Galway Harbour Company

Galway Harbour Extension

Response to An Bord Pleanála Sept. 2024

EIS Addendum Chapter 5 Human Beings

An Bord Pleanála (Ref: 61.PA 0033)

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5. Human Beings

5.1. Introduction

Human beings comprise a major element of the environment in which the proposed development is located. One of the principal concerns in the development process is that people, as individuals or communities, should experience no diminution in their quality of life from the direct or indirect impacts arising from the construction and operation of the proposed Galway Harbour Extension ("GHE").

To address the passage of time since the original Environmental Impact Statement ("EIS"). was submitted, this section discusses the key issues affecting human beings and the potential impact that the proposed development may have on them. The issues include population, economic activity (including employment, tourism, fishing industry) and land use and amenity. In assessing the potential socio-economic impacts of the proposed development, this chapter will also consider the implications for the residents and visitors to the city and region.

This chapter addendum was written by Pamela Harty who is a Project Director with MKO with over 15 years of experience in both private practice and local authorities. Pamela completed a Bachelor of Arts (Hons) Geography & Legal Science, NUIG (2006) and a Masters in Regional & Urban Planning, UCD (2008). Pamela has been the Project Planning Consultant on a significant range of energy infrastructure, commercial, student housing and residential projects. The chapter was also written by Aideen Gough who is a Planner at MKO. Aideen completed a BA Hons in English and Geography, in University College Cork UCC and a Master's in Planning and Sustainable Development (M.Plan), UCC. Aideen has experience working on a range residential, commercial, tourism, and community projects.

Section 5.7 Human Health was written by Dr. Martin Gerard Hogan who completed a MB. BCh BAO in University College Cork in 1987. Dr. Hogans Post Graduate Qualifications include a Diploma in Child Health (RCSI) 1990, Diploma in Obstetrics (RCPI) 1990, M.I.C.G.P 1991, M.R.C.G.P, 1991. Occupational Medicine Qualifications include LFOMI (RCPI) 1993, AFOM (RCP Lond) 1994. Specialist Qualifications include MFOMI (RCPI) 1995, FFOMI (RCPI) 2001, FRCPI (RCPI) 2008. Specialist Registration (Irish Medical Council) Occupational Medicine(1999) General Practice (1999). Dr. Hogan has previously provided expert statements on similar projects to the Galway Harbour Extension.

Dr. Hogan's past positions include:

- Member of Toxicological Review Committee Janssen Europe 1997-2002
- Member Expert Medical Advisory Group Johnson and Johnson 2007-2011

- National Speciality Director Occupational Medicine 2006-2009
- Vice Dean of the Faculty of Occupational Medicine RCPI 2008-2010
- Dean of the Faculty of Occupational Medicine RCPI 2010-2012

Dr. Hogan's Current Positions include:

- Full Time Consultant Occupational & Environmental Physician
- Managing Director of CHI Cork Ltd.
- Partner Corporate Health Ireland
- Lecturer in Toxicology, University College Cork
- Specialist Trainer in Occupational Medicine.
- Examiner FOM RCPI.
- Past Dean Faculty of Occupational Medicine of the RCPI
- Member of the Board of the Faculty of Occupational Medicine RCPI
- President ICOH 2018 Organising Committee
- Member of the Board for International Commission for Occupational Health
- Member of the Board for Medichem.

5.2. Report Format

The purpose of this report is to address the passage of time since the original EIS was submitted by providing an update on the figures and population projections included in the original EIS chapter. As there have been updates from the Central Statistics Office (CSO) and other data sources since the application was lodged in 2014, these updated figures and projections are included in this chapter.

5.3. Review of any material changes to original EIS chapter

Chapter 5 of the original EIS has looked at the key issues affecting human beings and the potential impact that the proposed development may have on them. The issues include population, economic activity (including employment, tourism, fishing industry) and land use and amenity. The chapter also considered the implications for the residents and visitors to the city and region.

Chapter 5 of the EIS has looked at the baseline environment regarding the population and employment characteristics of the receiving environment of Galway City which included current and future population and household numbers and economic activity, including employment and tourism.

There are other potential impacts on human beings, such as such as water, air, noise, visual, traffic and health & safety. These impacts may occur during construction and/or operational stages of the project. Whilst referred to in this Chapter, these particular issues are also examined in detail in other chapters in this EIS.

While there are no material changes to the original EIS chapter, elements of the data and figures included at the time have now been updated and is captured in this EIS addendum.

5.4. Summary of previous conclusions of the chapter in the original EIS

Chapter 5 of the original EIS concluded the following;

> "*The proposed Galway Harbour Extension will have a significant positive impact in terms of human beings, including economic activity and land use and amenity for the following reasons and no mitigation measures are required for these matters:*
>
> • ***Economic Development and Employment***
>
> *The Galway Harbour Extension will address the current limitations at the Inner Harbour which, if not addressed, will ultimately result in the decline and demise of harbour-related activities in Galway City, with consequential negative socio-economic impacts.*
>
> ***• Public Amenities at the Galway Harbour Extension***
>
> *The proposed development incorporates public amenities and facilities, including landscaped open space, promenades/bayside walkways, public access and marina and, in addition, it creates a sheltered and safe area for water-based leisure activities.*
>
> • ***Regeneration of Inner Harbour area***
>
> *The relocation of commercial/industrial harbour-related activities from the Inner Harbour facilitates the regeneration and environmental improvement of this inner city area as a new urban neighbourhood and visitor destination, as well as addressing the Seveso II (now Seveso III) issues associated with oil handing."*

5.5. Any additional surveys, data or policy developments of relevance

The updated data is set out in this chapter and relates to Population, Economic Activity, Tourism, Fishing Industry and Land Use and Amenity.

5.5.1. Population

This section examines the population and employment characteristics of the receiving environment of Galway City, including current and future population and household numbers and economic activity, including employment and tourism.

The *National Planning Framework 2040* envisages the population of Galway City and Suburbs to grow by between 40,000 - 45,000 people by 2040 which is an increase of almost 55%.

The population figures in the following table are based on the currently available Census 2022 figures on the Central Statistics Office website ("CSO") [1]. For Galway City, the population is set out in **Table 5.1** below and shows an increase of 5,976 or 7% persons in Galway City from 2016-2022.

Table 5.1: Population figures for Galway City. Source: CSO

Year	2011	2016	2022
Galway City Population Figures	75,529	79,934	85,910
Changes (%)		+ 5	+7

In 2022 there were on average 2.74 people per private household in Ireland. The CSO 'Census of Population 2022 - Summary Results' [2] states that between 2016 and 2022 Galway City recorded the largest increase in average household size (from 2.58 to 2.62). The average household size is the number of people in private dwellings as a proportion of the number of occupied dwellings. Census 2022 recorded 1,841,152 private occupied dwellings and 5,046,681 people in private households in Ireland.

The *Galway City Development Plan 2023-2029* ("GCDP") predicts the need for an additional 4,245 housing units in the city over the plan period up to the end of 2028.

The population for Galway City in 2022 was recorded within the CSO data to be 85,910 people. This figure exceeded that which was set out in the population projections of the Galway City Housing Strategy and HNDA 2023-29 where the figure was 82,282, shown in **Table 5.2** below.

[1] Central Statistics Office 'Census of Population 2022' Available on: https://www.cso.ie/en/statistics/population/censusofpopulation2022/

[2] Central Statistics Office 'Census of Population 2022 - Summary Results' Available on: https://www.cso.ie/en/releasesandpublications/ep/p-cpsr/censusofpopulation2022-summaryresults/householdsizeandmaritalstatus/

Table 5.2: Population Projections for Galway City, 2020-2031 Source: Table 4.5 of the Galway City Housing Strategy and HNDA 2023-29 [3].

Year	Baseline	50:50 City	High Migration	Low Migration
2016 (actual)	78,668	78,668	78,668	78,668
2020	81,176	84,853	81,183	80,783
2021	81,750	86,385	81,812	80,993
2022	82,282	87,871	82,448	81,191
2023	82,719	89,242	83,042	81,405
2024	83,077	90,503	83,611	81,654
2025	83,337	91,632	84,141	81,853
2026	83,575	92,731	84,660	82,039
2027	83,833	93,841	85,209	82,257
2028	84,137	94,989	85,812	82,531
2029	84,480	96,167	86,462	82,855
2030	84,820	97,332	87,113	83,182
2031	85,162	98,486	87,768	83,514

The population data for the West Region has also been updated and is set out in **Table 5.3** below. This includes data for Galway City, Galway County, Mayo, Roscommon, the West Region and the Republic of Ireland.

[3] Galway City Council 'Housing Strategy and Housing Need and Demand Assessment 2023-2029' Available on: https://consult.galwaycity.ie/en/consultation/draft-galway-city-development-plan-2023-2029/chapter/housing-strategy-and-housing-need-and-demand-assessment-2023-2029

Table 5.3: Census Population Data Counties in the West Region. Source: CSO

County/Region	2011	2016	Change %	2022	Change %
Galway City	75,529	79,934	+5	85,910	+7
Galway County	175,124	179,390	+2	193,323	+7
Mayo	130,638	130,507	-0.1	137,970	+5
Roscommon	64,065	64,544	+0.7	70,259	+8
West Region	445,356	453,109	+1.7	485,966	+7
Republic of Ireland	4,588,252	4,761,865	+3.7	5,149,139	+8

Table 5.3 shows that there has been an increase in population in the West of Ireland from 2011 – 2016 and 2016 - 2022 as shown in the CSO data. Both Galway City and County experienced a 7% population increase from the 2016-2022 period.

The original EIS saw a similar increase for the Galway City and County region and sets out 8.1% increase from 2006-2011 shown in Table 5.2.2 of the original EIS Chapter 5.

In 2022 the regions of Galway City and County, Mayo and Roscommon had a population of 485,966 which represented approximately 9% of the entire population of the Republic of Ireland which stood at 5,149,139 in 2022.

The Main Urban Centres of the West of Ireland were also reviewed in terms of population changes. These results are shown in **Table 5.4** below.

Table 5.4: Population Data – Main Urban Centre. Source: CSO

City/Town	2011	2016	Change %	2022	Change %
Galway City	75,529	79,934	+5	85,910	+7
Castlebar	10,826	12,608	+16	13,054	+16
Ballina	10,361	10,171	-1	10,556	+3
Tuam	8,242	8,767	+6	9,647	+10
Ballinasloe	6,577	6,662	+1	6,597	-0.9
Westport	6,063	6,198	+2	6,872	+10
Roscommon	5,693	5,876	+3	6,555	+11

Table 5.4 shows a continued growth in almost all of the Main Urban Centres in the West. This table shows a 5% increase in population for Galway City and Suburbs from 2011-2016 and a 7% increase for Galway City from 2016-2022.

The *Regional Spatial and Economic Strategy 2020-2032 Northern and Western Regional Assembly* (RSES) relates to the entire province of Connacht and Cavan, Donegal and Monaghan from the province of Ulster.

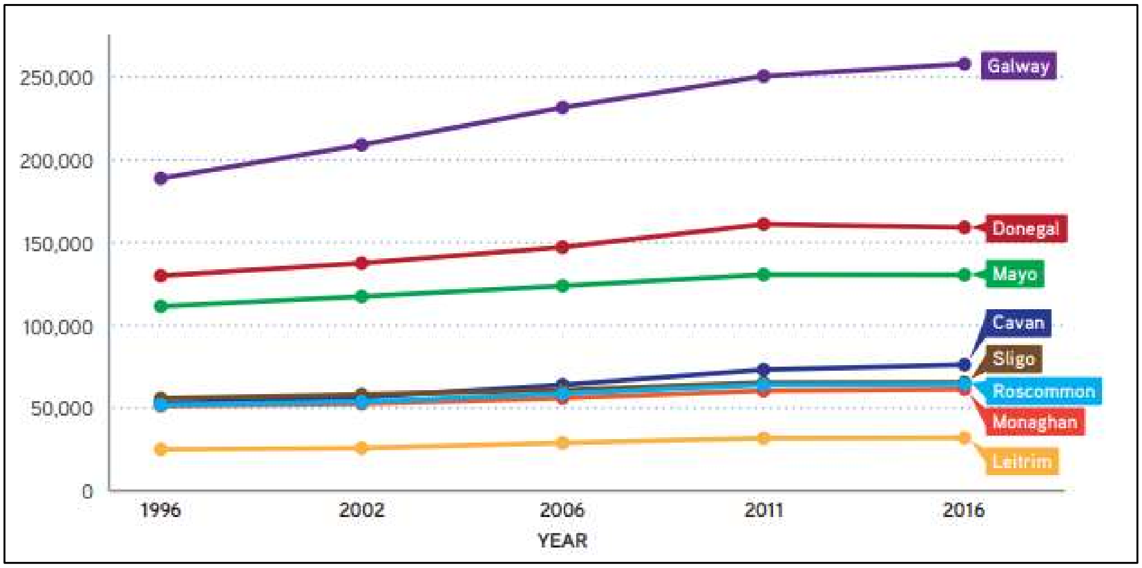

Figure 5.1: Population of the Region 1996-2016. Source RSES.

Figure 5.1 above shows the population patterns of the region from 1996-2016, with Galway being the primary beneficiary of population growth within the region over the last two decades. All eight counties saw their pattern of growth stunted during the 2011 to 2016 period.

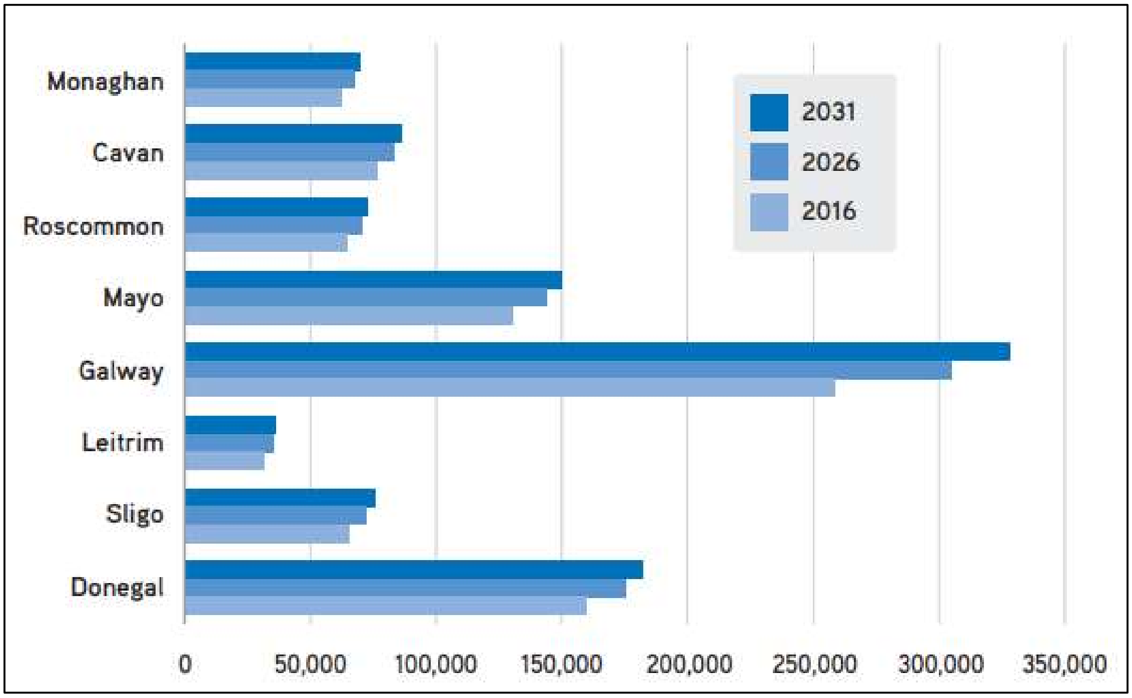

Figure 5.2: Projected Population figures for each County in the Northern and Western Region. Source: RSES

Figure 5.2 above shows Galway with the largest projected population figures up to 2031 for the Northern and Western Region.

The smallest administrative area for which population statistics are published is an Electoral Division ("ED"). **Table 5.5** below examines the increase in population in Galway City over the 2011, 2016, and 2022 at ED level. The EDs closest to the site of the proposed Galway Harbour Extension are the EDs of Lough Atalia, Renmore and Eyre Square. Lough Atalia and Eyre Square experienced a decline in population from 2011-2022, and Renmore experienced an increase in population. Overall the majority of the ED's in the Galway City suburbs experienced an increase in population from 2016-2022.

Table 5.5: Population Changes at Electoral Division Level in Galway City 2011-2022. Source: CSO

Area	2011	2016	Change %	2022	Change %
Ballybaan	12,298	13,019	+5	13,453	+3
Ballybrit	898	949	+5	943	-0.6
Barna	14,384	15,185	+5	16,551	+8
Castlegar	4,135	4,053	-1	4,315	+6
Claddagh	2,429	2,593	+6	2,755	+6

Area	2011	2016	Change %	2022	Change %
Dangan	3,686	4,132	+12	4,621	+11
Eyre Square	4,461	4,108	-7	4,456	+8
Knocknacarragh	1,515	1,490	-1	1,481	-0.6
Lough Atalia	920	910	-1	891	-2
Menlough	4,990	5,118	+2	5,407	+5
Mervue	1,796	1,831	+1	2,278	+24
Murroough	2,414	2,846	+17	2,909	+2
Newcastle	1,820	1,895	+4	2,017	+6
Nuns Island	1,293	1,474	+13	1,716	+16
Rahoon	3,009	3,076	+2	3,486	+13
Renmore	1,394	1,319	-5	1,454	+10
Rockbarton	1,922	2,097	+9	1,837	-12
St. Nicolas	2,598	2,394	-7	3,232	+35
Salthill	3,478	3,633	+4	3,608	-0.6
Shantala	1,785	1,912	+7	2,015	+5
Taylors Hill	2,457	2,966	+20	3,141	+5
Wellpark	1,843	1,668	-9	1,848	+10

Changes have taken place in the spatial distribution of the city's population. The greatest increase took place in Barna, Dangan, Nuns Island, Rahoon and St. Nicolas EDs.

Table 5.6: Population Trends in Lough Atalia, Renmore, Eyre Square and Galway City. Source: CSO

Census Year	Lough Atalia	Renmore	Eyre Square	Galway City
2011	920	1,394	4,461	75,529
2016	910	1,319	4,108	79,934
Change % 2011-2016	-1	-5	-7	+5
2022	891	1,454	4,456	85,910
Change % 2016-2022	-2	+10	+8	+7

Table 5.6 above shows that from 2011-2016 Lough Atalia, Renmore, Eyre Square experienced a decrease in population and Galway City experienced an increase. Lough Atalia also experience a decrease between 2016-2022, where Renmore, Eyre Square and Galway City all experienced an increase in population. The population increase in Eyre Square can be seen as a result of Compact Growth policies included in national, regional and local planning policy.

The original EIS recorded a population change of 4.1% for Galway City from the year 2006-2011. A 5% increase in population was recorded over the period from 2011-2016 and a 7% increase in population was recorded between 2016-2022 for Galway City. This shows a steady growth in population of the City from the period the planning application was lodged in 2014 up to the most recent data available.

5.5.2. Economic Activity

This section examines the latest economic activity characteristics of the receiving environment of Galway City, including employment, tourism and the fishing industry.

The GCDP states that it is anticipated that Galway City will mirror the national economic growth forecasted. The city has achieved economic success based on a high education attainment rate amongst the labour force, a supply of a young workforce, supplemented by inward migration, the development of key sector clusters, a low corporate taxation regime, a stable pro-business political environment and an attractive living environment and quality of life.

In terms of economy, Galway City has shown resilience through challenges such as the economic recession and the impacts of the Covid 19 pandemic, and has proven itself to be a very dynamic city and a good place to continue to produce talent, attract investment and do business.

To sustain economic growth the GCDP states that the city needs to target sectors where Galway has a competitive advantage, including the **maritime and blue economy, renewable energy**, fourth level education and training, research and development, creativity and innovation, digital, ICT and life sciences sectors.

Employment

Following the Covid 19 pandemic there were changes to the patterns of work. According to the Census data for 2022, there were 747,961 people working from home for at least one day a week, representing 32% of workers. Travelling by car was the main way of commuting to work in Census 2022, with around 1,280,000 people, or 63% of all commuters using this means of transport. Walking and cycling were the next main ways of commuting to work in Census 2022, with around 240,000 people, or 12% of all commuters. In Ireland, there were 2,320,297 people at work in Census 2022, up 16% since 2016.

The GCDP states that Galway City, being the main urban centre in this region will be a key economic and service support to enable the regional targeted 2040 population growth of 160,000-180,000 and to accommodate the significant proportion of the allied **targeted 115,000 increase in regional jobs.**

The 2022 Census found that more than 224,000 people living in Galway in April 2022 were aged 15 and over and of these more than 125,500 people were at work. This included over **39,000 people at work in Galway City** and almost 86,000 people working in Galway County.

Figure 5.3 below shows the Employment Industries in Galway City from the 2022 Census data which include agriculture, forestry and fishing, building and construction, manufacturing industries, commerce and trade, transport and communications, public administration, professional services, and other.

Industry	Males	Females	Both Sexes
Agriculture, forestry and fishing	118	17	135
Building and construction	950	131	1,081
Manufacturing industries	3,707	2,402	6,109
Commerce and trade	4,104	3,912	8,016
Transport and communications	2,485	995	3,480
Public administration	723	722	1,445
Professional services	3,447	7,147	10,594
Other	4,749	4,009	8,758
Total	20,283	19,335	39,618

Figure 5.3 Industries and employees in Galway City. Source: CSO Census 2022.

Figure 5.3 above show a total of 39,618 people working in the industries in Galway City, with the highest sector being professional services. This shows an increase from the 2016 Census data which recorded 34,951 people working in Galway City, with professional services having the highest number of employees. From 2016 to 2022 the data recorded shows an increase in employees in the building and construction, manufacturing, commerce and trade, transport and communications, public administration, and professional services sectors in Galway City. A decrease in employee numbers in the agriculture, forestry and fishing sector was recorded from 2016-2022.

Occupation	Males	Females	Both Sexes
Managers, Directors and Senior Officials	1,612	1,141	2,753
Professional Occupations	4,922	5,706	10,628
Associate Professional and Technical Occupations	2,834	2,166	5,000
Administrative and Secretarial Occupations	740	2,384	3,124
Skilled Trades Occupations	2,434	388	2,822
Caring, Leisure and Other Service Occupations	534	1,845	2,379
Sales and Customer Service Occupations	1,142	1,656	2,798
Process, Plant and Machine Operatives	2,414	1,132	3,546
Elementary Occupations	2,012	1,557	3,569
Not stated	3,456	2,874	6,330
Total	22,100	20,849	42,949

Figure 5.4: Occupation data for Galway City. Source: CSO Data 2022.

Figure 5.4 above shows the 2022 CSO data of the occupations recorded in Galway City in 2022 which amounted to 42,949 people, which are spread over numerous occupation types. There was an increase in this data from that recorded in 2016 which was 39,492. This shows a rise in the number of occupations and people working in Galway City. From 2016-2022 there was an increase in the number of employees in the Managers Directors and Senior Officials, Professional Occupations, Associate Professional and Technical Occupations, Caring, Leisure and Other Services Occupations, and Process Plant and Machine Operatives. The number of occupations within the 'not stated' category rose from 4,878 to 6,330.

There was a decrease in the number of employees from 2016-2022 in the Administrative and Secretarial Occupations, Skilled Trades Occupations, Sales and Customer Service Occupations, and Elementary Occupations.

The social class and socio economic grouping divides the population into categories which are shown in **Figure 5.5** below. From 2016-2022 there was an increase in the number of professional workers, managerial and technical workers, and the semi-skilled workers. There was a decrease from 2016-2022 in the number of non-manual, skilled manual, and unskilled workers.

Social Class	Males	Females	Both Sexes
Professional workers	5,042	4,687	9,729
Managerial and technical	9,906	12,122	22,028
Non-manual	4,365	6,857	11,222
Skilled manual	4,611	2,281	6,892
Semi-skilled	4,945	4,705	9,650
Unskilled	1,033	1,123	2,156
All others gainfully occupied and unknown	10,512	12,225	22,737
Total	40,414	44,000	84,414

Figure 5.5: Social Class and Socio-Economic Group Employment Figures. Source: Census Data 2022

In terms of unemployment, the CSO data for 2022 in Galway City showed 2,978 were unable to work due to permeant sickness or disability, 1,884 people in long term unemployment, and 1,447 people in short term unemployment, there were 712 people looking for a first job. This results in a total figure of 7,021 people unemployed in Galway City in 2022. This data is showed in **Figure 5.6** below.

In comparison to the CSO data recorded for Galway City in 2011 there were 9,340 people unemployed and in 2016 there were 7,321 people unemployed in Galway City. The number of people unemployed has decreased from 2011-2016 and decreased again from 2016-2022.

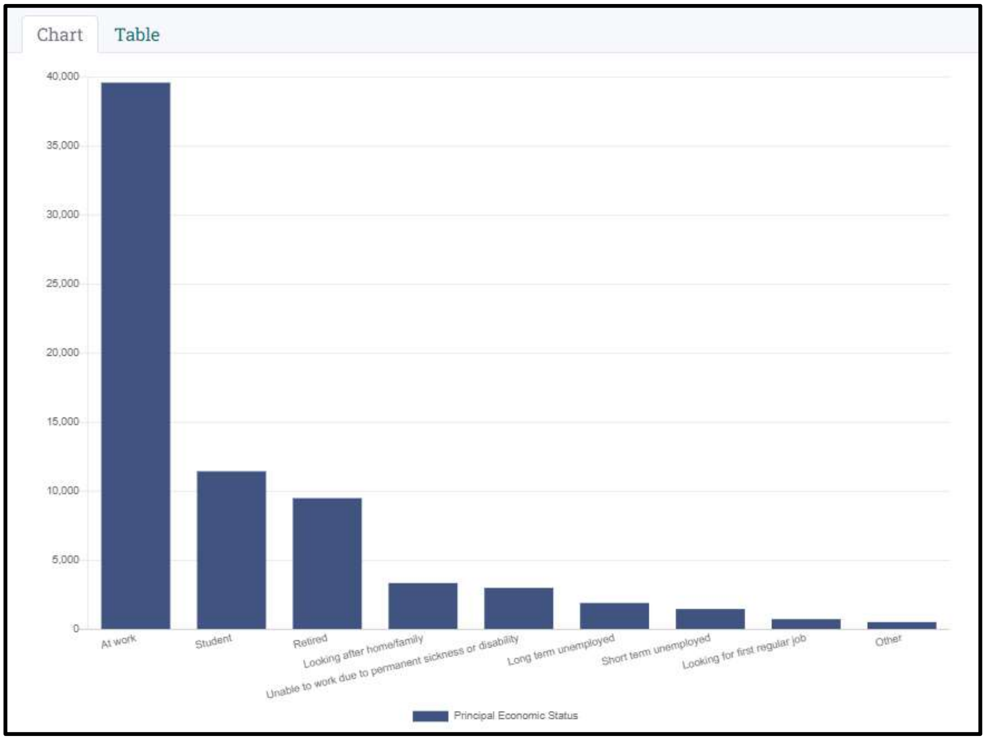

Figure 5.6: Principle economic status in Galway City. Source: CSO Data 2022

The Galway Harbour Company currently employs 14 staff providing an important employment base in the Galway City Harbour.

Tourism

This section outlines the existing regional tourism environment, including Galway City. The tourism industry is a very significant contributor to the socio-economic well-being and vibrancy of Galway City. The City has a distinctive tourism offer and attracts significant numbers of tourists from all over the World. The City is also an important destination for domestic tourism.

Fáilte Ireland have recorded the Key Tourism Facts and data from 2019 onwards, these figures are set out in **Table 5.7** below and include the value of tourism to Ireland from 2015-2019. This data shows an increase in both the number of visitors to Ireland and the revenue from this tourism.

Table 5.7: Tourism to Ireland from 2015-2019. Data Source: Fáilte Ireland Regional Performance 2019[4].

	2015	2016	2017	2018	2019
Total overseas visitors to Ireland (000's)	8,036	8,742	9,023	9,609	9,674
Total tourism revenue out of state (€m)	4,603.5	6,539.9	6,959.2	7,383.9	7,386.0

Both the total overseas visitor to Ireland numbers and the total tourism revenue have seen a steady increase following the figures predicted in the original EIS chapter 5. The original chapter included the total overseas tourist figures and total tourism revenue data from 2004-2009. In 2009 this was recorded at 1.14 million tourists and appropriately €374 million in tourism revenue, the latest data shown in Table 5.7 shows that in 2019 the total number of visitors was approximately 9.67 million overseas visitors and the total tourism revenue from out of state equated to €7.38 million. This shows a significant increase over the decade both in numbers of visitors to Ireland and the revenue from that tourism.

The *Galway Tourism Strategy 2020 - 2025* incorporates survey findings from Fáilte Irelands '2017 topline performance by county' survey [5] regarding domestic and overseas visitors. Key findings of note are provided below.

[4] Fáilte Ireland 'Key Tourism Facts 2019' Available at: https://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/3_Research_Insights/4_Visitor_Insights/KeyTourismFacts_2019.pdf?ext=.pdf

[5] Fáilte Ireland (2017) '2017 topline tourism performance by region' Available on: https://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/3_Research_Insights/2_Regional_SurveysReports/2017-topline-regional-performance-(003).pdf?ext=.pdf

Table 5.8: Visitors for Galway 2017. Source Galway Tourism Strategy 2020 2025

Visitor Figures for Galway

Domestic Visitors	**Overseas Visitors**

• Galway attracted **1.024 Million domestic visitors in 2017** and generated **€247 million**
• Galway was the third most visited county after Dublin and Cork
	• In 2017, Galway attracted 1,674million overseas visitors and was the second most visited county by overseas visitors after Dublin (5.9m) and ahead of Cork (1.6m)
	• Galway generated **€589 million** in revenue from overseas visitors in 2017
	  ○ 44% of visitors come from Mainland Europe, followed by North America (32%), Great Britain (16%) and other areas (9%)
	  ○ Galway has the second lowest reliance (after Kerry) of any county on the GB market. GB accounts for 16% of visitors but only 11% of revenue

Table 5.9 below shows the source of tourism to the West Region recorded in 2019. In terms of visitor numbers, the source of tourism from overseas visits and domestic visits to the west region are similar in numbers (1,943 from overseas visitors, and 1,848 from domestic visitors). The revenue recorded from all overseas visitors was recorded at €653 million for all overseas visitors, and was recorded at €370 million for domestic visitors.

Table 5.9: Source of All Tourism to the West Region 2019. Source: Fáilte Ireland Key Tourism Facts 2019

Source of All Tourism to the West Region 2019							
	Britian	Mainland Europe	North America	Other Areas	All Overseas	Northern Ireland	Domestic
Total visitors (000's)	342	812	647	142	1,943	113	1,848
Revenue € (m)	112	238	264	39	653	48	370

Fáilte Ireland released a 2017 performance information for the West Region, this information stated that 1.9 million tourists spent €6.9 million in the West Region.

The *Galway Tourism Strategy 2020-2025* incorporates findings from the *Tourism in the West Report 2015* [6] which states that 12-14% of businesses in Galway are involved in tourism and the sector accounts for 10-12% of employment in the city. The Galway Tourism Strategy 2020-2025 sets a target to achieve a 20% increase in visitors by 2025 and a 25% increase in tourism revenue by 2025. [7] The strategy states that there is huge potential for growth in international tourism to Galway. The *Galway Tourism Strategy 2020-2025* undertakes a Strengths, Challenges, Opportunities & Threats (SCOT Analysis), within the Opportunities section it states there is potential for development and improvements of the cruise tourism sector at Galway Harbour. Action Area 3 of the strategy states for the maritime, water based and coastal sector, Galway City Council will;

- *"Work with Galway Harbour Company to realise the full potential of the Cruise Market*
- *Support the development of Blueway projects*
- *Support the development of tourism activities, pursuits, culture on Lough Corrib*".

Ireland's popularity as a cruise ship destination has enjoyed significant growth in recent years. Large cruise ships carrying 3,000 to 4,000 passengers and crew dock regularly at ports around Ireland, especially in the summer months. Galway Bay is the ideal location for accommodating passenger cruise liners in the popular tourist destinations of Galway and Mayo. There is currently a restriction on attracting cruise liners; the development of the new Port will allow Galway Harbour Company to bring a significant number of cruise vessels to Galway. The Port of Galway is unique in that it is situated in the heart of Galway City. This is a major advantage in terms of attracting cruise business. Neither the current channel nor the existing port gates, quays and berth allow for cruise liners to dock at the quayside.

The *Ireland's Ocean Economy Key Facts & Figures December 2023* was carried out by the University of Galway and the Marine Institute and gives details on the international cruise industry in Ireland. **Figure 5.7** below show the ports of call for cruise liners in Ireland in 2022. This shows Galway with among the least ports for cruise liners in Ireland in 2022, with 14 ships and 9,521 visitors. Cork saw the largest number of cruise liners, with 82 ships and 115,062 visitors. This report also states that in 2022, the

[6] Irish Tourist Industry Confederation '*Tourism in the West Report 2015*' Available at https://www.itic.ie/itic-pub-docs/2015/Tourism_in_the_West_Full_Report_Nov2015.pdf

[7] Galway City Council 'Galway Tourism Strategy 2020 – 2025' Available at https://www.galwaycity.ie/uploads/downloads/application_forms/arts/Tourism%20Strategy%20GCC.pdf

Tourism and Leisure in Marine and Coastal Areas industry in Ireland was estimated to have increased by 61% to €1.23 billion.

The ports of call for cruise liners in Ireland in 2022:

- **Cork** (82 ships, 115,062 passengers)
- **Dun Laoghaire** (65 ships, 78,867 passengers)
- **Waterford** (24 ships, 21,275 passengers)
- **Killybegs** (21 ships, 11,145 passengers)
- **Dublin** (23 ships, 8,611 passengers)
- **Galway** (14 ships, 9,521 passengers)
- **Bantry Bay** (9 ships, 4,563 passengers)
- **Shannon Foynes** (3 ships, 1,072 passengers)

Figure 5.7: Ports of call for cruise liners in Ireland in 2022. Source: Ocean Economy Key Facts & Figures December 2023[8].

Fishing Industry

Commercial sea fisheries have operated in Galway Bay for over 200 years and the City has a long established history in the fishing industry. In 2019, Atkins produced a report for the Marine Institute entitled 'Updated assessment of aquaculture impacts in Inner Galway Bay on Special Conservation Interests of Inner Galway Bay SPA & other SPAs'[9]. This report states that a total of 51 aquaculture sites, covering a total area of 247 ha4 occur within Inner Galway Bay. These include 33 licensed sites covering a total area of 76 ha, and 18 application sites, covering a total area of 171 ha. Most of the sites are small, with a mean area of 2.3 ha (range 0.4- 6.8 ha).

The University of Galway and the Marine Institute released *Irelands Ocean Economy*[10]. The report provides an update on Ireland's ocean economy across three main economic indicators: turnover, gross value added ("GVA") and employment ("FTEs") and provides an analysis of trends over the last five years.

[8] University of Galway 'Irelands Ocean Economy 2023' Available at: https://oar.marine.ie/bitstream/handle/10793/1882/Ireland%27s%20Ocean%20Economy%202023.pdf?sequence=6&isAllowed=y

[9] Atkins (2019) 'Updated assessment of aquaculture impacts in Inner Galway Bay on Special Conservation Interests of Inner Galway Bay SPA & other Spas 'Available on: https://alab.ie/media/alab/Annex1220719.pdf

[10] Marine Institute, in collaboration with the Socio Economic Marine Research Unit (SEMRU) in the University of Galway, (2023) 'Ireland's Ocean Economy, Key Facts & Figures'. Available on: https://www.marine.ie/site-area/news-events/press-releases/ireland%E2%80%99s-ocean-economy-report-published-latest-estimates

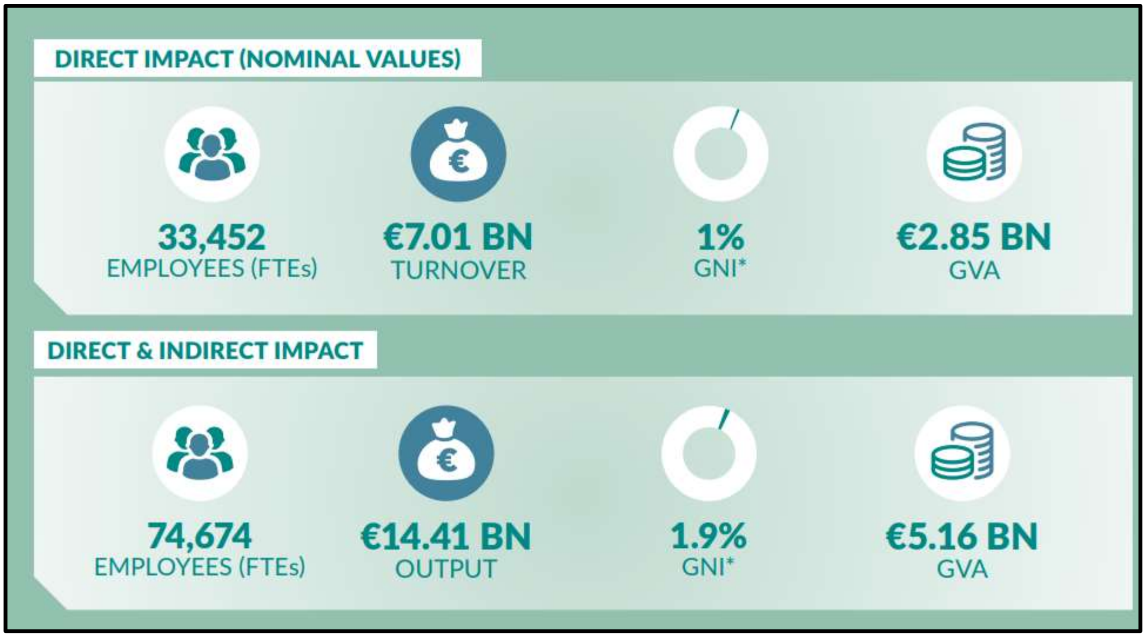

Figure 5.8: Irelands Ocean Economy 2022. Source: Ireland's Ocean Economy December 2023

Figure 5.8 above shows the data from *Irelands Ocean Economy* in 2022, which shows there were 74,674 direct and indirect employees in the Ocean Economy in 2022. The ocean economy is defined as any economic activity that directly or indirectly uses the sea as an input or produces an output for use in a sea-specific activity.

The 2022 figures for the industry are set out in **Table 5.10** below, this shows the Shipping and Maritime Transport with the largest direct turnovers and direct gross value added. The largest direct employment base is within the Tourism in Marine and Coastal Areas sector and the largest Direct Turnover is within the Shipping and Maritime Transport sector.

Table 5.10: Direct Turnover, GVA and Employment by industry, 2022. Source: Ireland's Ocean Economy December 2023.

2022 (estimates)	Direct Turnover € 000's	Direct GVA € 000's	Direct Employment (FTEs)
Shipping & Maritime Transport	2,446,006	664,725	4,728
Tourism in Marine & Coastal Areas	1,229,072	535,799	18,325
International Cruise	33,743	13,119	
Marine Retail Services	152,694	64,131	925
Marine Commerce	305,884	91,516	479
Sea Fisheries	239,626	119,904	1714
Marine Aquaculture	186,071	68,000	1170
Seafood Processing	618,010	172,786	2695
Seaweed, Marine Biotechnology & Bioproducts	122,890	47,872	768
Marine Manufacturing, Construction & Engineering	170,523	75,115	937
Oil and Gas Exploration & Production	1,272,297	886,151	160
Marine Renewable Energy	83,859	54,148	642
Advanced Marine Technology Products & Services	151,016	58,896	909
Total	**7,011,691**	**2,852,162**	**33,452**

The Shipping and Maritime Transport figures from 2018-2022 are set out in **Table 5.11** below. In 2022, shipping and maritime transport recorded a turnover of €2.5bn, Gross Value Added (GVA) of €665m and employment of over 4,728 FTE employees. This is based on an estimated decrease of 1% from the previous year according to the Irish Maritime Development Office (IMDO) iShip index. The turnover and GVA decreased in 2019 and then also in 2020 due to impacts from the Covid Pandemic in the case of 2020. However, over the five year period 2018 to 2022 there has been an overall increase in both indicators.

Table 5.11: Shipping and Maritime Transport turnover, GVA, employment, 2018-2022

	2018	2019	2020	2021	2022e
Turnover €000's	2,316,353	1,834,510	1,463,047	2,470,713	2,446,006
GVA €000's	650,716	564,699	421,982	671,439	664,725
Employment FTEs	4,852	4,832	4,616	4,776	4,728
Turnover Annual Change	5%	-21%	-20%	69%	-1%
GVA Annual Change	9%	-13%	-25%	59%	-1%
Employment Annual Change	0%	0%	-4%	3%	-1%

The report also sets out trends from Ireland's Ocean Economy from 2018-2022; these are shown in **Table 5.12** below. These figures show a decline in turnover, GVA, and FTE's during the Covid 19 pandemic, and the figures rise again in 2021 and 2022 during the recovery period.

Table 5.12: Trends from Ireland's Ocean Economy from 2018-2022. Source: Ireland's Ocean Economy December 2023.

Ocean Economy	2018	2019	2020	2021	2022
Turnover (€mill)	**6,186.45**	5,402.12	3,990.67	5,999.84	**7,011.69**
Turnover Annual Change	6.95%	-12.68%	-26.13%	50.35%	16.86%
GVA (€mill)	**2,555.10**	2,101.89	1,528.42	2,401.99	**2,852.16**
GVA Annual Change	8.41%	-17.74%	-27.28%	57.15%	18.74%
FTEs	**32,024.15**	34,914.00	26,046.77	28,110.28	**33,451.77**
Employment Annual Change	1.79%	9.02%	-25.40%	7.92%	19.00%

Within the Ten Year Rate of Change (2012-2022), Ireland's Ocean Economy (in nominal values) has seen significant changes being; +48% turnover, +127% GVA and +31% Employment.

Sea Fishery is an important industry in Ireland, the 2022 data from the report states a decrease of 18% in turnover and an estimated decrease of 32% in GVA from the previous year. The Ireland's Ocean Economy 2023 report states that is in part due to a decrease in landings, revenue and profitability primarily caused by the Russian invasion of Ukraine, rising energy costs, inflation, and quota reductions linked to Brexit. In 2022, there was a reported decrease in landings tonnage of 16%, which also impacts the data from 2018-2022.

The Ireland's Ocean Economy 2023 report records an increase of 4% in Marine Aquaculture turnover from €178.8m in 2021 to €186m. In the long term, Marine Aquaculture has seen an increase from 2012 to 2022 in turnover and GVA by 43% and 12% respectively and employment has also increased by 22%.

In relation to Seafood Processing, comparing 2018 to 2022, there have been increases across turnover (8%), GVA (13%) and employment (10%). Over ten years, there have also been increases of 15% in turnover, 36% in GVA and 24% in employment (compared to 2012 values).

For Oil and Gas industry, there was an estimated turnover of €1.27 billion in 2022 which was a significant increase of 59% on 2021. The report notes that from 2018 to 2022, the turnover grew by 55% with an increase in GVA of 66%. For the period 2012 to 2022, turnover grew by over five times its initial value with GVA increasing by 30 times its value. The report notes that this was due to the small size of the industry in Ireland prior to the commencement of natural gas extraction at the Corrib gas field in 2016 and exceptionally high gas prices in 2022.

For the Advanced Marine Technology Products and Services, over the ten-year period from 2012-2022, it was estimated that the turnover and employment have each grown by more than 110%, while GVA has increased by an estimated 53%.

The Marine Renewable Energy industry had an estimated turnover of €84 million, GVA of €54 million and employed an estimated 642 FTEs in 2022. The report also states that over the five-year period of 2018-2022, turnover and GVA have increased by approximately 46%, with employment increasing by 37%. Over the ten-year period, employment has increased by an estimated 160%.

5.5.3. Land Use and Amenity

The proposed Galway Harbour Extension will be located immediately adjacent to the existing Galway Harbour Enterprise Park. The existing Enterprise Park is accessed by a bridge across the entrance channel to Lough Atalia and this will provide the access to the Galway Harbour Extension. The Galway Harbour Extension site is bounded to the north by the existing Enterprise Park.

The proposed Galway Harbour Extension comprises 23.9 hectares of land reclamation. The development will provide 660m of sheltered quay berth. The development itself will consist of berthing facilities for general cargo vessels including renewables, fuel tankers, passenger vessels, fishing vessels, container vessels and a marina.

At the time of the original planning application lodgement in 2014, the *Galway City Development Plan 2011-2017* was in place, in which the development site was zoned for "*enterprise, industry and related uses",* which the proposed development was deemed to be consistent with.

The current plan in place is the *Galway City Development Plan 2023-2029 ("GCDP")*. The current zoning of the proposed development site is "***Enterprise, Industry and Related Uses -I*** ", which remains the same as the previous zoning objective. The objective for this land use zone is "To provide for enterprise, industry and related uses".

The policies underlaying this zoning are also supportive of renewable energy and the marine sector in general, see Chapter 2, Section 2.5.4.1 for further details.

Section 11.2.5 of the Galway City Development Plan also states the following:

"*Such activities can include for enterprises associated with the sustainable energy sector supporting the supply chain activities of the offshore renewable energy sector, including green hydrogen and appropriate low emission industries*."

Part of the proposal shown as Area 3 Lough Atalia Road and Bridge, on Tobin Consulting Engineer Drawing No. 2139-2117 (Site Layout Plan) is zoned as "***City Centre - CC***" under the GCDP. The objective for this land use zone is "*To provide for city centre activities and particularly those, which preserve the city centre as the dominant commercial area of the city.".*

The majority of the proposal site is located within unzoned lands to be reclaimed mainly from foreshore and the sea southeast of the existing Galway Harbour.

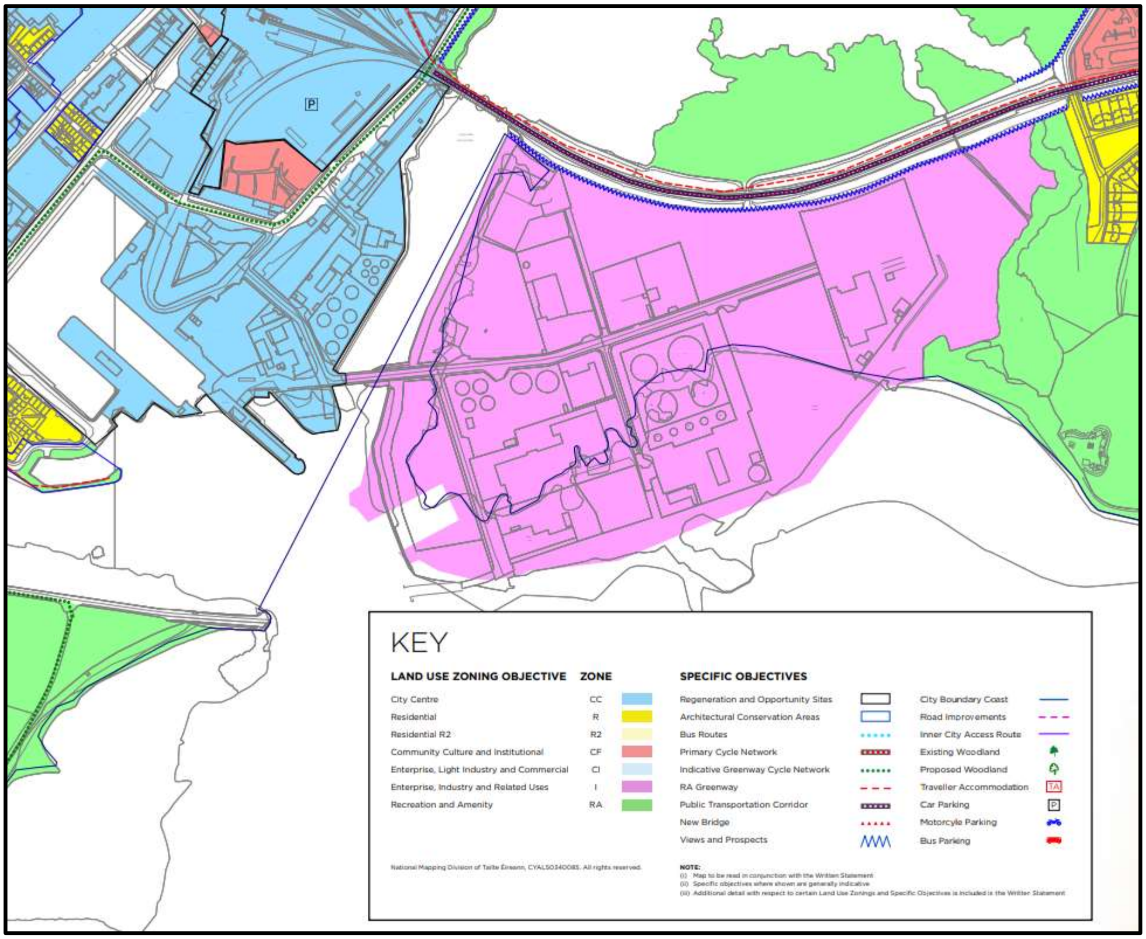

Figure 5.9: Galway City Development Plan 2023-2029 – City Centre Zoning Map.

The GCDP includes policy which is set out in Chapter 2 of this EIS addendum which relates to the Marine and Renewable Energy sectors. Chapter 2 also sets out policy for the Inner Harbour Regeneration Site acknowledges the constraints to modernise the harbour and address deficiencies, and notes that *"the harbour functions will need to be relocated to an alternative site".* Please refer to Chapter 2 for further details.

The submitted EIS identified that the nearest residential units to the site of the proposed Galway Harbour Extension are the Cé na Mara Harbour Apartments in the Inner Harbour and Mellows Park in Renmore. It is considered therefore that these dwelling units constitute the location of the "nearest sensitive receptor or occupied premises". The distance between the Galway Harbour Extension and the houses at Mellows Park to the north-east and to the Harbour Apartments to the north-west is approximately 500 metres in both cases.

At present, the existing Inner Harbour accommodates commercial vessels and is located only 40m from the nearest apartment in the Ce na Mara apartment complex and, indeed, the other residential developments facing onto the Inner Harbour. This potential source of conflict with residential amenity will be removed when the commercial/freight operations are relocated to the Galway Harbour Extension. This will improve the environmental and visual quality of the city centre area and facilitate the introduction of new uses in the inner harbour area that will significant improve its amenity value.

The *EU Directive on the Control of Major Accident Hazards Seveso III* came into force on 1 June 2015, replacing the Seveso II Directive. Currently there is one Seveso III site within the city, Circle K Galway Terminal located in New Docks, Galway Harbour Board Enterprise Park. It is classified as an upper tier establishment. A consultation zone, of 400m, is applied by the HSA in relation to Seveso III establishments and any relevant proposals for development within these zones or any future amended zones will be referred to the HSA for guidance.

The provision of the Galway Harbour Extension, which will accommodate the oil tankers and facilitate the cessation of such use in the Inner Harbour will, therefore, also result in significant public safety benefits to residents and businesses around the Inner Harbour area and, indeed, the wider City Centre area.

Inner Harbour Regeneration Project

The 'Inner Harbour Regeneration Project' relates to the potential development of 17 acres of land. A non-statutory vision document has been prepared in relation to this project and was released to the public in May 2021. The vision is underpinned by a planning framework. The Inner Harbour Regeneration Site is referenced in Section 10.6 of the Galway City Development Plan 2023 - 2029 and a Masterplan is pending for the entire site. The Land Development Agency ("LDA") and Galway Harbour Company are also working on a more detailed Masterplan for an initial phase of the overall site.

5.6. Assessment of validity of earlier conclusions and any necessary amendments to same

The original EIS included figures and data from the 2011 CSO census, and the *Galway City Development Plan 2011 -2017*. This EIS addendum has updated the figures and data in relation to population, economic activity, employment, tourism, fishing and land use and amenity. The latest data has been used in updating this chapter, including the CSO 2022 census and the *Galway City Development Plan 2023-2029.*

The findings in relation to Impacts on Human Beings stated that

> "*The proposed Galway Harbour Extension will have a significant positive impact in terms of human beings, including economic activity and land use & amenity for the following reasons and no mitigation measures are required for these matters:*
>
> • ***Economic Development and Employment***
>
> *The Galway Harbour Extension will address the current limitations at the Inner Harbour which, if not addressed, will ultimately result in the decline and demise of harbour-related activities in Galway City, with consequential negative socio-economic impacts.*
>
> • ***Public Amenities at the Galway Harbour Extension***
>
> *The proposed development incorporates public amenities and facilities, including landscaped open space, promenades/bayside walkways, public access and marina and, in addition, it creates a sheltered and safe area for water-based leisure activities.*
>
> • ***Regeneration of Inner Harbour area***
>
> *The relocation of commercial/industrial harbour-related activities from the Inner Harbour facilitates the regeneration and environmental improvement of this inner city area as a new urban neighbourhood and visitor destination, as well as addressing the Seveso II issues associated with oil handing."*

The EIS addendum found that there are restraints regarding the existing harbour which impact economic development and employment, including maritime tourism and industry. For example Figure 5.7 above shows Galway with among the least ports for cruise liners and passengers in Ireland in 2022.

The proposal will increase amenity in the area as previously stated the "*proposed development incorporates public amenities and facilities, including landscaped open space, promenades/bayside walkways, public access and marina and, in addition, it creates a sheltered and safe area for water-based leisure activities".* This finding remains unchanged.

In terms of regenerating the Inner Harbour area there will be positive impacts regarding both existing and new residents of the area, as well as visitors, supporting Galway's thriving tourism industry.

5.7. Human Health

Introduction

WHO defined health in its broader sense in its 1948 constitution (WHO, 1948) as:

"a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.

This section describes the identification and assessment of the potential impacts on human health, as a result of the proposed scheme. This section provides an overview of receiving environment, the types of impacts that can be expected on human health.

Receiving Environment

This assessment of various baseline factors to describe the receiving environment and the study area. From a human health perspective, the assessment focuses primarily on those that are considered the most likely to be affected and includes people who live or work within 500m of the proposed scheme. The distance between the Galway Harbour Extension and the houses at Mellows Park to the north-east and to the Harbour Apartments to the north-west is approximately 500 metres in both cases. This is in marked contrast to the current situation whereby apartments are present within a distance of approximately 40 m from the commercial activity of the port.

While considering the study area it is however important to note that, impacts beyond this area will also be reviewed to ensure more distant effects are also taken in account.

Health in Ireland Key Trends 2019 is the most recent health statistics report published by the Department of Health. It provides a summary of health and healthcare statistics for the country over the past ten years.

In Ireland, there has been an increase in life expectancy and a decrease in mortality rates. Mortality rates in Ireland have declined 10.5% since 2009. Ireland has the highest self-perceived health status in the EU, with 82.9% people rating their health as good or very good (Department of Health 2019). The population of County Galway is approximately 277,737and Galway city 85,910 (CSO Census 2022).

A group made up of the Health Service Executive (HSE) and Lenus, the Irish Health Research Repository, have published health profiles for all the Local Authority areas in Ireland. The most recent of these profiles published relate to 2015. Galway City is reported to have an average percentage of persons who report their health as being bad or very bad at 1.5% (national 1.5%) and a lower than average percentage of people who have a disability at 11.9% (national 13.0%) (Health Profile 2015 Galway City, HSE, 2015). Galway City is located within air quality Zone C (16 cities and towns with population greater than 15,000).

Community Profile

Evidence shows that different communities have varying susceptibilities to health impacts both positive and negative as a result of social and demographic structure, behaviour and relative economic circumstance.

Whilst specific health data for individuals in the vicinity of the proposed development is confidential and difficult to establish, a community profile has been used to establish the baseline and identify unequal distributions in existing factors such as deprivation or burden of poor health, in order that changes in community exposure to certain health pathways and their degree of impact on the population or community can be assessed. Significant information on disability and health has been published following on from the census performed in 2022.

Disability

In April 2022 in Galway, almost 57,500 people (21% of the county's population) reported experiencing at least one long-lasting condition or difficulty to any extent. Of these, 20,933 people (8% of the county's population) reported experiencing at least one long-lasting condition or difficulty to a great extent or a lot. A further 36,522 people (13% of the county's population) reported experiencing at least one long-lasting condition or difficulty to some extent or a little.

Nationally,1.1 million people (22%) reported experiencing at least one long-lasting condition or difficulty to any extent, of whom 407,342 (8%) experienced a long-lasting condition or difficulty to a great extent and 702,215 (14%) to some extent.

In Ireland overall, more females (22%) than males (21%) experienced a long-lasting condition or difficulty to any extent. In Galway, this rate was 21% for females and 20% for males.

Health

The general health question had five response options on the census form ranging from very good, good, fair, bad to very bad.

Just over 230,000 people (83%) in Galway stated their health was very good or good in Census 2022. This was down from 87% in Census 2016 and 88% in Census 2011. Nationally, 83% of people had good or very good health, down from 87% in 2016 and 88% in 2011.

Among the county's females, 74,374 (53%) reported very good health, as did 53% of males (72,461).

There were also 4,403 people who reported bad or very bad health in the county, up from 3,805 people in 2016.

Smoking

In Galway, more than 22,000 people smoked daily in April 2022 which was 8% of the population, compared with 9% nationally. Almost 13,100 people (5%) smoked occasionally while almost 53,700 people (19%) had given up smoking. Nearly 168,000 people stated they never smoked (60%). Nationally, 60% of the population never smoked.

The number of males in the county who smoked daily was greater than the number of females (12,536 males compared with 9,535 females).

Carers

There were over 16,800 unpaid carers in Galway in April 2022, which was 6% of the county's population compared with 4% in 2016. Nationally there were almost 300,000 unpaid carers or 6% of the population, up from 4% in the previous census.

Females in the county were more likely to be carers than males, with 59% of all carers being female, a similar trend to the national figure. There were 9,953 female carers (7% of all females), compared with 6,863 male carers (5% of all males) in Galway.

There were 296 carers in Galway under 15 years of age providing regular unpaid care which was an increase on 2016 when there were 215 young carers.

As well as the growth in the number of carers, the period between 2016 and 2022 also saw some notable increases in the hours of unpaid care provided. The number of carers in Galway providing 43 or more hours of unpaid help each week more than doubled, from 2,141 in 2016 to 4,580 in 2022

Some disabilities are not visible, such as deafness and autism spectrum disorder (ASD). It is estimated that approximately 1% to 1.5% of the population in Ireland has ASD . The autism spectrum covers a broad set of difficulties and people are affected in a variety of ways to differing degrees. The challenges that people with ASD face typically fall within the categories of communication and social skills, forming and keeping relationships with other people, physical coordination and sensory processing

These figures suggest that the population of Galway is quite typical of the Irish national population. In most of the parameters outlined it is reflective of broader national figures. The conclusions drawn is that they area would be no more or no less vulnerable to human health impacts than any other area.

Literature Review

A review of available literature and publications for human health and well-being was be undertaken to develop an in depth understanding of the baseline conditions within the study area. A further literature review of potential health impacts arising from similar projects will be undertaken to identify potential health impacts arising from the proposed scheme.

Perhaps not surprisingly there is a dearth of publications studying human health impacts a project such as moving the location of a port.

Special attention was paid to similar projects within Ireland. For example, the relatively recent development of Port of Cork where the active port is in the process of being moved from a relatively city centre location in Tivoli to a deep water location in Ringaskiddy. While this project is not complete, as it is dependent on other projects such as the development of motorway access to the new port, there is no evidence published of any deleterious effect on human health.

The recitals to the 1985 and 2011 EIA Directives refer to 'human health' and the operative texts refers to 'human beings' as the corresponding environmental factor. The most recent amendment of the EIA Directive in 2014 changed this factor to 'Population and Human Health'.

In the 2002 EPA Guidelines, which are relevant here, where health was considered through assessment of the environmental pathways through which it could be affected, such as air, water or soil. Those Guidelines, relevant to EIS assessments state:

'The evaluation of effects on these pathways is carried out by reference to accepted standards (usually international) of safety in dose, exposure or risk. These standards are in turn based upon medical and scientific investigation of the direct effects on health of the individual substance, effect or risk. This practice of reliance upon limits, doses and thresholds for environmental pathways, such as air, water or soil, provides robust and reliable health protectors [protection criteria] for analysis relating to the environment'.

In terms of human health protection, emissions during the Construction or Operational Phase of the Proposed Project need to be identified and compared against reliable Health Based Standards. Reliable sources of the standards may be regulatory such as the EU, such as Air Quality Standards, or based on expert opinion such as is provided by the WHO as is the case with noise guidelines.

Health based standards and Guidelines by their nature, are set to protect against human health effects. The level at which the standard is set is chosen to protect the vulnerable, not the robust. They have an in-built measure of significance in that they are set at levels where there will be no significant health effects.

An example of a Standards are the Air Quality Standards as set by the EU Commission and detailed in the CAFÉ (Clean Air for Europe) Directive and transposed into Irish legislation by the Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011) and subsequently and most recently S.I. No. 739/2022 - Ambient Air Quality Standards Regulations 2022

They do not necessarily exclude each and every health effect. An individual might notice a transient slight irritation in the throat slightly below some Air Quality Standards but fundamental health status of the population would not change.

Another example would be WHO (World Health Organisation) Guidelines for Air Quality and Environmental Noise. The choice of the relevant standard and the reasons for this choice are explained in the relevant sections below.

This standards-based approach is also consistent with the 2002 Irish EPA Guidelines on the Information to be contained in Environmental Impact Statement):

'*The evaluation of effects on these pathways is carried out by reference to accepted standards (usually international) of safety in dose, exposure or risk. These standards are in turn based upon medical and scientific investigation of the direct effects on health of the individual substance, effect or risk. This practice of reliance upon limits, doses and thresholds for environmental pathways, such as air, water or soil, provides robust and reliable health protectors [protection criteria] for analysis relating to the environment*."

Assessment of Impacts

Health impacts related to Socioeconomic gain

Socio-economic Group (SEG) classifies the entire population into one of eleven groups based on the level of skill and educational attainment of the occupation (of those at work, unemployed or retired) while all other persons are classified to the socio-economic group of the person in the family on whom they are deemed to be dependent.

Improved socioeconomic status is associated with improved health measures such as longevity. People who work, live longer and enjoy better health than the unemployed, who generally suffer poorer physical and psychological health outcomes. Indeed, providing and encouraging employment and with it improved financial means is one of the most important contributors to public health.

Whilst socioeconomic gains may be worthwhile in themselves, it is important to realise that they are also associated with an improvement in health status.

Projects that provide economic benefits, protect the population from public health dangers, support regeneration, reduce unemployment and improve socioeconomic circumstance can contribute to improving the health and wellbeing of communities. Some of the ways these goals can be achieved is that they can make an area more attractive to investment, increase tourism and facilitate trade. Although negative effects on socioeconomic development may also be possible, the link between socioeconomic conditions and positive health outcomes is so strong that improving socioeconomic situations can be used as a surrogate for human health effects. In other words, by predicting an improving socioeconomic situation one can anticipate an improvement in health outcomes.

This was reinforced by the 2019 publication by the HSE*, Population Health and Demographics*, where the following observations were made:

"There is a strong link between poverty, socio-economic status and health"

The assessment of human health for the proposed development, in terms of health improvement, includes an assessment on how the proposed development would impact on the socioeconomics of the community.

As outlined earlier in this Chapter, as positive socioeconomic gains are forecast suring the operational phase of the proposed project, positive human health effects are also predicted.

Air Quality

The impacts on air quality in both the construction and operational phase are outlined in detail in Chapter 9.

The outcome of that assessment is summarised as:

The overall impact of the proposal will be to retain the 'Good' air quality status in the Galway Bay area. There will be a decrease in air emissions per Tonne of goods transported at the new harbour area due to the use of larger more efficient vessels and reduced turnaround capability. Future shipping traffic will be of shorter duration as docking, entering and leaving the port will be quicker and fewer vessels will be required for the same throughput of cargo.

Air pollutants from the proposed development are within the levels set by European air quality guidelines as transposed into Irish law and no deterioration in air quality is anticipated, even in the long term high growth scenario. Significant mitigation measures will be employed during the construction phase to avoid potential impacts to air quality.

Based on this assessment the impacts on human health in relation to changes in air quality are assessed as negligible but if anything there would be a positive effect.

Noise & Vibration

The impact of both construction and operational phases of the project are outlined in detail in Chapter 10. Activities of construction are assessed to have the potential for some modest impacts but an extensive mitigation plan is outlined in the chapter. The residual impact should see an improvement in noise levels in the existing docks due to the removal of vessels and minimal or negligible impacts on human beings close to the new port post mitigation.

As a result of this assessment the impact on human health is assessed as negligible.

Water

The impacts of both construction and operational phases of the proposed scheme on water are extensively assessed in Chapter 8 of the EIS. These are overall assessed as minimal. There is for example predicted to have no significant effects on the likelihood of flooding.

As a result of this assessment the impact on human health, of both the construction and operational phases of the proposed project are assessed as negligible.

5.8. Other Potential Impacts on Human Beings

There are other potential impacts on human beings, such as water, air, noise, visual, traffic and health & safety. These issues are examined in detail, including a description of the existing environment baseline, in other chapters in the EIS as follows;

- Water Chapter 8
- Air Chapter 9
- Noise Chapter 10
- Visual Chapter 12
- Traffic Chapter 13
- Health & Safety Chapter 13

5.9. Potential Significant Impacts

5.9.1. 'Do Nothing' Impact

If the proposed development were not to go ahead it is likely that the development site would remain in its current condition and land would not be reclaimed from Galway Bay. However, the economic development of the maritime industry within the area will continue to be frustrated by poor and restricted facilities, ultimately resulting in the decline of harbour-related business and commerce. A significant opportunity to provide an enhanced harbour facility to meet modern needs would be lost and this would result in a negative impact on the local and regional economy and employment.

5.9.2. Construction and Operational Phase Impacts

The construction and operational phase impacts have been reviewed against the original EIS. The findings of the EIS section 5.3.2 remain the same within this addendum.

5.10. Cumulative Impact Assessment

The projects considered as part of the cumulative impact assessment are set out in Chapter 2 and Appendix 1 of this EIS addendum and have been considered in terms of impacts on Population and Human Health.

Of the projects listed it was determined that due to proximity and scale, the projects listed below have the potential for cumulative effects on Human Beings, in combination with the proposed development. These projects are listed below;

An Bord Pleanála ("ABP") Ref 314597

Cross City Link Bus Connects Galway Cross-City Link Scheme. This application is currently at further consideration required stage with An Bord Pleanála.

ABP 318217

N6 Galway City Ring Road Motorway Scheme 2018 and Protected Road Scheme 2018. Case is yet to be decided.

ABP 310568

10 year permission - construction of mixed use regeneration project including 376 no. apartments , retail units, cafe/restaurant/bar units, Hotel, office use, childcare facility, car parking and other services and associated site works. (Protected Structure). NIS and EIAR submitted with the planning application.

Pl Ref 1783

Galway City Council granted Permission on the 27/10/2017 for a 10 year permission for development at the Former Topaz Oil Storage Facility, Located at Dock Road, Queen Street, and Bothar Na Long, Galway City (c. 0.93ha) (known as Bonham Quay). The proposed development consists of a mixed use office development (c. 34,765 sq.m GIA excluding basement, external terraces and open roof plant) provided in 4 no. blocks over a single basement level as follows: Block A (c. 9,935 sq.m) is a 8 storey building, located in the north-west part of the site adjoining Dock Road/Queen Street containing retail/restaurant/café use and ESB sub-station at ground level; office use at ground level to Level 07; plant at Level 07; external terraces at Levels 04 to 06 with a roof garden at Level 07; solar panels on the roof. Block B (c. 4,820 sq.m) is a 7 storey building with roof plant above, located in the south-west corner of the site adjoining Dock Road and Bothar Na Long, containing the basement access ramp; retail/restaurant/café use at ground level and mezzanine level; office use at ground level to Level 06; external terraces at Level 01 to 06 with external links with Block C, roof garden at Level 07; solar panels on the roof. A bridge link is provided at Level 04 between Block A and B. Block C (c. 8,165 sq.m) is a 8 storey building with roof plant above, located in the southern part of the site adjoining Bothar Na Long containing retail/restaurant/café use at ground floor level; office use at ground level to Level 07; external terraces at Levels 01 to 06 with external links to Block B and D, public accessible roof and event space at Level 07, roof garden at Level 08; solar panels on the roof. Block D (c. 11,845 sq.m) is a 8 storey building with roof plant above, located along the eastern boundary of the site adjoining Bothar Na Long to the south, containing office use at ground level to Level 07; external terraces at Level 01 to Level 07 with external links to Block C, roof garden at Level 08; solar panels on the roof. The single basement level (c. 7,030 sq.m) contains 138 no. car spaces; 162 no. cycle spaces; a commuter centre, office lobby areas, building facilities and plant. External amenity space is provided at ground level comprising a raised central plaza, basement ventilation areas, 52 no. surface cycle spaces and public realm improvements to the north and west of the site. Vehicle access is from Dock Road; fire tender access is from Dock Road/Queen Street and the proposed public realm to the north; and pedestrian access is from Dock Road, Bothar Na Long and the proposed public realm to the north.

Pl Ref 1418

Permission was granted by Galway City Council on the 13/08/14 for development at Céannt Station, Station Road, Galway, County Galway (a protected structure). Northern Elevation: The construction of a new 95 square metres single storey fully accessible glazed entrance building, the extension of the existing North Eastern bay platform, new 2m high boundary treatment to enclose this platform extension. Demolition of the existing lean too single storey building at the North eastern end of station, internal alterations and removal of walls within the train station to provide additional ticket purchase facilities, enlarged concourse areas, new toilet facilities, new ticket inspector accommodation North Eastern side of the station. The removal of the existing steel ramped access to the main station entrance after completion of the level access pedestrian entrances to the southern elevation. The reinstatement of the original step arrangement to the station building. Southern

Elevation; CIE Stores and Maintenance Area (a protected structure). The refurbishment of the existing stores and maintenance area to provide 2336 square metres of extended train concourse and platform, new pedestrian entrances, new curved partially glazed roof single span structure to replace existing roof, new openings within the existing South Western facade of the building to create new glazed entrances and fenestration. The proposed construction of new sloped approach routes, entrance plazas, street lighting and furniture, new glazed canopies to entrance plazas. New glazed entrances and fenestration to existing openings to South West, South East and North West elevations. The construction of new glazed retail pods and new toilet block within the station. New glazed doors and screens to be created to existing arches to both North Western and South eastern elevations of building. The removal of the existing internal mezzanine floor, removal of the existing ramped access, demolition of the existing lean to buildings at the North Western side of the building, demolition of the shed to the South Eastern gable of the building. Site works to include, inter alia, demolition of existing single storey industrial storage building and associated fuel silos to existing car park, reinstatement of car park paving, provision of 5no. disabled car parking spaces, new footpaths to both South Western elevations of station, removal of existing footpath to South Western gable of Meyrick Hotel and the construction of a new pedestrian walkway from the South East corner of Eyre Square to the new southern station entrance. This will provide a link to the pedestrianized side of eyre square, propose new car parking lighting and all associated way finding signage.

Pl Ref 2287

Permission for development which will consist of changes to previously approved planning permission ref no. 14/18 (extended under 19/175) at the Ceannt Railway Station, Station Road, Galway City. Ceannt Railway Station is a protected structure (RPS 10001). The changes include: 1. Partial removal of three no. internal walls in the northern buildings to increase visibility and thus assist with both passenger flow and wayfinding and accessibility. 2. The partial removal of some of the existing concrete floor on the eastern side of the station building and the subsequent lowering of same by approx. 180 mm to be at the same level throughout and thus assist with passenger accessibility.

Inner Harbour Regeneration Project

A vision document has been prepared in relation to this project and it is underpinned by a planning framework. The Inner Harbour Regeneration Site is referenced in Section 10.6 of the Galway City Development Plan 2023 - 2029 and a Masterplan is pending for the entire site. The Land Development Agency ("LDA") and Galway Harbour Company are also working on a more detailed Masterplan for an initial phase of the overall site.

5.10.1. Health and Safety

Any potential cumulative impacts between the construction of the proposed development and the other projects in terms of health and safety will be mitigated by the requirement for all projects to adhere to Health & Safety legislation. There will therefore be no significant cumulative effects in terms of health and safety.

5.10.2. Dust and Noise

Potential cumulative effects associated with dust and noise are addressed in Chapters 9 and 10 of this EIS addendum. The mitigation measures set out within these chapters ensure that there will be no significant cumulative effects on human health in terms of dust and air quality as a result of the proposed development in combination with other projects.

5.10.3. Traffic

Potential cumulative effects associated with traffic are addressed in Section 13.4 of this EIS addendum.

5.10.4. Employment and Investment

In terms of employment and economic benefit, there will be a significant benefit short-term, positive, cumulative impact between the proposed site and the other projects due to the majority of construction workers and materials being sourced locally, thereby helping to sustain employment in the construction trade.

The injection of money in the form of salaries and wages to those employed during the construction phase of the proposed development, has the potential to result in a slight increase in household spending and demand for goods and services in the local area.

The proposed development also has the potential to increase investment and employment in marine based sectors. The proposed development will also support the Galway region in enhancing its role as a major maritime tourism and leisure location.

5.10.5. Land Use

The proposed development will enhance the land use of the surrounding area which is zoned as ***Enterprise, Industry and Related Uses -I.*** The objective of this land use as set out in the Galway City Development Plan 2023-2029 is “To provide for enterprise, industry and related uses”.

The proposed development will have a positive regenerative impact on the surrounding area. There is therefore no potential for cumulative negative impacts on land use.

5.10.6. Tourism and Amenity

The proposed development aims to facilitate a competitive and effective market for maritime transport services. The proposed development also includes a Marina, Parklands and landscaping areas, a Renmore Promenade and a Marina Promenade. This will have a positive impact on both the tourism and amenity offering in the area and have a positive impact for human beings.

Overall the proposed development will have a permanent, significant, positive effect on tourism and amenity.

5.11. Conclusion

This EIS addendum has considered new data available in the areas of population, economic activity, employment, tourism, fishing and land use and amenity. The current *Galway City Development Plan 2023-2029* has also been considered in this chapter.

Galway City has experienced an increase in population within the last three CSO census periods; with a population of, 75,529 recorded in 2011, 79,934 recorded in 2016 and 85,910 recorded in 2022. The National Planning Framework envisages the population of Galway City and Suburbs to grow by between 40,000 - 45,000 people by 2040 which is an increase of almost 55%.

The proposed development will enhance quality of life as the proposal incorporates public amenities including landscaped open space, promenades, walkways, and public access. The proposal will also create a safe area for water based leisure activities.

The proposed development will enhance opportunities to grow the Harbour's activities in a sustainable manner, allowing for improved and enhanced tourism facilities and year round visitors. Galway City also has the advantage of the harbour being located within the city centre, which aligns with the compact growth objectives of the National Planning Framework.

In terms of Economy the National Ten Year Rate of Change (2012-2022) from 2012 to 2022, Ireland's Ocean Economy (in nominal values) has seen significant changes being; +48% turnover, +127% GVA and +31% Employment [11]). The Galway Harbour Extension will play a role in supporting Irelands Ocean Economy which has experiences positive rates of change from 2012-2022.

[11] University of Galway 'Irelands Ocean Economy 2023' Available at: https://oar.marine.ie/bitstream/handle/10793/1882/Ireland%27s%20Ocean%20Economy%202023.pdf?sequence=6&isAllowed=y