



THE INSTITUTION OF ENGINEERS OF IRELAND

**SUBMISSION TO**

**MR CHARLIE MCCREEVEY TD**  
**MINISTER FOR FINANCE**

**ON**

**YEAR 2004 BUDGET**

**OCTOBER 2003**

**INTRODUCTION:**

The Institution of Engineers of Ireland (IEI) represents the Engineering Profession on the island of Ireland at both a national and international level. With 21,000 members, it is the largest professional body in the country. Engineering professionals across all disciplines in both the private and public sectors comprise by far the largest element of the scientific and technological community in Ireland. Ireland's economic success has been founded on attracting and growing significant international companies across a wide spectrum of industries. All of these industries are based on and critically dependent on engineering competence. Industrial and economic success depends on our ability as a nation to continue supplying the economy with adequate numbers of engineering professionals, in keeping them continually updated to best international standards, and in building the infrastructure needed in a modern economy.

The Institution of Engineers of Ireland strongly recommends that in framing the Budget for year 2004 you ensure the details of the Budget are supportive of the broad spectrum of engineering industry and the engineering profession on which Ireland's current and future economic success depends. In particular, the Institution recommends the following items for consideration by you in deciding on the provisions of the 2004 Budget.

**1. COMPLETION OF THE NATIONAL DEVELOPMENT PLAN:**

In the IEI submission to the Mid Term Review of the NDP, the Government was strongly urged to accelerate the completion of the major NDP infrastructure projects. Failure to close the infrastructure deficit will fatally undermine Ireland's attractiveness as an investment location. This view has also been supported by the ESRI's Medium Term Review, which argues that the Government should prioritise its infrastructure programme over other calls on the public finances.

The engineering/construction industry has geared up substantially to tackle these projects and a slowing down of investment will put these resources in jeopardy. It would be of serious concern, and a missed opportunity, if the current favourable construction industry and interest rate conditions were not used to increase the speed at which the country's acknowledged infrastructure deficit is tackled.

As Ireland seeks to progress from being a low cost manufacturing base to becoming – and remaining - a location attractive to higher value investment our infrastructure deficit including IT infrastructure will be all the more evident to international companies and will hinder the efforts of the IDA in winning investment.

IEI believes that greater effort needs to be exerted by all parties involved in achieving value for money in infrastructure projects. Overall, an ongoing value engineering approach should be used both in initially scoping out a project and in amending the scope subsequently if deemed necessary, to ensure optimum

value and service delivery is achieved. IEI's more detailed June 2003 Submission to the Minister for the Environment, Heritage and Local Government on Project Cost Estimation and Control, was copied to the Minister for Finance and other relevant Government Ministers

Where public finances are not available, consideration should be given to increased borrowing, charges, development levies and Public Private Partnerships to fund implementation of the NDP. The ESRI Review suggests that funding could also be facilitated by diverting payments from the National Pensions Reserve Fund into infrastructure development in the short to medium term. The IEI supports the view that monies from the Pensions Fund should be invested, on a prioritised basis, in infrastructure projects.

Public Private Partnerships have the potential to generate additional funds for infrastructure development. However, the current PPP process is far too complex and expensive and should be made more user friendly by, for instance, developing a standard form of contract. This would have the desirable effect of reducing the very substantial legal costs involved.

The National Development Finance Agency should pursue issues relating to EU accountancy practices which would facilitate the "off balance sheet" treatment of necessary infrastructure e.g. by way of operational lease structures.

**Recommendation:**

Government's recent commitment to multi-annual budgeting for critical infrastructure such as roads should be formalised in budgetary policy. The capital programme element of the 2004 Budget should be significantly increased over the 2003 provision to facilitate more timely implementation of the NDP. In particular, priority projects should be identified and scheduled for completion as originally planned by 2006 and the remainder of the projects should be scheduled for completion during the period 2007-2009.

**2. PROMOTION OF MATHEMATICS, SCIENCE AND ENGINEERING SUBJECTS AT 2<sup>ND</sup> LEVEL:**

Engineering and the sciences must be at the heart of any realistic aspirations to becoming a knowledge society and sustaining a competitive modern economy. However, there are significant problems in attracting second level students into engineering and scientific careers. One of the key factors contributing to the decline in interest in careers in engineering and science by second level students is the low take up rates for the physical sciences and higher level mathematics at second level.

As the body with responsibility under international agreements for accrediting Irish third level engineering programmes, IEI is also conscious of the need to ensure that the quality of second level students at degree, diploma and certificate levels is sufficient to enable them meet the required standards and to minimise drop out rates from engineering programmes. The Institution of Engineers of

Ireland therefore very much welcomed the establishment, by the Minister for Education & Science, of the Task Force on the Physical Sciences in 2000.

IEI welcomes the Report and Recommendations of the Task Force. The Report is balanced and comprehensive and the Task Force recommendations are appropriate and lend themselves to ease of implementation, provided support is forthcoming from Government. The Institution considers the delay in implementing the recommendations of the Report to be a cause of significant concern, with latent negative consequences for national competitiveness through the present decade and well beyond. IEI strongly urges Government to make immediate budgetary provision for full implementation.

In general IEI believes there is a need to increase investment in education. With competition from Eastern Europe and elsewhere, initially for low skill jobs but pushing towards higher value jobs over time, there is need to have an increased emphasis on education to ensure Ireland can attract high skill jobs to replace jobs which will inevitably be lost in the coming years.

**Recommendation:**

IEI recommends that the 2004 Budget contain provisions to enable the Report of the Task Force on the Physical Sciences to be implemented in full as a matter of urgency.

3. **REDUCE PROFESSIONAL SERVICES WITHHOLDING TAX:**

The Professional Services Withholding Tax (PSWT) was designed to bring in tax early from sole-trader professionals, but it cannot be justified when dealing with professional services firms employing large numbers of employees. The PSWT enforces a mandatory deduction of 20% of the invoice value, i.e. the gross income, and this amount can be held for up to 18 months until the service provider's taxation liability is determined and agreed. Given that net profit margins are in the range 2% to 6%, the PSWT is a penal form of taxation, resulting in severe cash flow problems for any professional services firm that happens to be highly dependent on Public Sector work. Recent changes in relation to the payment of preliminary tax have compounded the problem.

Government and the Public Sector urged the Irish Construction Industry as a whole, including Engineering Consultants, to gear up and increase their capacity through recruitment and alliances in order to deliver the NDP within the planned time frame. Many consultants now have employees underemployed waiting for work to be released by the Public Sector, while at the same time the Public Sector withholds substantial amounts of income, which is badly needed to cover costs, from those same consultants via the PSWT.

It is in the public interest to ensure that Consulting Engineering firms remain solvent and capable of retaining a continuity of engineering expertise built up during the first half of the NDP. If Consulting Engineering firms have because of cash flow difficulties to let engineering staff go, this will reduce the potential to

deliver the remainder of the NDP on schedule and result in increased costs to the exchequer.

**Recommendation:**

IEI recommends that the 2004 Budget contain provision for the reduction of Professional Services Withholding Tax to a lower rate and that this tax can be offset against payment of preliminary tax liabilities.

#### 4. SUSTAINABLE ENERGY USAGE:

There is a growing interest amongst the public for energy efficient/renewable energy technologies in residential design and construction but the follow through on the actual purchase of these systems is very low when the cost is added to an already high base cost of a new house.

To promote the use of such technology and for the Government to show leadership in sustainable design and construction, consideration should be given to subsidising energy efficiency in house building such as solar panels, condensing boilers etc. Schemes such as 'Clear Skies', 'Powershift' and 'SolarPgrants' operate successfully in the UK. Government should set up a task force to investigate incentives to promote the use of energy efficient technologies in new homes and include a general provision in the budget for implementation.

Significant opportunities exist in industry to reduce energy usage. Such reductions help reduce the need for investment in additional electricity generation capacity and in reinforcing the electricity transmission system, assist in meeting Ireland's Kyoto targets and provide operations cost savings to the companies involved. However, companies can be reluctant to invest in energy reduction initiatives. IEI believes that the introduction of a tax credit scheme for investment by companies in energy reduction initiatives would provide the stimulus for greater progress to be made in reducing energy usage in industry.

IEI is also conscious of Ireland's obligations under the Kyoto Protocol and that Government is considering the introduction of a "carbon energy" tax. If such a tax is introduced, it should operate on a sliding scale so that fuels with the greatest production of CO<sub>2</sub> will be liable for a higher rate of tax than cleaner fuels producing less CO<sub>2</sub>. Given that the objective of the tax is CO<sub>2</sub> abatement, IEI would also strongly recommend that the revenues from such a tax be recycled to provide specific support for energy efficiency and renewable energy initiatives, such as just proposed.

**Recommendations:**

- (1) Make a general provision in the 2004 Budget for subsidising energy efficiency initiatives in house building.
- (2) Introduce a tax credit scheme for investment by companies in energy reduction initiatives

- (3) Ensure any carbon energy tax introduced operates on a sliding scale with fuels producing the greatest amount of CO<sub>2</sub> being subject to the highest rate of tax.
- (4) Recycle carbon energy tax revenues to provide specific support for energy efficiency and renewable energy initiatives

## 5. ENCOURAGE RESEARCH & DEVELOPMENT:

If Ireland is to increase its attractiveness as a location for high value industries and move up the value chain in terms of manufacturing industry and technical services, we must as a nation invest significantly more than at present in research and development. Such R + D investment is needed across all areas of Irish industry and all engineering and scientific disciplines and should cover applied as well as pure research. Indeed, for a small economy such as Ireland, investment in applied research may prove more beneficial than investment solely in pure research, which by its nature is more uncertain and long term in producing a return to the economy.

The National Competitiveness Council and IDA, among others, have highlighted the importance of investment in innovation and research and development to Ireland's future industrial and economic success. Government has recognised R + D as a key success factor for Ireland in the National Development Plan. The IRCSET funding for postgraduate research students is very welcome and has helped in reversing the reduction in the numbers of graduates going on to complete postgraduate and post doctoral studies in engineering and science which was evidenced a number of years ago. This funding should continue and if anything increase. However, IEI believes the cutbacks in the 2003 PRTL budget for R + D in third level colleges was ill conceived and shortsighted, given the importance of ensuring an adequate supply of postgraduate engineers and scientists to industry.

### **Recommendation:**

Significantly increase the allocation to third level colleges for R + D activities in the 2004 budget.