IDB). Thereafter, responsibility transferred to Invest Northern Ireland (Invest NI), which subsumed the responsibilities of IDB and certain other bodies. Invest NI (and IDB before it) falls under the umbrella of the Department of Enterprise, Trade and Investment (the Department).

2. For many years, inward investment has been an important element within the industrial development strategy in Northern Ireland. The introduction of new, internationally competitive companies offers many benefits to the development of the industrial base. As well as creating new jobs, and introducing new products and technology, they can bring world-class production techniques, technical innovation and managerial skills which can in turn be transferred to local companies. They can also help to raise skills levels in the workplace and provide local sourcing opportunities for existing businesses.

3. This report is a case study of one such major inward investment project - Valence Technology. The project entailed the creation of a new, large-scale battery manufacturing facility in Northern Ireland. It was a ‘greenfield’ venture involving the development of new technology.

4. In 1993, Valence was offered a substantial financial assistance package by IDB to establish a factory in Northern Ireland. The offer included grants of £27.3 million, together with a factory investment of a further £5.6 million. For its part, Valence was to invest £147 million and create 660 jobs, at Mallusk, by 31 March 1998. Unfortunately, the anticipated technological breakthrough did not materialise and the project fell markedly short of its expected investment and job creation levels.

5. In 2003, the Northern Ireland manufacturing activities of Valence were re-located to China. By this stage, grants of £10.3 million and factory costs of £4.62 million had been incurred. Invest NI initiated ‘clawback’ proceedings and recovered £2.5 million of grant monies and £2.62 million of the factory costs. The final tranche of monies was recovered in July 2007.

6. This report reviews the handling of the project by the industrial development agencies, with a view to identifying any lessons for future inward investment projects.
Part One: Introduction and Background
Part One: Introduction and Background

Inward Investment

1.1 The Industrial Development Board (IDB) (now replaced by Invest Northern Ireland1 (Invest NI)) was an executive agency of the former Department of Economic Development (DED) (now the Department of Enterprise, Trade and Investment (DETI)). The Department's objectives included the attraction of high quality internationally mobile investment projects and IDB sought new foreign direct investment which would contribute to growth in sustainable employment and offer opportunities for enhanced job quality.

1.2 Valence was first offered assistance in 1993. It was potentially, in IDB's view, one of the largest inward investment projects of the 1990's, but experienced almost continual difficulties. Payments of financial assistance finally ceased in 2001 and the company effectively closed its Northern Ireland operations in 20042. Negotiations to claw-back Government assistance were concluded in December 2004, with the final repayment to Invest NI being made in July 2007.

Valence Technology

1.3 Valence Technology BV (the company which operated within Northern Ireland) is a Dutch company formed as a subsidiary of Valence Technology NV, registered in the Dutch Antilles and wholly-owned by Valence Technology Cayman Islands Inc., which in turn is a subsidiary of Valence Technology Inc., (the parent company, formerly of San Jose, California but now based in Texas). Valence had been incorporated in 1989 as Ultracell Inc. and changed its name in 1992. As regards its corporate structure, IDB noted that it was designed to minimise US tax obligations and to avoid its overseas operations being given US residency. In its dealings with IDB, Valence insisted that key documents, such as the initial Letter of Offer, be signed outside the USA. This practice is not uncommon in multi-national companies which seek to be tax efficient. The IDB Letter of Offer was signed by Valence Technology BV, although the history of the project shows that it was initiated by the parent company, which remained closely involved with the Northern Ireland project throughout its life.

1.4 The sole activity of Valence was research and development to produce advanced rechargeable batteries based upon lithium and polymer technologies. It had acquired its technology from the ‘Mead Corporation’ in 1991 for $2 million. In 1993, when it first came into contact with IDB, it was still considered a development stage company and almost its entire trading income - $10.2 million in the four years to 31 March 1993 - came from a research and development contract with Delco-Remy, a division of General Motors, entered into in 1991. In addition to income generated from trading activities, the company had also raised funding of $87 million from the capital markets, through two share issues in 1992 (see paragraph 2.3).

1 Invest Northern Ireland was formed on 1 April 2002 and subsumed the responsibilities of IDB and certain other bodies.
2 Valence retains a small ‘sales and development’ facility in Northern Ireland.
The Valence Product

1.5 Up to 1993, most rechargeable batteries for portable appliances were based on nickel-cadmium technology, but this had several disadvantages, including the environmental risk attaching to cadmium and the low power-to-size and weight of this technology. To overcome these difficulties, the big Japanese companies in the market introduced two alternatives - nickel metal hydride and then lithium-ion, which had significant advantages over nickel-cadmium. However, there were safety risks attached to the liquid electrolyte in the lithium-ion battery and another alternative being pursued by Valence and others was lithium polymer, which was also thought to have superior performance characteristics. Given the expected large expansion in portable devices, a worldwide market for batteries of $4.2 billion was forecast for 1997.

The Valence Project

1.6 The project involved the creation of a new, large-scale battery manufacturing facility in Northern Ireland. Competition in the battery industry was, and continues to be, intense. The industry consists of major international companies with substantial financial, technical, marketing, sales, manufacturing, distribution and other resources. Many of these companies have name recognition, established positions in the market and long standing relationships with ‘Original Equipment Manufacturers’ and other customers.

1.7 By contrast, Valence, in 1993, was developing technology purchased some two years earlier for $2 million. It had no other products, no contracted customers, limited standing in the market place, no manufacturing experience and, crucially, no track record of developing new technology to the finished product stage. In the circumstances, the company could not and did not have a proper Business Plan (see paragraphs 1.11 and 1.12) and so IDB was unable to form a view on when the company would achieve viability. There was no basis on which to forecast how much it would cost to bring the technology to the market place and secure profitable orders nor how many manufacturing jobs that would create. Similarly, marketing, management and control, and production appraisals could deal only with independent professional judgement based on the limited progress to date and the previous track record and competence of the management team.

1.8 Notwithstanding the lack of a formal plan drawing together the information referred to in paragraph 1.7 and lessons drawn from previous experience [see paragraph 3.3], the IDB undertook to meet the company’s tight deadline to appraise the project and reach a decision, within a 6-week timeframe. It did this without knowing whether issues raised during that appraisal would demand deeper enquiry than was possible within the time available. In a comparison with other companies working with similar technology, IDB concluded that Valence was most likely to be ‘first to market’ although, because the project was
Part One: Introduction and Background

still at development stage, only limited comparison with other companies in the battery industry was possible.

1.9 The expert advice of the Department’s Industrial Research and Technology Unit (IRTU) was limited to an overview of desk research on the technology used because its staff did not possess specific knowledge in the technology area. It was not called upon to assist in any way with the appraisal. Instead, in recognising the technical limitations of IRTU with regard to battery technology, IDB appointed a Northern Ireland-based senior academic, a recognised expert in this area, to undertake its technical appraisal work. The IDB Appraisal Executive drew attention to several fundamental aspects of the appraisal where investigation had been limited because of time constraints on the appraisal team and the Department’s economists also expressed concern about the value of the project. While concerns were referred to within the Casework papers, NIAO’s view is that they could, and should, have been drawn to the attention of the Board Casework Committee in a much more explicit and unambiguous fashion.

1.10 Despite the many unknowns in the company’s proposal, IDB structured its offer as if the company had a product, a business plan, a market and customers. Approval was sought on the basis of the creation of a number of jobs that was unrelated to any credible sales forecast and various conditions, including clawback, were related to a business plan which did not exist. The IDB draft press release announcing the project referred to it as “the biggest single investment ever made in Northern Ireland by an overseas company.” The Department has commented that, because the company, at that time, had yet to prove its ability to volume manufacture its intended product, the IDB offer was a capped and conditional one, designed to minimise the early exposure to the project while enabling it to progress to the point of commercial reality (see paragraphs 1.11 and 1.12).

Business Plan

1.11 In our discussions with the Department and Invest NI, they disagreed with our view that there was not a proper Business Plan. They said that the documents supplied by the company in large part captured the plan for the business. It said that the company provided IDB with a 34-page draft Business Plan document, albeit one that, on a standalone basis, contained limited detailed operational information. During the appraisal process this document was supplemented by:

(a) the company’s detailed investment prospectus (44 pages plus appendices);

(b) the company’s financial model;

(c) capital expenditure quotations;

(d) patent information;

(e) the company’s 1993 annual report;
In NIAO's view, the documents could not be regarded as comprising the sort of comprehensive Business Plan required by IDB guidelines because:

- the 34-page Business Plan document was in draft and more than half of it was made up of photocopied extracts from the investment prospectus
- the investment prospectus did not include any projected trading results, balance sheets or cash flows (although the company’s financial model, received later, did include forecast financial information)
- none of the documents contained a marketing strategy, a strategic three-year Research and Development plan, a detailed implementation timetable showing the dates of key activities and events leading to the achievement of projected volumes, a recruitment schedule showing skills required or the proposed management information system; all requirements set out in IDB guidelines on the preparation of Business Plans
- the information provided would not have enabled the IDB to form a judgement on additionality, viability, efficiency or competitiveness or to set key performance indicators to enable it to monitor the project.

Financial assistance offered to Valence

The company received offers of financial assistance from IDB and two other Government bodies (Figure 1). The initial IDB offer was based on Valence investing £147 million on the project and creating 660 jobs in Northern Ireland by 31 March 1998. In addition, IDB funded the purchase, refurbishment and extension of a factory for the manufacturing operation (Figure 2), the costs of which were to be recovered through a 15-year amortisation agreement.
Part One: Introduction and Background

Figure 1: Offers of Financial Assistance

<table>
<thead>
<tr>
<th>Funder / Grant</th>
<th>Date of Offer</th>
<th>£</th>
<th>£</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDB:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Capital Grants</td>
<td>September 1993</td>
<td>22,755,000</td>
<td></td>
</tr>
<tr>
<td>Revenue Grants</td>
<td></td>
<td>3,905,000</td>
<td>26,660,000</td>
</tr>
<tr>
<td>IRTU³:</td>
<td>October 1997</td>
<td></td>
<td>57,489</td>
</tr>
<tr>
<td>Research Grant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T&amp;EA³:</td>
<td>November 1993</td>
<td></td>
<td>606,000</td>
</tr>
<tr>
<td>Training Grant</td>
<td>and May 2001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>27,323,489</td>
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Source: Invest NI

Figure 2: IDB Factory Costs

<table>
<thead>
<tr>
<th>Grant Type</th>
<th>Date</th>
<th>£</th>
<th>£</th>
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<tr>
<td>Main Factory Purchase</td>
<td>September 1993</td>
<td>925,000</td>
<td></td>
</tr>
<tr>
<td>Main Factory Refurbishment</td>
<td>September 1993</td>
<td>2,695,000</td>
<td></td>
</tr>
<tr>
<td>Main Factory Extension</td>
<td>September 1999</td>
<td>2,000,000</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>5,620,000</td>
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Source: Invest NI

3 The Industrial Research and Technology Unit and the Training and Employment Agency were separate operational entities within the former Department of Economic Development.
The Company reports difficulties

1.14 In May 1994, the company reported difficulties and there followed a period of over nine years during which it continually made forecasts which it failed to meet while moving through a series of production crises. It always claimed to be on the brink of solving its problems and starting production.

The Company’s move to China

1.15 In February 2003, Invest NI learnt of a potential joint venture between Valence and a company in China. Invest NI opened discussions with the company regarding the likelihood of this eventuality. In August 2003, almost 10 years after the first contact with IDB, Valence advised Invest NI formally that it was moving its manufacturing operation to China, leaving only a small sales and development facility in Northern Ireland. Invest NI reached a settlement with Valence, in which, of the £10.31 million paid to the company, it agreed a recovery of £2 million in cash, plus shares in Valence. At that time, the shares had a market value of £1 million, but carried a restriction on realisation that resulted in a maximum of £250,000 worth of shares being realisable in any 6-month period. The sale of the fourth and final tranche of shares took place in July 2007. Overall, the total realisation of the shares has amounted to some £470,000 (net of costs).

Scope of the NIAO Investigation

1.16 In view of the unusual circumstances surrounding the initial appraisal of the project, the range of difficulties experienced over the life of the project and Valence’s ultimate withdrawal of manufacturing from Northern Ireland, we looked at the following:

- financial background of Valence (Part 2 of this Report)
- project appraisal (Part 3)
- offer of assistance and early amendments (Part 4)
- early difficulties, 1994-1996 (Part 5)
- raising the cap on assistance (Stage 1), 1998-1999 (Part 6)
- raising the cap on assistance (Stage 2), 2000-2001 (Part 7)
- re-location to China and clawback of assistance (Part 8).

1.17 Our examination was hampered because Invest NI was unable to find some of the IDB papers connected with the project and also the haphazard state of many of the files (which Invest NI said it had inherited from IDB). Consequently, we had difficulty in establishing a complete audit trail and cannot be sure that we have established and fully explored all of the relevant issues on the project.
Action by Invest NI

1.18 Invest NI and the Department told NIAO that they accept that improved controls should have operated in respect of a number of issues highlighted in the report. They said that specific shortcomings are evident in relation to property transactions. These relate, in particular, to deficiencies in record keeping; a lack of timely engagement with Valuation and Lands Agency; a failure to maintain a complete verifiable record of appropriate authorisations, particularly in relation to single tender action for the 1993 factory refurbishment; and failure to take additional security which it was agreed would be sought on the second factory purchased by the company.

1.19 Other areas where shortcomings are acknowledged are in the monitoring of the project, for example, in reviewing the outcome of the ‘class action’ in 2001; the failure to obtain appropriate authorisations for the raising of the assistance cap from £3 million to £5 million in 1999; the failure to take Dutch legal advice in 1993 on the enforceability of the security given in support of the financial assistance; and the failure to offset outstanding amortisation payments before making grant payments to the company.

1.20 Invest NI and the Department also commented that the control environment in Invest NI has evolved considerably over the 11-year period covered by the report. They said that changes implemented since April 2002 include:

- the introduction of new record management procedures which include an Electronic Documents Records Management System
- the discontinuation of new speculative build/direct build, other than on an exceptional basis
- the provision of Valuation and Lands Agency support to Invest NI through a dedicated co-located resource. Invest NI believes that this is of great benefit in assisting in effective communication and provision of support in property negotiations which can be complex and protracted
- Invest NI does not currently provide property amortisation loans or associated licence agreements
- Invest NI has developed substantially those sections of its casework submissions that deal with the economic efficiency test and the wider benefits of the project
- the removal of Crown exemption in relation to planning matters, as a result of the Department establishing Invest NI as a Non-Departmental Public Body without Crown status.
Part Two: 
Financial Background of Valence
2.1 This part of the report examines the funding and share dealings of Valence.

**Funding**

2.2 Valence was incorporated in 1989. In 1993 it was still considered a development stage company and most of its trading income - $10.2 million in the 4 years to 31 March 1993 - came from a research and development contract, commenced in 1991, with a division of General Motors.

2.3 Losses of $17.8 million in the four years to March 1993 were funded out of the proceeds of two share offerings; the first in May 1992 at $8 per share and the second in November 1992 at $18 per share, following favourable publicity about the company. As a result of these share offerings, the company raised $87 million and its Balance Sheet, at 31 March 1993, showed net assets of $69 million and a cash surplus of $68 million. At this time, the company had a total market value of $477 million. During the November 1992 share offer, one analyst, while noting that with breakthrough technology anything can happen, stated that:

"the public is now being asked to pay nearly $500m for a technology in which Valence has invested $11m at the most. That’s a ratio of 45-to-1. We like to buy companies at five to six times their R & D investment".

2.4 Shortly after the IDB offer of support in September 1993, the company raised a further $45 million from a third share offering in December 1993. At the time, the company responded to doubts about its product by telling the Wall Street Journal that:

“Northern Ireland has done its due diligence ….They made sure we have a real product and a real technology”.

2.5 The share price rose 15% on announcement of the IDB offer. Since then, the share price has mainly been below $10, except for the period from December 1999 to January 2001, when the market was at its height, with shares trading above $10 and, at one stage, touching $33. Over the 12 months to November 2008, the shares traded at between $1 and $5.

**Share Dealings**

2.6 In May 1994, Valence and its share underwriters faced a class action which claimed that Valence had issued a series of false and misleading statements, including filings with the Securities and Exchange Commission (SEC), with regard to the company’s business and future prospects. The firm responsible for issuing the prospectus was also one of the strongest advocates of Valence’s prospects in its investment analyst role. In February 2000, the case was reported as being settled out of court at a cost to Valence of $30.1 million, but with no admission of liability by the company.

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4 The class action was taken by those who purchased the company’s shares between May 1992 and December 1993; the action was later extended to also include the November 1994 offering.
2.7 The prospectus for the second share offering (November 1992) noted that of the 4 million shares being offered for sale at $18 each, 770,000 were being sold by the principal shareholders for $20.7 million (none of which would benefit the company). The two principal shareholders, with 65% of the issued shares, were also the founding shareholders. One (‘the founder’) was also, at that time the Chief Executive Officer (CEO) of the company, while the other was an entrepreneurial investor with a range of other business interests. The entrepreneurial investor loaned funds to the company in its early years and also owned the company’s premises. From this sale, these principal shareholders stood to gain $7.63 million and $8.4 million respectively.

2.8 The entrepreneurial investor also sold shares worth $6.9 million in the third (December 1993) share offering. The San Francisco Chronicle later claimed that the founder accumulated almost $41 million by selling 2.4 million shares. Included in these shareholdings were founder shares and options issued at $0.001 - $0.01. Immediately after the IDB offer in October 1993, the founder withdrew from day-to-day management of the company (although he took over as CEO again in November 1997 before resigning in 2001). Eventually, the entrepreneurial investor became the major shareholder in the company, owning some 43% of the company’s shares. He also became the company’s major funder – without whose support it may not have continued to trade - providing a series of loans, guarantees and equity investments in arrangements by which the company frequently provided him with shares at below market value. For example:

(i) In March 2002, through a company which the entrepreneurial investor controlled, he agreed to provide up to $30 million in equity capital, in tranches of $5 million, at a purchase price of 85% of the average closing price of Valence shares in the preceding five days. In October 2002, the company drew down one of these tranches and the entrepreneurial investor received 9.5 million shares at $0.53 per share, a 15% discount on the then current market price which had briefly dipped below the $1 minimum required by the NASDAQ5. In July 2008, those shares were worth $41.5 million (although, with the current economic downturn, this had dropped to $11.8 million in November 2008). In February and March 2003, the company drew down two more of the tranches - $10 million in all - and the real estate developer received in return a further 6.2 million shares with a value at that time of $11.8 million. In the succeeding quarter, the value of those shares ranged from $25.4 million to $54.7 million.

(ii) Under a loan agreement with a company controlled by the

5 NASDAQ (National Association of Securities Dealers Automated Quotations) is a United States electronic stock market.
Part Two: Financial Background of Valence

entrepreneurial investor Valence had a revolving facility to borrow, repay and re-borrow up to $15 million at an interest rate 1% above the entrepreneurial investor’s borrowing rate. At 31 March 2003, the amount outstanding, including accrued interest, was $19.7 million. In 1998-99, the company issued warrants to the lender to enable it to buy some 594,000 shares in conjunction with the loan agreement. The face value of these warrants was $2.2 million and, according to the company’s accounts, was “reflected as additional consideration for the loan”.

NIAO Conclusions

2.10 There are a number of matters which we noted from our review of the financial background of Valence:

- at the time of Valence’s third share offering in 1993, the company responded to doubts about its product by telling the Wall Street Journal that “Northern Ireland has done its due diligence … They made sure we have a real product and a real technology”.

- the reported outcome of the class action taken by investors against Valence was an out-of-court settlement, in February 2000, at a cost of $30.1 million to the company, but with no admission of liability

- there is no record of any consideration, by IDB, of the impact of the class action on its relationship with the principal shareholders.

2.9 The Department has commented that, in undertaking the funding outlined above, the entrepreneurial investor had accepted a significant degree of financial risk.
Part Three:
Project Appraisal
3.1 IDB’s appraisal process is set out at Appendix 1. Each project for which selective financial assistance is offered must satisfy the following criteria:

- **additionality**
  - aimed at establishing the minimum assistance needed to enable the project to proceed in the nature, scale, timing and location proposed

- **viability**
  - the project, having received assistance on a once-and-for-all basis, should be self-sustaining thereafter

- **efficiency**
  - concerned with the net economic benefits to the United Kingdom and any displacement effects on other businesses.

3.2 All cases involving assistance of more than £1 million had to be approved by the Casework Committee of the IDB Board. For greenfield projects, the threshold was £100,000.

### Previous lessons on IDB’s handling of casework appraisal

3.3 A number of important recommendations and lessons have previously been drawn out from examinations of IDB’s handling of selective financial assistance projects, including those highlighted in the ‘Gibson Report’ on ‘greenfield’ project appraisal and the Public Accounts Committee’s reports on the De Lorean and Lear Fan cases. Among the many lessons highlighted in these reports, we noted the following as having a particular relevance to the Valence project:

#### The Gibson Report, 1983

- only in exceptional circumstances should IDB assist a project which seeks to establish a greenfield project at a level which would normally represent an advanced stage in its natural course of development. A quantum leap in the size of an organisation [Valence was forecasting one-sixth of the world market within five years], with all the finance, production, marketing and other problems which that involves should be recognised as being beyond the capacity of most management teams

- extreme caution should be taken in encouraging the establishment or expansion of small companies in high technology industries requiring continual investment in research and development

- conditional offers - that is, offers requiring conditions to be satisfied before grants are paid - should not be made except in special circumstances; such conditional offers being seen as a green light by some companies and thus locking IDB into the project. It was recommended that IDB should, instead, use letters of intent or ask the company to remedy the reasons for the pre-conditions.

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6 The net economic benefit is assessed using a Resource Cost Analysis (RCA). This looks not only at the commercial returns of the project, but also analyses the resources (labour, capital etc) used against their likely contribution to the economy if the project did not go ahead. As a measure of value for money, the analysis requires that the net gain produced by the project should exceed the gross cost of assistance.
De Lorean PAC Report, 7 1984

- avoid over dependence on one man and take extra care in assessing the personal qualities and commercial reputation, including credit-worthiness, of individual entrepreneurs, particularly where a new company is involved
- agreements should be unambiguous
- the IDB must insist on adequate time in which to carry out a full and detailed assessment of the viability of a potential project, even if this results in its loss
- when contemplating any high risk investment, IDB should consider the ‘McKinsey view’ that, “if a project cannot stand up to the worst case commercial scenario, then it should not be funded by Government”
- monitoring arrangements should be agreed in advance. In order for these arrangements to be effective, objectives and standards of performance expected of the company should also be agreed in advance
- a careful assessment of the market, and the viability of the product in the market, should always be undertaken.

Lear Fan PAC Report, 8 1986

- “enthusiasm for the Lear Fan project as a substantial job creation opportunity blunted … perception of the considerable risks inherent in the extensive use of a new technology”
- “the risks involved in committing substantial public funds to a project which depends for its viability on a product yet to be developed are unacceptably high”.

What the Project Promised

3.4 The project involved the establishment of a manufacturing site of, initially, at least 80,000 sq. ft., quickly expanding to 130,000 sq. ft. within two years, for the manufacture of rechargeable batteries. The company anticipated a capital spend of $110 million (£76 million) within five years and the creation of 660 jobs, including 60 research and development jobs. Total investment, including working capital, would be £147 million. Sales of $600 million per year by 1998 were forecast. More immediately, it was expected that the company would achieve sales in 1995 of $48 million to Motorola, $85 million to an unidentified computer client and $25 million to the US Government.

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The Appraisal

3.5 At their first meeting on 23 July 1993, the company told IDB that it was in the final stages of negotiation with the Republic of Ireland’s Industrial Development Authority (IDA) and that the Board of that Agency was expected to approve a substantial package of assistance at its meeting on 8 September 1993, 47 days hence. The company indicated that it would accept that offer unless IDB could persuade it to do otherwise, because it needed a factory urgently to accommodate machinery being imported from the Far East and to enable it to meet the demands of a major customer, Motorola. IDB’s Chief Executive agreed to meet this timetable on condition that Northern Ireland was viewed by the company with an open mind and that no corners were cut in the appraisal process.

3.6 On this basis, an IDB team arrived at the company on 16 August 1993 and reported its findings on 31 August 1993. The report noted “the time constraints imposed on the appraisal team together with the very limited information provided in the “business plan” have inevitably resulted in our work being limited in some regards”. Particular areas considered not to have been fully investigated were the:

- origins of the technology
- technical claims of the battery
- backgrounds of the senior management
- robustness of the patents
- competing lithium polymer technologies
- markets for the battery.

3.7 In addition to a financial appraisal, IDB commissioned marketing, manufacturing scale-up capability and technical reports (see paragraphs 3.22 to 3.32 below). Normally, the financial appraisal draws on the relevant parts of these reports in preparing the overall report. In this instance, given the time constraints, one of the reports (the Technical Report) had not yet been received when the Board Casework Committee met to consider the case. However, the Appraisal Executive had been given an oral briefing on its conclusions (subsequently confirmed in the final report) which he presented at the Casework Committee meeting.

The investment analysis of Valence

3.8 Notwithstanding the above, the appraisal report said that IDB could take comfort from the success of the company’s public offerings (paragraph 2.3 above) and the prestigious companies and government departments with which Valence was working. It also pointed to the enormous potential of the company and suggested ways in which IDB’s risk might be minimised, pending confirmation of volume production, a customer book and submission of a Business Plan.

3.9 Valence had, indeed, placed several public offerings but, in terms of the US capital market, they represented only a minute proportion of the risk capital raised each year. Several leading investment analysts made clear that the stock was suitable only for the most risk-tolerant investor, describing it as “best
Review of Assistance to Valence Technology

for the adventurous” (the entrepreneurial investor who backed the company was quoted as saying that he was a venture capitalist who liked big risks and big rewards). Despite the issues noted above, three of these analysts (including the lead manager of Valence’s public offerings) carried a “buy” and one a “strong buy” recommendation. These investment assessments were made on the basis that the potential rewards for Valence and its shareholders were huge, if it could successfully develop and market its product, even if it secured only a small proportion of a large and growing market. However, the analysts also pointed out that Valence was a small, newly-established company in an intensely competitive industry dominated by well-established companies with financial, technical, marketing and other resources substantially greater than those of Valence. Also, with a product still at the development stage, it needed to overcome major developmental and product engineering problems before it could begin marketing successfully.

Casework Committee, September 1993

3.10 Despite the company still being at the development stage, the submission to IDB’s Casework Committee referred to ‘working prototypes’ and said that the company had “successfully developed a rechargeable lithium polymer battery” and “was poised to launch a potentially revolutionary product”. The main reservation was whether the company could successfully mass produce the battery and the submission said that the company did “…not yet [IDB’s underlining] have a commercial product….” but would have if it could be brought to market. In light of this reservation, we found it surprising that IDB was satisfied with only a brief review of manufacturing scale-up capability (see paragraphs 3.28 and 3.29 below). No reference was made to the other reservations set out at paragraph 3.6 above or to the lack of a proper Business Plan (see paragraphs 1.11 and 1.12). The press release announcing the project and the covering submission to the Secretary of State similarly did not point out that the product was still a prototype.

3.11 We reviewed IDB’s application of its selective financial assistance criteria.

Additionality

3.12 IDB told the Board Casework Committee that the proposed offer of £26.66 million was the minimum amount necessary to persuade the company to locate in Northern Ireland, given the size of a competing offer from the Republic of Ireland’s Industrial Development Authority (IDA). IDB claimed to know that the IDA offer was $20 million, but this information had, in fact, come from the company itself. The IDA offer also benefited from a different tax regime and IDB noted that Valence’s corporate structure was designed to provide tax advantages in the UK and the USA. Department of Finance and Personnel approval of the package of assistance to Valence was given, subject to IDB satisfying itself that...
Part Three: Project Appraisal

3.13 Under the IDB guidelines, one of the key objectives of a project appraisal was to assess the viability of the project and the company submitting it. The requirements set out in the guidelines are detailed at Appendix 2.

3.14 In the Valence project, the covering note of the financial appraisal report given to the IDB Client Executive made the point that, as Valence was “still a development stage company”, it was not possible to reach conclusions on viability. However, neither this, nor the fact that the company did not have a proper Business Plan (see paragraphs 1.11 and 1.12), was explicitly reported in the Client Executive’s submission to the Board Casework Committee. The submission concluded that:

“Valence has very quickly brought the lithium polymer technology, acquired in 1990, to readiness for market entry. The Company has raised sufficient funds to buy it up to 2 years to achieve volume production capability. The rewards for successful implementation are huge, as the market is enormous and growing. However the reality of the moment is that the company has no confirmed orders for its product;

has never produced a battery under commercial conditions and there is no certainty that the mass produced battery will offer the same performance advantages as the proto-type. There are a number of players researching the lithium polymer technology although it is considered that Valence has a distinct lead. Speed of production development is therefore critical to maintain this lead. There is little doubt that if the product can be adequately mass produced in terms of cost, quality and volume, then viability will be unquestioned, but again timing is important as Valence needs its lead on the competition to achieve enough premium on its selling price to quickly recoup the significant investment required. As with all green field ventures, and particularly those which involve new technology and first time manufacture, the project falls into the high risk category. The major risk to the IDB, therefore lies with grants released against the setup capital expenditure and it is recommended that any assistance should be capped at this amount pending confirmation that:

1. Volume production capability has been achieved.

2. The Company has signed up at least a further two OEM [Original Equipment Manufacturer] alliances.

3. The Company prepare a detailed operating plan demonstrating viability.”
3.15 In NIAO’s view, the conclusion was extremely optimistic, in its references to both the product and project viability:

- the opening sentence, “Valence has very quickly brought the lithium polymer technology, acquired in 1990, to readiness for market entry” substantially overstated the position. Valence had not brought the technology to ‘readiness for market entry’ and, until it developed a battery capable of mass production, ‘market entry’ was not even a prospect

- while the conclusions stated that “There are a number of players researching the lithium polymer technology although it is considered that Valence has a distinct lead”, we saw no evidence that it had a “distinct lead” over all other competitors

- the comment that “There is little doubt that if the product can be adequately mass produced in terms of cost, quality and volume, then viability will be unquestioned” was simply a ‘truisim’. In the absence of a commercially-viable battery, the statement was meaningless.

It appears questionable to NIAO whether the requirements of the viability criterion were fully met. In our view, the absence of a proven commercially-viable product should have been explicitly and unambiguously stated in the submission to the Casework Committee; failing to do so undermined the Casework Committee’s ability to assess and manage risk. In the event, an assistance offer was made which, although capped at an initial sum to limit IDB’s financial exposure, still amounted to a very substantial investment by IDB (some £6.6 million, including capital grants and factory provision – see Part 4), before a commercially-viable battery had been produced and the overall viability of the project could be assessed.

3.16 The Department told NIAO that it considers that the submission to the Casework Committee did make it clear that there was an absence of a proven, commercially viable product. The Department also said that the Casework Committee was explicitly informed that the project fell into the high risk category, and measures were taken to manage risk through a cap on financial assistance.

Efficiency: the Resource Cost Analysis (RCA)

3.17 The RCA was originally carried out by the Department’s economists on the assumption that the project would proceed as a separate UK-registered company, taxed wholly as a foreign-owned UK company. On this basis, the test showed a net benefit to the UK economy of about £0.4 billion and a real rate of return in excess of 10 per cent.

3.18 In the opinion of the Department’s economists, this represented a very high rate of return which implied a high element of risk and/or over optimism associated with the project. In particular, they drew attention to the fact that Valence was a
newly-established company with only working prototypes of a product and no manufacturing experience. They also pointed out that the forecasts assumed Valence capturing nearly one-sixth of the world market for rechargeable batteries within 5 years, against direct competition from existing producers and without incurring any significant marketing/advertising costs.

3.19 Subsequently, the RCA test was carried out on the assumption that the project would be a branch plant of a Dutch parent company (the model actually chosen) with transfer pricing based on ‘cost plus 12.5%’ and the project then passed the test only marginally. However, the reservations set out above still applied and the Head of Economics Branch wrote to IDB expressing his view that the figures provided for the RCA were “clearly not a meaningful basis on which to appraise this project”. More realistic assumptions would cause it to fail the test.

3.20 The Casework Committee was told that the RCA test was “very positive” although likely to fail when recalculated to reflect the steps being taken to minimise UK tax. It was not told about the reservations expressed.

3.21 IDB also told the Casework Committee that, as this was leading edge technology not currently being produced in the UK and that all production was to be exported, it considered that there would be no job displacement in the UK.

Marketing Report

3.22 As part of its appraisal, IDB commissioned a marketing report from an independent consultant. This said that the project was viable from a marketing viewpoint, subject to an important (but unknown and not divulged by Valence) computer business partner being announced by the end of October 1993. This client was to take 75% ($24.4 million) of 1994 sales. The consultant said that sales achievability depended on this client, together with Motorola and also a substantial US Government military contract. The consultant recommended that the announcement of this client be made a condition of offer but, in the event, no reference was made in the casework papers, securing of the client was not made a condition of offer and the contract itself did not materialise. Subsequent papers made no further reference to this contract. We asked the Department why its consultant’s recommendation was not acted upon. The Department said that, in its view, the final case included a more rigorous condition that required evidence of shipped orders and invoiced sales of not less than $4 million to not less than two customers, rather than the announcement of a specific customer.

Potential customers

3.23 As regards the prestigious companies and Government departments with which Valence was said to be working, there were two companies mentioned at that time - Motorola and Delco - and
various references to work for the US Government.

3.24 Motorola was said by Valence to have awarded it a $100 million contract to supply batteries in the period to 1996 but the agreement was, in fact, no more than a call option should the batteries be found to work and be cheap enough. It would not have become a contract until 1.25 million batteries were delivered and accepted in a calendar quarter. IDB said that they spoke to Motorola during the appraisal process and understood that the agreement was dependent on specification. The prototypes that Motorola had tested at that stage were considered to be very promising and both parties believed that volume production of batteries to the required specification would be achievable. We saw no evidence that IDB had examined the Motorola agreement during its appraisal or that it saw Motorola’s field trial report.

3.25 Delco was the Delco-Remy battery division of General Motors and Valence had half-completed a $20 million contract to develop a power source for an electric car. This agreement represented almost all of Valence’s income. Had the battery been successful, it would have yielded royalties for Valence, but not manufacturing jobs. Delco considered that the production of a car battery using Valence technology was between two and ten years away.

3.26 In October 1992, Delco entered into an agreement with the United States Advanced Battery Company (USABC) to develop lithium polymer batteries for electric vehicles, subject to approval by the United States Department of Energy (US DOE). The USABC was a partnership of General Motors, Ford and Chrysler, partly-funded by the US DOE, formed to develop batteries for electric vehicles. Delco was expected to use Valence as a sub-contractor under this agreement. In the event, the agreement did not go ahead and USABC seems to have contracted with two other groups instead.

3.27 We asked Invest NI whether IDB had consulted the US DOE about the likelihood of the agreement being approved. Invest NI told us that IDB had not consulted the US DOE about the agreement because its appraisal had concluded that it would not happen. The Casework Committee submission referred to work for the US Government through its Advanced Project Research Agency and the potential for the contract was said to have been discussed with Valence, but we were unable to find any further reference to it. The Casework Committee submission also referred to Valence’s expectation of a $25 million Government military contract (see paragraph 3.22) but this, too, was not achieved.

Manufacturing Scale-Up Capability Report

3.28 This report, which essentially was to cover the move from prototypes to production capability, was produced at short notice by consultants employed by IDB. Despite a comprehensive remit, the
consultants made the point that it was a brief review, based on only one day spent at the company’s US premises. Because of the limited time at their disposal, they saw only three of the four key manufacturing managers and engineers. These included the Vice-President of Operations and Director of Laminate Manufacturing (but not the Director of Battery Manufacturing, who reported to the Vice-President of Operations). The consultants had no time to make cost comparisons for the various items of capital equipment and noted that some of their conclusions, therefore, were based on assumptions. Because of this, IDB agreed that the work “would necessarily be undertaken on a best efforts basis”. The Department commented that, despite the absence of the Director of Battery Manufacturing, the consultants obtained adequate information from the Vice-President of Operations, his line manager. It also said that over half of the capital equipment costs were subsequently verified by the financial appraiser.

3.29 With these caveats, the consultants concluded that the company was probably on target for achieving limited production at its San Jose pilot facility, but that longer-term scale-up projections should be treated with caution. IDB drew attention to these reservations in its submission to the Casework Committee. The consultants said that the projected employment levels (660 by March 1998) looked reasonable, by reference to the machinery to be installed at Mallusk. IDB’s Marketing Consultant later compared the machinery capacity with the sales volumes forecast by the company. While these were considered broadly compatible, he regarded the sales figures as ‘very uncertain’.

### Technical Report

3.30 This report was an assessment of the possibilities of the use of lithium/solid electrolyte technology in a viable manufacturing process for high energy batteries. It was prepared by a Northern Ireland-based senior academic and was based on the reading of reports made available by the company and its public offerings underwriters, on a literature search and on conversations with relevant individuals, including Dowty Batteries, a UK company pursuing the same technology. He did not visit the company to inspect its facilities at San Jose. The report was submitted after the Casework Committee met on 7 September 1993 but the author’s conclusions were made known to IDB, orally, on 2 September 1993.

3.31 The principal report studied was an assessment of the Valence battery technology in March 1992, by the Director of Pennsylvania State University’s ‘Center of Applied Materials Research’, commissioned by the company’s public offerings underwriters. This report compared the technical data of four different technologies and came to the conclusion that the Valence battery was superior to the others, no matter what application was assumed. However, there is no evidence that the Director
conducted his own trials and he appears to have accepted the Valence and other figures at face value. Much of his data was taken from Valence’s literature. He acknowledged that “the exact manner in which the data were obtained is frequently difficult to discern from the information available to the reviewer” and recommended a more detailed, laboratory-based technical analysis. The Wall Street Journal, in 1992, noted that the Director undertook public relations work for Valence. In its submission to the Casework Committee, IDB conceded that the report could be biased.

3.32 Nevertheless, the Northern Ireland academic took the view that the Director was well placed to assess a number of different technologies and to be aware of activity in different technologies, although noting that the technology of battery manufacture could be outside the Director’s field. On the basis of his readings and conversations, therefore, he came to the conclusion that the “project could offer significant potential for future development and the production of competitive cells in a fast growing market”, but also noted that “one of the most difficult things to assess is the development potential of a particular technology”.

3.33 Following consideration by the Casework Committee and receipt of DFP approval, an offer of assistance totalling £26.66 million was made to the company.

3.34 The Department told NIAO that IDB’s decision to offer financial assistance to the company clearly carried a high degree of risk due to the start-up nature of the project. It acknowledged that the Appraisal Executive had noted that more time could have been spent on aspects of the appraisal but, in its opinion, the key risks associated with the proposal were identified in the appraisal and articulated to the Casework Committee.

3.35 The Department also commented that consideration of this project inevitably involved a finely balanced judgement. It said that, on the basis of the significant benefits forecast from the project and taking account of lessons from previous PAC reports and the Gibson Report, IDB had attempted to compensate for the high risk nature of the project through the structure of the original Letter of Offer. The structure sought to balance the need for protection of public funds with the potential economic benefits to be gained.

3.36 Looking forward, the Department said that it recognises the potential benefits to the economy, but also the risks to project promoters, associated with research, development and innovation. Such activity is, by its nature, relatively high risk. It said that structured offers of support, which attempt to maximise potential returns and manage (but which cannot eliminate) risk, are a prudent and effective means of delivering support in that environment.
Part Three: Project Appraisal

NIAO Conclusions

3.37 There are a wide range of issues arising from our review of the appraisal of the Valence project and its presentation to the Board Casework Committee that give cause for concern. In our view, they call into question the appropriateness of IDB’s decision to offer financial assistance to the company:

- IDB agreed to carry out the project appraisal within the company’s deadline of six weeks. Its decision to do so ran contrary to one of the key lessons of the PAC’s De Lorean report – that IDB must insist on adequate time to carry out a full and detailed assessment, even if this results in loss of the project. It is clear, however, that many key aspects of the appraisal were not properly assessed.

- The analysis of Valence, carried out by the investment market, made the high risk nature of the project abundantly clear, referring to it as “best for the adventurous”. In deciding to support the project, IDB appeared to have limited regard for its own guidance on high risk projects, including the lessons of the Gibson Report and the PAC report on Lear Fan, both of which highlighted the dangers of supporting projects which involve products yet to be developed.

- The absence of a proper Business Plan - a key document in any appraisal process – precluded IDB from assessing the financial viability of the project. While the Department said that the company’s draft Business Plan, though limited, was supplemented by a range of other documentation which, in large part, captured the plan for the business, our view remains that the documentation provided could not be regarded as a comprehensive Business Plan, as required by the IDB guidelines.

- The efficiency test, which was passed only marginally, was carried out using figures described by the Department’s economists as “clearly not a meaningful basis on which to appraise this project”. More realistic assumptions would have caused the project to fail the test.

- Valence’s claims about potential customers did not stand up to scrutiny. The alleged $100 million contract with Motorola was only a call option, dependent upon the cost and functionality of the batteries - a contract would only have been a possibility once the mass production capability was proven. As regards the supposed sub-contract for the US Advanced Battery Company project, the appraisal concluded that this would not happen. Also, the claim that an important computer business partner was to take 75% of the 1994 production came to nothing - Valence declined to divulge the identity of this alleged customer, who, as it turned out, never materialised and about whom subsequent case papers made no further reference.
the projected employment level (660 by March 1998) was assessed by reference to the machinery to be installed at the Northern Ireland plant, but was not directly linked to sales forecasts. While the machinery levels were later considered compatible with the company’s forecast sales figures, these figures were themselves regarded as “very uncertain”

• IDB’s heavily-qualified manufacturing scale-up capability report urged caution with regards to Valence’s longer-term scale-up projections. The report, which was undertaken by consultants on a “best efforts” basis, was reliant on a visit of only one day to the company’s US premises, during which they had time to see only three of the four key members of staff expected. This included the Vice-President of Operations and the Director of Laminate Manufacturing (but not the Director of Battery Manufacture who was not able to attend). We note the Department’s view that despite the absence of one key member of Valence staff, the consultants obtained adequate information from his line manager

• IDB’s technical assessment was essentially a paper-based review, with no visit to the US plant. It was largely based on the work of a US academic who undertook public relations work for Valence and who appears to have accepted, at face value, the figures provided to him by the company. The IDB reviewer’s conclusion suggests to us that he was less than confident about the technical viability of the product, stating that the project “could” offer significant potential for future development, but also drawing attention to how difficult it is to assess the development potential of a particular technology.

3.38 Another area of concern arising from our review relates to the submission to the Board Casework Committee. In our opinion, certain of the concerns and reservations about the project, noted during the appraisal, were not clearly drawn to the Committee’s attention. In particular, the Committee:

• was not explicitly told about the absence of a proper Business Plan, nor that the financial appraisal report had made the point that, as Valence was a development stage company, it was not possible to reach conclusions on financial viability

• was told that the RCA efficiency test was “very positive”. This was despite the project only marginally passing the test. The strong reservations of the Department’s economists were not highlighted in the casework submission. We note the Department’s view that the substance of these points was covered within the individual sections of the casework papers, but consider that the detail fell short of what was required

• was not told that the figure quoted by IDB’s officials as the competing offer from the Republic of Ireland’s IDA had actually been provided by Valence itself
3.38 In our view, IDB’s failure to explicitly and unambiguously draw the matters referred to at paragraph 3.38 to the attention of the Casework Committee undermined its ability to assess and manage risk. We also note that the technical appraisal report was not available until several days after the Casework Committee meeting (notwithstanding that the conclusions thereof were noted as having been drawn to the attention of the Committee at its meeting).
Part Four:
Offer of assistance and early amendments
4.1 IDB’s £26.66 million offer of assistance comprised capital grants on plant, machinery and equipment, employment grants tied to the number of jobs to be created and the provision of a factory (details are set out in Appendix 3).

Key Points of the Offer

4.2 Key points of the offer were:

(i) the amount of grant assistance (other than the grant at (ii) below) was to be limited to £3 million, pending:
   - sales of at least $4 million, to more than one customer
   - provision of a detailed operating plan demonstrating viability and adequate funding

(ii) IDB to buy a factory at Mallusk, pay for it to be adapted and extended to Valence’s specification and sell it to Valence on a 15-year amortisation, after deducting a 30% grant of £1 million (see paragraphs 4.6 to 4.13 below).

The cost per job for the promise of 660 jobs was some £40,700 and the percentage public funds contribution 18.1%, based on an investment by Valence of £147 million. The average inward investment cost per job in 1993-94 was £27,400.

4.3 In addition to the IDB assistance, the former Training and Employment Agency (T&EA) offered a grant under its Company Development Programme of £470,000 towards an approved training programme. This offer had no pre-conditions.

4.4 The conditions of the IDB offer included a requirement that the parent company should provide sufficient funds to enable Valence to implement its Business Plan and that the project would be implemented in accordance with that plan (an important provision in any claim for repayment of grant – see paragraphs 5.13 and 7.3 below).

However, it was clear from the appraisal that there was no proper Business Plan of the standard normally expected by IDB (see paragraphs 1.11 and 1.12). Notwithstanding, the first payment of grant to the company, of £1 million, was made on 25 March 1994, before some pre-conditions of the Letter of Offer had been met – for example, on provision of loan or share capital.

NIAO Conclusions

4.5 IDB’s decision to make payments to Valence, before a proper Business Plan was in place and prior to all of the offer pre-conditions having been met, contravened its own procedures and created an unnecessary additional risk to public funds. In our view, it also sent out the wrong message to the company at the outset – that IDB was equivocal in its enforcement of the terms and conditions of offer.

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9 The Training and Employment Agency was an agency of the former Department of Economic Development, the same parent Department as IDB. The Agency ceased to exist in November 2000 and its functions now lie within the Department for Employment and Learning.
The Main Factory and Refurbishment, September 1993

4.6 Because of Valence’s declared need to start production quickly, IDB was obliged to seek a factory that was available for immediate occupancy. It identified a vacant 60,000 sq. ft. factory at Mallusk. This factory was situated on a 14-acre site which also included another 52,750 sq. ft. building, said to be in a poor state of repair. Both factories had been sold by IDB in 1985 to ‘Company A’ on a 99-year leasehold for £360,000. The factories were subsequently bought by ‘Company B’ in 1991 for £750,000. ‘Company B’ also paid IDB £430,000 to convert the leases to 999 years, bringing its overall cost, to a total of £1.18 million.

4.7 In view of its former ownership and sale of the two factories, IDB took the view that any re-acquisition and re-sale to Valence could lead to criticisms of its actions, especially if the transaction resulted in the current owner, ‘Company B’, realising a profit and so it proposed that an intermediary be asked to acquire the factory on its behalf. It was agreed with a prominent local building company that it would acquire the whole site—their purchase of the factory (paragraph 4.7 above). This company was selected by IDB without competition. Single tender.

VLA advice was that the value of the factory was only £750,000—that is, £175,000 less than IDB had agreed to pay. IDB’s share of this overspend was £52,500 grant assistance towards the purchase. VLA noted that “the deal put together by IDB to acquire the …premises did not involve VLA”.

At this time, IDB’s overall strategy was to dispose of industrial property. It is not clear to us, therefore, why IDB did not encourage Valence to buy the factory direct from ‘Company B’ or the building company, especially in view of the large cash balance held by Valence. The Department told us that general policies are amenable to exceptions—IDB was in a competitive bidding situation (against the Republic of Ireland), in which provision of a factory was part of the offering for a mobile international project. It said that IDB’s involvement meant that the development could be regarded as a Crown Development, thereby enabling an early start on site without the need to wait for formal planning approval. It also said that, while the works were being carried out, IDB was in full consultation with Planning Service. Planning approval was subsequently received, on 1 April 1994, after the work had been completed.

4.8 The factory was extended by a third to 80,000 sq. ft. and adapted to Valence’s requirements at a cost of £2.695 million. This work was undertaken by the building company which had facilitated the purchase of the factory (paragraph 4.7 above). This company was selected by IDB without competition. Single tender.
Part Four: Offer of assistance and early amendments

4.10 Of the £2.695 million cost, £2.41 million was agreed beforehand and the rest was Valence’s additional requirements. IDB provided grant of £1 million against the £3.62 million total cost (£925,000 plus £2.695 million) and amortised the balance of £2.62 million to Valence over a period of 15 years. The high cost of adaptation was partly due to the precautions needed in a building handling lithium, a particularly dangerous substance. These included a one-metre wide gap to act as a fire break round three rooms which were to be of fire proof construction and a wall built to collapse outwards in the event of an explosion, to protect the rest of the building.

4.11 Because the amount of £2.62 million to be paid by Valence for the factory was to be amortised over 15 years (effectively a loan of that amount), IDB proposed to take a charge on the building as security and sought advice from the VLA on the value of the refurbished and extended building. VLA advised that its market value as refurbished and extended was only £1.12 million (a shortfall of £2.5 million against the cost paid by IDB) and so IDB sought additional security from Valence. This was refused and IDB decided not to press the matter on “industrial development grounds”. While consideration was given to drawing the Accounting Officer’s attention to IDB’s exposure should Valence fail, we saw no evidence that this was done. DFP’s approval of the package of assistance required the company to provide a written guarantee in respect of any liabilities to IDB which might arise and this was provided (but see paragraph 6.10 below as regards the value of the parent company guarantee). DFP’s approval also asked IDB to ensure that “should the project fail prematurely, the factory will revert to IDB”. We could find no evidence of such an arrangement.

4.12 During the first two years, IDB encountered continuing difficulty in obtaining half-yearly amortisation payments of some £150,000 - £160,000 from Valence and threatened penalty interest and legal action. We noted, however, that in that period, grant payments totalling £3 million were made to the company and it is not clear why the IDB did not apply set-off.

4.13 Also during this period, Valence was permitted to occupy the factory without completing the purchase contract and without executing a Licence Agreement meant to cover the period until the purchase contract was completed.
NIAO Conclusions

4.14 There are a number of issues arising from the acquisition of the factory accommodation that give cause for concern:

- IDB’s use of a local building company as an intermediary to purchase the factory appears an odd arrangement. The reason put forward – to avoid potential criticism should the vendor realise a profit on re-sale – points towards a worrying lack of transparency in IDB’s handling of the project

- purchasing the factory and paying for its refurbishment and extension increased the level of IDB’s front-end exposure on the project – in effect, it provided the company with a £2.62 million loan (repayable over 15 years under the amortisation agreement), over and above the initial £4.035 million cap on assistance

- the failure to obtain the Chief Executive’s approval to adopt single tender action on a £2.695 million contract was a significant breach of well-established procurement procedures. A reference in a minute to an oral approval having been conveyed “at an early stage of the contract negotiations” is no substitute

- IDB’s failure to obtain VLA advice as to the value of the factory, prior to agreeing a price, was a further breach of well-established procedures. The fact that the VLA valuation was £175,000 less than the price already agreed serves to emphasise the poor practice involved in this transaction

- IDB’s failure to press for additional security from Valence, to cover the £2.5 million shortfall between the value of the refurbished factory and the actual cost, further increased the level of risk being carried by the public purse

- IDB did not comply with DFP’s requirement to ensure that, in the event of the project failing prematurely, ownership of the factory would revert to IDB

- even though IDB was experiencing continuing difficulty in obtaining amortisation payments from Valence during the first two years of the project and threatened the company with penalty interest and legal action, it nevertheless continued to pay grants without applying a ‘set-off’ against the amounts owed

- IDB permitted Valence to occupy the factory without completing the purchase contract or signing the Licence Agreement which covered the period prior to purchase.
Project Monitoring

4.15 Comprehensive monitoring and performance assessment procedures are important elements in the efficient and effective delivery of projects. This would normally include:

- setting objectives and targets against which to manage progress
- drawing attention to differences between actual and planned performance and the causes of such differences
- ensuring public funds are not committed where conditions of assistance have not been met
- identifying problems with projects at the earliest possible stage, enabling appropriate action to be taken.

The information provided by monitoring and evaluation systems can also be used to inform future appraisals and thereby improve performance.

4.16 The IDB Letter of Offer stated that monitoring would be on a monthly basis with particular emphasis on cash utilisation by Valence; progress on plant, machinery and equipment installation at the facility; progress on agreements with customers; and availability of other asset finance. To oversee the progress of this project, IDB’s internal Casework Review Group recommended the formation of a Monitoring Group and the Casework Committee was told that such a group would meet on a monthly basis. The Group met for the first time on 29 November 1993; there is no record of it ever having met again.

NIAO Conclusions

4.17 It is a matter for concern that, having informed the Casework Committee that a Monitoring Group would meet on a monthly basis, there appears to have been only one meeting of the Group over the life of the project. In view of the particular problems which were to be experienced by the project, it is likely that a close-monitoring regime of the type envisaged would have been of considerable assistance.

Amendments to the Letter of Offer, January 1994

4.18 Two early amendments to the Letter of Offer provided for:

(i) deletion of the condition requiring the company to show evidence of £6 million of asset finance; and

(ii) a change in the date after which capital expenditure might qualify for grant assistance from 27 September 1993 (the date of the Letter of Offer) to 8 April 1992, the date on which the parent company had previously started to purchase machinery for its proposed manufacturing facility, wherever that might be.
The former change recognised the additional $45 million raised by Valence from its December 1993 (third) public offering and accepted that with the funds available, the company would not wish, or need, to borrow money through asset finance. The second change was needed because without it, the machinery being installed at Mallusk would have been regarded as second-hand, with the attendant problems of valuation.
Part Five:
Early Difficulties, 1994-1996
5.1 In January 1994, Valence announced a small contract with Hewlett-Packard and, in March 1994, it established a joint venture with Goldtron Ltd to make batteries using the Valence technology in Singapore. These positive developments were overtaken, however, when in June 1994, Valence issued a press release admitting that it could not meet either the battery specifications set out in the 1992 agreement with Motorola, nor that company’s current requirements. Valence could not predict when or if volume shipments would start. This setback was the first of many delays during which Valence struggled to manage its diminishing cash reserves and solve the technological problems which were preventing the start of manufacturing in Northern Ireland.

5.2 In May 1994, it signed a joint development agreement with the Eveready Battery Company, while admitting that it could not meet scheduled shipments to Hewlett-Packard. The agreement with Eveready came at a time when its contract with Delco was coming to an end and, in September 1994, Valence entered into a new five-year arrangement with Delco and Eveready under which Valence and Delco would combine their R&D resources at a new facility in Nevada, subject to direction from a steering committee of the three companies. Delco agreed to pay some of Valence’s costs and most of the costs of the joint facility. Eveready’s participation came to an end in July 1998 following an agreement between Valence and Bellcore (see paragraph 5.5 below).

5.3 During this period, Valence continued to install plant in its Northern Ireland factory, despite the fact that its product – and the machinery needed to make it – was frequently being revised. The company’s operating statement for the period to December 1994 showed a write-off of £7.8 million of plant no longer needed, because of changes to the product. Grant paid by IDB on this machinery was £2.35 million, of which £1.64 million was paid after Valence announced its deferral of commencement of manufacturing. A consideration in deciding whether to make some of these payments was said to have been the risk of “damaging the Valence relationship” with the IDB and “getting off to a poor start with Eveready”.

5.4 Publicly, IDB continued to say that it was “satisfied that Valence would overcome its technical difficulties” but, in February 1995, it decided to withhold payments of grants to the company because of its failure to meet employment targets. Employment at Mallusk in February 1995 was 3 against a target of 175 by 31 March 1995. It is not clear to NIAO why any grants were paid to the company when it was so clearly in breach of its offer conditions.

5.5 In July 1995, Valence announced that it had secured a licence from Bellcore, the
research and development arm of the Bell Corporation, which would enhance the polymer technology available to it and provide solutions to several of the technical problems facing the company. As part of the deal, Bellcore took a minority equity position in Valence. Although not an exclusive licence, this arrangement encouraged Valence to start recruiting again at Mallusk and modification of the plant and machinery began.

5.6 In the light of these developments, IDB released the remainder of the grant (£300,000) up to the £3 million limit in September 1995 and commissioned an update on the technical report (paragraph 3.30). It also accepted that employment at Mallusk of 5 represented “best endeavours” against the target of 175 by 31 March 1995 and 300 by 31 March 1996.

5.7 The Department has commented that IDB’s acceptance of ‘best endeavours’ was in recognition of investment of over £9.5 million to that date by the company and its continued efforts to realise manufacturing and ultimate employment at the Northern Ireland site. It also said that, of the £3 million paid by IDB, only £93,000 was employment grant, the remainder being capital grants. While we note the Department’s comments, the fact remains that with IDB having, by this stage, paid grants of £3 million (as well as £3.6 million factory assistance), only five jobs had been created.

5.8 Valence also entered into two new partnerships at this time. The first, in July 1996, was with a Korean company and established a joint venture company in Korea to manufacture batteries for the Korean market using Valence technology. The Korean company provided most of the funds but Valence was to supply the technology, initial equipment and design and technical support out of its Northern Ireland facility. The other arrangement was signed in October 1996, with a US company, to develop and manufacture batteries for the US military market using Valence technology obtained under the Bellcore licence. These arrangements meant, in effect, that IDB grant-aided technology was being used in Korea and the USA.

Updated Technical Appraisal, April 1996

5.9 An updated technical review, dated April 1996, was undertaken by the same Northern Ireland-based senior academic as before and included a visit to the company’s facility in Nevada. His conclusions were that the new lithium-ion batteries being developed offered considerable advantages over the previous design and showed much more promise with regard to successful production. He saw no reason why the cells should not be successful in competition with other manufacturers. He did point out that the new technology was completely different from that used before but said that, while there were still several significant problems to be solved, it offered gains in performance.
5.10 In assessing the difficulties of moving from research into manufacturing, the report noted that the new cells were still at an early stage of development and that there would be considerable teething problems in starting-up production. Existing machinery would need to be modified. However, a trial production line was operating in Nevada, the staff at Mallusk had experience of the machinery and the problems were not as great as previously. One major piece of machinery was being tested in Nevada before being transferred to Mallusk.

5.11 The report's main concerns related to the importance of testing and quality control of finished products, the need to be able to assure customers of large volume production of a quality product with consistent performance characteristics and the need to get to the market quickly before newer technology came along. The author also drew attention to the need for continuing research and development, so as to be able to offer cells of enhanced performance and to maintain profit margins.

IDB Case Review, July 1996

5.12 In July 1996, IDB carried out its own ‘Technical Review and Update on Project Implementation’. It concluded that the company was now capable of producing a cell offering acceptable performance with a reasonable degree of consistency. It noted that the company had been forced to write-off a total of £18.9 million of plant and equipment, because of changes to the product. It also noted that the company had decided to outsource the first three stages of the production cycle and cancel its plans for a research and development facility. However, it made no recommendations on revised job targets. IDB took comfort from the fact that the company had deposited £3.3 million at the Bank, with an assurance that the deposit would not be reduced without prior notice to IDB. It was not clear to us, however, as to how this arrangement provided security for IDB.

Revision of Employment Targets, December 1996

5.13 In light of what it saw as these positive developments, the company asked, in December 1996, for the employment targets in the original Letter of Offer to be deferred by three years to reflect the delay in starting production. It sought no other changes. Following its review of the case, IDB agreed, on the basis that the company had resolved most of its technical problems and that it was in a position to start production. IDB did not seek a comprehensive Business Plan as a condition of this amendment, nor did it seek an amendment to the employment target, despite the company’s decision to outsource the first three stages of the manufacturing process and its later decision to abandon its plans for a research and development facility in Northern Ireland, which had promised 60 jobs (paragraph 3.4). Further, IDB did not seek a downward renegotiation of the level of assistance, to reflect the lower
employment expectations. Indeed, these changes in the nature of the project might have been regarded as so fundamental as to go to the heart of the company’s proposals and entitle IDB to claim a breach of the Letter of Offer and seek clawback of grants.

**NIAO Conclusions**

5.14 There are a number of issues that arise from the difficulties faced by the project over the period from 1994 to 1996:

- Valence’s write-off of plant valued at £7.8 million in the period ended December 1994 included £2.35 million of machinery grant-aided by IDB, of which £1.64 million had been paid by IDB after Valence had announced a deferral of commencement of manufacturing.

- The need for write-off of plant resulted from fundamental changes to the product, only one year after the IDB Letter of Offer. By mid-1996, a total of £18.9 million of plant had been written-off because of ongoing changes to the product.

- IDB accepted that an employment level of 5 at Mallusk represented “best endeavours” against the March 1995 target of 175 and released grant accordingly. Notwithstanding the reported level of investment (£9.5 million at this stage) by the company, we would question the appropriateness of releasing further grant when employment was so far short of target, even though IDB believed that employment levels would increase.

- In 1996, some three years after receiving IDB’s offer of assistance, Valence entered into agreements to use its technology in manufacturing operations in Korea and the USA, despite not having begun manufacturing at Mallusk.

- The company’s adoption, in 1996, of new technology that was completely different from that used before could, in effect, have been deemed a default of the project. This gave IDB an opportunity, to either renegotiate the offer or trigger clawback of assistance. It chose to do neither.

- Despite the company’s decision to outsource the first three stages of the manufacturing process and to abandon its plans for an R&D facility in Northern Ireland, IDB did not press for a reduction in the amount of the offer.

- Even though IDB was of the view that Valence was now in a position to start production, it still did not insist on the company producing a comprehensive Business Plan.
6.1 The original Letter of Offer in September 1993 had put a cap on the amount of grant that could be paid to Valence of £3 million (plus £1 million on the factory) until it had achieved certain production targets (see Appendix 3). In early 1998, the company asked that this cap be increased to £5 million on the basis of significant progress which it said it had made in recent months. Following further marketing and financial reviews (see paragraphs 6.2 to 6.5 below), IDB agreed to this request, on the basis that £1 million would be released immediately and a further two tranches of £500,000 each on the achievement of revised sales figures (which were below the original targets). As security, Valence offered share options in the company and a temporary charge on the assets at Mallusk. The advice of the Casework Committee was not sought on this revision, despite it being a requirement of the IDB Book that changes in the terms and conditions of an offer should be referred back to that Committee.

6.3 As regards cautionary notes, he pointed out that Bellcore had sold its technology to about 11 other companies and other producers were at an advanced stage. However, he considered that it was unlikely that any one producer would dominate the market. He expressed concern that Valence was now located in a battery manufacturing facility in Nevada and so, together with its new joint venture partners in the US and Korea, had three alternative manufacturing facilities to Northern Ireland. He also expressed concern that “an announcement of backing by NI Government would be a major boost to Valence as it [had been] with its second10 [sic] public offering in 1993”.

Marketing Review, April 1998

6.2 A marketing review was carried out in April 1998, by the same consultant as before, who noted that it was an update, not a full appraisal. He also noted that the situation was more advanced and that he had greater confidence that the batteries could actually be produced. However, he pointed out that there was still no product acceptable to customers and, while he referred to six prospective customers, there was no mention of any firm contracts. Nevertheless, he thought the sales projections seemed realistic. The company did not have a proper sales and marketing infrastructure but, given the developmental nature of the product, he thought this reasonable.

Financial Appraisal, April 1998

6.4 In April 1998, Valence submitted a 23-page Business Plan. (In our view, it fell substantially short of the standard and content required by IDB’s guidelines). A financial appraisal carried out that same month also noted that the company did not have a marketing or sales infrastructure nor a commercial product. The appraisal listed sales prospects – but no actual contracts - and also referred to the very large, rapidly growing market open to any company which produced a

10 The December 1993 share issue was actually Valence’s third public offering.
lithium-ion polymer battery. Its conclusions were that the company had the potential for viability but only if it could achieve commercial production of a product which met the needs of the market. The company’s forecasts showed sales of $384 million per annum by 2000-01, with a 46% net profit of $177 million (a return on capital employed of 72%), a cash balance of $198 million and an employment target of 776. In spite of the company’s track record, the report concluded that these projections were reasonable.

6.5 In the period since the previous financial appraisal (September 1993), the cash reserves had fallen to only $7 million and a cash deficit was forecast for the year ended March 1999. To meet this, the company had a $10 million credit line from the entrepreneurial investor. The company was also seeking a $15 million - $20 million bank facility, but a pre-condition by the bank was the securing of firm orders. Nevertheless, the appraisal concluded that the company had sufficient funds to achieve commercial production, even without the bank funding, but accepted that delays would cause great difficulties. The IDB Client Executive referred to the possibility of another public offering. (At the time, one investment analyst was forecasting a share price of $50 within a year; in the event, it was under $4).

NIAO Conclusions

6.6 There are a number of issues arising from IDB’s decision to raise the cap from £3 million to £5 million:

- the decision to raise the cap was taken despite Valence not yet having a commercial product, firm contracts, sales or marketing infrastructure or a proper Business Plan. IDB’s approach was in marked contrast to that of the company’s bank, which insisted on the securing of firm orders before it would provide Valence with a finance facility.

- IDB’s decision to raise the cap on funding was set against a background of Valence now having three alternative sites to manufacture batteries, while the Northern Ireland plant had not yet started commercial production.

- IDB, after carrying out marketing, technical and financial reviews, accepted as reasonable, Valence’s projections that it would, within three years, achieve sales of $384 million per annum and an employment level of 776. This was despite the company’s poor track record and the risks surrounding successful commercialisation of a yet-to-be-developed product.

- contrary to its own guidelines, IDB’s decision to raise the cap on grant assistance was taken without the involvement of the Casework Committee.
In September 1999, the company sought to increase its manufacturing capacity at Mallusk by:

- buying the second factory on the site
- extending the main factory.

The second factory was still owned by the local building company which had paid a net £275,000 for it (paragraph 4.7) and the arrangement entered into provided for this second factory to be acquired for £1.2 million by a local property developer, adapted to Valence’s needs and then sold to Valence for £1.65 million (plus VAT) after a two-year rental period. It appears, therefore, that the local building company made a profit on re-sale of some £925,000 (£1.2 million less £275,000), prior to any adaptation work. The rent to be charged was £200,000 per year and IDB agreed to pay a 30% grant on the two years’ rental – a total of £120,000 – by reducing the amount available for grant on plant, machinery and equipment. It is not clear to us, however, why IDB agreed to grant-aid the rental period.

The company’s purchase cost on the second factory was funded by a bank which took a first charge on the property to secure its loan. IDB decided to seek a second charge on this factory to strengthen its overall security but, critically [see paragraph 8.10(a) below], this was never done.

IDB also agreed to build an extension to the main factory at a cost of £2 million and to amortise this over the remainder of the loan period on the main factory. IDB told the company that a grant of £300,000 could be made available on the extension (by switching funding from plant, machinery and equipment grant) once sales reached certain levels but, in the event, this was overlooked when the final agreement was drawn up.

Together with the outstanding balance owed to IDB on the original factory purchase, refurbishment and extension, this resulted in a total amount outstanding of some £3.9 million. However, the further extended factory was valued at only £2 million and some discussion took place on the need for further security. IDB’s Property Services Unit took the view that it was not unusual for security to be less than the outstanding debt. It was agreed that the parent company guarantee offered little security, because most of the group’s physical assets were in Northern Ireland and already covered by a first charge in favour of IDB. In the event of failure, the parent company was unlikely to have any cash or physical assets to meet an unsecured guarantee.

In the event, IDB took a charge on the further extended building and a second charge on Valence’s plant, machinery and equipment in Northern Ireland as security for the outstanding loan. However, we saw no record of a valuation having been carried out of all the assets on which IDB had a charge, to determine whether this was sufficient to cover the amounts owing.
NIAO Conclusions

6.12 There are a number of issues arising from IDB’s provision of assistance for the 2nd factory and extension of the main factory:

- although IDB had decided to take a second charge on the 2nd factory, to strengthen its overall security, this was never done

- the main factory extension represented a further up-front outlay of £2 million by IDB, on a project which had, for many years, largely failed to deliver

- the parent company guarantee held by IDB (which was to provide cover for the £1.9 million shortfall in value of the extended main factory, compared with the actual cost), was considered by IDB to be of little or no value in the event of the project failing

- although IDB did take a charge on the further extended main factory and a second charge on Valence’s plant, machinery and equipment in Northern Ireland, we saw no evidence that IDB had checked whether these charges were sufficient to cover all of the amounts owing, should the project fail.
Part Seven: Raising the Cap on Grant Assistance (Stage 2), 2000-2001
7.1 In the year to March 2000, two significant developments took place. Firstly, the company achieved its first sales ($1.52 million) – thus releasing grant under the terms of the 1998 amendment to the Letter of Offer – and, secondly, it purchased patents and technological knowhow from Bellcore, now Telcordia, which it claimed brought all of the knowledge in this area under the control of Valence. At the same time, continued research in the USA led it to pursue refinements in lithium polymer technology, first with lithium manganese and then with lithium phosphates.

7.2 Acquisition of the technology persuaded Valence to adopt a new strategy in which Mallusk would no longer be a mass producer of finished batteries but, rather, a testing ground for new products which would then be passed to licensees. Mallusk’s income would come from manufacturing materials for sale to these licensees, from royalties and from training the staff of the licensees as well as some small-scale manufacturing. Valence was also pinning its hopes on the new manganese polymer technology to keep it ahead of other polymer producers. It was now considered most unlikely that employment numbers would reach the target of 660.

7.3 These were fundamental changes to the company’s proposals and the nature of its product which went to the heart of what was to have been a project that would create 600 manufacturing jobs and 60 research and development jobs in Northern Ireland. As such, these changes represented a breach by Valence of its agreement with IDB, as set out in the Letter of Offer, and entitled IDB to exercise its clawback conditions. IDB did not choose to do so; indeed, there is no evidence that the possibility was considered at this time.

7.4 Instead, IDB agreed to raise the cap on its original offer for a second time. The changed approach by Valence needed additional funding – Valence’s accumulated losses were now some $250 million – and, in October 2000, the company asked IDB to raise the cap on its grant assistance by £6 million to £11 million. It also asked for a further six months extension to the period within which grants on plant, machinery and equipment purchases could be claimed and that employment grants be paid on agency workers at the plant as well as its own employees. IDB agreed, subject to the company raising an additional $30 million, which it did in a complex funding arrangement with the entrepreneurial investor. Reasons given for IDB’s decision to raise the cap were that the extra money was needed to maintain the confidence of US investors and that it would recognise the investment by the company, the employment created to that date and the progress made.

7.5 Employment at October 2000 was 374, against an original target of 660 by 31 March 1998. A substantial proportion of these employees were agency workers (see also paragraph 7.16 below), and
IDB agreed to grant-aid these workers. The Department told us that the number of ‘stop-start’ positions in Valence’s employment pattern since 1993 had impacted on the standing of the company in the marketplace as a reliable employer. As a result, management found it increasingly difficult to recruit staff and so used agencies as a means of introducing the local workforce to the company. The hope was that, as the company expanded, agency workers would accept permanent positions.

7.6 Before agreeing to the increase in the cap, IDB carried out a detailed review of the financial, marketing and production aspects of forecasts for the year to 31 March 2001, prepared by the company in October 2000.

Financial Appraisal, December 2000

7.7 The financial appraisal (contracted-out by IDB) concluded that the company was “on the cusp of becoming a volume manufacturer but still considered in development stage”. Using further developments in technology, some sales had at last been made - $5.6 million in the 18 months to 30 September 2000 – the first since the end of the Delco contract in 1994, but production costs were $57 per battery against a selling price of $12 per battery. However, the appraisal assessment confirmed that Valence could make a profit on the batteries sold, if projected 2001 yields were achieved (i.e. as production increased, unit costs would fall). Valence had now acquired all the Bellcore (now Telcordia) licences (in return for 3 million shares in Valence) and hoped to make money out of licensing this technology, but recognised that it would be expensive to defend the patents. Up to 25 other companies now claimed lithium polymer technology. Nevertheless, its aim was to increase the proportion of its income derived from licensing – as opposed to manufacture – from 35% to 65%.

7.8 Since 1998, a further $65 million had been raised by public offering but it was considered doubtful whether the company had sufficient funds to see it through to March 2001 and the auditors were concerned about the company’s ‘going concern’ status. The financial report noted that the company could not meet IDB’s condition requiring it to demonstrate viability and the availability of funds needed for continuing development at Mallusk. Valence saw the need for IDB funding as a confidence factor for investors.

7.9 In the course of the report, mention was made of marketing. The marketing appraiser had stated that, overall, the marketing activity was appropriate for Valence at this stage of development. However, he considered that there was a need for a more comprehensive marketing plan and a marketing team.

7.10 The financial appraisal also mentioned the absence of proper controls over capital expenditure, inaccuracies in simplistic financial figures presented to IDB, difficulties in achieving consistent...
quality in production and the lack of any forecasts beyond three months. Overall, while pointing out the risks and vulnerabilities, the report was optimistic about the company’s future, if it could solve its production problems. It had an extensive prospect list and numerous samples had been dispatched, but orders were for pre-production phases and so were fragile.

Production Review, December 2000

7.11 The production review concluded that the battery production line was far from capable of volume production without significant investment and expressed considerable surprise at the lack of a detailed Business Plan for the large capital investment needed (and taking place) and the evolution of the business over the next year or so. It observed that a prudent investor would expect to see a Business Plan. The report was very critical on these matters and noted that the company had been obstructive, with some key staff not making themselves available. It also noted that a major new item of capital equipment might be installed in Korea rather than Mallusk and recommended that clarification of the company’s plans for Mallusk be established. It doubted whether Valence could be operating a high yielding, cost-competitive production line by March 2001, believing instead that the new packaging plant would not be fully online until later in 2001. It also noted that it had yet to be confirmed that battery yields would reach competitive levels.

Department of Finance and Personnel Review, February 2001

7.12 The Department of Finance and Personnel (DFP) insisted on examining the case for raising the cap from £5 million to £11 million and queried several aspects of the proposal, including value for money, the lack of a Resource Cost Analysis (RCA) and the lack of a Business Plan. In response, IDB drew attention to the huge investment already made by the company - some $250 million - and the large number of highly-paid jobs created in Northern Ireland.

7.13 IDB also said that the company could not produce a Business Plan until its way forward became clearer and so there was nothing on which an RCA could be based. It also made the point that as most company revenue did not come to Northern Ireland, the tax take and, therefore, the benefit to the UK was minimal. IDB did not explain why it had such faith in a company which had no forward plan against which to make its decisions, nor why, in that case, it had made provision of such a plan a key condition of the original offer, nor why it was prepared to risk an additional £6 million on an unknown return. It merely noted that any extra grant would be covered by its existing fixed charge and company guarantee. It also commented that not all of the £5 million grants already paid were at risk, because some were already irrecoverable. Finally, IDB noted that the company had threatened to withdraw from Northern Ireland if the cap was not raised.
7.14 In response, DFP approved the raising of the cap, with the additional condition that no further grant should be paid until Valence submitted a detailed plan demonstrating its continuing viability and the availability of adequate funds.

Casework Committee, March 2001

7.15 The submission to the Board Casework Committee set out the risks attaching to a raising of the cap but took some comfort from the fact that forecast sales for the year to 31 March 2001 were $15.2 million and, though fragile, were “based on strong evidence”. In fact, IDB already had information that sales for the quarter to 31 December 2000 were only half the forecast of $3.8 million and that the final quarter forecast had been cut from $7.3 million to $3 million plus (the actual outturn was $1.2 million). This was not drawn to the attention of the Casework Committee. As regards the company’s continuing failure to produce a Business Plan, the Committee was told that “it cannot be produced with the necessary degree of credibility until the strategic direction has been clarified and there is a longer track record of manufacturing at Mallusk”. This does raise the question, however, as to why preparation of a Business Plan was a condition of the original offer. The Committee agreed to raise the cap and £3.9 million of the additional £6 million was paid on 13 March 2001.

Major Redundancies at Mallusk, March 2001

7.16 On 30 March 2001, without first notifying IDB, the company announced 181 redundancies at Mallusk (this was later clarified as 320 redundancies; 180 temporary staff and 140 permanent staff), leaving 97 in the plant. According to management, the redundancies were due to market conditions and it was hoped to re-employ those made redundant at a later date. However, the US management said that the redundancies were also due to the delivery of new automated equipment and transition to the ‘new strategy’ and offered no assurances in this regard.

7.17 As a result of the redundancies, IDB froze further grant payments pending the preparation of a Business Plan. However, Valence refused to prepare a plan until IDB released the frozen funds. At this time, the founder stood down as Chief Executive Officer (CEO) and IDB and Valence agreed to terminate the original Letter of Offer and work towards a new agreement, based on a Business Plan reflecting the new position of the company. In May 2001, against the background of these difficulties, the Training and Employment Agency (now part of the separate Department for Employment and Learning) issued a new offer to the company, valued at £136,000, under its Company Development Programme.
**NIAO Conclusions**

7.18 Not for the first time, Valence fundamentally changed its project proposals. In effect, this represented a breach by Valence under the terms of offer, which entitled IDB to exercise the clawback conditions. We note, however, that IDB chose not to do so.

7.19 IDB agreed to a major increase in the cap, from £5 million to £11 million, against a background of ongoing difficulties and a substantial lack of certainty as to the company’s ability to bring a satisfactory battery into production. Particular concerns include:

- Valence could not meet IDB’s condition requiring it to demonstrate viability: it was considered doubtful whether the company had sufficient funds to see it through to March 2001, the auditors were concerned about the company’s ‘going concern’ status and it was manufacturing at a cost of $57 per battery but selling at a price of only $12

- an inadequate marketing plan and no marketing team, an absence of proper controls over capital expenditure, inaccuracies in financial figures presented to IDB, difficulties in achieving quality in production and a lack of forecasts beyond three months

- the production review noted an absence of a detailed Business Plan, despite the large capital investment needed; key staff had failed to make themselves available for consultation; and there was a lack of clarity regarding the production plans for Mallusk. The review concluded that the battery production line was not capable of volume production without significant investment

- the Casework Committee took comfort from the forecast sales for the year to 31 March 2001 of $15.2 million – in fact, IDB already knew that sales for the third quarter were only half the forecast of $3.8 million and that the final quarter forecast had been cut from $7.3 million to just over $3 million. In the event, the actual outturn was only $1.2 million

- the Casework Committee was told that a Business Plan “cannot be produced with the necessary degree of credibility until the strategic direction has been clarified and there is a longer track record of manufacturing at Mallusk”, despite the production of a Business Plan being a condition of the original offer

- just 17 days after IDB paid £3.9 million of the raised cap, Valence announced 320 redundancies at Mallusk, leaving only 97 in the plant

- despite the wide range of uncertainties surrounding the project and a freeze on grant payments by IDB, the T&EA issued a new offer of £136,000 to Valence, under the Company Development Programme.
7.20 In July 2001, concerned by several management changes, including the resignation of the founder as CEO, IDB hired an information and investigations agency (on a single tender basis) to seek ‘discreet intelligence’ about Valence and its directors and investors. Such was the need for discretion that the exercise was given a code name – “Project Lucerne”. We asked to see a copy of the report but were told that it was not available. On further enquiry, it transpired that a number of the Project Lucerne papers, including the investigation agency’s report, could not be located. It is not clear whether the report had been destroyed, perhaps due to the sensitive nature of the assignment, or whether it had been lost.

7.21 However, we did see an earlier, interim report (an e-mail), dated 1 August 2001. This had not detected any concerns about the activities of the officers or shareholders of the company. Based on other papers that were available for review, the indications were that the missing final report had not shown any significant variation from the findings in the interim report.

7.22 The interim report did raise one matter of particular concern which required further clarification. It appears that there had been a series of financial transactions involving Valence of around $30 million. The report noted that in a “fairly complicated transaction”, Valence had swapped $30 million in its stock for $30 million in assets owned by a trust partially controlled by one of the Valence co-founders (the entrepreneurial investor). These assets included stock in several companies, including 250,000 shares in Valence. The investigation agency noted that, in effect therefore, Valence had swapped its own stock for some of its own stock.

7.23 The question was raised within IDB as to whether these transactions had anything to do with the pre-condition in IDB’s offer to raise the grant cap (paragraph 7.4), that required Valence to raise a further $30 million in funding. IDB wanted to know whether the net effect of the financial transactions involved had indeed been to release cash funding to Valence – if not, then the question would arise as to whether IDB’s pre-condition had really been satisfied.

7.24 There is no record on file of this important issue having been satisfactorily resolved.
### NIAO Conclusions

7.25 It is wholly unsatisfactory that any papers relating to the private investigation have been lost or destroyed. Public bodies have very clear good practice guidance on safeguarding sensitive and classified material. The investigation was directly linked to the Valence project and was paid for out of public funds. All of the papers should have been available for inspection and retained in line with the Departmental document retention policy and the well-established procedures for ensuring that there is a clear audit trail.

7.26 It is also a matter of concern that there is no record of whether it was ever resolved that Valence properly met IDB’s pre-condition for raising the grant cap, by raising a further $30 million of funding in late 2000.
Part Eight:  
Re-location to China and Clawback of Assistance
Part Eight: Re-location to China and Clawback of Assistance

Valence announces its re-location to China, August 2003

8.1 In August 2003, almost 10 years after the first contact with IDB, Valence advised Invest NI formally that it was moving its manufacturing operation to China and leaving only a small sales and development facility in Northern Ireland. (Valence had previously told Invest NI orally – in February 2003 – that it planned to move to China but said that some manufacturing would stay in Northern Ireland with employment of more than 100).

Clawback of grant on unused assets

8.2 Since early in 1997, IDB had been attempting to recover grant already paid on plant and machinery no longer in use. The Valence Technology BV company accounts for the year to 31 March 2002 showed an asset write-down of £20.5 million. The company calculated that £1.09 million was repayable but IDB believed the figure to be at least £1.79 million. With this in mind, it was proposed in January 2002 to offset a nominal £2 million against the raised cap (see Part 7) to cover repayment due, but this was not done following a signal by the company that, if IDB was not more helpful, Valence would pull out of Northern Ireland. For its part, IDB was concerned about investor confidence in the company.

8.3 Discussion on clawback of grant on assets not used continued for five years from 1997 to 2002. During that period, the company sought to concentrate on grant paid on a claim made in March 1994, the first of six claims prior to 1997, while IDB attempted to include the other five claims as well. Unused assets were mostly stored in a factory at Antrim and, as the files noted, “every time the company state that all assets located at Antrim have been identified, IDB is able to provide details of additional assets”. The Department told NIAO that, ultimately, the differences were reconciled and Invest NI agreed to a repayment figure of £1.09 million. NIAO notes that it could be argued that all grant on plant, machinery and equipment was repayable, because the company never got its original battery into production. The identification of unused assets was made more difficult by the clause in the third amendment to the Letter of Offer, dated 17 April 1997 (see Appendix 2), which had the effect of allowing the company to obtain grant on assets before they were installed in the factory.

Clawback of grants on closure

8.4 IDB was subsumed into Invest Northern Ireland (Invest NI) on 1 April 2002. Following a visit to the company’s headquarters in Nevada and another marketing review in August 2002, it was decided that the best approach was to trade Valence’s repayment of grant obligations for an equity stake in the company. Valence continued to be optimistic, despite losses totalling $346 million, largely because of its belief in its new lithium-ion polymer phosphate
technology. However, Invest NI was conscious of the company’s history of promising but under-achieving and the marketing consultant had referred to yet another plan for another technology variation, which was expected to succeed where the previous three had failed. Changes in the company’s product and its strategy meant that further grant assistance was out of the question, either under the existing Letter of Offer or under a new agreement. Invest NI considered, however, that insisting on the grant repayment due could, in the financial circumstances of the company, trigger the collapse of Valence.

8.5 Total grants paid to Valence up to this date were £10.3 million (including £0.97 million employment grant which had been paid despite Valence never achieving its job targets) and, of that sum, the company had now agreed that £1.09 million capital grant was repayable, because the assets in question had never been brought into use (paragraph 8.2 above). Of the remainder, only grants paid within four years of a demand by Invest NI could be reclaimed under the conditions of offer and, on this basis, £4.78 million (£3.91 million capital grant and £0.87 million employment grant) was judged by Invest NI to be repayable. If clawback had been pursued in 2000 (paragraph 7.3 above), the amount would have been £1.21 million higher. A summary of grants paid in the period to 1 April 2002 is set out in Figure 3.

<table>
<thead>
<tr>
<th>Grant Type</th>
<th>Letter of Offer Date</th>
<th>Amount Offered £</th>
<th>Amount Paid £</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDB – Capital:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Extension</td>
<td>September 1993</td>
<td>360,000</td>
<td>Nil</td>
</tr>
<tr>
<td>IDB – Capital: PME</td>
<td>September 1993</td>
<td>21,180,000*</td>
<td>7,990,106</td>
</tr>
<tr>
<td>IDB – Capital: PME</td>
<td>September 1993</td>
<td>180,000</td>
<td>Nil</td>
</tr>
<tr>
<td>IDB – Revenue:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td>September 1993</td>
<td>3,785,000</td>
<td>969,190</td>
</tr>
<tr>
<td>IDB – Capital: Factory</td>
<td>September 1993</td>
<td>1,035,000</td>
<td>1,001,412</td>
</tr>
<tr>
<td>IDB – Revenue: Rent</td>
<td>February 1999</td>
<td>120,000*</td>
<td>Nil</td>
</tr>
<tr>
<td>T&amp;EA Grant</td>
<td>November 1993</td>
<td>470,000</td>
<td>300,262</td>
</tr>
<tr>
<td>T&amp;EA Grant</td>
<td>May 2001</td>
<td>136,000</td>
<td>31,678</td>
</tr>
<tr>
<td>IRTU Grant</td>
<td>October 1997</td>
<td>57,489</td>
<td>20,530</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td><strong>27,323,489</strong></td>
<td><strong>10,313,178</strong></td>
</tr>
</tbody>
</table>

Source: Invest NI

Note: * The capital grant of £21,300,000 was reduced by £120,000 to cover the later offer of two years rent on the second factory (paragraph 6.7).
Valence also still owed £2.23 million on the main factory and its extensions. Because only grants paid within the previous four years could be reclaimed, none of the factory grant of £1 million, paid in September 1993, could be clawed back.

Negotiations on clawback

Negotiations on equity for clawback were protracted but, by the beginning of 2004, an arrangement had been agreed by which Valence would issue shares to the value of £1.09 million on 1 April 2004 [in recognition of its liability for repayment of grant on assets not used] and shares to the value of £1.875 million, in each of the two succeeding years (£3.75 million in total) in full and final settlement of any other clawback entitlement which Invest NI might have. Invest NI would thus receive shares to the value of £4.84 million. Under US legislation, however, shares issued in this way (i.e. other than by a public offering) could not be sold for twelve months and so the actual amount to be received by Invest NI would depend on share movements over that period.

Arguments put forward in favour of this proposal were that an amicable settlement with Valence offered the possibility of retention of some jobs (about 25) in Northern Ireland and that it recognised the employment created, directly and indirectly, by Valence during the previous 10 years, the new skills introduced into the economy and the large sums spent locally on plant, machinery and equipment. Invest NI considered that any attempt to enforce the clawback conditions in the Letter of Offer and the guarantee could lead to the collapse of Valence and protracted legal disputes. It considered that the company’s decision to move its manufacturing operations to China was “reasonable”, as the company had “always struggled in relation to its comparative uncompetitive manufacturing costs in Northern Ireland”. Arguments against the proposal included the danger of Invest NI becoming a large institutional shareholder in the company and DFP’s view that Invest NI should be promoting jobs in Northern Ireland, not investing in foreign companies.

Problems in securing clawback

By May 2004, it was clear that any assurances as to continuing employment at Mallusk could not be relied on and Invest NI started to look at the alternative of exercising the charges it held over the company’s assets in Northern Ireland and the guarantee provided by the US parent company. As it developed new types of batteries, the company was placing less emphasis on the technology acquired from Telcordia (paragraph 7.1 above) and so the highly specialised equipment at Mallusk was likely to be of little value (it actually had a zero value in Valence’s books). Also, the parent company had little cash to meet any guarantee. The factories, therefore, were seen as likely to be the best prospects. The company’s accounts noted that the net proceeds from the sale of the factories were to be used to reduce borrowings from the entrepreneurial investor who was still
funding the company on a ‘drip-feed’ basis.

8.10 In examining how best to exercise its charges, Invest NI encountered the following problems:

[a] IDB’s failure to secure a second fixed charge on the second factory (see paragraph 6.8 above). Any surplus from the sale of this factory after paying off the Bank loan, would go to unsecured creditors;

[b] the need to seek US legal advice on the enforceability of the parent company guarantee;

[c] the need to seek Dutch legal advice on the enforceability of the Letters of Offer (this had been a condition of the original Letter of Offer (see Appendix 3, paragraph 2(iii), but never implemented) and the charges taken on the assets in Northern Ireland owned by the Dutch company, in the context of Dutch law; and

[d] possible limitations on Invest NI’s ability to seek clawback set out in a Court decision on a previous case when it had been ruled that such clawback had to “take account of all the circumstances”.

In August 2004, Invest NI sought legal advice on the security which it held, the enforceability of that security and the enforceability of clawback provisions in the various Letter of Offer. In our view, advice should first have been obtained in 1993, before IDB’s offers of assistance were made.

8.11 In November 2004, information was received that Valence was removing, from the factory at Mallusk, plant and equipment subject to a fixed charge in favour of Invest NI. It was subsequently found that machinery to the value of $450,000 had been sold in the period to 30 September 2004. This prompted Invest NI to make an immediate demand for repayment of all sums due to it and the issue of a reminder that the company could not remove machinery in this way.

Reduction in level of clawback

8.12 The company responded by pointing out that delay in reaching agreement on clawback was preventing it moving equipment to China and so damaging its future prospects. It agreed to put the removal operation on hold if Invest NI would similarly withdraw its threat to appoint a receiver in the company. This led to further discussions which resulted in an agreement for clawback of £3 million as follows:

- Valence to pay £2 million in cash to Invest NI from the proceeds of the sale of the factory (which was then imminent) after deducting amounts due to the Bank and Invest NI (£2.21 million was still outstanding under the factory amortisation agreements). Any shortfall in proceeds was to be made good by Valence within 6 months
Part Eight:  
Re-location to China and Clawback of Assistance

- Valence to issue shares to the value of £1 million to Invest NI, saleable in four equal tranches at six-monthly intervals beginning on 1 July 2005.
- On receipt of £150,000 cash, to be treated as an advance on the £2 million referred to above, Invest NI to permit the removal of some agreed machinery from the Mallusk factory, pending full completion of the agreement.

In making this agreement, Invest NI sought legal advice in Northern Ireland, the Netherlands and the USA and financial and valuation advice in Northern Ireland.

8.13 The factory was sold in December 2004 for £5 million and, after repaying the Bank, a sum of £3.73 million was paid to Invest NI; £2.21 million in repayment of loans on the factory and £1.52 million towards the agreed £2 million repayment. Invest NI had, by then, already received an additional £150,000 in return for agreeing to the removal of some machinery. It has since received a cash payment of £300,000 (the balance of the £2 million). Valence also issued 539,416 shares to Invest NI, at the time equating to £1 million. The sale of the fourth and final tranche of these shares took place in July 2007. Overall, the total realisation of these shares amounted to £470,479 (net of costs). This settlement compares with the funding paid to Valence and the sums initially agreed with the company as recoverable, as follows:

<table>
<thead>
<tr>
<th>Grant Type</th>
<th>Paid £</th>
<th>Recoverable £</th>
<th>Actual Recovery £</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDB – Capital: PME</td>
<td>7,990,106</td>
<td>4,904,958</td>
<td>(The amount of recovery was not directly attributable to individual categories of grant)</td>
</tr>
<tr>
<td>IDB – Revenue: Employment</td>
<td>969,190</td>
<td>867,396</td>
<td></td>
</tr>
<tr>
<td>IDB – Capital: Factory</td>
<td>1,001,412</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>T&amp;EA Grant</td>
<td>300,262</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>T&amp;EA Grant</td>
<td>31,678</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>IRTU Grant</td>
<td>20,530</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10,313,178</strong></td>
<td><strong>5,772,354</strong></td>
<td><strong>2,470,479</strong></td>
</tr>
</tbody>
</table>

Source: Invest NI

Notes:  
1. Consisting of grants of £1.09 million on assets never brought into use and £3.81 million on assets utilised within the previous 4 years.
2. Grants issued within the previous 4 years.
3. Consisting of cash receipts of £150,000, £1.52 million and £330,000, plus the value of 539,416 shares (£470,479).
8.14 Issues arising from the clawback process are as follows:

- the repayment to IDB by Valence was substantially financed by the ‘profits’ on re-sale of the factory - an asset which IDB had provided for Valence in the first place. Had an arrangement been put in place (as requested by DFP – see paragraph 4.11) for the factory ownership to revert to IDB in the event that the project failed, then the value of the factory would have been secured by IDB in any case.

- IDB’s failure to secure a second fixed charge on the second factory meant that any surplus from the sale of this factory, after paying off the Bank loan, would go to unsecured creditors. This weakened Invest NI’s negotiating position with Valence.

- Invest NI had to seek Dutch legal advice on the enforceability of the Letter of Offer and the charges taken on the assets in Northern Ireland, owned by Valence Technology BV, in the context of Dutch law. This was supposed to have been done in 1993, in accordance with a condition of the original Letter of Offer. While Invest NI suggested that this had been done, it could not produce a copy of the opinion.
Appendices
Appendix One: IDB’s Appraisal Process
(paragraph 3.1)

1. Within IDB, it was the Inward Investment Group which was responsible for attracting new greenfield investment into Northern Ireland from overseas. Staff in the Inward Investment Division would make the first contact and it was their job to encourage potential investors to produce fully developed, comprehensive business plans with worthwhile projects and long-term viability. The amount of information required in such plans was set out in detail in the ‘IDB Book’.

2. Thereafter, a Project Manager was appointed to bring forward and enhance the interest in Northern Ireland being shown by a company with a viable project and to complete the job of securing the investment. In order to get best value for the taxpayer’s money, it was the Project Manager’s job to negotiate the minimum package of assistance. The Project Manager also co-ordinated all aspects of IDB activity in relation to the project.

3. Following receipt of an acceptable plan, Corporate Finance and Restructuring Division was responsible for assessing the commercial viability of the project. In doing so, the Division would address financial, marketing, training and, for a new product, the technical and production dimensions of the project. Where necessary, external specialist assistance would be engaged. The normal timescale for an appraisal was said to be 4 weeks and the target time from submission of a Business Plan to approval by the Casework Committee, 48 days although, historically, the average was 68 working days. The IDB Book and the Division’s Appraisal Manual detailed what should be covered in an appraisal. It noted that greenfield projects should be handled with caution and particular attention was drawn to the guidelines set out in the ‘Gibson Report’ on Greenfield Project Appraisal.

4. The extent to which the IDB was able to offer assistance was controlled by set limits including, for example, the rate payable for each type of grant. In addition, above certain thresholds, the amount of assistance needed the approval of the Department of Finance and Personnel and the Minister before being presented to an IDB Casework Committee.

5. On completion of the project appraisal and negotiations on the financial assistance package, the case would be submitted to an IDB Casework Committee (usually comprising two Board members) for consideration and a recommendation as to whether, and subject to what conditions, assistance should be offered. The Committee’s role was, by statute, an advisory one. The submission would have included a summary of the case, reports from the Project Manager and the Appraisal Executive together with a recommendation on the assistance which should be offered and the terms and conditions to be attached to it. Prior to submission to the IDB Casework Committee, the case would have been reviewed by an Approval Committee, comprising the Chief Executive and two Deputy Chief Executives (known as the Casework Review Group).
6. Finally, having cleared all its stages, a Letter of Offer would be sent to the company setting out the details of the assistance package and the terms and conditions on which it would be paid. That offer would have to be formally accepted by the company before any payments could be made under the offer.
Appendix Two: IDB’s Guidelines on assessing Viability (paragraph 3.13)

(Extract from IDB Book, Section 11: Framework for Selective Financial Assistance)

11.2.1.1 Viability

IDB judges a project to be viable if, after having received selective financial assistance on a once-for-all basis, it can earn and maintain sufficient profits to be self-sustaining without continuing subsidies other than those available to all eligible enterprises. If a project is unlikely to be self-sustaining the implications are that it is less able to meet the costs of raw materials, capital and labour than other users of the resources in the UK economy, that there are alternative opportunities for deployment of these resources which are self-sustaining and that the project is therefore economically inefficient.

In all but a limited number of exceptional cases, the positive judgement of the viability of a project is a necessary pre-requisite to the wider judgement on its economic efficiency.

The viability judgement is based upon the financial position and prospects of the company undertaking the project and the project itself. The following are particularly important:

(i) **Market Prospects.** A realistic appraisal of the (proposed) market and of the company’s ability to sell in that market at competitive prices;

(ii) **Management.** Is there sufficient management of the right calibre to undertake the project?

(iii) **Financial and Commercial Performance.** An analysis of the company’s past record, its present position and future trading estimates;

(iv) **Product.** An appraisal of the product and of product development performance, policy and plans;

(v) **Private Sector Funds.** The willingness of private persons and institutions to invest in a project gives a good indication of their assessment of viability. The use of private sector funds should always be maximised;

(vi) **Timescale to Reach Viability.** There is a distinction between a project which is slow to establish (i.e. long lead time between initial planning and first production) and one which is slow to reach viability. The timescale will therefore vary but projects which do not show profits and positive cash flows within three years warrant closer examination (as indeed do cases forecasting extremely short timescales).
Appendix Three: The IDB Offer
(paragraph 4.1)

Letter of Offer dated 27 September 1993 (paragraph 4.1 of the report)

1. Offer / Terms:

   (i) **Factory Extension**
       30% grant, not exceeding £360,000

   (ii) **Plant Machinery and Equipment (PME)**
        30% grant, not exceeding £21,300,000 on new or second hand machinery or equipment, purchased or leased;

   (iii) **R&D Facility PME**
        30% grant, not exceeding £180,000 on new machinery and equipment for an R&D facility;

   (iv) **Employment Grant**
        not exceeding £3,785,000 at a rate of £5,735 per employee payable in four instalments; and

   (v) **Factory Grant**
        30% grant, not exceeding £1,035,000 on a factory to be sold to Valence by IDB under an amortisation agreement.

2. Main conditions:

   (i) a guarantee by Valence Technology Inc. (the parent) of the liabilities of Valence Technology BV (the company) under the letter;

   (ii) an opinion by counsel to the company that, inter alia, the Letter of Offer was properly executed by the company so as to fully bind it in accordance with its Bye-laws and all applicable law;

   (iii) a written undertaking by the company that the company will have sufficient funds to implement the business plan [sic] and that the company will implement the project in accordance with the plan;

   (iv) the provision to the company of £12 million share or loan capital;

   (v) a provisional cap on grant aid of £4.035 million (£3 million cap on grants payable plus the Factory Grant of £1.035 million);
Appendix Three: The IDB Offer (paragraph 4.1)

[vi] best endeavours to employ 660 by 31 March 1998;

[vii] the need for IDB’s consent to changes in the product; and

[viii] provision of £6 million asset finance.

First Amendment, dated 25 January 1994 (paragraph 4.18 of the report)

(i) deleted condition 2(viii) above, which required the company to provide £6 million in asset finance; and

(ii) set a time limit of 30 June 1998 for the installation of plant, machinery and equipment on which grants might be claimed under offer terms 1(ii) and (iii) above.

Second Amendment, dated 11 May 1994 (paragraph 4.18 of the report)

(i) amended the offer terms to the grant at 1(ii) of the main Letter of Offer to enable the company to claim grant on any expenditure incurred by the company or its parent on or after 8 April 1992 (i.e. some 18 months prior to IDB’s offer).

Third Amendment, dated 17 April 1997 (paragraph 5.13 of the report)

(i) deferred the target date for achieving 660 employees by three years, from 31 March 1998 to 31 March 2001, and reduced the research and development target element from 60 employees to 30 employees;

(ii) extended the period within which capital grants could be earned by three years, from 31 March 1998 to 31 March 2001;

(iii) allowed for payment of grant on assets before they were installed in the factory.
Fourth Amendment, dated 26 June 1998 (paragraph 6.1 of the report)

(i) replaced the £3 million limit on grants payable (other than the factory grant) pending sales of $4 million to more than one customer and provision of a detailed operating plan with the following:

a. a £4 million limit until the company could show sales of $1.5 million;

b. a £4.5 million limit until the company could show sales of $2.5 million; and

c. a £5 million limit until the company submitted a detailed operating plan demonstrating viability and adequacy of funding;

(ii) broadened the terms of grant payment to include modification and refurbishment as well as purchase of plant, machinery and equipment.

Fifth Amendment, dated 26 February 1999 (paragraph 6.7 of the report)

(i) converted £120,000 capital grant payable under the offer terms at 1(ii) of the main Letter of Offer into a revenue grant payable as a rent subsidy, at a rate of 30%, on the company’s rental of a factory at the rear of its main factory, pending outright purchase.

Sixth Amendment, dated 2 March 2001 (paragraph 7.4 of the report)

(i) replaced the £5 million limit on grant assistance (other than the factory grant) offered in the fourth amendment above, with a limit of £11 million subject to confirmation of:

a. additional funding facilities of at least $30 million;

b. receipt of all approvals relating to the purchase of the ‘Bellcore’ technology; and

c. the agreement with ‘Telcordia’ including a non-compete policy;

(ii) extended the time limit within which capital grants could be claimed on plant, machinery and equipment by a further six months to 30 September 2001 (see the third amendment above); and

(iii) allowed for the payment of employment grants on agency workers at the company, as well as its own employees.
### NIAO Reports 2007 - 2009

<table>
<thead>
<tr>
<th>Title</th>
<th>HC/NIA No.</th>
<th>Date Published</th>
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