International Education Strategy Review

Submitted to

Department of Further and Higher Education, Research, Innovation and Science



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Executive Summary

Introduction and Background

Indecon Research Economics were appointed the Department of Further and Higher Education, Research, Innovation and Science¹ on behalf of the High-Level Group on International Education to undertake an independent evaluation of Ireland's Education Strategy 2016 - 2020 entitled, Irish Educated Globally Connected. The purpose of the strategy is to support the development of global citizens through Ireland's highquality international education system, by attracting talent from around the world to our education institutions, equipping Irish learners with the skills and experience they need to compete internationally, engaging in worldclass research and international collaborations, and addressing global challenges.

International Education Policy in Ireland and in Other Countries

Ireland's international education strategy is aligned with other key national policy objectives including those outlined in the national skills strategy and the overall strategy for higher education. Indecon's analysis indicates that the objectives and actions are also consistent with national enterprise policy and with Ireland's international trade and investment strategy. For example, the attraction of a skilled talent pool including global researchers is an important element of the Government's Action Plan for Jobs. Furthermore, Ireland's Trade and Investment Strategy outlines how attracting more international students to Ireland could help raise Ireland's global visibility promoting our strengths as the best place to do business, to visit, to work, to study and to live. This strategy noted that "International education provides an opportunity for overseas students to live in and get to know Ireland, its people and its culture. It creates links and relationships between Ireland and many partners at individual, institutional and country level that will bring further engagement and economic activity in the future. These students form the basis of a new diaspora when they return to their own countries. Many will become the leaders and entrepreneurs of the future."

The International Education Strategy is important as Ireland faces strong competition for students, international research income and the attraction of skills. The strategy is a key part of the development of global citizens. Other countries also have well developed international education strategies. Aspects of best practice are evident in some of the elements implemented by the UK, Canada, Australia, the Netherlands and New Zealand. Indecon's review of international case studies, suggests that the IES contains many policies that are similar to those found in other countries. The UK and New Zealand like Ireland have targets for the economic contribution of international students, whilst the other countries reviewed have a national framework with interdepartmental backing. Of interest is that some other countries have placed more emphasis than Ireland on importance on outward mobility of staff and student. For example, New Zealand and Canada emphasise the importance of students experiencing HEIs outside of their own country. Our review of international education strategies in other countries indicates that these include a focus on the student experience, the attraction of international students and faculty, and the establishment of mechanisms to facilitate inbound and outbound programmes for staff and students. Other important features include establishing partnership networks and alliances and engaging in international research initiatives. Connecting internationalisation with research and enterprise is internationally seen as important. Other aspects of international experience include widening the international focus to include non-territory sectors, ensuring effective regulation and standards and retaining international skills in the economy.

¹ Previous named the Department of Education and Skills



Effectiveness and Delivering of Strategy

The overall vision set in the IES was to support Ireland in becoming internationally recognised for the development of global citizens through our international education system, as well as a market leader in attracting international student talent. Indecon's consultations with stakeholders indicated that the IES had been very effective in achieving its overall objectives. The positive response on the overall effectiveness is consistent with Indecon's independent analysis of the evidence on the growth in the student numbers and changes in other metrics.

Assessment of Overall Effectiveness							
Very Effective/ Neither Effective nor Ineffective/Very Effective Ineffective Ineffective							
Overall objectives and targets 77.3% 22.7% 0.0%							
Source: Independent Assessment from Indecon Survey of Stakeholders							

The following table shows the progress towards the student number target set out in the IES. The IES set a target of increasing international student numbers in HEIs by 33% by 2019/20 academic years. Indecon's analysis demonstrates that there has been an impressive growth in student numbers over the period. It is clear that the work undertaken by individual universities, colleges, and institutes of technology and other educational organisations, underpinned by the strategy and supported by government departments and agencies, has been associated with a strong growth in international student numbers. The COVID-19 pandemic will however inevitably result in major challenges for the sector.

Progress Towards Student Number Targets							
	2014/15 - IES	2015/16	2016/17	2017/18	2018/19	2019/20	
Full-Time	14,971	16,754	18,749	20,730	23,056	25,643	
Erasmus	4,900	5,055	4,831	4,831	4,902	4,905	
Overseas Campus	2,627	2,800	2,657	2,626	2,678	2,690	
JYA Term 1 only	2,451	3,041	1,921	1,942	1,932	1,937	
JYA Term 2 only	119	112	58	2	87	65	
JYA Term Full Year	695	690	244	255	467	414	
Other Exchange Incoming	1,835	1,253	1,667	1,459	1,554	1,483	
Total Public HEIs	27,598	29,705	30,127	31,845	34,674	37,136	
Total Private HEIs	5,520	4,772	5,198	6,416	6,746	7,093	
Overall Total	33,118	34,477	35,325	38,261	41,420	44,229	
Percentage change from 2014/15		4.1%	6.7%	15.5%	25.1%	33.6%	

Source: Indecon analysis of HEA and DFHERIS data

2019/20 full-time figures are based on growth rates since 2010/11. The other elements are based on averages over the previous number of years. Erasmus figures do not include Erasmus trainees or international students studying in Ireland who are not registered in a HEI.

The evidence shows that there has been growth in full-time international enrolments as a percentage of total enrolments. This increased from 10.9% in 2014/15 to 13.9% in 2018/19. This suggests good progress towards the target of achieving 15% of enrolments of international students which was set.

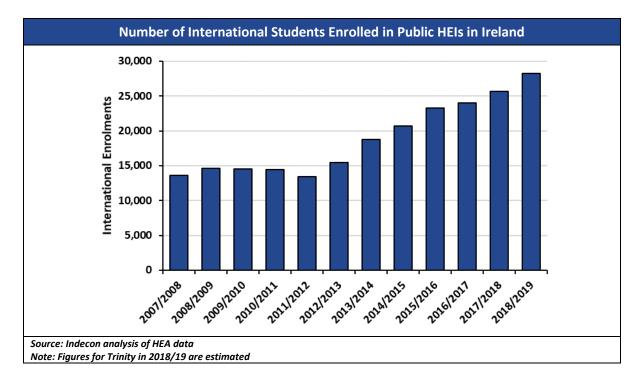


Full-Time International Enrolments as Percentage of All Full-Time Enrolments								
2014/2015 2015/2016 2016/2017 2017/2018 2018/2019								
International enrolments	18,849	21,388	21,696	23,586	25,861			
Total enrolments	173,286	179,354	180,610	183,642	185,474			
International as % of total enrolments 10.9% 11.9% 12.0% 12.8% 13.9%								
Source: Indecon analysis of HEA data								

Over the period of the strategy, the English Language Teaching (ELT) sector has also expanded. Available estimates suggest a 37% increase in the number of ELT students. This is above the 25% target set, but Indecon notes that there have been fluctuations in ELT student numbers.

Estimate of Progress Towards ELT Student Number Target					
Student Numbers					
2014 (IES)	106,098				
2019 Estimate	145,335				
Percentage Change 37.0%					
Source: Indecon analysis of IES data and data provided by ELT stakeholders					

The long-term growth in international enrolments in Ireland is evident from the figures on international students in public higher education institutions.



In line with the growth in numbers, stakeholders consulted indicated that the IES had been effective in increasing the number of international students. Over 50% of stakeholders also judged that the IEs had been effective in enhancing international alumni networks. The areas where somewhat less positive views were expressed, concerned attraction of outstanding researchers and building world class network of learning and innovation. The attraction of international faculty including researchers is dependent on a wide range of areas including remuneration levels, the rankings of Irish universities, and the cost base of living in Ireland.

Assessment of Effectiveness of IES							
	Very Effective/ Effective	Neither Effective nor Ineffective	Ineffective/Very Ineffective				
Increase in the number of international students studying in Ireland	90.9%	4.5%	4.5%				
Enhance our international alumni networks	54.5%	22.7%	22.7%				
Equipping Irish learners with skills and experience to compete internationally	50.0%	31.8%	18.2%				
Connect the benefits from internationalisation in education with enterprises	42.9%	28.6%	28.6%				
Contribution to global challenges	40.9%	40.9%	18.2%				
Have more Irish students integrate overseas experience into their study	40.9%	36.4%	22.7%				
Attraction of outstanding researchers to our Institutions	36.4%	59.1%	4.5%				
Building world-class networks of learning and innovation	36.4%	36.4%	27.3%				
Source: Independent Assessment from Indecon Survey of S	takeholders	•					

One important benefit of the international education strategy is the development of R&D skills in the economy which impacts on the enterprise sector. The following table shows the growth in the number of research personnel in companies in Ireland since 2009. While this growth of almost 8,000 research staff is not due to the IES it highlights the importance of developing linkages between the International Education Strategy and the enterprise sector.

Research Personnel in Companies in Ireland (2009-2017)									
2009 2011 2013 2015 2017									
PhD qualified researchers	1,477	1,350	1,846	1,758	1,711				
Other researchers	6,256	7,646	8,948	9,538	10,857				
Technicians	2,599	3,227	4,141	4,844	4,896				
Support staff	1,628	1,897	2,169	2,243	2,077				
All research and development staff 11,960 14,120 17,104 18,383 19,541									
Source: CSO BERD data									

The International Strategy for Education noted that the success of international education in Ireland would be measured not only by how many international students Ireland educates but also by the quality and international reputation of Ireland's academic offering and Ireland's research base. International partnership-building is critical to developing research mass and the international strategy has measures designed to facilitate this objective. One of the ways in which this benefits Ireland is in higher research income for Ireland's education institutions. Data on the importance of research funding for Ireland's higher education sector is presented in the next table. During the period of the strategy there was a marked increase in international funding for the education sector, particularly from EU sources. While the sector remains very dependent on government funding, the evidence shows that international research funding from EU bodies has been growing in importance and by 2016 amounted to €88m.

Sources of Research Funding to Higher Education €m								
	Direct Govt	Indirect Govt	EU public	Irish Business	Foreign Business	Private/ Individual Funded	Other + Own HE Funds	
2004	203	205	30	13	10		31	
2006	265	248	38	11	5	26	6	
2008	405	219	46	23	6	13	37	
2010	440	148	57	16	11	12	24	
2012	364	174	73	13	9	10	22	
2014	350	217	87	19	13	23	23	
2016	349	230	88	24	10	12	36	

More recent evidence shows the significance of funding from Horizon 2020, which represents a major benefit of the internationally focused nature of education in Ireland. Extracts from the Mid Term Evaluation (MTE) of Innovation 2020² indicated that Ireland had been very successful in winning increased international research income, and had been awarded just over €1 billion by September 2020³. The figures by institution are shown in the next table (as of July 2020). In our modelling as reported in Section 6, we assume an annual benefit from internationalisation of Irish education of approximately €100m per annum. As this income has been increasing over time, this may underestimate the annual research income benefit. This estimate refers only to EU research income from the Horizon 2020 programme and excludes any research income received from foreign industry.

Analysis of Horizon 2020 Funding drawn down by the HE sector in Ireland (2014-2020)							
	H2020 Net EU Contribution	H2020 Participations	Contribution per H2020 participant				
Trinity College Dublin	€127.7m	215	€0.6m				
University College Dublin	€89.8m	182	€0.5m				
University College Cork	€85.2m	176	€0.5m				
National University of Ireland Galway	€75.7m	164	€0.5m				
Dublin City University	€30.9m	75	€0.4m				
University of Limerick	€27.5m	52	€0.5m				
Royal College of Surgeons	€20.9m	52	€0.4m				
National University of Ireland Maynooth	€18.2m	41	€0.4m				
Waterford Institute of Technology	€15.9m	28	€0.6m				
Cork Institute of Technology	€8.6m	26	€0.3m				
TU Dublin	€4.5m	19	€0.2m				
Limerick Institute of Technology	€1.3m	6	€0.2m				
Institute of Technology Tralee	€1.1m	5	€0.2m				
Institute of Technology Sligo - Its	€1.0m	4	€0.2m				
Institute of Technology Carlow	€.3m	2	€0.2m				
Galway-Mayo Institute of Technology	€.3m	1	€0.3m				
Letterkenny Institute of Technology	€.3m	1	€0.3m				
Total	€509.3m	1,049	€0.3m				
Note: Data as of July 2020	Note: Data as of July 2020						
Source: Indecon analysis of European Commission	H2020 data						

 $^{^{\}mathrm{2}}$ Based on data in October 2018

³ https://www.gov.ie/en/press-release/bb1fd-minister-harris-welcomes-historic-1-billion-in-funding-from-horizon-2020/

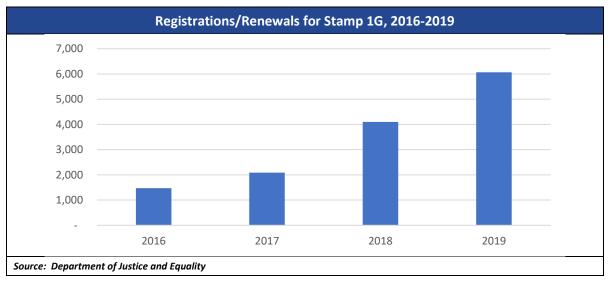


Impact in Adding Value and Specific Progress on Schemes

In considering the impact of the strategy in adding value and in progressing specific initiatives, Indecon's new survey evidence indicates that almost three-quarters of stakeholders judged that the IES had a significant impact on Ireland's education policies and programmes. There are a number of specific schemes included in the International Strategy which are of interest including the Third Level Graduate Scheme, the participation in Marie Sklodowska-Curie action, the Government of Ireland Scholarship Scheme, the Government of Ireland Staff Mobility Scheme and the Erasmus+ programme. It is important to review aspects of a number of these schemes and programmes in more detail in understanding the impact of the strategy.

Assessment of Impact of IES on Ireland's Education Policies and Programmes							
	Very Significant/ Significant Impact	Neither Significant Nor Insignificant	Insignificant/Very Insignificant Impact				
Impact on sector succeeding in overseas markets	77.3%	18.2%	4.5%				
Impact on providing a supportive national framework	77.3%	13.6%	9.1%				
The overall impact on Ireland's education policies and programme	72.7%	18.2%	9.1%				
Impact on facilitating internationally oriented, globally competitive initiatives	63.6%	22.7%	13.6%				
Impact on achieving sustainable growth in high- quality English language training	40.9%	36.4%	22.7%				
Source: Independent Assessment from Indecon Survey of Stakeholders							

In relation to the Third Level Graduate Scheme, empirical evidence examined by Indecon highlights the success of the scheme in providing greater employment opportunities to graduates, particularly for graduates from India, China, United States and Brazil. Data provided to Indecon by the Department of Justice and Equality shows the number of Stamp 1G visas issued under the scheme as illustrated below. This shows that the numbers issued increased more than four-fold over this period. During our consultation programme issues were raised by stakeholders on the merits of adjusting this strategy in order to expand skills and to enhance Ireland's attractiveness for international students. This needs to be considered in the context of wider labour market skill needs.



The Marie Skłodowska-Curie Actions enables research-focused organisations (universities, research centres, and companies) to host talented foreign researchers and to create strategic partnerships with leading institutions worldwide. They are open to researchers at any stage of their careers, from doctoral candidates to highly experienced researchers. It is funded through Horizon Europe, which was discussed earlier. The Irish Marie Skłodowska-Curie Office provides advice and support on preparing applications for Marie Skłodowska-Curie funding and the management of Marie Skłodowska-Curie awards and is jointly operated by the Irish Universities Association and the Irish Research Council. As of January 2020, 349 researchers in Ireland had been funded by Marie Sklodowska-Curie Actions and almost €150 million had been awarded to organisations in Ireland. The success rate of Irish applicants is higher than the average amongst applicants from other EU Member States.

Marie Sklodowska-Curie Actions in Ireland (2014-2020)					
Number of researchers funded by MSCA	349				
EU budget awarded to organisations in Ireland	€147.4m				
Success Rate of Irish Applicants	15.2%				
Success Rate of All Member State Applicants	12.7%				
Number of organisations in Ireland in MSCA	128				
Source: European Commission					

The Government of Ireland Scholarship Scheme initiative within the IES provides scholarships for one year study at bachelor's, master's or PhD levels, with successful applicants receiving a €10,000 stipend and a full fee waiver of all tuition and other registration costs at the HEI. The scholarships are available to students from non-EU/EEA countries. The aim of the scheme is to increase linkages with core markets for international students. Indecon believes that to be of value, ways to ensure that subsequent linkages and on-going involvement with successful participants in the scheme merits an ongoing focus. One of the commitments in the IES was to increase the number of scholarships provided under the Government of Ireland Scholarship Scheme from 21 to 60. The target of 60 was achieved but we note that this was very small compared to the number of applicants. The low success rates may suggest the need to ensure that there is clarity on eligibility of candidates for the programme.

Government of Ireland International Education Scholarships (2019)							
	Number of Awards	% of Total Awards	Number of Applications	% of Total Applications	Success Rate		
Undergraduate	4	6.7%	102	5.0%	3.9%		
Master's	42	70.0%	1850	90.6%	2.3%		
PhD	13	21.7%	89	4.4%	14.6%		
Postgrad	1	1.7%	-	-	-		
Total	60		2,041		2.9%		
Source: Indecon anal	ysis of HEA data		•				

The IES (Strategic Priority 2, Action 4) aims to actively encourage Staff-mobility under the Erasmus+ and non-EU bilateral programmes as a means for the professional development of staff and for the internationalisation of curricula. The Department of Education published a report in 2017, Languages Connect, targeted a 50% increase in participation in Erasmus+ from 2017 to 2026. The evidence shows that the scheme has been successful in attracting internationally-based staff to come to Ireland. However, this programme has been less effective in facilitating Irish-based staff as shown in the next Table. This may in part be due to the constraints on EU funding for this action in Ireland or may be due to the level of interest from Irish staff in participating in this Programme. The higher levels of internationally based staff attracted to Ireland may reflect the attraction for Ireland as an English-speaking location.

Erasmus+ Outward and Inward Staff Mobility from/to Ireland, 2017 Call						
Outbound from Ireland Inbound to Ireland						
School	360	2,005				
VET ⁶	700	7,784				
Higher Education	359	1,087				
Total	1,419	10,876				
Source: European Commission						

Significant progress has made in attracting overseas students to come to Ireland as part of the Erasmus+ programme. France, Germany and Spain accounted for the majority of these students, with France being the single largest country (12,281). Students from 71 different countries have come to Ireland as part of the Erasmus programme since 2015.

Inbound Erasmus Students to Ireland (2015 - 2020)								
Programme Country	2015-16	2016-17	2017-18	2018-19	2019-20			
France	2,280	2,435	2,633	2,738	2,195			
Germany	1,410	1,464	1,474	1,495	1,426			
Spain	1,232	1,307	1,225	1,230	1,160			
Italy	576	612	586	652	425			
UK	304	342	389	417	649			
Netherlands	344	332	371	377	301			
Belgium	229	213	209	230	264			
Austria	204	216	182	181	199			
Finland	158	157	116	124	92			
Czech Republic	153	128	118	114	104			
Sweden	99	102	163	135	107			
Poland	122	140	111	88	77			
Denmark	75	118	83	81	93			
Other	499	470	522	616	364			
Total	7,685	8,036	8,182	8,478	7,456			

⁶ VET figures relate to both learners and staff.



⁴ • Consider ways to further encourage students in FET and HE to avail of opportunities on the Erasmus+

⁵ https://ec.europa.eu/programmes/erasmus-plus/about/statistics_en

Irish-based outbound students are also supported under the Erasmus Programme but account for just over 1.1% of total students who engaged in the programme from Higher Education. France, Spain and Germany were the most popular destinations. The number of students from Ireland has increased since 2015-16, as shown below but remain at relatively low levels. This may, in part, reflect constraints on EU funding for this element of the Programme or language or other constraints faced by Irish students considering studies in other European countries.

Outbound Erasmus Students from Ireland (2015 - 2020)							
Country	2015-16	2016-17	2017-18	2018-19	2019-20		
France	676	719	739	801	811		
Spain	566	581	649	734	744		
Germany	492	570	537	578	553		
United Kingdom	404	389	441	497	399		
Netherlands	237	254	299	313	299		
Italy	98	127	123	155	157		
Belgium	113	121	121	126	168		
Austria	84	89	113	103	123		
Sweden	91	99	101	88	87		
Czech Republic	61	74	72	84	75		
Luxembourg	60	60	72	66	79		
Denmark	46	64	60	81	82		
Other	263	325	356	350	359		
Total	3,191	3,472	3,683	3,976	3,936		

Note figures include all types of Erasmus participants (students and trainees)

Role of Stakeholders and Communications Strategy

A feature of the IES is the role played by stakeholders and steering groups. One of the positive features of the strategy was the attempt to involve a diverse range of stakeholders. For example as well as the Department of Further and Higher Education, Research, Innovation and Science, the High Level Group or its Sub Groups included the Department of Justice, the Department of Business Enterprise and Innovation, the Department of Foreign Affairs and Trade, the Department of Transport, Tourism and Sport, IUA, THEA, HECA, MEI, Conference of Heads of Irish Colleges of Education, USI, Irish Council for International Students, Higher Education Authority, Enterprise Ireland, QQI, Science Foundation Ireland, Association of Study Abroad Providers in Ireland, C.H.o.I.C.E and the Royal College of Surgeons in Ireland. There are eighteen member organisations of the IES High Level Group, with members covering four different strategic priorities. The overall structure was viewed to be effective by the majority of respondents, however finding ways of facilitating effective involvement of diverse stakeholders in implementation of a strategy is always challenging. During our consultations a more segmented approach to consultations was proposed.

Assessment of Effectiveness of Overall Structure of Groups in Adding Value to the Implementation of the Strategy							
	Very Effective/Effective	Neither Effective nor Ineffective	Ineffective/Very Ineffective				
Overall Structure	61.9%	14.3%	23.8%				
High Level Group	High Level Group 63.6% 4.5% 31.8%						
Sub-groups 63.6% 27.3% 9.1%							
Source: Independe	Source: Independent Assessment from Indecon Survey of Stakeholders						

The marketing and communications strategy is also very important in achieving the targets of the strategy. The majority of stakeholders indicated that the strategy was effective in engaging core markets and new targeted opportunities. The United States is the largest country in terms of origin of students enrolling in Irish HEIs with over 5,000 enrolments in 2018/19. This may, in part, be due to US study abroad programmes or the attractions of Ireland for US students. Indecon's analysis of the empirical evidence shows that the number of enrolments from the USA grew by over 60% since 2013/14. Strong growth has also been seen in core markets such as China and India, with the number of students growing by almost 300% (reaching 3,000 and over 2,750 enrolments respectively).

While individual higher education and other providers play a fundamental role in the marketing of Irish education the involvement of Enterprise Ireland and of the staff of the Department of Foreign Affairs is a critical component in the marketing of Irish education. The majority of stakeholders expressed positive views on the effectiveness of Enterprise Ireland and the Department of Foreign Affairs and Trade and the Embassy staff in the promotion of internationalisation of Ireland's education system. Indecon believes that the involvement of Enterprise Ireland and of the staff of other international embassies, is a valuable component of the supports for the sector in marketing the attractiveness.

Gross Value on International Education

In the last strategy a figure for the gross value of international education was estimated at €1.58 billion. This was based on including fee income from international students, the total gross expenditures in Ireland of overseas students and the induced impacts of these expenditures. The IES set an ambitious goal to increase the gross value of the sector measured in this manner from €1.58bn to €2.1bn. It is therefore useful to consider estimates on a like for like basis to the previous calculations but updated for student numbers the time spent in Ireland and changes in the official CSO multiplier impacts. The updated modelling completed by Indecon indicates an estimated gross value for international education of €2.389 billion as presented in the table below. This demonstrates the increasing economic significance of international education.

Value of Gross Output of HE and ELT Sectors (2019/20 Estimate) (€ Million)							
	Direct	Indirect	Induced	Total			
Public HEIs	683	196	324	1,203			
Private HEIs	93	26	41	160			
All HEIs	775	223	365	1,363			
ELT	580	167	280	1,026			
Total	1,355	389	645	2,389			
Source: Indecon estimates	Source: Indecon estimates						

Indecon would point out that the above estimates assume a gross value to the economy of the total amount of student spend. This expenditure includes expenditure on imported goods and services. Indecon believes it is therefore may be useful in setting future targets to also consider an alternative estimate based on the gross value added of such expenditures to the Irish economy rather than simply looking at gross value of output. This alternative approach to measuring the value of the sector also influences the estimate of the induced impacts as value added multipliers are different to output multipliers. Such an approach would suggest a somewhat lower overall value to the economy but there is no doubt that international education is an important contributor to the Irish economy.



Cost-Benefit Analysis of International Education

While the evidence presented in this independent report suggests that the international education strategy has been effective, it is important to consider the overall net costs and benefits of the IES. This is relevant given the need to ensure the best use of scarce Exchequer resources. In our cost benefit analysis, we only include the value-added element of student expenditures. We include a congestion cost figure in line with best practice to take account of the impact of international students on the use of resources in the economy including the impact on housing and transport sectors. We exclude induced impacts in line with the Public Spending Code. In our calculation of the employment impacts we apply a shadow price of labour to take account of the alternative use of resources. While including gross expenditures as a value would overestimate the net impacts on the economy, we note that the previous estimates of value did not include international research income. This is significant aspects of international education and we have included this in our cost benefit appraisal. The main costs associated with international students are the costs of education provision for individual students. It is also important to include an approximate estimate of the costs of promoting international education by public bodies and agencies as well as the costs incurred by higher educations and other education providers. In the absence of detailed information, we have included a total annual cost of approximately €15 million to include the wider activation and marketing. We have included detailed costs involved on schemes by the Department as well as agency costs of approximately €5 million per annum. We have also included a congestion cost for the impacts of overseas students on resource costs in housing and transport. We have not included any fee income from VISAs as we believe these will be absorbed by extra administrative costs involved.

Costs Included in CBA (2016/17 – 2019/20)							
	2016/17	2017/18	2018/19	2019/20	Total Costs		
Cost of Provision							
Public HEI – EU	60.4	66.5	79.0	84.5	290.4		
Public HEI – non-EU	214.2	235.4	263.1	285.7	998.3		
Private HEI	28.4	36.0	41.7	46.9	152.9		
ELT Sector	377.5	397.5	379.9	385.0	1,539.9		
Erasmus and other exchange students	55.3	55.0	57.2	51.4	218.9		
Sub-total cost of provision	735.9	790.4	821.1	853.5	3,200.9		
Congestion Costs	83.9	87.3	88.1	90.0	349.2		
Administrative, marketing and other costs							
DES	3.9	4.5	5.2	5.9	19.6		
Other Admin and Marketing Costs	10.0	10.0	10.0	10.0	40.0		
Sub-total admin and other costs	13.9	14.5	15.2	15.9	59.6		
Total Costs	833.7	892.2	924.3	959.4	3,609.7		
Source: Indecon analysis							

In our cost benefit modelling Indecon has included a rigorous estimate of benefits in its CBA, taking account of fee income, as well as the <u>value-added</u> expenditure in the economy by international students and wages of international students who are employed in Ireland following graduation but taking account of the shadow price of labour. We have also included international research income secured.

Benefits Included in CBA (2016/17 – 2019/20)					
	2016/17	2017/18	2018/19	2019/20	Total Benefits (€m)
Fee Income					
Public HEIs – EU	36.0	34.2	39.6	44.1	153.9
Public HEIs – non-EU	305.9	340.8	395.3	425.2	1,467.1
Private HEIs	29.9	37.9	43.9	49.3	161.0
ELT Sector*	409.2	430.9	411.8	417.3	1,669.1
Sub-total fee income	780.9	843.7	890.6	935.9	3,451.1
Student Expenditure					
Public HEI – EU	41.7	44.4	51.8	55.1	193.0
Public HEI – non-EU	132.9	141.9	153.7	167.2	595.7
Private HEI	37.8	46.6	49.0	51.5	185.0
ELT Sector	123.8	128.3	122.6	124.3	499.1
Erasmus and other exchange students	35.3	35.0	36.5	32.7	139.5
Sub-total student expenditure	371.5	396.3	413.6	430.8	1,612.2
Research Income from EU	92.8	97.5	102.3	107.4	400.0
Total Wages of Graduates Employed in Ireland Following Graduation (Including element of tax paid on Shadow Priced Wages)					
Wages (Uni, IT, public colleges) – EU	26.6	30.5	31.6	31.7	120.3
Wages (Uni, IT, public colleges) – non-EU	68.8	77.6	88.1	93.8	328.3
Wages (private colleges)	20.8	27.1	28.2	29.7	105.9
Sub-total wages	116.2	135.2	147.9	155.3	554.6
Expenditure of Graduates Who Study in Ireland Following Graduation					
Public HEIs – EU	0.0	0.0	0.0	2.4	2.4
Public HEIs – non-EU	0.0	0.0	0.0	6.3	6.3
Private HEIs	0.0	0.0	0.0	2.0	2.0
Sub-total expenditure	0.0	0.0	0.0	10.7	10.7
Total Benefits	1,361.4	1,472.6	1,554.4	1,640.1	6,028.6
Source: Indecon analysis					

Indecon has estimated a Benefit Cost Ratio (BCR) of 1.67 in our baseline model, indicating that for every €1 of costs associated with international students visiting Ireland, there is €1.67 in benefits. These estimates are based on a conservative approach and assumes a shadow price of public funds of 130% for costs incurred by the Department in implementing the strategy. They also include a congestion cost for the use by overseas students of accommodation and transport resources. These estimates are based on utilising full average costs of provision and education. If a marginal approach to the costs is used the BCR rises to 1.76. As well as the quantifiable benefits included in Indecon's modelling there are additional benefits to be considered for example the benefits of innovation/commercialisation, global reputation and reach and enhanced experience for all higher education students arising from the participation of international students and faculty. These benefits may be even more significant than the quantified benefits included in our formal cost benefit modelling.

Cost Benefit Analysis for International Higher Education and ELT Sector					
Benefits (€m) 6,028.6					
Costs (€m) 3,609.7					
BCR 1.67					
Source: Indecon analysis					

Conclusions

A summary of the main conclusions is presented in the table below.

Summary of Conclusions

- 1. Excellent progress has been made in achieving the main strategy objectives, particularly in terms of international student numbers and research income.
- 2. Significant data challenges exist in measuring impact of strategy on some of wider objectives.
- 3. International education has a major gross impact of €2.38 billion on the Irish economy.
- 4. Formalised cost benefit appraisal suggests strategy had a strong positive benefit to cost ratio.
- 5. Cost benefit economic impact greater for international students from non-EU countries.
- 6. Major challenges exist to future strategy arising from COVID-19 and from Brexit.
- 7. Issue concerning regulation of ELT sector need ongoing monitoring.
- 8. Brexit likely to open up new opportunities for Ireland.

1. Excellent progress has been made in achieving the main strategy objectives, particularly in terms of international student numbers and research income.

Exceptional progress has been achieved in expanding the number of international students and in increasing overseas research income. The increase in overseas student numbers and research income has been impressive and highlights the success of the programme. These achievements should not be underestimated and have helped support the sustainability of the Irish education sector and have wider societal and educational impacts. Good progress has been made on a number of other aspects of the strategy, however there remain a challenge in achieving some of the wider goals of the globalisation of Irish education. For example, stakeholders felt that the strategy had been less effective in the attraction of international staff and researchers. This may reflect the fact that the attraction of international faculty including researchers is dependent on a wide range of areas including remuneration levels, the ranking of Irish Universities and the cost base of living in Ireland. Indecon notes that Ireland was successful in securing funding from 349 researchers under the MSCA and while Ireland has a higher average success rate than other EU member states the overall scale of this is relatively small compared to total faculty numbers. We also note that there are other measures in place to attract researchers to Ireland to both academia and industry.

2. Significant data challenges exist in measuring impact of strategy on some of wider objectives.

A number of the strategic objectives set were associated with clear quantified targets. However, this was not the case for all of the objectives. Indecon understands that significant data challenges exist in measuring the impact of some of the wider objectives. Further refinement of the targets and how they will be measured should be considered for the next strategy.



3. International education has a major gross impact of €2.38 billion on the Irish economy.

The significance of international education to the Irish economy can be seen by examining the gross economic impact of the fee income and expenditures of overseas students. Indecon's examination of the evidence demonstrated that the sector had a major economic impact on the Irish economy. Indecon estimates using the approach previously applied suggests that international education had a gross annual economic impact of €2.38 billion. The net value of the sector is however somewhat less and this is reflected in our cost benefit appraisal.

4. Formalised cost benefit appraisal suggests strategy had a strong positive benefit to cost ratio.

A rigorous cost benefit analysis undertaken by Indecon has highlighted the very positive benefits to cost ratio from the quantified measurement of benefits. These estimates underestimate the wider economic benefits of international strategy.

5. Cost benefit economic impact greater for international students from non-EU countries.

A rigorous economic cost benefit appraisal was undertaken in line with the requirements of the Public Spending Code and with international best practice. Even after using conservative estimates of benefits and ensuring all costs were included, Indecon's modelling shows that international education had a strong positive benefit to cost ratio. This was higher for students from non-EU countries.

6. Major challenges exist to future strategy arising from COVID-19.

The COVID-19 pandemic will result in major challenges for the international education strategy in common with other sectors of the Irish economy. Particular challenges arise in relation to the attraction of overseas students and faculty and to the modes of delivery.

8. Issues remain concerning regulation of ELT sector needs ongoing monitoring.

The success of the international education strategy is dependent on the reputation of Ireland's education providers. Stakeholders suggest that some issues remain concerning the regulation of ELT sector and the impact of closure of any private sector colleges. Significant improvements in the regulation of the sector are recognised but potential issues remain concerning the need to ensure the viability and appropriateness of individual providers and of the quality of the education provision.

9. Brexit likely to open up new opportunities for Ireland.

With the withdrawal of the UK from the European Union, Ireland will be the only major English-speaking country in the EU. This will open up new opportunities for Ireland to increase our share of students wishing to study in the EU. There will also be significant potential new opportunities to expand research collaborations and incomes and to attract increased international researchers.



Recommendations

The strategy has been effective in expanding the sector and in achieving a number of key objectives. Indecon has however outlined a number of recommendations for consideration. These are designed to further enhance the impact of the IES and to take account of emerging developments. They also include consideration of a greater emphasis on some wider aspects of the globalisation of Irish Education.

Summary of Recommendations

- 1. Additional resources should be allocated to promoting international research collaborations and securing additional EU research income in Post-Brexit period.
- 2. Significant changes in offering to reflect COVID-19 impacts should be implemented.
- 3. Ways to facilitate increased global participation should be considered.
- Greater clarity is required in definition of some of wider objectives of strategy and how success will be measured.
- 5. Continued focus on non-EU third level students is recommended but wider benefits of attracting other student categories should be taken into account.
- 6. Improvements in data to monitor progress are required.
- Additional pathways to further education and employment for international students should be considered.
- 8. Ways to ensure ongoing involvement of key stakeholders in designing and implementing new strategy are recommended.
- 9. Maintaining standards should be a central part of new strategy.

1. Additional resources should be allocated to promoting international research collaborations and securing additional EU research income in Post-Brexit period.

Ireland has been very successful in achieving increased international research income. The benefits for Ireland of securing increased international research income was demonstrated by the evidence on the economic impacts on research income. This area is important as Ireland's potential research income could expand as a result of Brexit. Additional resources should therefore be allocated to support the educational providers to secure new international research opportunities. A well-resourced programme would likely have very high net economic benefits and could enable Ireland to secure increased research income from EU and other international sources. Also critical to this will be the expansion of transnational collaborations and these have wider benefits in terms of international faculty co-operation and the opportunities to learn from other countries.

2. Significant changes in offering to reflect COVID-19 impacts should be implemented.

Indecon recommends that education providers are supported to implement changes in educational offerings to reflect COVID-19 impacts. This will require changes in the mode of delivery and in the availability of a combination of on-site and off-site delivery. One specific aspect of this which was suggested as part of our stakeholder consultations was the concept of an online / blended model in which an Irish based educational provider could co-operate with universities or other higher educational institutions overseas to deliver on-line courses. Such initiatives would also reduce the environmental impacts of student mobility and could offer access to international faculty specialists for Irish students. Further investments in education technology (EdTech) should also be made including in online learnings and online education tools. Learning management systems, adaptive learning technology and online continuous professional development have the potential to deliver new ways of global learning. This offers new opportunities for customised education interactions for teaching staff and international students.



3. Ways to facilitate increased global participation should be examined.

While the focus of the international strategy has understandably been on the attraction of international students and research income, there are also major benefits of a wider global engagement strategy which facilitates Irish students and staff to gain the benefits of internationalisation via outbound mobility. This was recognised in the current strategy through, for example, the Academic Mobility Scheme, but there is merit in an increased focus on an overall approach to internationalisation including engagement with international partners. This was highlighted in our consultations. This could inter alia include increased measures to encourage outbound mobility. Ways to provide additional supports to facilitate the internationalisation of education should therefore be examined including enhancing information and support to Irish students and faculty as well as increased joint courses with international institutions. During our stakeholder consultation it was recommended that the future strategy should adopt a national approach to outbound mobility including the establishment of targets for participants. There was also recognition of the importance of a global curriculum as many Irish students will not be in a position to study abroad.

4. Greater clarity is required in definition of some of wider objectives of strategy and how success will be measured.

A number of the objectives of the strategy (for example achieving an internationally-oriented globally competitive higher education) involves diverse areas including mobility for students and staff, the availability of accommodation and enhancing international co-operations. The importance of dealing with all aspects was reflected in inputs during our consultation programme. It was suggested that the strategy cannot be only about student recruitment and revenue and that diversity of students, developing alumni networks and student and faculty exchanges were also very important. Indecon would add the importance of linkages with the enterprise sector. Some of these objectives have been translated into measurable targets for example a target was set for an increase in international students. However greater clarity would be helpful in how other aspects of the objectives will be measured, while recognising that not all aspects of the strategy can be easily quantified. There is however a need for clear KPI's (both qualitative and quantitative) to be set for all of the objectives. Linked to this there would be merit in considering an independent review of the new strategy during its implementation and one of the stakeholders consulted suggested that a mid-term review is vital. Similarly, another stakeholder proposed a formal mid-term review of the performance of the new strategy. Indecon believes this would be consistent with best practice.

5. Continued focus on non-EU third level students is recommended but wider benefits of attracting other student categories should be taken into account.

A continued focus on attracting non-EU higher education students should remain a priority of the strategy. These students provide a significant direct economic impact and help underpin the financial sustainability of the higher education sector. However, facilitation of EU students and other categories of learners should continue to be supported. EU students contribute to the wider educational experience of Irish students and provide important cultural links with key EU partner countries. In considering what students should be attracted, there may also be merit in considering whether the international strategy should cover primary and secondary levels as well as higher education. Indecon believes that the attraction of students to publicly funded primary and second level schools would not be appropriate due to pressure on the Irish school system. However, there may be some potential for the strategy to support commercial educational providers charging fees to attract overseas students. International education beyond tertiary has been identified as an area for further development in other countries. In looking at best practices for the integration of international education beyond tertiary level, the Netherlands is an interesting example. It is however important that any expansion in the scope of the strategy would not diminish the resources or priorities given to the higher-level sector.

6. Improvements in data to monitor progress are required.

The effectiveness of future strategies would be enhanced if there was an improvement in up-to-date data to monitor progress and this would be aligned with best practice in ensuring evidence-based policy development. Indecon recommends that for every objective set, targets (whether quantitative or qualitative) should be identified and ways in which progress will be monitored should be specified. The data requirements to achieve this should be considered and resources allocated to improve data collection. Monitoring of progress should not be restricted to areas where the economic value can be easily quantified and there is a need to find ways to monitor the attraction of international faculty staff, outbound mobility of students and staff, linkage with enterprise and wider aspects of globalisation. The utilisation of refinements of HEAs annual mission-based performance compact data could be of use in this context. There is also merit in increased international benchmarking and this has been effectively used by Singapore and New Zealand. For example, Singapore has made extensive use of international benchmarking as a tool for improvement to move up the educational value chain. Staff of the ministry and educational providers visit other systems and explore international best practice. In terms of data, it was suggested during our consultations that "a key priority is the development of comprehensive definitions and consistent collection of data relating to inbound and outbound students". There is also a need to collect and monitor data on faculty mobility overall, international research partnerships, international research funding and engagement with industry.

7. Additional pathways to further education and employment for international students should be considered.

The pathways between further education and higher education are important in meeting the changing needs of those participating in the education sector and in addressing skill requirements in the Irish economy. This also applies to international students. For example, there may be opportunities for international students to participate in further education and training in Ireland as a pathway to the higher education sector or to employment in Ireland. Similarly, there may be opportunities for international students, who do not complete higher education courses, to transfer to further education and training providers before returning to higher education. The provision of a 3-5-year graduate visa for certain areas of skill shortage with a pathway to residency in order to retain the skills of international students should also be evaluated, taking account of the needs of the labour market. One option would be to provide a three to five-year graduate visa for all occupations listed as areas of skill shortages. This requires careful planning but should be considered as part of the next strategy. (This could help in attracting skills in areas of skill shortages. It would, however, be important to ensure that this is implemented in a way which prevents any abuses of post study visas.) It was suggested in the consultations that the improved post-study work conditions in some other countries represents a threat to the growth of international education in Ireland. While aspects of other systems place an administrative burden on the education sector there are other areas where other countries may have a competitive advantage.

8. Ways to ensure ongoing involvement key shareholders in designing and implementing new strategy are recommended.

In ensuring the ongoing involvement of the sector and wider stakeholders is designing, implementing and reviewing the new strategy it would be useful to consider new ways of focussing inputs from different parts of the sector and from wider stakeholders. As part of our consultations a more segmented approach was proposed which recognises the variety of providers of international education and differences in international priorities and capacity to develop international outcomes. The need for a cross-government strategy involving the Department of Foreign Affairs, the Department of Justice and Equality and the Department of Business Enterprise and Innovation working closely with the Department of Further and Higher Education, Research, Innovation and Science will also be important. The involvement of indigenous and multinational companies as well as inputs from IDA (Ireland), Science Foundation Ireland, IBEC and Chambers of Commerce would also add value. Linkages with enterprise representatives could include creating new work placements and scholarships for international students and developing linkages with international students from key export markets. This could also facilitate the development of enterprise components in academic programmes which would benefit both Irish and international students.

9. Maintaining standards should be part of a new strategy.

The importance of quality assurance and effective regulation to the success of Ireland's international strategy, was recognised in the last strategy and was highlighted in our consultations. Continued refinement of quality assurance and regulation is needed. This is a challenge for most countries offering international education and has been a focus of strategies in Austria and New Zealand. For example, Australia supports the quality assurance on their international education offer by monitoring educational providers. Education providers that offer courses to international students are required to be on the Commonwealth Register of Institutions and Courses for Overseas Students. To register, a provider must demonstrate their compliance with the National Code of Practice for Providers of Education and Training to Overseas Students. The code is legally enforceable, further protecting the rights of international students.' Other countries also take a similar approach to quality checks on education providers, including New Zealand. Maintaining standards in all aspects of international education including in the English Language training sector remains essential for the next strategy. During the consultations it was suggested that future policy must be underpinned by strengthening the regulatory environment to prevent market entrants who do not have the capacity to provide high quality education.

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⁷ The National Strategy for International Education 2025 (p16) https://nsie.education.gov.au/sites/default/files/docs/national_strategy_for_international_education_2025.pdf



Introduction and Background 1

1.1 Introduction

Indecon Research Economics were appointed by the Department of Further Education, Research, Innovation and Science⁸ on behalf of the High-Level Group on International Education to undertake an independent evaluation of Ireland's Education Strategy 2016 - 2020. The background to this study is that in October 2016, the Government launched its international education strategy, Irish Educated Globally Connected, an International Education Strategy for Ireland, 2016 – 2020. The purpose of the strategy is to support the development of global citizens through Ireland's high-quality international education system, by attracting talent from around the world to our education institutions, equipping Irish learners with the skills and experience they need to compete internationally, engaging in worldclass research and international collaborations, and addressing global challenges. An implementation structure whereby the High-Level Group on International Education (HLG), which meets formally twice a year, is responsible for monitoring the overall implementation of the strategy. The strategy also set up four sub-groups, based on the four key strategic priority areas contained in the strategy, namely: 1) A supportive national framework; 2) Internationally-oriented, globally competitive Higher Education Institutions; 3) Sustainable Growth in the English Language Training sector; and 4) succeeding abroad. These sub-groups are responsible for driving specific actions and report to the HLG at these bi-annual meetings. The HLG reports directly to the Minister for Further Education, Research, Innovation and Science and is chaired by the Department.

1.2 Objective of Review

The objective of this independent review is to guide future policy development in the area of international education. The project included an international comparative review to provide context for consideration of the direction of Ireland's future international engagement. The core analysis includes a detailed examination of the effectiveness in delivery on the targets and actions set. The report also examined the extent of impact in adding value to education policies and programmes. An important aspect of the progress was estimation of the gross economic value of International Education to the Irish economy and the completion of a rigorous cost-benefit analysis. Conclusions and recommendations for consideration are also presented.

1.3 Report Structure

In Section 2 of the report, an international comparative analysis has been undertaken and in the following section we examine the effectiveness of the strategy in delivering on targets and actions. Section 4 of the report considers the impact in adding value and examines progress on a number of key schemes. In the following section, implementation issues are considered including the role of stakeholders, steering groups and the impact of the communications strategy. Section 6 presents our detailed cost-benefit analysis. In the final section of the report, we present our conclusions and recommendations.

⁸ Previously known as the Department of Education and Skills



1.4 Acknowledgements

Indecon would like to acknowledge the valuable assistance provided by the Department of Further and Higher Education, Research, Innovation and Science in preparing this report. In particular, we would like to thank Alan O'Callaghan, Meadhbh Devilly, Roseanne Gilligan, Vincent Landers and Keith Moynes of the Department. We would also like to thank all members of the High-Level Group of the International Education Strategy, and other stakeholders who contributed to this study, including through direct submissions as well completing Indecon's survey and information requests. In particular, we would like to thank Jennifer Cleary, Lewis Purser and Fedelma McNamara (Irish University Association); Miriam Ryan, Jim Murray and Vincent Cunnane (Technological Higher Education Association); Richard Hayes (Waterford Institute of Technology); Diarmuid Hegarty and Andrew Conlan Trant (Higher Education College Association); Lilianna O'Reilly and Bryan Maguire (QQI); David O'Grady (MEI); Holly Cowman (C.H.o.I.C.E); Megan Reilly and Lorna Fitzpatrick (USI); Maria Melia and Sean O'Connor (Department of Transport); Maria Keane (Association of Study Abroad Providers in Ireland); Sarah Lennon (ICOSIRL); Giles O'Neill (Enterprise Ireland); Tim Conlon, Gerry O'Sullivan and Victor Piggott (HEA); Micheal Rooney (Department of Justice and Equality); Michael Lonergan, Niall Brady and Ciaran O'Flaherty (Department of Foreign Affairs); Maria Nash (Science Foundation Ireland); and Philip Curtis (RCSI). Thanks are also due to Mikolai Hughes and Sheena Duffy from the HEA. Indecon would also like to thank Aisling Tiernan, Advice Services for Higher Education (ASHE) for insightful analysis and inputs on international experience. Finally, Indecon gratefully acknowledge the valuable inputs provided by the 22 stakeholder organisations including the individual universities, Institutes of Technology and other education providers as well as other stakeholders who shared views with us and who completed the Indecon detailed information request. The usual disclaimer applies and responsibility for the analysis and findings in this independent report remains the sole responsibility of Indecon.



2 International Education Policy in Ireland in Other Countries

2.1 Introduction

Many other countries have strategies for international education, reflecting the growth of the sector in recent decades. Ireland's International Education Policy entitled <u>Irish Educated</u>, <u>Globally Connected</u>, represents a detailed strategy for Ireland covering the period 2016-2020. This involved a multifaceted strategy aimed at succeeding abroad, have a supportive national framework achieving globally competitive HEI's and sustainable growth in ELT. Ireland faces strong competition for international students and for international research income and the attraction of skills and the development of global citizens. Aspects of best practice are evident in some of the elements implemented by other countries including the UK, Canada, US, Australia, The Netherlands and New Zealand.

2.2 Irish Policy Context

Ireland's international education strategy is aligned with other key national policy objectives including those outlined in the National Skills Strategy. Ireland's National Skills Strategy 2025 sets out the overall vision of Ireland being "renowned at home and abroad where the talent of our people thrives". The Strategy outlines the potential for Ireland to develop an international competitive advantage through a well-educated and skilled workforce, and recognises the important role that international mobility can play in the development of skills. The Strategy indicates that "the mobility of Irish students, staff and researchers, and the intercultural experience which this provides, assists in the development of language and other core skills." The attraction of international students assists in meeting skill requirements. The International Education Strategy is also consistent with the Strategy for Higher Education. This highlights the importance of international collaboration and the opportunities presented by the internationalisation of higher education. The benefits of this, outlined in the strategy, include¹⁰:

- The attraction of new talent;
- Broadening of staff and student experience;
- Diversification of funding streams; and,
- Facilitation of research co-operation.

The Higher Education Strategy also notes ways in which internationalisation can be accomplished: These include:

- Attracting international students to Ireland;
- Facilitating Irish staff and students in studying and researching abroad;
- Establishing links with higher education institutions abroad;
- Internationalising curricula;
- Developing Irish involvement in transnational education; and,
- Contribution to overseas development and participating in EU programmes and multilateral initiatives including the Bologna process.

¹⁰ https://hea.ie/assets/uploads/2017/06/National-Strategy-for-Higher-Education-2030.pdf



⁹ https://www.education.ie/en/Publications/Policy-Reports/pub_national_skills_strategy_2025.pdf

The Action Plan for Education 2016 - 2019 outlined how the International Education Strategy strengthens the Irish education system and its global relationships. In the Action Plan the role of an International Education Mark (IEM) was outlined in order to ensure quality standards and international best practice and encourage international students and academics to study and research in Ireland. 11

In addition, Indecon's analysis indicates that the International Education Strategy is consistent with other national strategies including those focussed on the enterprise sector and with Ireland's international trade and investment strategy. For example, the attraction of a skilled talent pool including global researchers is an important element of the Government's Action Plan for Jobs, and is a key pillar of Innovation 2020. The International Education Strategy is likewise supportive of the objectives of Ireland Connected: Trading and Investing in a Dynamic World. Ireland's Trade and Investment Strategy. This outlines how attracting more international students to Ireland could help "raise Ireland's global visibility promoting our strengths as the best place to be... to do business, to visit, to work, to study and to live." This strategy noted that "International education provides an opportunity for overseas students to live in and get to know Ireland, its people and its culture. It creates links and relationships between Ireland and many partners at individual, institutional and country level that will bring further engagement and economic activity in the future. These students form the basis of a new diaspora when they return to their own countries. Many will become the leaders and entrepreneurs of the future."

2.3 International Comparison

Other countries also have well developed international strategies. The internationalisation of education has involved integrating an international, or global dimension. A number of countries have taken active approaches to develop the internationalisation of their education systems¹³ and recent international education strategies has encompassed a diverse range of areas including:

- The student experience;
- Attracting international students and faculty;
- Setting up exchange (inbound and outbound) programmes for students and staff;
- Establishing and developing partnerships;
- Engaging in networks and alliances;
- Engaging in international research initiatives;
- Connecting internationalisation with research, industry, enterprise, and the community; and
- Adapting ways to deliver education i.e. teaching and learning e.g. joint and double degree programmes) and digitalisation (online learning and virtual exchange).

Indecon's review of international case studies suggest that the Irish strategy includes many aspects of best practice but the relative emphasis on some areas is less in Ireland than in other countries. For example, the focus on outward mobility is greater in some competitor countries. Other countries have widened the scope to include non-tertiary education and have utilised international benchmarking.

¹³ This section focusses in particular on the experience of the UK, Australia, New Zealand, Canada, the US, Singapore and the Netherlands.



https://www.education.ie/en/Publications/Corporate-Reports/Strategy-Statement/Department-of-Education-and-Skills-Strategy-Statement-2016-2019.pdf

¹² https://dbei.gov.ie/en/Publications/Publication-files/Ireland-Connected-Trading-and-Investing-in-a-Dynamic-World-Full-Report-.pdf

The market for international students is concentrated with the top six countries accounting for over half of the number of international students. The USA accounts for 19% of international students, followed by the UK, Australia, France, Germany, Japan and Canada. 14 The idea of student and staff mobility is central to international education, but countries have approached this in different ways. For example, the U.S. established the '100,000 Strong Initiative' as a collaboration among the State Department and two international-exchange organizations, NAFSA - Association of International Educators and Partners of the Americas. The program currently administers institutional grants to develop student exchange opportunities. The U.S. Department of State administers over 50 programs to fund incoming mobility, mostly for short-term stays. A number of these are open to youths and professionals as well as university students, often through the Fulbright Program, which is a 'flagship international educational exchange program sponsored by the U.S. government'. 15

Canada, in its current strategy for international education, has put a major strategic focus on its plans to encourage outward mobility through the Outbound Student Mobility Pilot, aiming to invest \$95 million total over 5 years¹⁶, encouraging Canadians to spend a period of time abroad. The driver behind this initiative is to encourage Canadian students to gain new skills through study and work abroad opportunities in key global markets.¹⁷ In addition to encouraging outward mobility, the strategy in Canada has placed an emphasis on an inclusive approach to international education, by working to "increase the diversity of inbound student populations, skill sets and programs, and by fostering people-to-people ties and international networks. 18 Australia and New Zealand also offer large scale mobility programmes. For example, in Australia under the Colombo Plan, 10,000 Australian undergraduates have been supported to study and intern in the Indo-Pacific in the past years. The program is enhancing understanding between Australia and other countries presenting Australian students with new opportunities to study and do an internship in world-class universities and companies and providing experience that enhances students' employability upon graduation.

In reviewing approaches in other countries, it is interesting to note that while most countries refer to a global vision or outlook, there is variation amongst approaches. For many countries, the process of exporting education or transnational education (TNE), setting up their own offer abroad supports the idea of a global outlook and presence, whereas others put more of a focus on partnerships, networks and collaboration that could help the countries and institutions engage on the global stage. In Australia, 19 their strategy places an emphasis on global presence especially the strength of their educational brand measured by relationships, partnerships and agreements that they are able to develop abroad.

The UK's strategy also has a strong focus on achieving a global presence and developing its global footprint through educational exports. It is noted in their current strategy that revenue from education-related exports and TNE activities increased by £1.1 billion since 2013, and the strategic focus is to continue to export education, the U.K. targeting countries outside of the EU.²⁰

 $https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/799349/International_Education_Structures.gov.uk/government/uploads/system/uploads/attachment_data/file/799349/International_Education_Structures.gov.uk/government/uploads/system/uploads/attachment_data/file/799349/International_Education_Structures.gov.uk/government/uploads/system/$ rategy Accessible.pdf



¹⁴ https://nsie.education.gov.au/sites/default/files/docs/national_strategy_for_international_education_2025.pdf

¹⁵ Internationalizing Higher Education Worldwide National Policies and Programs (p.64)

https://www.acenet.edu/Documents/National-Policies-and-Programs-Part-1-Global.pdf American Council on Education (ACE)

¹⁶ Building on success: International Education Strategy 2019–2024 (p.7)

https://www.international.gc.ca/education/assets/pdfs/ies-sei/Building-on-Success-International-Education-Strategy-2019-2024.pdf ¹⁷ Building on success: International Education Strategy 2019–2024 (p.5)

https://www.international.gc.ca/education/assets/pdfs/ies-sei/Building-on-Success-International-Education-Strategy-2019-2024.pdf ¹⁸ Building on success: International Education Strategy 2019–2024 (p.4)

https://www.international.gc.ca/education/assets/pdfs/ies-sei/Building-on-Success-International-Education-Strategy-2019-2024.pdf

¹⁹ International Education Strategy – He rautaki mātauranga a ao 2018 –2030 (p.22)

https://enz.govt.nz/assets/Uploads/International-Education-Strategy-2018-2030.pdf ²⁰ International Education Strategy - Global potential, global growth 2019 (p.3)

Alignment in Government Departments

Like Ireland the other countries recognise the need for alignment across ministries and departments for strong communication and impact²¹. In New Zealand, the strategy is implemented by Education New Zealand and the Ministry of Education, in partnership with four government agencies with connections to international education: The Ministry of Business, Innovation and Employment, the New Zealand Qualifications Authority, the Tertiary Education Commission and the Ministry of Foreign Affairs and Trade²². The UK's strategy places a key focus on an aligned approach, and Singapore, has demonstrated a strong, solid alignment among policies and practices. The OECD notes that – "One of the most striking things on visiting Singapore is that wherever one visits – whether the ministries of manpower, national development, community development, or education or the universities, technical institutes, or schools – he or she hears the same clear focus on the same bold outcomes: careful attention to implementation and evaluation, and orientation towards the future."²³

While the other countries have focussed on the goal of increasing international student numbers, some countries for e.g. New Zealand and Canada have also put an emphasis on the student experience and student satisfaction ratings."^{24, 25}

The New Zealand strategy for example aims to provide an excellent student experience and has a strategic focus on for example increasing (international) student satisfaction ratings²⁶. The current strategy aims to increase international student satisfaction to 92-95% by 2025; 94-97% by 2030. These ambitious student satisfaction targets are supported by *The International Student Wellbeing Strategy*.

Many countries have also introduced as part of the student experience reforms offering post-study visas, for students to stay on and contribute to the 'local' knowledge economies. In Ireland the Third Level Graduate Scheme has seen a significant expansion in Stamp 1G Visas.

Australia and Canada offer attractive post-study visas for international students to stay on and work in their countries, for example in Australia: 'Changes were made to allow greater access to post-study work for international students. These post-study work visas enable international students to remain in Australia on completion of a higher education degree for 2–4 years. Changes in the UK have also improved post study access to employment.'

Recent international education strategies in other countries have also recognised the value of joint-dual and double degree programmes. Within the higher education arena, there is appeal and interest in contemporary, collaborative programmes like joint and dual degree programmes, as well as double degree programmes. Such programmes offer prestige to institutions working in academic partnership, offering an innovative approach to international education. In 2009, the Institute of International Education (IIE) and Freie Universität Berlin produced a survey report on trans-Atlantic joint and double degree programs. The survey showed that American institutions are more likely to offer joint and double degree programmes at undergraduate level, while European institutions prefer

https://enz.govt.nz/assets/Uploads/International-Education-Strategy-2018-2030.pdf



²¹Irish educated, globally connected: An international education strategy for Ireland, 2016-2020 (p.26)

https://www.education.ie/en/Publications/Policy-Reports/International-Education-Strategy-For-Ireland-2016-2020.pdf

²² International Education Strategy – He rautaki mātauranga a ao 2018 –2030 (p.7)

https://enz.govt.nz/assets/Uploads/International-Education-Strategy-2018-2030.pdf

²³ Strong Performers and Successful Reformers in Education: Lessons from PISA for the United States: Case study Singapore (p.168) https://www.oecd.org/countries/singapore/46581101.pdf

²⁴ Building on success: International Education Strategy 2019–2024 (p.10)

https://www.international.gc. ca/education/assets/pdfs/ies-sei/Building-on-Success-International-Education-Strategy-2019-2024.pdf

²⁵ International Education Strategy – He rautaki mātauranga a ao 2018 –2030 (p.10)

https://enz.govt.nz/assets/Uploads/International-Education-Strategy-2018-2030.pdf

²⁶ International Education Strategy – He rautaki mātauranga a ao 2018 –2030 (p.9)

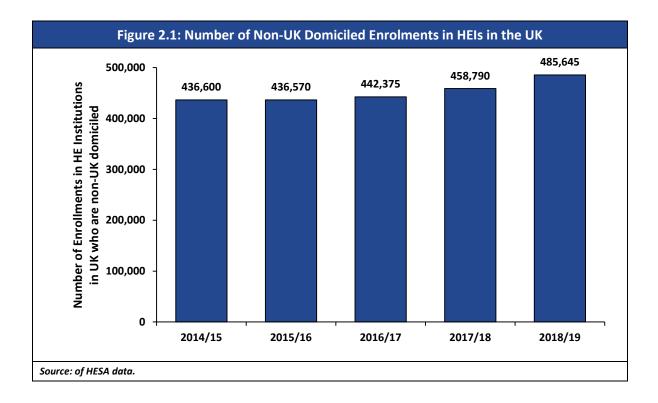
graduate level, master's programmes. There are however a number of challenges to these types of programmes including legal barriers, administrative challenges, problems with recognition and accreditation and the legitimacy of qualifications for these programmes across countries as noted by research on the Globalisation of Higher Education by Jane Knight.²⁷

2.4 Country Case Studies

In addition to consider wider features of international education it is useful to focus on the experience in a number of other countries. In particular we review aspects of strategies provided by UK, Canada, Australia, the Netherlands and New Zealand.

United Kingdom

The United Kingdom published its International Education Strategy *global potential, global growth* in March 2019. The strategy, jointly published by the Department for Education and the Department for International Trade, sets out the target of increasing the number of international higher education students studying in the UK to 600,000 by 2030. This strategy also supports outward mobility. The planned increase in the number of international students as set out in the UK Education Strategy is estimated to increase the value of education exports to £35 billion by 2030. It is important to recognise that the UK has a very significant share of the overall international market.



²⁷ Knight, J. (2011). "Doubts and Dilemmas with Double Degree Programs". In: "Globalisation and Internationalisation of Higher Education". Available at: http://www.ecahe.eu/w/images/e/e6/Doubts_and_Dilemmas_with_Double_Degree_Programs.pdf



The UK's Strategy encompassed five key actions to support achieving their goals of increased international students and education export value as outlined below:²⁸

- Appointment of an International Education Champion to spearhead overseas activity, open international opportunities, develop strong international partnerships in new and established markets, and help tackle challenges and barriers.
- Ensure Education promotes the breadth and diversity of the UK education offer more fully to international audiences, from early years through to higher education. This is supported by what is called the GREAT Challenge Fund which provides. This £5 million supports for export activity for the sector.
- Continue to provide a welcoming environment for international students and develop an
 increasingly competitive offer. This includes extending the post-study leave period;
 considering where the visa process could be improved; supporting employment; and ensuring
 existing and prospective students continue to feel welcome.
- Establish a whole-of-government approach by implementing a framework for ministerial engagement with the sector and formalised structures for co-ordination between government departments both domestically and overseas. This will be managed through an officials' steering group including other government departments and the Devolved Administrations, feeding into the existing Education Sector Advisory Group, chaired by Department for International Trade and Department for Education ministers.
- Provide a clearer picture of exports activity by improving the accuracy and coverage of our annually published education exports data, developing an approach with a strengthened methodology and a better range of sources.

The UK strategy was developed in cooperation with education providers across the education sector and requires a whole-of-government approach to its implementation. The strategy outlines 23 actions to achieve its aims.

The UK strategy sets geographic priorities and identifies four markets believed to be 'high value' campaign regions, including: China, the Middle East and North Africa, Latin America and the ASEAN group of nations. It further identifies potential growth regions, including Kenya, Nigeria and South Africa.

Canada

The Government of Canada's International Education Strategy 2019-2024: *Building on Success*, was published in 2019 and focuses on continuing the growth from the previous five years in international education. Between 2014 and 2018 the number of international students in Canada grew by a very impressive 68% to 721,205. The new Strategy aims to continue this growth and to *"diversify the education sector, boost Canada's innovation capacity, promote global ties and foster a vibrant Canadian economy."* Ensuring a skilled and talented workforce for competition in global markets is integral to Canada's new IES Canadian strategy.

²⁹ https://www.international.gc.ca/education/assets/pdfs/ies-sei/Building-on-Success-International-Education-Strategy-2019-2024.pdf



 $https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/799349/International_Education_Strategy_Accessible.pdf$

The three key objectives in the new IES are:

- Encourage Canadian students to gain new skills through study and work abroad opportunities in key global markets, especially Asia;
- Diversify the countries from which international students come to Canada, as well as their fields, levels and location of study within Canada;
- Increase support for Canadian education sector institutions to help grow their export services and explore new opportunities abroad.

The Canadian International Education Strategy outlines various initiatives to achieving the objectives of the strategy as summarised in Table 2.1.

Table 2.1: Initiatives in Canadian International Education Strategy						
Initiative	Outcome	Lead Organisation(s)				
Outbound Student Mobility Pilot (\$95m over 5 years)	More Canadians working and studying abroad, developing skills and networks	Employment & Social Development Canada				
Increased promotion of International Experience Canada	Greater awareness amongst Canada about work & travel opportunities abroad through IEC	Immigration, Refugees & Citizenship Canada				
Targeted digital marketing strategy	Attract students from a diverse range of countries	Global Affairs Canada				
Enhanced support by the Trade Commissioner Service	Support for Canadian educational services and products abroad	Global Affairs Canada				
Expand Student Direct Stream to additional countries	Attract more international students from target countries	Immigration, Refugees and Citizenship Canada				
Modernize immigration forms and processes	Improved services for those studying and working in Canada	Immigration, Refugees and Citizenship Canada				
Additional scholarships for international students to study in Canada	Attract more international students from targeted countries and strengthen bilateral relationships	Global Affairs Canada				
Consolidate existing scholarships	Attract additional international students and support Canada's education brand	Global Affairs Canada				
Source: Canadian International Education	Strategy					

Australia

Australia published its first international education strategy, the *National Strategy for International Education 2025*³⁰ in April 2016. The Strategy published by the Department of Education, Skills and Employment, is a ten-year plan that aims to ensure Australia remains a leader in the provision of high-quality education and training internationally; as well as to encourage collaboration in education and research, and to increase opportunities for education providers and communities across Australia.³¹ International education in Australia is recognised as one of five major growth sectors contributing to the country's transition from a resource-based economy to a modern services economy.³²

³²https://nsie.education.gov.au/sites/default/files/docs/national_strategy_for_international_education_2025.pdf



³⁰https://nsie.education.gov.au/sites/default/files/docs/national_strategy_for_international_education_2025.pdf

³¹ https://www.education.gov.au/national-strategy-international-education

The strategy was developed by the Coordinating Council for International Education and centres around three pillars. Under each pillar, a set of goals and actions are outlined as summarised in Table $2.2.^{33}$

Table 2.2: Initiatives in Australian International Education Strategy

Pillar 1: Strengthening the Fundamentals:

- Goal 1: Building on a world-class education, training and research system
- Goal 2: Delivering the best possible student experience
- Goal 3: Providing effective quality assurance and regulation

Pillar 2: Making Transformative Partnerships:

- Goal 4: Strengthening partnerships at home
- Goal 5: Strengthening partnerships abroad
- · Goal 6: Enhancing mobility
- Goal 7: Building lasting connections with alumni

Pillar 3: Competing Globally

- Goal 8: Promoting our excellence
- Goal 9: Embracing opportunities to grow international education.

Source: Australian International Education Strategy

The Australian Strategy acknowledges that the United States and the United Kingdom hold the significant market shares of international education, and are were seen as Australia's main competitors.³⁴ The table below shows an ongoing increase in the total number of international students who have enrolled in higher education in Australia since 2014. In 2018, a total of 398,563 international students enrolled in higher education in Australia, an increase of 149,215 students since 2014. This represents a very impressive increase of almost 60% since the publication of the Strategy. In 2018, 38.3% of all international students to Australia came from China.³⁵

³⁵https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/rp1819/Quick_Guides/Overse asStudents#_ftn1 Table 2. Source: DoE



³³ https://www.austrade.gov.au/Australian/Education/Services/Australian-International-Education-2025

³⁴https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/rp1819/Quick_Guides/Overse asStudents# ftn1

The Netherlands

The "Make it to the Netherlands Programme 2013-2016" was developed as a result of the advisory report by the Social and Economic Council (SER) titled 'Make it in the Netherlands,' which suggested taking a joint approach to "developing stable, long-term relationships with international students" therefore strengthening the countries knowledge economy. The programme has three aims 17:

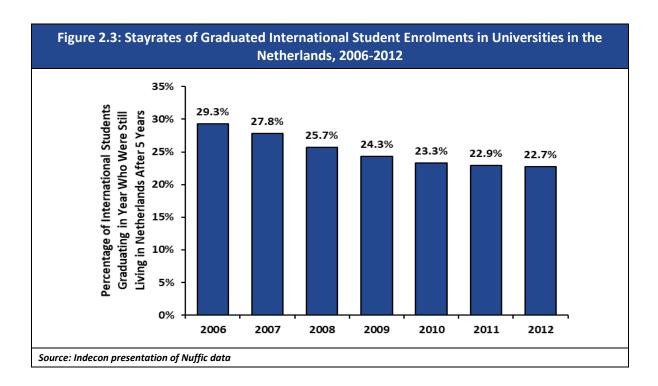
- To ensure that all international students are welcomed in the Netherlands are aware of the opportunity to start a career there.
- To ensure as many international students as possible remain in the Netherlands after they
 graduate to begin careers, particularly in sectors with good labour-market prospects.
- To ensure that all international students, regardless of whether they remain in the Netherlands after graduation or return abroad, maintain a bond with the Netherlands.

The percentage of international students staying in the Netherlands five years after graduating has been declining over time, with 22.7% of international students who graduated in 2012 still living in the Netherlands in 2017. The aim of the strategy is to reverse this trend and ensure that a higher percentage stay in the Netherlands after graduation.

 $^{^{37}\,}http://ecahe.eu/assets/uploads/2014/07/Make-it-in-the-Netherlands-action-plan.pdf$



 $^{^{36}\,}http://ecahe.eu/assets/uploads/2014/07/Make-it-in-the-Netherlands-action-plan.pdf$



In order to achieve these aims, this programme consists of five courses of actions:³⁸

- Improving the Dutch language capabilities of international students and improving lecturers' English language skills.
- From studying to a career: the aim of this action is to encourage and ensure ease of opportunity for international students to transition from study to work in the Netherlands therefore allowing for greater international recruitment.
- Breaking the bubble: the aim of this action is to encourage the active integration of international students into Dutch society.
- From red tape to red carpet:³⁹ the aim of this action is to improve administrative processes and to provide more and better information to international students.
- Regional results: the aim of this action is to develop action plans by region in order to attract and retain international talent across all regions where required.

³⁹ Interestingly this term of 'Red Carpet rather than Red Tape' was first used by Professor Dermot McAleese in 1997 in a different context where he referred to Ireland rolling out the red carpet in the 1950's to foreign interests at a time when other countries were rolling out the red tape. See McAleese D, (1997), Economics for Business, Hempel Hampstead, Prentice Hall Europe, Quoted in Gray, A. W., Swinand, P and Batt, W. H Economic Analysis of Ireland's Comparative Advantages for Foreign Investment, 2012, ISBN 978-0-9531-318, 1-5



 $^{^{38}\,}http://ecahe.eu/assets/uploads/2014/07/Make-it-in-the-Netherlands-action-plan.pdf$

The *New Zealand International Education Strategy 2018-2030* was developed by Education New Zealand and the Ministry of Education, in partnership with four government agencies all concerned with the development of international education: The Ministry of Business, Innovation and Employment, the New Zealand Qualifications Authority, the Tertiary Education Commission and the Ministry of Foreign Affairs and Trade. It was published in August 2018. The aim of this Strategy is to create a globally-connected environment in which international students can receive a high-quality education, allowing for "economic, social and cultural benefits for all New Zealand." The Strategy centres around three goals: providing excellent education and excellent student experience; ensuring sustainable growth; and creating global citizens who are capable of living, working and learning globally. In order to achieve these stated goals, a cross-agency action plan has been developed. This plan includes a set of key actions to be undertaken under each goal. The Strategy outlines the key actions to be achieved and specifies a frame for their achievement, for example "short to medium term" or "short to long term." The government agency responsible for their implementation is also predetermined and outlined. Additionally, as a means of measuring progress, the strategy provides a set of measures and indicators⁴², as outlined in the following table.

Table 2.3: Measures of Success in International Education, New Zealand						
Measure	Indicator	Goal				
International student satisfaction	92-95% by 2025; 94-97% by 2030					
International student perceptions of education quality	Establish a benchmark and target for continuous improvement*	Goal 1: Delivering an excellent education				
International reputation of New Zealand as an education provider	Establish a benchmark and target for continuous improvement*	and student experience				
International alumni outcomes success	Establish a benchmark and target for continuous improvement*	ехрепенсе				
The economic value of industry	€6 billion by 2025					
Market diversification	Establish a benchmark and target for continuous improvement*	Goal 2: Achieving				
International students studying in the regions	An increasing proportion of value coming from the regions by 2030	sustainable growth				
International students undertaking pathways to a higher level of study	Double the uptake of education pathways by 2030					
New Zealand students undertaking outbound international experiences through their studies	bound international experiences students graduating have international					
Students developing the capabilities of global citizenships	Establish a benchmark and monitor progress*	global citizens				
Source: New Zealand Education Strategy, 2018						

^{*}Benchmarks to be established by December 2018

 $^{^{42}\,}https://enz.govt.nz/assets/Uploads/International-Education-Strategy-2018-2030.pdf$



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⁴⁰ https://internationaleducation.gov.au/research/pages/data-and-research.aspx

 $^{^{41}\,}https://enz.govt.nz/assets/Uploads/International-Education-Strategy-2018-2030.pdf$

Alignment of IES with International Best Practice

Indecon's review of international case studies, suggests that the IES contains targets and actions that are of a similar nature to those found in other countries but that the emphasis on different aspects varies between countries. For example, some other countries have placed more emphasis on the importance on mobility of staff and students, stressing the importance of students experiencing HEIs outside of their own country. Other important features include establishing partnership networks and alliances and engaging in international research initiatives. Connecting internationalisation with research and enterprise is internationally seen as important. Other aspects of international experience include widening the international focus to include non-territory sectors, ensuring effective regulation and standards and retaining international skills in the economy.

2.5	Summary of Key Findings
	Ireland's international education strategy is aligned with other key policy objectives including those outlined in the national skills strategy and the overall strategy for higher education.
	Indecon's analysis indicates that the objectives and actions are also consistent with national enterprise policy and with Ireland's international trade and investment strategy.
	The International Education Strategy is important as Ireland faces strong competition for international students, international research income and the attraction of development of skills.
	Aspects of best practice are evident in some of the elements implemented by the UK, Canada, Australia, The Netherlands and New Zealand. Indecon's review of international case studies, suggests that the IES contains many policies that are similar to those found in other countries.
	Our review of international education strategies in other countries indicates that these include a focus on the student experience, the attraction of international students and faculty, and the establishment of mechanisms to facilitate inbound and outbound programmes for staff and students. Other important features include establishing partnership networks and alliances and engaging in international research initiatives.
	Connecting internationalisation with research and enterprise is also seen internationally as important. Other aspects of international experience include widening the focus to include non-territory sectors and ensuring effective regulation and standards and encouraging international students to take up employment in order to enhance skills.
	The UK and New Zealand like Ireland have targets for the economic contribution of international students, whilst the majority of the countries reviewed have a national framework with interdepartmental backing.
	Of interest is that some other countries have placed more emphasis than Ireland on importance on outward mobility of staff and student or on encouraging international studies to remain part of the labour force. For example, New Zealand and Canada emphasise the importance of students experiencing HEIs outside of their own country. While the Netherlands is focussed on encouraging international students to seek employment in the Netherlands.

3 **Effectiveness of Strategy**

3.1 Introduction

Evaluating the effectiveness of the IES in meeting its objectives required a detailed analysis of all of the available empirical evidence and examination of progress towards strategic priorities. The review has also benefited from the view of 22 shareholders organisations on their judgement of the effectiveness of different aspects of the strategy.

3.2 Overall Effectiveness and Impact on Student Numbers

The overall vision for international education set was to support Ireland to become internationally recognised for the development of global citizens through international education system and to be a market leader in attracting international student talent. Indecon's consultations with stakeholders indicated that the IES had been effective in achieving its overall objectives and targets. The positive response on the overall effectiveness is consistent with Indecon's independent analysis of the evidence on growth in the student numbers and changes in other metrics. The Strategy established four strategic priorities, namely:

- A supportive National Framework;
- 2) An Internationally Oriented Globally Competitive Higher Education Institution;
- 3) Sustainable Growth in English Language Training Sector; and
- 4) Succeeding Abroad.

Table 3.1: Assessment of Overall Effectiveness								
	Very Effective/ Effective	Neither Effective nor Ineffective	Ineffective/Very Ineffective					
Overall objectives and targets	77.3%	22.7%	0.0%					
Source: Independent Assessment from Indecon Survey of Stakeholders								

One of the strategy's ambitious core targets, as set out in Strategic Priority 2 of the strategy, concerned the aggregate number of international students. For the HE sector, the target set was for a 33% increase in numbers from 33,118 in 2014/2015 to approximately 44,000 by the end of the 2019/2020 academic year. This evidence in Table 3.2 demonstrates that there has been an impressive growth in student numbers which were 33%. It is clear that the work undertaken by individual universities, colleges and institutions of technology and other educational organisations underpinned by the strategy and supported by government departments and agencies has been associated with a strong growth in student numbers. The COVID-19 pandemic will however inevitably result in major challenges for the sector.

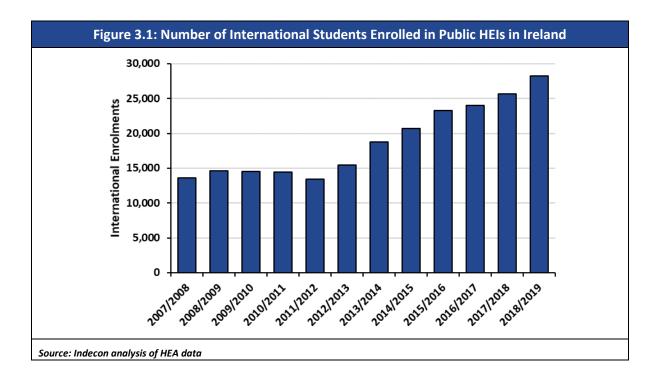


Table 3.2: Progress Towards Student Number Targets as Per IES Methodology								
	2014/15 - IES	2015/16	2016/17	2017/18	2018/19	2019/20		
Full-Time	14,971	16,754	18,749	20,730	23,056	25,643		
Erasmus	4,900	5,055	4,831	4,831	4,902	4,905		
Overseas Campus	2,627	2,800	2,657	2,626	2,678	2,690		
JYA Term 1 only	2,451	3,041	1,921	1,942	1,932	1,937		
JYA Term 2 only	119	112	58	2	87	65		
JYA Term Full Year	695	690	244	255	467	414		
Other Exchange Incoming	1,835	1,253	1,667	1,459	1,554	1,483		
Total Public HEIs	27,598	29,705	30,127	31,845	34,674	37,136		
Total Private HEIs	5,520	4,772	5,198	6,416	6,746	7,093		
Overall Total	33,118	34,477	35,325	38,261	41,420	44,229		
Percentage change from 2014/15		4.1%	6.7%	15.5%	25.1%	33.6%		

Source: Indecon analysis of HEA and DFHERIS data

2019/20 full-time figures are based on growth rates since 2010/11. The other elements are based on averages over the previous number of years. Erasmus figures do not include Erasmus trainees.

The long-term growth in international enrolments in Ireland is evident from the figure on international students in public higher education institutes as shown in Figure 3.1.



In addition to increasing overall numbers, the strategy contained a separate target for students to move towards representing 15% of all full-time student enrolments. As shown in Table 3.3, the percentage of total enrolments who are international enrolments has grown over the period of the strategy. In the 2018/19 academic year almost 14% of full-time enrolments were in international enrolments. This suggests that good progress has been made in achieving the overall medium-term target of international students representing 15% of overall full-time enrolments.

Table 3.3: Full-Time International Enrolments as Percentage of All Full-Time Enrolments									
	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019				
International enrolments	18,849	21,388	21,696	23,586	25,861				
Total enrolments	173,286	179,354	180,610	183,642	185,474				
International as % of total enrolments	10.9%	11.9%	12.0%	12.8%	13.9%				
Source: Indecon analysis of HEA data									

The majority of international enrolments in public HEIs are enrolments in universities, with universities accounting for over 70% of international enrolments. University enrolments increased significantly over the period of the strategy but growth was also evident in enrolments to the Institutes of Technology and Colleges.

Table 3.4: International Enrolments in Public HEIs by Type of HEI								
2014/2015 2015/2016 2016/2017 2017/2018 2018/203								
IOTs	4,607	4,951	4,429	5,124	6,162			
Universities	14,277	16,738	17,342	18,524	19,875			
Colleges	1,814	1,553	2,254	1,982	2,238			
Total	20,698	23,242	24,025	25,630	28,275			
Source: HEA data Note: Technological University Dublin is included in IT figures.								

An important aspect of Ireland's International Education Strategy is the focus on non-EU students. This reflects differences in the levels of fee income which can be raised from non – EU students. The majority of international enrolments are from countries that are outside the EU/EEA (including Switzerland) as shown in Table 3.5.

Data on private enrolments by country of origin also shows that most are from non-EU countries, however, one in three come from the EU.

Table 3.6: Number of International Enrolments in Private HEIs in Ireland (2014/15 - 2018/19)									
	2014/15	2015/16	2016/17	2017/18	2018/19				
EU	3,119	1,825	1,731	1,930	2,259				
Non-EU	2,401	2,947	3,467	4,486	4,487				
Total	5,520	4,772	5,198	6,416	6,746				
Source: Data provided by DES. 2018/19 estimated based on work undertaken by Martin Erskine.									

In terms of the split between undergraduate and postgraduate study, approximately 63% of enrolments by international students in public HEIs were for undergraduate courses and the balance were postgraduate students. Of note is that the number of international enrolments in postgraduate courses has been growing at a faster rate and this has advantages in terms of fee income and the attraction of higher skilled graduates.

Table 3.7: International Enrolments in Public HEIs by Level of Study									
	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	% Change 5 Years			
Undergraduate	14,633	16,352	15,728	16,438	17,763	21%			
Postgraduate	6,065	6,890	8,297	9,192	10,512	73%			
Total	20,698	23,242	24,025	25,630	28,275	37%			
Source: HEA data									



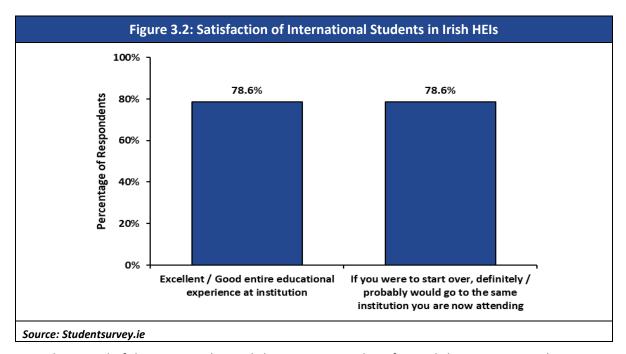
Most international students enrolled in public HEIs are in full-time courses as shown in Table 3.8. Whether there may be opportunities to also expand part-time courses may merit consideration.

Table 3.8: International Enrolments in Public HEIs by Full-Time v Part-Time								
	2014/2015	2015 (2016	2016/2017	2017/2010	2018,	3/2019		
	2014/2015	2015/2016	2016/2017	2017/2018	#	%		
Full-time	18,849	21,388	21,696	23,586	25,861	91%		
Part-time	1,849	1,854	2,329	2,044	2,414	9%		
Total	20,698	23,242	24,025	25,630	28,275	100%		
Source: HEA data								

As context to consideration of the overall strategy it is useful to examine international students by fields of study. 'Health and Welfare' was the most common field of study, following by business, administration and law, and arts and the humanities. It is however also clear that international students were attracted to all areas of study which is important in supporting the development of global citizens and in enhancing the experience for Irish students.

Table 3.9: International Enrolments in Public HEIs by Broad Field of Study									
(Field by order of enrolments)	2014/15	2015/16	2016/17	2017/18	2018/19				
Health & Welfare	5,130	5,206	5,943	5,835	6,179				
Business, administration & law	3,506	4,307	4,479	4,938	5,320				
Arts & humanities	4,153	4,647	4,672	4,911	4,625				
Engineering, Manufacturing & Construction	2,359	2,792	2,504	2,757	3,068				
Natural sciences, mathematics & statistics	1,911	2,000	1,826	2,148	2,518				
Information & Communication Technologies	1,174	1,432	1,461	1,747	2,121				
Social sciences, journalism & information	1,047	1,185	1,305	1,560	1,763				
Education	182	172	536	330	1,014				
Generic programmes & qualifications	585	808	591	638	803				
Services	329	415	391	430	518				
Agriculture, forestry, fisheries & veterinary	322	278	317	336	346				
Total	20,698	23,242	24,025	25,630	28,275				
Source: HEA data	•	•	•	•	•				

Evidence from the Irish Student Survey suggests that international students are satisfied with their education experience. As per the following figure the majority of respondents indicated that they had an excellent or good educational experience, with a majority indicating they would definitely or probably choose the same institution again if they had the chance to start again.



Over the period of the strategy the English Language Teaching for English Language Teaching sector has also expanded. Available estimates suggest a 37% increase in the number of ELT students. This is above the 25% target set but Indecon notes that there have been fluctuations in ELT student numbers.

Table 3.10: Estimate of Progress Towards ELT Student Number Target					
Student Numbers					
2014 (IES)	106,098				
2019 Estimate	145,335				
Percentage Change	37.0%				
Source: Indecon analysis of IES data and data provided by ELT stakeholders					

3.3 Effectiveness in Meeting Other Objectives

As well as increasing the number of international students studying in Ireland, objectives were set for a wider range of other areas. Quantified evidence on some of these objectives was not available and the views of stakeholders consulted on effectiveness of IES in achieving objectives is presented in the next table. In line with the growth in numbers discussed previously, stakeholders consulted indicated that the IES had been effective in increasing the number of international students. Over 50% of stakeholders also judged that the IES had been effective in enhancing international alumni networks. The areas where somewhat less positive views were expressed, concerned attraction of outstanding researchers and building world class network of learning and innovation. The attraction of international faculty including researchers is dependent on a wide range of areas including remuneration levels, the rankings of Irish universities, and the cost base of living in Ireland. Indecon's analysis of whether targets set for specific schemes within the IES were achieved are considered in the next chapter of this report.

One important benefit of the international education strategy is the development of R&D skills in the economy which impacts on the enterprise sector. The following table shows the growth in the number of research personnel in companies in Ireland since 2009. While this growth of almost 8,000 research staff is not due to the IES it highlights the importance of developing linkages between the International Education Strategy and the enterprise sector.

Table 3.12: Research Personnel in Companies in Ireland (2009-2017)								
	2009	2011	2013	2015	2017			
PhD qualified researchers	1,477	1,350	1,846	1,758	1,711			
Other researchers	6,256	7,646	8,948	9,538	10,857			
Technicians	2,599	3,227	4,141	4,844	4,896			
Support staff	1,628	1,897	2,169	2,243	2,077			
All research and development staff	11,960	14,120	17,104	18,383	19,541			
Source: CSO BERD data								

The International Strategy for Education noted that the success of international education in Ireland would be measured not only by how many international students Ireland educates but also by the quality and international reputation of Ireland's academic offering and Ireland's research base. International partnership-building is critical to developing research mass and the international strategy has measures designed to facilitate this objective. One of the ways in which this benefits Ireland is in higher research income for Ireland's education institutions. Data on the importance of research funding for Ireland's higher education sector is presented in the table below. During the period of the strategy there was a marked increase in international funding for the education sector, particularly from EU sources. While the sector remains very dependent on government funding, the evidence shows that international research funding from EU bodies has been growing in importance and by 2016 amounted to €88m.

	Table 3.13: Sources of Research Funding to Higher Education €m									
	Direct Govt	Indirect Govt	EU public	Irish Business	Foreign Business	Private/ Individual Funded	Other + Own HE Funds			
2004	203	205	30	13	10		31			
2006	265	248	38	11	5	26	6			
2008	405	219	46	23	6	13	37			
2010	440	148	57	16	11	12	24			
2012	364	174	73	13	9	10	22			
2014	350	217	87	19	13	23	23			
2016	349	230	88	24	10	12	36			
Source:	Source: DEBI/Higher Education Research and Development Survey 2016 - 2017									

More recent evidence shows the significance of funding from Horizon 2020, which represents a major benefit of the internationally focused nature of education in Ireland. Extracts from the Mid Term Evaluation (MTE) of Innovation 2020⁴³ indicated that Ireland had been very successful in winning increased international research income, and had been awarded just over €1 billion by September 2020. The figures by institution are shown in the next table (as of July 2020). In our modelling as reported in Section 6, we assume an annual benefit from internationalisation of Irish education of approximately €100m per annum. As this income has been increasing over time, this may underestimate the annual research income benefit. This estimate refers only to EU research income from the Horizon 2020 programme and excludes any research income received from foreign industry.

Table 3.14: Analysis of Horizon 2020 Funding drawn down by the HE sector in Ireland (2014-2020) H2020 Net EU H2020 **Contribution per** Contribution **Participations** H2020 participant Trinity College Dublin €127.7m 215 €0.6m University College Dublin €89.8m 182 €0.5m University College Cork €85.2m 176 €0.5m National University of Ireland Galway 164 €0.5m €75.7m **Dublin City University** €30.9m 75 €0.4m University of Limerick €27.5m 52 €0.5m Royal College of Surgeons €20.9m 52 €0.4m National University of Ireland Maynooth €18.2m 41 €0.4m Waterford Institute of Technology €15.9m 28 €0.6m Cork Institute of Technology €8.6m 26 €0.3m TU Dublin 19 €4.5m €0.2m Limerick Institute of Technology €1.3m 6 €0.2m Institute of Technology Tralee €1.1m 5 €0.2m Institute of Technology Sligo €1.0m 4 €0.2m Institute of Technology Carlow €.3m 2 €0.2m Galway-Mayo Institute of Technology €.3m 1 €0.3m Letterkenny Institute of Technology 1 €0.3m €.3m Total €509.3m 1,049 €0.3m Note: Data as of July 2020 Source: Indecon analysis of European Commission H2020 data

⁴³ Based on data in October 2018



3.4 Summary of Key Findings

- The overall vision set in the IES was to support Ireland in becoming internationally recognised for the development of global citizens through our international education system, as well as a market leader in attracting international student talent. Indecon's consultations with stakeholders indicated that the IES had been very effective in achieving its overall objectives. The positive response on the overall effectiveness is consistent with Indecon's independent analysis of the evidence on the changes in the main metrics where targets were set.
- The IES set a target of increasing international student numbers in HEIs by 33% by 2019/20 academic years. Indecon's analysis demonstrates that there has been an impressive growth in student numbers over the period. It is clear that the work undertaken by individual universities, colleges and institutes of technology and other educational organisations, underpinned by the strategy and supported by government departments and agencies, has been associated with a strong growth in international student numbers. The COVID-19 pandemic will however inevitably result in major challenges for the sector.
- The evidence also shows that there has been growth in full-time international enrolments as a percentage of total enrolments. This increased from 10.9% in 2014/15 to 13.9% in 2018/19. This suggests good progress in moving towards the target of achieving 15% of environments for international studies which was set.
- Over the period of the strategy, the English Language Teaching (ELT) sector has also expanded. Available estimates suggest a 37% increase in the number of ELT students. This is above the 25% target set, but Indecon notes that there have been fluctuations in ELT student numbers.
- In line with the growth in numbers, stakeholders consulted indicated that the IES had been effective in increasing the number of international students. Over 50% of stakeholders also judged that the IEs had been effective in enhancing international alumni networks. The areas where somewhat less positive views were expressed, concerned attraction of outstanding researchers and building world class network of learning and innovation. The attraction of international faculty including researchers is dependent on a wide range of areas including remuneration levels, the rankings of Irish universities, and the cost base of living in Ireland. Indecon's analysis of whether targets set for specific schemes within the IES were achieved are considered in the next chapter of this report.

4 Impact in Adding Value and Progress on Schemes

4.1 Introduction

The extent to which the IES has added value is in part influenced by the progress on a number of key schemes. These include:

- Erasmus
- Third Level Graduate Scheme
- Government of Ireland Academic Staff Mobility Fund
- Government of Ireland Scholarship Scheme
- Marie Sklodowska-Curie actions.

These schemes are designed to meet wider objectives of the IES including equipping Irish learners to compete internationally, to attract outstanding researchers to Ireland, to assist Irish students to integrate overseas study and to chieve wider objectives of the IES.

4.2 Erasmus+

The Erasmus Programme (European Community Action Scheme for the Mobility of University Students) is an EU student exchange programme. Erasmus+, or Erasmus Plus, is the programme combining all the EU's current schemes for education, training, youth and sport. Erasmus+ has a budget of €14.7 billion, which funds four million Europeans to study, train, and gain experience abroad. Formed from the merger of seven prior programmes, it provides opportunities for a wide variety of individuals and organisations. The aims of the programme include:

Reducing unemployment, especially among young people.
Promoting adult learning, especially for new skills and skills required by the labour market.
Encouraging young people to take part in European democracy.
Supporting innovation, cooperation and reform.
Reducing early school leaving.
Promoting cooperation and mobility with the EU's partner countries.

The IES recognises the role that the Erasmus programme can play in promoting internationalisation, in particular with respect to outward mobility of students, and also to provide international teaching and training experiences for Irish academic and support staff, and to enable Irish HEIs to invite teachers and other staff to contribute to teaching on Irish campuses.

The IES (Strategic Priority 2, Action 4) aims to actively encourage Staff-mobility under the Erasmus+ and non-EU bilateral programmes as a means for the professional development of staff and for the internationalisation of curricula. The Department of Education published a report in 2017, Languages Connect, which targets a 50% increase in participation in Erasmus+ from 2017 to 2026. The evidence shows that the scheme has been successful in attracting internationally-based staff to come to Ireland and we also note that 359 staff from the higher education sector in Ireland were facilitated to participate in the Programme. However, this programme has been less effective in facilitating Irish-



based staff as shown in Table 4.1.44 This may in part be due to the constraints on EU funding for this action in Ireland or may be due to the level of interest of Irish staff in participating in this Programme. The higher levels of internationally based staff attracted to Ireland may reflect the attraction for Ireland as an English-speaking location for overseas staff.⁴⁵

Table 4.1: Erasmus+ Outward and Inward Staff Mobility from/to Ireland, 2017 Call		
	Outbound from Ireland	Inbound to Ireland
School	360	2,005
VET ⁴⁶	700	7,784
Higher Education	359	1,087
Total	1,419	10,876
Source: European Commission		

Significant progress has made in attracting overseas students to come to Ireland as part of the Erasmus programme. France, Germany and Spain accounted for the majority of these students, with France being the single largest country (12,281). Students from 71 different countries have come to Ireland as part of the Erasmus programme since 2015.

Table 4.2: Inbound Erasmus Students to Ireland (2015 - 2020)					
Programme Country	2015-16	2016-17	2017-18	2018-19	2019-20
France	2,280	2,435	2,633	2,738	2,195
Germany	1,410	1,464	1,474	1,495	1,426
Spain	1,232	1,307	1,225	1,230	1,160
Italy	576	612	586	652	425
UK	304	342	389	417	649
Netherlands	344	332	371	377	301
Belgium	229	213	209	230	264
Austria	204	216	182	181	199
Finland	158	157	116	124	92
Czech Republic	153	128	118	114	104
Sweden	99	102	163	135	107
Poland	122	140	111	88	77
Denmark	75	118	83	81	93
Other	499	470	522	616	364
Total	7,685	8,036	8,182	8,478	7,456
Source: HEA		•	•	•	•

Note figures include all types of Erasmus participants (students and trainees)

 $^{^{\}rm 46}$ VET figures relate to both learners and staff.



Annex to Erasmus+ Annual Report 2018, https://op.europa.eu/en/publication-detail/-/publication/ae35558f-41b8-11ea-9099-01aa75ed71a1/language-en

⁴⁵ https://ec.europa.eu/programmes/erasmus-plus/about/statistics_en

4

Irish-based outbound students are also supported under the Erasmus Programme but account for just over 1.1% of total students who engaged in the programme from Higher Education⁴⁷. France, Spain and Germany were the most popular destinations, with students going to over 50 different countries over the last five academic years. The number of students from Ireland has increased since 2015-16, as shown in Table 4.3 but remains at relatively low levels and there may be merit in supporting greater outward mobility of Irish students. ⁴⁸ This may, in part, reflect constraints on EU funding for this element of the programme or language or other constraints faced by Irish students considering studies in other European countries.

Table 4.3: Outbound Erasmus Students from Ireland (2015 - 2020)					
Country	2015-16	2016-17	2017-18	2018-19	2019-20
France	676	719	739	801	811
Spain	566	581	649	734	744
Germany	492	570	537	578	553
United Kingdom	404	389	441	497	399
Netherlands	237	254	299	313	299
Italy	98	127	123	155	157
Belgium	113	121	121	126	168
Austria	84	89	113	103	123
Sweden	91	99	101	88	87
Czech Republic	61	74	72	84	75
Luxembourg	60	60	72	66	79
Denmark	46	64	60	81	82
Other	263	325	356	350	359
Total	3,191	3,472	3,683	3,976	3,936
Source: HEA Note figures include all typ	oes of Erasmus particip	ants (students and tr	ainees)		

4.3 Third Level Graduate Scheme

The Third Level Graduate Scheme allows legally resident Irish educated non-EEA graduates holding an award of a recognised Irish awarding body to remain in Ireland after their studies. This should be for the purpose of seeking graduate level employment and applying for a general employment permit, a critical skills employment permit or research hosting agreement. Students must have an award granted by a recognised Irish awarding body i.e. Trinity College, UCD, DCU, Maynooth University, UCC, NUIG and the University of Limerick, Dublin Institute of Technology, Royal College of Surgeons Ireland, Institutes of Technology, or Quality and Qualifications Ireland (QQI). For graduates with an award at NFQ Level 8 they are currently limited to 12-month permission, whilst those with NFQ Level 9 awards and above can be granted permission for 24 months. However, they will be initially granted 12 months, which will be renewed for a further 12 months depending on whether certain criteria are met. Stamp 1G indicates the holder has finished their studies in Ireland and has permission to look for employment in Ireland under the Third Level Graduate Programme, subject to the following conditions:

 $explained/index.php? title=File: Number_of_tertiary_education_students_by_sex_and_level_of_education, 2017_(thousands)_ET19.png$

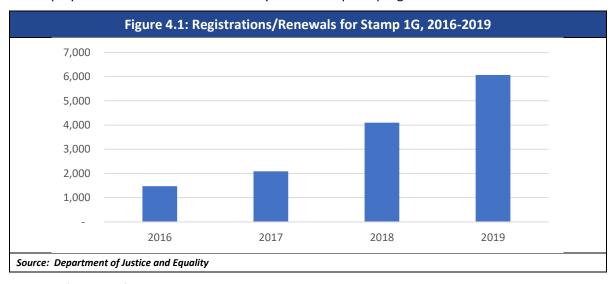


⁴⁷ See Annex 18, KA103, Erasmus+ Annual Report 2018

⁴⁸https://ec.europa.eu/eurostat/statistics-

- They can work full time in accordance with employment law provisions but are not permitted to operate a business or be self-employed.
- If they wish to continue working after Stamp 1G expires, they must find a job that requires an employment permit and then follow the usual application process.
- Stamp 1G also includes spouses/de facto partners of a Critical Skills Employment Permit holder or a Spouse/de facto partner of Researchers in the State on Hosting Agreements.

Data provided to Indecon by the Department of Justice and Equality shows the number of Stamp 1G visas issued from 2013-2016, as illustrated in Figure 4.1. This shows that the numbers issued increased more than four-fold over this period. This highlights the success of the scheme in providing greater employment opportunities for graduates. This may also have played a part in meeting the skill needs as identified by business. However, further information on this would be needed before any definitive conclusions could be made on this aspect. Analysis of the areas where such students are employed could be considered for analysis in subsequent programmes.



The significance of Asian countries, particularly India with respect to graduate employment is reflected in registrations/renewals for Stamp 1G for the period 2016 to 2019. India accounted for over half of all registrations/renewals recorded.

Table 4.4: Top 10 Countries for Stamp 1G 2016 to 2019		
	Total	
India	6,601	
China	1,468	
United States	908	
Brazil	870	
Nigeria	618	
Malaysia	556	
Pakistan	305	
Mexico	190	
Turkey	171	
Venezuela	156	
Nepal	156	
Grand Total	11,999	
Source: Data provided to Indecon by Department of Justice and Ed	quality	

4.4 Government of Ireland Academic Staff Mobility Fund

The IES noted that the outbound mobility of students and staff, and the intercultural experience which this provides, is essential to the internationalisation of higher education. To that end, the strategy committed (Strategic Priority 2, Action 4) to examine the introduction of a specific fund to encourage the mobility of academic staff. Launched in 2017 for the first time, in 2019 €500,000 was made available to support the outward mobility of staff from Irish higher education institutions to countries on any continent. Teaching, technical, management & administrative staff are eligible to apply for the grant, which provides funds for short-term travel (duration 5 days - two months). Eligible collaborative activities, which is operated by the HEA, include:

Preparation of joint teaching programmes;
Shared exploration on innovative approaches to inter alia a teaching pedagogy, student support activity, internationalisation of curricula, digital education and delivery;
Development of new student mobility streams outward and inward;
The exploration of new inter-institutional partnerships with individual countries; and
The advancement of a research concept to the application of funding stage.

Since its inception there have been 87 projects approved for funding of approximately €1 million in as indicated in the table below.

Table 4.5: GOI Academic Mobility Fund Sur	mmary Statistics	
	2017/18 Call	2018/19 Call
Number of projects approved for funding	51	36
Amount of funding awarded	480,944	500,945
Number of HEI Institutions	15	12
Source: HEA		

Whilst almost half of respondents indicated that the Government of Ireland Staff Mobility Fund had a very significant or significant impact, some individuals felt that the fund had an insignificant impact on the overall success of the strategy. This is shown Table 4.6 below. This may be due to the relatively small size of the fund. For those participating, the fund has provided academics with the opportunity for greater international mobility.

	•	vernment of Ireland Star rall Success of Strategy	ff Mobility Fund in
	Very Significant/ Significant Impact	Neither Significant Nor Insignificant	Insignificant/ Very Insignificant Impact
Government of Ireland Staff Mobility Fund	47.6%	28.6%	23.8%
Source: Independent Assessment f	rom Indecon Survey of Stakehol	ders	

4.5 Government of Ireland Scholarship Scheme

The Government of Ireland Scholarship Scheme provides scholarships for one-year study at bachelor's, master's or PhD levels, with successful applicants receiving a €10,000 stipend and a full fee waiver of all tuition and other registration costs at the HEI. The scholarships are available to students from non-EU/EEA countries. The aim of the scheme is to increase linkages with core markets for international students. Indecon believes that to be of value, ways to ensure that subsequent linkages and on-going involvement with successful participants in the scheme merits an ongoing focus. One of the commitments in the IES was to increase the number of scholarships provided under the Government of Ireland Scholarship Scheme from 21 to 60. The target of 60 was achieved but we note that this is compared to the number of applications. The low success rates may suggest the need to ensure that there is clarity on eligibility of candidates for the programme.

	Number of Awards	% of Total Awards	Number of Applications	% of Total Applications	Success Rate
Undergraduate	4	6.7%	102	5.0%	3.9%
Master's	42	70.0%	1850	90.6%	2.3%
PhD	13	21.7%	89	4.4%	14.6%
Postgrad	1	1.7%	-	-	-
Total	60		2,041		2.9%

The views of the stakeholders on the impact of the scheme suggest that nearly 60% of the respondents stated that the Government of Ireland Scholarship Scheme had a very significant or significant impact on the overall success of the IES. One issue raised during our consultation programme was whether the GOI scholarship scheme could be enhanced by amending the Scheme to include a focus on areas where there may be excess capacity in the territory system. If this would be feasible it would minimise the net cost to the economy.

4.6 Marie Sklodowska-Curie Actions

The Marie Skłodowska-Curie Actions enable research-focused organisations (universities, research centres, and companies) to host talented foreign researchers and to create strategic partnerships with leading institutions worldwide⁴⁹. They are open to researchers at any stage of their careers, from doctoral candidates to highly experienced researchers. The MSCA are open to all domains of research and innovation, from fundamental research to market take-up and innovation services. It is funded through Horizon Europe, the future EU research and innovation programme. The Irish Marie Skłodowska-Curie Office provides advice and support on preparing applications for Marie Skłodowska-Curie funding and the management of Marie Skłodowska-Curie awards and is jointly operated by the Irish Universities Association and the Irish Research Council. As of January 2020, 349 researchers in Ireland had been funded by Marie Sklodowska-Curie Actions since 2014. This is shown in Table 4.8 below. Almost €150 million had been awarded to organisations in Ireland, with 128 organisations in Ireland participating. The success rate of Irish applicants is higher than the average success rate amongst applicants from all EU Member States.

⁴⁹ There are other measures to attract researchers and facilitate networking, for example the fast-track work permit scheme for non-EU R&D employees operated by the IUA. https://www.iua.ie/for-researchers/researcher-mobility/.



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Table 4.8: Marie Sklodowska-Curie Actions in Ireland (2014-2020)		
Number of researchers funded by MSCA	349	
EU budget awarded to organisations in Ireland	€147.4m	
Success Rate of Irish Applicants	15.2%	
Success Rate of All Member State Applicants	12.7%	
Number of organisations in Ireland in MSCA	128	
Source: European Commission		

Summary of Key Findings

- In considering the impact of the strategy in adding value, Indecon's new survey evidence. Suggests that the IES had a significant impact on Ireland's education policies and programmes.
- There are a number of specific schemes included in the International Strategy which are of interest including Third Level Graduate Scheme, the participation in Marie Sklodowska-Curie action, the Government of Ireland Scholarship Scheme, the Government of Ireland Staff Mobility Scheme and the Erasmus+programme.
- In relation to the Third Level Graduate Scheme, empirical evidence examined by Indecon, this highlights the success of the scheme in providing greater employment opportunities to graduates, particularly for graduates from India, China, United States and Brazil.
- Data provided to Indecon by the Department of Justice and Equality shows the number of Stamp 1G visas to international graduates increased more than four-fold over this period. During our consultation programme issues were raised by stakeholders on the merits of adjusting this strategy in order to expand skills and to enhance Ireland's attractiveness for international students. This needs to be considered in the context of wider labour market skill needs.
- The Marie Skłodowska-Curie Actions enable research-focused organisations (universities, research centres, and companies) to host talented foreign researchers and to create strategic partnerships with leading institutions worldwide. As of January 2020, 349 researchers in Ireland had been funded and almost €150 million had been awarded to organisations in Ireland. The success rate of Irish applicants is higher than the average amongst applicants from other EU Member States.
- The Government of Ireland Scholarship Scheme initiative within the IES provides scholarships for one-year study at bachelor's, master's or PhD levels, with successful applicants receiving a €10,000 stipend and a full fee waiver of all tuition and other registration costs at the HEI. The aim of the scheme is to increase linkages with core markets for international students. Indecon believes that to be of value, ways to ensure that subsequent linkages and on-going involvement with successful participants in the scheme merits an ongoing focus. One of the commitments in the IES was to increase the number of scholarships provided under the Government of Ireland Scholarship Scheme from 21 to 60. The target of 60 was achieved but we note that this was very small compared to the number of applicants. The low success rates may suggest the need to ensure that there is clarity on eligibility of candidates for the programme.



- ☐ Irish-based outbound students are also supported under the Erasmus Programme but account for just over 1.1% of total students who engaged in the programme from Higher Education. France, Spain and Germany were the most popular destinations. The number of students from Ireland has increased since 2015-16, as shown below but remain at relatively low levels. This may, in part, reflect constraints on EU funding for this element of the Programme or language or other constraints faced by Irish students considering studies in other European countries.
- □ Significant progress has made in attracting overseas students to come to Ireland as part of the Erasmus programme. France, Germany and Spain accounted for the majority of these students, with France being the single largest country (12,281). Students from 71 different countries have come to Ireland as part of the Erasmus programme since 2015.

5 Role of Stakeholders and Communications Strategy

5.1 Introduction

In order to implement the strategy, the High-Level Group on International Education was established supported by subgroups. The development and implementation of the strategy is also influenced by communications and marketing strategy, and the effectiveness of the promotion of Ireland's education system internationally by educational providers, student representative groups and governmental Departments and agencies.

5.2 Implementation Structures

The High-Level Group (HLG) on International Education was established to support the internationalisation of Ireland's education system in accordance with the Government's International Education Strategies. There are eighteen different organisations on the HLG, including four Government departments. Some organisations have more than one representative, with the Department of Further and Higher Education, Research, Innovation and Science having seven members of the HLG (including administrative support members), with one of these members being the chairperson of the group.

One of the positive features of the strategy was the attempt to involve a diverse range of stakeholders. For example as well as the Department of Further and Higher Education, Research, Innovation and Science, the High Level Group or its Sub Groups included the Department of Justice, the Department of Business Enterprise and Innovation, the Department of Foreign Affairs and Trade, the Department of Transport, Tourism and Sport, IUA, THEA, HECA, MEI, Conference of Heads of Irish College of Education, USI, Irish Council for International Students, Higher Education Authority, Enterprise Ireland, QQI, Science Foundation Ireland, Association of Study Abroad Providers in Ireland, Technological University Dublin; and the Royal College of Surgeons in Ireland.

Table 5.1: Membership of High-Level Group on International Education			
Department of Further and Higher Education, Research, Innovation and Science	Department of Foreign Affairs and Trade		
Department of Justice	Department of Transport, Tourism and Sport		
Enterprise Ireland	Irish Universities Association		
Higher Education Authority	Marketing English in Ireland		
Quality and Qualifications Ireland	Royal College of Surgeons in Ireland		
Irish Council for International Students	Science Foundation Ireland		
Technological University Dublin	The Technological Higher Education Association		
The Higher Education Colleges Association	Assoc. of Study Abroad Providers in Ireland		
The Union of Students in Ireland	C.H.o.I.C.E – Mary Immaculate College		
Source: Department of Further and Higher Education, Research, Innova	rtion and Science website ⁵⁰		

https://www.education.ie/en/The-Department/Regulation-of-Lobbying-Act-2015/Groups-Committees-exempted-under-the-Transparency-Code/High-Level-Group-on-International-Education.html



The HLG group met seven times over the course of the 2016-2020 period. Average attendance level was 24 during this period, with a number of bodies represented by more than one attendee. While the figures in the table for 2020 relate to February, we understand that there have been three meetings so far this year.

Table 5.2: Attendance Rate at High-Level Group Meetings, 2016-2020		
Date of HLG Meeting	Number of Attendees	
October 2016	27	
December 2016	26	
April 2017	26	
November 2017	29	
March 2018	19	
November 2018	22	
May 2019	19	
February 2020	24	
Average	24	

There are four subgroups of the HLG, with each one focused on one of the four strategic priorities of the IES as shown in the table below. These are as follows:

Subgroup 1: Supportive national framework
Subgroup 2: Internationally oriented, globally competitive institutions
Subgroup 3: Sustainable growth in the high-quality (ELT) sector
Subgroup 4: Succeeding abroad

Table 5.3: Membership of Subgroups of High-Level Group					
	Subgroup 1	Subgroup 2	Subgroup 3	Subgroup 4	
Department of Further and Higher Education, Research, Innovation and Science					
Department of Business, Enterprise & Innovation					
Department of Justice					
Department of Foreign Affairs and Trade					
Department of Tourism, Transport & Sport					
IUA					
THEA					
HECA					
MEI					
Conference of Heads of Irish Colleges of Education					
USI					
Irish Council for International Students					
Higher Education Authority					
Enterprise Ireland					
QQI					
Science Foundation Ireland			<u> </u>		
Source: Department of Further and Higher Education, Research,	Innovation and Se	cience ⁵¹			

⁵¹ https://www.education.ie/en/The-Department/Regulation-of-Lobbying-Act-2015/Groups-Committees-exempted-under-the-Transparency-Code/Meetings/High-Level-Group-on-International-Education/minutes-may-2019.pdf



While almost two-thirds of stakeholders consulted suggested that the overall structure was effective in adding value to the implementation of the strategy, one issue raised in our consultations was the merits of a more segmented approach. This reflects the fact that the providers of international education are diverse and there are differences in their international priorities and their capacity to develop outcomes.

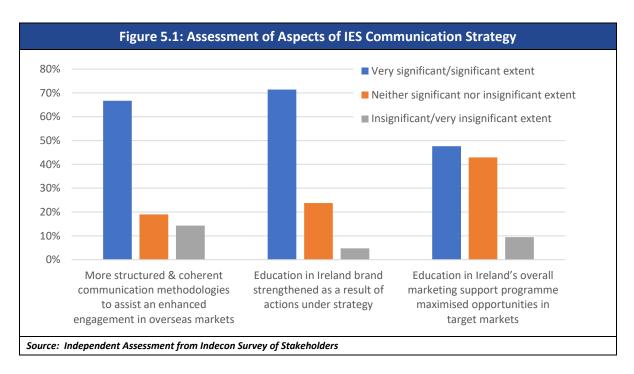
Community Strategy

As part of the previous 2010-2015 Strategy, Enterprise Ireland took the lead in the development, promotion and marketing of international education, in particular in developing the "Education in Ireland" brand which was launched in 2011 as a new umbrella brand for marketing the Irish higher education and will officially market ELE to the adult non-EU market following the introduction of the IEM. This included developing and maintaining the website www.educationinireland.com which contains brochures in foreign languages (e.g. Spanish and Arabic), as well as brochures specifically targeting particular markets (e.g. the website currently includes a brochure for prospective US Study Abroad participants). The IES contains the following recommendation with respect to communications:

	Table 5.4: Communications Recommendation under Strategic Action 4								
Number	Recommendation	Responsibility	Timeframe						
2	A review of the current system of prioritisation of education markets to assess the case for a more flexible approach will be undertaken, taking into account the need for greater market diversity and a number of high-potential markets outside those currently designated as core markets for international education.	EI, DFAT, DES	End-2016						
3	The Education in Ireland brand will continue to be strengthened to increase the visibility of Ireland's international education offering.	DES, EI	Throughout the period to 2020						
4	Education in Ireland's overall marketing support programme will be reviewed and realigned to maximise opportunities in target markets, taking into account the different in-market country specific supports that are required.	EI, DFAT, DES	End-2017						
5	A series of customised management and team development programmes that support Individual HEIs will be developed.	EI	Throughout the period to 2020						
6	More structured and coherent communication methodologies will be developed to assist an enhanced engagement in overseas markets.	Enterprise Ireland	Throughout the Period to 2020						
Source: IES									

Stakeholders were generally positive regarding the impact the development and implementation of the communication strategy as part of the IES. Two-thirds of respondents indicated that the IES resulted in communications being more structured and coherent, and helped strengthen the brand.





In terms of core markets, the US is the largest country in terms of domiciles of origin of students enrolling in Irish HEIs, with 5,190 enrolments in the 2018/19 academic year, a growth of over 60% since the 2013/14 academic year. Strong growth has also been seen in markets such as China and India, with the number of students almost quadrupling since the 2013/14 academic year. The number of enrolments from Spain, Nigeria, Italy and Singapore has all more than doubled since the 2013/14 academic years.

Table 5.5: International Enrolments by Domicile of Origin (2013/14 - 2018/19)							
	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	
United States	3,238	3,521	4,420	4,845	5,003	5,190	
China	1,780	1,829	2,226	2,212	2,661	3,000	
India	716	847	981	1,288	2,062	2,781	
Canada	1,098	1,108	1,304	1,394	1,590	1,661	
Northern Ireland	1,040	1,073	1,199	1,161	1,328	1,563	
Great Britain	1,575	1,606	1,613	1,156	1,196	1,429	
Malaysia	1,489	1,501	1,517	1,391	1,420	1,334	
France	473	568	748	781	748	940	
Germany	609	599	625	657	676	777	
Saudi Arabia	890	978	1,006	1,411	966	738	
Italy	267	312	382	440	478	625	
Singapore	255	334	362	424	484	547	
Kuwait	410	422	297	421	476	547	
Nigeria	205	238	239	269	309	465	
Spain	178	224	303	286	310	406	
Other	4,575	5,538	6,020	5,889	5,923	6,273	
Total	18,798	20,698	23,242	24,025	25,630	28,275	
Source: Indecon analysis of a	•						

Note: Figures for 2018/19 estimated to include Trinity College Dublin



While there are inevitably some areas where HEI may be in competition, stakeholders views on the overall level of working in partnership were positive. Despite this the utilisation of existing networks may be an area where increased focus would be beneficial. While individual higher education and other providers play a fundamental role in the marketing of Irish education the involvement of Enterprise Ireland and of the staff of the Department of Foreign Affairs is a critical component in the marketing of Irish education. The majority of stakeholders expressed positive views on the effectiveness of Enterprise Ireland and the Department of Foreign Affairs and Trade and the Embassy staff in the promotion of internationalisation of Ireland's education system. Indecon believes that the involvement of Enterprise Ireland and of the staff of other international embassies, is a valuable component of the supports for the sector in marketing the attractiveness.

5.4 Summary of Key Findings

- One of the positive features of the strategy was the attempt to involve a diverse range of stakeholders. For example as well as the Department of Further and Higher Education, Research, Innovation and Science, the High Level Group or its Sub Groups included the Department of Justice, the Department of Business Enterprise and Innovation, the Department of Foreign Affairs and Trade, the Department of Transport, Tourism and Sport, IUA, THEA, HECA, MEI, Conference of Heads of Irish College of Education, USI, Irish Council for International Students, Higher Education Authority, Enterprise Ireland, QQI, Science Foundation Ireland, Association of Study Abroad Providers in Ireland, Technological University Dublin and the Royal College of Surgeons in Ireland.
- A feature of the IES is the role played by stakeholders and steering groups. There are eighteen member organisations of the IES High Level Group, with members covering four different strategic priorities. The overall structure was viewed to be effective by the majority of respondents, however finding ways of facilitating effective involvement of diverse stakeholders in implementation of a strategy is always challenging. During our consultations a more segmented approach to consultations was proposed.
- The marketing and communications strategy are also very important elements in achieving the targets of the strategy. The majority of stakeholders indicated that the strategy was effective in engaging core markets and new targeted opportunities. The United States is the largest country in terms of origin of students enrolling in Irish HEIs with over 5,000 enrolments in 2018/19. This may, in part, be due to US study abroad programmes or the attractions of Ireland for US students. Indecon's analysis of the empirical evidence shows that the number of enrolments from the USA grew by over 60% since 2013/14. Strong growth has also been seen in core markets such as China and India, with the number of students growing by almost 300% (reaching 3,000 and over 2,750 enrolments respectively).
- While individual higher education and other providers lay a fundamental role in the marketing of Irish education the involvement of Enterprise Ireland and of the staff of the Department of Foreign Affairs is a critical component in the marketing of Irish education. The majority of stakeholders expressed positive views on the effectiveness of Enterprise Ireland and the Department of Foreign Affairs and Trade and the Embassy staff in the promotion of internationalisation of Ireland's education system. Indecon believes that the involvement of Enterprise Ireland and of the staff of other international embassies, is a valuable component of the supports for the sector in marketing the attractiveness.



6 Cost-Benefit Analysis of International Education

6.1 Introduction

While the evidence presented in this independent report suggests that the international education strategy has been effective in meeting the main quantified targets set, it is important to consider the overall costs and benefits of IES. This is relevant given the need to ensure the best use of scarce Exchequer resources. The methodology used by Indecon for the formal modelling of net economic costs and benefits is in line with the latest guidance from the Department of Public Expenditure and Reform (DPER) published in the Public Spending Code.⁵²

6.2 Overall Gross Value of International Education

It is useful before considering the main elements of costs and benefits to review estimates of the overall gross economic value of international education to Ireland. In the last strategy a figure for the gross value of international education was estimated at $\\mathbb{e}1.58$ billion and an ambitious target was set to increase this to $\\mathbb{e}2.1bn$. This was based on including fee income from international students, the total gross expenditures in Ireland of overseas students and the induced impacts of these expenditures. It is useful to consider estimates on a like for like basis to the previous calculations but updated for student numbers, the time spent in Ireland and changes in the official CSO multiplier impacts. The updated modelling completed by Indecon indicates an estimate gross value for international education of $\\mathbb{e}2.389$ billion and shows that the overall target to increase gross value added from $\\mathbb{e}1.58$ billion to $\\mathbb{e}2.1$ billion has been met. The figures do not include research income in order to facilitate comparisons with 2016 – 2020 strategy.

Table 6.1: Value of Output of HE and ELT Sectors (2019/20 Estimate) (€ Million)							
Direct Indirect Induced Total							
Public HEIs	683	196	324	1,203			
Private HEIs	93	26	41	160			
All HEIs	775	223	365	1,363			
ELT	580	167	280	1,026			
Total 1,355 389 645 2,389							
Source: Indecon estimates							

⁵²Public Spending Code, Guide to Economic Appraisal: Carrying out a Cost-Benefit Analysis, Department of Public Expenditure and Reform https://www.gov.ie/en/publication/public-spending-code/



Indecon would point out that the above estimates assume a gross value to the economy of the total amount of student spend. This expenditure includes expenditure on imported goods and services. Indecon believes it is therefore useful to consider an alternative estimate based on the gross value added of such expenditures to the Irish economy rather than simply looking at gross value of output. This alternative approach to measuring the value of the sector also influences the estimate of the induced impacts as value added multipliers are different to output multipliers. Such an approach would suggest a somewhat lower overall value to the economy but there is no doubt that international education is an important contributor to the Irish economy. In our cost benefit analysis, we only include the value-added element of student expenditures. We include a congestion cost figure in line with best practice to take account of the impact of international students on the use of resources in the economy including the impact on housing and transport sectors. We exclude induced impacts in line with the Public Spending Code. In our calculation of the employment impacts we apply a shadow price of labour to take account of the alternative use of resources. While including gross expenditures as a value would overestimate the net impacts on the economy, we note that the previous estimates of value did not include international research income. This is significant aspects of international education and we have included this in our cost benefit appraisal.

6.3 Overview of Costs and Benefits

In evaluating the costs and benefits of international education, we model the costs to the Exchequer and to the higher education sector of attracting international students. These costs must be weighed against the estimated benefits from the attraction of overseas students in order to estimate the overall benefit to cost ratio. A summary of the main elements of costs and benefits relevant to international education is presented in Table 6.2. These elements where quantified estimates are included in the formalised economic modelling are indicated by an asterisk (*). While all the costs have been quantified some of the wider benefits are not assessable to quantification. It would however be a mistake to discount the significance of these wider benefits.

Table 6.2: Elements of Costs and Benefits of International Education

COSTS

Cost of Education Provision to International Students*

Public Sector Costs of Implementing International Education Strategy*

Other marketing / administration costs *

Congestion costs due to impact on housing and transport*

BENEFITS

Marginal Additional Contribution to Fee Income of Higher Education Institutions*

Contribution to Research Income of Higher Education Institutions*

Net wages and income tax paid after adjustment for shadow prices *

Facilitation of World Class Collaborations

Attainment of Talent to Educational Institutions

Supporting Link between Enterprise Sector and Education

Facilitation of Export Earnings and Enhancing Access to Overseas Markets

Value added element of Increasing Domestic Spend *

Source: Indecon *Items included in Formal Cost-Benefit Modelling



6.4 Costs

Indecon has estimated the cost of provision by course type and student numbers and we have taken into account potential differences in the types of courses undertaken by international students. Indecon has examined the data provided by the HEA based on the Full Economic Costing (FEC) model. This following table shows the difference in the cost of provision for non-lab, fieldwork and lab work courses in 2015/16.

Table 6.3: Average Cost of Provision per Sub Group and Level of Study (2015/16)							
Undergraduate Postgraduate Taught Postgraduate Resea							
Non-Lab	€6,837	€11,374	€18,343				
Fieldwork	€8,369	€10,829	€17,138				
Lab	€10,279	€14,130	€16,094				
Clinical Medicine	€15,057	N/A	N/A				
Dentistry & Veterinary	€25,300	€96,415	€20,302				
Total €8,780 €11,602 €16,916							
Source: HEA	Source: HEA						

In order to ensure that the costs were not underestimated, Indecon has increased the costs by updating the data based on the change in average incomes in the education sector to derive the average cost of provision. As a result of the increase in costs, Indecon has estimated a higher average cost of provision, as per the following table. This shows a range in undergraduate costs for around €7,000 per student to over €26,000.

Table 6.4: Average Cost of Provision per Sub Group and Level of Study (2019/20)							
Undergraduate Postgraduate Taught Postgraduate Research							
Non-Lab	€7,121	€11,846	€19,105				
Fieldwork	€8,716	€11,279	€17,850				
Lab	€10,706	€14,716	€16,762				
Clinical Medicine	€15,682	N/A	N/A				
Dentistry & Veterinary	€26,350	€100,418	€21,145				
Total €9,144 €12,084 €17,618							
Source: Indecon updated estimates of HEA data							

Table 6.5 presents an analysis of the number of students by course type at different NFQ levels, as well as estimates of the number of EU and non-EU students by type of course. This shows that non-EU students are primarily studying in areas other than medicine and dentistry and veterinary.

Table 6.5: Estimated Number of Students Doing Different Course Types at Different Levels (2016/17 to 2019/20) EU Non-EU Total UG **PGT PGR** UG **PGT PGR** Non lab 5,527 2,400 901 13,441 9,403 1,551 33,223 Fieldwork 6,177 2,700 1,288 11,828 6,746 2,326 31,064 Lab 3,901 900 2,060 16,129 4,293 3,876 31,159 Medicine 325 6,529 0 0 6,183 0 0 325 0 43 0 0 Dentistry and veterinary 6,183 6,529 16,256 6,000 4,292 53,763 20,441 7,753 Total 108,505

Source: Indecon analysis using IUA data

Note: These estimates sum the number of enrolments across the academic years, and thus one student may be multiple enrolments.

The costs of provision for undergraduate (UG), postgraduate taught (PGT) and postgraduate research (PGR) in the following table is based on the estimates for the cost of provision adjusted for the percentage of the cohort which is international students. In our base case modelling we assume that the costs of international students per type of course is aligned with the full cost of provision including overhead costs. We also, as a sensitivity, include estimates assuming marginal cost of provision.

Table 6.6: Estimated Total Cost of Different Course Types at Different Levels (2019/20)						
		EU		Non-EU		
	UG	PGT	PGR	UG	PGT	PGR
Non lab	7,121	11,846	19,105	7,121	11,846	19,105
Fieldwork	8,716	11,279	17,850	8,716	11,279	17,850
Lab	10,706	14,716	16,762	10,706	14,716	16,762
Medicine	15,682			15,682		
Dentistry and veterinary	26,350	100,418	21,145	26,350	100,418	21,145
Source: Indecon analysis						

The following table presents the total cost of provision of €1,110 million for courses for international students using Indecon's baseline methodology, with €819 million of this cost related to the cost of provision for non-EU students.

Table 6.7: Estimated Total Cost of Provision of Courses for International Students (2016/17 to 2019/20) - € Million							
		EU			Non-EU		Total
	UG	PGT	PGR	UG	PGT	PGR	Total
Non lab	38.6	27.9	16.9	57.9	109.3	23.5	274.2
Fieldwork	52.8	29.9	22.5	62.4	60.4	32.9	261.0
Lab	41.0	13.0	33.9	104.5	62.0	51.5	305.9
Medicine	5.0	0.0	0.0	95.0	0.0	0.0	100.0
Dentistry and veterinary 8.4 0.0 0.9 159.7 0.0 0.0 169.0					169.0		
Total	145.9	70.8	74.2	479.6	231.7	107.9	1,110.1
Source: Indecon analysis	Source: Indecon analysis						

Costs in the English Language Training (ELT) sector are estimated to represent approximately 92.3% of the revenue of ELT institutions⁵³. Indecon estimates suggest that total revenue per week is slightly higher than €365. Using this, Indecon has estimated the cost of provision to be approximately €385 million for 2019/20. Indecon have also used a cost to income ratio to estimate the cost of provision for private colleges. Whilst the following table shows the estimates for the 2019/20 costs of provision, estimates of the cost of provision over the lifetime of the strategy are included in the CBA.

Table 6.8: Estimated Costs in ELT and Private HEI Sector (2019/20)				
Estimated revenue per week of ELT institutions	€365.4			
Estimated costs per ELT student per week	€337.1			
Total number of weeks	1.14m			
Estimated total cost related to course provision (2019) (€m)	€385.0m			
Estimated total revenue for private colleges (€m)	€49.3m			
Estimated total cost related to course provision (€m) €46				
Source: Indecon information request of ELT Institutions				

In addition to the costs of education provision, there are a range of costs incurred by public sector bodies in implementing the international education strategy. In our analysis, we include estimates of the cost incurred by the Department of Further and Higher Education, Research, Innovation and Science and of Enterprise Ireland. The Department of Further and Higher Education, Research, Innovation and Science expenditures in relation to international education includes payment of scholarships, foreign travel and agency-related expenses (Leargas and Enterprise Ireland). The Government of Ireland Scholarship was the largest single scholarship, followed by the Academic Mobility Scheme. In addition, Enterprise Ireland operates the 'Educated in Ireland' programme. Expenditure by DFHERIS and Enterprise Ireland suggest an overall annual cost of the order of €4.0m.

We also apply a 130% adjustment to these costs to take account of the shadow price of public funds.

⁵³ Indecon information request of ELT Institutions.



In addition, in our analysis we also include an indicative estimate of other administrative and marketing costs incurred. In our modelling we us an estimate of €10m per annum (including the shadow price of public funds element) and while this may be too high in the absence of more detailed information, we felt taking a prudent approach would be appropriate.

In line with the Enterprise Agency Economic Appraisal Model⁵⁴, Indecon have also included a congestion cost of €2,500 per year for each additional person living in the Greater Dublin Area. This is to take into account potential impacts on transport and housing. Indecon have adjusted this figure to take into account that students may not stay a full calendar year but rather an academic year (or part of the academic year in the case of some exchange programme or ELT students). Indecon estimate an additional cost of approximately €350 million over the course of the four academic years as a result of the impacts of students in the Greater Dublin Area.

Table 6.9: Congestion Costs Associated with International Students							
	2016/17	2017/18	2018/19	2019/20	Total		
Congestion costs (€m)	83.9	87.3	88.1	90.0	349.2		
Source: Indecon analysis							

6.5 Benefits

International students provide an additional contribution to the fee income of higher educational institutions in Ireland. The level of marginal additional fees from international students varies between EU and non-EU students. Students from EU countries only pay the same levels of student contribution as Irish students and pay the same fees for postgraduate courses as Irish students. Non-EU international students are subject to different and typically higher fee levels which vary by university and by course. One issue of note is that while EU students may benefit from lower fees than apply to other international students, the EU wide scheme also benefits Irish students studying in other EU countries. The significance of international students in contributing to fee income of higher education institutions was reflected in the survey results which indicated that over 95% of stakeholders recognised that the internationalisation of education had benefited the higher education sector and the wider economy via higher fee income. Enterprise Ireland has estimated that fee income from international students was €478.8 million in 2019. The trend in fee income is presented in Table 6.10 and shows that there has been strong growth in international students' fee income over the period of the Globally Connected Strategy. Of note is that these estimates exclude any fee income from English Language Training Sector.

Table 6.10: Fee Income from International Students €m								
2015 2016 2017 2018 2019								
314.4	352.7	371.7	412.8	478.8				
Source: Enterprise Ireland Estimates								

⁵⁴ https://dbei.gov.ie/en/Publications/Publication-files/Review-of-the-Enterprise-Agencies-Economic-Appraisal-Model.pdf



Indecon has estimated that there were approximately 145,000 students in the ELT sector in 2019, with these students completing over 1.12 million weeks of study. An estimate of revenue of €365 per week for the ELT sector has been applied to generate an estimate for total revenue for the ELT sector of just over €417 million. This estimate is based on the revenue estimates provided by ELT stakeholders.

The International Strategy for Education noted that the success of international education in Ireland will be measured not only by how many international students Ireland educates but also by the quality and international reputation of Ireland's academic offering and Ireland's research base. International partnership-building is critical to developing research mass and the international strategy has measures designed to facilitate this objective. One of the ways in which this benefits Ireland is in higher research income for Ireland's education institutions. Data on the importance of research funding for Ireland's higher education sector is presented in the next table. While the sector is very dependent on government funding, the evidence shows that international funding from EU bodies has been growing in importance and by 2016 amounted to €88m.

	Table 6.11: Sources of Research Funding to Higher Education (€m)								
	Direct Government	Indirect Government	EU public Irish Foreign Business Business		Private/ Individual Funded	Other + Own HE Funds			
2004	203	205	30	13	10		31		
2006	265	248	38	11	5	26	6		
2008	405	219	46	23	6	13	37		
2010	440	148	57	16	16 11 12		24		
2012	364	174	73	13	9	10	22		
2014	350	217	87	19	13	23	23		
2016	349	230	88	24	10	12	36		
Source: D	EBI/Higher Educat	ion Research and	Development Sur	vey 2016 - 2017	1	1	1		

Extracts from the Mid Term Evaluation (MTE) of Innovation 2020: (based on data in October 2018) indicated that by 2018 Ireland had been very successful in winning increased international research income. This indicated that with over 1,500 successful participants, Ireland won €632.1m in contracts to October 2018, which is more than the seven years of the previous Framework Programme. It was further expected that Ireland would draw down €1.25bn in funding from H2020. The beneficiaries of Horizon 2020 funding are: • Higher Education Institutions with a drawdown of €343.6m; • Research Organisations, Public Bodies and Others with a drawdown of €74.3m; • Private companies which account for €214.2m of Ireland's drawdown (SMEs have been successful in winning €154m). Ireland's €632.1m to October 2018 accounts for 1.69% of total funding allocated to date (€35.5bn) under Horizon 2020, well ahead of the 1.2%13. Ireland's success rate in applications at 15% is also higher than the EU Member State average. The breakdown of the Irish Horizon 2020 drawdown by funding areas: • Marie Sklodowska-Curie Actions (all sectors/disciplines: €116m • European Research Council: €86m • ICT: €78.4m • Agri-Food and Marine: €70.3m • Health: €67.4m • Nanotechnologies: €50.9m Energy: €41.6m • Environment: €18.1m • Transport: €17.5m • Security: €14.7m • Societies: €10.6m.

More recent evidence shows the significance of funding from Horizon 2020 and this represents a major benefit of the internationally-focused nature of international education in Ireland. In our modelling, we assume an annual benefit from internationalisation of Irish education of approximately €100m per annum but as this income has been increasing over time, this may underestimate the current annual research income benefit. This estimate refers only to EU research income from Horizon 2020 programme and excludes any research income received from foreign industry.

Table 6.12: Analysis of Horizon 2020 Funding drawn down by the HE sector in Ireland (2014-2020)						
	H2020 Net EU Contribution	H2020 Participations	Contribution per H2020 participant			
Trinity College Dublin	€127.7m	215	€0.6m			
University College Dublin	€89.8m	182	€0.5m			
University College Cork	€85.2m	176	€0.5m			
National University of Ireland Galway	€75.7m	164	€0.5m			
Dublin City University	€30.9m	75	€0.4m			
University of Limerick	€27.5m	52	€0.5m			
Royal College of Surgeons	€20.9m	52	€0.4m			
National University of Ireland Maynooth	€18.2m	41	€0.4m			
Waterford Institute of Technology	€15.9m	28	€0.6m			
Cork Institute of Technology	€8.6m	26	€0.3m			
TU Dublin	€4.5m	19	€0.2m			
Limerick Institute of Technology	€1.3m	6	€0.2m			
Institute of Technology Tralee	€1.1m	5	€0.2m			
Institute of Technology Sligo - Its	€1.0m	4	€0.2m			
Institute of Technology Carlow	€0.3m	2	€0.2m			
Galway-Mayo Institute of Technology	€0.3m	1	€0.3m			
Letterkenny Institute of Technology	€0.3m	1	€0.3m			
Total	€509.3m	1,049	€0.3m			
Note: Data as of July 2020						
Source: Indecon analysis of European Commission H2	2020 data					

One of the benefits of international students in Ireland is their expenditure within the broader economy on accommodation, food, transport and other goods and services. Education in Ireland estimates that the cost of living in Ireland is between €7,000 and €12,000 per year,⁵⁵ excluding tuition fees, for international students, with costs differing depending on location and lifestyle of the student. Indecon use the midpoint of this range, €9,500, as an estimate of the expenditure of an international student in Ireland attending a HEI. Using this figure Indecon estimates that international students in HEIs spend just over €400 million in 2019/20. Indecon have also estimated the impact of

⁵⁵ https://www.educationinireland.com/en/Living-in-Ireland/Before-Arrival/Living-Costs/



this expenditure, which takes into account impacts on the supply chains associated with this expenditure. Additionally, the Indecon model removes any import element of this expenditure, in order to focus on the impact on the Irish economy. To do this Indecon uses a gross value added (GA) multiplier to the estimated expenditure which provides an estimate of the gross value added to the Irish economy of the expenditure by international students in HEIs in the Irish economy. As shown in the following table, Indecon has calculated that the benefit from the expenditure of international students in HEIs in Ireland in 2019 as €310.2 million.

	Direct Expenditure (€m)	Direct GVA (€m)	Indirect GVA (€m)	Total GVA (€m) (Direct + indirect)
Public HEI - EU	72.0	44.4	10.7	55.1
Public HEI - non-EU	218.5	134.7	32.5	167.2
Private institutions	67.4	41.5	10.0	51.5
Erasmus	42.8	26.4	10.0	36.4
Total	400.6	246.9	63.2	310.2

When summing across the four academic years the total GVA (both direct and indirect) is estimated to be €1,113.1 million, prior to discounting the final year's estimated spend.

Table 6.14: Estimated Expenditure of International Students in HEIs (2016/17 – 2019/20)								
	Direct Expenditure (€m)	Direct GVA (€m)	Indirect GVA (€m)	Total GVA (€m) (Direct + indirect)				
Public HEI - EU	252.2	155.4	37.5	193.0				
Public HEI - non-EU	778.6	479.9	115.8	595.7				
Private institutions	241.8	149.0	36.0	185.0				
Erasmus	182.3	112.4	27.1	139.5				
Total	1,454.9	896.7	216.4	1,113.1				
Source: Indecon analysis								

There is also a benefit to the economy from expenditure from students involved in the ELT sector which must be taken into account. The following table updates research conducted by Crowe Horwath using consumer price indices for the relevant product group. It shows that estimated expenditure by students in the sector is €278 a week, or just over €1,200 per month. Indecon has removed the estimated expenditure on accommodation and school social activity programmes to avoid double counting with the revenue of the ELT sector.

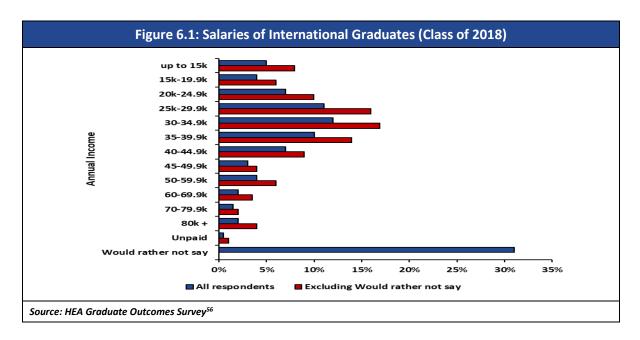
Table 6.15: Estimated Expenditure in ELT Sector (2019)					
	Weekly (€)	Monthly (€)			
Accommodation	€121.70	€527.38			
School social activity programme	€14.07	€60.96			
Other social or tourism activities	€20.47	€88.69			
Food and drink	€41.05	€177.90			
Transport	€14.54	€62.99			
Shopping	€23.03	€99.80			
Other	€43.15	€186.98			
Total	€278.01	€1,204.70			
Source: Indecon analysis of Crowe Horwath and CSO data	·				

As with the expenditure of international students in HEIs, Indecon calculated the direct and indirect GVA impact of the direct expenditure of students in the ELT sector on items that are not accommodation or school social activity programmes (€160.3m). The gross value-added, including both direct and indirect impacts, of expenditure by students in the ELT, is estimated to be just over €124 million.

Table 6.16: Estimated Expenditure by Students in ELT Sector (2019)				
	Expenditure (€m)			
Direct Expenditure (€m)	162.4			
Direct GVA (€m)	100.1			
Indirect GVA (€m)	24.2			
Total GVA (€m) (Direct + indirect)	124.3			
Source: Indecon analysis	•			

When combined, the total impact of expenditure by international students in HEIs and the ELT sector is estimated have been just over €434 million in 2019/20. Over the four academic years, the estimated GVA impact (direct and indirect) amounted to just over €1.61 billion arising from this experience. Indecon has estimated that the expenditure by international students in Ireland supports over 9,000 jobs.

One of the other benefits of international standards is the wages and tax paid by those who take employment in Ireland. We have modelled this in line with the approached used to evaluate agency assisted enterprise investments and this takes account of the shadow price of labour. The following figure shows the range of salaries earned by international graduates following the completion of their degree. Wages between €25,000 and €40,000 were the most common, with a weighted average calculated as just under €35,000 a year for the typical international graduate.



Using these income brackets Indecon have estimated that the present value of two years' worth of wages from international graduates from public and private HEIs is just almost €600 million. In Indecon's baseline model a shadow price of labour of 80% is assumed, meaning that 20% this income is included as a benefit. However, when a 100% shadow price of labour no labour income is included as a benefit, with Indecon modelling the impact of this in a sensitivity. As mentioned previously in line with the approached used to evaluate agency assisted enterprise investments in Indecon's baseline model half the tax element of the shadow priced element of the salaries is included as a benefit, as a gain to the Exchequer, with this adding an approximately €40 million annually to the benefits side.

Table 6.17: Estimated Income Benefits of Two Years of Graduate Salaries (2019/20 cohort)								
	Number of graduates employed in Ireland following graduation	Present value of two years' wages (€m)	Present value of two years' wages (€m) (Shadow Price of Labour = 80%)					
Graduates from public HEIs - EU	1,759	117.7	23.5					
Graduates from public HEIs - non-EU	5,202	348.3	69.7					
Graduates from private HEIs - EU	502	33.6	6.7					
Graduates from private HEIs - non-EU	1,146	76.7	15.3					
Total	8,609	576.4	115.3					
Source: Indecon analysis	Source: Indecon analysis							

⁵⁶ https://hea.ie/assets/uploads/2017/11/HEA-Graduate-Outcomes-Survey-Class-of-2018-1.pdf



As shown previously a certain percentage of international graduates remain in Ireland for future studies. Indecon includes an estimate of their expenditure in the Irish economy as a benefit of international students. Indecon uses the estimate of the expenditure of international students previously discussed to calculate the impact of this expenditure by students who remain in Ireland to pursue further studies. Thus, there is an additional €10.7 million in expenditure from these students to be included in the modelling. The benefits from other cohorts would already be include in the following year's enrolments and are thus not included again to avoid double counting.

Table 6.18: Estimated Expenditure Benefits of Graduates Pursuing Further Studies in Ireland (2019/20 cohort)							
	Number of graduates pursuing further studies in Ireland following graduation	Present value of one years' expenditure (€m)					
Graduates from public HEIs - EU	266	2.4					
Graduates from public HEIs - non-EU	688	6.3					
Graduates from private HEIs - EU	75	0.7					
Graduates from private HEIs - non-EU	148	1.4					
Total	1,177	10.7					
Source: Indecon analysis							

Other non-quantified benefits

One of the main non-quantifiable potential benefits of the International Education Strategy is the attraction of talents to HEIs in Ireland. The vast majority of stakeholders contacted indicated that the IES has had a very significant or significant impact on the attraction of talent to Irish HEIs. Data provided to Indecon by the Department of Justice and Equality shows the significance of critical skills employment permits provided as outlined in the next table.

	Table 6.19: Empl	oymer	nt of N	on-EU	J Grad	uates				
Immigration Status	Permit Type	2013	2014	2015	2016	2017	2018	2019	2020	Grand Total
Stamp 2 – Graduate	Critical Skills Employment Permit		22	127	33					182
	Green Card	8	61							69
	Dependent/Partner/Spouse Employment Permit			2						2
	General Employment Permit		5	54	7					66
	Work Permit	7	70							77
	Sport and Cultural Employment Permit				1					1
Stamp 2/Stamp 1G – Graduate Stamp	Critical Skills Employment Permit				136	292	332	1,009	203	1,972
	Department/Partner/Spouse Employment Permit				1	2	1			4
	General Employment Permit				57	90	87	190	48	472
	Sport and Cultural Employment Permit				1			1	1	3
	Total	15	158	183	236	384	420	1,200	252	2,848
Source: Data provided	by the Department of Justice and E	quality t	o Indeco	on						

Also, of significant benefit is the role of the international education strategy is the development of R&D and other skills in the economy which impacts on the enterprise sector. The following table shows the growth in the number of research personnel in companies in Ireland since 2009.

Table 6.20: Research Personnel in Companies in Ireland (2009-2017)								
2009 2011 2013 2015 2017								
PhD qualified researchers	1,477	1,350	1,846	1,758	1,711			
Other researchers	6,256	7,646	8,948	9,538	10,857			
Technicians	2,599	3,227	4,141	4,844	4,896			
Support staff	1,628	1,897	2,169	2,243	2,077			
All research and development staff	11,960	14,120	17,104	18,383	19,541			
Source: CSO BERD data								

The contributions of Irish and international faculty staff to teaching and research and the exposure of researchers in Ireland to new knowledge and discovery enabled by international research collaboration likely represents a significant benefit to enterprises based in Ireland and to the wider economy and society. The following table shows the degree to which enterprises have engaged in Joint Research Projects with higher education institutions in Ireland or abroad. Almost a third of non-Irish owned firms had a JRP with a higher education institution in Ireland in 2017, a sharp increase from in 2015.

Table 6.21: Enterprises Engaged in Joint Research Projects (2009-2017)							
		2009	2011	2013	2015	2017	
Irish Owned Firm	Higher education or other institutes in Ireland	17.4%	18.7%	16.8%	17.2%	17.6%	
	Higher education or other institutes outside Ireland	8.3%	7.0%	8.1%	7.5%	7.1%	
Non-Irish Owned Firm	Higher education or other institutes in Ireland	22.4%	21.4%	21.4%	22.2%	30.7%	
	Higher education or other institutes outside Ireland	9.4%	9.9%	8.6%	8.8%	16.4%	
Source: Indecon	analysis of CSO data						

Education in Ireland and the enhancing network of the Department of Foreign Affairs and Trade plays an important role in building a presence for Ireland in international education markets. This provides an important source of export earnings in terms of fee income for the HE sector but also potentially has a wider impact on facilitating exports for other enterprises. The market contacts and relationships built by overseas students can open up doors for Irish exports in addition to the direct impact on export earnings of HE sector. While not included in our formal cost-benefit modelling, this is seen as an important benefit by stakeholders.



6.6 Formal Cost-Benefit Modelling

In our base case modelling Indecon applied a 100% shadow price of labour market. However, COVID has had an unprecedented impact on the Irish economy, including on the Irish labour market. A lower rate of 80% is also modelled in the sensitivity analysis. We have also applied the shadow cost of public funds of 130%. This is applied to the Departmental administrative costs for the IES.

In our modelling we use an appraisal period that covers the time that students stay in Ireland. Indecon has estimated the benefits of one year's cohort of international student, which includes the proportion of students staying in Ireland for one or two years following graduation.

We also apply a social discount rate which enables the estimation of the net present value (NPV) of both the costs and benefits of the proposed investment. This rate used is in line with the latest guidance from the Public Spending Code is 4%.⁵⁷

Table 6.22: Benefits	Included i	n CBA (201	16/ 17 – 20 1	L9/20)	
	2016/17	2017/18	2018/19	2019/20	Total Benefits (€m)
Fee Income					
Public HEIs - EU	36.0	34.2	39.6	44.1	153.9
Public HEIs - non-EU	305.9	340.8	395.3	425.2	1,467.1
Private HEIs	29.9	37.9	43.9	49.3	161.0
ELT Sector*	409.2	430.9	411.8	417.3	1,669.1
Sub-total fee income	780.9	843.7	890.6	935.9	3,451.1
Student Expenditure					
Public HEI - EU	41.7	44.4	51.8	55.1	193.0
Public HEI - non-EU	132.9	141.9	153.7	167.2	595.7
Private HEI	37.8	46.6	49.0	51.5	185.0
ELT Sector	123.8	128.3	122.6	124.3	499.1
Erasmus and other exchange students	35.3	35.0	36.5	32.7	139.5
Sub-total student expenditure	371.5	396.3	413.6	430.8	1,612.2
Research Income from EU	92.8	97.5	102.3	107.4	400.0
Total Wages of Graduates Employed in Ireland Following Graduation (Including element of tax paid on Shadow Priced Wages)					
Wages (Uni, IT, public colleges) - EU	26.6	30.5	31.6	31.7	120.3
Wages (Uni, IT, public colleges) – non-EU	68.8	77.6	88.1	93.8	328.3
Wages (private colleges)	20.8	27.1	28.2	29.7	105.9
Sub-total wages	116.2	135.2	147.9	155.3	554.6
Expenditure of Graduates Who Study in Ireland Following Graduation					
Public HEIs - EU	0.0	0.0	0.0	2.4	2.4
Public HEIs - non-EU	0.0	0.0	0.0	6.3	6.3
Private HEIs	0.0	0.0	0.0	2.0	2.0
Sub-total expenditure	0.0	0.0	0.0	10.7	10.7
Total Benefits	1,361.4	1,472.6	1,554.4	1,640.1	6,028.6

⁵⁷ Circular 18/2019: Update of the Public Spending Code (PSC): Central Technical References and Economic Appraisal Parameters



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Turning to cost, the different cost elements to be included in the CBA are illustrated in the table below. The Shadow Price of Public Funds of 130% has been applied to the net public funding elements of each of these items, to take into account the distortionary impact of taxation. As a result, there is a difference between the numbers in the table below and the levels outlined previously. However, in the baseline case, Indecon is assuming that the cost of provision is equal to the estimate of the cost of provision. This is due to the additionality of international students. Total costs are estimated to be slightly over €3.6b across the four academic years, once the shadow price of public funds is taken into account.

Table 6.23: Costs Included in CBA (2016/17 – 2019/20)					
	2016/17	2017/18	2018/19	2019/20	Total Costs
Cost of Provision					
Public HEI - EU	60.5	66.6	79.2	84.6	290.8
Public HEI - non-EU	214.2	235.4	263.1	285.7	998.3
Private HEI	28.4	36.0	41.7	46.9	152.9
ELT Sector	377.5	397.5	379.9	385.0	1,539.9
Erasmus and other exchange students	55.3	55.0	57.2	51.4	218.9
Sub-total cost of provision	735.9	790.4	821.1	853.5	3,200.9
Congestion Costs	83.9	87.3	88.1	90.0	349.2
Administrative, marketing and other costs					
DES	3.9	4.5	5.2	5.9	19.6
Other Admin and Marketing Costs	10.0	10.0	10.0	10.0	40.0
Sub-total admin and other costs	13.9	14.5	15.2	15.9	59.6
Total Costs	833.7	892.2	924.3	959.4	3,609.7
Source: Indecon analysis					

The benefit-cost ratio associated with these benefits and costs is estimated as 1.67, implying that for every €1 of costs associated with international students visiting Ireland, there is €1.67 in benefits.

Table 6.24: CBA Output				
Benefits (€m)	6,028.6			
Costs (€m)	3,609.7			
BCR	1.67			
Source: Indecon analysis				



6.7 Sensitivity Analysis

The findings of the CBAs presented in the preceding sections are based on a number of assumptions underlying key aspects of the costs and benefits of internationalisation. In line with best practice, we present a sensitivity analysis on the results of the CBA. Two main sensitivities are estimated:

 Assuming a marginal cost education provision
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☐ Different shadow price of labour.

Sensitivity Tests 1: Marginal Cost of Education Provision

One of the key figures is the cost of the provision of higher education for students. In the main analysis, Indecon estimated the cost of provision using FEC estimates derived by the HEA. In estimating marginal costs in our sensitivity, we assume that where less than 10% of the cohort is non-EU then the marginal cost of provision is applied to the cost level. This direct cost is based on the HEA's estimates of the cost of provision and breakdown between marginal and overhead costs. For fields with between 10-20% of the student body being non-EU student's half of the overhead cost are included in the cost of provision, whilst for those with over 20%, the full overhead costs of the provision are applied. This reflects the fact that for courses where international students represent a small proportion of the overall intake, many of these overhead costs would be incurred anyway even without the student deciding to study in Ireland. However, in order to ensure that costs are not underestimated, a full cost modelling approach is in Indecon's baseline model.

Table 6.25: CBA Output Assuming Marginal Cost of Provision				
Benefits (€m)	6,028.6			
Costs (€m)	3,430.6			
BCR	1.76			
Source: Indecon analysis				

Sensitivity Test 2: Application of Alternative Shadow Price of Labour

As a second sensitivity test, Indecon has applied a sensitivity of an 100% of shadow price of labour leads to lower benefits and a lower BCR than in the baseline model.

Table 6.26: CBA Output (100% Shadow Price of Labour)		
Benefits (€m)	5,652.6	
Costs (€m)	3,609.7	
BCR	1.57	
Source: Indecon analysis		

- While the evidence presented in this independent report suggests that the international education strategy has been effective, it is important to consider the overall net costs and benefits of the IES. This is relevant given the need to ensure the best use of scarce Exchequer resources. The main costs associated with international students are the costs of education provision for individual students. It is also important to include an approximate estimate of the costs of promoting international education by public bodies and agencies as well as the costs incurred by higher educations and other education providers.
- In the absence of detailed information, we have included a total annual cost of approximately €15 million to include the wider activation and marketing. We have included detailed costs involved on schemes by the Department as well as agency costs of approximately €5 million per annum. We have also included a congestion cost for the impacts of overseas students on resource costs in housing and transport. We have not included any fee income from VISAs as we believe these will be absorbed by extra administrative costs involved.
- In our cost benefit modelling Indecon has included a rigorous estimate of benefits in its CBA, taking account of fee income, as well as the <u>value-added</u> expenditure in the economy by international students and wages of international students who are employed in Ireland following graduation but taking account of the shadow price of labour. We have also included international research income secured. Indecon has estimated a Benefit Cost Ratio (BCR) of 1.67 in our baseline model, indicating that for every €1 of costs associated with international students visiting Ireland, there is €1.67 in benefits. These estimates are based on a conservative approach and assumes a shadow price of public funds of 130% for costs incurred by the Department in implementing the strategy. They also include a congestion cost for the use by overseas students of accommodation and transport resources. These estimates are based on utilising full average costs of provision and education. If a marginal approach to the costs is used the BCR rises to 1.76. The figures have been adjusted for the shadow price of labour relating to any employment income from international students.
- As well as the quantifiable benefits included in Indecon's modelling there are additional benefits to be considered for example the benefits of innovation/commercialisation, global reputation and reach and enhanced experience for all higher education students arising from the participation of international students and faculty. These benefits may be even more significant than the quantified benefits included in our formal cost benefit modelling.

7 Conclusions and Recommendations

7.1 Introduction

In this chapter we present our independent conclusions based on the analysis and evidence examined. We also identify recommendations for consideration. These are designed to build on the success of the international education strategy and to further enhance the cost effectiveness and economic impacts, taking into account in particular the huge impact that COVID-19 has had on the sector.

7.2 Conclusions

In the table below we summarise our key conclusions. These main conclusions are further discussed in subsequent paragraphs.

Table 7.1: Key Conclusions

- 1. Excellent progress has been made in achieving the main strategy objectives, particularly in terms of international student numbers and research income.
- 2. Significant data challenges exist in measuring impact of strategy on some of wider objectives.
- 3. International education has a major gross impact of €2.38 billion on the Irish economy.
- 4. Formalised cost benefit appraisal suggests strategy had a strong positive benefit to cost ratio.
- 5. Cost benefit economic impact greater for international students from non-EU countries.
- 6. Major challenges exist to future strategy arising from COVID-19 and from Brexit.
- 7. Issue concerning regulation of ELT sector needs ongoing monitoring.
- 8. Brexit likely to open up new opportunities for Ireland.

1. Excellent progress has been made in achieving the main strategy objectives, particularly in terms of international student numbers and research income.

Exceptional progress has been achieved in expanding the number of international students and in increasing overseas research income. The increase in overseas student numbers and research income has been impressive and highlights the success of the programme. These achievements should not be underestimated and have helped support the sustainability of the Irish education sector and have wider societal and educational impacts. Good progress has been made on a number of other aspects of the strategy, however there remain a challenge in achieving some of the wider goals of the globalisation of Irish education. For example, stakeholders felt that the strategy had been less effective in the attraction of international staff and researchers. This may reflect the fact that the attraction of international faculty including researchers is dependent on a wide range of areas including remuneration levels, the ranking of Irish Universities and the cost base of living in Ireland. Indecon notes that Ireland was successful in securing funding from 349 researchers under the MSCA and while Ireland has a higher average success rate than other EU member states the overall scale of this is relatively small compared to total faculty numbers. We also note that there are other measures in place to attract researchers to Ireland in both academia and industry.



2. Significant data challenges exist in measuring impact of strategy on some of wider objectives.

A number of the strategic objectives set were associated with clear quantified targets. However, this was not the case for all of the objectives. Indecon understands that significant data challenges exist in measuring the impact of some of the wider objectives. Further refinement of the targets and how they will be measured should be considered for the next strategy.

3. International education has a major gross impact of €2.38 billion on the Irish economy.

The significance of international education to the Irish economy can be seen by examining the gross economic impact of the fee income and expenditures of overseas students. Indecon's examination of the evidence demonstrated that the sector had a major economic impact on the Irish economy. Indecon estimates suggests that international education had a gross annual economic impact of €2.38 billion. The net value of the sector is however somewhat less, and this is reflected in our cost benefit appraisal.

4. Formalised cost benefit appraisal suggests strategy had a strong positive benefit to cost ratio.

A rigorous cost benefit analysis undertaken by Indecon has highlighted the very positive benefits to cost ratio from the quantified measurement of benefits. These estimates underestimate the wider economic benefits of international strategy.

5. Cost benefit economic impact greater for international students from non-EU countries.

A rigorous economic cost benefit appraisal was undertaken in line with the requirements of the Public Spending Code and with international best practice. Even after using conservative estimates of benefits and ensuring all costs were included, Indecon's modelling shows that international education had a strong positive benefit to cost ratio. This was higher for students from non-EU countries.

6. Major challenges exist to future strategy arising from COVID-19.

The COVID-19 pandemic will result in major challenges for the international education strategy in common with other sectors of the Irish economy. Particular challenges arise in relation to the attraction of overseas students and faculty and to the modes of delivery.

7. Issues remain concerning regulation of ELT sector needs ongoing monitoring.

The success of the international education strategy is dependent on the reputation of Ireland's education providers. Stakeholders suggest that some issues remain concerning the regulation of ELT sector and the impact of closure of any private sector colleges. Significant improvements in the regulation of the sector are recognised but potential issues remain concerning the need to ensure the viability and appropriateness of individual providers and of the quality of the education provision.



Brexit likely to open up new opportunities for Ireland.

With the withdrawal of the UK from the European Union, Ireland will be the only major Englishspeaking country in the EU. This will open up new opportunities for Ireland to increase our share of students wishing to study in the EU. There will also be significant potential new opportunities to expand research collaborations and incomes and to attract increased international researchers.

Recommendations

The strategy has been effective in expanding the sector and in achieving a number of key objectives. Indecon has however outlined a number of recommendations for consideration. These are designed to further enhance the impact of the IES and to take account of emerging developments. They also include consideration of a greater emphasis on some wider aspects of the globalisation of Irish Education.

Summary of Recommendations

- 1. Additional resources should be allocated to promoting international research collaborations and securing additional EU research income in Post-Brexit period.
- 2. Significant changes in offering to reflect COVID-19 impacts should be implemented.
- 3. Ways to facilitate increased global participation should be considered.
- 4. Greater clarity is required in definition of some of wider objectives of strategy and how success will be measured.
- 5. Continued focus on non-EU third level students is recommended but wider benefits of attracting other student categories should be taken into account.
- 6. Improvements in data to monitor progress are required.
- 7. Additional pathways to further education and employment for international students should be considered.
- 8. Ways to ensure ongoing involvement of key stakeholders in designing and implementing new strategy are recommended.
- 9. Maintaining standards should be a central part of new strategy.

1. Additional resources should be allocated to promoting international research collaborations and securing additional EU research income in Post-Brexit period.

Ireland has been very successful in achieving increased international research income. The benefits for Ireland of securing increased international research income was demonstrated by the evidence on the economic impacts on research income. This area is important as Ireland's potential research income could expand as a result of Brexit. The Government's decision this year to set up a new Department with responsibility for Further and Higher Education, Research, Innovation and Science emphasises the importance of HEIs in terms of research and innovation. Additional resources should therefore be allocated to support the educational providers to secure new international research opportunities. A well-resourced programme would likely have very high net economic benefits and could enable Ireland to secure increased research income from EU and other international sources. Also critical to this will be the expansion of transnational collaborations and these have wider benefits in terms of international faculty co-operation and the opportunities to learn from other countries.



2. Significant changes in offering to reflect COVID-19 impacts should be implemented.

Indecon recommends that education providers are supported to implement changes in educational offerings to reflect COVID-19 impacts. This will require changes in the mode of delivery and in the availability of a combination of on-site and off-site delivery. One specific aspect of this which was suggested as part of our stakeholder consultations was the concept of an online / blended model in which an Irish based educational provider could co-operate with universities or other higher educational institutions overseas to deliver on-line courses. Such initiatives would also reduce the environmental impacts of student mobility and could offer access to international faculty specialists for Irish students. Further investments in education technology (EdTech) should also be made including in online learnings and online education tools. Learning management systems, adaptive learning technology and online continuous professional development have the potential to deliver new ways of global learning. This offers new opportunities for customised education interactions for teaching staff and international students.

3. Ways to facilitate increased global participation should be examined.

While the focus of the international strategy has understandably been on the attraction of international students and research income, there are also major benefits of a wider global engagement strategy which facilitates Irish students and staff to gain the benefits of internationalisation via outbound mobility. This was recognised in the current strategy through, for example, the Academic Mobility Scheme, but there is merit in an increased focus on an overall approach to internationalisation including engagement with international partners. This was highlighted in our consultations. This could inter alia include increased measures to encourage outbound mobility. Ways to provide additional supports to facilitate the internationalisation of education should therefore be examined including enhancing information and support to Irish students and faculty as well as increased joint courses with international institutions. During our stakeholder consultation it was recommended that the future strategy should adopt a national approach to outbound mobility including the establishment of targets for participants. There was also recognition of the importance of a global curriculum as many Irish students will not be in a position to study abroad.

4. Greater clarity is required in definition of some of wider objectives of strategy and how success will be measured.

A number of the objectives of the strategy (for example achieving an internationally oriented globally competitive higher education) involve diverse areas including mobility for students and staff, the availability of accommodation and enhancing international co-operations. The importance of dealing with all aspects was reflected in inputs during our consultation programme. It was suggested that the strategy cannot be only about student recruitment and revenue and that diversity of students, developing alumni networks and student and faculty exchanges were also very important. Indecon would add the importance of linkages with the enterprise sector. Some of these objectives have been translated into measurable targets for example a target was set for an increase in international students. However greater clarity would be helpful in how other aspects of the objectives will be measured, while recognising that not all aspects of the strategy can be easily quantified. There is however a need for clear KPI's (both qualitative and quantitative) to be set for all of the objectives. Linked to this there would be merit in considering an independent review of the new strategy during its implementation and one of the stakeholders consulted suggested that a mid-term review is vital. Similarly, another stakeholder proposed a formal mid-term review of the performance of the new strategy. Indecon believes this would be consistent with best practice.



5. Continued focus on non-EU third level students is recommended but wider benefits of attracting other student categories should be taken into account.

A continued focus on attracting non-EU higher education students should remain a priority of the strategy. These students provide a significant direct economic impact and help underpin the financial sustainability of the higher education sector. However, facilitation of EU students and other categories of learners should continue to be supported. EU students contribute to the wider educational experience of Irish students and provide important cultural links with key EU partner countries. In considering what students should be attracted, there may also be merit in considering whether the international strategy should cover primary and secondary levels as well as higher education. Indecon believes that the attraction of students to publicly funded primary and second level schools would not be appropriate due to pressure on the Irish school system. However, there may be some potential for the strategy to support commercial educational providers charging fees to attract overseas students. International education beyond tertiary has been identified as an area for further development in other countries. In looking at best practices for the integration of international education beyond tertiary level, the Netherlands is an interesting example. It is however important that any expansion in the scope of the strategy would not diminish the resources or priorities given to the higher-level sector.

6. Improvements in data to monitor progress are required.

The effectiveness of future strategies would be enhanced if there was an improvement in up-to-date data to monitor progress and this would be aligned with best practice in ensuring evidence-based policy development. Indecon recommends that for every objective set, targets (whether quantitative or qualitative) should be identified and ways in which progress will be monitored should be specified. The data requirements to achieve this should be considered and resources allocated to improve data collection. Monitoring of progress should not be restricted to areas where the economic value can be easily quantified and there is a need to find ways to monitor the attraction of international faculty staff, outbound mobility of students and staff, linkage with enterprise and wider aspects of globalisation. The utilisation of refinements of HEAs annual mission-based performance compact data could be of use in this context. There is also merit in increased international benchmarking and this has been effectively used by Singapore and New Zealand. For example, Singapore has made extensive use of international benchmarking as a tool for improvement to move up the educational value chain. Staff of the ministry and educational providers visit other systems and explore international best practice. In terms of data, it was suggested during our consultations that "a key priority is the development of comprehensive definitions and consistent collection of data relating to inbound and outbound students". There is also a need to collect and monitor data on faculty mobility overall, international research partnerships, international research funding and engagement with industry.

7. Additional pathways to further education and employment for international students should be considered.

The pathways between further education and higher education are important in meeting the changing needs of those participating in the education sector and in addressing skill requirements in the Irish economy. This also applies to international students. For example, there may be opportunities for international students to participate in further education and training in Ireland as a pathway to the higher education sector or to employment in Ireland. Similarly, there may be opportunities for international students, who do not complete higher education courses, to transfer to further education and training providers before returning to higher education. The provision of a three to five-year graduate visa for certain areas of skill shortage with a pathway to residency in order to retain the skills of international students should also be evaluated, taking account of the needs of the labour market. One option would be to provide a three to five-year graduate visa for all occupations listed as areas of skill shortages. This requires careful planning but should be considered as part of the next strategy. (This could help in attracting skills in areas of skill shortages. It would, however, be important to ensure that this is implemented in a way which prevents any abuses of post study visas.) It was suggested in the consultations that the improved post-study work conditions in some other countries represents a threat to the growth of international education in Ireland. While aspects of other systems place an administrative burden on the education sector there are other areas where other countries may have a competitive advantage.

8. Ways to ensure ongoing involvement key shareholders in designing and implementing new strategy are recommended.

In ensuring the ongoing involvement of the sector and wider stakeholders is designing, implementing and reviewing the new strategy it would be useful to consider new ways of focussing inputs from different parts of the sector and from wider stakeholders. As part of our consultations a more segmented approach was proposed which recognises the variety of providers of international education and differences in international priorities and capacity to develop international outcomes. The need for a cross-government strategy involving the Department of Foreign Affairs, the Department of Justice and Equality and the Department of Business, Enterprise and Innovation working closely with the Department of Further and Higher Education, Research, Innovation and Science will also be important. The involvement of indigenous and multinational companies as well as inputs from IDA (Ireland), Science Foundation Ireland, IBEC and Chambers of Commerce would also add value. Linkages with enterprise representatives could include creating new work placements and scholarships for international students and developing linkages with international students from key export markets. This could also facilitate the development of enterprise components in academic programmes which would benefit both Irish and international students.

9. Maintaining standards Should be part of a new strategy.

The importance of quality assurance and effective regulation to the success of Ireland's international strategy, was recognised in the last strategy and was highlighted in our consultations. Continued refinement of quality assurance and regulation is needed. This is a challenge for most countries offering international education and has been a focus of strategies in Austria and New Zealand. For example, Australia supports the quality assurance on their international education offer by monitoring educational providers. Education providers that offer courses to international students are required to be on the Commonwealth Register of Institutions and Courses for Overseas Students.



To register, a provider must demonstrate their compliance with the National Code of Practice for Providers of Education and Training to Overseas Students. The code is legally enforceable, further protecting the rights of international students.'58 Other countries also take a similar approach to quality checks on education providers, including New Zealand. Maintaining standards in all aspects of international education including in the English Language training sector remains essential for the next strategy. During the consultations it was suggested that future policy must be underpinned by strengthening the regulatory environment to prevent market entrants who do not have the capacity to provide high quality education.

 $^{^{\}rm 58}$ The National Strategy for International Education 2025 (p16) https://nsie.education.gov.au/sites/default/files/docs/national_strategy_for_international_education_2025.pdf

