



Rialtas
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Tionscadal Éireann
Project Ireland
2040

Project Ireland 2040

Annual Report 2021



Prepared by the Department of Public Expenditure and Reform
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Cover images:

Sport Ireland Campus

Dublin Bus Electrification

Glin Heritage Trail, Knights Walk, Glin, Co Limerick

Foreword

I am delighted to publish the Project Ireland 2040 Annual Report for 2021. The Report is accompanied by three Regional Reports which provide a detailed overview of the public investments which have been made in the three Regional Assembly Areas: the Eastern and Midland Regional Assembly, the Northern and Western Regional Assembly and the Southern Regional Assembly.

The National Development Plan (NDP) was reviewed throughout 2021 and published on 4th October 2021. The NDP 2021-30, launched in Páirc Uí Chaoimh, sets out a 10-year €165 billion programme of capital investment aimed at upgrading Ireland's infrastructure, enhancing our economic capacity and promoting balanced regional development. The NDP sits alongside the National Planning Framework (NPF), and together they comprise "Project Ireland 2040". The NDP is the culmination of significant analysis and consultation, with extensive engagement across government departments and stakeholders. The NDP is ambitious, with record levels of investment, with a particular focus on priority solutions to strengthen housing, climate ambitions, transport, healthcare, jobs growth in every region and economic renewal for the decade ahead.

Last year, delivery was somewhat impacted by COVID-19 and the public health measures that enforced a ceasing of construction activity in the early months of the year. As we have successfully passed through the most challenging moments of the pandemic, it is now necessary that the construction of our NDP can return to full implementation from this point on. However as economies reopened in the aftermath of COVID-19, significant inflation, coupled with shortages in the supply of particular construction materials have been experienced. The Russian invasion of Ukraine has considerably exacerbated these pressures on construction projects. Since early 2022, significant increases in energy prices are driving further price increases leading to great uncertainty around delivery periods for certain construction materials. To mitigate this I have put in place measures to address the impact this is having on public works contracts. These measures are necessary and proportionate in the context of the significant risk that global exceptional inflation poses to the delivery of much needed infrastructure in the NDP.

A number of reforms have also been introduced by my Department to enhance the implementation of Project Ireland 2040, including an External Assurance Process for enhanced scrutiny of major projects. Membership of the Project Ireland 2040 Delivery Board has been extended to bring additional expert

knowledge, independent and regional perspectives, and an enhanced challenge function. Work is also ongoing to foster increasing levels of innovation in the Irish Construction Sector. Project Ireland 2040 needs a competitive, dynamic and sustainable construction sector to deliver new social, economic and climate resilient infrastructure. Mechanisms such as the Build Digital grant project which was launched in April 2022 are key elements in driving the innovation agenda.

This document outlines the progress made in 2021 under each of the ten National Strategic Outcomes - Compact Growth; Enhanced Regional Accessibility; Strengthened Rural Economies and Communities; Sustainable Mobility; A Strong Economy Supported by Enterprise, Innovation and Skills; High Quality International Connectivity; Enhanced Amenity and Heritage; Transition to a Low-Carbon and Climate-Resilient Society; Sustainable Management of Water Waste and other Environmental Resources; and Access to Quality Childcare, Education and Health Services. The Annual Report also documents progress in the National Planning Framework, as well as progress in reforms to the monitoring and implementation of Project Ireland 2040.

The following pages seek to document the progress made in 2021, which despite the unprecedented challenges of COVID-19 and the impact of the war in Ukraine, has paved the way for continued successful delivery in 2022 and beyond.



Michael McGrath TD,
Minister for Public Expenditure and Reform

Key Facts and Projects

NSO3 - Strengthened Rural Economies and Communities

- 25 Category 1 projects approved for funding from the third call of the Rural Regeneration and Development Fund.
- €15 million for Town and Village Renewal Scheme and 273 Outdoor Recreation Infrastructure Scheme projects approved.
- Roll-out of National Broadband Plan continued.

NSO 5 - A Strong Economy, supported by Enterprise, Innovation and Skills

- 275,384 in IDA supported employment, 207,894 in EI supported employment.
- 114 clients progressed into EI through support from Local Enterprise Offices.
- 72 successful project partners announced in Calls 1 - 3 of the Disruptive Technologies Innovation Fund.

NSO 1 - Compact Growth

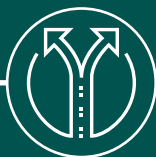
- 20,433 total new dwelling completions in 2021.
- 45 projects allocated €1.3 billion from second call of Urban Regeneration and Development Fund in March 2021.

NSO 2 - Enhanced Regional Connectivity

- N4 Collooney to Castlebaldwin, Sligo completed, planning permission granted for Galway ring road in 2021.
- Construction of the National Train Control Centre (NTCC) continued in 2021.

NSO 4 - Sustainable Mobility

- BusConnects - rollout of network redesign in Dublin, consultations in Cork.
- Metrolink - work ongoing on preliminary business case; Luas Green Line Capacity Enhancement - complete.
- Dart+ - Initial sequencing of investment will focus on electrification.
- Funding for Greenways increased substantially in 2021 with approximately €50 million allocated for projects across the regions.



NSO 6 - High Quality International Connectivity

- Work progressing at Dublin Port Cork Ringaskiddy, Shannon Foynes Port.
- Dublin Airport North Runway in construction, new visual control tower operational.

NSO 10 - Access to Quality Childcare, Education and Health Services

- €32 million was paid out in Minor Works Grants to primary and post primary schools and €34 million under the Summer Works Scheme.
- €50 million issued to schools under the new Digital Strategy.
- Health projects progressed across the country including, the completion of the paediatric Outpatient and Emergency Care Centre at Tallaght and the National Forensic Mental Hospital, Portrane.

NSO 9 - Sustainable Management of Water and other Environmental Resources

- 241 km of water mains laid, 26 km of sewers laid.
- €20.2 million was provided in 2021 to support landfill remediation work on 70 sites.

NSO 8 - Climate-Resilient Society

- 89 flood relief schemes were progressing in 2021 with a further 51 schemes completed up to end 2021.
- Publication of the Climate Action Plan 2021.

NSO 7 - Enhanced Amenity and Heritage

- Work ongoing on National Cultural Institutions.
- 33 successful projects valued at €86.3 million funded from last round of the Large Scale Sports Infrastructure Fund.





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Section 1:

Overview and economic context

Project Ireland 2040 is the long-term overarching strategy to make Ireland a better country for all of its people. Project Ireland 2040 represents a new approach to social and economic development. It is the first time that spatial planning and investment have been explicitly linked in Ireland.

By 2040, there will be an extra one million people living in our country. Project Ireland 2040 aims to accommodate this growth in a balanced and sustainable way and put in place the investment required to enable prosperity.

In 2021, total investment was estimated at €26.6 billion across sectors including housing, commercial building, civil engineering and public infrastructure. Total projected investment for 2022 is approximately €32 billion. The NDP sets out Departmental allocations to 2025 and a total public investment of €165 billion over the period 2021-2030. This will bring public investment to approximately 5 percent of GNI*.

1.1 The Economic Context for 2021

2020 and 2021 were unprecedented and uncertain years. The economy, as measured by Gross Domestic Product (GDP) was approximately €422 billion in 2021. GDP, at constant market prices, increased by 25 percent between 2019 and 2021, and increased by 14 percent between 2020 and 2021. The Balance of Payments Current Account recorded a surplus of €58.8 billion. Additionally, domestic activity covering personal, government and investment spending, increase by 6.5 percent. Several sectors such as Distribution, Transport, Hotels & Restaurants increased by 6.2 percent Arts and Entertainment increased by 12.6 percent and ICT increased 14.1 percent.¹

There were 2,506,000 persons in employment in Q4 2021. The official number of persons in employment was up 10.1 percent or 229,100 in the year to Q4 2021. This consisted of 95,800 males and 133,400 females. Employment increased significantly, between Q4 2019 and Q4 2021, in sectors such as ICT, Professional, Scientific and Technical Services, Education, Industry and Construction. Over the same time period, employment decreased in sectors such as Wholesale and retail trade, Accommodation and Food services and Administrative and Support Service Activities. It is important to note that employment increased in all regions over the same time period.

Additionally, the employment rate for those aged 15-64 was 73 percent in Q4 2021 compared to 67 percent in Q4 2020 and 70.1 percent in Q4 2019.

There were approximately 158,400 (full-time and part-time) construction sector employees in Q4 2021. This was approximately 7 percent of total employment in the State. This is the highest percentage when construction employment share is analysed between 2012 and 2021.

The volume of Output in Building and Construction shows us that activity in the construction sector remains lower than pre-pandemic levels with production volume in 2021 down 15 percent compared to 2019 and by 4 percent between 2020 and 2021. Focusing on just the residential sector, the volume of residential building output decreased by 16 percent between 2019 and 2021.

Average weekly earnings increased by 2 percent between 2020 and 2021. Between January 2021 and December 2021, a 15 percent increase was observed in the Wholesale Price Index (WPI) of Building and construction materials. Additionally, WPI increased by 2 percent between January and March 2022, with the WPI for Electricity and energy products, which are imperative for construction, increasing

by approximately 50 percent between January and March 2022.

GDP increased by 13.5 percent in 2021 as COVID-19 restrictions were eased and demand across the economy rapidly increased. Real GNI* in 2021 was 5.5 percent, and this is expected to fall to 3.7 percent in 2022 and 3.1 percent in 2023. It is noteworthy that components of GDP such as personal consumption, modified investment, exports, and modified imports increased by 5.7 percent, 9.7 percent, 16.6 percent, and 13.7 percent, respectively.

Exports in 2021 amounted to €165.2 billion. This is the highest total on record. Imports amounted to €102.6 billion, increasing by nearly 20 percent from 2020. Overall, a trade surplus of €62.6 billion was recorded in 2021.

Risks are persistent in the global economy from the impact and effects of COVID-19. Additionally, the conflict between Russia and Ukraine has increased uncertainty about the recovery of the global economy.

1.2 Investment Growth in 2021

Project Ireland 2040 is predicated on a steep increase in public investment over the medium-term. The NDP sets out Departmental allocations to 2025 and a total public investment of €165 billion over the period 2021-2030. This will bring public investment to approximately 5 percent of GNI*, well above the recent EU average of 3 percent of GDP.

The official measure of total investment in the sector (including both private and public investment) is Gross Fixed Capital Formation (GFCF) in Building and Construction. Total investment was estimated at €26.6 billion for 2021 and covers housing, commercial building, civil engineering and public infrastructure. Total projected investment for 2022 will reach approximately €32 billion.

Public investment in Ireland in 2021 was approximately 4.4 percent of national income (GNI*). In 2022, public investment is forecasted to be approximately 5 percent of GNI*. This level of investment is in keeping with the Government's target in the revised NDP of approximately 5 percent of GNI* over the period 2021-2030. Over this period, an annual average increase of investment of approximately 5 percent is planned. It is important to state that it is forecast that 2022 will see the largest Exchequer capital investment in the history of the state at just over €12 billion.

¹ CSO

Table 1: Exchequer Investment by Department and year (€m)

	2020	2021	2022
Agriculture, Food and the Marine	280	257	317
Children, Equality, Disability, Integration and Youth	35	26	33
Defence	159	130	141
Education	901	987	792
Enterprise, Trade and Employment	1,431	606	545
Environment, Climate and Communications	306	494	971
Finance	29	32	22
Foreign Affairs	11	8	25
Further and Higher Education, Research, Innovation and Science	174	462	552
Health	1,036	936	1,060
Housing, Local Government and Heritage	2,195	2,114	3,410
Justice	240	244	270
Public Expenditure and Reform	200	206	307
Rural and Community Development	154	151	192
Social Protection	9	13	16
Tourism, Culture, Arts, Gaeltacht, Sport and Media	152	133	202
Transport	1,787	2,317	2,547
<i>Shared Island Fund</i>			25
<i>European Regional Development Fund</i>			70
TOTAL VOTE*	9,098	9,114	11,498**

2020 Appropriation Account outturn, 2021 REV including supplementary estimates and the 2022 REV

*Rounding effects totals.

** Not including- €820 million carried over from 2021

Source: 2020 Appropriation Account Outturn, 2021 Provisional Outturn, 2022 REV Allocations

1.3 Capital Investment and Activity in 2022

The overall gross capital allocation for 2022 is €11,498 million, out of which €10,908 million is core investment and €591 million is non-core. Therefore, in 2022, core capital expenditure will reach 4.8 percent of GNI*, higher than the target of 4 percent set out in the National Development Plan as published in 2018.

The Stability Programme Update (SPU), published by the Department of Finance in April 2022, shows that gross voted capital expenditure will rise to €13,600 million by 2025.

The 2022 SPU contains macroeconomic projections that point to the increased demand for infrastructure to support economic activity. Real GDP is projected to increase by 6.4 percent in 2022, 4.4 percent in 2023, 4.0 in 2024, and 3.8 percent in 2025. Modified Domestic Demand (MDD), the preferred measure of economic activity, is projected to increase by 4.25 percent in 2022, a figure that incorporates a 2.25 percentage point downward revision from the Department of Finance's previous set of forecasts,

published alongside *Budget 2022*. In 2023, MDD growth of just under 4 percent is forecasted.

The key driver of inflation over the past six months or so has been higher energy prices, which are currently adding almost 4 percentage points to the annual inflation rate. The 2022 SPU expects inflation to continue to peak in the second quarter of this year, and to decelerate slowly thereafter as energy prices ease and supply chain disruptions unwind. For the year as a whole, headline inflation is projected to average 6.2 percent, with an annual rate of 3 percent expected for next year.

1.4 Report Structure

This report sets out progress achieved in the fourth year of Project Ireland 2040. Section 2 outlines the main outputs delivered under each of the Project Ireland 2040 National Strategic Outcomes, which are as follows:

- Compact growth
- Enhanced regional accessibility
- Strengthened rural economies and communities

- Sustainable mobility
- A strong economy supported by enterprise, innovation and skills
- High quality international connectivity
- Enhanced amenity and heritage
- Transition to a low carbon, climate resilient society
- Sustainable water waste and other environmental resources
- Quality childcare, education and health services
- Other public investment sectors

Section 2 also highlights the high-level priorities for 2021 under each outcome.

Section 3 updates on progress with the spatial dimension of Project Ireland 2040 and describes legislative change and institutions set up to implement national planning policy.

Section 4 presents a range of institutional and organisational changes implemented in 2020 to support the delivery of Project Ireland 2040. This section also describes a number of changes to be implemented in 2022, which aim to improve project governance, bring greater accuracy to forecasting project costs and reforms to the processes for project selection and procurement.

Section 2:

Delivering our National Strategic Outcomes

Project Ireland 2040 set out ten National Strategic Outcomes (NSOs), built around the over-arching themes of wellbeing, equality and opportunity. The ten priorities embed a link between the new approach to spatial planning and our national public investment strategy. The fourth year of Project Ireland 2040 has seen clear progress across each NSO, as set out in this Section.





2.1

Compact Growth

The benefits of compact growth are that it can bring new life and footfall to the centres of our cities, towns and villages, contribute to the viability of services, shops and public transport, add to housing supply and enable more people to be closer to employment and recreational opportunities, as well as to walk or cycle more and use the car less. Along with minimising transport demand, higher densities and shorter travel distances will also reduce energy demand and use.

Since the finalisation of the three Regional Spatial and Economic Strategies (RSEs) in January 2020, all local authorities have now commenced the statutory review of their County or City Development Plan. This cycle of review will be ongoing to mid-2023, overseen by the Office of the Planning Regulator (OPR). This review process will ensure the translation of the compact growth principles as set out in the National Planning Framework (NPF) to regional and local levels of plan making. This plan-led approach will ultimately influence the location and form of development, which takes place across the country.

The continued enabling and co-alignment between various funding supports in targeting strategic capital investment proposals, which supports balanced regional development, compact urban growth and targeted urban regeneration projects remain a priority.

While our towns and villages have shown remarkable resilience through recent crises, they require specific policy supports to ensure that they continue to function as viable, vibrant and attractive locations for people to live and work, to raise families, to act as the service, cultural and recreational hub for the surrounding areas, and to facilitate social and community interaction.

The Office of the Planning Regulator (OPR)

The Office of the Planning Regulator (OPR) was established in April 2019. The OPR is responsible for the assessment of all local authority and regional assembly forward planning, including zoning decisions. The Regulator has the power to advise the Minister on whether a plan made by a local authority conflicts with national planning policy and to recommend that the Minister make directions where any plan is not in compliance with national policy. The Regulator will also ensure that planning authorities are operating to the highest standards of integrity and best practice, ensuring that planning policy decisions in their development plan-making roles are in line with national and regional policies as set out in the NPF and RSEs.

In 2021, the OPR evaluated and inputted into forty-six local authority statutory forward planning processes. This included making recommendations on draft development and local area plans, amendments to local area plans, variations to City / County development plans and contributions to development plan issues papers.

In addition to its plan evaluation role, the OPR is responsible for reviewing the systems and procedures used by local authorities and An Bord Pleanála in performing their planning functions. In September 2021 the OPR published a review of Tipperary County Council, its first report into local authority systems and procedures.

The OPR continues to drive national research, education and public information programmes to highlight the role and benefit of planning.

In 2021, the OPR, in conjunction with the Association of Irish Local Government (AILG), developed a planning training programme for the elected members of planning authorities and delivered eight training events.

The OPR delivered two online training events specifically tailored for the staff of planning authorities and advanced work in conjunction with the County and City Management Association (CCMA) on a Learning and Development Strategy for local authority and regional assembly planning staff.

As part of its public awareness brief the OPR, in conjunction with the Department of Housing, Local Government and Heritage (DHLGH), published an online Planning Leaflet Series. The leaflets were launched by the Minister of State for Local Government and Planning, Peter Burke, TD, in January 2021. The OPR also sponsored three episodes of the RTE broadcast Eco-Eye programme, which explores environmental issues impacting Ireland. The OPR worked with Eco-Eye in 2021 to conclude the production of programmes with core themes relating to sustainable spatial planning, for broadcast in early 2022. The OPR continued to grow the planning resources available on its website and to advance several research projects in 2021.

The Land Development Agency

The Land Development Agency (LDA) was established on an interim basis in September 2018, by way of an Establishment Order made under the Local Government Services (Corporate Bodies) Act 1971. The Land Development Act 2021 allowed for the establishment of the Land Development Agency Designated Activity Company (DAC) in December 2021. Following the commencement of relevant provisions of the LDA Act and the dissolution of the interim entity, the LDA was established as a wholly commercial state body in 2021.

The LDA has an immediate focus on managing the State's own lands to develop new homes, and regenerate under-utilised sites. In the longer-term, it will assemble strategic land-banks from a mix of public and private lands, making these available for housing in a controlled manner, which brings essential long-term stability to the Irish housing market. Delivery of the compact growth objectives in the NPF will benefit from better and more strategic use of public lands.

On establishment, the Agency had access to 8 sites. Significant preparatory work is underway in relation to these sites, with feasibility, planning and other preparatory works initiated. The LDA received planning permission for a Strategic Housing

Development (SHD) at the St. Kevin's Hospital site in Cork City in April 2021 and is progressing other key sites, including the Central Mental Hospital Lands in Dundrum, Dublin and the Devoy Barracks Site in Nass, Co. Kildare, through the planning system.

In addition to the initial sites, the LDA has already secured planning permission for 597 units at Shanganagh in conjunction with Dún Laoghaire-Rathdown County Council. Approximately 34 percent of the units will be for social housing, 51 percent will be cost rental and 15 percent will be for affordable purchase. Work has commenced on the construction tender process.

The LDA's role will increasingly expand beyond the initial focus on these public lands, to encompass important work in master-planning critical urban sites and leading out in partnerships with local authorities on the development of quality urban areas.

Examples of this type of active land management is demonstrated in their engagement with Limerick City and County Council and other public bodies in relation to Colbert Station, and with Galway County Council in relation to Sandy Row, Galway. A Cork Docklands Delivery Office was also established by Cork City Council in partnership with the LDA. The focus of this office is on supporting and catalysing the Cork Docklands area.

Housing for All 2021, the Government's national plan on housing to 2030, identifies a further 20 sites for transfer to the LDA with the potential to yield up to 15,000 units over time.

Four Project Ireland 2040 Enabling Funds

The four Project Ireland 2040 funds worth a total of €4 billion to 2027 will provide Exchequer grant-aid to support urban and rural regeneration and development, disruptive technologies and climate action. All four are competitive bid-based funds and the largest, €2 billion Urban Regeneration and Development Fund (URDF) was developed by the Department of Housing, Local Government and Heritage (DHLGH) to support measures that will contribute to the more sustainable development of cities and large towns. DHLGH also contributed to the Rural Regeneration and Development Fund (RRDF) process, which is overseen by the Department of Rural and Community Development (DRCD).

Urban Regeneration and Development Fund (URDF)

The Urban Regeneration and Development Fund (URDF) was launched in 2018 to support more compact and sustainable development. The Fund is providing part-funding for applicant-led projects that will enable a greater proportion of residential and mixed-use development to be delivered within the existing built-up footprints of our cities and large towns, while also ensuring that more parts of our

urban areas can become attractive and vibrant places in which people choose to live and work, as well as to invest and to visit.

In keeping with the aims of the National Planning Framework and Project Ireland 2040, the URDF demonstrates a new and more tailored approach to the provision of Government support. Over its planned duration up to 2030, URDF support in excess of €2 billion will be targeted in an integrated, dynamic and responsive way to support the regeneration and rejuvenation of our towns and cities.

Through the URDF, successful applicants receive targeted integrated support for innovative holistic solutions to the issues that have hindered the regeneration and rejuvenation of our large towns and cities.

To date there have been two calls for proposals under the URDF with a total of almost €312 million allocated so far in respect of the 87 projects approved under call 1, while in March 2021 URDF funding support of €1.3 billion was announced in respect of a countrywide programme consisting of a further 45 proposals approved under call 2.

The 45 proposals approved under call 2 in 2021 builds on the existing pipeline of URDF supported projects launched under call 1. This URDF supported programme of projects will ultimately contribute significantly to the transformative regeneration and development of our large towns and cities, and to the achievement of NPF and Project Ireland 2040 objectives.

The following table shows the largest 16 successful projects funded from the URDF.

Lead Council	Projects
Cork City Council	Cork City Docklands
South Dublin County Council	Clonburris
Dublin City Council	North Inner City Concept Area 1
Waterford City & County Council	Waterford City & Environs North Quay
Limerick City & County Council	Worldclass Waterfront
Dublin City Council	South Inner City Concept Area 2
Cork City Council	Grand Parade Quarter
Limerick City & County Council	Living Limerick City Centre Initiative
Dún Laoghaire Rathdown	Cherrywood PA
Limerick City & County Council	Living Limerick City Centre Initiative
Galway City Council	Transport Connectivity Project
South Dublin County Council	Tallaght Town Centre
Sligo County Council	Sligo Cultural and Learning Hub
Waterford City & County Council	Waterford City Centre Regeneration
Fingal County Council	Balbriggan Rejuvenation
Sligo County Council	Implementation of Sligo Public Realm

Town Centre First

In 2021 the Department of Rural and Community Development and the Department of Housing, Local Government and Heritage developed Town Centre First policy, which was launched in February 2022 by the Minister for Rural and Community Development, Heather Humphreys TD, and the Minister of State with responsibility for Local Government and Planning, Peter Burke TD. In December 2021, Minister for Rural and Community Development, Heather Humphreys TD, announced €2.6 million in funding to deliver Town Centre First Plans. Twenty-six towns were selected. Under the initiative, each local authority will be provided with €100,000 to support the development of its own unique Town Centre First (TCF) Plan.

TCF is a commitment of the Programme for Government and is built on the firm foundation of NSO 1 Compact Growth of Project Ireland 2040 and the objectives of the National Planning Framework, which seeks to build strong towns that can provide services and opportunities to local residents and businesses alike. Housing for All strongly supports the Town Centre First approach and in particular, the greater re-use and refurbishment of existing buildings as a policy objective, with more infill and brownfield sites activated to regenerate the heart of our towns and bring people and activity back. Our Rural Future the Governments framework for the development of rural Ireland also outlines a vision to support the regeneration and development of rural towns and villages.

TCF represents a new approach to the development of our towns where local communities and local

businesses can be central to reimagining their own towns and planning their own futures. It will provide a co-ordinated, whole-of-government policy framework to address the decline in the health of towns across Ireland and support measures to regenerate and revitalise them.

A key feature of the policy will be the preparation of a TCF Plans for each town to be developed by the local community supported by the local authority to identify and analyse the challenges facing the town and propose initiatives/projects to address them.

The TCF policy will mainly be implemented by a National TCF Office located in the Local Government Management Agency with funding of €500,000 per year sourced from the Housing for All Implementation Fund. Both Departments (DHLGH & DRCD) are working with the Local Government Sector to ensure an early establishment of this Office in 2022. The delivery of the TCF policy will be overseen by a National Oversight and Advisory Group, with an Annual Implementation Plan and regular Progress Reports. The delivery at town level will be supported by a network of Town Regeneration Officers throughout the Local Government sector.

Zoned Land Tax

A Residential Zoned Land Tax was introduced in the Finance Act 2021 as a land activation measure. Its purpose is to incentivise the activation of land which is zoned and serviced for residential development but which remains undeveloped. It is primarily intended to influence behaviour and assist the realisation of increased housing output rather than to raise

revenue. The tax is intended to replace the Vacant Site Levy.

The ZLT will apply to all lands zoned and serviced for housing. It will be levied annually at a rate of 3 percent of the market value of the land. For the ZLT to apply most of the site must be, vacant or idle for in excess of 12 months, be zoned for residential or regeneration purposes, and be in an area in need of housing. There will be a two year lead in time for land zoned before January 2022 and a three year lead in time for land zoned after January 2022.

The Department of Housing, Local Government and Heritage (DHLGH) is developing guidance in relation to the mapping exercise that each local authority will need to undertake in order to identify lands that come within the scope of the tax.

Land Value Sharing and Urban Development Zones Bill 2021

The Government approved the publication of the general scheme (draft heads) of the Land Value Sharing and Urban Development Zones Bill 2021. The general scheme provides for:

- (a) local authorities to secure a proportion of the increase in land values arising from public decisions and investment related to planning and development on land that is newly zoned for housing, or subject to an Urban Development Zone designation, and
- (b) Designation of Urban Development Zones which have potential for significant development for housing and other purposes.

These proposed land activation measures are included in the Programme for Government and support NSO 1 Compact Growth of Project Ireland 2040 and objectives of Housing for All, the Government's national plan on housing to 2030.

The zoned land tax allows for the State to secure a greater share of community gain from the planning and development process, while the Urban Development Zone Legislation will be key to securing the development of brownfield and regeneration lands in urban areas. The Department of Housing, Local Government and Heritage continue to develop these proposals and to draft legislation in relation to Land Value Sharing and Urban Development Zones.

Housing Supply

The Central Statistics Office (CSO) published their new dwelling completions quarterly series for the first time in June 2018.

- The numbers of new homes becoming available for use in 2021 was 23,520. This was a 0.3 percent decrease on 2020 (23,585).

- New dwelling completions for the same period totalled 20,433, a decrease of 0.5 percent on the full year 2020, when 20,526 dwellings were completed.
- In 2021, 80.3 percent of all new dwelling completions were in urban areas and the remainder in rural areas. At the beginning of the series in 2011, 38 percent were in urban and 62 percent in rural areas.
- 42,991 planning permissions were granted in 2021.
 - » In 2021, commencement notices for 30,724 new homes were submitted, an annual increase of 41.6 percent.
 - » In 2021, registrations for HomeBond, an insurance scheme that relates primarily to multiple unit housing schemes, totalled 17,294, an annual increase of 86.7 percent.

Social Housing

The latest published figures cover the period up to end Q4 2021 and show that over 23,000 households had their housing needs met in 2021, which was short of the annual target of 28,550. The COVID-19 pandemic and subsequent halt to construction meant that delivery was affected. A total of 9,183 new homes were brought into the active social housing stock in 2021 through build, acquisitions and leasing programmes. By end 2021, over 48,000 new social homes in the period 2016-2021 have been delivered. The latest Construction Status Report shows that 8,749 social homes are currently onsite with an additional 10,455 homes in the pipeline. In quarter 4 2021, 120 new construction schemes, (2,050 homes) were added to the pipeline. The Social Housing Programme was facilitated by over €3.3 billion of Exchequer investment in 2021.

Social Housing PPP Programme

In 2021 construction was completed on Bundles 1 and 2 of the Social Housing PPP Programme and the new homes are now fully tenanted. Bundle 1 delivered 534 houses and apartments across six sites in Dublin, Kildare, Louth and Wicklow in 2020 and 2021. Bundle 2 delivered 465 homes in 2021 across eight sites in Cork, Clare, Galway, Kildare, Roscommon, and Waterford.

In terms of Bundle 3, the Social Housing PPP Programme will deliver in the region of 486 new homes across six sites in Dublin, Kildare, Sligo and Wicklow. Design development commenced in late 2020 following the procurement of project technical advisors and a number of the sites have commenced the statutory planning process. Tenants for all these homes will be drawn, in the normal manner, from the local authority's social housing waiting list in accordance with its allocation scheme.

2.2

Enhanced Regional Accessibility

At the core of Project Ireland 2040 is the policy objective of supporting balanced regional growth. To underpin this, the Government is committed to enabling better regional accessibility.

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In 2021, there was significant progress in developing new transport links through the appraisal, planning and procurement stages. As set out in Project Ireland 2040, improving access to the north-west is a strategic aim to support balanced national development.

Key Achievements/Highlights in 2021

- N4 Collooney to Castlebaldwin, Sligo. Government approval received to award the construction contract on 29 January 2019. Construction works were completed in October 2021.
- N5 Westport to Turlough, Mayo. Government approval received to award the construction contract on 15 October 2019, construction is ongoing with completion expected in 2023.
- N22 Ballyvourney to Macroom, Cork. Government approval received to award construction contract on 15 October 2019. Construction is ongoing and is expected to be completed in early 2024.
- M8/N25 Dunkettle Interchange. Government approved the award of the Design and Build contract in October 2020. Construction is ongoing and completion is expected in 2024. A section of cycleway was constructed with the advance works and opened in November 2020.
- N21/N69 Foynes to Limerick (Adare Bypass). Government approval received on 30 October 2019 to submit the scheme to An Bord Pleanála for planning approval. It is hoped to progress the Adare Bypass element of this project first, in time for the Ryder Cup in 2027.
- Permission was granted by An Bord Pleanála for the N6 Galway Ring Road in December 2021.

Investment in the Inter-Urban Rail Network

In 2019, Government approved a new and significantly enhanced 5-year funding programme for the maintenance and renewal of the rail network. This funding programme, known as the Infrastructure Manager Multi-Annual Contract (IMMAC) will benefit passengers across the rail network through increased service reliability and punctuality, improved journey times and continued safety of rail services.

Exchequer funding provided under Project Ireland 2040 for IMMAC 2020 to 2024 amounts to just in excess of €1 billion, representing an over 40 percent increase on the level of Exchequer funding provided

under the previous programme, IMMAC 2014 to 2018. This increased level of funding means that the heavy rail network is now being funded at the 'steady state' level of funding required to ensure optimal maintenance and renewal of the network and identified in Project Ireland 2040 as the foremost funding priority for the network.

The NTA and Iarnród Éireann progressed the order for an additional 41 Inter-City Railcars (ICRs) which are expected to enter service in 2023. The ICRs will further enhance and expand the rail fleet.

Heavy Rail Network 2021

Construction of the National Train Control Centre (NTCC) continued in 2021, with completion expected in 2024. The NTCC is a key enabler for expansion of rail services as it will enhance rail traffic management and will underpin both the planned and potential future expansion of rail services across the entire rail network.

In 2021, the new and significantly enhanced 5-year funding programme for the maintenance and renewal of the rail network (the IMMAC) was increased further, meaning Exchequer funding provided under Project Ireland 2040 for IMMAC 2020 to 2024 amounts to in excess of €1.1 billion. Funding under the IMMAC allowed for an enhanced programme of track-relaying works on the Dublin-Cork line as well as additional station improvement works.

Project Ireland 2040 also commits to an evaluation of the economic benefits and value for money of high-speed rail on the main inter-urban rail network against improvements to existing and planned line speeds along the lines. In 2020, it was decided to expand the scope of this evaluation into an all-island Strategic Rail Review. In consultation with the Department for Infrastructure in Northern Ireland and other relevant stakeholders, terms of reference were agreed and consultants appointed. The Review commenced in September 2021 and a final report is expected in Quarter 4 of 2022. As well as the potential for high/higher speed rail, the Strategic Rail Review will consider inter-urban and inter-regional connectivity and connectivity to our international air and seaports and, in that regard, the potential for rail freight.



2.3

Strengthened Rural Economies and Communities

One of the key objectives for the Government's Project Ireland 2040 strategy is to achieve the goal of strengthened rural economies and communities.

Rural Regeneration and Development Fund

The Rural Regeneration and Development Fund (RRDF), launched in 2018, is providing the investment needed to support rural renewal, strengthen and build resilience in rural towns, villages and communities and deliver on the objectives of Project Ireland 2040.

The RRDF is administered by the Department of Rural and Community Development (DRCD) and is complemented by a range of additional programmes and schemes delivered under the Department's Rural Regeneration Programme as part of Project Ireland 2040, which helps maintain and develop the growth and vitality of rural areas and supports communities and organisations to meet their needs.

The four schemes funded through the Rural Regeneration and Development Fund are the RRDF Category 1 and 2, the Town and Village Renewal Scheme and the Outdoor Recreation Infrastructure Scheme.

RRDF Category 1 and Category 2

The RRDF Category 1 and Category 2 funding is targeted towards revitalising rural towns, villages and outlying areas with populations of less than 10,000. This is being achieved through addressing dereliction, ensuring the re-use of heritage and other buildings and providing essential facilities and infrastructure, including remote working and digital hubs.

In April 2021, the third call for Category 1 applications was concluded. Category 1 funding is for large scale ambitious capital projects with all necessary planning and other consents in place and which are ready to proceed. Funding of €84.5 million was approved for 25 Category 1 projects with a total value of €102.5 million.

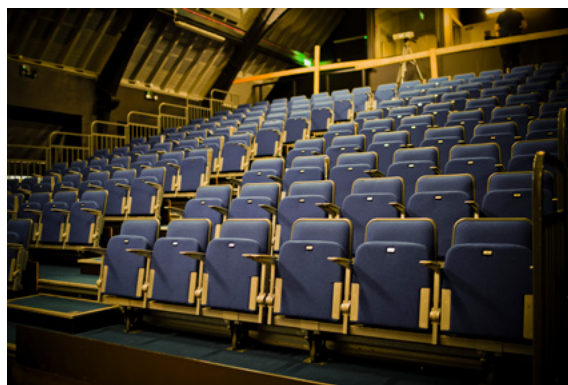
Amongst the successful projects were:

- Carndonagh Tus NUA Regeneration project, led by Donegal County Council approved for funding of €8.2 million. This is a transformational project for the centre of Carndonagh in Donegal, with elements of town regeneration and development. The project includes the restoration of vacant town-centre buildings to provide a new Digital Fabrication Laboratory and Co-Working Hub, a social space for young people and teenagers and a Creative Makers Hub for creative and craft industries. The project will support the sustainable development of the town core that will enable social, economic and cultural renewal.
- The Ulster Canal Restoration Phase 2 project, led by Waterways Ireland was approved for funding of €5.6 million. This project will restore the Clones section of the canal, creating a navigation channel extending from Clones to the Clonfad Aqueduct. The project will meet the objective of reopening the canal as a symbolic post-conflict peace

enabler, deliver increased tourism activity in the area, improve Clones as a place to live and work and promote conservation and appreciation of waterway heritage.

- Ballymahon's Pobal le Chéile project, led by Longford County Council was approved for funding of almost €6 million. This is a transformational regeneration project for Ballymahon to address the social, economic and physical needs of the town. The project will bring a number of vacant buildings located in the centre of the town back into use to provide key services for the local community including enhanced family support services, a new dedicated youth club, enhanced elderly care services and a new rural working hub. The project will have a significant and sustainable impact on the social and economic devilment of the community by delivering a campus of scale that will provide community services and deliver sustainable regeneration.
- Youghal Public Library project, led by Cork County Council was approved for funding of €4 million. This project will provide a new modern and fully resourced library through the complete renovation and extension of a collection of derelict buildings on Youghal's North Main Street. The library will reinvigorate the town centre and provide essential community facilities and services and an accessible public space in the town centre for the local community and visitors to the town.

The third call for Category 2 applications was announced in May 2021 with a closing date of 30 July 2021. 53 applications were submitted to the third call for Category 2 applications.



Cavan County Council were awarded €750k in 2017 to refurbish Townhall Cavan under the Arts and Culture Capital Scheme 2016-2018. They drew down €494,562 in 2019 and €162,588 in 2021 (total of €657,150 to date) with one final drawdown outstanding.

Town and Village Renewal Scheme

The Town and Village Renewal Scheme provides funding for medium and small scale projects that aim to make our rural towns and villages more attractive and sustainable. Funding can be provided for a

wide range of interventions including public-realm projects, town centre enhancements, encouraging town centre living, and economic development projects. Applications for funding are submitted to DRCD through the local authorities. The scheme has an annual budget of €15 million. The 2021 scheme prioritised the renovation of derelict and vacant buildings in our town centres, with a view to bringing these buildings back into use. The scale of projects eligible under the scheme was also increased with funding of up to €500,000 being available.

Outdoor Recreation Infrastructure Scheme (ORIS)

The Outdoor Recreation Infrastructure Scheme (ORIS) provides funding for the development, maintenance, enhancement or promotion of outdoor recreational infrastructure in countryside areas. Projects include walking trails, cycleways, upland path repairs and blueways.

In particular, the 2021 scheme emphasises the opportunities for recreational amenities located near rivers, lakes and beaches. The 2021 scheme also seeks to support recreational infrastructure that provide an inclusive approach for communities to deliver outlets that support a diverse range of users, including people with disabilities and older adults.

Funding of over €17.9 million was approved for 271 projects under the 2021 Scheme.

Projects approved under ORIS in 2021 by region		
Region	No. of projects approved	Value of approvals in 2021
Eastern	74	€4,574,006
Northern and Western	91	€6,588,361
Southern	106	€6,802,651
Total	271	€17,965,017

Support and grow Tourism in rural Communities

As outlined in the NDP, the Department's investment priorities look to support and grow tourism in rural communities. Tourism makes a very important contribution to the policy goals of strengthening rural economies and communities (NSO 3) and enhancing amenity and heritage (NSO 7).

Tourism contributes to essential employment in all counties, especially in regional locations

outside of the main cities where other employment opportunities are limited. Fáilte Ireland is currently investing in large-scale tourism attractions and experiences through its capital investment programme, Platforms for Growth (2019 to 2022). This programme has run two investment platforms to date – a programme of funding to support and expand immersive heritage and cultural attractions

and an investment programme, in partnership with Local Authorities, to develop activity facility centres for water-based activities. Both of these platforms completed their assessment processes in 2021 and announced the projects to be supported. Further focused calls on themed platforms may be announced during the life of the Programme.

In addition to its large grants schemes and strategic partnerships, Fáilte Ireland also provides capital supports to tourism attractions and experiences in Ireland through a range of regional small grants schemes and makes direct investment into developing infrastructure for the four tourism experience brands (*Wild Atlantic Way, Ireland's Ancient East, Ireland's Hidden Heartlands* and *Dublin*).

Fáilte Ireland also continues to invest in cultural and heritage tourism attractions through strategic partnerships with the OPW/Department of Housing, Local Government and Heritage; National Parks & Wildlife Service; Coillte; and Waterways Ireland. These critical partnerships continue to deliver capital projects that realise the tourism potential of the State's natural and built heritage assets. Through these strategic partnerships, and other collaborations with Government Departments and agencies, Fáilte Ireland is able to invest in the enhancement of visitor attractions and activities and advise on further experience development and marketing.

Fáilte Ireland has developed an approach to destination development, as set out in its new Destination Development Framework, centred on collaborative local tourism development plans ("DEDPS") that identify agreed priorities for sustainable tourism development of the destination. A number of DEDPs have already been prepared and the following were launched in 2021:

- Clew Bay, Co. Mayo
- Dingle Peninsula, Co. Kerry
- Lough Derg (comprising part of Counties Tipperary, Clare & Galway)
- Thoroughbred Country (Kildare and Tipperary)
- Ancient (Louth & Meath)

COVID-19

The onset of the COVID-19 pandemic and ongoing related restrictions brought a halt to construction for some time, meaning that there were postponements and delays to tourism projects that had originally [pre-pandemic] been expected to progress and reach completion. The pandemic also saw the closure of major visitor attractions through 2020 and 2021. Despite these challenges, Fáilte Ireland continued to deliver its capital investment programme.

In 2021, Fáilte Ireland also delivered two investment schemes specifically designed to support the tourism

and hospitality sector adapt to the ongoing challenges of the COVID-19 pandemic and a shift in consumer behaviour.

- Under the *Outdoor Dining Enhancement Scheme*, a total of €23 million was awarded to Local Authorities. Strand A of the scheme provided support to almost 5,000 individual independent hospitality and tourism businesses towards the cost of equipment to provide additional outdoor seating and facilitate these individual independent businesses to increase their outdoor dining capacity for summer of 2021. Strand B Grants were awarded to 22 different local authorities for a total of 39 different projects totalling just under €10 million - this funding provides for additional infrastructure and weatherproofing in towns and cities across the country.
- Under the *Urban Animation Scheme*, investment of €4.2 million was awarded to six projects in Cork, Dublin, Galway, Louth, Kilkenny and Waterford to support local authorities in ambitious, creative, innovative and sustainable public realm projects that are inspired by the unique identity of the locations and integrated into a long-term vision to re-imagine and transform the destinations.

Rural Regeneration and Development Fund

RRDF-funded projects of tourism significance

In 2021, Fáilte Ireland and Coillte continued to partner on progressing the International Mountain Biking Proposition for Rural Ireland, which received €13.6 million in RRDF funding, administered by DRCD, in 2019. A strategic, large-scale project, it is considered to be of particular importance for developing the activities tourism offering in Ireland and comprises the following projects:

- Coolaney Mountain Bike Centre & Trail Development (Sligo);
- Ticknock (Dublin) & Ballinastoe (Wicklow) Mountain Bike Centres;
- Slieve Bloom Mountain Bike Centre;
- Ballyhoura Visitor Centre Trail Head Building (Limerick).

Despite periods of lockdown throughout the year, significant progress was made in the development of new trails during 2021. In total, 52km of new trails were completed during the course of the year.

In addition, Fáilte Ireland has contributed to the following three RRDF projects, which are designed to have significant tourism benefits:

- Dunbrody Famine Ship / New Ross
- Irish National Heritage Park and Hook Lighthouse
- Nenagh Historic Quarter Regeneration Project

Fáilte Ireland had no new applications to RRDF under the 2021 call.



Coolaney Mountain Bike trail, Sligo



Lough Derg Blueway



Abbeyfeale to Listowel, North Kerry Greenway

Fáilte Ireland Capital Investment: Platforms for Growth

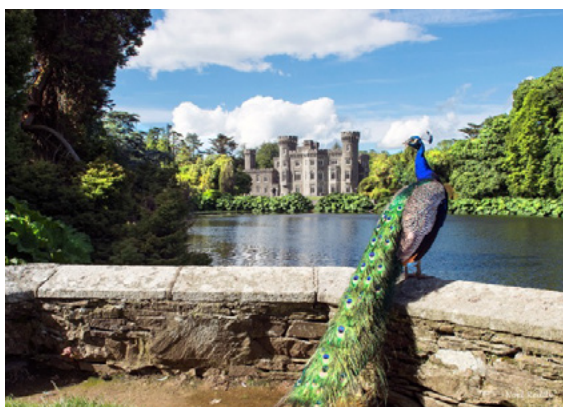
Fáilte Ireland's first call for applications (*Platforms for Growth 1*), in 2019, focused on the platform of immersive heritage and cultural attractions, inviting proposals for large-scale projects of €2.5 million upwards. Through this platform, Fáilte Ireland aims to ensure strong economic growth by investing in heritage and cultural attractions of scale that will motivate visitors to travel, either to and/or within Ireland, but without displacing the existing attractions of a destination or disturbing the competitiveness already in mature destinations. The overall objective

is to deliver brilliant experiences that allow visitors connect with Ireland and bring the national and local culture, heritage and people to life, while also delivering greater regional and seasonal spread of tourism. Significant Fáilte Ireland investment totalling over €44 million was announced in June 2021 as part of this first platform to develop four new world-class tourist attractions in the following locations:

- Shannon Pot and Cavan Burren Park, Blacklion, Co. Cavan - €4.8 million: This funding will deliver a world-class visitor experience at this UNESCO Global Geopark in the border county of Cavan, in the northern region of Ireland's Hidden Heartlands. The resulting enhanced attraction will include augmented and virtual reality experiences, historical trails, a roof-top viewing platform at the discovery centre, a bridge over the Shannon Pot (source of the River Shannon) and a tree-top walkway at the Cavan Burren Park.
- Fort Dunree and Head, Buncrana, Co. Donegal - €9.3 million: This project involves the restoration and enhancement of the entire Dunree Fort and Head area, including the refurbishment of the military museum, military huts and former hospital; the installation of glass sky-walks out over the sea; and the development of Ireland's only funicular mountain railway. The resulting world-class visitor experience will showcase the considerable maritime, military, social and political history of this location.
- "This is Ireland" Dublin City - €10 million: This project involves the development of a state-of-the-art flight simulator, "This is Ireland", in Dublin's city-centre is in line with a concept that has already delivered a successful tourist attraction of scale in Amsterdam and Vancouver. The "This is Ireland" attraction will offer an immersive experience consisting of multiple shows, with its principal feature being a simulated flight experience, allowing visitors experience the story of Ireland in a breath-taking and engaging way.
- Westport House Estate & Gardens, Westport, Co Mayo - €20.2 million: The proposed restoration, reimagining and re-wilding at Westport House and Garden Estate will offer visitors a multi-layered, multi-day experience. A key element is the "Wild Realms" project, which will allow visitors to connect with nature and explore ancient Irish rituals and our ancestors' connections to the land as told through a series of accessible wild and natural spaces. Visitors will also be able to enjoy the enhanced experience of the grand house, with its formal gardens, and learn about the Grace O'Malley family who lived there for centuries.

The second platform (*Platforms for Growth 2*), launched in December 2020 and involving a targeted call for applications from local authorities, aims to

develop activity facility centres at waterside locations across Ireland. In April 2021, €19 million worth of investment was announced for this platform, to be used to develop world-class facility centres at 20 locations across the country where water-based activities are a key visitor attraction. These facilities, designed to serve as a hub in each locality from which multiple water-sports operators can base themselves, will provide hot showers, changing and toilet facilities, secure storage, induction spaces, equipment wash-down and orientation points.



Johnstown Castle, Wexford



Kilkenny Rivergarden

Platforms for Growth 2: Additional Information on the successful projects due to proceed

Facility Centre	Location	Local Authority	Regional Assembly Area
DLRCC Killiney Beach Facilities Project	Killiney Beach, Killiney, Co Dublin	Dún Laoghaire Rathdown	Eastern and Midland Region
Claycastle Sports Activity Facility	Claycastle, Youghal, Co Cork	Cork County Council	Southern Region
Kilkenny Water Sports Hub	County Hall, John St, Co Kilkenny	Kilkenny County Council	Southern Region
Tramore Water-Sports Activity Facility Centre	Promenade, Tramore, Co Waterford	Waterford County Council	Southern Region
Ardmore Water-Sports Activity Facility Centre	Public Car Park, Cois Trá, Ardmore, Co Waterford	Waterford County Council	Southern Region
Curraclloe Water Sports Activity Centre	Whitegap, Curraclloe, Co Wexford	Wexford County Council	Southern Region
Ballycuggeran Sports Activity Facility	Ogonnelloe, Killaloe, Co Clare	Clare County Council	Southern Region
Acres Lake Activity Facility	Acres Lake, Drumshanbo, Co Leitrim	Leitrim County Council	Northern and Western Region
Dromineer Sports Activity Facility	Dromineer, Nenagh, Co Tipperary	Tipperary County Council	Southern Region
Kilkee Waterworld Activity Facilities	Waterworld, East End, Kilkee, Co Clare	Clare County Council	Southern Region
Tullan Strand Centre for Water Sports Activities Bundoran	Drumacrin, Tullan Strand, Bundoran, Co Donegal	Donegal County Council	Northern and Western Region
Downings Water Sports Activity Facility	Cnoc Na Muirleog, Na Muirleog, Na Dunaibh (Downings), Co Donegal	Donegal County Council	Northern and Western Region
Corrib Sports & Adventure	Dyke Road, Terryland, Co Galway	Galway City Council	Northern and Western Region
Ballybunion Beach Shared Facilities Centre	Men's (South) Beach, Ballybunion, Co Kerry	Kerry County Council	Southern Region
Fenit Beach Shared Facility Centre	Fenit Beach, Fenit, Co Kerry	Kerry County Council	Southern Region
Magherabeg Shared Facilities Centre	Magherabeg Lower, Castlegregory, Co Kerry	Kerry County Council	Southern Region
Keel Facility Centre for Water Sports Activities	Keel Sandybanks, Achill Island, Co Mayo	Mayo County Council	Northern and Western Region
Carrowmore Water Sports Facility Centre	Carrowmore Beach, Louisburgh, Co Mayo	Mayo County Council	Northern and Western Region
Enniscrone	The Beach, Mackduff, Enniscrone, Co Sligo	Sligo County Council	Northern and Western Region
Rosses Point PFG	Rosses Point, Co Sligo	Sligo County Council	Northern and Western Region

Other Fáilte Ireland grant-aided capital projects;

Five New and Enhanced Visitor Attractions and Experiences (relevant to both NSO 3 and NSO 7) were formally launched in 2021. These were:

- Johnstown Castle (Wexford);
- The Irish Racehorse Experience at the National Stud (Kildare);
- The Kilkenny Rivergarden;
- The Customs House, Dublin;
- Shackleton Gardens, Dublin.

These five projects were developed at a cost of €13.7 million of which a total of €5.2 million was Fáilte Ireland funding.

Other projects supported by Fáilte Ireland that were progressed in 2021 include:

- National Famine Museum at Strokestown House, Co. Roscommon;
- Céide Fields Visitor Centre, Co. Mayo;*
- Sligo Cultural Plaza, Co. Sligo;
- Surf Centre of Excellence, Strandhill, Co. Sligo;
- Records Tower, Dublin Castle.*
- Avondale Treetop Walk, Wicklow.*
- Blasket Centre, Kerry.*
- Mount Congreve Gardens, Waterford.
- Knowth visitor centre, Meath.

[*Delivered through Strategic Partnerships]

Of the projects listed above, most are due to open in 2022.

Additionally in 2021, work continued on the design phase of approximately 40 projects funded by Fáilte Ireland.

Invest in Cultural Regional Infrastructure

The NDP looks to support place-making through investment in Cultural Regional Infrastructure, with a focus on sustainable and energy efficient infrastructural investment. The Department's cultural schemes continue to successfully deliver regional arts and cultural infrastructure across the country.

During 2021, almost €3.2 million was invested in enhancing local arts and cultural infrastructure to create and maintain opportunities for creativity, participation and creation. This included support for projects under the various schemes such as the Arts and Culture Capital Enhancement Support Scheme (ACCESS II) (€560,000), the Arts and Culture Capital Scheme (€531,000), the Regional Museum Exhibition Scheme (€272,000), Cultural Capital Scheme 2019-2022 (€80,000) and a new capital scheme which was

established in 2020, Stream D of the Cultural Capital Scheme 2019-2022 (€524,000). It also included Other Cultural Capital' projects (€1.2 million on 8 various projects) including Mary Robinson Centre in Ballina, Marsh's Library in Dublin and the National Opera House in Wexford.

ACCESS II is designed to assist the provision of high standard arts and culture infrastructure and enhanced access to the arts throughout the country. The scheme prioritises the enhancement and maintenance of existing facilities. In 2021, funding was provided to, for example, Offaly County Council in relation to Tullamore Arts Centre, and Cork County Council in relation to the West Cork Arts Centre.

The *Arts and Culture Capital Scheme* focuses on enhancing the existing stock of arts and culture centres that operate as not-for-profit organisations with a clearly defined arts and culture focus. In 2021, funding awarded included support for The Glens Centre in Leitrim, Ormston House in Limerick, Hawk's Well Theatre in Sligo, the Gallery of Photography in Dublin and Monaghan County Council in relation to the refurbishment of the Patrick Kavanagh Centre, among others.



€188,636 was awarded to Monaghan County Council for the refurbishment of the Patrick Kavanagh Centre under the Arts & Culture Capital Scheme 2016-2018. This funding was drawn down in 2021.

The *Regional Museum Exhibition Scheme* seeks to promote and enhance the marketing of regional museums, and to support programmes to attract the aged, young, and socially disadvantaged to visit these institutions. Cultural events held in museums attract a local and tourist audience and promote museums as focal centres of the local community. Thirty museums around the country were supported in 2021.

Stream D of the *Cultural Capital Scheme 2019-2022* was set up in 2020 as a response to the COVID-19 pandemic and to assist the arts and culture sector at this time. This scheme remains open for applications. Almost €525,000 was drawn down by 56 arts and culture organisations under Stream D of the Cultural Capital Scheme 2019-2022 for capital adaptations or equipment necessary to assist them re-open safely after COVID-19 and prevent its spread.

The Department of Tourism Culture Arts Gaeltacht Sports and Media is developing a sector-specific climate appraisal methodology to be applied to the programmes, schemes and projects it funds. Streams A & B of the most recent capital grant scheme, *Cultural Capital Scheme 2019-2022* prioritised projects to reduce an organisation's carbon footprint and make a real and positive impact on the environment. Service Level Agreements issued to 19 grantees for projects under this scheme in 2021 to the value of €1.7 million. 16 of the 19 projects awarded funding include specific sustainability measures, e.g. upgrading windows, insulating buildings, and installing LED lighting.

In addition to the funding outlined above, a further €500,000 was invested in arts and culture infrastructure abroad in 2021, assisting the New York Arts Centre.

Develop the Creative industries and a vibrant Media Production and Audiovisual sector

The Audiovisual Action Plan underpins the Government's commitment to develop Ireland as a global centre for excellence in media production and measures to be delivered under the Plan are relevant to NSO 3, as well as NSO 7. Funding for the Plan is delivered through Screen Ireland which is the national development agency for Irish filmmaking and the Irish film, television and animation industry. In 2021, capital funding of €26.2 million was allocated to Screen Ireland/Fís Éireann to support the production of audio-visual content in Ireland.

Screen Ireland's new strategy, *Building for a Creative Future 2024* is underpinned by 5 pillars that will develop the audiovisual sector and support vibrant media production.

Under its strategy, Screen Ireland will support national cinema and Irish independent film culture through continued investment in development, production and promotion. It will work closely with the post-production and VFX sector, creative talent and emerging technology innovations to generate new business opportunities. Screen Ireland is committed to championing industry development on a national and sustainable basis by supporting Irish companies and its expanding workforce across Ireland. In 2021 Irish film and television projects filmed on location all around the country, including counties Limerick,

Mayo, Cork, Leitrim, Donegal, Wicklow Galway, Tipperary, Kilkenny, Clare, Dublin and Wicklow. A key focus is on promoting and nurturing creative talent and skills across the country. To that end, Screen Ireland provides career-long supports, from first-time writers, directors and producers to cast and crew and in 2021, launched funding for crew development hubs. These Regional Development Talent Academies will focus on regional talent development and inclusion, ensuring opportunities and support for new and diverse talent. This will ensure an overall national approach to creative talent, crew and workforce development in line with the significant growth ambition for the industry and commitment to social cohesion. Expansion and investment in studio facility infrastructure across the country is also critical to building a sustainable future for the Irish screen industry and this expanded infrastructure will add to the need for a depth of highly-skilled crew to support the large-scale production of high-quality screen output across the country.

Continued work to increase Ireland's international profile and develop new US-Ireland industry relationships through Screen Ireland's LA office, in collaboration with Enterprise Ireland, IDA, Tourism Ireland and the Consulate General of Los Angeles should further drive inward investment and ensure opportunities for rural economies and communities.

Throughout 2021, with the support of the Department of Tourism, Culture, Arts, Gaeltacht, Sport & Media, Screen Ireland delivered its *Building Back Audiences: the Cinema Stimulus Fund*, a special initiative to support the exhibition sector in recovering from the severe impact of COVID-19 closures.

Irish cinemas make a significant contribution to supporting Irish films and providing a diverse cultural offering throughout the nation across a wide-ranging demographic of audiences. Furthermore, the cinema sector operates a valuable social and educational service to communities across the country. In Ireland, the sector is composed of predominantly Irish-owned independent and arthouse cinemas that screen Irish and specialist films and support the indigenous filmmaking sector. Ireland has a unique screen density of regional cinema by comparison to its European counterparts and in 2019, Ireland had the highest cinema admissions per capita in Europe. The high level of admissions is in part attributable to the presence of cinemas in so many small and medium sized Irish towns. The contribution of cinemas to local communities is a significant part of social and cultural life in rural Ireland. 123 cinema venues from all over Ireland benefitted from the fund.

The *Creative Futures* fund was launched as part of Screen Ireland's commitment to grow strong and resilient companies throughout the country. The fund

is designed to help support companies strengthen and hone their expert creative capabilities and ambitions and build cultural resilience to enable high quality cultural projects. 35 percent of successful companies were based regionally (outside Dublin and Wicklow).

The Online Safety and Media Regulation Bill 2022 will, when enacted, formally dissolve the Broadcasting Authority of Ireland, BAI, and establish a new regulator, Coimisiún na Meán, which will be responsible for overseeing the regulation of broadcasting and video on-demand services and the new regulatory framework for online safety. Coimisiún na Meán will also have functions relating to the promotion of an open, trusted and pluralistic media and online environment, including research, education, media literacy, the protection of children, and journalistic and creative supports. The Bill is currently progressing through the Houses of the Oireachtas.

Sustaining Gaeltacht Communities and Promoting the Irish Language

One of the Department of Tourism, Culture, Arts Gaeltacht, Sport and Media's strategic investment priorities is to sustain Gaeltacht communities through investment in Údarás na Gaeltachta and to promote the Irish language, including the development of Irish Language Networks and Gaeltacht Service Towns.

Just under €14 million in capital funding was advanced to Údarás na Gaeltachta in 2021 for the refurbishment and development of Gaeltacht business infrastructure to support job creation, employment stabilisation and develop new initiatives. These refurbishment works and business improvements are key in attracting companies to the Gaeltacht.



Áras Mhic Amhlaigh

In 2021, just under €914,000 was advanced to support community groups in the Gaeltacht as part of the Gaeltacht Language Planning Process which included the development of new co-operative offices and community facilities on Inis Meáin on the Aran Islands as well as funding for a naionra in Gleann Domhain in Donegal.

Support is also given to Irish Language Centres outside the Gaeltacht. Work continues to develop a flagship Irish language centre at 6 Harcourt Street, Dublin (Conradh na Gaeilge Headquarters), with planning permission obtained in late 2020. This centre will be a central place for Irish language learners and for Dublin's Irish speakers and will add a great deal to the visibility of the language and to the status of the Irish language in the capital. A new Irish language Centre in Knocknacarra, Galway was funded under the Irish Language Support Scheme for Irish Language Centres outside the Gaeltacht and opened its doors to the public in 2021.

gteic – Gaeltacht Digital Network

The gteic network has already shown that it is part of the essential infrastructure of the Gaeltacht and was a crucial and intuitive investment in the Gaeltacht's business infrastructure. Despite COVID-19 restrictions, over 320 people, in excess of 180 of which are not included in employment figures, were working in the 27 digital hubs that had been developed at the end of 2021. During 2021, new laboratory facilities were developed in gteic@ An Spidéal, which enables gteic users to test their products and concepts. IPSOS MRBI's model has been very successful since they established a second site in the gteic network in Mayo, employing up to 30 people between Béal an Mhuirthead and Acaill.

A number of international companies have secured a presence in the gteic network, such as OCO Global in Gaoth Dobhair and HiTech Health in An Spidéal. The gteic network will be crucial in realising the opportunities available to businesses and remote workers, in particular, the Gaeltacht diaspora who are seeking to move home after the pandemic.

Regional and Local Roads

2021 saw investment of €571 million under the Regional and Local Road Grant Programme. Most of this funding was allocated to road maintenance and rehabilitation and grant assistance in 2021 provided for:

- the maintenance of 3,279 kilometres of road;
- the strengthening of 2,693 kilometres of road;
- €14 million for bridge rehabilitation projects;
- €10 million for safety improvement projects;
- €11 million for 56 minor improvement/safety schemes (specific grants); and
- €15.6 million for community involvement schemes.

In addition, ring-fenced funding was provided for drainage works and for maintenance and renewal works on regional roads (formerly classified as national roads) which had a relatively low condition rating.

Under the July 2020 Stimulus Plan €30 million was allocated for Active Travel measures on regional and local roads and €10 million for climate change adaptation measures. Funding of €15.85 million was carried over into 2021 to allow for the completion of works.

Some investment is also being made in larger scale road improvement schemes. Twelve strategic regional and local road improvement schemes were listed in the original NDP for implementation and, following on from the completion of three schemes in 2019, a further three schemes were completed in 2021, namely:

- Sligo Western Distributor road;
- Sallins Bypass scheme;
- Bettystown to Laytown Link road;

The following schemes progressed to construction stage:

- Coonagh to Knockalisheen Distributor Road;
- Athy Southern Distributor Road;
- Tralee Northern Relief Road;

The procurement process for the construction of the Shannon Crossing/Killaloe Bypass/R494 Upgrade scheme was progressed and preparatory work, including detailed design, advance works and land acquisition was also underway for other schemes.

The National Broadband Plan

The National Broadband Plan (NBP) is the initiative to rollout high-speed broadband to the 1.1 million people living and working in almost 560,000 premises, including almost 100,000 businesses and farms, along with 679 schools, where commercial operators will not commit to deliver the service. It is expected that eventually over 600,000 premises will be served by the NBP, including new builds.

The NBP has stimulated commercial investment in this vital service. In 2012, fewer than 700,000 or 30 percent of all Irish premises had access to high-speed broadband. At the end of 2021, this had risen to over 1.88 million premises having access to high-speed broadband services.

The NBP contract was signed with National Broadband Ireland (NBI) in November 2019. NBI commenced the rollout of a high speed and future-proofed broadband network within the State Intervention Area in 2020 and will operate and manage this network over the next 25 years. For 2020, which was the first year of the contract, the principal focus was on mobilisation activities, together with survey, design and make ready work to prepare the way for the fibre deployment. Design work was completed in target townlands across every county in Ireland with over 153,000 premises

surveyed by the end of 2020. This survey work fed into detailed designs for each deployment area and fibre deployment commenced in late 2020 with the first fibre to the home connections in January 2021.

By the end of 2021, surveys were completed or underway on over 285,000 premises with design work underway or completed on over 247,000 premises. Network build was underway for almost 118,000 premises by the end of 2021 and high-speed broadband services were available for order or pre-order to over 54,000 premises. NBI advise that over 33,000 premises had a network connection available by the end of 2021 and almost 5,000 premises were connected and availing of high-speed broadband services. "Network Connection" refers to the number of "premises passed" by NBI. When a premises is passed, it can then be made available for a network operator to offer services to the customer, who can place an order for a high-speed broadband service. The network connection therefore becomes available to customers.

By the end of 2021, almost 270 Broadband Connection Points were in place and over 250 of these were open for business. These are located in places of community importance including community centres, library hubs, local sports facilities, tourism locations and other public places. In addition, more than 180 schools in remote rural locations had a connection installed and 99 of these schools were provided with high-speed connectivity by the end of 2021. The installation of BCPs and the delivery of public BCPs throughout the country is almost complete. NBI is working to accelerate the rollout of high-speed broadband to schools across the State.

Enhance sport facilities throughout Ireland

The Sports Capital and Equipment Programme is the main channel of Government support for developing sports facilities and purchasing sports equipment for sports clubs and organisations across Ireland.



Construction of indoor sport arena for Blackwater GAA



Completion of AIT International Arena, now Technological University of the Shannon (2015 grant)



Upgrade of National Rowing Centre

The 2020 round of the SCEPT closed for applications on Monday 1st March 2021. Over 3,100 applications (the highest ever) were submitted seeking over €200 million. Approximately one thousand of the submitted applications were for 'equipment-only' projects. These applications were assessed first and grants with a total value of €16.6 million were announced on 6th August, 2021. The remaining capital applications were then assessed and 1,865 individual grant offers with a total value of over €143.8 million were announced on Friday 11 February 2022. This represented the highest level of allocation ever made under the SCEPT with 1,865 individual grant offers and over 40 different sports funded. All valid applications received a grant offer. As well as grants to local clubs, over €17 million was allocated to projects deemed to be of "regional" significance. Such projects include regional centres of excellence, Local Authority Projects and sports facilities at third level institutions.

Agriculture, Food and the Marine

A wide range of investment supports for farmers, fishermen and agri-food sector companies were delivered during 2021.

During 2021, grant support totalling €64.4 million for improvements in equipment and facilities on farms was paid under the Targeted Agriculture Modernisation scheme.

Over 150 horticulture producers received a combined total of €7.79 million in support for specialised building and equipment through the scheme of investment aid for the development of the commercial horticulture sector in 2021.

Some 282 new afforestation sites and 72.5 kilometres of new roads were funded.

Over €8 million was invested in a range of projects across the fisheries, aquaculture and seafood processing sectors, including:

- €1.3 million invested in the economic diversification of coastal communities through the seven Fisheries Local Action Groups;
- €0.8 million invested in capital improvements to fishing vessels, including for energy efficiency, value adding and health and safety;
- €2.5 million invested in value adding investments in the seafood processing sector; and
- €2.8 million invested in productive investments in the aquaculture sector. Some of these schemes will continue through 2022 aiming to enhance the efficiency and viability of our primary producers and processors in facing the challenges ahead.

Key projects under the 2021 Fishery Harbour and Coastal Infrastructure Development Programme included the ongoing works of the Berthing Project at the Middle Pier at Howth Fishery Harbour Centre, and the Smooth Point Extension (Phase 2) at Killybegs Fishery Harbour Centre and the continuation of the Dinish Quay Extension and completion of the slipway at Castletownbere Fishery Harbour Centre.



Works at Cork Constitution RFC

National Food Innovation Hub, Moorepark Research Campus

With the support of almost €9 million in funding from the Department of Agriculture, Food and the Marine, Teagasc opened a new National Food Innovation Hub in September 2021 at the Moorepark Research Centre in Fermoy, Co. Cork. The Hub provides innovation and research space for dairy and food companies and research institutes with a focus on food, health and nutrition. Along with generating market-focused research initiatives, the "Hub" will enable dairy and food companies located in Ireland to secure new markets in the post Brexit area.



2.4 Sustainable Mobility

Project Ireland 2040 contains a commitment to a more environmentally sustainable public transport system to enable economic growth and meet growing passenger demand. While many of the major projects under this strategic priority will take a number of years to deliver fully, 2021 saw clear progress against this goal.

BusConnects

BusConnects will transform the bus network, and provide significantly enhanced cycling infrastructure, in all major cities, commencing in Dublin.

The National Transport Authority (NTA) began the roll-out of the Dublin bus network redesign in 2021, which relates to the proposed new bus routes, centred on 9 new 'spines'.

The first of these spines – the H-Spine – launched in June 2021 and serves the Howth corridor. The second spine – the C-Spine – launched in November 2021 serves the Lucan/Leixlip/Celbridge corridor and also introduced a much-improved local area network of services, as well as 24 hour services. 3 more Spines are due to be launched in 2022.

Work continued through 2021 on the documentation required for submission of planning applications in respect of the 16 Core Bus Corridors. The first of these will enter the planning process in Q2 2022, following Government approval of the BusConnects Preliminary Business Case in March 2022.

Next Generation Ticketing (NGT) is another important element of the BusConnects programme, involving the upgrade of fares and ticketing systems across bus services in Dublin. The NTA continued to progress the procurement phase through 2021, identifying 5 Pre-Qualification Questionnaire (PQQ) candidates. Tender documents will issue in 2022.

261 new buses for Public Service Obligation (PSO) bus fleets were delivered in 2021: 179 double deck hybrids (including 23 from 2020 order); 29 single deck coaches and 53 double deck coaches.

Work continued on BusConnects Cork, with two public consultations held in 2021 on the proposed draft New Bus Network.

DART+ Programme

The DART+ Programme (previously DART Expansion) will significantly expand rail services in the Greater Dublin Area (GDA) and effectively double the capacity of the existing network through the electrification of the Kildare (to Hazelhatch), Maynooth (to Maynooth) and Northern (to Drogheda) Lines, expansion of the rail fleet and various other infrastructure and signalling improvements across the Lines, including the South-Eastern Line.

In December 2021, Government approved the DART+ Programme Preliminary Business Case. This allowed for DART+ West to enter the statutory planning system with a Railway Order application expected to be submitted during 2022. Government approval also allowed for the NTA and Iarnród Éireann to conclude a 10-year procurement framework contract for additional DART fleet with an initial order of 95 new carriages (65 battery-electric and 30

electric units) placed. These units, delivery of which is expected in 2025, will greatly expand the fleet as part of the broader DART+ Programme.

Public consultations on both DART+ West and DART+ South-West were undertaken in 2021 with similar for DART+ Coastal (North) and DART+ Coastal (South) to be undertaken in 2022.

With construction completed, Pelletstown train station was officially opened in September 2021. This station will ultimately be served by enhanced services provided under the DART+ West element of the overall DART+ Programme.

Light Rail

The Luas Green Line Capacity Enhancement Project was completed in 2021. The project consisted of three different elements –

- Expansion of the Sandyford Luas maintenance depot, completed in 2019;
- Extension of the 26 original Luas Green Line trams; and
- Purchase of 8 additional 55 metre long trams.

By Q1 2021, all of the trams and extensions had been delivered and entered into service. The project increases capacity on the Luas Green Line by almost 30 percent.

Following the public consultation in 2020 on Luas Finglas' Emerging Preferred Route, planning and design work continued on the Preferred Route, with a second public consultation held in December 2021.

The NTA submitted the Strategic Assessment Report in respect of the Cork Light Rail Transit project to the Department in 2021.

Metropolitan Area Transport Strategies

Limerick-Shannon Metropolitan Area Transport Strategy (LSMATS) – A draft was published for public consultation in summer 2020. The NTA have completed work on the Revised Draft LSMATS including the reappraisal of a potential commuter rail network as well as changes arising out of public consultation on the original draft. A second round of public consultation should take place shortly this year on the revised draft strategy.

Waterford Metropolitan Area Transport Strategy – work on the development of the Metropolitan Area Transport Strategy for the city is at an advanced stage, will provide the strategic backdrop to the increased levels of investment, planned in the coming years. Completion of the draft Strategy will be followed by public consultation expected in Q2 this year.

Greater Dublin Area – On 9th November 2021 the NTA published a draft revised Transport Strategy for the Greater Dublin Area 2022-2042 and a public

consultation on the draft strategy concluded on January 10th. The NTA is currently in the process of preparing responses to the issues raised after which it intends to submit the Draft Strategy to the relevant bodies for their consideration.

Cork Metropolitan Area Transport Strategy – Cork City Council and Cork County Council published the Cork Metropolitan Area Transport Strategy in March 2020, in partnership with the National Transport Authority (NTA). The strategy provides a framework for the planning and delivery of transport infrastructure and services across the Cork Metropolitan Area, for the period up to 2040.

Galway Transport Strategy – As it is now six years since the publication of the Galway Transport Strategy, a review is warranted. The review will commence this year and will include a comprehensive analysis of changes to population projections, development density, employment forecasts and future travel demand patterns since the finalisation of the current Strategy.

MetroLink

MetroLink is the largest single scheme included in Project Ireland 2040 and among the most ambitious infrastructure projects Ireland has seen. The preferred route, finalised after public consultations in 2018 and 2019, will run from Charlemont in Dublin's south city centre out to Swords via Dublin Airport.

The NTA and Transport Infrastructure Ireland (TII) continued to work on planning, design and the Preliminary Business Case for MetroLink through 2021.

Rail

Construction of the National Train Control Centre (NTCC) commenced in 2021, with completion expected in 2024. The NTCC is a key enabler for expansion of rail services as it will enhance rail traffic management and will underpin both the planned and potential future expansion of rail services across the entire rail network and in particular, the planned expansion of DART services under the *DART+ Programme*.

The NTA and Iarnród Éireann progressed the order for an additional 41 Inter-City Railcars (ICRs), which are expected to enter into service in 2023. As with the bi-modal units under the DART+ Programme, the ICRs will further enhance and expand the rail fleet.

Active Travel

The NTA, through the Transport Planning and Investment Unit, supported over 1,000 individual projects in 2021 through the Active Travel Programme and the Sustainable Transport Measures Grant (STMG). The Active Travel Programme was announced in March 2021 and was a new programme

for the development of walking and cycling facilities in rural Ireland. The STMG has been underway for a number of years and supports sustainable transport projects in the Greater Dublin Area and Regional Cities. The allocations under these programmes in 2021 is set out above:

2021	Allocated
Active Travel Programme	€72,878,390
STMG	€240,057,943
Total	€312,936,333

During 2021 Local Authorities delivered over 80km of new or upgraded cycle facilities and over 140km of new or upgraded footways through the STMG and Active Travel programmes, with more detail set out below.

Projects supported through the design stage and expected to start construction in 2022 include the following:

- Martin Junction Upgrade in County Galway.
- Salmon Weir Pedestrian & Cycle Bridge in Galway City.
- Letterkenny Cathedral One Way and Pedestrian Linkages scheme in County Donegal.
- Clontarf to City Centre Cycle Route in Dublin City.
- Sandyford to Clonskeagh (UCD to the Dodder) Cycle Route in Dún Laoghaire-Rathdown.
- Churchfield Roads off Road Cycle Track & Footway in Fingal.
- Ashbourne R135 Frederick St to Ballybin Road Upgrade in County Meath.
- Continuation of the Royal Canal Greenway in County Kildare.

Significant projects being constructed during 2021 and will continue to be worked in 2022 include the following:

- O'Connell Street Revitalisation in Limerick City.
- MacCurtain Street Public Transport Improvement Scheme in Cork City.
- City Centre to Waterford Greenway at Bilberry in Waterford City.
- Blackglen Road Walking and Cycling Scheme in Dún Laoghaire-Rathdown
- Belmayne Main Street Bus & Cycle Scheme in Dublin City

Projects Completed in 2021 include the following:

- Broadstone Plaza in Dublin City.
- Dodder Greenway Section 2 Bridges in South County Dublin.

- Sandyford Cycle Route (Kilgobbin to Drummartin Link Road Section).
- Hartstown Ring Road Rapid Deployment Scheme in Fingal.
- Completion of Strand Road in Bray, County Wicklow.
- Curraheen Walk and Cycleway in Cork City.
- Dunkettle to Carrigtwohill Phase 1 in County Cork.
- Castletroy Greenway in Limerick City.

The section of the Dublin to Galway Greenway in Athlone town between Whitelands and the Marina was opened in August 2021.

Greenways

Funding for Greenways increased substantially in 2021 with approximately €50 million allocated for projects across the regions.

Significant Projects supported through the design stage:

- Work is ongoing on finalising emerging preferred Route design and environmental evaluations on the proposed section of the Dublin to Galway Greenway from Athlone to Galway.

Other key projects supported through the design stage:

- Grand Canal, Aylmers Bridge to Sallins.
- Grand Canal, Sallins to Clonkeen.
- Blessington Lake Loop.
- Fingal Coastal Way.
- Boyne Greenway.
- Boyne Valley greenway from Navan to Kingscourt.

Significant projects being constructed during 2021 and will continue to be worked in 2022:

- Two key sections of the Dublin to Galway Greenway are under currently being progressed. The Marina to Athlone Castle in Athlone Town and the Athlone Pedestrian and Cycleway Bridge over the River Shannon.
- The South Eastern Greenway from Waterford to New Ross.
- The Middleton to Youghal Greenway.
- The Tralee to Fenit.
- The Listowel to Limerick.

Significant Projects Completed in 2021 include the following:

Dublin to Galway:

The 106km Greenway from Maynooth to Athlone town is complete and fully open. The Greenway follows the towpath of the Royal canal to Mullingar and along the Old Rail Trail between Mullingar and Athlone.



2.5

A Strong Economy Supported by Enterprise, Innovation and Skills

Project Ireland 2040 is designed to catalyse a strong economy, supported by enterprise, innovation and skills. This is a critical goal both as an end in itself but also as a means of generating the economic resources and expertise to invest in each of the national strategic outcomes.

National and Regional Enterprise Development

IDA Ireland's Performance 2021

- Over 29,000 new jobs were created in 2021 in IDA supported client companies.
- The numbers directly employed in the multinational sector in Ireland grew to 275,384.
- The existing base of Foreign Direct Investment (FDI) has shown continued resilience.
- 249 investments were won in 2021 - 104 of which were new name investments.
- Every region experienced growth in 2021
- More than half (53 percent) of investments went to regional locations.
- Net job creation in 2021 was 16,826.

IDA Ireland - employment performance 2021

Category	Results 2020	Results 2021
Total Employment	257,394	275,384
Job Gains	20,123	29,057
Job Losses	-11,179	12,231
Net Employment Change	8,944	16,826

IDA Ireland employment by region

Region	2021	% Growth
Border	8,721	3%
Dublin	123,708	9%
Mid-East	18,894	5%
Mid-West	25,270	5%
Midlands	6,868	10%
South-East	14,932	8%
South-West	47,572	3%
West	29,419	6%
National total	275,384	6.5%

Source: Annual employment Survey, DETE

IDA Ireland's New Strategy - Driving Recovery and Sustainable Growth 2021-2024

IDA's current strategy has been developed in the context of the Government's National Economic and Recovery Plan. The strategy positions IDA Ireland to respond to the trends that accelerated because of the COVID-19 pandemic and identifies opportunities for sustainable growth among IDA's established base of clients. With emphasis on transformative investments to increase the productivity of Irish operations and their workforce through RD&I, digitisation, training and actions on sustainability, the strategy also maintains a focus on attracting the next generation of leading multi-national companies.

The strategy will be delivered through a focus on five pillars: Growth, Transformation, Regions, Sustainability and Impact.

- Under the **Growth pillar**, IDA will win investment to support job creation & economic activity
- Under the **Transformation pillar**, IDA will partner with clients for future growth in Ireland
- Under the **Regions pillar**, IDA will win investment to advance regional development
- Under the **Sustainability pillar** IDA will embrace an inclusive and green recovery
- And under the **Impact pillar**, IDA will maximise FDI's positive impact on local businesses and communities

These five interlinked pillars align with and are guided by the UN Sustainable Development Goals (SDGs).

Over the period 2021-2024 IDA will:

- Win **800** total investments to support job creation of 50,000 and economic activity
- Partner with clients for future growth through **170** RD&I and **130** training investments
- Win **400** investments to advance regional development
- Embrace a green recovery with **60** sustainability investments
- Target a **20%** increase in client expenditure in Ireland to maximise the impact of FDI



Source: Annual employment Survey, DETE

IDA Ireland employment by region

There are now close to 1,700 multinational operations supported by IDA in Ireland accounting directly for 11 percent of the Irish workforce. Their impact nationally and regionally to public finances, regional development, global value chain integration, spin-off indigenous enterprise, innovation and more can be clearly seen in their expenditure in the Irish

economy. The most recent Annual Business Survey of Economic Impact (ABSEI) results, which relate to 2020, show that payroll spend was €16.8 billion, up 11 percent, combined spend of €11 billion on materials and services sourced in Ireland up 6 percent to give a total spend in the Irish Economy of €27.9 billion, up 8.8 percent on 2019. Exports were valued at €290.7 billion, up 9.2 percent on 2019.

The 2021 figures show a pattern of sustained, robust growth in FDI investment and FDI-related employment over a continuous period of more than ten-years. These results represent a strong start to IDA's 2021-2024 strategy, Driving Recovery and Sustainable Growth, which seeks to further enhance FDI's place at the centre of a resilient, sustainable, and inclusive Irish economy.

The global competition for FDI is intense and will be an increasingly key feature of the global environment during IDA's new strategy as countries compete for investment to support economic recovery. It is in this context – of greater competition for potentially fewer projects – that IDA wins investment for Ireland and engages with MNCs on the benefits of choosing regional locations for their investment projects. IDA's success in doing so has come despite the preference of MNCs to locate in large urban areas, including megacities and metro regions, and Ireland's lack of large urban centres outside of Dublin.

IDA Ireland indirect employment by region 2021

Region	2021 Direct	2021 Indirect	Combined
Border	8,721	6,977	15,698
Mid-East	18,894	15,115	34,009
Mid-West	25,270	20,216	45,486
Midlands	6,868	5,494	12,362
South-East	14,932	11,946	26,878
South-West	47,572	38,058	85,630
West	29,419	23,535	52,954
Total Regions	151,676	121,341	273,017
Dublin	123,708	98,966	222,674
Total	275,384	220,307	495,691

Source: DETE Annual employment Survey, 2021.
Employment multiplier 1.8

Enterprise Ireland's performance 2021

There were 20,342 new jobs created by Enterprise Ireland (EI) supported companies in 2021. In another challenging year, with a significant and continuing COVID-19 impact, record overall net job gains of 11,911 occurred in client companies. EI approved €61.6 million to 341 companies under the SEF and ARF in 2021. There are 207,894 people now employed by EI supported companies following another challenging year for exporters. There was

€14.6 million approved for 1,048 Ready for Customs projects to help companies deal with Customs changes arising out of Brexit.

Enterprise Ireland employment by region

*Data reflects employment in clients following a review and revision of the Enterprise Ireland client base in 2021.

Region	2021	% Change (2020 – 2021)
North-East	18,606	5%
Dublin	66,704	7%
Mid-East	20,426	4%
Mid-West	19,714	6%
North-West	6,797	9%
Midlands	11,416	4%
South East	20,003	7%
South West	29,560	5%
West	14,668	9%
National Total	207,894	6%

Source: Annual employment Survey, DETE

Investment in World-Class Research and Technology Centres

Advanced Manufacturing Centre

Significant progress has been made in delivering the National Advanced Manufacturing Centre (AMC) in the IDA National Technology Park in Limerick. The AMC will be an International Centre of Excellence and go to destination for MNCs and Small and Medium-Sized Enterprises (SMEs) to access, trial, adopt, deploy, and scale new Industry 4.0 & 5.0 technologies & processes at a time of accelerating digitisation. Aligned with Government's Industry 4.0 Strategy (2020-2025) and IDA Ireland's Strategy, the AMC will be launched on the National Technology Park in Limerick in Q4 2022.

The AMC will enhance Ireland's capabilities as a location for advanced manufacturing and safeguard our existing discrete manufacturing base. The AMC will foster increased levels of collaboration on training, technology and testing across MNCs, Irish enterprises, and the interlinking of the research and education systems.

Government has to date committed of €10.6 million to support delivery of the AMC for 2021 & 2022. IDA has committed €12.4 million to AMC to end 2022. This funding has enabled progress on delivery of the AMC building, purchase of essential equipment and technologies, recruitment of key personnel and overall operationalisation of the centre.

Overall, the AMC will contribute to positioning the Irish discrete manufacturing base at the

forefront of digital transformation. The AMC will contribute to enhancing Ireland's competitiveness and attractiveness as an investment location for manufacturing thereby retaining and creating jobs.

National Institute for Bioprocessing, Research and Training – NIBRT

National Institute for Bioprocessing, Research and Training (NIBRT) is a global centre of excellence for training and research in bioprocessing, located in a world class facility on the grounds of University College Dublin. It was established primarily through IDA funding and since opening in 2011, NIBRT has transformed Ireland's capacity to train and educate a skilled workforce in support of major biopharmaceutical investment in Ireland.

NIBRT partners with Higher Education Institutes to provide training and research infrastructure facilities not previously available in Ireland. NIBRT has played a critical role in providing the skilled workforce to match this rapid growth and in carrying out industry-relevant research projects. NIBRT sets out to support the biopharmaceutical industry by providing a unique learning experience for trainees in an environment that replicates the most advanced industrial bioprocessing facility.

In parallel, NIBRT also undertakes cutting-edge research in key areas of biopharmaceutical manufacturing in collaboration with industry and academia.

NIBRT's research and training building features state-of-the-art pilot scale manufacturing facilities. In 2020, NIBRT trained over 4,000 people, many of whom work around the country.

NIBRT has global recognition as a successful research organisation and as a centre of excellence for training and upskilling of staff in the biologics industry. It has been hugely impactful in influencing the establishment of the twenty biologics manufacturing sites now located around the country which collectively employ in excess of 12,000 people directly with significant expenditure on Irish-sourced materials and services.

COVID-19 Products Scheme

The COVID-19 Products Scheme was approved in June 2020 under the terms of the EU Commission Temporary Framework for State Aid measures to support the economy in the current COVID-19 outbreak. The Scheme was announced as part of the 'Preparing Ireland for the Economy of the Future' pillar of the July Jobs Stimulus. It is jointly administered by IDA Ireland and EI.

The scheme provides grant aid to facilitate the research and development of COVID-19 products, to enable the upgrading of production or testing infrastructure which contribute to the development of COVID-19 relevant products, as well as supporting the production of COVID-19 products.

Given the strong presence of life science companies located here, Ireland is well placed to develop COVID-19 related products in response to the unprecedented demand across global supply chains. Ireland is currently home to nine of the top ten global pharmaceutical companies and fourteen of the top fifteen medical technology companies.

Existing IDA clients in the pharmaceutical sector are developing COVID-19 treatments and vaccines and are also focused on increasing manufacturing capacity to meet the increased global demand for drugs found to be effective. In the medical technology sector, medical device manufacturers are focusing on developing COVID-19-related diagnostics, ventilator products and hospital supplies.

SME Loan Schemes

Brexit Impact Loan Scheme

The Brexit Impact Loan Scheme (BILS) was launched in October 2021. Its purpose is to provide an appropriate option for access to finance to SMEs, including fishers and farmers, and small mid-caps that have been exposed to the dual impact of Brexit and COVID-19. BILS is funded by the Department of Enterprise, Trade and Employment and the Department of Agriculture, Food and the Marine and is underpinned by support from the European Investment Fund and operated by the Strategic Banking Corporation of Ireland. The scheme will make up to €330 million in low-cost lending available until the end of 2022 through participating finance providers (three banks and 5 Metamo Credit Unions). Loans are for working capital and investment purposes, with terms of up to six years available and loans of up to €500,000 available unsecured. By the end of 2021, 148 loans had been approved through the scheme to Brexit impacted businesses with an associated value of €18 million.

COVID-19 Credit Guarantee Scheme

The COVID-19 Credit Guarantee Scheme was launched in September 2020 and facilitates up to €2 billion in lending. 3 banks, 6 non-banks and 19 Credit Unions are participating in the scheme which offers low interest rates loans for SMEs impacted by COVID-19. These loans can be for working capital or investment purposes and are up to 5.5 years in term with no guarantee or collateral required for up to €250,000. In 2021, 6,986 loans to the value of €519 million were approved to Irish businesses.

Future Growth Loan Scheme

The Future Growth Loan Scheme (FGLS) launched in 2019 and makes lending available to SMEs and small mid-caps seeking financing for long-term strategic investment, including in response to the impacts of BREXIT and COVID-19. The scheme initially made available up to €30 million in lending, however, it was expanded by €50 million in July of 2020 in response to the impacts of the pandemic. Loans under the scheme range from €25,000 to €3 million and are offered for terms of 7-10 years. Loans of up to €500,000 are available unsecured. A total of 3,410 loans to a value of €723.5 million have been approved up to 31 December 2021.

Microfinance Ireland Loan Schemes

In 2021, Microfinance Ireland (MFI) signed an agreement with the Strategic Banking Corporation of Ireland (SBCI) to become their funders on the market. The SBCI has committed €30 million to MFI, which will allow Microfinance Ireland to increase its lending capacity and offer lower rates on its standard loan products. Microfinance Ireland (MFI) provides loans to help start-ups and established businesses to get the finance they need for their business. The loans available under the new SBCI funding will have competitive interest rates, a maturity of up to five years, with amounts up to €25,000 and flexible repayment schedules. MFI provides vital support to microenterprises by filling the lending gap in the market by lending to business that cannot obtain loans from other commercial lenders. A total of 3,746 loans to a value of €69.9 million have been drawn up to 31 December 2021. Mentoring can be provided from an experienced business mentor on the Local Enterprise Office (LEO).

Disruptive Technologies Innovation Fund

The Disruptive Technologies Innovation Fund (DTIF) was established in 2018, with €500 million in funding committed over the period to 2027 for co-funded collaborative projects involving the enterprise and research sectors. DTIF projects focus on the development and deployment of disruptive technologies to deliver new solutions through investment in the development and implementation of innovative products and services that will alter markets, or the way business operates.

Since 2018, DTIF has allocated €235 million to 72 collaborative disruptive innovation projects with strong commercialisation potential under the first three calls of the Fund. These projects cover areas such as life sciences, medical devices, ICT, artificial intelligence, manufacturing and environmental sustainability. Funding to each project is allocated over three years subject to reaching agreed milestones.

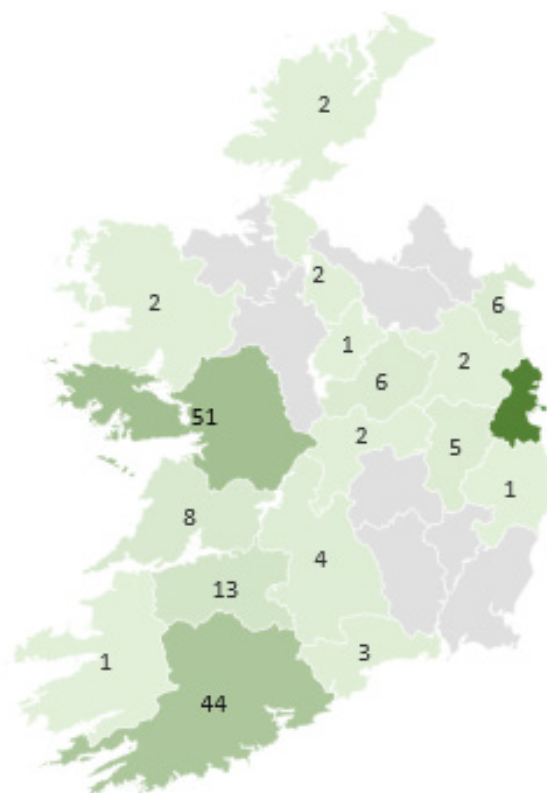
Each project is a collaborative partnership of between two and thirteen research and enterprise partners.

Small and medium enterprise (SME) participation in every project is essential - SMEs constitute the largest grouping of partners within the consortia.

They also represent the majority of lead applicants, leading 51 of the 72 projects.

Over half of the 270 project partners allocated funding to date are located outside Dublin in eighteen counties across Ireland.

Project Partner Locations for DTIF Calls 1-3



The Department initiated a process review of the Fund in November 2021, in line with a recommendation in the DTIF Spending Review that was published in 2020. The purpose of the research consultancy was to:

- **Part A:** examine whether DTIF processes are administered in an efficient, effective and timely manner and to address any barriers within its processes, which might limit the range and number of applicants and prevent the fund from operating in an optimum manner.
- **Part B:** make recommendations in relation to the processes required to embed and operationalise the programme logic model (PLM), as proposed in the DTIF Spending Review, to ensure that it aligns with existing reporting mechanisms.

The review was completed in Q1 2022.

Examples of DTIF Projects under Calls 1-3 by Research Priority Area (RPA)

Research Priority Area	Examples of DTIF Projects
ICT - 14 projects	<ul style="list-style-type: none"> Developing a sustainable internationally trading Earth Observation services sector in Ireland Quantum computing software programme for multiple qubit technologies. Leveraging Artificial Intelligence to automate the creation of 3D models and worlds.
Health and Well-Being - 38 projects	<ul style="list-style-type: none"> Developing a sustainable internationally trading Earth Observation services sector in Ireland A disruptive micro-needle drug delivery platform. A disruptive gene therapy platform, replacing viruses in the treatment of genetic conditions.
Food - 3 projects	<ul style="list-style-type: none"> Developing a sustainable internationally trading Earth Observation services sector in Ireland Combining targeted nutraceuticals and traceability technology for a smarter and sustainable Irish fish aquaculture industry. Cultivation of protein-rich biomass for the generation of health-enhancing plant-based ingredients.
Energy, Climate Action and Sustainability - 8 projects	<ul style="list-style-type: none"> Develop a low-cost, high-performance sodium-ion smart battery system using entirely sustainable materials and processes. Development of a zero-emission, refrigerant-free heat pump. An advanced environmental decision support system to address issues, such as coastal pollution and flooding.
Manufacturing - 7 projects	<ul style="list-style-type: none"> Using AI to create fast cell analytics for biomanufacturing. Micro-assembly of advanced electronic and photonic components for use in sensing and communication applications Develop 3-D printed, biocompatible, metallic components for the medical device industry.
Innovation in Services & Business Processes - 2 projects	<ul style="list-style-type: none"> A control tower that provides full visibility of large construction sites and enables visual communication A blockchain and AI-enabled trustworthy and GDPR-compliant stratified clinical trials system.

Regional Enterprise development funding

The Regional Enterprise Development Fund (REDF) and Border Enterprise Development Fund (BEDF) support the development and implementation of collaborative and innovative projects that can sustain and add to employment at county, regional and national level.

These funds which are administered by Enterprise Ireland, have been an effective instrument of policy particularly as a complement to the Department of Enterprise, Trade and Employment's Regional Enterprise Plans where it has served as an enabler for projects emerging from that regional collaborative process. During 2021 the Department commenced the consultation phase of developing new Regional Enterprise Plans to 2024 for publication in early 2022.

The Department of Enterprise, Trade and Employment, through Enterprise Ireland, has approved grants totalling over €117 million to drive regional enterprise development initiatives since 2017, under the REDF and the BEDF.

Regional Enterprise Transition Scheme

The Regional Enterprise Transition Scheme (RETS) was introduced in 2021 to provide funding to projects previously supported under the REDF and BEDF. The RETS helps eligible enterprises in sectors and regions negatively affected by COVID-19 as well as a consequence of Brexit. In October 2021, 24 projects were recommended for funding with a total grant-aid request of €9.3 million.

Under the REDF, BEDF and RETS, to date over €126 million in approved grants have been secured by 77 innovative enterprise projects.

National SME and Entrepreneurship Growth Plan

In 2020, the *Programme for Government – Our Shared Future* committed to the development of a *National SME Growth Plan*, which would map out an ambitious long-term strategic blueprint beyond COVID-19.

The Tánaiste and Minister for Enterprise, Trade and Employment, Leo Varadkar TD, established an SME Taskforce in September 2020, appointing a diverse membership of entrepreneurs, business and agency representatives to deliver upon this commitment.

Drawing on the 2019 OECD Review of SME and Entrepreneurship in Ireland, and served by four expert sub-groups, the Taskforce focused on developing specific actions in thematic areas of Entrepreneurship; Productivity, Digitalisation and Competitiveness; Internationalisation; and Clustering and Networks.

The Taskforce's report, the **SME and Entrepreneurship Growth Plan**, was published on 21 January 2021.

An **SME and Entrepreneurship Implementation Group**, led by Minister Damien English and Minister Robert Troy, has been meeting to take forward the recommendations of the Taskforce, in conjunction with relevant Departments, Agencies and other stakeholders.

The Implementation Group has identified ten priority areas within the Growth Plan in which to drive progress in 2022. These cover: access to finance; digital transformation; increasing first time exporters; enhanced assistance for high-potential businesses; clustering and networks; SME management skills; reducing the regulatory burden on SMEs; delivery of a single portal for business information and assistance; ensuring comprehensive enterprise agency coverage for SMEs; and promoting SME participation in public procurement.

A progress report on these ten priority areas will go to Government in Q4 2022.

Update on Local Enterprise Office (LEO) activity

The Local Enterprise Offices (LEOs), under the guidance of the Enterprise Ireland's LEO Centre of Excellence, completed an 8th year of consecutive jobs growth and continued their mission to promote entrepreneurship and act as a "first-stop-shop" for those beginning a new business as well as those wishing to expand their existing one.

The LEOs continue to provide a 'signposting' service to local businesses for all government supports available to the SME sector and can provide

information/referrals to other relevant bodies under agreed protocols.

The LEOs continue to offer direct grant aid to microenterprises (10 employees or fewer) in the manufacturing and internationally traded services sectors which, over time, have the potential to develop into strong export entities. These are offered alongside an extensive suite of high-quality training supports which are tailored to meet specific business requirements. In 2021, LEOs trained 56,554 participants. Of these, 5,707 participants took part in LEO-run 'Start Your Own Business' programmes.

In Line with the Government commitment to assist businesses to strive toward decarbonisation, In March 2021, An Tánaiste Leo Varadkar launched the LEO Green for Micro Programme. This programme offers green transition advice and technical support to micro-enterprises. This support is free of charge for eligible enterprises and represents the potential for increased efficiencies within companies that adopt these principles. With climate change, changing regulations, rising resource costs and changing customer expectations, adopting an eco-friendlier approach is the best way forward for business. The Local Enterprise Offices approved 285 Green for Micro projects to date, helping to prepare microenterprises for the low carbon, more resource efficient economy of the future.

One of the key objectives of LEOs is to accelerate the growth of businesses that progress into the EI portfolio. In 2021, LEOs supported the progression of 114 clients into EI, enabling these businesses to continue their scaling journey. 59 clients transferred to High Potential Start-up (HPSU) with 55 transfers to EI. The transfer mechanism continues to facilitate the movement of clients from EI to the LEO where these businesses can receive support that is more appropriate from their development needs.

The COVID-19 pandemic illustrated just how crucial it is for our indigenous enterprises to further develop their capacity to trade online and embrace digitalisation. The LEO run Trading Online Voucher Scheme (TOVS) offers skills training, mentoring and financial support of up to €2,500 to help small and micro-businesses to develop their ecommerce capability. Between the 1st January and the 31st of December 2021, the Local Enterprise Offices administered 4,442 Trading Online Vouchers across the country.

The LEOs also promoted two Look for Local Campaigns in partnership with EI and the Local Authorities. The first was launched on 7th July 2021 by An Tánaiste Leo Varadkar acted to support and enhance the already strong sentiment amongst the Irish public to Look for Local when they are out and about in their own communities or on staycation in other areas of the country.

The Second campaign launched pre-Christmas as a timely reminder to consumers to 'Look for Local' when they are purchasing gifts, services and experiences for Christmas. It is also encouraged businesses to seek out local suppliers that may be available to them, particularly with ongoing international supply chain issues. These were national and local campaigns, which used social media platforms and a dedicated website to raise awareness of the benefit of spending in our local areas.

The LEOs took an innovative approach in how they embraced digital platforms to deliver planned national events in 2021, including the Student Enterprise awards final which was streamed live on May 14th allowing students who had been successful and didn't want to miss out, to attend while observing social distancing.

National Women's Enterprise Day was also celebrated exclusively online, on Thursday 7th October.

With entrepreneur and broadcaster Áine Kerr, hosting the event. It featured a series of webinars to celebrate and encourage female entrepreneurship across the country.

Local Enterprise Week ran from March 1st to March 5th with more than 200 virtual events taking place online. The events included training workshops, information webinars and masterclasses with entrepreneurs and experts designed to help the country's small businesses and those who looked to start a new business in 2021.

Science Foundation Ireland (SFI)

In March 2021, An Taoiseach Micheál Martin TD, and Minister for Further and Higher Education, Research, Innovation and Science, Simon Harris TD launched SFI's new strategy to 2025, Shaping Our Future. The strategy has been developed to unlock the potential of Irish research to meet current challenges, seize future opportunities and support the priorities outlined in the Programme for Government: Our Shared Future and National Development Plan.

A key focus of the strategy is to foster a cohesive research and innovation ecosystem that will support Ireland's competitiveness and societal needs, including a rapid recovery from the COVID-19 crisis. Shaping Our Future is aimed at supporting excellent research so that Ireland can become a green, sustainable, innovation leader, and ensuring the country has the skills and talent to support that goal. The strategy has two core ambitions: Delivering Today and Preparing for Tomorrow.

Another feature of the new strategy is enhanced collaboration. With additional support from the Department of Further & Higher Education, Research, Innovation & Science, SFI established a new partnership with the Irish Research Council, to deliver

the SFI-IRC Pathways Programme. This programme will support emerging research talent. SFI acts as lead agency for the programme and in 2021, the first call for proposals was launched with 24 awards funded in the STEM sector with a commitment from SFI of €13 million.

Programme activity

In line with its new strategy, 301 new awards were approved in 2021 across 19 programmes with a total commitment value of €148 million. Total payments to research bodies and organizations in 2021 were €222.5 million.

Key areas of 2021

In July 2021, An Taoiseach Micheál Martin TD, along with Minister Simon Harris TD, launched Creating our Future – a government led national brainstorm that brought the people of Ireland in a conversation on the role all areas of research can and should play in addressing opportunities, challenges and hopes for the future. The Creating our Future Roadshow visited every county in Ireland at least once during October and November 2021. Despite the limitations of the COVID-19 pandemic, over 1,500 online and in-person brainstorms and events were held to gather ideas. Over 18,000 ideas were captured which will contribute to informing the future direction of research in Ireland.

The announcement of support under the National Recovery and Resilience Plan by the Government and European Union, of €71.6 million investment in challenge-based research and innovation, to be administered by SFI, is an important development which will focus on green transition and digital transformation.

This new initiative will build on the experience of the SFI Future Innovator Prize, which is helping to address some of the challenges facing society today.

SFI seeks to foster academic-industry interactions by building strategic partnerships with industry to perform cutting-edge, industry-informed research, enhancing our competitive advantage and helping to build resilience. The new EMPOWER spoke, with an investment of almost €10 million focused on Data Platforms, Data Governance and Ecosystems, and involves researchers from four SFI Research Centres: Lero, the programme lead, Insight, ADAPT and FutureNeuro, coordinated by Empower Director, Professor Markus Helfert, based in Maynooth University.

SFI continued to develop several important policy areas, including open access and Plan S, gender in research, unconscious bias, and research integrity.

SFI continues to work with the public and research community to create deeper and more sustained

engagement, trying to bring the voice of citizens closer to the research we support.

Programmes and Awards Highlights

The SFI Frontiers for the Future programme is a core initiative to support excellent, independent researchers, to conduct highly innovative, collaborative research with the potential to deliver impact, whilst also providing opportunities for high-risk, high-reward research projects. €45.6 million was committed to 70 awards across the HEIs. This programme was run in partnership with Geological Survey of Ireland (GSI) and the Environmental Protection Agency (EPA). In addition, a new collaborative research funding partnership between Children's Health Foundation and Science Foundation Ireland (SFI), was established as part of the SFI Frontiers for the Future Programme. This exciting new partnership will see Children's Health Foundation and SFI provide match-funding opportunities for research projects that have the potential to find new cures and treatments for sick children and change the future of paediatric healthcare.

The €2million Zero Emissions prize was awarded to Professor Kevin O'Connor and the team at University College Dublin (UCD) for Farm Zero C, which will help deliver the climate-neutral farm in Shinagh Farm near Bandon, Cork, with plans to extend the strategy to a further 5,000 farms within five years. Farm Zero C, in partnership with dairy producer Carbery Group, studied how planting different types of grasses and clovers on pastures and supporting hedgerows can boost biodiversity and soil health, how using renewable energy that reduces greenhouse gas emissions and how changing what we feed livestock affects how much methane gas they produce.

The winner of the SFI Future Innovator Prize Artificial Intelligence (AI) for Societal Good Challenge, was a ground-breaking AI-based satellite imagery analysis tool to measure climate change adaptation in agriculture. The winning TAPAS team led by Dr Aaron Golden and Prof Charlie Spillane at the National University of Ireland, Galway (NUI Galway) was awarded €1 million for their interdisciplinary project resulting in a tool capable of providing objective data on the effectiveness of agricultural interventions for climate change adaptation. The TAPAS project was co-funded with Irish Aid under SFI's partnership with the Department of Foreign Affairs and has focused initially on test sites in Senegal that are subject to adaptation-strengthening agri-food interventions.

A Further challenge partnership was developed with the SFI-Defence Organisation Challenge which will seek to develop disruptive solutions to challenges facing the Irish Defence Forces and the Sustainable Development Goals (SDG).

The SFI Industry RD&I Fellowship brings innovation to a company through academia-industry interactions by placing temporary academic researchers in industry. Industry partners hosting researchers will benefit from the expertise of the Fellow embedded in their company bringing innovative solutions to industry challenges. €2.1million was committed to 27 projects, which will support the temporary placement of academic researchers in 19 companies to undertake research projects across a variety of areas including microbiology, virtual reality (VR), chatbots optimisation, biotechnology, coastal erosion, breast cancer, photodynamic therapy and more.

The network of sixteen world-leading SFI Research Centres is making important scientific advances, enhancing enterprise and industry, training students with critical, in-demand skills, supporting regional development, and enhancing Ireland's international reputation. As of end 2021, the SFI Research Centres have signed 1,218 collaborative research agreements with 683 companies – 352 of which are Irish companies. 317 of the 683 companies are categorised as MNC, 320 as SME with the remainder being a mix of start-ups and "other" company categories.

The SFI Research Centres are attracting industry, which make important contributions to Ireland's economy, and expand STEM educational and career opportunities.

An investment of €35 million was made to 20 awards under the SFI Infrastructure Awards Programme. These awards provide research groups with cutting edge equipment to enhance the performance of their high quality, impactful and innovative research.

2021 also saw continued collaborations with international partners such as the National Science Foundation (NSF), National Institutes of Health (NIH), UK Research and Innovation (UKRI), and the Royal Society.

- Royal Society – five awards totalling €2.5 million.
- EPSRC-SFI Joint Funding of Research – five awards totalling €2.3 million.
- US-Ireland R&D Programme – seven awards totalling €2.5 million.

Higher Education

In 2021, a number of programmes and projects were advanced to deliver on ambitions for Ireland's higher education sector as outlined in National Strategic Outcome 5, *A Strong Economy supported by Skills, Enterprise and Innovation*. These projects will expand capacity in higher education institutions, will support a pipeline of talent and skills aligned with national and regional needs, and will also upgrade existing infrastructure to improve the campus environment – taking account of energy efficiency, as well as best practice in teaching and learning.

Higher Education Strategic Infrastructure Fund

Some €96 million in Exchequer support is being provided as co-funding towards five major projects under the Higher Education Strategic Infrastructure Fund of which one - the Technology Society and Innovation building in Maynooth University - commenced construction in 2019 whilst another at IT Sligo, Extension to Central Campus (EO1) Project commenced construction in 2021.

The remaining projects are as follows:

- UCC, Cork University Business School (CUBS) Project;
- NUI Galway, Learning Commons Project and
- UCD, Future Campus Project.

These projects will expand capacity in line with demographic growth and skills needs, and are also leveraging non-Exchequer investment in higher education infrastructure.

Other Higher Education Capital Projects Progressed

€52 million has been approved for co-funding of other significant projects being progressed through the pipeline in 2021. The projects are:

- DCU Future Tech Building;
- TCD E3 Learning Foundry;
- TU Dublin - Tallaght Campus Sport Science Health and Recreation Building;
- Department of Health National Children's Hospital (contribution to Higher Education elements); and
- Royal Irish Academy of Music, Westland Row project.



TU Dublin Tallaght Campus Sport Science Health & Recreation Building

Climate Action Plan - Energy Efficiency Decarbonisation and Pathfinder Programme

In 2021 a number of infrastructure-related initiatives under the Climate Action Plan were progressed; these will be key in preparing the sector for larger scale energy efficiency and decarbonisation programmes.

An Energy Efficiency and Decarbonisation Pathfinder Programme 2020 was co-funded with Sustainable Energy Authority of Ireland (SEAI) in order to test

and demonstrate energy retrofit approaches, build scale, and inform key stakeholders. A total of eight projects with a Programme fund of up to €5.9 million (co-funded by the SEAI) in the initial phase were approved across the sector and progressed through various stages of design, planning and construction in 2021.

A new phase of the Energy Efficiency and Decarbonisation Pathfinder Programme was agreed in 2021 and a further eight projects have initially been progressed. In addition, a decarbonisation pathways analysis was completed for the higher education sector.

Higher Education Infrastructure Upgrade and Refurbishment Fund

Projects have also been identified for funding under the Higher Education Infrastructure Upgrade and Refurbishment Fund. Projects range from small emergency works to large scale refurbishment works. In 2021, there were twelve projects in various stages of design, planning and construction in addition to two projects that were completed. The funding approved in principle for these fourteen projects, totals almost €89 million. A number of the projects provide for major strategic upgrades and energy efficiency improvements, including in IT Sligo, Dundalk IT and the MTU Cork campus.

Higher Education PPP Projects

Eleven projects in the Technological University/ Institute of Technology sector continued to be progressed under the Higher Education Public Private Partnership Programme. These projects are strongly aligned to skills needs in the regions and will make a significant contribution to the realisation of dynamic Technological Universities – a key policy priority for Government. Approval to proceed with the Programme was provided by Government Decision in July 2020. The programme is split across two bundles. A Preferred Tenderer was appointed for Bundle 1 of the Higher Education PPP Programme and Bundle 2 was advanced to tender stage.

Grangegorman

Construction completion was achieved on the Grangegorman PPP project with the delivery of the Central Quad in Q1 2021, facilitating the move of 10,000 students and 600 staff to the new campus.

Together the Quads provide c.52,000 sq. m of academic space, and will accommodate a total of sixteen schools within TU Dublin's College of Sciences and Health, College of Engineering and Built Environment and College of Arts and Tourism. The buildings have provided for an additional 10,000 students (c.50 percent of the TU Dublin student

cohort) and 600 staff to move to the Grangegorman site.

In addition, €12 million Exchequer funding was approved to support the Grangegorman Academic Hub. This is the second largest project in Programme III and will include the campus library.



Central Quad

Devolved /Minor Works Funding

An enhanced Devolved Capital Grant of just over €38 million was provided to the higher education sector in 2021. This devolved capital grant allocation has and continues to facilitate higher institutions to address a number of key capital investment priorities, including: minor works and equipment needs, procurement of additional ICT equipment, general ICT and equipment-related upgrades, investments in equipment and infrastructure that are required to support the creation of additional student places, given the exceptional circumstances facing the Leaving Cert class of 2021, health and safety works, and other building upgrades, investments to support universal access and energy efficiency and decarbonisation-related upgrades.

Apprenticeship Equipment

Targeted support of €4.2 million was provided for higher education apprenticeship equipment across Institutes of Technology, MTU and TU Dublin to support new and modernised apprenticeship syllabi. Ten apprenticeship projects progressed through various stages in addition to six projects that were completed in 2021.

Further Education and Training (FET)

The NDP provided for the first time a dedicated capital envelope for the FET sector. Expenditure increased from €5.5 million in 2018 to €20.8 million in 2021.

This increased level of funding provided an opportunity to establish and support a range of programmes including:

- targeted support of €4.4 million was provided during 2021 to support fifty- one Apprenticeship applications providing for new and modernised

apprenticeship syllabi, for off-the-job training in ETB training centres;

- a Devolved/Minor Works Grant of just over € 8 million (the largest ever Devolved Capital Grant disbursed to the sector) was split across sixteen ETBs to provide funding for minor capital projects and equipment renewal;
- the progression of approximately 40 capital and emergency health and safety projects in the FET sector and
- 3 property purchases approved in 2021 for Kerry ETB, Galway Roscommon ETB and Limerick Clare ETB.

FET College of the Future

A FET College of the Future design working group and a working group on capital with SOLAS and ETBI were also established.

ICT

As of 3 November 2021, 24,683* students across the further and higher education sectors had benefited from the distribution of laptops. (*includes students who benefitted from laptops distributed from within the €15 million allocation announced in July 2020, plus re-distributed laptops and additional laptops procured with the 2021/2022 Devolved Grant).

In addition, shared ICT Infrastructure for the Higher Education Sector programme providing investment in the upgrade of ICT infrastructure and business applications for the higher education sector was funded to the tune of almost €7 million.



2.6

High Quality International Connectivity

As a small open economy, wider global challenges and the recovery and return to operations following COVID-19 continues to frame the context in which Ireland does business with the world. High quality international connectivity through our ports and airports is arguably more important now than ever.

With a view to enabling and ensuring the long-term ability for the Irish economy to rebound and grow, it is imperative that Dublin Airport has adequate capacity. Passenger numbers had grown by over 50 percent since 2014 and so a pivotal investment in the early years of Project Ireland 2040 is the Northern Runway. This project is the fulcrum of the future development of the Airport, which in turn is critical to the functioning of the Island economy.

The North Runway project is close to completion and is expected to be operational towards the end of August 2022.



North Runway Dublin Airport

Shannon Group has continued with development of its property portfolio in the Shannon Free Zone, assisting the IDA and EI in their drive for inward investment and increased employment in the region. This includes the completion of construction of three state of the art light engineering units located in Block K & L. Two of the units were acquired by MeiraGtx to accommodate its commercial scale manufacturing and research operations. MeiraGtx is continuing with its investment in the multi-million euro expansion of its Shannon facility. This development and the addition of this facility will create jobs in a new industry that employs graduates and highly skilled technical personnel and will act as a catalyst for future similar developments in Shannon which will benefit the entire region.

Shannon Group is a key project partner in Future Mobility Campus Ireland (FMCI), driving the smart campus (Shannon Free Zone) development and providing critical infrastructure for RD&I in the area of Autonomous Connected Electric Shared (ACES) vehicles. FMCI will deliver a Connected and Autonomous Vehicles test facility located in real-world settings in Shannon, providing technology companies and researchers the ability to test and enhance their innovations. FMCI has started to attract a number of innovative businesses to locate in Shannon and has the potential to create jobs in a new and emerging area. The funding for FMCI is a Government initiative under Project Ireland 2040 and aligns with the Future Jobs Ireland framework.

Continued Exchequer support for smaller regional airports is provided under the Regional Airports

Programme 2021-2025. In the period 2018 to 2021, over €22 million was provided towards the cost of capital projects at three airports: Donegal, Kerry and Ireland West Airport (Knock). This funding supported a significant runway overlay project at Ireland West Airport, which was completed in 2019. In addition, due to the impact of COVID-19 on regional State airports, Exchequer funding was also provided to both Shannon and Cork regional State airports in 2021 under a one-year COVID-19 Regional State Airports Programme 2021. This Programme mirrored the focus, including the sustainability objectives, of the Regional Airports Programme 2021-2025. The Programme provided Shannon Airport with € 6 million towards capital projects to ensure regulatory compliance in the areas of safety and security and funding of €10 million was provided to Cork airport to support a significant runway overlay project. This runway project is considered to be a key strategic asset for the South of Ireland for the next 20 years.

In relation to ports, the Port of Cork Company's Ringaskiddy Redevelopment Project involves the redevelopment of existing port facilities at

Ringaskiddy to accommodate larger sea-going vessels and increase port capacity, further developing it as an international gateway to trade and future proof the Port of Cork to the benefit of the Irish, regional and local economies.

The first phase of the development was completed in 2021 and includes an Optimised 360m Berth, a new Container terminal, two ship-to-shore cranes, with a Straddle Carrier Operating System and the attached necessary maintenance of buildings carried out over a four year period. The project was part funded by the Connecting Europe Facility (CEF), which is European grant funding along with finance from the European Investment Bank and Ireland Strategic Investment Fund. While some vessels did dock at the Terminal in 2021, it officially opened in April 2022.

Shannon Foynes Port Company's (SFPC's) Infrastructure Development Programme is well underway and will consist of a jetty expansion program, the joining of the East and West Jetties and the infill behind, land purchase and 38 hectare site development for a new port logistics park at Foynes Port and the Foynes Rail Reinstatement. The investment programme will improve international connectivity and increase capacity through the construction of new quay walls and associated port infrastructure and external connectivity with the upgrade of the N69 and the reinstatement of the Limerick-Foynes rail line. The project has successfully been awarded European Grant funding from the Connecting Europe Facility (CEF). In addition, in accordance with its Masterplan, Vision 2041, SFPC has commenced pre-planning for a new 800 metre deep-water berth with 18 metre draught alongside

at Foynes. This infrastructure will also enable SFPC operate as a marshalling port for offshore wind, providing the necessary port capacity requirements for floating offshore wind on the Atlantic coast.



Shannon Foynes Port Company

Dublin Port is progressing implementation of its Masterplan 2040 in order to ensure that the Port can provide for future sustainable growth and changes in facilitating seaborne trade in goods and passenger movements to and from Ireland and the Dublin region in particular. This will see significant investment over the next 10 years in essential port infrastructure and facilities. The works are being part funded by the Connecting Europe Facility (CEF) funding and European Investment Bank finance.

Approximately 25 percent of the overall project has been completed to date, with considerable work already completed on the Alexandra Basin Redevelopment Works. The company are also commencing on elements of the MP2 project. Dublin

Port Company has now secured all of the planning permissions required for the major development works planned on the northern side of the port under ABR and MP2. The company is also progressing the third and final Masterplan project, the 3FM project, with the commencement of the pre-planning stage and in particular the preparation of the detailed project design and the environmental impact reports. The company envisages lodging a planning application with An Bord Pleanála in early 2023.

In line with the Strategic Masterplan for Rosslare Europort, Iarnród Éireann and Rosslare are investing in customer facilities, port infrastructure, freight facilities, port assets, new technology and linking the new entrance of the port with a proposed new port access road. Additionally, to support the free flow of import and export trade through Rosslare to Great Britain, plans are underway by the OPW to progress the construction of permanent State Agency facilities within the Port for the regulatory controls required by the State post Brexit.

Rosslare Europort and Irish Rail are also progressing plans for the development of large-scale facilities at the port for the development of offshore renewable energy and anticipate that they will lodge a planning application in 2023.



2.7 Enhanced Amenity and Heritage

Project Ireland 2040 recognises cultural heritage infrastructure as an essential component for sustainable, attractive and liveable cities, towns, villages and rural areas.

National Cultural Institutions Investment Programme

The Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media continues to work to implement its sectoral plans 'Investing in our Culture, Language and Heritage, 2018-2027' and the relevant parts of 'Linking People and Places', published by the former Department of Transport, Tourism and Sport.

As part of the plan to invest €460 million in our National Cultural Institutions over the ten years of the NDP, a number of projects were advanced in 2021, notwithstanding the impact of COVID-19, including:

- Work continues on the final business case preparation and advancement of designs for the redevelopment of the Crawford Art Gallery in Cork including further gallery and office space. These plans will include the integration of the Crawford Art Gallery into the wider urban regeneration initiative at Opera Lane and the creation of a cultural plaza;
- Whilst the impact of COVID-19 continues to affect the National Archives project, it is anticipated that the tendering process will now progress in 2022. This project will provide a secure environmentally controlled Archival Repository to safeguard the national archives for the future;
- The second phase of the ongoing works at the National Library to redevelop the West Wing as part of a multi-phase capital project to upgrade, expand and refurbish this iconic structure is continuing. This included opening up the existing fabric of the West Wing to allow for a full structural survey which is helping to define the next phase of work to include specialist conservation repair works to roof, windows and doors and
- Progression, under the Public Spending Code, in developing strategic assessment reports and preliminary business cases for other significant institutions, such as IMMA, the National Gallery, the National History Museum, National Concert Hall, Chester Beatty Library and the Abbey Theatre.

In addition to the above, final business case planning continued in relation to the redevelopment of No. 11 Parnell Square, Dublin 1, an important 18th century Georgian townhouse as a cultural hub in the Parnell Square area. This project, which is being progressed in partnership with the Irish Heritage Trust and Poetry Ireland, is partly funded by a Urban Regeneration Development Fund (URDF) grant of €3.8 million.

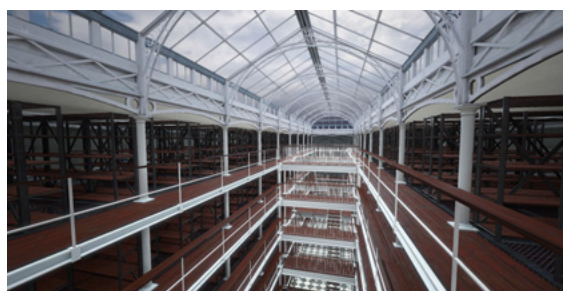
Cultural Heritage - Digitisation

Over €1.27 million was disbursed through the Cultural Digitisation Scheme in 2021, which will preserve and enhance the accessibility of our cultural

heritage. A flagship initiative under this scheme is the commitment to invest in the Beyond 2022 digitisation and research project led by Trinity College Dublin which was progressed during the year. This project seeks to rediscover and restore much of the archival material lost in the destruction of the Public Record Office in 1922. The Virtual Record Treasury of Ireland (an outcome of this five-year State funded programme of research) was launched on 27th June 2022. The project has combined historical investigation, archival conservation, and technical innovation, to re-imagine and recreate through digital technologies, the Public Record Office of Ireland, which was destroyed on 30th June 1922 in the opening engagement of the Civil War.



Surface cleaning paper records (Exchequer, Revenue Side, Collectors' Accounts: Athlone Port, 1789) damaged in the 1922 fire. Part of conservation work at the National Archives funded through the Beyond 2022 project. Credit: National Archives.



Treasury, upper floor



'After'

Image credit: The National Library of Ireland



**Maoinchiste Annála
Samhalta na hÉireann**
Virtual Record Treasury of Ireland

The project has been endorsed by the Expert Advisory Group on Centenary Commemorations as a meaningful and permanent legacy for the State's Decade of Centenaries Programme 2012-2023. Phase II of the project (2019-2022) is supported through a capital grant allocation of €2.5 million from the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media, under Project Ireland 2040. In 2021, €1,006,888 was drawn down from this overall allocation to support the ongoing project development and research collaboration costs. The project is grounded in the strength and generosity of the engagement from the international and all-island archival partners and participating organisations - currently 70 in total. The core archival partners comprise: the National Archives, the National Archives (UK), the Public Record Office of Northern Ireland, the Irish Manuscripts Commission, and the Library of Trinity College Dublin.

Visitors to the free, open-access web application will be able to search a large and growing collection of digitised records, drawn from archives and libraries at home and from around the world. All these are replacement records for the originals lost in 1922. Machine-assisted transcription will make over 50 million words of content searchable.

The Virtual Reality model will be used as an interactive tool for engagement, enabling visitors to browse the virtual archive and delve deeper into the digitised collections, identifying connections between people and places across seven centuries of Irish history.

Sport Facilities

The Large Scale Sport Infrastructure Fund (LSSIF) was launched in 2018 to provide support for larger sports projects where the level of exchequer support is greater than that available under the Sports Capital Expenditure Programme (see details of the SCEP under NSO 3). The fund initially focused on the requirements and development plans of National Governing Bodies of sport and Local Authorities. Following a detailed assessment process, provisional and formal allocations of €86.3 million have been announced for 33 successful applicants. A number of projects have commenced, while the majority of the projects are undergoing examination of economic analyses and financial workings or completing legal formalities before commencing on site.

The National Sports Campus

The development of a National Velodrome and Badminton Centre was included in the National Development Plan published in October 2021. The objective of the National Velodrome and Badminton Centre project is to contribute to the success of high performance programmes and to increase participation in both track cycling and badminton, with positive impacts for both national pride and social well-being. The high-class indoor facilities that will be included as part of this national infrastructure will have a significant impact on Ireland's international track cycling programme in particular and will further the development of track cycling and badminton. A Preliminary Business Case in respect of the project was approved by the Minister in November 2021. Design work and preparation for a planning application is underway.





Tourism

Tourism development plays a key role in enhancing amenity and heritage (NSO 7) around the country, in conjunction with its role in strengthening rural economies and communities (NSO 3).

With specific regard to State-owned or managed built and natural heritage sites and amenities, Fáilte Ireland has developed a series of strategic partnerships with key State bodies (OPW and Department of Housing, Local Government and Heritage; National Parks and Wildlife Service; Coillte; and Waterways Ireland) that own and manage attractions and sites considered to be of vital importance to tourism. Through these partnerships, Fáilte Ireland can assist with the refurbishment and enhancement of key visitor attractions and advise on further experience development and marketing, thereby assisting these bodies to unlock the tourism potential of Ireland's natural and built heritage assets and meet the growing international demand for world-class outdoor tourism experiences.

Fáilte Ireland also has, since 2018, a partnership in place with the Department of Rural and Community Development on the funding of that Department's Outdoor Recreation Infrastructure Scheme. The Outdoor Recreation Infrastructure Scheme provides funding for the development of new outdoor recreational infrastructure or the necessary maintenance, enhancement or promotion of existing outdoor recreational infrastructure in Ireland. The scheme seeks to support those sporting and recreational pursuits based on use of the resources of the countryside that contribute to healthy active

lifestyles and the economic and tourism potential of the area for both local communities and tourist visitors alike.

Fáilte Ireland-supported amenity and heritage related projects advanced in 2021

In 2021, despite a second year of COVID-19 restrictions, work continued on the following Fáilte Ireland-funded amenity and heritage projects:

- The Shannon Tourism Masterplan - developed under strategic partnership between Fáilte Ireland and Waterways Ireland and in collaboration with the ten Local Authorities along the navigation- was launched in March 2021. The Plan sets out an ambitious roadmap with 120 actions to support the Shannon to become an iconic visitor experience for Ireland's Hidden Heartlands.
- Significant progress was made on the Beara Breifne Trail Audit Plan, once the COVID-19 lockdowns ended in May 2021. Work is well underway on the Interpretation, Wayfinding and Branding strategies which will ensure the development of the trail as an internationally motivating long distance walking trail.
- Work continued on development of the Dublin Visitor Orientation Programme, which includes the creation of a coastal trail to encourage visitors to explore and experience the Dublin coastline.
- Fáilte Ireland and Coillte progressed the International Mountain Biking Proposition for Rural Ireland, comprising four separate projects – due to deliver four national trail centres across seven counties and over 300km of trails. This is considered to be of particular importance in developing the activities tourism offering in Ireland. [The proposition includes: one project in the Southern area (the Ballyhoura Visitor Centre Trail Head Building, Co. Limerick); two projects in the Eastern and Midland Region (Mountain Bike Centres in Ticknock, Dublin & Ballinastoe, Wicklow and the Slieve Bloom Mountain Bike Centre, Laois/Offaly); and one project in the North West (the Coolaney Mountain Bike Centre and Trail Development in Sligo)]. In 2021 the following was delivered: Coolaney- 5km of trail (of 24km); Slieve Bloom Laois- 5km of trail (of 21km); Slieve Bloom, Offaly- 7km of trail (of 17.5km); Ballinastoe, 2.5km of trail (of 10.8km).

In addition to the above projects, which are all aimed at developing the outdoors/activity offering, Fáilte Ireland also progressed its strategic partnership with the OPW and Department of Housing, Local Government and Heritage. This led to the completion and opening of a tourism development at the Customs House, Dublin, in 2021. Three further projects were advanced in 2021 and will be

completed in 2022 under this partnership – visitor centres at Knowth in Meath, Céide Fields in Mayo, and the Blaskets Centre in Kerry. A further nine projects remain under development with the OPW/DHLGH under the Strategic Partnership.

Outdoor Recreation Infrastructure Scheme (ORIS)

In 2021, the ORIS scheme awarded investment of €3.5 million for 189 small scale projects across the country and €15.5 million to develop 66 outdoor recreation projects and development funding for a further 18 projects. Fáilte Ireland contributed €4 million towards these projects in partnership with DRCD in 2021.

Urban Animation Scheme

Fáilte Ireland's Urban Animation Capital Investment Scheme is a pilot capital grants scheme for Local Authorities. Launched in April 2021, this scheme is aimed at supporting sustainable tourism development through public realm and urban animation projects that have the potential to transform and re-imagine urban centres for visitors and communities. Following a competitive assessment process, €4.2 million in funding was awarded to urban animation projects in six counties, where the local stories, culture and heritage will be brought to life through a variety of large-scale outdoor performance spaces, public art and light installations.

- Cork City Council (€673,310)
- Dublin City Council (€847,487)
- Galway City Council (€1,030,834)
- Kilkenny County Council (€439,875)
- Louth County Council (€672,208)
- Waterford City and County Council (€539,275)

Platforms for Growth

Fáilte Ireland is currently investing in large-scale tourism attractions and experiences through its capital investment programme, Platforms for Growth (2019 to 2022). This programme has run two investment platforms to date – a programme of funding to support and expand immersive heritage and cultural attractions and an investment programme, in partnership with Local Authorities, to develop activity facility centres for water-based activities.

Fáilte Ireland's first call for applications (*Platforms for Growth 1*), in 2019, focused on the platform of immersive heritage and cultural attractions, inviting proposals for large-scale projects of €2.5 million upwards. The aim is to ensure strong economic growth by investing in heritage and cultural attractions of scale that will motivate visitors to travel, either to and/or within Ireland, but without displacing

the existing attractions of a destination or disturbing the competitiveness already in mature destinations. The overall objective is to deliver brilliant experiences that allow visitors connect with Ireland and bring the national and local culture, heritage and people to life, while also delivering greater regional and seasonal spread of tourism. Significant Fáilte Ireland investment totalling over €44 million was announced in June 2021 as part of this first platform to develop four new world-class tourist attractions in the following locations:

- Co. Cavan: Shannon Pot & Cavan Burren Park, Blacklion;
- Co. Donegal: Fort Dunree & Head, Buncrana;
- Co. Dublin: 'This is Ireland' and
- Co. Mayo: Westport House Estate & Gardens, Westport.

The second platform (*Platforms for Growth 2*), launched in December 2020 and involving a targeted call for applications from local authorities, aims to develop activity facility centres at waterside locations across Ireland. In April 2021, €19 million worth of investment was announced for this platform, to be used to develop world-class facility centres at twenty locations across the country where water-based activities are a key visitor attraction. These facilities, designed to serve as a hub in each locality from which multiple water-sports operators can base themselves, will provide hot showers, changing and toilet facilities, secure storage, induction spaces, equipment wash-down and orientation points.

In 2021, despite further COVID-19 restrictions, work continued on the following amenity and heritage projects which, were collaboratively funded by Fáilte Ireland, Waterways Ireland and ten Local Authorities, as part of the Shannon Tourism Masterplan:

- This collaboration led to the delivery of six projects including the refurbishment of Dromod Harbour in Leitrim, the development of new floating moorings and a canal walk in Rooskey, a new floating mooring at Redbridge in Longford, and further floating moorings along with a new slipway in Athlone, Co. Westmeath.
- The restored Meelick Weir and Walkway, part of the Beara Breifne Way was opened on the 24th September 2021 by Minister Darragh O'Brien TD and Minister of State Malcolm Noonan TD.

Natural Heritage

A key pillar of the Department of Housing, Local Government and Heritage's Project Ireland 2040 investment programme is continued investment in our natural heritage. In 2021, over €9.5 million was invested to promote the conservation of biodiversity,

protect and restore our peatlands and to enhance our National Parks and Nature Reserves.

National Parks and Reserves

In terms of our National Parks and Nature Reserves, Project Ireland 2040 investment consists of an ongoing series of investments in maintenance and upgrading of the 87,000 hectare network of sites. Individual projects are targeted at tackling invasive species and enhancing conservation, improving visitor facilities and information, improved signage, as well as developing and maintaining new and existing trails and walkways, including the development of new routes. Highlights of the 2021 capital programme include:

Wexford Wildfowl Reserve Re-Opens

After closing its doors in March 2020 due to COVID-19 restrictions, Wexford Wildfowl Reserve Visitor Centre is re-opened with an enhanced visitor experience.

A new, fully accessible walking trail of *circa* 500m now allows access around the enclosed area of the Visitor Centre ponds. More picnic benches make a trip to the Centre a chance to relax and enjoy nature, whether you're a keen birdwatcher, photographer or just someone seeking a quiet escape from the stresses of the day. The trail creation is the initial stage of the redevelopment of the Visitor Centre grounds, and we are pleased to invite you to come have a look. The Visitor Centre (with its display area and observation tower) and the grounds (with short trail and birdwatching hide) will be open four days a week.



Wexford Wildfowl Reserve Visitor Centre and Observation Tower

Visitors Counters for the Parks and Reserves Network

In 2021, the National Parks and Wildlife Service (NPWS) successfully completed the project to install 109 visitor counters across the parks and reserves network. This is a centralised web-based system which gathers data for Pedestrians, Cyclists and Vehicles. While the project began in 2020 with RRDF funding, 2021 was the first year where these

visitor counters gave numbers available for the full 12 month period. Following an overarching report on the nationwide counters, NPWS sites, had a total of 4,320,556 visits across its network.

Killarney National Park Road Network

There are over 85km of tracks, trails, walkways and roads in Killarney National Park. 2021 saw a significant increase in bike traffic and cyclists in the parks, with many Irish families holidaying at home. In an ambitious maintenance programme, costing in the region of €0.5 million, over 6km of roads were resurfaced and repaired, in particular the Dinis Loop Road which is a big draw as both a cycling and walking route.

Conservation, Management and Restoration of Peatlands

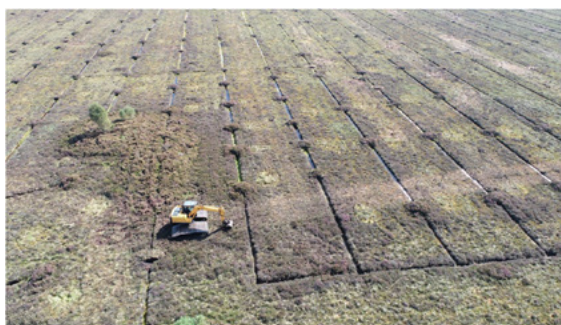
In 2021, €9.87 million was invested to conserve, manage and restore our peatlands.

In Budget 2022, €10.28 million (including €5 million from the carbon tax fund) was allocated for the conservation, management and restoration of peatlands in 2022.

In 2021 restoration works were undertaken across eight raised bog Special Areas of Conservation (SACs) and Natural Heritage Areas. In addition, preparatory works including the installation of hydrological monitoring equipment have been undertaken across a further ten raised bog SACs and NHA's with restoration works continuing across the raised bog network in 2022.



Contour bunding on Knockacoller bog Special Area of Conservation, Co. Laois



Peat dams installation on Ballynagrenia and Ballinderry bog Natural Heritage Area, Co. Westmeath

Biodiversity (National Parks and Wildlife Service Science and Biodiversity)

In 2021, over €11.5 million was invested in the protection and conservation of biodiversity by the NPWS.

The Science and Biodiversity Unit provides for scientific work programmes and a range of biodiversity-related work, including work related to EU Directives and Regulations, specifically: development of conservation related measures and their trialling through an NPWS Farm Plan Scheme; a scientific monitoring programme; scientific investigation and assessment of conservation methods; species protection projects; data management and mapping for the NPWS; projects co-funded by the EU under its LIFE programme; awareness programmes; Ireland's obligations under UN Conventions and other international agreements for biodiversity and nature; zoo inspections and licensing; Local Authority funding towards implementation of the National Biodiversity Action Plan; and support to the Heritage Council towards the cost of the National Biodiversity Data Centre.

Scientific Programme

This expenditure goes to scientific survey of habitats and species listed in the EU Habitats Directive, as well as all bird species that occur in the State. Work is spread over a six year cycle to lead into detailed scientific reports to the EU on the status of these habitats and species. The most recent reports were submitted in 2019 and a new cycle of work is underway.

LIFE projects

Two major EU LIFE projects, LIFE IP –PAF Wild Atlantic Nature, which aims to improve Ireland's performance in conserving habitats, particularly blanket bog, and LIFE Atlantic Crex, which focuses on improving the conservation status of the Corncrake were rolled out further in 2021. NPWS participation in three new LIFE projects was confirmed (LIFE on Machair, LIFE Lough Carra and LIFE Insular). A LIFE Irish Strategic Nature Project (SNaP) proposal passed the Concept Note assessment in 2021 and a full funding application will be submitted in 2022.

Zoos

The Department is required to carry out inspections and licensing of establishments with collections of wild species that are open to the public, ranging from large zoos to smaller collections as well as aquaria. The work of inspecting is ongoing and is contracted to zoo management experts.

Local Biodiversity Action Fund

The NPWS operate a Local Authority Biodiversity Action Fund. The fund has grown in popularity since it launched in 2018. €1.2 million was allocated to 31 Local Authorities for 120 Biodiversity Projects in 2021.

Support to the National Biodiversity Data Centre

The National Biodiversity Data Centre is a national centre that collects and manages data on Ireland's biodiversity, to document Ireland's wildlife resource and to track how it is changing over time. It is a programme of the Heritage Council, operated on contract. The Centre holds over four million records on 16,000 species, and provides these to its many stakeholders through a range of media channels. The NPWS provides approximately €450,000 per annum to the Heritage Council in support of this work, in addition to supporting a range of additional projects managed by the NBDC.

National Monuments Service

The Heritage Division of the Department of Housing, Local Government and Heritage (DHLGH) continues to engage with and support Local Authorities on relevant URDF and RRDF projects which will protect and promote urban heritage, including the Nenagh Historic and Cultural Quarter Regeneration project.

The DHLGH Community Monuments Fund is supporting place-making and regional growth, as well as community engagement and job opportunities, through provision of significant investment in the conservation and promotion of archaeological monuments for public benefit. In 2021, funding of just under €4.2 million enabled projects to be completed at 139 sites nationally, providing 6,298 days of specialist labour.

DHLGH has been providing ongoing support to the Transatlantic Cable Ensemble: Valentia applicants by advising on their application to Ireland's new World Heritage Tentative List and on planned conservation works to the Cable Station in Knightstown, Valentia, Co Kerry.

Built Heritage

In 2021, €6 million in funding was provided to assist with the conservation and restoration of our built heritage across the country: grants of €3 million were provided to each the Historic Structures Fund and the Built Heritage Investment Scheme. Additionally, the Heritage Council was supported to invest €1.5 million in the heritage-led renewal of town centres through the Historic Towns Initiative (HTI).



2.8

Transition to a Low-Carbon and Climate-Resilient Society

This remains the single largest investment priority under Project Ireland 2040. The investment priorities in this area represent a step-change in Ireland's delivery of climate-action objectives which are designed to place a decarbonisation pathway to 2030 and are consistent with the adoption of a net zero target in Ireland by 2050.

The Climate Action and Low Carbon Development (Amendment) Act 2021, enacted in July 2021, commits Ireland to a 51 percent reduction in our overall greenhouse gas emissions by 2030 at the latest, compared to our 2018 levels, and to achieving net zero emissions no later than 2050. This landmark legislation sets a legally binding framework for Ireland to achieve the national climate objective of a transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy no later than 2050. Our climate commitments are fully in line with the European Union's similarly ambitious targets. As part of the European Green Deal, the EU has committed to reduce its emissions by at least 55 percent by 2030 and to achieve carbon neutrality by 2050.

The net-zero transition requires a targeted balance between Exchequer-supported expenditure, taxation measures, regulation and behavioural change. The investment priorities included in this NSO must be delivered in order to contribute to meeting the targets set out in the current and future Climate Action Plans, and to contribute to achieving our climate objectives. The investment priorities represent a decisive shift towards the achievement of a decarbonised society, demonstrating the Government's commitment to securing a carbon neutral future

Key developments in 2021 include:

- Enactment of the Climate Action and Low Carbon Development (Amendment) Act 2021. Inclusion of an amendment to the Petroleum and Other Minerals Development Act 1960 giving statutory effect to the Programme for Government commitment to end the issuing of new licences for the exploration and extraction of gas.
- Publication of the Climate Action Plan 2021, which included the National Retrofit Plan, and the accompanying Annex of Action.
- Enactment of the Maritime Area Planning Act 2021.
- Two projects – supporting a large-scale peatlands restoration project and a residential retrofitting loan guarantee scheme – included in Ireland's National Recovery and Resilience Plan, co-funded by the EU Recovery and Resilience Facility and Exchequer funding.
- 15,457 home upgrades (including 4,089 Solar PV installations) were completed despite activity paused between January and April due to COVID-19 restrictions.
- Applications for the required foreshore licence and onshore planning permissions in Ireland in respect of the Celtic Interconnector were submitted by EirGrid in summer 2021.
- Launch of €60 million Community Climate Action Programme from Climate Action Fund to empower local communities in the transition to a net zero emissions future.
- The first Renewable Electricity Support Scheme (RESS) auction for onshore wind and solar projects was held in 2020 with 63 projects progressing through delivery milestones in 2021 representing a combined 1,049 MW of new renewable generation. The second RESS auction qualification window opened in December 2021, with the results due in June 2022.
- ESB invested over €1.2 billion of capital in 2021, including almost €150 million in the Smart Metering roll-out and invested c.€115 million in new renewable generation and systems services projects (including batteries).
- FuturEnergy Ireland, a new 50:50 joint venture with Coillte and ESB, was launched. This new venture aims to develop 1 GW of wind energy projects by 2030, enough to power more than 500,000 homes.
- EirGrid published their Shaping Our Electricity Future Roadmap which provides an outline of the key developments and investments required from a networks, engagement, operations and market perspective needed to support a secure transition to at least 70% renewables on the electricity grid by 2030 – an important step on the journey to net zero by 2050

The **Climate Action Plan 2021** setting out indicative ranges of emissions reductions for all sectors of the economy was published in November 2021, and the Annex of Actions was published in December 2021. The Plan contains 491 actions, that Ireland must implement to meet our EU 2030 targets and to achieve net zero emissions no later than 2050. The climate actions identified are being implemented by 18 Government Departments and up to 60 agencies under the remit of those Departments, requiring a deep level of collaboration across Government. The Climate Change Advisory Council (CCAC) published provisional carbon budgets in October 2021. As of April 2022, carbon budgets have come into effect following approval by both Houses of the Oireachtas.

Climate Action Fund

The Climate Action Fund was established on a statutory basis with effect from 1 August 2020. It is resourced from proceeds from the levy paid to the National Oil Reserves Agency (NORA) in respect of relevant disposals of petroleum products, after the funding requirements of NORA have been met, as well as income from the Energy Efficiency National Fund and Official Air travel Offsets. At least €500 million is expected to accrue to the Climate Action Fund to 2027.

The Climate Action Fund - EU LIFE Programme 2021 Co-financing Grant Scheme was launched in September 2021. Under the scheme, the Minister for the Environment, Climate and Communications has issued approval-in-principle to co-finance projects, with a total budget of €4 million. Final approval for this funding will only issue for projects which are successful in securing funding under the EU LIFE Programme 2021.

The Community Climate Action Programme was launched in November 2021. This Programme will see €60 million from the Climate Action Fund invested in community climate action projects and initiatives, as well as capacity building, over the next three years. The Programme will support and empower communities to shape and build low carbon, sustainable communities in a coherent way. The Programme will roll out in two phases with €30 million allocated for the first phase. The first phase is comprised two strands:

- **Strand 1 - Action: Building Low Carbon Communities** - €24 million is being provided to local authorities to support communities, large and small, rural and urban, to build low carbon communities in a considered and structured way.
- **Strand 2 - Education: Climate Education, Capacity Building and Learning by Doing.** A total of €6 million is being provided to build community capacity in relation to climate action. The call for applications closed in January 2022, and a total of 72 applications were received and are currently being assessed.

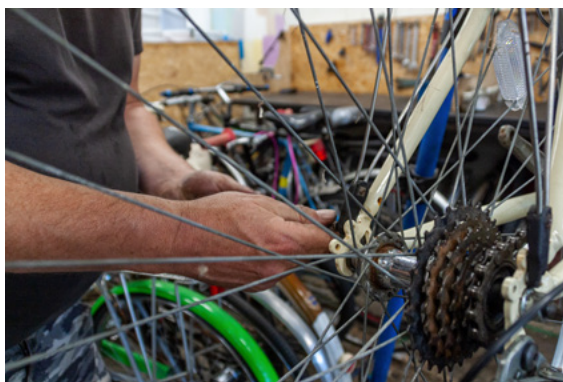
National Just Transition Fund

The National Just Transition Fund is a key pillar of the Government's plan for the Midlands region. The Government is committed to a just transition in the Midlands region and has dedicated significant funding to supporting workers, companies and communities affected by the ending closure of the peat-fired power stations and the end of peat harvesting by Bord na Móna. The focus is on retraining workers and generating sustainable employment in green enterprise across the region.

There was a call for applications in 2020 to support communities transitioning to a low carbon economy. Funded projects are diverse and cover a range of opportunities for the region, including new enterprise hubs, supporting local business development, tourism and heritage projects, and opportunities for reskilling. 55 Just Transition Fund projects have been approved costing €30 million and with grant support of €20.5 million.

Up to €10.8 million was approved for Bord na Móna's large-scale peatlands restoration project in the National Recovery and Resilience Plan, funded by the EU Recovery and Resilience Facility. This project and

the National Parks and Wildlife Service Peatlands Scheme will support 350 jobs (or 230 full-time equivalents).



Circular Economy Bike Repair Rediscover Cycling



Circular Economy Fashion Workshop

EU Just Transition Fund

The EU Just Transition Fund (EUJTF) is a fund for the 2021-2027 period which aims to address the adverse socio-economic effects of the climate transition by supporting the most affected territories and workers and ensuring a fair transition.

The Eastern and Midland Regional Assembly (EMRA) was appointed as Managing Authority for the EU JTF in 2021. The Department of the Environment, Climate and Communications and EMRA developed a draft Territorial Just Transition Plan which was put out to public consultation from 20 December 2021 until 14 February 2022. A consultation report summarising themes from the responses received was published online and public consultation outputs are being used to further develop and finalise the draft Territorial Just Transition Plan and EU Just Transition Fund programme. This will then be sent to Government for approval. These documents will be submitted to the European Commission for approval during the course of 2022.

Climate Research

In 2021, the Environmental Protection Agency (EPA) published a ten-year strategy for its programming of environmental research (including Climate). The 2021

EPA Research Call was launched in May 2021 with up to €10.5 million (inclusive of co-funding) available for new research projects across climate, circular economy, natural environment, and health themes. 102 Climate Research projects were ongoing at the end of 2021 (not including those projects in other thematic areas with climate co-benefits), of which 29 were in final completion stage. 44 research and study output reports were delivered in 2021 of which 23 had relevance to climate policy in Ireland.

Decarbonising Energy

The target of delivering up to 80 percent of Ireland's electricity from renewable sources by 2030 will play a central role, not only in reducing emissions in the electricity sector itself, but in enabling emissions reductions in the transport sector through electrification of vehicles and in our homes, industry, and public and commercial buildings through electrification of heat.



Renewable Electricity Solar Farm Launch Wicklow

Renewable Electricity Support Scheme (RESS) - Onshore

The first Renewable Electricity Support Scheme (RESS) auction for onshore wind and solar projects was held in 2020 with 63 projects progressing through delivery milestones in 2021 representing a combined 1,049 MW of new renewable generation.

The second RESS auction process began in December 2021 with the qualification application window opening. It is anticipated that RESS 2 will deliver a further increase in renewable electricity generation by the end of 2024.

Government is committed to frequent auctions and an acceleration of the connection of new renewables to the grid. In that regard the Department of the Environment, Climate and Communications published an indicative RESS auction schedule in December 2021 to give confidence to industry in ensure a strong project pipeline.

The Government will support community ownership of renewable electricity generation assets through a

dedicated 100 percent-owned community category in each onshore RESS auction.

Micro-generation Support Scheme

In 2021, 16.5 MW of solar PV was installed, comprising 4,089 installations supported by grants from the SEAI, saving 4,339 tons of CO₂ emissions. The Solar PV Scheme has grown strongly in 2021 with new applications increasing from 3,620 in 2020 to 7,015 in 2021 an increase of 94 percent, and the number of supported installations has increased by 41 percent from 2,916 to 4,078.

The Micro-generation Support Scheme was approved by Government in December 2021. The scheme, with a total budget of €96.1 million, will enable the deployment of up to 380 MW of new renewable generation capacity. The phased introduction of supports will commence in 2022 with capital grants for domestic applicants and non-domestic applicants up to 6.0kW installations, and an export tariff for larger non-domestic applicants.

The Clean Export Guarantee (CEG) tariff will become available for micro-and small-scale generators in Ireland which will allow them to receive payment from their electricity supplier for all excess renewable electricity they export to the grid. This remuneration will reflect the market value of the electricity.

National Smart Metering Programme

The National Smart Metering Programme (NSMP) is co-ordinated by the Commission for the Regulation of Utilities (CRU) with ESB Networks delivering the electricity meter rollout. With over 624,000 smart meters installed at the end of 2021, and 1.1 million due to be reached by end 2022, Ireland has now achieved a critical mass. The NSMP will install 2.3 million meters by 2025 and in the process make available new products and services to energy consumers. In addition, over 20,000 customers with registered micro-generation installations now have smart meters that have enabled them to measure the electricity they export to the grid so that they can benefit from a micro-generation tariff from their electricity supplier.



Offshore Renewable Electricity

Offshore Renewable Energy

The Maritime Area Planning Act 2021 (MAP Act) was enacted in December 2021. The legislation provides a modern, up-to-date regulatory framework that will enable Offshore Renewable Energy (ORE) developments beyond the limits of the current foreshore regime and paves the way for Ireland to meet its targets of 5 GW of offshore wind by 2030 and beyond. In tandem, the Department of the Environment, Climate and Communications progressed significant work on the design of the new ORE consenting system, ready for implementation in 2022.

A new framework for Ireland's future offshore electricity transmission system was approved by Government in April 2021, and provides for offshore grid development, operation and ownership. The framework provides for a phased transition from the current decentralised offshore transmission system model to a centralised model over the course of this decade, as part of the wider transition towards a Plan-Led regime, to take place in line with three scheduled offshore RESS auctions by the end of this decade. The enduring centralised model, with transmission system assets to be planned, developed, owned and operated by EirGrid, will be established by the third offshore RESS auction, and has been identified as delivering maximum societal benefits.

Security of Supply

The National Development Plan (NDP) sets out the importance of secure supplies of energy for the proper functioning of society and the economy. In the electricity sector, a need for 2,000 MW of additional generation capacity (the majority of which is expected to be gas-fired) by 2030 was identified in the plan. The Commission for Regulation of Utilities, which has statutory responsibility for ensuring security of electricity supply, is leading a programme of work to deliver this capacity. This includes holding auctions in the capacity market which offer 10-year supports for new generators and the procurement of temporary generation in order to ensure adequate capacity in the short-term.

The NDP also sets out that a review of the security of energy supply of Ireland's electricity and natural gas systems will be carried out. This review, which is underway, will inform future Government policy in relation to security of supply and the potential need for further investment.

Following the Russian invasion of Ukraine in February 2022, a new Energy Security Emergency Group was established which developed and is overseeing the implementation of a new National Energy Security Framework. The Framework, which was published in April 2022, incorporates the work already underway in relation to energy security and sets out a range of

additional policy responses to deal with the additional risks posed to energy security by the war in Ukraine.

Decarbonising the Built Environment

Increasing the energy efficiency of our buildings is considered the most cost-effective method of addressing climate change and moving to decarbonising our homes, businesses and public buildings.

We are ensuring that the owners and occupants of our existing building stock are supported to improve the efficiency of the buildings in which they live and work, so that they too can avail of the multiple benefits, while also benefiting us all through reduction in energy use and carbon emissions.

The Department of the Environment, Climate and Communications funds the energy efficiency support schemes administered by the Sustainable Energy Authority of Ireland (SEAI). These schemes target the residential, commercial and public sector.



Residential Retrofitting Dublin

Residential Energy Efficiency

The Programme for Government and the Climate Action Plan 2021 set ambitious targets to retrofit 500,000 homes to a Building Energy Rating of B2 (or cost optimal equivalent), and to install 400,000 heat pumps to replace existing heating systems by 2030. These targets represent a significant increase in both the volume and depth of retrofit activity in Ireland. This represents approximately 30 percent of the housing stock and is among the most ambitious retrofit programmes worldwide. COVID-19 negatively impacted residential retrofit activity again in 2021, with activity paused between January and April. Despite this, over 15,457 home upgrades (including 4,089 Solar PV installations; 2,272 free upgrades for energy poor households and over 2,000 heat pumps) were completed with an investment of €101.3 million.

Exchequer investment of €8 billion through the NDP - €5 billion of which will come from Carbon Tax revenue - to 2030 will be invested in energy efficiency and will underpin the National Retrofit Plan, which was published as part of the Climate Action

Plan 2021. It will also enable the supply chain to scale up, creating thousands of high-quality jobs. The National Retrofit Plan sets out how the Government will deliver on these targets across four key areas:

1. Driving demand and activity.
2. Financing and funding.
3. Supply chain, skills and standards.
4. Structures and governance.

Energy Efficiency and Renewable Energy in Public Sector and Commercial Sectors

The Programme for Government and the Climate Action Plan 2021 set a number of ambitious targets for the public sector to achieve by 2030. For the public sector, the targets and requirements include:

- 50 percent Energy Efficiency improvement,
- Developing an approach to cost effectively retrofit the public sector buildings stock, with a focus on emissions reduction
- Developing the Public Sector Pathfinders capital programme to support the retrofit of public buildings with a focus on greenhouse gas emissions reductions.

Public Sector performance

Public bodies report their energy data to SEAI who publishes an annual report on public sector energy efficiency performance towards the above target. The latest data indicates that the sector had improved its energy efficiency by 34 percent by 2020, exceeding the 2020 target of 33 percent; avoiding 4,576 GWh of primary energy consumption and 848 ktCO₂ of emissions in 2020. This improvement in efficiency coincided with a significant increase in activity (i.e., public services) throughout the sector, to meet the needs of Ireland's growing population. Between 2013 and 2020, Ireland's population increased by 8 percent and aggregate activity levels in the public sector grew by 13 percent. However, final energy consumption in the public sector decreased by 1.8 percent over the same period, because of the significant gains in energy efficiency as the sector expanded.

The **Public Sector Pathfinder Programme** is a capital support fund for public sector energy efficiency and the decarbonisation of the sector's building stock. The Programme is co-funded by the Department of the Environment Climate and Communications and a number of partners and is administered by the SEAI. Current partners include the Department of Education, the Higher Education Authority, the Office of Public Works, Local Authorities and the Health Service Executive. Focus is on prioritising deep retrofit with renewable heat solutions to meet the 2030 emission reduction and energy efficiency targets.

The **Excellence in Energy Efficiency Design (EXEED)** programme was reviewed and relaunched in early 2021, with significant enhancement in both supporting deeper emissions reductions and more efficient processing and approvals cycles. Since its relaunch in 2021, it has attracted significant interest and a strong pipeline of impactful projects has developed which will mature for investment support in 2022 and beyond.

Energy Research

The SEAI National Energy Research Development & Demonstration (RD&D) Funding Programme invests in innovative energy RD&D projects which contribute to Ireland's transition to a clean and secure energy future. The National Energy RD&D Programme is a key enabler of Ireland's medium to long term energy policy targets and Ireland's Climate Action Plan. In 2021, the programme awarded funding to 50 innovative energy RD&D projects to the value of more than €19.3 million (up to 4-year term of awarded projects).

Flood Risk Management

Project Ireland 2040 includes investment of €1.3 billion in flood risk management measures in the period to 2030 in order to underpin the delivery of the existing programme of flood relief schemes. There was a significant expansion of the programme consequent to the publication of Flood Risk Management Plans in 2018. Those Plans included 118 proposed new schemes to protect a further 11,500 properties. The OPW and Local Authorities have been actively engaged since the launch of the flood plans in putting in place the necessary arrangements for the implementation of the priority flood relief schemes and work is well advanced in this regard.

As part of a phased approach to scheme delivery, the number of flood relief schemes at design, planning or construction in 2021 was 89. This included ten schemes which were under construction in 2021.

At the end of 2021, 51 flood relief schemes were completed with approximately €1.9 billion of damage being avoided and providing protection to over 11,900 properties which includes three schemes (Clonakilty, Ennis Lower & Ennis South) which all reached substantial completion in 2021.



2.9

Sustainable Water and Environmental Resources Management

Investment in the water and waste water network is required to support environmental and economic wellbeing, deal with population growth and the effects of a changing climate. The year 2021 continued to see the commencement and completion of a range of important projects throughout the country.

Water and Waste Water

Irish Water invested €850 million in 2021 bringing its overall investment since 2014 to approximately €5.5 billion (or €3.8 billion since 2017). The 2021 investment spread was across the three Water Services Policy Statement themes of Quality (€407 million), Conservation (€144 million) and Future Proofing (€299 million).

Important achievements in 2021 include:

- Three new Water Treatment Plants (WTP) were completed (Tullamore WTP, Gorey WTP and Mountain Stage WTP in Kerry) and a further nine WTP upgrades were completed (Tullamore, Birr, Skibbereen (2 No.), Navan, Mountain Stage in Kerry, Leixlip, Lee Road in Cork City).
- One new Waste Water Treatment Plant (WWTP) was completed (Ballyvourney/Ballymakeera Sewerage Scheme WWTP) and seven upgraded WWTP were completed (Quin, Bandon, Carrigrennan, Collooney, Ballymote, Shannon and Foxford).
- Over 37,900 people were removed from 'Boil Water Notices' that had been in place for more than 30 days.
- 16 water supplies were removed from the Environmental Protection Agency's (EPA's) Remedial Action List improving water quality for over 790,000 people.
- 19 agglomerations were removed from the EPA's priority list of areas for waste water improvement.
- Over 5,876 backyard and public lead services were replaced.
- One agglomeration with no waste water treatment was connected to a newly-constructed treatment plant (Cobh).
- Works were completed on eight agglomerations listed in the 2018-2021 River Basin Management Plan.
- Net Water Saving of 35 Million Litres per Day (MLD) (to end of Q3 2021) delivered as a result of delivering specific initiatives to address national water leakage.
- 241 km of water main laid.
- 26 km of sewer laid.

Due to the ongoing progress Irish Water is making in investing in improving water quality and addressing long-standing issues with Ireland's water supplies, over 790,000 people in 16 water supplies were removed from the EPA's Remedial Action List (RAL) in 2021. The number of customers served by vulnerable water supplies has now reached its lowest ever level. Among these schemes was the removal of seven supplies served by the new Vartry Water

Supply Scheme from the RAL. These supplies serve a combined population of 127,000 people in Wicklow and South Dublin who are now benefiting from a safer more secure water supply following completion in 2021 of an upgrade of the scheme.

The Vartry Water Supply Scheme was developed by Dublin Corporation in the 1860s and provides drinking water for a supply area stretching from north Wicklow to south Dublin. The new Vartry water treatment plant is operational since 1st November 2021. The completion of the plant marked the culmination of a total investment of €150 million in the upgrade of the Vartry Water Supply Scheme, which also includes the Vartry to Callowhill link pipeline commissioned on 2018, and the construction of a new covered storage reservoir at Stillorgan, which became operational in September 2021. Works on site for the de-commissioning of the uncovered reservoirs will continue into late 2022.



Vartry

guidance and technical criteria for Green Public Procurement (GPP). GPP represents a significant opportunity for the Public Sector to directly support the development of the Circular Economy. In November 2021, the Minister signed regulations establishing the framework for Deposit Return Schemes (DRS) for plastic bottles and aluminium cans. DRS will support the achievement of enhanced recycling rates for these two important material streams.

Landfill remediation grant programme

Total funding of €20.2 million was provided in 2021 to support landfill remediation work on 70 sites across 21 local authorities broken down by region as follows:

Landfill remediation grant projects		
Region	Local Authorities	No. of sites per Region
Southern Region	7	35
Connacht Ulster Region	6	19
Eastern Midlands Region	8	16
Total	21	70

Of this, a total of €14.7 million of the expenditure was for the completion of the final stage of works at the former landfill site at Kerdiffstown, Kildare.

Diesel and tyre site clean-up

In addition to funding landfill remediation, the grant programme also supports local authorities in addressing other site types, namely diesel laundering, tyre sites and farm plastic. In 2021, €0.52 million funding was provided to two local authorities, Monaghan and Louth, for clean-up of 62 diesel laundering incidents. A further €0.56 million supported remediation of four tyre stockpile sites and one farm plastics site located in five local authorities, namely Galway, Westmeath, Donegal, Waterford and Clare.

Litter Infrastructure Support 2021

In response to the easing of COVID-19 restrictions and the emphasis on outdoor living, which was expected to drive higher levels of outdoor dining and domestic tourism during summer 2021, and in order to support anti-littering efforts in that context, the Minister for the Environment, Climate and Communications announced the provision of an additional once-off €5 million in litter supports in May 2021. Of the €5 million announced, €4 million was set aside in support of a new local authority Litter Infrastructure Support Grant Scheme, while the remaining €1 million supported a nationwide anti-litter/anti-dumping information campaign which ran

throughout summer 2021 and a Picker Pals initiative aimed at primary schools across the country. Under the scheme, over 1,300 new bins were purchased and installed by local authorities in 2021, including over 400 smart bins.

Geological Survey Ireland

In 2021, Geological Survey Ireland (GSI) continued investing in geological understanding, mapping, research and development of the Geoscience Sector, much of which supports implementation of the National Development Plan.

Important achievements in 2021 include:

- Progression of INFOMAR, Ireland's national seabed mapping programme, delivered in collaboration with the Marine Institute, mapped 8,483 square kilometres of Ireland's Exclusive Economic Zone (EEZ) mapped in 2021, reaching 69 percent areal completion.
- Delivery of INFOMAR MSc module in Maynooth University and University College Dublin, achieving Action 23 of Harnessing Our Ocean Wealth in training seven Irish graduates in latest techniques in seabed mapping, which are applicable world-wide.
- Tellus survey, which is carrying out modern airborne geophysical and ground geochemistry, reached 82 percent airborne completion.
- The Groundwater Monitoring network continued to expand, reaching 27 permanent and 50 temporary monitoring stations.
- GSI research supported 18 new projects, for a total of 43 underway, and participated in 10 EU-funded projects.
- Geothermal research included a 1 km test borehole at Grangegorman, Dublin, with encouraging results.
- Completion of a project to develop a UNESCO Geopark in the Joyce Country and Western Lakes area of Counties Galway and Mayo, with funding from DRCD, and support from Údarás na Gaeltachta, resulting in a submission to UNESCO.
- Continued to support the National Building Control Office and DHLGH in market surveillance of the quarry sector.
- Supported research on pyrite and mica in construction materials and on critical raw materials for the Climate Action Plan.



2.10

Access to Quality Childcare, Education and Health Services

Access to quality primary education, health services and childcare, relative to the scale of a region, city, town, neighbourhood or community, is a defining characteristic of attractive, successful and competitive places. Project Ireland 2040 provides significant public investment in education and health infrastructure to meet current infrastructure needs, cater for an estimated population growth of one million and respond to Ireland's changing demographic profile.

Education

Under Project Ireland 2040, the education sector will receive a total of approximately €4.4 billion capital investment over the period 2021-2025.

This investment will build on the good progress being made on adding capacity to cater for demographic changes and provision for children with special educational needs. This investment will also facilitate an increased focus on the modernisation of existing school stock and help transition the school system for an era of net zero carbon by 2050.

Since 2018, there has been in excess of €3 billion invested in Capital Infrastructure in the Education Sector for Schools at Primary and Post Primary level.

Key progress includes the following:

During the NDP period 2018 to 2021, 691 school building projects were completed under the Large Scale Capital Programme (LSCP) and the Additional School Accommodation Scheme (ASA). Of these, 179 projects had a capital value in excess of €1m and 512 were school building projects with a value of less than €1 million. These projects delivered in excess of 64,000 school places, which included permanent accommodation for 292 special classes and additional capacity for 122 classrooms in 22 special schools throughout the country.



Maynooth ETNS which delivered 16 mainstream classrooms and 2 Special Educational Needs classrooms

Image Credit: Maynooth ETNS

Schools designed and built in accordance with the Department's schools technical guidance documents have been achieving A3 Building Energy Ratings since 2009 with schools typically achieving up to 20% higher performance and 25% better carbon performance than required by the 2019 Building Regulations, along with 10% of primary energy provided via photovoltaics and infrastructure provision for electric vehicle charging.

The Department has a significant existing pipeline of projects to be delivered over the coming years to meet capacity needs managed under the Large-Scale Capital Programme (LSCP) and the Additional School Accommodation Scheme (ASA). The main elements of this pipeline currently involves in excess of 1,300 school building projects for delivery under the Department's Large Scale and Additional Accommodation Scheme. These projects are currently in progress across the various stages of planning, design, tender and construction. This includes in excess of 250 school building projects at construction (on site).

In addition, schools approved for additional accommodation under the Department's Additional Accommodation Scheme, which had prefabs in use on their school site, had those prefabs replaced as part of their overall additional accommodation project. Over 589 prefab units were approved for replacement with permanent buildings during this time.

The current status of projects being delivered is listed on a county by county basis on the Department of Education's website at www.gov.ie and updated on a monthly basis to reflect their progress.

Good progress has also been made in this period on the Maintenance and smaller-scale works to existing schools through the Summer Works Scheme, Emergency Works Scheme and Minor Works Grant Scheme; Piloting of deep energy retrofit projects; and the School Remediation Programme.

During the period 2018-2021, 41 projects were completed, with work on an additional 9 schools added in 2021 underway, under a jointly funded pathfinder programme with the SEAI, testing and



St. Patricks Special School, Enniscorthy

Image Credit: Garland Consultancy

demonstrating energy efficiency and decarbonisation retrofit approaches. The pathfinder programme is paving the way for, and informing, a much larger national schools programme for the energy retrofit of schools as included in the NDP. It is facilitating research on a range of typical retrofit options, which will have been tried and tested ensuring the deployment of new design approaches and technologies are introduced to the educational environment on an evidence based approach

Under Project Ireland 2040, Minor Works Grant funding totalling €62 million issued to all eligible Primary and Post Primary schools in the free scheme in December 2021.

- €30 million of standard Minor Works Grant issued to all primary schools. This funding can be used for improvements to the physical infrastructure of the school, improvement or replacement of mechanical and electrical services, the purchase of standard furniture and physical education equipment, the purchase of floor coverings and window blinds, and the purchase of IT related equipment.
- Additionally in December 2021, due to the exceptional circumstances arising from COVID-19, additional funding of €32 million was paid out in an enhanced Minor Works Grants to primary and post primary schools with a specific focus on providing additional support to schools for the implementation of the ventilation guidance published by the Department in May 2021.

In 2021, there was in excess of €34 million expenditure on various projects under the Summer Works Scheme. The Summer Works Scheme which is demand based, is designed to allow schools, on a devolved funding basis, to carry out necessary and immediate improvement works that will upgrade existing school facilities. It is envisaged that these works can be carried out during the summer months or at other times that avoid disrupting the operation of the school.

Project Ireland 2040 committed to investing €420 million to assist in the implementation of the Digital Strategy for Schools to embed the effective use of digital technology in teaching, learning and assessment.

The Digital Strategy for Schools to 2027 has been published, which will be underpinned by some €200 million to issue to support schools over the period. The first tranche of €50m has already issued to all recognised primary and post-primary schools in respect of the 2021-2022 school year. The extensive consultation undertaken to inform the new Digital Strategy recognised the importance of the investment under the previous Strategy, and emphasised the importance of ongoing investment to enable the

progression of schools to continue to progress the embedding of digital technology.

The vision of the new Digital Strategy to 2027 is to empower schools to harness the opportunities of digital transformation, to build digital competence and an effective digital education ecosystem so as to develop competent, critically engaged, active learners while supporting them to reach their potential and participate fully as global citizens in a digital world. The investment committed to in the National Development Plan will be key to enabling this vision.



Newpark PCC Kilkeny

Healthcare

Healthcare Capital Overview

Under Project Ireland 2040, the National Development Plan 2021-30 provided funding ceilings up to 2025 of €5.657 billion to facilitate the delivery of health capital projects.

The strategic direction of health capital investment is based on needs, enhancing service provision, enabling reform in the sector, and addressing the ongoing need for patient safety and regulatory requirements. The development of a Strategic Framework for the delivery of Health Infrastructure is underway in the Department and will be a vital tool in undertaking the prioritisation process. Prioritisation is an important part of the capital planning process and involves working with key delivery partners to apply a rigorous process for the selection of projects to progress, whilst ensuring available resources are strategically targeted. Delivery of projects is dependent on availability of funding, advancement through the Public Spending Code, the pace of implementation and the capacity of the system to deliver.

Healthcare Programmes and Projects

During 2021, the healthcare sector continued to be impacted by COVID-19. Managing the pandemic required investment in a number of service continuity or additional capacity projects, including the provision of testing centres and vaccination centres, additional bed capacity and addressing other infrastructural deficits and capabilities. As pressure on the system

increased following further waves in 2021, capital projects were accelerated to deliver additional acute hospital capacity, critical care capacity, intermediate care, step-down capacity and associated equipping.

Despite the challenges of COVID-19 in 2021, the delivery of key programmes continued - primary care facilities to meet the commitment to provide care closer to home in line with Sláintecare; progress on social care initiatives, (improving older persons' residential facilities to meet HIQA compliance standards, and progressing the person-centred model of housing for intellectual disability by continuing with de-congregation programmes); and initiatives for Mental Health Services (improving residential facilities to meet Mental Health Commission compliance standards). Essential investment continued in minor capital initiatives, the equipment replacement programme and the ambulance replacement programme, all of which support patient safety, clinical and infrastructural risk.

Key achievements in NDP programmes and projects for 2021 include:

- Four community nursing units were completed in 2021, bringing the total to over 30 units in the HIQA programme. These facilities provide long stay beds for older people. A further nine projects are expected to be completed by the end 2022.
- As part of the disability decongregation programme, progress continued with refurbishing/upgrading properties to meet the housing requirements for people transitioning from congregated settings.
- In 2021, construction was completed on the National Forensic Mental Hospital, Portrane.
- 146 Primary Care centres are now fully operational across the country. Eight new facilities were completed in 2021, through operational lease and 25 are expected to be completed in 2022, again mainly through operational lease.
- New replacement Mortuary & Post-mortem facilities were delivered at University Hospital Waterford, the relocation of the Ophthalmology OPD from Cork University Hospital to South Infirmary Victoria University Hospital and the Neo-natal expansion at University Maternity Hospital Limerick.
- Other projects completed in 2021 include the Surgical Unit Development: Theatre & Central Sterile Services Department at Croom Orthopaedic Hospital, Limerick; the Specialist Neuro Interventional Radiology Thrombectomy Service at Beaumont Hospital and the new Covid Laboratory at University Hospital Limerick.
- Despite the challenges of the COVID-19 pandemic, significant progress was made on the New Children's Hospital (NCH) project in 2021. A significant milestone was reached in March 2021 with the 'Topping out' of the building, at St James's, with the distinctive shape of the building becoming clear. The fit out of the internal areas comprising Critical Care areas and theatres commenced in 2021, with rooms and clinical areas now discernible. Demonstration spaces giving a sense of the child and family centric facilities and services were completed in November 2021.
- The paediatric Outpatient and Emergency Care Centre, at Tallaght was substantially completed in September 2021, and following a period of commissioning, was opened by the Minister for Health in November 2021. The new facility will accommodate up to 17,000 outpatient and 25,000 emergency care attendances per year. Together with the Outpatient & Urgent Care Centre at Connolly these new facilities will improve access to urgent and outpatient care for a significant number of children.
- The NCH hospital has secured a sustainability rating in 2021 when awarded the BREEAM Excellent design stage certification. The New Children's Hospital is one of the few Hospitals in the world to have this sustainability rating.
- Other projects nearing completion include: St James's Bone Marrow Modular Unit and a number of Community Nursing Units including at Raheen, Co. Clare and St John's Community Hospital, Co. Sligo.
- Acute bed capacity projects due to complete in 2022 include St. Luke's Hospital, Kilkenny 72-bed Replacement Ward, Tallaght Hospital Critical Care Unit, Mater Hospital's 112-bed Ward Block and Mercy University Hospital Cork's Modular 30-bed Ward Block.



Mortuary at UHW

Healthy Ireland Framework

The Healthy Ireland Framework, 2013-2025 is the national strategy for improving health and wellbeing and is underpinned by a whole-system philosophy, involving cross-Government and cross-societal

responsibility. In 2021, the Healthy Ireland Strategic Action Plan 2021-25 was published, this included a new theme on health inequalities and commitments on actions from fourteen Government Departments. In addition, the Sláintecare Healthy Communities were launched in nineteen selected areas. The programme will provide additional health and wellbeing services, initiatives via Local Authorities to improve the social determinants of health and an enhancement fund for investment in the built environment. The Healthy Ireland Fund is continuing to support the implementation of the Get Ireland Walking Strategy, and the development of a Get Ireland Cycling Strategy, working in partnership with Sport Ireland and other key stakeholders.

Climate Action

The Department of Health along with the HSE recognises the imperative of reducing emissions in line with the Climate Action plan and the Paris Agreement goals of 1.5°C and 2.0°C limits on global temperature rise. In November 2021, the government launched the Climate Action Plan and the Low Carbon Development (Amendment) Bill 2021 which provides a framework to put Ireland on a more sustainable path - cutting emissions, creating a cleaner, greener economy and society and protecting people from the consequences of climate change. The Plan introduced a number of new key Energy/Green House Gas (GHG) related targets for public sector organisations, namely: -

1. A 50% improvement in energy efficiency by 2030
2. A 51% reduction in energy-related GHGs by 2030
3. A net zero emissions target for 2050

In 2021, the HSE and SEAI expanded their Joint Capital Funded Partnership Agreement to cover the period 2021 to 2023. The agreement establishes and agrees an overall Indicative Envelope of Funding for the delivery of the Energy Bureau, Energy Teams, Shallow Retrofit Works and Pilot Pathfinder Programme. The Indicative Funding envelope for this programme 2021 to 2023 is €60 million. It is intended that this will become an ongoing 3-year rolling programme facilitating a more planned and structured approach to developing programmes to achieve 2030 and 2050 energy and emissions targets.

Key energy efficiency and carbon reduction measures progressed in 2021 included:

- Significant expansion of HSE capacity in the area of energy reduction with provision of additional resources in the Capital & Estates Energy Unit.
- Expansion of the network of supported Energy/Green teams at Significant Energy Users across HSE and Section 38/39 Organisations.

- Continued the HSE's Shallow Retrofit Energy Minor Capital Upgrade Programme through HSE/SEAI Joint Capital Funded Partnership Agreement. In 2021 €7.9 million of Energy and Decarbonisation shallow retrofit works were completed which resulted in a reduction of approximately 12.22 GWh Energy and 3,098 Tons CO₂.
- Implemented an Energy Efficient Design and Towards Carbon Zero Design approach to all projects on the HSE's capital plan.
- Completed a National Energy Efficient Design and Towards Carbon Zero Design training programme for all HSE Capital & Estates Staff, HSE Framework Design Team Members and Section 38/39 organisations.
- Initiated a pilot deep energy and carbon retrofit (Pathfinder) programme for existing buildings in partnership with SEAI. Detailed design works will be progressed at number of representative facilities to ascertain and develop the most appropriate long term decarbonisation technical solutions, costs and operational risks. The learnings from the project will be up-scaled to the Health Sectors Significant Energy User locations and input into a National HSE Model to allow a national decarbonisation plan be developed. Consideration of the role and potential contribution of Energy Performance Contracts (EPC) is being progressed as part of the exercise.
- Demonstrated compliance with public sector organisations energy auditing obligations as set out under SI426 (EU Energy Efficiency regulations 2014)

Phase 2 of the Green Healthcare Programme continued in 2021 with a focus on putting the necessary structure and framework in place to help the HSE to transform to a more sustainable organisation. In 2021, four Regional Waste & Sustainability Officers were appointed to advise and assist Acute Hospitals and other healthcare facilities in their region. This programme aims to reduce waste, increase recycling, and reduce water consumption in healthcare facilities, through on-site surveys, benchmarking, water sub-metering, and customised advice. The programmes initial focus has been on implementing best practice and converting waste reduction and water conservation guidance onto an online training platform, with training rolling out in 2022. An online Healthcare Sustainability Assessment tool has also been developed for use by all medium and smaller users (outside of the top 130 SEU).

eHealth Investment

Notable progress has been made in eHealth and ICT in 2021, in line with healthcare reforms under Sláintecare and supported by ongoing investment in eHealth and ICT under the National Development

Plan. In May 2021, the health service was targeted by a very sophisticated cyber-attack which further focuses the need for significant, maintained investment in this area as well as the enhancement of critical ICT infrastructure.

Key achievements in 2021 include:

- The response to COVID-19 pandemic which saw continued use of the Covid Care Tracker and further development of CRM solutions to manage patients through testing and tracing.
- Development of a national Covid vaccination system (COVAX) to support the wider national Covid vaccination programme. Development of GP VAX and Pharmavax digital platforms so that GPs and Pharmacists could participate in the rollout of the vaccines and supply the HSE with the data necessary to manage, monitor and support the process of administering COVID-19 vaccinations across Ireland.
- To support the free movement of Irish citizens within the EU, EU Digital Covid Certificates and verification apps were developed and the Covid Tracker App was enhanced to include a wallet function where citizens could store digital certificates. Pharmacies and Covid testing companies were provided access to technology that enabled them to issue test certificates privately.
- Establishment of a Digital Covid Certificate Service Centre in July 2021 to allow members of the public to deal directly with queries relating to the EU Digital COVID Certificate. The Service Centre provides a number of services for citizens to access and update vaccination and recovery certificates across a number of platforms.
- Improvements in cyber resilience in the wake of the cyber-attack in May 2021. The work involved the restoration and recovery of almost 2,000 systems, the replacement or upgrading of significant amounts of ICT technical infrastructure and the establishment of enhanced monitoring systems to protect the health system from further attacks.
- Under Ireland's National Recovery and Resilience Plan, €75 million in investment was secured for programmes in ePharmacy, community ICT and integrated financial management to address the areas of financial reform, modernisation of the healthcare system and access to healthcare enabled by technology.

Children

During 2021, the Department of Children, Equality, Disability, Integration and Youth spent almost €26 million across its various capital programmes to

support a range of key services in respect of children and young people.

The Child and Family Agency (Tusla) spent just over €15 million on the continued development of its accommodation and ICT. This included two major projects in Limerick and Portlaoise which involve major refurbishment and extension of existing Tusla facilities in each case, which will result in fully compliant and fit for purpose accommodation for Tusla public-facing services in these areas.

Approximately €7 million capital was spent on early learning and care (ELC) and school-age childcare (SAC) services in 2021. The first tranche of capital grants were assigned in May 2021 to existing services to improve fire safety standards. A total of €5 million was paid to 638 services. The remaining capital funding was made available to registered ELC and SAC services to enable them to encourage more outdoor play. Eligible expenditure included shelters and play equipment. Outdoor play enables children to explore and engage with the natural world, while being a simple and effective method of infection control

Approximately €3 million was provided in capital funding to youth services and youth organisations. Of this, €0.47 million was provided as play and recreation grants to local authorities to support the provision of local playgrounds. The remaining capital funding of over €2.4 million was made available to national youth organisations, staff-led youth services and local youth clubs. Small capital funding grants were distributed through an application process and provided for the purchase of essential equipment and minor refurbishment of premises. Capital funding to youth services and youth clubs was administered on behalf of the Department by the Education and Training Boards.



2.11

Other Public Investment Sectors

Project Ireland 2040 also includes a range of wider investment in important areas.

Justice Sector

Department of Justice

The Office of Public Works on behalf of the Department of Justice is developing a new Forensic Science Ireland laboratory at Backweston, Kildare (project cost in excess of €90 million) which is progressing well and expected to be completed in 2022.



Development of new Forensic Science Laboratory at Backweston, Co. Kildare

Courts Service

Project Ireland 2040 funding will provide for a new Family Law Court complex at Hammond Lane in central Dublin.

The Hammond Lane Court complex will be built with the specific needs of Family law users in mind and will provide a modern facility where family law cases can be held in a dignified, secure and non-threatening environment with a range of support services at hand. It will replace a number of inadequate and fragmented facilities for family law in central Dublin.

The Hammond Lane project will be delivered as part of a wider Justice Sector PPP project bundle that will also see the delivery of two new Garda stations at Macroom and Clonmel. Throughout 2021 the Courts Service worked with the Department of Justice, the OPW and the National Development Finance Agency to advance preparatory work for the PPP project. A Preliminary Business Case for the Hammond Lane project as required by the Public Spending code was completed and approved by the Courts Service Board. The Preliminary Business Case was subject to technical review by the Department of Public Expenditure and Reform which was completed by year end. Work on the detailed design of the Hammond Lane family court building was progressed during the year by OPW architectural services and will be completed during 2022. Design work is being informed by legislative changes such as the Family Courts Bill and the Courts Service family law modernisation programme. Sanction to proceed with the Hammond Lane project as part of the Justice sector PPP project bundle will be sought from the Department of Justice in 2022.

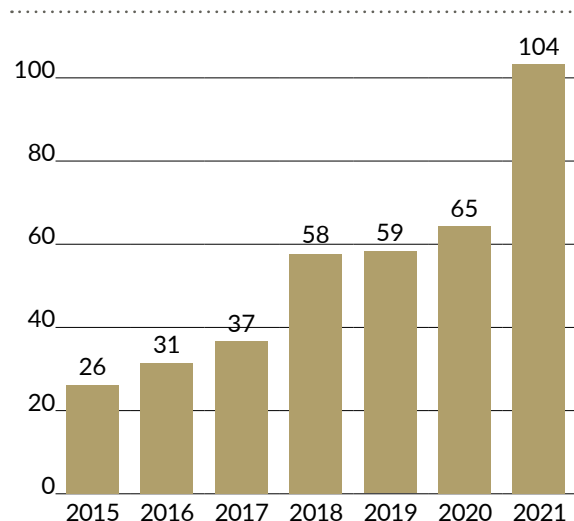
A nationwide condition survey of approximately 60 Courts Service buildings which began in 2019 but was delayed by the COVID-19 pandemic was completed during 2021. This is the first time such a survey of court buildings was undertaken. The results are being examined at present and will enable the Courts Service make some key decisions about how best to provide for the maintenance of court buildings into the future and will also inform elements of an Estate Strategy currently being developed.

The provision of further new or refurbished courthouses in a number of cities and county towns where facilities remain sub-standard including Galway city, Wicklow town, Portlaoise, Tralee, Roscommon, Naas, Bray, Navan, Swords, Tallaght and Dún Laoghaire are key Courts Service projects in the NDP. Preparatory work in respect of these projects in 2021 focused on the acquisition of sites to enable a development/refurbishment project proceed once funding becomes available. The Courts Service is in the process of acquiring a site in Naas and continued to seek suitable sites at Tralee and Galway throughout the year.

The Courts Service provides a series of services to the judiciary and court users to allow for the administration of justice in Ireland. Court technology is key to enabling the function of the Courts Service offering. Physical courtrooms are the primary example of a Courts Service offering where a physical courtroom is made available with facilities to support judicial proceedings. During COVID-19, a new offering of “remote courts” was introduced to allow for the operation of judicial proceedings during the pandemic, where large gatherings of people were not permitted.

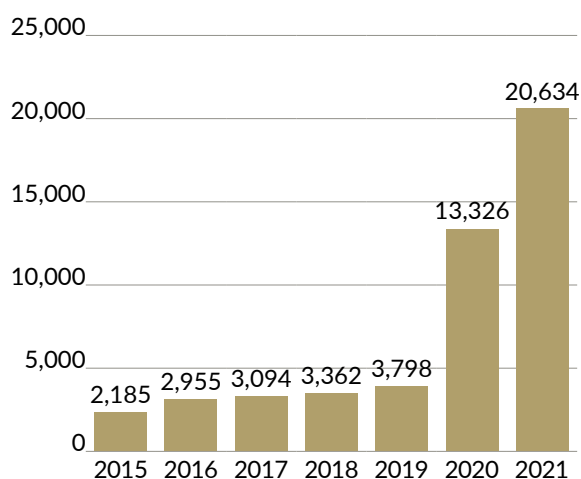
Along with remote hearings and physical hearings, a hybrid model has been offered to the judiciary whereby the Courts Service operates both physical and remote hearings technologies within the same sitting. This three-layered offering – physical, remote and hybrid courts – allows for more flexibility to be made available to the judiciary, enabling a choice of how to conduct business for each particular type of hearing. Understanding the critical role of video technology in the future provision of access to justice; Courts Service has continued to prioritise and invest in courtroom video technology with the completion of the Video Courtroom Expansion project in 2021 with an investment in excess of €2.2 million and has brought the number of up-to-date video technology courtrooms from 55 to 104.

Video Link Enabled Courtrooms



As courtroom video expansion has increased since 2020, overall usage on the Courts Video Estate has continued to increase. Usage metrics for courtroom video appearances from Irish Prison Service locations are provided in the charts. With savings to the Justice Sector from each appearance replacing prisoner transfer calculated at €350 per instance, it can be demonstrated that the utilisation of the technology has produced savings to the State in excess of €13 million since 2019 in this case type alone.

IPS Courtroom Video Appearances 2015-2021



An Garda Síochána (AGS)

- The development of the new purpose build Garda Security and Crime Operations Centre (GSCOC) located at Military Road, Kilmainham, Dublin 8 is well underway, making significant progress in 2021. Works are proceeding in accordance with the contract, with an expected completion date in late September 2022.
- A number of ancillary projects related to the decant of Harcourt Square by year-end 2022 also gained momentum during 2021, including:

- » The development of a new Command & Control Centre (NTCC) located at Heuston Station, which is progressing well with an expected phased completion date in mid-2022.
- » The full relocation of the ICT Data Centre from J-Block, Garda Headquarters to Finglas Garda Station began in 2021.
- » The major refurbishment of the Phoenix House facility was completed and handed over to An Garda Síochána in December 2021. Phoenix House will accommodate the relocation of ICT personnel from J Block, Garda Headquarters, which is part of a range of strategic modernisation initiatives undertaken by the Garda Commissioner in recent years.

- The major redevelopment of Fitzgibbon Street Garda Station, DMR North Central Division was completed in October 2021 and the building reoccupied by AGS.
- The final phase of the major redevelopment of Athlone Garda Station was completed in December 2021.
- New Garda Immigration Facility, Dublin Port – This project provides an enhanced Garda facility at Dublin Port, in the fully refurbished and restored 'Calor' building. Substantial completion and handover of the building to AGS was achieved on 3 December, 2021.
- The refurbishment of Roscommon Garda Station, including the provision of enhanced custody facilities and additional office accommodation, was completed in October 2021.
- Planning application for the major redevelopment of Portlaoise Garda Station, the Divisional Headquarters for Kildare, Laois/Offaly, was granted in Q2 2021.
- The Justice PPP project, which will include the development of two new Garda Stations at Macroom, Co. Cork and Clonmel, Co. Tipperary, made significant progress throughout 2021, with the formal approval of the preliminary business case by the Garda Executive in early December 2021. Engagement is ongoing between An Garda Síochána, the Department of Justice, the Courts Service, the OPW and the National Development Finance Agency in order to progress the Justice PPP project.
- The tender process was completed and a contract awarded for the development of a new Garda Station at Bailieboro, Co. Cavan in November 2021. Construction works commenced in January 2022, with construction completion expected in Q4 2023.

- Dedicated and bespoke facilities for the Armed Support Unit in Cavan was fully completed and handed over in January 2021. This project also included the upgrade of the ground floor in Cavan Garda Station. Enhancements to Dundalk Armed Support Unit were completed in November 2021.
- The regionalisation of the cyber-crime function progressed in 2021, with the completion of the new facility at Anglesea Street, Cork in June 2021 to allow for enhanced cyber-crime capability in the Southern Region. Estate Management continues to progress the development of proposals for a further cyber-crime facility, to be based in the Old Cavan Town Garda Station, to assist in the North Western Region.
- A programme of security measures to enhance the safety of all Garda personnel on-site was completed at Drogheda Garda Station in November 2021. These works included bespoke electronic gates and specialised works to take account of particular archaeological and historical monuments within the fabric of the Station.
- The refurbishment of Longford Garda Station progressed well during 2021, providing an extension to the station with upgraded custody facilities and increased office accommodation.
- The major refurbishment of Block 'N', Garda Headquarters commenced in 2021, which will provide enhanced accommodation for the Garda Anti-Corruption Unit. Handover was achieved in April 2022.
- Estate Management continued to work closely with Divisional Officers during 2021 to assist in their accommodation requirements to facilitate the roll out of the Operating Model.

Irish Prison Service

The Irish Prison Service is undertaking significant development in Limerick prison with completion expected in Q4 2022.



Overall view of the Limerick Prison development

OPW Brexit Related Investments

Throughout 2021, the OPW successfully completed and delivered critical Brexit-related infrastructural projects at Dublin Port and Rosslare Europort.

Rosslare Europort

Due to the short timeframe available to provide facilities in advance of the first potential Brexit date of 29 March 2019, a temporary solution was developed in Kilrane, pending the development of permanent infrastructure. In 2021, a solution for the port has been prioritised and advanced.

The OPW has identified and purchased a 17.5-acre site for development, approximately 500 metres from Rosslare Europort. The project comprises 19 individual buildings covering 45,000m² (circa 11 acres) and significant civil engineering works. The intention is to make prudent provision for future checks and controls to ensure Single Market compliance. This infrastructure will deliver a Union Customs Code (UCC) and Official Controls compliant solution, which meets EU legislative requirements.

The site will accommodate the following facilities:

- A purpose-built 20,000 square foot facility with 4 loading bays (with associated refrigeration units and inspections rooms) for Sanitary Phytosanitary (SPS) and food health checks and a Revenue turn-out bay;
- A documentary check office and accommodation for twenty staff;
- A compound for Live-Animal checks incorporating an office and two sets of stables;
- A driver welfare facility;
- Two toll booths for transits and seal checks;
- Parking for 38 Heavy Goods Vehicles (HGVs); and
- A storage yard for detained goods.

Planning permission was received from Wexford County Council for this project on 9 November 2021.

The OPW has been asked to carry out substantial enabling works at the port by Iarnród Éireann / CIE. The full extent, scope, specification, phasing and timeline for the enabling works are to be finalised between OPW, Department of Transport and CIE in 2022. These works are expected to be on a significant scale, 115,000m² (circa 28 acres), with defined areas of work taking place in a number of phases. This Masterplan, prepared by CIE sets out the requirements for operational storage, road infrastructure and the requirement for the port to accommodate the future development of offshore wind technology in line with government policy.

Dublin Port

A total of eight sites were developed in Dublin Port as part of the Brexit Preparedness Development Programme. The works included:

- The refurbishment of two warehouses, with a total floor area of 178,000 square feet, to provide 27 inspection bays for Customs, SPS and food safety checks (for products of both animal and plant origin) and office accommodation for 70 staff;
- A dedicated Import Yard with a public office, driver welfare facilities, staff accommodation and parking for 175 HGVs;
- An overflow Import Yard with a public office, staff accommodation and parking for 80 HGV's;
- Provision of toll booths for transits and seal checks;
- A fully integrated live-animal facility with inspection rooms, stables and office accommodation;
- A Revenue export office with parking for 30 HGVs; a new facility, to provide an additional seven bays for inspections, as well as accommodation for staff. This is due to be delivered in 2022.

Estate Management

In March 2021 the Government published "Making Remote Work - National Remote Work Strategy". The objective of the Strategy is to ensure that remote working is a permanent feature in the Irish workplace in a way that maximises economic, social and environmental benefits.

Throughout 2021, OPW have been actively engaged with the Civil Service Management Board to advance a centralised framework on blended working across the Civil Service. This centralised framework for blended working across the Civil Service was published in early 2022.

A key function of the Office of Public Works (OPW) is to provide accommodation for all Government Departments. In this regard, OPW holds a portfolio of property throughout the country to meet the various

operational needs of the Civil Service, the Gardaí and various other State Bodies. The OPW's objective is to hold, manage and maintain a property portfolio that is aligned to Government delivery needs in terms of size, location, specification, value for money and optimum utilisation.

Throughout 2021, the OPW was actively involved in the planning and development of the following properties:

- Tom Johnson House, Dublin;
- Multi-storey offices at Leeson Lane, Dublin;
- New Garda Station at Newcastle West, Limerick;
- Redevelopment of Garda Complex at Portlaoise;
- Redevelopment of Garda HQ - Block J, Phoenix Park, Dublin 8;
- Deep retrofit of 52 St Stephen's Green;
- Fit out of Distillers Building, Smithfield, Dublin 7; and
- Redevelopment of Clare Street office building, Dublin 2.

Throughout 2021 a total of 12 new leases commenced at a total annual rental value of €3.4 million. A further 21 leases were surrendered at a total annual rental value of €1.7 million. The new leases included an acquisition for the office of the Data Protection Commissioner. Office fit outs were completed at 1 Georges Quay for the Office of Public Works and Booterstown Hall for the Geological Survey of Ireland.

In addition, OPW were actively involved in a total of 14 disposals of property that was surplus to requirements, resulting in income in excess of €1.5 million.

Over the past number of years, the OPW has actively engaged with other State bodies prior to disposing of surplus buildings or land. This has included ongoing consultation with the Land Development Agency, Government Departments, Local Authorities and other State entities involved in the provision of housing or other State services. This is to ensure efficiencies in the management of the State property portfolio through transfers to other State bodies to meet their requirements prior to disposing of surplus property on the open market. In a number of cases, the OPW has already transferred properties to local authorities for housing purposes; and is currently engaging with the LDA on the transfer of the following sites identified for future housing development:

- the Central Mental Hospital site in Dundrum;
- the site at Inchicore in Dublin 8; and
- the Digital Hub site in Dublin 8

Project Ireland 2040 provides the OPW with funding to support a number of property areas.

Cultural Institutions

Throughout 2021, the OPW was also actively involved in the planning, development or procurement of the following properties:

- Redevelopment of the National Concert Hall;
- Redevelopment of the National Archival project; and
- Development of National Children's Science Centre.

Defence

The principal demand drivers of Defence capital funding are the ongoing renewal, upgrade and acquisition of military equipment along with the development of military infrastructure and information and communication technologies. The White Paper on Defence, updated in 2019, highlighted the importance of capability development and the necessity for continued renewal, upgrade and acquisition of military equipment and infrastructure.



The Defence Equipment Development Plan and the Defence Infrastructural Development Plan provide the basis for the Defence Organisation to identify, plan, prioritise and manage its ongoing and future equipment and infrastructural programmes/projects and to include any necessary climate actions required. Many of the Defence Equipment projects are complex, multi-annual and have long lead-in times with atypical requirements. Some of the main outputs which were progressed across the Defence

Organisation throughout 2021 from an allocation of €131 million include:

- The continued maintenance and upgrade programme for Armoured Personnel Carriers;
- The ongoing upgrade of the Defence Forces fleet of Armoured Utility Vehicles;
- The continued upgrade of the Defence Forces Transport Fleet through the replacement of the Army's fleet of ¾ tonne 4*4 vehicles along with the acquisition of new 4*4 Troop carrying vehicles;
- The replacement of the 2 CASA 235 Maritime Patrol Aircraft with larger more capable aircraft;
- The continued mid-life refit of the P50 class vessels, LÉ Róisín and LÉ Niamh;
- Ongoing investment on essential Information and Communication Technology upgrades;
- The progression, despite COVID-19 and supply chain challenges, of a large number of Defence Forces Built Infrastructure Projects in military installations and barracks throughout the country. These projects are diverse and encompass accommodation, training, storage and health and safety upgrades.

Throughout 2021, the Defence Forces remained at the forefront of the national response to the COVID-19 pandemic, with NDP capital investment funding enabling them to deliver efficiently across a wide variety of tasks.

Section 3:

The spatial dimension

The National Planning Framework (NPF) sets out an overarching strategy for the sustainable development of our country to 2040. The National Development Plan 2021-2030 (NDP) provides the necessary investment to underpin the realisation of this strategy.

Together, the NPF and NDP comprise Project Ireland 2040, setting out a shared vision to create and promote opportunities for our people and to protect and enhance our environment during this period of plan-led growth.

National Planning Framework - Summary of Key Achievements/Highlights in 2021

Since the finalisation of the NPF in 2018 and three Regional Spatial and Economic Strategies (RSESs) in January 2020, all local authorities had commenced the statutory review of their County or City Development Plan by the end of 2021. This cycle of review will ensure the translation of the compact growth principles as set out in the National Planning Framework (NPF) to County and City level. The completion of the hierarchy of statutory plans from the NFP at a national level will ensure that the NFP housing supply targets are reflected at a county and city level and influence the location and form of development across the country. This will contribute to ensuring that the benefits of the National Strategic Outcomes are felt by communities all across Ireland.

Housing for All, the Government's national plan on housing to 2030, was launched in September 2021. The multi-annual, multi-billion euro plan will improve Ireland's housing system and deliver more homes. It sets out four pathways to a sustainable housing system. A key objective is that everyone should have access to a home to purchase or rent at an affordable price, built to a high standard and in the right place, offering a high quality of life. Housing for All is strongly aligned to the objectives of the NFP and complements the objective for compact growth and for the delivery of vibrant and liveable urban areas.

The Residential Zoned Land Tax was introduced in the Finance Act 2021 as a land activation measure. The Zoned Land Tax will incentivise the activation of land which is zoned and serviced for residential development but which remains undeveloped. It is primarily intended to provide greater certainty in relation to the development of housing on zoned and serviced lands rather than to raise revenue. The tax is intended to replace the Vacant Site Levy.

The Planning and Development (Amendment) (Large-scale Residential Development) Act 2021 was signed into law in December 2021. The Act restores the two-stage planning process, with decision making for Large-scale Residential Development (LRD) type applications returning to the relevant local planning authority in the first instance, and with subsequent right of appeal to An Bord Pleanála. The Act provides for timely decision making through the introduction of clear timelines at each stage in the process. By restoring the two-stage process and returning public consultation to local level, an enhanced planning process can be delivered for all stakeholders.

The Development Plan Guidelines for Planning Authorities were issued in draft form for public consultation in August 2021. As the principal planning strategy document for the development of a local authority area, the development plan gives spatial expression to the physical, economic, social and environmental needs of the community, in order to support and regulate new development, enhance amenities and protect the environment. It is intended to issue the Guidelines as Section 28 Ministerial Guidelines in 2022. The guidelines when published will assist local authorities in delivering the national policy objectives of the NPF in their local plans.

The Minister for Housing, Local Government and Heritage, announced funding of approximately €1.3 billion for 45 proposals approved under Call 2 of the Urban Regeneration and Development Fund in March 2021. It is DHLGH's immediate focus to ensure early progress on these projects and it recently engaged in a series of meetings with local authorities to consider the advancement of the current programme of 132 URDF-supported regeneration and development projects.

The Land Development Act 2021 was signed into law in July 2021. This allowed for the establishment of the Land Development Agency Designated Activity Company (DAC) in December 2021. Following the commencement of relevant provisions of the LDA Act and the dissolution of the interim entity, the LDA was established as a wholly commercial state body in 2021. The LDA will work with State bodies and local authorities to make more effective use of State lands, providing a stable, sustainable supply of land for housing. Other responsibilities include research and innovation, urban regeneration and delivering rental market initiatives.

In December 2021, the Minister for Rural and Community Development, Heather Humphreys TD, announced €2.6 million in funding to deliver the first ever Town Centre First Plans. Twenty-six towns were selected. Under the initiative, each local authority will be provided with €100,000 to support the development of its own unique Town Centre First Plan.

NPF implementation - overview

Implementation of the National Planning Framework is overseen by the Department of Housing, Local Government and Heritage, assisted by the Office of the Planning Regulator, the three regional assemblies and 31 local authorities. Four years on from its publication, the NPF policy has been successfully transposed at regional level through the adoption of Regional Spatial and Economic Strategies. At a City and County level the review of all 31 City and County Development Plans is ongoing and is due to be completed by mid-2023. There is clear evidence in the emerging City and County Development Plans that the planning system is being reoriented at a local level to support the plan-led and compact growth objectives of the NPF. This revised policy context will support transition on the ground to compact growth and this will become evident in the preceding development cycle. In 2021 DHLGH published draft Development Plan Guidelines for Planning Authorities and advanced work on a review of the Sustainable Residential Development in Urban Areas Guidelines for Planning Authorities, published in 2009 and the Sustainable Rural Housing Guidelines for Planning Authorities published in 2005. DHLGH will continue to work with the OPR, LDA, regional assemblies and local authorities to drive implementation of the NPF at local and regional level.

Housing Supply

Despite COVID-19 restrictions being imposed on the construction sector in the early part of the year, a total of 20,433 new home completions were recorded in 2021. In addition, Commencement Notices for 30,724 new homes were received, an increase of almost 42 percent on 2020 (21,686 homes).

The number of homes granted planning permission in 2021 totalled 42,991, indicative of a strong future housing supply pipeline. Over 60 percent of units granted planning permission were apartments, which demonstrates a clear shift in development patterns towards compact growth as envisaged by the National Planning Framework.

Ireland's Three Regions

Targeting a level of growth in the country's Northern and Western and Southern Regions combined, to at least match that projected in the Eastern and Midland Region.

Compact Growth

Targeting a greater proportion (40%) of future housing development to be within and close to the existing 'footprint' of built-up areas.



Ireland's Rural Fabric

Reversing town/village and rural population decline, by encouraging new roles and functions for buildings, streets and sites.

Ireland's Cities

Supporting ambitious growth targets to enable the four cities of Cork, Limerick, Galway and Waterford to each grow by at least 50% to 2040 and to enhance their significant potential to become cities of scale.

Ireland's Capital

Supporting the future growth and success of Dublin as Ireland's leading global city of scale, by better managing Dublin's growth to ensure that more of it can be accommodated within and close to the City.

Section 4:

Reforming, monitoring and implementation

The National Development Plan set out a range of new mechanisms designed to ensure smooth implementation of the range of major projects and programmes that make up Project Ireland 2040. Structures and programmes of reform were ongoing in 2021 to drive improved value for money, cost certainty and timely completion of major public investment programmes.

4.1 Monitoring Implementation

The Project Ireland 2040 Delivery Board made up of Secretaries General from the main capital spending Departments was established in 2018 and meets regularly to ensure effective leadership of the implementation process. The Delivery Board met seven times in 2021. A core function of the Delivery Board is to track delivery of projects and policies, both in relation to capital investment and spatial planning. In February 2022, following a competitive process, the Minister for Public Expenditure and Reform appointed five new external members to the Delivery Board. The new members will bring additional expert knowledge, greater private sector experience, as well as important independent and regional perspectives and enhanced challenge function, to the deliberations of the Delivery Board.

An important enabling tool for the Delivery Board is the Investment Projects and Programmes Tracker. The Tracker provides a composite update on the progress of all major investments that make up Project Ireland 2040. It focuses on projects with estimated costs greater than €20 million. The latest update (May 2022) further expands the coverage of projects providing progress updates on over 270 projects and 140 programmes, including almost 100 projects in excess of €50 million, and incorporates user-friendly dashboards to aid in using the material.

The updated tracker contains specific information on the current status of projects and also details expected project construction commencement and completion dates.

It contains information on delivery scheduling, including milestones for key stages in the project lifecycle aligned to the PSC.

A further innovation has been the development of an interactive online mapping tool *MyProjectIreland* which provides an update on priority projects across all regions. This is a key element of citizen engagement which will bring updated information on project progress across all regions.

By clicking on the map at gov.ie/2040, citizens can find updated information on what has been achieved and what is planned for their own local area and includes user-friendly mobile search and Eircode functionality. The May 2022 update expands the coverage of the map to incorporate over 1,100 projects.

An updated report *Prospects - Ireland's Pipeline of Major Infrastructure Projects* will be published in Q2 2022. It provides further visibility on the sequencing of a sample of Ireland's priority infrastructure projects over the coming years, thereby facilitating Irish and overseas construction firms to plan for commercial opportunities on the horizon. The report contains high level information on fifty of the largest projects

included in Project Ireland 2040 and signposts to other sources for more detailed information.

4.2 Increasing Construction Sector Capacity

In terms of construction sector capacity, the Construction Sector Group (CSG) ensures regular and open dialogue between Government and the construction sector in relation to significant issues relating to the successful delivery of the NDP. The Innovation and Digital Adoption Subgroup is driving the delivery of seven actions under the CSG, such as the Build Digital Project, a Construction Technology Centre, and adoption of Modern Methods of Construction.

Through this engagement, the Government is communicating with and providing investment confidence to the construction industry with regards to the pipeline of investment opportunities available over the coming years. Government, through the CSG, is supporting industry to expand its capacity with the following elements: communicating for industry confidence, securing the skills pipeline, driving growth and productivity, leading to improved value for money, and a sustainable and resilient industry.

Communicating for industry confidence

The NDP sets out Departmental allocations to 2025 and a total public investment of €165 billion over the period 2021-2030. This will bring public investment to 5 percent of GNI*, well above the recent EU average of 3 percent of GDP.

In addition, the 2022 Build report – which will be published in July 2022 – compiles and analyses the available official statistics relating to the Irish construction sector to date. The report encompasses analysis of skills, costs, productivity, output and sustainability.

Efforts have also been made to attract overseas capacity through the promotion of Ireland's infrastructure project pipeline at the World Expo and as part of Ireland's annual trade delegations for St. Patrick's Day.

Securing the skills pipeline

The Department of Enterprise, Trade and Employment (DETE) has experienced a significant increase in applications for employment permits over the course of 2021. From the start of January to the end of December 2021, some 27,666 applications were received, representing a 69 percent increase over the same period in 2020 (16,293) and a 47 percent increase on 2019 (18,811). The Department issued 16,275 employment permits in 2021 and processed a total of 17,968 applications, which represents a

significant volume of activity. The processing team in DETE for work permits has more than tripled in size since March 2022 compared to early November 2021, reflecting the priority afforded to the processing of work permits across the economy.

Additionally, DETE, revised rules on eligible construction professions i.e. professions such as electricians, plumbers, carpenters, painters, masons, construction supervisors etc. that were on the ineligible list are now, since November 2021, permitted to apply for a work permit to work in Ireland. It is of critical importance that the construction sector has the necessary pipeline of skills in order to produce the high quality output required under Project Ireland 2040. The apprenticeship and higher education systems play central roles in providing the education and training structure for construction and built environment professionals. In 2021, there was a total of 4,870 new construction apprentice registrations. This represented an increase of 40 percent on 2019 apprenticeship registrations.

The National Apprenticeship Alliance (NAA), a 23-member alliance, was launched in March 2022. The NAA will have an advisory role in relation to the development of the apprenticeship system, and will oversee and sanction the development of new apprenticeships over the coming years. The newly established National Apprenticeship Office (NAO) will be responsible for all aspects of the management, oversight and development of the single apprenticeship system.

Given the increasing demand for skills in the industry and the need for skilled workers to deliver on national strategies such as Housing for All and the Climate Action Plan, there is an increasing need to secure a skills pipeline that can response to these increasing demands and targets. The Expert Group on Future Skills Needs (EGFSN) and the National Skills Council report titled 'Labour Demand Estimates for Ireland's National Housing targets, 2021– 2030', published in September 2021, states that an additional 27,500 workers over five years are required to deliver the required 33,000 houses per year. Total demand is estimated to peak at just over 80,000 workers towards the end of the decade. The 'Skills for Zero Carbon - The Demand for Renewable Energy, Residential Retrofit and Electric Vehicle Deployment Skills to 2030' report states that 17,000 full-time workers are required to support the planned level of retrofits by 2030, with most of this labour to be in place by 2023. Both reports point to the need to secure the skills pipeline in order to deliver on the objectives of Project Ireland 2040.

Driving growth and productivity

In close consultation with the CSG, a wide-ranging analysis of productivity in the sector was undertaken over the course of 2019 in order to identify actions

to address the issue. This work informed the *Building Innovation Report* which was published in June 2020 and is currently available on gov.ie. The report identified three important themes which, if addressed, can help improve profits, wages and output for the industry, and thereby provide value for money in the delivery of Project Ireland 2040. These include:

1. The need for the industry, particularly SMEs and small firms, to increase investment in innovation and technology in order to spur the next wave of growth based on a foundation of digital adoption by both clients and contractors.
2. The need for ongoing regulatory reform by Government of public procurement, environmental, labour and other areas in order to streamline and assist in achieving competitiveness and sustainability.
3. The need to increase certainty and visibility of the pipeline of projects to provide industry with confidence to invest and individuals with the opportunity to choose a career in the built environment.

In support of this, an Innovation and Digital Adoption Sub-Group was established in 2020 by industry and Government to deliver on the seven priority actions identified in the Building Innovation report under that theme. The seven actions are:

- **Action 1:** Expanding the Construction Research Forum to carry out a construction industry needs assessment for the sector in order to increase productivity and innovation.
- **Action 2:** Identify and report on appropriate research funding programmes available for the construction sector from Irish and European agencies, Government Departments and other sources.
- **Action 3:** Guide the development of the off-site production sector, including a modern methods of construction centre.
- **Action 4:** Establish a Construction Technology Centre (CTC), currently being developed by Enterprise Ireland. A Detailed Description of Needs (DDN) was developed for the construction/built environment sector in Ireland and an Expression of Interest for the establishment of the Centre was published by Enterprise Ireland in December 2021.
- **Action 5:** Seeks to establish a digital network under the Construction Skillnet, for courses in Project and Delivery Management and Building Information Modelling for example. These courses will facilitate the development and adoption of digital construction skills and in turn increase productivity.

- **Action 6:** Digitise the Planning Permission Process, which is led by the Local Government Management Agency (LGMA). The delivery of online planning across all 31 local authorities will have a huge impact on the management of the planning process.
- **Action 7:** Establish a Build Digital centre to enhance the adoption of Building Information Modelling and digital innovations in the sector. In 2021, after a competitive, challenge-based grant call, the Build Digital Alliance (led by TU Dublin) were announced as the successful grantee. This project has been operational since November 2021 with up to €2.5 million in public funding over the next five years. The formal launch of the Build Digital Project took place 7 April 2022. This hybrid event was held in St Laurence's Church, TU Dublin, Grangegorman while also live-streamed.



The Build Digital Project will provide guidance and leadership on the necessary digital tools, standards, approaches, and training required across the construction sector. The continued implementation of these actions, with the support and engagement of the construction industry, will assist in the effective delivery of projects and the realisation of Project Ireland 2040's ambitions. The Build Digital Project will aim to ensure that world class digital practices, which already exist in certain elements of the Irish construction sector, are adopted throughout the

industry and supply chain in order to achieve a more innovative sector from top to bottom.

The CSG has been invaluable in the building up of strong networks between the public sector and the private sector. The CSG's Innovation and Digital Adoption Subgroup continues to drive the delivery of the seven actions under its remit, including the Build Digital Project, and Modern Methods of Construction (MMC). The action leaders of the seven actions meet to discuss progress and possible areas of collaboration. In total 10 Action Leader meetings were held in 2021.

4.3 Reforming Project Selection, Appraisal and Procurement

Whilst COVID-19 has necessarily proved challenging in this regard, Ireland continues to focus its performance in delivering projects on time and within budget. Across most sectors, projects came in on budget in 2021. Recent years have seen major progress in the professionalism of project management, particularly in the water sector, motorways and public transport area.

To support public bodies in delivering value for money as they implement Project Ireland 2040, DPER and Office of Government Procurement (OGP) are progressing a number of reforms to Ireland's public investment management system focused on more commercial delivery of projects and better estimation and management of cost.

Ensuring capacity of the public sector

In 2020, DPER conducted a Capability Review of public sector bodies in order to:

- Learn lessons from the high performing sectors – for example roads – which can be applied to other areas.
- Strengthen and build new structures and skills to develop and modernise the State's project delivery practices.

The review was carried out with support from the EU's DG Reform. An Action Team, comprising both central and sectoral bodies considered recommendations to enhance capacity in the Irish Public Service, and their report was published alongside the revised National Development Plan in October 2021. A key factor is striking the right balance between supports and services that Departments may avail of from the centre and the desirability for Departments/Offices to build up their own delivery capability at local level. These are not mutually exclusive options and the developmental agenda is for less reliance on the centre alongside more improved local level delivery capability. To achieve this twin-track approach, this report focuses on:

1. Supporting excellence within the sectors;
2. Supporting excellence from the central institutions and agencies and
3. Improving co-ordination among the various bodies, and improving the quality and coherence of guidance that is provided, in support of excellence.

The Action Team report sets out 34 specific actions across 12 focus areas as a roadmap to improved capital delivery capability under these headings. The progress of the actions are currently being monitored.

Updating the Public Spending Code and Assurance of Major Capital Projects

The revised NDP pledged to restructure the oversight and implementation of capital projects to strengthen scrutiny of major public investment proposals and to drive improved project performance and value for money. Major public investment projects are currently defined as those with an estimated project cost in excess of €100 million. There are over fifty projects in this category in the Exchequer funded element of the 2021 – 2030 National Development Plan.

The Public Spending Code is not intended to be a static set of documents and is subject to regular reviews and guidance updates. Informed by leading international practice and supported by a cross sectoral working group, the National Investment Office in 2021 further strengthened the assurance process for major projects as part of the review of the National Development Plan. An External Assurance Process was implemented for major projects involving two new elements -

- Independent external reviews of major projects at two key points in the project lifecycle (approval in principle and pre-tender). The reviews will be conducted by external experts in infrastructure delivery and consider key issues including robustness of planned delivery, accuracy of cost forecasts, consideration of risk and appropriateness of procurement strategies; and
- A Major Projects Advisory Group to support DPER in assimilating the outputs from the external reviews and support DPER in quality assuring the strengthened process. Four external members with extensive experience at senior levels in planning, managing and delivering major public investment projects were appointed to the Group.

Domestic and international evidence consistently shows that the greatest impact on improving project outcomes comes from careful project preparation. External reviews from an independent party can be instrumental to enable good project and investment governance.

In addition, updated guidance was published in 2021 for undertaking financial analysis supported

by templates. Financial analysis is key to informing affordability and financial impact of a project. This guidance was developed with the assistance of the National Development Finance Agency.

In 2022, the National Investment Office in DPER plans to undertake further updates to the Public Spending Code, including guidance on programme level appraisals and updating the appraisal guidance to further factor climate change impacts.

Reforming Major Project Procurement

In 2021, the response to COVID-19, the subsequent rapid and unexpected rise in construction materials prices and the tightening of the PII market necessitated an agile response from the Office of Government Procurement (OGP) in developing measures to mitigate the risk of delays, disputes and potentially, more significant disruption arising under the NDP. This impacted the conduct of the review of the policies and practices deployed in the Capital Works Management Framework (CWMF), both in terms of engagement with stakeholders and reassignment of internal resources.

The closure of non-essential construction sites from 6 January until 4 May 2021 and the slowdown in global supply chains created risks to the recommencement of a substantial portion of the NDP. The OGP continued to work closely with the National Investment Office in DPER on these issues and advising the Secretary General and Minister accordingly on measures to minimize the impacts.

- The OGP published a series of COVID-19 notes (and template documents) aimed at mitigating the impact of the necessary public health measures on the delivery of projects under the NDP. These measures were developed to address the risk of insolvency and disputes that may arise across the NDP.
- A new 'COVID-19 Mandatory Closure' clause has been included in the public works contracts. This will provide Employers and Contractors with a clear process to extend time and, where appropriate, share certain costs in the event of a mandatory closure of a site due to COVID-19. These contract amendments are designed to provide certainty to both parties in the event of a local, regional or national closure and enable the more accurate pricing of risk in public works tenders.

As economies emerged from the public health restrictions, demand increased dramatically resulting in challenges for supply chains in sourcing materials as a result of disruption in manufacturing and logistics. This, along with the impact of Brexit, resulted in significant price increases from February until September/October where the rate of increase moderated and plateaued across many construction

materials. Amongst the worst impacted were steel and timber but insulation and plastics as well as components used in the mechanical and electrical sector saw increases well in excess of 10 percent.

The OGP issued guidance for contracting authorities to assist in dealing with the impact that these unforeseen and sizeable increases were having on tenders as well as developing amendments for introduction into the public works contracts to mitigate the impact of inflation risk on public works projects.

In Q4 of 2020 industry representatives on the Construction Sector Group advised of significant constraints arising in the market for professional indemnity insurance (PII). Since 2018, the global PII market's cycle has been in a hardening phase triggered by two events. Firstly, a thematic review undertaken by Lloyd's in 2018 identified non-US PII as one of the worst performing sub-classes of insurance leading to a withdrawal of insurers and capital from this insurance line. The Hackitt Report and the ongoing inquiry into the Grenfell Tower fire has also caused insurers to focus on the liabilities taken on by contractors and consultants in the construction sector.

As a result of a tightening of the insurance market for PII, policies for construction professionals and contractors became increasingly expensive, providing a reduced level of cover, with a greater number of exclusions and increased levels of excess. This resulted in many otherwise capable and competent firms being excluded from procurement competitions because they were no longer in a position to obtain insurance at levels that was readily available up to 2019.

Throughout 2021 the OGP engaged with industry stakeholders and insurers active in the market to gain an understanding of what levels of insurance were available and under what terms. In September the OGP prepared a set of recommendations for circulation to industry stakeholders and insurers for amendments to the guidance and procurement templates published under the CWMF.

Implementation of these amendments was well advanced by year end and included, guidance for contracting authorities on setting appropriate levels of liability and PII for consultants and contractors, clarifying the alternative means for pre-qualification for consultants where they are unable to obtain cover on an 'each and every claim' basis, the introduction of liability caps in consultancy and works contracts. The amendments will be introduced on a phased basis commencing with consultancy templates in Q1 of 2022.

Progress on the review of the Capital Works Management Framework

- The manner in which consultancy services are engaged is a key part of the review and encompasses a range of reforms aimed at driving better project definition, which in turn provides greater certainty for all those engaged in the construction stage. Overall improvement in project definition is required through establishing minimum standards for information at the different stages of a project's development. Considerable progress was made on defining the requirements for the project brief which has different iterations as a project develops from preliminary business case through to final business case. Engagement with stakeholders will commence in 2022 on the project brief. Work also progressed on defining the scope of services and information requirements for key project review stages and stakeholder engagement will commence in Q2 of 2022 on this aspect.
- A review of the price variation mechanisms used in both the CWMF consultancy and construction contracts is currently underway. Initial research to review the inflation provisions in both the CWMF consultancy and construction contracts has been completed by consultants. Significant increases in construction material costs arose throughout 2021 requiring further consideration of the drivers and potential solutions to mitigate the risks presented by exceptional price increases on project delivery. Procurement guidance for 'live' tenders was published in November 2021. Interim amendments to the provisions in the public works contracts to address inflation in construction materials were introduced in January 2022. Consultation on broader changes is due to commence with stakeholders in 2022.
- Building Information Modelling (BIM) has the potential to transform the processes surrounding project and data management on construction projects and can drive significant efficiencies. The OGP is engaged with the National Standards Authority of Ireland (NSAI) on preparing a national annex to the international standard (ISO) for BIM implementation. The aim is to ensure a consistent approach to its application across the public sector.
- The OGP was a member of the grant award evaluation panel for the Build Digital initiative. It is also a member of the Technical Oversight Group to oversee its establishment and operation over the term of the grant. A series of masterclasses were developed and commenced in Q1 of 2022 to prepare public bodies for the adoption of BIM in anticipation of the implementation plan, which will be announced in Q3 of 2022. The plan will set out timelines for a phased adoption of BIM across

the NDP. External advisers will be engaged in 2022 to draft contract amendments to incorporate BIM into the CWMF and to prepare template procurement documents for publication.

- Engagement is ongoing in developing standard metrics for life cycle costing and life cycle analysis that can be applied to the evaluation of projects' cost of use in service and full life cycle analysis, including the carbon impact of individual projects. The OGP is liaising with the Government Construction Contracts Committee (GCCC) and the Irish Green Building Council in developing these metrics.
- The Cost Control Templates published under the CWMF are undergoing review to incorporate the International Construction Measurement Standard (ICMS). A working group has been established and revised templates will be published in 2022. ICMS is a global standard for benchmarking and reporting of construction project cost, and covers both capital and whole life costing while providing a way of presenting costs in a consistent format.
- A review into the performance of alternative dispute resolution (ADR) provisions that were introduced in 2016 has also taken place in 2021. A final report on the review is being prepared by consultants and will form the basis of a position paper, which will be prepared in 2022 on ADR provisions in the public works contracts.
- The conference '*Nation Building: Ireland's Infrastructure Priorities*' was held on 14th May 2021, to share experiences at different levels and help inform the National Development Plan review.
- The public sector infrastructure network *InfraNet* met online in January 2021 delivering productive engagements among policymakers and experts on infrastructure and climate action. The theme of the webinar was '*Capital for Climate*'. The session was a fruitful exchange between policy-makers and experts, and informed the review of the National Development Plan which was underway.
- Throughout 2021, work continued in respect of appropriate use of Project Ireland 2040 identity.

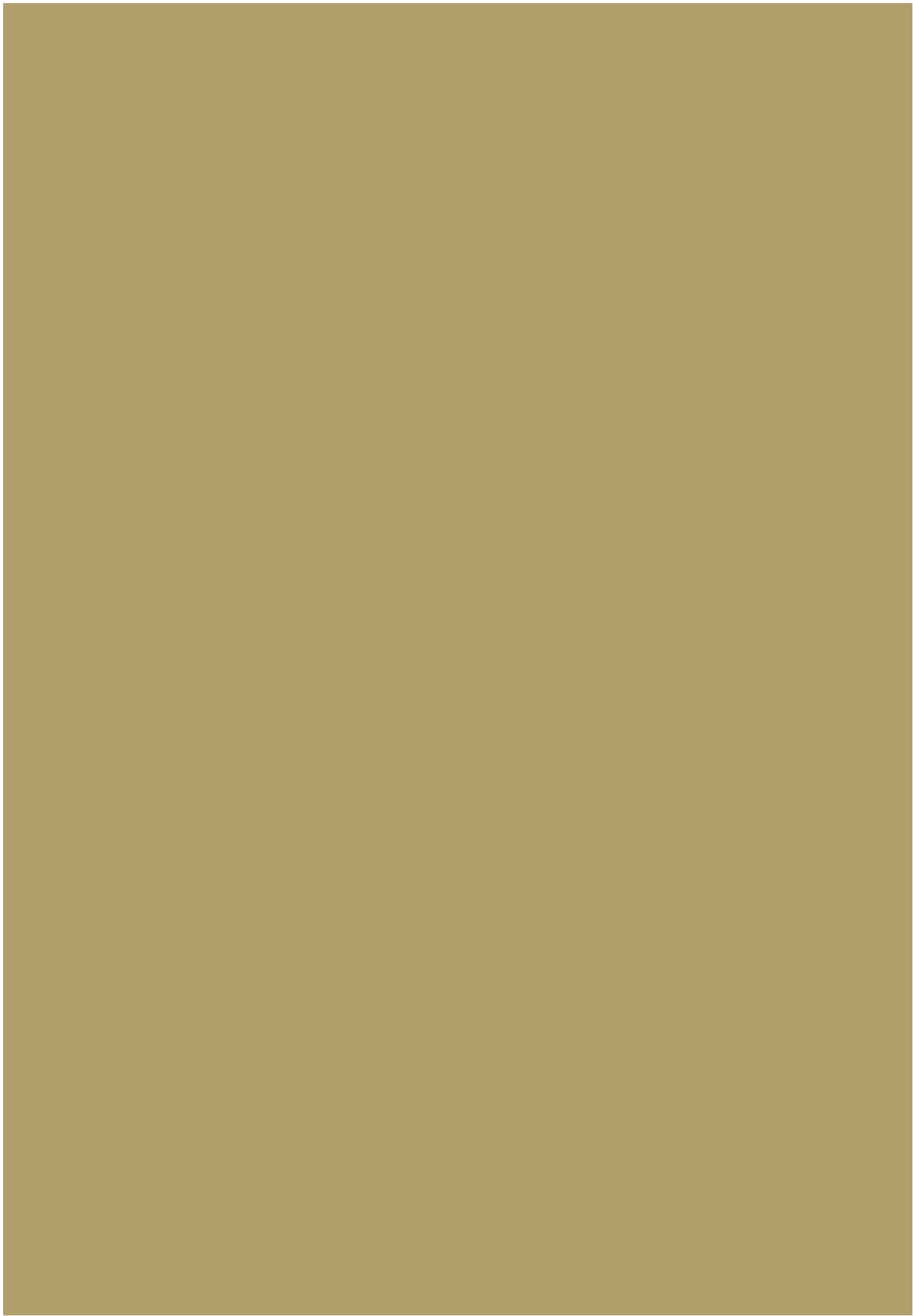
Together these reform processes will lead to meaningful policy change and will assist in delivering better value for money for the taxpayer in the implementation of Project Ireland 2040.

4.4 Strategic Communications

Communications around the NDP and Project Ireland 2040 have a strong public information mandate. A variety of measures have been employed to address the communications needs of stakeholder groups, including the development and introduction of the capital tracker and the *MyProjectIreland* interactive map, the publication of the Project Ireland 2040 Annual Reports and Regional Reports and public information campaigns. The cohesive identity displayed at all stages of project development contribute to public knowledge and understanding of the plan and its impacts.

In 2021, the following tactics were employed:

- The publication of the Project Ireland 2040 Annual Report 2020 and suite of three Regional Reports to provide further insight as to the national impact of measures being delivered under Project Ireland 2040.
- Update of the Capital Investment Tracker and *MyProjectIreland* interactive map.



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