

ICE NORTHERN IRELAND MANIFESTO 2016 BUILDING OUR QUALITY OF LIFE

#commit2infra
@ice_nireland



Foreword

By investing in Northern Ireland's infrastructure, we build our quality of life now and for future generations.

Infrastructure and the services it provides drive the economy forward by generating jobs, productivity and well-being. However, to deliver long-term infrastructure benefits to Northern Ireland, we need to think differently about **how we fund and procure projects, what areas are most in need and how we attract and develop our best people** to execute them.

What We Do

Our members help to create the structures and systems that sustain society across Northern Ireland, and indeed throughout the world. They are responsible for designing, building, maintaining and improving bridges, roads, canals, docks, office buildings, hospitals, schools, airports, power stations, railways, flood defences and water-treatment facilities.

Northern Ireland's government budgets have been determined in a period of austerity. We will have to deliver infrastructure within this spending envelope until at least the end of the decade. However, our citizens still require high quality infrastructure services. In this climate, all possible funding sources must be considered to ensure that we improve our quality of life and attract businesses to invest here. Investment in infrastructure has a ripple effect on the rest of the economy, with every £1 of investment generating £2.84 in the wider economy.¹

In addition, 94% of businesses report that quality of infrastructure is a decisive factor when planning future investment. Infrastructure has a clear impact on businesses' competitiveness and it remains central to growth.²

Though we welcome the devolution of corporation tax, it is not a silver bullet. Resilient, modern infrastructure and a skilled workforce are vital to attracting investment and meeting the demands of a growing economy.

ICE's Royal Charter obliges it to always have regard to the public benefit, and always to act in a manner which is consistent with the public good. True to these obligations, ICE is an independent, professional body which aims to harness engineering knowledge and expertise for the benefit of society.

We welcome the NI Executive's one year budget for 2016/17, and are encouraged to see that there is a five year projected capital expenditure for our key infrastructure projects.

However, the same budget refers to a cash terms reduction in resource expenditure of 12% by 2020. Despite this fiscal climate, we must adequately maintain our assets — otherwise they will fail to perform as intended.

With the 2016 elections fast approaching, we encourage our leaders to focus on economic and social outcomes which are underpinned by investment in economic infrastructure.



Richard Kirk,
Regional Director
ICE Northern Ireland



Recommendations



Delivery

1. **Deliver key capital projects by May 2021** including York Street Interchange, A5, A6, Desertcreat, Belfast Transport Hub, and Belfast Rapid Transit to make NI a better place to live and work.
2. **Establish the Central Procurement Delivery Service by December 2017** – all Government Construction Contracts (outside the Department for Infrastructure) should be procured by the Central Procurement Delivery Service to implement projects more efficiently.
3. **Maintain a pipeline of infrastructure projects** to attract investment, bolster industry confidence and provide greater public benefit.
4. **Introduce domestic water charging by May 2019** to better protect us from pollution and sewers overflowing and to avoid fines. This revenue will provide sustainable funds for water and wastewater services, and should include protections for those who cannot afford to pay.



Resilience

5. **Maintain our assets** to the highest standard, focussing on the resilience of our flood defences, water networks, roads and public transport.
6. **Deliver the North-South Interconnector by May 2021** to ensure affordable and secure electricity supply.
7. **Deliver a publicly owned Energy from Waste (EfW) facility by May 2021** to efficiently manage our waste resources and generate local energy.



Skills

8. **Develop a civil engineering sectoral task group by December 2016** to include Government (DE and DfE), employers, schools, FE, HE and ICE to address the future undersupply identified in the Skills Barometer.
9. **Establish a civil engineering apprenticeship by September 2016** building on the work ICE has done through engagement with employers, FE & HE.
10. **Improve professional competence by giving recognition to an array of professional qualifications in procurement.** ICE asks that the Department of Finance and Personnel requests that tenderers provide numbers of staff registered with the EU-recognised qualifications of Chartered Engineer, Incorporated Engineer and Engineering Technician.



¹ The contribution of infrastructure investment to the UK economy: A model-based analysis, Centre for Economics and Business Research Ltd, May 2013.

² Turning momentum into delivery, CBI and AECOM infrastructure survey, 2015.



Delivery



In Northern Ireland we have a good sense across Government and our profession of our key infrastructure projects. The challenge now lies in their delivery.

Key Projects



North-South Interconnector



Energy from Waste facility



York Street Interchange



A5



A6



Desertcreat



Phase 2 of the Coleraine to Derry~Londonderry railway



Belfast Transport Hub



Belfast Rapid Transit

Both Government and our profession must be more efficient when delivering infrastructure, but there are levers such as project pipeline, revenue-raising and procurement that can help these projects come to fruition.

Pipeline

We will continue to work with the Department of Finance and Personnel and Strategic Investment Board as they develop a public pipeline of forthcoming contracts. We encourage the NI Executive to commit to this as part of the next Programme for Government, having it reported to the Assembly on a quarterly basis. This pipeline enables our profession to better plan for future capability needs, meaning we can deliver better outcomes for the public.

Revenue-raising

Whilst we have an abundance of water in Northern Ireland, making it suitable for consumption and disposing of sewage does not come without cost.

Our water and sewerage services are currently funded from the taxes we pay, but without increased investment in the infrastructure which supports it, we are at risk of sewers over-flowing and pollution entering our rivers and beaches.

The EU recommends water charging to sustainably manage water consumption, and currently Northern Ireland is the only region in the EU to not implement this strategy. With budgets set to remain static — at best — until the end of 2020, we ask the Executive to consider the benefits of releasing c. £280m of the block grant through the introduction of domestic water charging. With exceptions in place for those unable to pay, ringfencing this user charge will better protect our people and environment and provide high quality water and sewerage services.

Government risks having to pay more in future for problems we do not resolve today.

If we do not introduce alternative funding sources, Government risks having to pay more in future for problems we do not resolve today. For example, the poor water quality of Belfast Lough and other water bodies will incur EU infraction charges if we do not invest in initiatives like the Living with Water Programme.

Central Procurement Delivery Service

The difficulties encountered in the delivery of high profile projects e.g. Desertcreat, A5 and Casement Park demonstrate that a new procurement and delivery agency is necessary. This model is used elsewhere — most notably in the Republic of Ireland, where the National Development Finance Agency (NDFA) has oversight of the procurement of national infrastructure projects.

We are encouraged by the transfer of Health Estates to the Central Procurement Directorate, but other departments must follow to create a team of procurement and delivery experts. This team should ensure that it has the capability and capacity to create predictable and proportionate procurement for the supply chain and thereby yield best value for money for the public purse.

RECOMMENDATIONS

- Deliver capital projects by May 2021
- Establish the Central Procurement Delivery Service by December 2017
- Maintain a pipeline of infrastructure projects
- Introduce domestic water charging by May 2019





Resilience



We must look after our infrastructure so that it continues to look after us. It is not just about building new projects, but maintaining what we have.

Northern Ireland's ability to be globally competitive and to sustain its own economy depends on reliable and resilient infrastructure networks.

For our 2016 State of the Nation report, we have worked with stakeholder groups to determine the current standard of five infrastructure sectors. For comparison, we've also included the 2014 report's grades.

Key to Grades

- A** Fit for the Future
- B** Adequate for Now
- C** Requires Attention
- D** At Risk
- E** Unfit for Purpose

Flooding 2014 2016



C

C

As the events of Christmas 2015 have shown, Northern Ireland is still at risk of flooding. However, the damage caused by heavy rainfall was less than it would have been if we had not invested in defence infrastructure in recent decades.

We welcome the establishment of the Department for Infrastructure in May 2016, as this will provide a cohesive government authority for flooding. We also welcome the strategic flood maps and Reservoirs Legislation introduced in 2015, which focuses on reservoir safety and mitigates the risk of flooding. However, capital should be invested in new defences and resource into maintenance of existing assets to minimise the negative effects of flooding on communities and business.

Flooding impacts on the operations of all other infrastructure sectors. We have witnessed the failure of transport and energy services over the winter period due to flooding. While we cannot protect against all eventualities, we must make our nationally significant infrastructure resilient to flooding.

Water 2014 2016



C

C

While there has been some progress with water main rehabilitation programmes and drinking water standards remain high (Grade B), lack of funds due to Department for Regional Development (DRD) cuts has constrained further progress. In addition to water main rehabilitation, improvement in recent years to trunk main interconnection has led to drinking water's high grading.

However, wastewater infrastructure is at risk (Grade D). This is an issue across Northern Ireland, with DRD identifying £750 million needed between 2020-2026 to address capacity and water quality issues around Belfast.

We recommend the implementation of Sustainable Drainage Systems (SuDS), which provide better management of water quantity and quality, and improved social amenity. We are encouraged by the work of DRD in bringing forward draft legislation which includes adoption of some SuDS components by NI Water. However, we recommend that the planning departments in the councils become the champions for SuDS to ensure they are considered at the early stage of any application and are embedded in our development culture.

Energy 2014 2016



D

D

There are several issues in infrastructure provision in Northern Ireland. While some progress has been made since 2014, such as the expansion of the gas network and the restoration of the Moyle Interconnector, the largest and most important project — the North-South Interconnector — has still not moved into its construction phase. Without its successful delivery by 2021, Northern Ireland will be operating at an energy deficit due to the forthcoming Kilroot Restrictions, posing a serious threat to consumers in terms of price and security of supply.

Currently, there are gas and compressed air energy storage projects underway in East Antrim that have attracted EU funding. Though the delivery timeline goes up to 2021, these projects are of strategic importance. Their delivery would contribute to the security of NI's energy supply with up to 60 days of gas storage and 324MW of compressed air storage.

Government has set a target of 40% of electricity demand provided from renewable sources by 2020. We are encouraged that Northern Ireland has met the initial goal of 20% renewables by 2015, but meeting the 2020 target will require significant infrastructure investment.

Transport 2014 2016



C

C

Our road network is our most valuable physical asset with a net worth of £32 billion.

Overall investment in structural maintenance of our roads network is too low. The impact of years of under-investment, combined with increases in the weight and volume of traffic has taken its toll — especially on our minor rural roads. We estimate that the ongoing deterioration of the network and a growing backlog of maintenance now exceeds £1 billion. The NI Executive must prioritise maintenance of our network and not leave it to be funded by the leftovers from the financial monitoring rounds (Grade D).

Despite these maintenance setbacks, there have been some positive developments. The completion of the A2 Shore Road and A8 Belfast to Larne dualling in 2015 has eased traffic in those areas, and the progress being made on the A26 Frosses Road and A31 Magherafelt Bypass is also promising. We also welcome the York Street Interchange and A5 and A6 developments, but we must see these completed during the next Programme for Government to ensure we realise their benefits (Grade B).

We are also optimistic about the continued investment in public transport, including the Belfast Transport Hub, which should be completed by 2020. Though the Belfast Rapid Transit faces longer delivery than originally planned, we look forward to its completion in 2018, allaying Belfast's ongoing congestion problems and making it a better place to work and live.

Waste 2014 2016



C

D

Waste infrastructure is hotly contested in the public sphere, resulting in a slow pace of progress. There needs to be demonstrable Government leadership and focussed policies based on scientific data in order to efficiently manage our waste resources.

Northern Ireland requires Energy from Waste (EfW) facilities in order to meet its waste management needs. The establishment of EfW facilities would not only negate the cost of exporting our waste and paying for some of the highest energy costs in Europe, but would also contribute to the circular economy through the creation of jobs. If we want NI to be a better place to live and work we must promote proximity, self-sufficiency and sustainability.

RECOMMENDATIONS

- Maintain our assets
- Deliver the North-South Interconnector by May 2021
- Deliver a publicly owned Energy from Waste facility by May 2021





Skills



The Department for Employment and Learning (DEL) reported that civil engineering is the profession which will experience the second highest level of undersupply over the next 10 years.³

We would like to convene a sectoral task group in collaboration with employers, Government and representatives from further and higher education to address these shortages.

We will commence a civil engineering apprenticeship in September 2016 to widen participation and deliver programmes in schools which are focussed on encouraging diversity within our profession.

To ensure that we give our young people a rewarding career, it is vital that we attract and upskill our members so they are able to deliver the infrastructure that makes our lives better.

³ Northern Ireland Skills Barometer – “Skills in Demand,” Department for Employment and Learning and Ulster University Policy Centre, 2015.

⁴ Construction output statistics, Department of Enterprise, Trade and Investment, October 2015.

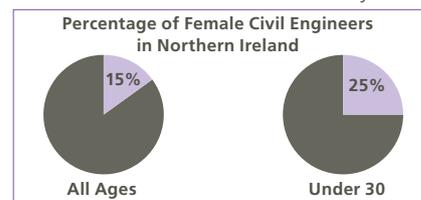
⁵ Girls’ Attitudes Survey, Girl Guides, 2014.

We would encourage the Department of Finance and Personnel (DFP) to give greater recognition of professional competence in procurement of engineering services and works contracts. We would like DFP to mandate that, at Pre-Qualification Questionnaire stage, tenderers provide numbers of staff registered with the EU-recognised qualifications of Chartered Engineer, Incorporated Engineer and Engineering Technician. Doing so will increase levels of competence within the supply chain.

Although there has been a recovery in infrastructure investment, with four consecutive quarterly increases in construction output,⁴ many civil engineers are exporting to other markets. Whilst this is beneficial to the economy, it poses a risk of permanently losing our skilled workforce to other jurisdictions — thus exacerbating the skills shortage. There needs to be a project pipeline and long term view of work in order to retain our talent in Northern Ireland.

It is critical that DfE and the Department of Education work closely together to ensure that schools encourage pupils suited to a further education environment to explore alternative educational routes.

The result could mean that more students pursue apprenticeships instead of A-levels, which would stimulate the economy.



Furthermore, 43% of girls said they were put off by STEM careers because they didn’t know enough about the careers available, and 60% said they were put off due to lack of female role models.⁵ We will continue to work with educators and industry representatives in promoting STEM to the next generation, particularly to young women, ensuring that our profession reflects the diversity of our society and delivers better outcomes for all.

RECOMMENDATIONS

- Develop a civil engineering sectoral task group by December 2016
- Establish a civil engineering apprenticeship by September 2016
- Improve professional competence by giving recognition to an array of professional qualifications in procurement.

Get in touch

For more information please contact:

Richard Kirk,
Regional Director

e richard.kirk@ice.org.uk

t +44 028 9087 7157

w ice.org.uk

@ICE_NIreland

Registered charity number 210252.

Charity registered in Scotland
number SC038629.

About ICE

Established in 1818 and with over 86,000 members worldwide, ICE is a leading source of expertise in infrastructure and engineering policy and is widely seen as the independent voice of infrastructure. ICE provides advice to all political parties and works with industry to ensure that civil engineering and construction remain major contributors to the UK economy.

This report is specially sized to be economical in paper use. It is printed on paper manufactured by ISO certified mills with Chain of Custody certification, and was produced by a printing company with FSC® certification using vegetable-based inks. The cover is made from pulp sourced from sustainably managed forests. The text pages are 100 percent recycled paper.