

THE INSTITUTION OF ENGINEERS OF IRELAND

YEAR 2003 BUDGET

SUBMISSION TO

**MR CHARLIE MCCREEVY TD
MINISTER FOR FINANCE**

October 2002



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 our success in attracting and growing significant companies across the Pharmaceutical, Chemical, Computer and High Tech Machine Manufacturing, Software Engineering, Medical Devices etc. 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 2003 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 2003 Budget.

1. DELIVER THE NATIONAL DEVELOPMENT PLAN ON PROGRAMME

Government is aware of the critical importance of improving Ireland's infrastructure for both competitive and quality of life reasons. The Institution of Engineers of Ireland (IEI) welcomed the Governments' initiative in publishing the National Development Plan (NDP). IEI believes implementation of the NDP in full and on schedule is critical to Ireland's medium and long-term competitive success. This position has been strongly supported over recent months by IBEC, by the Trade Union Movement and by a wide range of economic and business commentators both inside the country, in the EU and internationally. In addition the most recent National Competitiveness Report indicates that Ireland continues to have a substantial infrastructural deficit in comparison with the other industrial economies.

Standard economic theory dictates that investment in capital projects should be increased when economic growth begins to falter. Government, through timely implementation of the NDP, has the opportunity to ensure growth in the economy continues. This will have a positive impact on the unemployment rate and on government finances. IEI is pleased to note Governments' strong commitment to implementation of the NDP on schedule and recognition that the infrastructure deficit must be urgently addressed if economic growth is to be sustained.

IEI urges, that despite the short term budgetary difficulties facing the country, Government uses the 2003 budget to get the NDP back on track by availing of the

drop off in construction inflation and the spare construction and design capacity now available.

Recommendation:

- (i) IEI recommends that provision be included in the 2003 Budget to ensure that implementation of the NDP is brought back on programme and that all projects in the NDP can be delivered in full and on schedule.

2. SUPPLYING THE ECONOMY'S NEED FOR ENGINEERS

The "STEPS" Promoting Engineering as a Career programme was established as a joint venture programme between Government, Industry and The Institution of Engineers of Ireland (IEI). The programme is seen as vital for the future of Irish industry, for inward investment and for future economic growth. The programme is now fully established and has credibility with second level students; principals, teachers and guidance councillors; third level academic institutions; relevant Government agencies and with industry.

Government, through the Department of Education and Science, has only formally committed support to the programme for the three years 2000, 2001 and 2002. Industry has signified its' willingness to continue to jointly support the "STEPS" Programme with Government and IEI is willing to continue to organise and manage the Programme. There is need for urgent decision by Government on its ongoing matching financial support for the programme. Without such support the programme will cease in early 2003 and the benefit of private sector involvement will be lost.

The need for significant careers promotional activity has been further reinforced by the recent report by the Task Force on the Physical Sciences established by the Minister for Education & Science and by the continuing decline in interest in engineering careers demonstrated by the CAO first preference statistics for 2002. This stark reality was most recently reinforced by Mr Jim O'Hara, General Manager of Intel Ireland, and by concerns expressed by ICT Ireland spokesperson and Microsoft Ireland Vice President Kevin Dillon.

It will be pointless sinking hundreds of millions of Euro into capital and other investment in second level science facilities and third level engineering and science facilities if students are not encouraged to take up engineering and science as a career. Equally, Government's significant investment in research & development will be severely compromised if there is not a good supply of quality second level students entering third level and subsequently available to do postgraduate and post doctorate research.

Recommendation:

- (ii) IEI recommends that the 2003 Budget contain provision for €300,000 Government support for the joint Dept of Education and Science/Industry "STEPS" Promoting Engineering as a Career Programme (more than matched by €400,000 support from industry). This proposed 2003 budget provision comprises just 10% of the €3m annual budget proposed by the Task Force on the Physical Sciences for promotional activities for science and careers in the Physical Sciences.

3. PROMOTION OF MATHEMATICS, SCIENCE AND ENGINEERING SUBJECTS AT 2ND LEVEL

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 very much 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.

Recommendation:

- (iii) IEI recommends that the 2003 Budget contain provisions to enable the Report of the Task Force on the Physical Sciences be implemented in full as a matter of urgency.

4. ENCOURAGEMENT TO KEEP ENGINEERING AND SCIENTIFIC COMPETENCE UPDATED:

It is vital for Ireland's competitiveness that our engineering and other scientific professionals keep themselves informed of best practice internationally and invest in ongoing professional development. A positive recognition of this by the introduction of supportive measures in the 2003 Budget would highlight this need to individual engineers/scientists and result in a greater investment in continuing professional development and training. The IEI recommends the following two budgetary measures: -

Recommendations:

- (iv) Individuals membership fees of learned bodies and professional Institutions such as The Institution of Engineers of Ireland to be tax deductible. The requirement for and benefit of membership of IEI is recognised in the 1969 Chartered Amendment Engineer Act.
- (v) Investment by individual engineering and scientific personnel in their own training and professional development to be tax deductible.

5. ENCOURAGE BROAD BASED RESEARCH AND 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 terms of return to the economy.

There is currently a very worrying reduction in the number of engineering students who undertake further postgraduate studies. This is driven mainly by the low stipends paid to postgraduate students compared to salaries now available to new graduates in the marketplace. This trend must be reversed if we are to avail of the opportunities offered in the R&D area under the National Development Plan.

Infrastructure development will form a very significant part of exchequer spending over the coming decades – indeed the construction industry overall forms a significant part of Ireland's GDP. There is need to ensure that appropriate research, development and technological innovation is implemented within the construction industry aimed at promoting best international practice.

This will have the benefit of increasing productivity, reducing time-scales and costs and facilitating in particular publicly funded infrastructure being delivered on time, within budget and in an environmentally acceptable manner.

The Institution of Engineers of Ireland recommends the following measure be taken in the 2002 Budget: -

Recommendations:

- (vi) Establish a statutory organisation with responsibility for researching and promoting best practice within the broad construction and environmental sector in the planning, design and implementation of infrastructural development.

- (vii) Provide additional funding to allow stipends for postgraduate students to be increased thus ensuring sufficient numbers of graduates undertake postgraduate research. The immediate aim should be to achieve a position where at least 20% of primary engineering graduates undertake postgraduate research.

6 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 which 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 waiting idly 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 the 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.

Recommendations:

- (viii) IEI recommends that the 2003 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.

CONCLUSION

The Institution of Engineers of Ireland believes the measures proposed above are important in ensuring continuation of Ireland's industrial and economic success. The cost of the measures proposed will we believe be more than compensated for by improved competitiveness and greater innovation in Irish industry, optimum delivery to the State in the area of infrastructural development and in general an engineering professional workforce which is continually upskilling itself to best international standards.

The Institution is available to discuss this submission in more detail should it be deemed useful.