Northern Ireland Assembly

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Knowledge Exchange Seminar Series (KESS)

...is a forum that encourages debate on a wide range of research findings, with the overall aim of promoting evidence-based policy and law-making within Northern Ireland

Competitiveness Scorecard for NI

23 November 2016

Agenda

- Introduction
- The Competitiveness Scorecard
- Key findings
- Pillars of the Scorecard
- Policy conversations
- Q&A

INTRODUCTION

What is competitiveness?

"The set of institutions, policies, and factors that determine the level of productivity of a country".

World Economic Forum

They explain that the level of productivity determines the level of prosperity and rates of return to investments (capital and labour) are the fundamental drivers of growth rates. In conclusion, the WEF states that ***"a more competitive economy is one that is likely to grow faster over time."***

"How well countries manage all their resources and competencies to facilitate long-term value creation."

IMD Competitiveness yearbook

Why is competitiveness important?

"Productivity isn't everything, but in the long run it is almost everything."

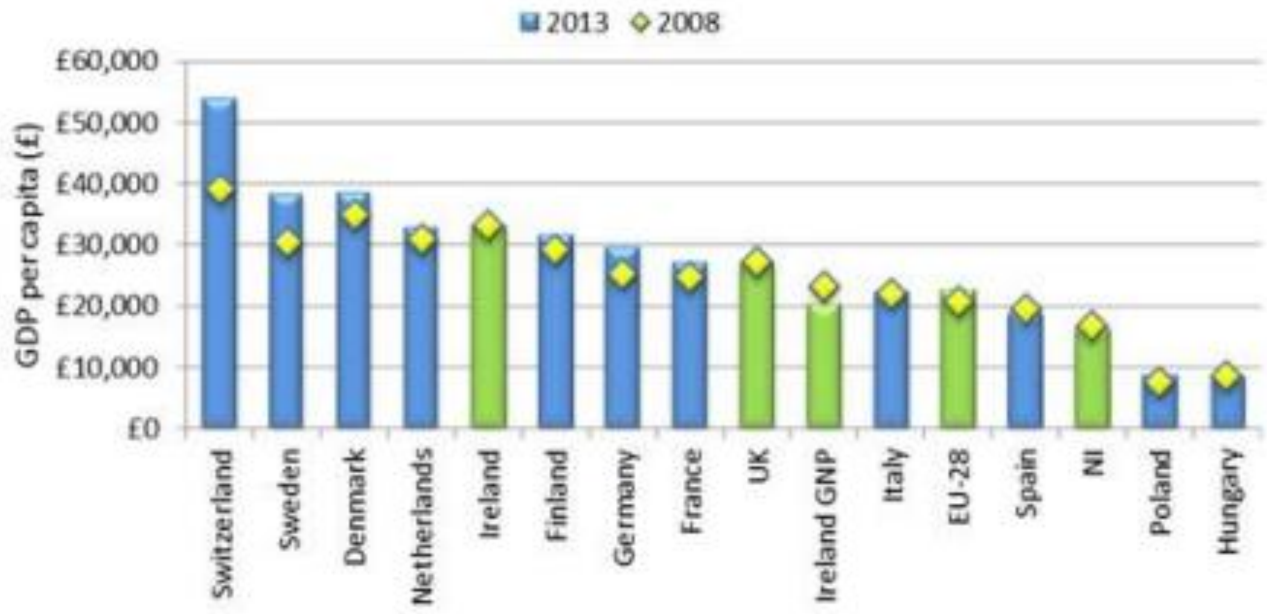
"A country's ability to improve its standard of living over time depends almost entirely on its ability to raise its output per worker."

Paul Krugman,

The Age of Diminishing Expectations

GDP (income) per capita

- Lower in NI than many other countries



Sources: Eurostat & ukforex

Assessing NI's relative competitiveness

- UUEPC were commissioned by the Economic Advisory Group (EAG) to develop a Competitiveness Scorecard for NI

- To follow the methodology of the National Competitiveness Council in the RoI.

- EAG members felt that Competitiveness should be the central plank of their research that would direct the future agenda

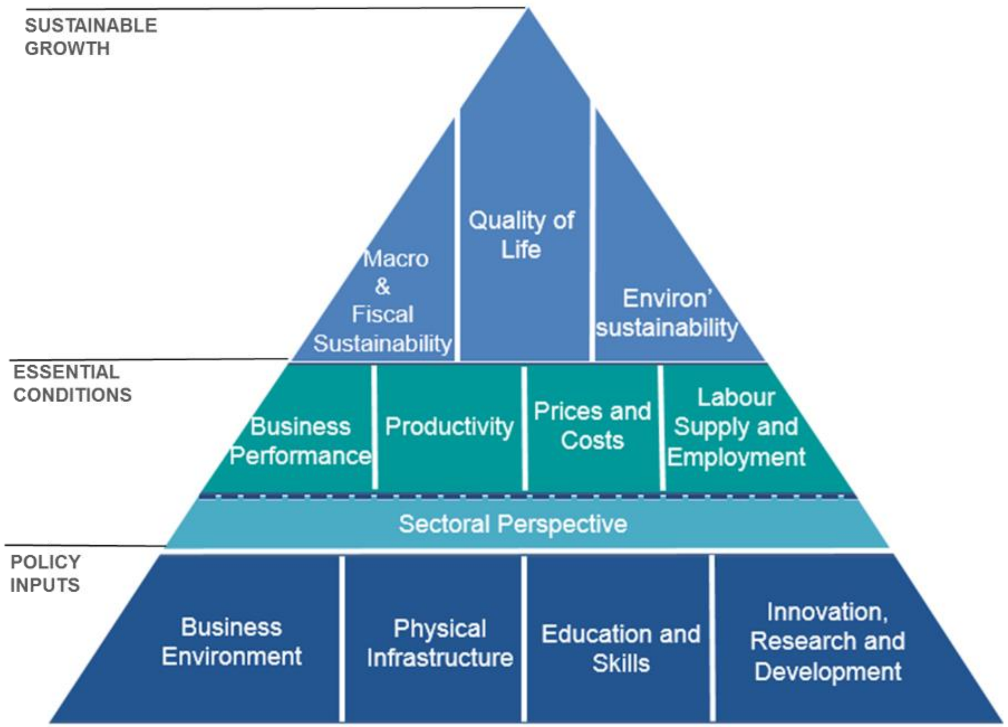
Aims of the Competitiveness Scorecard

- Develop an overview of competitiveness across a range of themes
- Act as a barometer of NI’s relative performance in an international context over a five year period
- Help inform specific areas for policy development and further research

Structure of the Competitiveness Scorecard

- Comprehensive benchmark of NI's competitiveness relative to a range of European and OECD countries
- More than 150 indicators
- 11 pillars
- NI specific improvements take account of;
    - NI perspective
    - Sectoral consideration
    - Inclusion of Quality of Life indicators

Figure 1: UUEPC Competitiveness Scorecard



Source: UUEPC

KEY FINDINGS

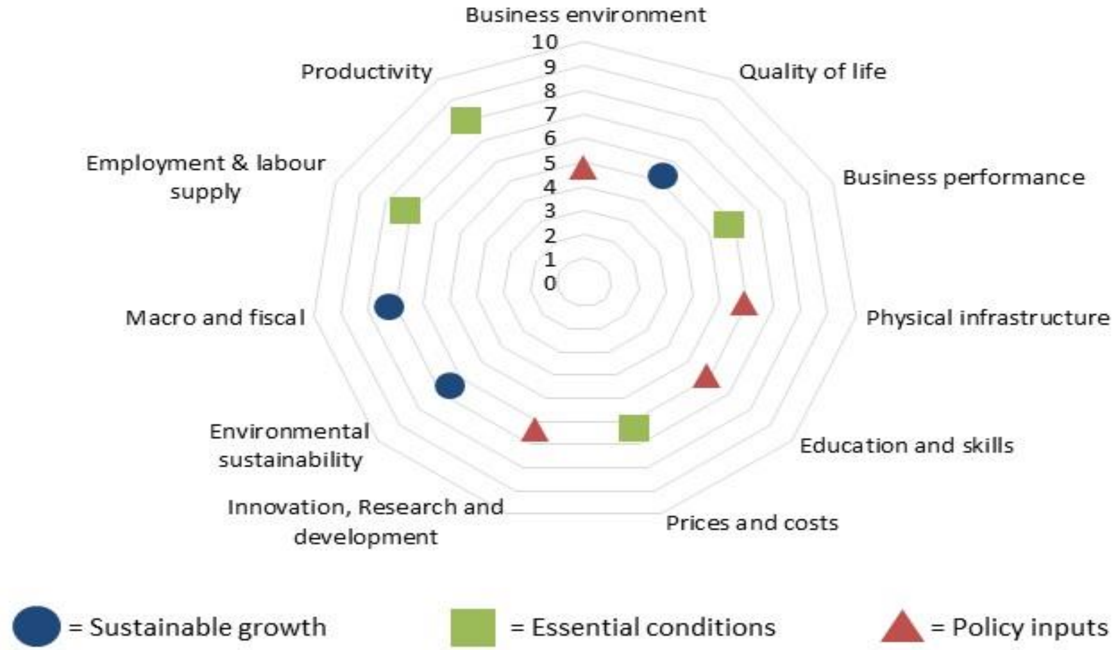
Interpretation of the Scorecard

- Challenge was how to standardise and present a lot of data
- Each indicator has a different number of countries
- Therefore, deciles are used (i.e. 5th decile = 15 / 30 countries)
- 1 is best and 10 is worst in this scale

Relative competitiveness is relatively stable, but lower than average

- Relative competitiveness is stable, but below average (6th decile)
- Business environment, quality of life and business performance are strong
- Productivity, employment & labour supply and macro & fiscal are weaker

Figure 2: UUEPC Competitiveness Scorecard, performance by pillar



Source: UUEPC

Notes: Competitiveness performance is defined as the average decile placement of the indictors within that element of the Compe

Business Performance most improved, whilst Employment & Labour supply and Education & Skills in decline

	Current decile position	Change over 5 years	
Macro & fiscal sustainability	7.2	0.4	Sustainable growth
Quality of life	5.3	0.0	
Environmental sustainability	6.5	0.0	
Business performance	5.8	1.4	Essential conditions
Producitivity	8.0	0.0	
Prices and costs	6.3	0.3	
Labour supply and unemployment	7.3	-0.5	
Business environment	4.8	0.0	Policy inputs
Physical infrastructure	5.9	0.4	
Education and skills	5.9	-0.5	
Innovation and R&D	6.4	0.0	
Overall	**6.2**	**0.1**	

Top performing (green): Quality of life 5.3; Business performance 1.4; Business environment 4.8; Physical infrastructure 0.4

Worst performing (red): Producitivity 8.0; Labour supply and unemployment 7.3, -0.5; Education and skills -0.5

Source: UUEPC

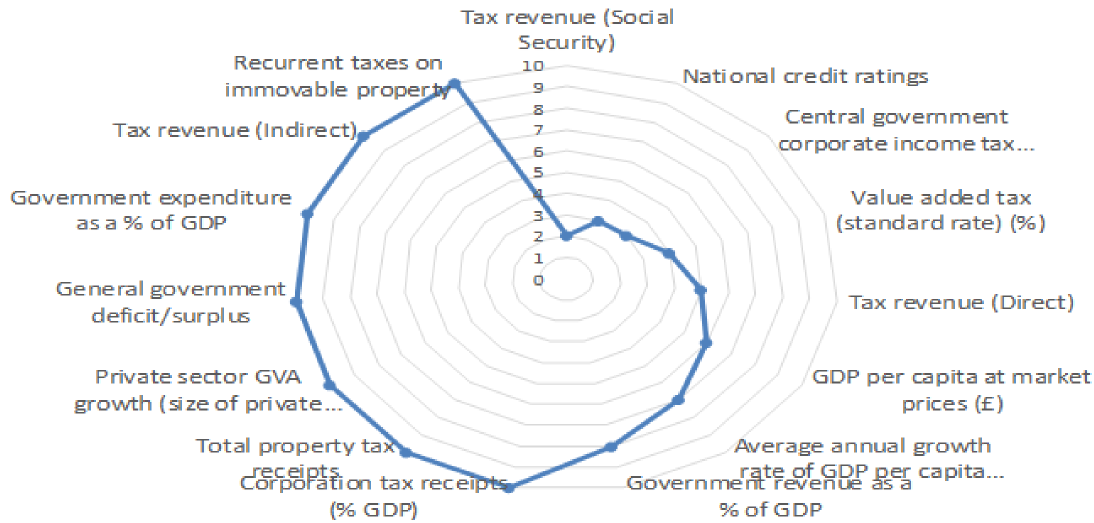
Note: Decile placements range from 1 – 10, with 1 denoting a strong competitive position and 10 a weak position. A positive figure in change in decile denotes an improvement in NI's relative competitiveness and vice versa. The overall average is calculated using a simple average of all of the indicators in the scorecard

PILLARS OF THE SCORECARD

Macroeconomic and fiscal sustainability

- Slight improvement from a low base (from 7.6 to 7.2).
- Beneficial for the NI economy to be part of a larger economic regime, which cushions NI from many of the challenges that may be faced by a smaller economy.
- NI's private sector is relatively small and the rate of growth remains subdued.

Summary of decile placements for macroeconomic and fiscal sustainability indicators



Source: UUEPC

Macroeconomic and fiscal sustainability

Summary of macroeconomic and fiscal sustainability indicators

Macroeconomic stability	Rank		Direction of change	Change in decile
GDP per capita at market prices (£)	🟡	18 / 34	🔴	=
Average annual growth rate of GDP per capita at market prices (%)	🟡	22 / 33	🟡	n/a
Private sector GVA growth (size of private sector - as a % of GDP)	🔴	31 / 31	🟢	=
General government deficit/surplus	🔴	29 / 29	🔴	=
Government revenue as a % of GDP	🔴	23 / 29	🟢	↑↑
Government expenditure as a % of GDP	🔴	29 / 29	🟢	=
National credit ratings	🟢	8 / 28	🔴	↓↓
Tax revenue (Direct)	🟡	13 / 28	🟢	↑↑↑
Tax revenue (Indirect)	🔴	28 / 28	🔴	=
Tax revenue (Social Security)	🟢	3 / 28	🔴	=
Value added tax (standard rate) (%)	🟡	13 / 34	🔴	↓
Central government corporate income tax rate (%)	🟢	9 / 35	🟢	↑↑↑↑↑
Corporation tax receipts (% GDP)	🔴	28 / 31	🔴	↓
Total property tax receipts	🔴	30 / 30	🟢	=
Recurrent taxes on immovable property	🔴	29 / 29	🟡	=

Source: UUEPC

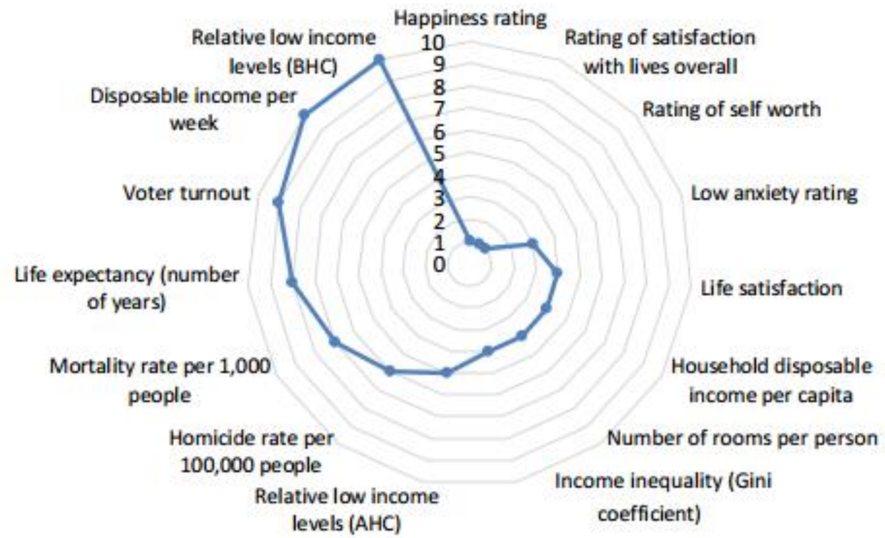
Quality of life

- 2nd strongest pillar

- Happy and satisfied, despite low incomes and limited civic engagement

- Why? Normalisation of society? Lower expectations? Community

Figure 4.2.13: Summary of decile placements for quality of life indicators



Source: UUEPC

Quality of life

Summary of quality of life indicators

National comparisons

Quality of life	Rank		Direction of change	Change in decile
Household disposable income per capita	🟠	13 / 35	🟢	↑
Homicide rate per 100,000 people	🟠	19 / 35	🟢	↑↑
Mortality rate per 1,000 people	🟠	23 / 35	🟢	↓↓
Life expectancy (number of years)	🔴	26 / 35	🟢	↓
Voter turnout	🔴	31 / 35	🔴	↓↓
Number of rooms per person	🟠	13 / 35	n/a	n/a
Life satisfaction	🟠	12 / 35	n/a	n/a
Income inequality (Gini coefficient)	🟠	11 / 29	🟢	↑↑↑

Source: UUEPC

UK regional comparisons

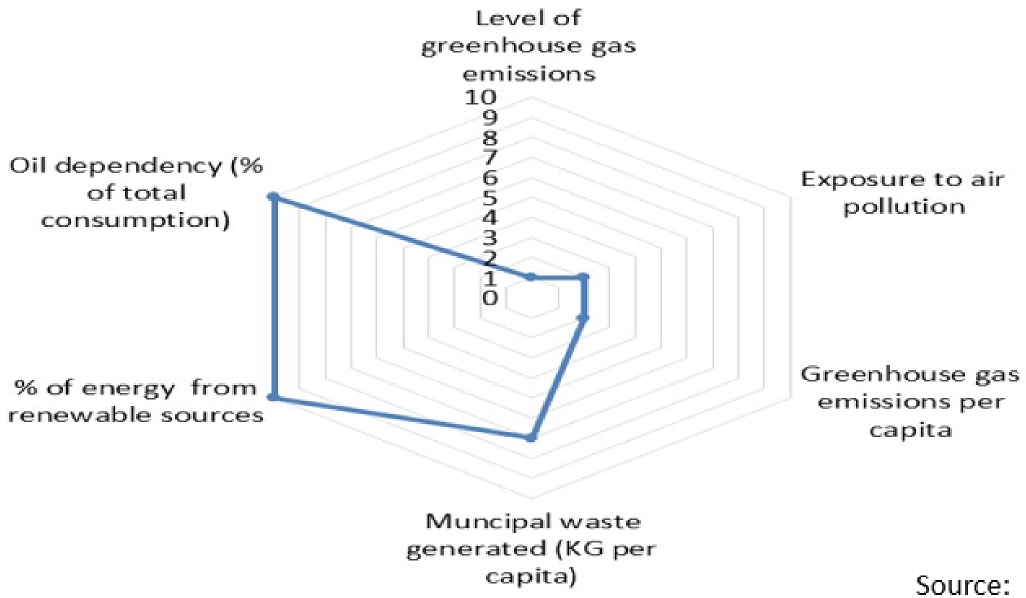
Quality of life	Rank		Direction of change	Change in decile
Disposable income per week	🔴	12 / 12	🔴	=
Relative low income levels (AHC)	🟠	5 / 12	🟠	↓
Relative low income levels (BHC)	🔴	12 / 12	🟠	↓↓
Rating of satisfaction with lives overall	🟢	1 / 12	🟢	=
Rating of self worth	🟢	1 / 12	🟢	=
Happiness rating	🟢	1 / 12	🟢	↑↑↑
Low anxiety rating	🟢	3 / 12	🟢	↑↑↑↑↑ ↑↑

Source: UUEPC

Environmental sustainability

- A story of two halves, performing very well in terms of emissions and air pollution and poorly in terms of water generation and dependence on fossil fuels (despite recent advances in renewable energy)

Summary of decile placements for environmental sustainability indicators



Source: UUEPC

Environmental sustainability

Summary of Environmental sustainability rankings by indicator

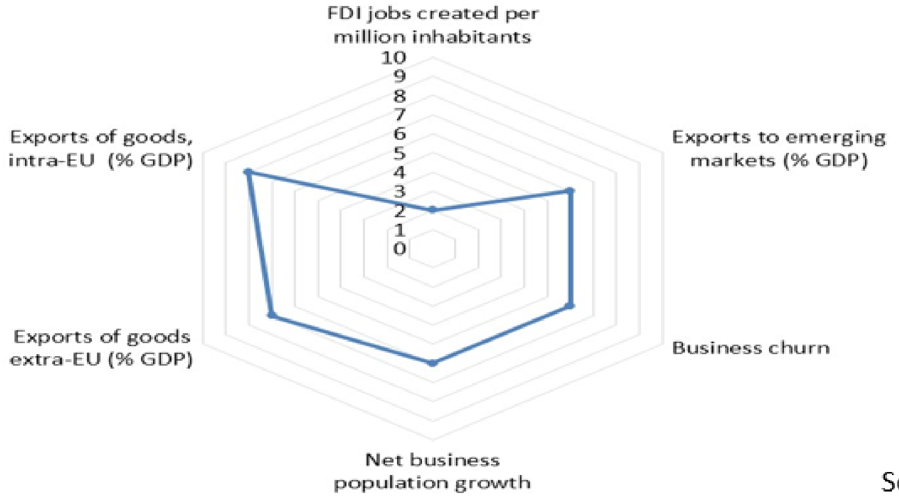
Environmental sustainability	Rank	Direction of change	Change in decile
Level of greenhouse gas emissions	18 / 32		↑↑
Greenhouse gas emissions per capita	6 / 31		↑
% of energy from renewable sources	34 / 35		=
Muncipal waste generated (KG per capita)	20 / 29		=
Exposure to air pollution	7 / 35		↑
Oil dependency (% of total consumption)	29 / 29		=

Source: UUEPC

Business performance

- Most improved element over the previous five years (from 7.2 to 5.8).
- FDI job creation performance is excellent, third placed behind Ireland and Slovakia
- Manufacturers are the largest exporters, particularly the food and drink, transport equipment and machinery sectors.
- GVA growth is slower in the majority of sectors in NI when compared to their UK counterparts.

Summary of decile placements for business performance indicators



Source: UUEPC

Business performance

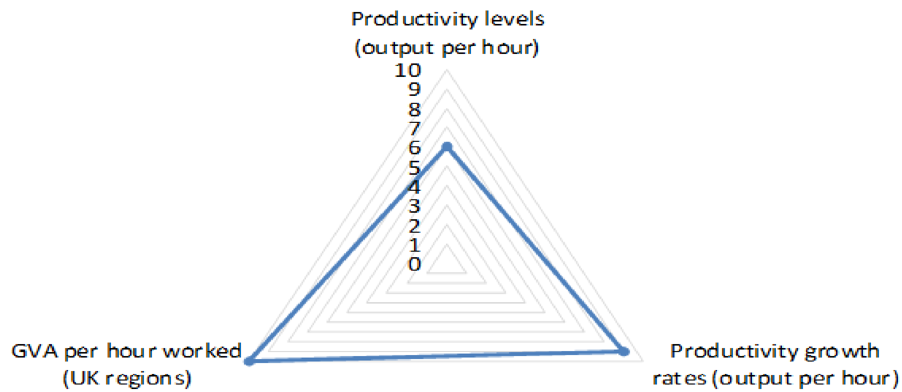
Business performance	Rank	Direction of change	Change in decile
Net business population growth	15 / 29		↑
Business churn	17 / 29		↑↑
Exports of goods, intra-EU (% GDP)	22 / 29		=
Exports of goods extra-EU (% GDP)	19 / 29		=
FDI jobs created per million inhabitants	3 / 15		↑↑↑↑
Exports to emerging markets (% GDP)	12 / 21		n/a

Source: UUEPC

Productivity

- Weakest element of the Scorecard
- Low productivity and low rates of growth

Summary of productivity rankings by indicator



Source: UUEPC

Summary of decile placements for productivity

Productivity	Rank	Direction of change	Change in decile
Productivity levels (output per hour)	16 / 28		=
Productivity growth rates (output per hour)	25 / 28		n/a
GVA per hour worked (UK regions)	12 / 12		=

Source: UUEPC

Prices and costs

Becoming less competitive as prices rise

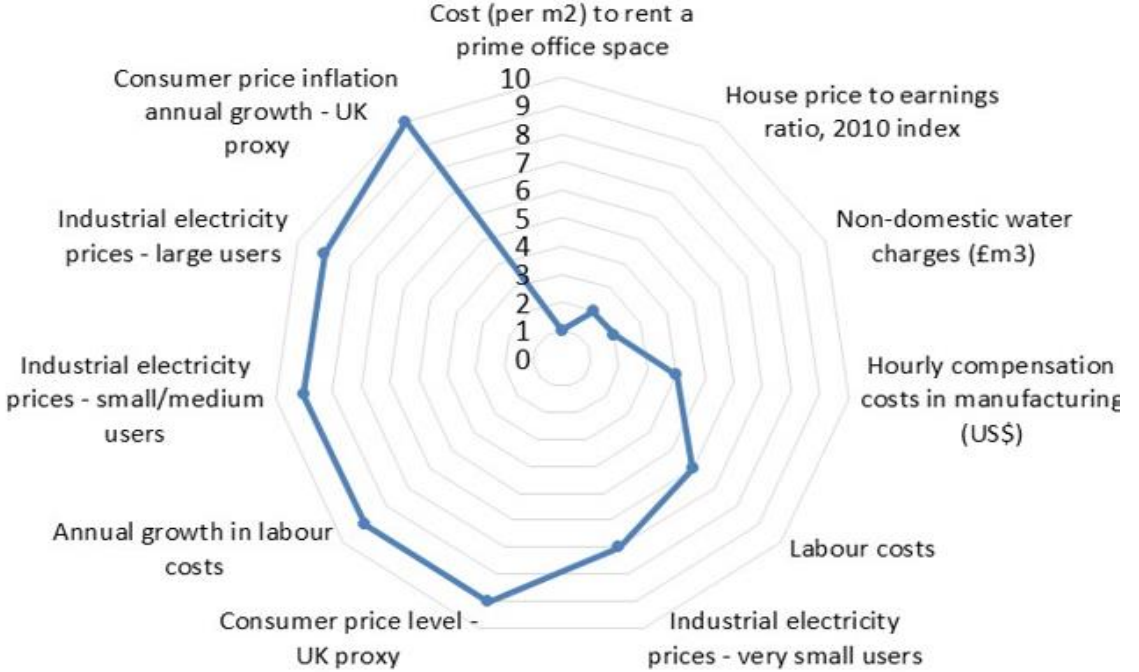
NI is relatively uncompetitive in

- electricity prices
- growth in labour costs
- CPI inflation

Very competitive in

- cost of office space
- water costs
- house prices
- manufacturing wages

Summary of decile placements for prices and costs indicators



Source: UUEPC

Prices and costs

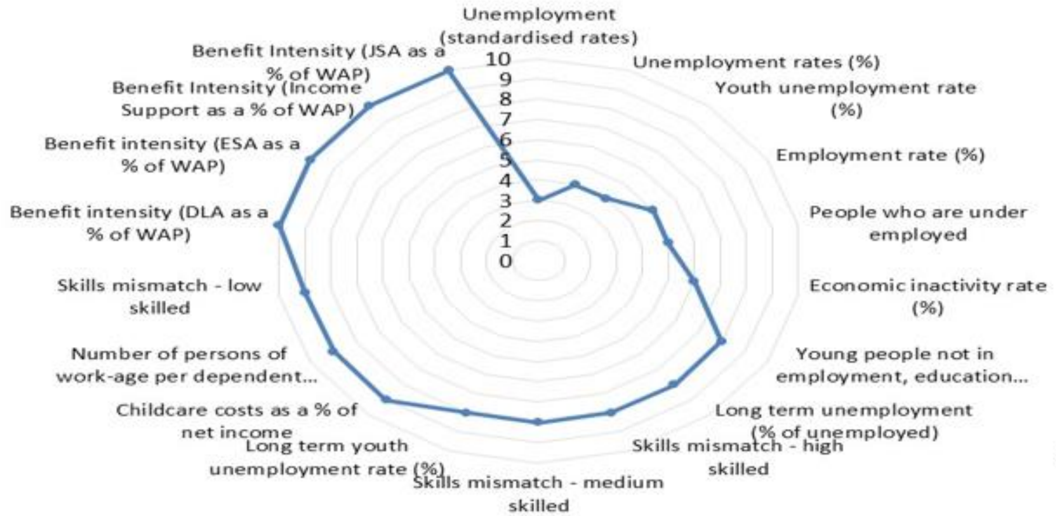
Prices and Costs	Rank	Direction of change	Change in decile
Consumer price level - UK proxy	24 / 28		↓↓
Average annual change in HICP - UK proxy	26 / 28		↓↓↓
Labour costs	17 / 29		=
Annual growth in labour costs	26 / 29		n/a
Hourly compensation costs in manufacturing	11 / 35		=
Cost (per m2) to rent a prime office space	1 / 30		=
Industrial electricity prices - very small users	11 / 16		↓↓↓
Industrial electricity prices - small/medium users	14 / 16		=
Industrial electricity prices - large users	14 / 16		=
House price to earnings ratio, 2010 index	3 / 29		↑↑↑↑↑↑↑↑
Non-domestic water charges (£m3)	2 / 16		n/a
Earnings per week	n/a		n/a
Earnings per hour	n/a		n/a
Hours worked	n/a		n/a

Source: UUEPC

Employment and labour supply

- Relatively weak and deteriorating (6.8 to 7.3).
- Youth unemployment and long term youth unemployment remain persistently high, whilst improvements are evident in competitor nations.
- Proportion of the population who are NEET is also relatively large and increasing.
- Benefit dependency is a persistent feature

Summary of decile placements for employment and labour supply



Source: UUEPC

Employment and labour supply

International comparisons

Employment and labour supply	Rank	Direction of change	Change in decile
ILO Employment rate (%)	15 / 36		=
ILO Unemployment rates (%)	11 / 34		=
ILO Long term unemployment (% of unemployed)	27 / 36		↓
Economic inactivity rate (%)	18 / 34		=
Unemployment (standardised rates)	6 / 29		↓
Youth unemployment rate	10 / 29		=
Long term youth unemployment rate	20 / 27		↓↓↓
Young people not in employment, education or training	21 / 29		=
Childcare costs as a % of net income	28 / 32		n/a
Net migration (000s)	n/a		n/a
Number of persons of work-age per dependent & change, 2012-50	25 / 28	n/a	n/a
Skills mismatch - high skilled	22 / 29		↑↑
Skills mismatch - medium skilled	21 / 29		=
Skills mismatch - low skilled	24 / 29		=

Source: UUEPC

UK regional comparisons

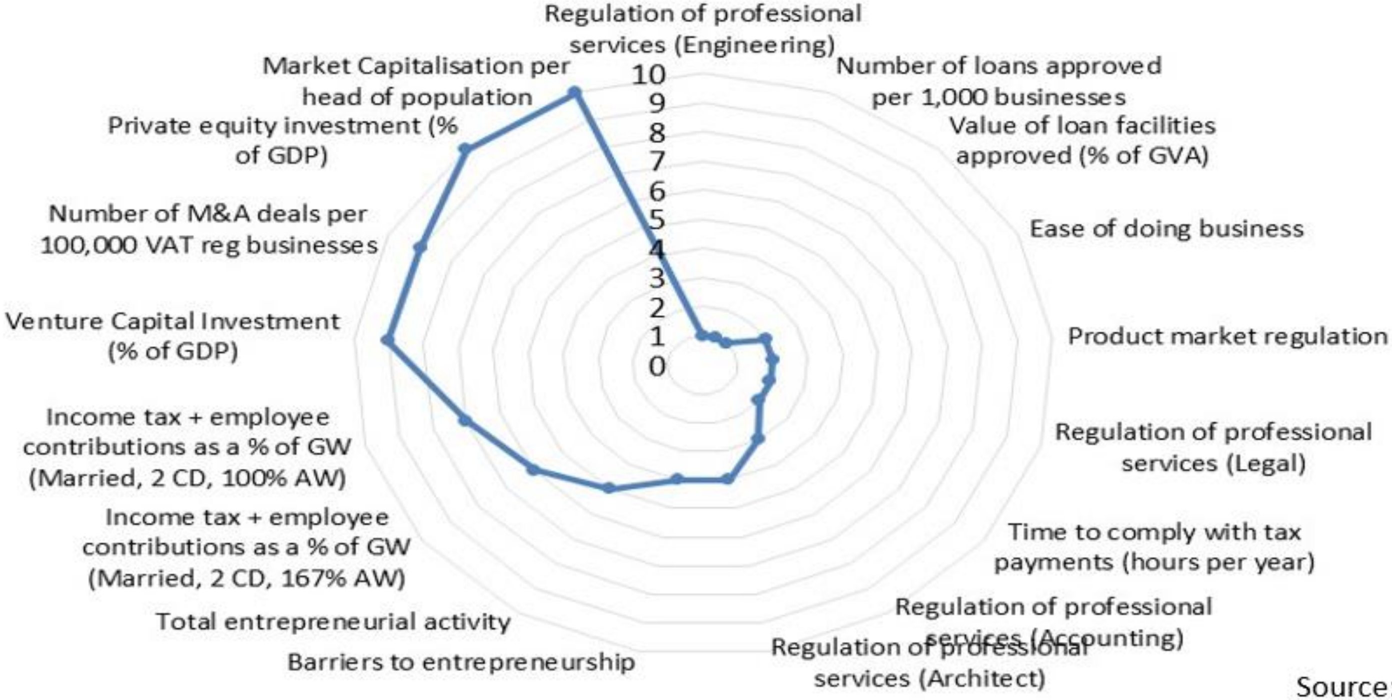
Employment and labour supply	Rank	Direction of change	Change in decile
People who are under employed	6 / 12		↓↓↓↓
Benefit intensity (DLA as a % of WAP)	12 / 12		=
Benefit intensity (ESA as a % of WAP)	12 / 12		=
Benefit Intensity (Income Support as a % of WAP)	12 / 12		=
Benefit Intensity (JSA as a % of WAP)	12 / 12		=
Claimant count unemployment flow	n/a		n/a

Source: UUEPC

Business environment

- Strongest performing element of the scorecard
- Strong on regulation and low barriers to entry (UK policy areas)
- Weaker in access to finance (demand, supply or statistics?)

Summary of decile placements for business environment indicators



Source: UUEPC

Business environment

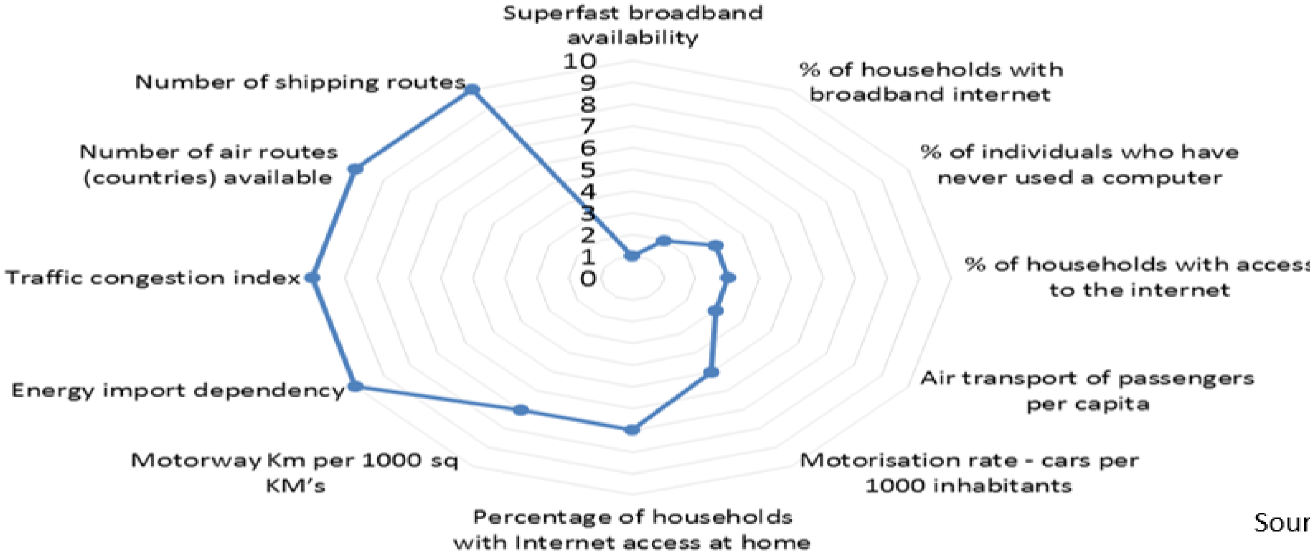
Business environment	Rank	Direction of change	Change in decile
Venture Capital Investment (% of GDP)	28 / 32		↑
Private equity investment (% of GDP)	19 / 21		=
Ease of doing business	6 / 31	n/a	n/a
Product market regulation	2 / 19		↓
Regulation of professional services (Accounting)	5 / 19		=
Regulation of professional services (Legal)	3 / 19		=
Regulation of professional services (Architect)	6 / 19		=
Regulation of professional services (Engineering)	1 / 19		=
Barriers to entrepreneurship	6 / 19		=
Time to comply with tax payments (hours per year)	5 / 28		=
Number of M&A deals per 100,000 VAT reg businesses	11 / 13		↑
Market Capitalisation per head of population	11 / 11		=
Total entrepreneurial activity	10 / 24		↓
Number of loans approved per 1,000 businesses	1 / 12		=
Value of loan facilities approved (% of GVA)	1 / 12		=
Income tax + employee contributions as a % of GW (Married, 2 CD, 100% AW)	22 / 34		=
Income tax + employee contributions as a % of GW (Married, 2 CD, 167% AW)	18 / 34		=

Source: UUEPC

Physical infrastructure

- Improved over the past five years from 6.3 to 5.9
- Technological infrastructure - such as broadband connectivity, access and services
- Imported fuel dependence remains a significant challenge, although one that will not be easily changed given NI's resource endowments.
- Congestion and external linkages are relatively poor (although we can use Dublin)

Summary of decile placements for physical infrastructure



Source: UUEPC

Physical infrastructure

Physical infrastructure	Rank	Direction of change	Change in decile
Energy import dependency	27 / 29		=
% of households with access to the internet	6 / 29		=
% of households with broadband internet	5 / 29		↑↑↑↑
% of households with internet access at home	20 / 29		↑↑
% of individuals who have never used a computer	7 / 29		=
Air transport of passengers per capita	7 / 29		↓
Traffic congestion index	20 / 20	n/a	n/a
Motorway Km per 1000 sq KM's	17 / 26		=
Superfast broadband availability	1 / 12		=
Motorisation rate - cars per 1000 inhabitants	12 / 26		=
Number of air routes (countries) available	19 / 19	n/a	n/a
Number of shipping routes	11 / 12	n/a	n/a

Source: UUEPC

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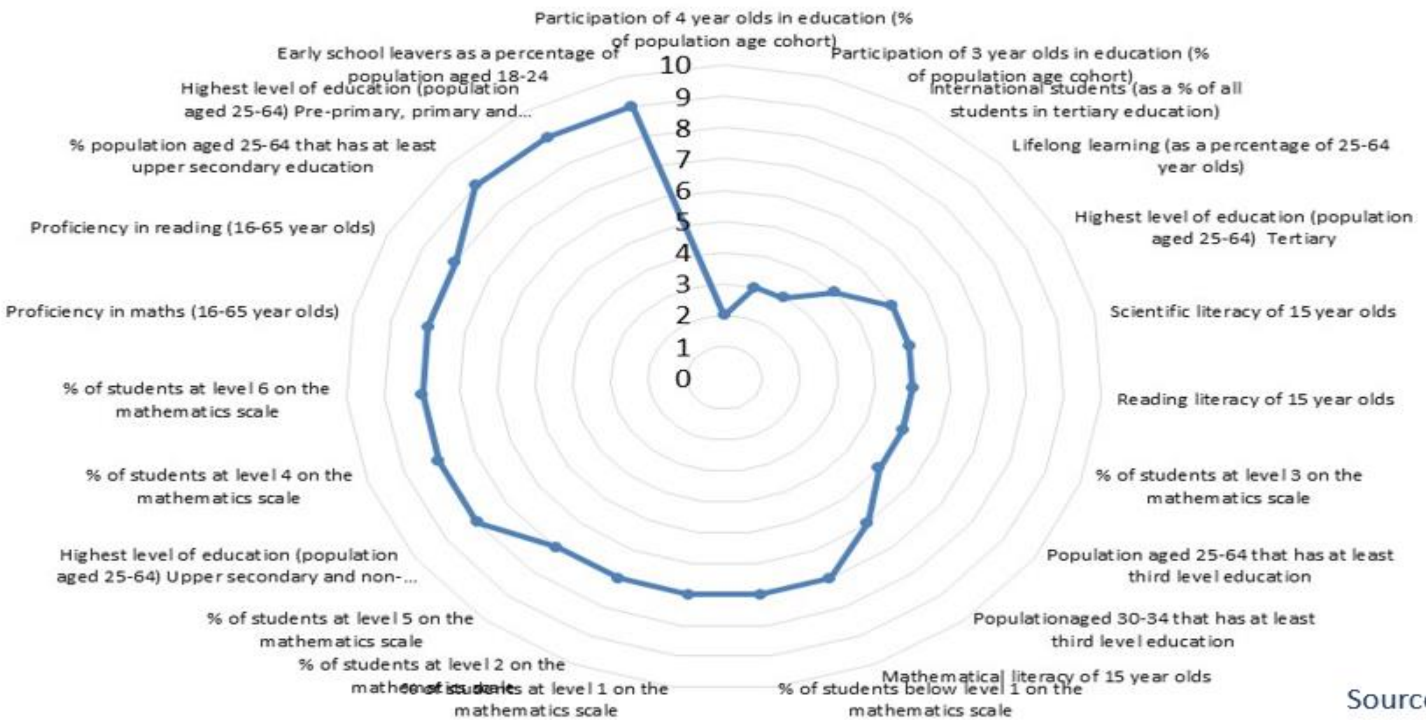
Education and skills

- One of the stronger pillar reflecting NI's strengths
- Improvements are evident, but being overtaken in many indicators

Summary of decile placements for education and skills



Source: UUEPC

Education and skills

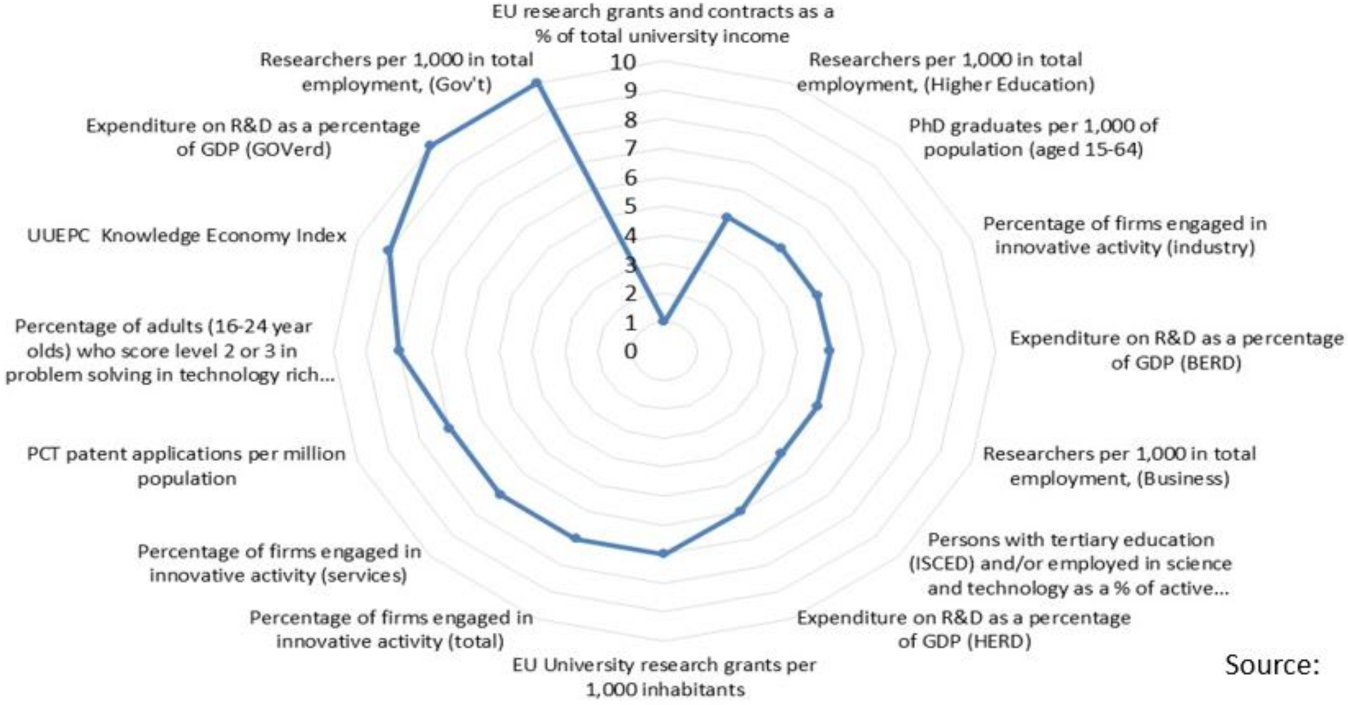
Education and skills	Rank		Direction of change	Change in decile
Highest level of education (population aged 25-64) Pre-primary, primary and lower	🔴	24 / 29	🟢	↓↓
Highest level of education (population aged 25-64) Upper secondary and non-tertiary	🔴	22 / 29	🟢	↑
Highest level of education (population aged 25-64) Tertiary	🟡	13 / 29	🟢	=
Participation of 3 year olds in education (% of population age cohort)	🟢	7 / 28	🔴	↓↓
Participation of 4 year olds in education (% of population age cohort)	🟢	5 / 29	🔴	↓
% population aged 25-64 that has at least upper secondary education	🔴	24 / 29	🟢	=
Early school leavers as a % of population aged 18-24	🔴	25 / 29	🟢	=
Scientific literacy of 15 year olds	🟡	14 / 33	🔴	↓
Mathematical literacy of 15 year olds	🔴	23 / 33	🔴	=
Reading literacy of 15 year olds	🟡	15 / 33	🔴	=
% of students below level 1 on the mathematics scale	🟡	22 / 33	🔴	↓↓
% of students at level 6 on the mathematics scale	🔴	25 / 32	🟢	=
Population aged 30-34 that has at least third level education	🟡	15 / 29	🟢	↓
Population aged 25-64 that has at least third level education	🟡	13 / 29	🟢	=
International students (as a % of all students in tertiary education)	🟢	7 / 31	🔴	↓
Lifelong learning (as a percentage of 25-64 year olds)	🟢	9 / 28	🟢	=
Proficiency in maths (16-65 year olds)	🔴	16 / 21	n/a	n/a
Proficiency in reading (16-65 year olds)	🔴	16 / 21	n/a	n/a

Source: UUEPC

Innovation, research and development

- One of the stronger pillars reflecting NI's strengths
- Improvements are evident, but being overtaken in many indicators

Summary of decile placements for innovation, research and development



Source: UUEPC

Innovation, research and development

Innovation, research and development	Rank		Direction of change	Change in decile
Expenditure on R&D as a percentage of GDP (HERD)	🟡	18/32	🔴	↓↓
Expenditure on R&D as a percentage of GDP (BERD)	🟡	13/31	🟢	↑↑
Expenditure on R&D as a percentage of GDP (GOVerd)	🔴	31/32	🟡	=
Researchers per 1,000 in total employment, (Business)	🟡	14/29	🟢	=
Researchers per 1,000 in total employment, (Higher Education)	🟡	14/29	🔴	↓↓
Researchers per 1,000 in total employment, (Gov't)	🔴	29/29	🟢	=
PhD graduates per 1,000 of population (aged 15-64)	🟡	13/28	🔴	↓↓↓↓
EU University research grant spend per 1,000 inhabitants	🟡	8/12	🟢	↓
EU research grants and contracts as a % of total university income	🟢	1/12	🟢	=
Percentage of firms engaged in innovative activity (total)	🟡	17/28	🟢	↑
Percentage of firms engaged in innovative activity (industry)	🟡	14/28	🟢	↑↑↑
Percentage of firms engaged in innovative activity (services)	🟡	18/28	🟢	↑
UUEPC Knowledge Economy Index	🔴	10/12	🟢	↑
PCT patent applications per million population	🟡	21/32	🟢	=
Percentage of adults (16-24 year olds) who score level 2 or 3 in problem solving in technology rich environments	🔴	14/18	n/a	n/a
Persons with tertiary education (ISCED) and/or employed in science and technology as a % of active population	🟡	14/29	🟢	↑↑

Source: UUEPC

Policy conversations

Policy conversations

Happiness & wellbeing

- Not just about GDP. Happiness isn't measured in £'s. NI benefits from community linkages, family bonds and a more peaceful society.

Productivity

- Understanding Productivity in NI published (http://tinyurl.com/hajmtn3)
- Finds that productivity is the most important contributory factor to the income gap; and
- Productivity is lower within sectors than GB and sectoral composition is skewed towards lower productivity sectors
- 75,000 jobs at £75,000 productivity to get to 90% of the UK level

Education and skills

- Stopping NI's relative decline in an international context

Energy

- Relatively high energy prices
- Dependence on imported fuels

Policy conversations

R&D&I

- Boosting Goverd and reversing recent declines in BERD
- Building a more innovative enterprise base

Infrastructure

- Dealing with congestion
- Maintaining and building upon existing technological infrastructure

Costs

- Low taxes (water and rates), rents and wages

Welfare & worklessness

- Significant reliance on benefits, coupled with skills issues in the inactive and unemployed population
- NEETs, Long Term Youth Unemployed and economic inactivity represent a lost economic and personal resource

Q & A

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Knowledge Exchange Seminar Series (KESS)

...is a forum that encourages debate on a wide range of research findings, with the overall aim of promoting evidence-based policy and law-making within Northern Ireland