Tionól Reigiúnach Oirthir agus Lár-Tíre

Eastern and Midland Regional Assembly

Workshop Report:

Dublin Bay Nature and Livelihoods

Marine Hotel Sutton 28 November 2014

Contents

Introduction

On the 28th November 2014 the Eastern & Midlands Regional Assembly hosted a Dublin Bay workshop as part of its remit within the Celtic Seas Partnership to develop a framework for strategic management of Dublin Bay. The development of the Strategic Management Framework for Dublin Bay falls under action B.7 of the Celtic Seas Partnership. This is a four year EU LIFE + funded project which covers one of ten marine sub-regions in the North East Atlantic in terms of its geographic scope and seeks to add to the body of evidence and knowledge base required to bring about more sustainable and healthier seas in its research scope.

The intention of the framework is to provide an evidence based, simplistic and inclusive roadmap for how Dublin Bay can be managed as a resource for the Dublin region, its citizens and visitors.   The primary focus of the workshop was to ascertain the types of goods and services that Dublin bay stakeholders place a value on, where these services are located and how these services might be affected by the high level strategic development patterns of different forward planning scenarios.

The term ecosystem services can appear to some first time readers as a little abstract. It is therefore necessary to lay bare its meaning at the outset and the benefits of using this concept as means to develop a common platform through which stakeholders of various backgrounds and sectoral interests can cooperate for the benefit of the socio-economic and environmental health of Dublin Bay.

Firstly, key EU Directives such as the Water Framework Directive and Marine Strategy Framework Directive espouse the ecosystem based approach to management, which means:

- Inclusion of stakeholders, perspectives and human goals.
- Consideration of connections between people and nature – management of people's behaviour with regard to natural resources rather than the ecosystem itself.
- Consideration of the health and vitality of nature into an indefinite future.

Secondly, by asking stakeholders to consider the services that the ecosystem of Dublin Bays affords bay users it is possible to understand and integrate the value systems of persons representing diverse sectoral interests.   Various environmental, resource management and planning directives and regulation and policies of local authority, port and harbour companies, sectoral interests and so forth are already in use to sustainably manage the coastal resource. Therefore the best approach to Dublin Bay management is arguably one which tries to better understand how productivity, experience of, use of and conservation of Dublin bay can co-exist for mutual benefit and environmental enhancement.

Stakeholders present at the workshop were given the opportunity to determine what the various ecosystem services that Dublin Bay affords are, to indicate, where possible, where these services are located and to consider what might happen to these services in the future. The services were divided into three categories, which are not mutually exclusive.   These were society, economy and environment.   These categories have been used extensively as components of the sustainable development paradigm and as part of contemporary planning processes. They are therefore well known to most stakeholders and the hope is that they were and will continue to be perceivable on a policy level and in terms of future actions.

The Workshop was titled "**Nature and Livelihoods"** to emphasise the close links between people and their surrounding environment. While the broad remit of the project is supporting practical implementation of the Marine Strategy Framework Directive (MSFD) other complementary elements of the research provide opportunity to deliver more comprehensive and coordinated marine management at various scales and policy points.

The workshop held on November 28th 2014 in the Marine Hotel in Sutton was a first opportunity to collectively engage many of the key stakeholders of Dublin Bay who will have an important role in deciding how Dublin Bay can be sustainably managed. The report contained herein summarises some of the key outputs of the workshop. Firstly it examines the outcomes of the ecosystem services exercises and secondly it considers the outcome of the exercise on the readiness of marine management across Dublin Bay.

The University of Liverpool were instrumental in designing the workshop and will be able to utilise the outputs of the day to fulfil key objectives of Action B.9.

Summary of the Day

Robert Collins, former Head of the Irish Regions Office in Brussels who has considerable experience in maritime and fisheries policy at EU level opened the day's proceedings. He provided a brief introduction to the three exercises which had been prepared for the workshop and introduced each of the morning speakers.

Sarah Twomey of the Coastal and Marine Research Centre (CMRC) provided a brief outline of the Celtic Seas Partnership. This was an important part of the day as it contextualised the workshop as part of a larger piece of work. It alerted attendees to the footing on which the workshop and strategic management framework for Dublin is being built, namely through a transnational partnership of independent marine experts who are working closely to the EU Marine Strategy Framework Directive. Striking a chord with the attendees Sarah outlined that for our seas (and by extension our coastal areas) to be healthy and to achieve Good Environmental Status (GES) by 2020 that stakeholders need to be at the heart of marine management. Walter Foley, the Celtic Seas Partnerships (CSP) project officer for Dublin Bay then introduced the days sessions with more in-depth explanation of the ecosystem services concept following from Dr. Sue Kidd and Dr. Lynne McGowan of the University of Liverpool.

These soft interventions eased the stakeholders into the day's proceedings and presented them with understandable visual aids through which the ecosystem services concept in particular could be appreciated. The first session asked stakeholders to identify those ecosystem services which were of most importance to them in their professional capacity. The second session asked the stakeholders to anticipate what would happen to services of their higher preference under a series of development

scenarios. The inclusion of development scenarios provided links to terrestrial planning and to processes like alternatives development and assessment required under Strategic Environmental Assessment. Moreover, it may further assist, indirectly, in the formulation of a future vision for Dublin Bay based on ecosystem services appreciation and development impact. The final session on marine management was proceeded by three speakers.

Christina Kelly works on a project titled IMMERSE (EPA Strive funded) which aims to develop and pilot an integrated management and monitoring processes in the Shannon Region of Ireland and then Dublin Bay. Through a "horrendogram" (Appendix 2) she outlined the various international conventions, EU Directives, national regulation and implementation which impact on the current management of Bays and Estuaries in Ireland.

Ray Earle the coordinator of Eastern River Basin District (ERBD) in Ireland provided additional legislative background and experience from the perspective of implementation of the sister Directive to the Marine Strategy Framework Directive – the Water Framework Directive. These brief presentations heightened awareness at the workshop of some of the various marine management policy instruments currently in place.

Walter Foley then asked the stakeholders to consider general marine management across a number of management domains (the environment, culture and heritage, etc) and to rank the effectiveness of management in each domain on a scale of 1-5: 1 representing ad-hoc and disparate efforts to manage a domain and 5 representing optimised cooperation and collaboration towards shared management goals. Finally, the stakeholders were thanked for giving their time and expertise and sharing their experiences and were asked to fill out an evaluation form.

Participants

Representatives from across various sectors were present and are outlined in Table 1. Despite best

Dublin Bay Stakeholders at work

efforts a number of sectors were not present. There were a number of absentees of note including Dublin Port and Dublin Chamber of Commerce (who both sent their apologies) and representatives from the shipping and renewable energy sectors. The NGO sector representation covered areas such as clean coasts and marine wildlife and birds, while academic representation covered topical areas such as ecosystem services and planning.

The local authorities provided expertise in planning, biodiversity management, strategic environmental assessment, Water Framework Directive (WFD) and eastern river basin management. Overall a diverse mix of interests and backgrounds was represented. Over 50 participants (including local representatives) were invited with a number of environmental and representative networks utilised to widen the net through which participants could be included. These networks included the Sustainable Water Network Ireland (SWAN), the Irish Environmental Network (IEN) and local community actions groups in the area of Clean Coasts through An Taisce, the national built and natural heritage trust for Ireland. Participants present and invited were also issued with a discussion paper which outlined some of the key issues for Dublin Bay, emerging and current. The discussion paper

was linked to the workshop activities in that each key issue was index linked back to related ecosystem services.

Organisation	Number of attendees
NGO's/Community Reps (Environmental)	10
Private Enterprise	1
Dub Laoghaire-Rathdown County Council	1
Dublin City Council (including River Basin Management)	3
Fingal County Council	2
Political representatives	2
Port Company & Harbours	2
Energy	0
Shipping	0
Fisheries	1
Academia/Research	3
Project team (including 1 WWF)	7
Other	2
Department of Environment (DECLG)	1
Fáilte Ireland	1
Total (excluding project team)	30

Table 1: Attendees by background

The project team members included Cathal O'Mahony and Sarah Twomey (CMRC); Geoff Nuttall Head of WWF NI; Jim Conway Director of the Eastern & Midland Regional Assembly RoI; Lynne McGowan and Sue Kidd University of Liverpool; Walter Foley, project officer Dublin Bay.

Workshop Objectives

The overall objective was a shared goal:

- to identify critical ecosystem goods and services in Dublin Bay and identify how these goods and services may be protected or enhanced within a new strategic management framework for the Dublin Bay area.

In this context it is worth noting that the objectives specifically relating to Action B7 (Dublin Bay Strategic Management Framework) were:
- to introduce a fresh means to share ideas and actions on strategic management of Dublin Bay and to collect building blocks though which a collective vision for the sustainable development of Dublin Bay might be formulated in the near future;
- to network by bringing the multitude of stakeholders in Dublin Bay together to address their own issues of and ideas around managing and planning of Dublin Bay and its assets.
- to identify areas of responsibility and cooperation between sectors and tangible actions that be incorporated within a strategic management framework for Dublin.

In relation to Action B9 (Ecosystem Services – University of Liverpool) the objectives were:
- to raise awareness amongst stakeholders of the ecosystem goods and services concept;
- to test a participatory approach to identifying and valuing ecosystem goods and services in Dublin Bay.

Within the context of these objectives the outcomes of the three structured sessions of the workshop are outlined within this report.

Format of the Day and Outcomes

Session 1 – Ecosystem Services – what ones are important?

Session 1: As the concept of ecosystem services can appear at first glance to be a little abstract or even confusing the workshop was designed to explain in meaningful terms and with visual aids the value of ecosystem services to human well-being and development. It represented a fresh approach in examining the value systems of key players in Dublin Bay management.

Figure 1: Economic Services

Stakeholders were divided into 6 tables and asked to look at one of three categories of ecosystem services: Environmental services, Economic services or Social services. The services were classified as such, in order to assist stakeholders in relating them to everyday life. Therefore, while more common classification for ecosystem services sees them often classed as provisioning, regulating or cultural the approach adopted in the work shop was to present them as either contributing an environmental, economic or social value (whilst recognising that certain services may have value in more than one of the three classifications).

The classifications were displayed with visual aids as shown in Figures 1, 2 and 3.

Stakeholders were asked to map and outline the most important ecosystem services from a management perspective. The stakeholders were able to place post-its on their maps near or pointing to locations where the ecosystem services can be found.

Economic Services outcomes

Two tables were charged with assessing ecosystem services linked to the economy.

Shipping (2) emerged as a common priority area.

The question of cruise tourism and the associated regeneration of Alexandra Basin in Dublin Port was raised as an important issue. It was stated that Dublin Port as a commercial port underpins the definition of the Bay as an entity.

Renewable energy was identified as another important economic service. The possibility of renewable energy in Dublin Bay is particularly topical due to the value that it can provide in terms of economy, (direct and indirect employment and enterprise, climate change regulation) but also in terms of the potential to impact on the seascape.

The stakeholders were told that they were not limited to the ecosystem services outlined in the help-sheets and Table B described their own which they labelled "**The Living City**." In this service they stressed the interdependencies of many ecosystem services. The living city supports a brand (mode of operation/way of life) for Dublin which is linked to leisure and tourism (a socio-economic service). It represents an eco-label of sorts which is concurrently dependent on the quality of the ecosystem to maintain its own value and brand quality.

Environmental Services outcomes

Figure 2: Environmental Services

A further two tables (C&D) assessed ecosystem services categorised as supporting and maintaining life cycles and the natural environment. A common theme emerging from the tables was the interdependencies between services and difficulties experienced in prioritising one service over another. This in itself was an important learning experience for the team in that asking stakeholders to prioritise one environmental service over another was a particularly challenging request. The connection between environmental ecosystem services to social services, well-being and the economy was highlighted by Table D. Outside of ecosystem services the importance of integrated management was given specific mention.

Nevertheless, these tables were able to prioritise for further assessment

Biodiversity, **Climate Change Regulation and Water Quality** (which was a bit of a catch-all for a number of listed services, flood control, natural wastewater treatment, and nutrient supply) as key services.

Social Services outcomes

Figure 3: Social Services

Tables E&F examined social services. Once again the exercise of prioritisation challenged the stakeholders. Table E similar to previous tables pointed up the interdependencies between services. 4/5 areas in total were eventually decided upon, namely **Leisure/Tourism (and recreation and amenity), Health & Well-Being, Nature and Conservation (similar to Built and Natural Heritage and Seascapes) and Energy generation**. Table E pointed up a number of distinctions: (a) between leisure and tourism- highlighting that they can represent competing interests (b) between different types of Bay users (local resident, commuter belt "tourist" and external tourist (c) between Dublin city tourism and Dublin Bay tourism.

Health & well-being was championed on a conditional basis in that access to the Bay should be available and more open without compromising the elements (biodiversity) of the Bay which provide a health and well-being service. A distinction between access on the North side and Southern side of the Bay was made here, with greater restrictions in the Southern part of the Bay.

Table F championed **recreation and amenity** listing various activities, entry points to the Bay and tourism assets. In doing so they indirectly referred to health and well-being stating the importance of these goods and services to the provision of good life quality, incorporating physical and mental well-being.

Finally, **education** was also mentioned by both tables though not prioritised. Educational events and educational services to help children in particular to discover nature and the Bay were pointed up as being important.

Session 2- Ecosystem Services – pathways to improving and protecting prioritised services

Session 2: Stakeholders were maintained in the 6 table split and examined the impact of priority ecosystem services of one development pathway scenario from each of (a) economic prosperity, (b) pristine environment or (c) society and wellbeing. Stakeholders were asked, what are the implications for different ecosystem services under their particular development scenario?

The stakeholders were presented with three <u>extreme</u> future scenarios for Dublin and Dublin Bay. They were asked to imagine what the future would look like under each of these extreme scenarios in 2022. The scenarios were purposely extreme so as to limit similarities between each one and provide clarity of thought to stakeholders (**Appendix 1** provides detailed descriptions of each scenario). The stakeholders were presented with shorter descriptions of each scenario which on reflection and through feedback could have been more effective with a small bit of additional detail. The scenarios are summarised below.

1. Enhanced economic prosperity. In this scenario:
- Economic growth is prioritised over environmental protection.
- There is intense commercial and residential development activity.
- There is a significant increase in population (especially in coastal locations).
- There is significant growth in marine industries (e.g. Shipping, tourism) with an associated increase in employment.
- The environment despite mitigation comes under increasing pressure.

2. Pristine Environment. In this scenario there is:
- An environmentally focussed approach to Dublin Bay and city region development.
- Closely managed distribution of population growth to ease pressure on protected sites/species.
- A concerted effort wherebyDublin markets itself as the Green City capital of Europe with positive spin-off benefits.
- A robust network of green and blue space emerges.
- Good water status is achieved in the ground waters, rivers lakes, estuaries, coastal and marine waters.

3. Societal and well-being. In this scenario:
- Well-being of citizens who live, work or visit the Bay is prioritised.
- Citizens and community are very involved in decision-making and policy formation with greater local government autonomy over planning decisions and funding.
- Development of renewable energies perceived as unsightly or damaging with insufficient jobs prohibited.
- Emphasis is placed on growth of the indigenous and SME sector.
- Socially beneficial infrastructure, such as improved transport links are prioritised over environmental protection.

The exercise was designed to link ecosystem services to future planning and management direction in the Bay. It was successful in that it allowed stakeholders to identify how their priority ecosystem service would be impacted, either negatively or positively. **In this way it allows future policy-making to make direct links between development decisions and the ecosystem services that stakeholder's value prior to development decisions being made.** On the negative side some stakeholder's found

the scenarios to be too unrealistic and not grounded enough in reality. Not surprisingly the responses were varied but informative.

Outcomes: While the outcomes are listed here, the more subtle opinions proffered by stakeholders in deciding the extent to which a scenario would be either negative or positive provides usable information value for any future Strategic Management Framework for Dublin Bay.

Economic Prosperity Pathway
   a) The impact of the economic prosperity scenario on **Biodiversity** was seen as negative to very negative. However it is worth noting that in a "successful economy" resources should be available to both protect biodiversity and to allow community gain from new developments. This somewhat follows the paradigm of so called "weak sustainablility."
   b) The overall effect on **Water Quality** was considered to be negative. While a "booming economy" should result in resources to increase the scope and frequency of monitoring it was also noted that intensification of industrial activity, upstream agricultural activity, increased shipping and population pressure would outweigh efforts to mitigate negative impacts.
   c) **Shipping** would benefit positively or very positively under an economic prosperity scenario at the expense of the environment. The topical issue of dredging of the Alexandra Basin was raised again. Some issues around diseconomies of scale were raised such as congestion and reducing land availability.
   d) The overall impact on **Renewable Energy** would be positive with a negative impact on seascapes. It was suggested that the visual amenity cost to the economy should be calculated in light of this. (The importance of the visual amenity of Dublin Bay is highlighted by associated and independent background research carried out in 2014 in Dublin by Dublin city Council (Appendix 3)). Clarification of licencing and legislation was called for (this comment relates to emerging Maritime Area and Foreshore Licencing Act and the recent Maritime Spatial Planning Directive 2014).
   e) The **Living City** ecosystem service would experience both positive and negative impact with an overall effect being neutral. More infrastructure requirements, disposable income and resources to increase awareness were all listed as positive. These were balanced back towards a neutral impact by negative effects of increased pressure on land, amenities and increased waste generation.

Pristine Environment Pathway
   a) The impact on **Leisure and Tourism** would be positive in some respects with eco-tourism potential, biodiversity trails, the opportunity to make Dublin Bay an elite tourism destination all highlighted as positive opportunities. However, restrictions on access and controls on activities could damage the tourism and leisure offer and managing the shift in the tourism product could be challenging. In this regard the UNESCO Biosphere concept and associated Biosphere brand emergence might offer one means to assist in a positive manner the implementation of this scenario so that it would positively benefit Leisure and Tourism.
   b) **Biodiversity** would experience both positive and negative impacts but overall would be benefitted in a very positive manner. There was also a request on clarification of the terms "biodiversity" and "pristine". Similarly the impact on water quality would be positive and by extension have positive impact on biodiversity.

c) **Shipping** would potentially see Port activity decline, or even relocate and/or close down. However, it could also yield innovation in shipping. Opportunities may also arise for integrated wetlands. While new opportunities would arise the overall impact on shipping would be negative.

d) Climate change mitigation would both benefit and suffer negative consequences from the Pristine Environment development pathway. Overall it was felt that the impact would be somewhat negative. While again opening up potential for innovative solutions such as solar energy in the Bay the resultant relocation of renewables would increase transmission costs or potentially see renewable energy targets negatively impacted, it was suggested.

Society and Wellbeing Pathway

a) This development pathway would bring about very positive impacts on the ecosystem service of **Health and Well-Being.** It was noted that Health and Well-Being agendas need to connect better with other plans and programmes or risk being sidelined (by the economic agenda). Profile raising of the benefits of the health and well-being agenda would be well placed in Dublin Bay.

b) **Leisure** would similarly benefit from this development pathway. It was stated that there is a need for a paradigm shift from "acceptable level of damage" to positive promotion of sustainable activities.

c) **Water Quality** would generally benefit under this scenario. Popular opinion and legislative frameworks such as WFD result in public pressure for improved water quality. Water related activities may increase under this scenario however and bring water quality concerns into conflict with the socially focussed development pathway.

d) **Shipping** would experience both positive and negative impacts. There could be synergies between a rise in shipping and by extension cruise tourists coming into the city and societal benefits. Better community infrastructure, employment and leisure offers would make the city a more attractive proposition. Port development would ultimately suffer as the need to protect environment and provide quality tourism offer and recreational amenities would be prioritised. The disconnect between Dublin Bay residents and the importance and functions of the Port was highlighted as a key issue that needs to be remedied.

Session 3 – Marine Management Maturity Model

Session 3 was introduced by three speakers. Christina Kelly IMMERSE, Cathal O'Mahony, CMRC, and Ray Earle, Water Framework Directive and coordinator of the Eastern River Basin District (ERBD) expert outlined a practical and policy scene to assist stakeholders in adjusting their thought process towards how well Dublin bay is managed across a number of areas. These areas or domains were chosen so as to align with key subject areas found in terrestrial development plans across the Dublin region.

Each group was asked to examine the management of Dublin Bay across one of the six maritime planning and development domains. These domains are identified as follows:

1) Institutional 2) Community 3) Maritime Economy 4) Spaces and Places 5) Environmental Practices and Protection 6) Maritime Culture, Recreation and Leisure.

On the five point management maturity sheet the stakeholders were asked to rank the current management of Dublin Bay in relation to their assigned domain.

"Ad-Hoc" management was point 1 on the scale and the starting point for the management maturity of Dublin bay and "Advanced" was point 5 and the best outcome for management of Dublin Bay. The table facilitator tallied the rank and gave the average rank for management of the allotted domain.

Stakeholders were then asked to come up with 1-3 tangible actions (high level strategic or practical) to assist moving the management level of their domain to the next management level.

Outcomes: The outcomes are summarised in the table below and will be used as part of the development of the Strategic Management Framework as part of a process of identifying realistic and tangible actions which can be implemented to improve the overall management of Dublin Bay across 6 development domains (linked to terrestrial side planning).

Domain	Average Rank	Actions to move up maturity ladder	Action Description	Other Comments
Institutional	1	1. Proactive engagement	Scope issues prior to plan- do not set scope for plan and present as a basis for consultation. This vision should be established through collective consensus.	
		2. Formalise Plan	Plans must include capacity for adaptive management - with review periods built into evaluation	
Community and Citizenship	1.5	1. Record and prioritise community actions	A lot of people are working in an ad hoc or basic situation but are also doing a lot of good work. These need to be recorded with most promising actions prioritised for the management framework. Volunteers/local groups can be matched to implementable policies. Reduce the number of issues we are looking at in our plan making.. (Adopt-a-Beach and Clean Coasts were mentioned. UK parish Councils were mentioned and that the only thing akin to this in Ireland is the GAA (wf: scouts?). Engagement is ongoing but we are engaging with the same people/usual suspects all the time. Not getting the nuances.)	
		2. Put structures in place whereby social media analytics result in credible outputs and follow-through		
		3. Education in communities with a particular focus on schools	Working more in schools is important as learning is brought home. This is already carried out by An Taisce but there are other programs such as OWLS - the children's nature charity. Integration of these learning programmes into future plans could result in positive outcomes.	
		4. Participatory governance: Crowd sourcing and/or voting on a small percentage of the local authority budget within each community.	Allowing a small percentage of annual budget to be controlled by the wider community would increase engagement. It would allow each sector to campaign for this budget and the community to decide across a number of budgetary options at community level; Credit Unions were mentioned in terms of funding local based initiatives; A bottom line is that community and policy makers need to do more or have more freedom to get the community to implement approved LAP policy.	
Maritime Economy	2	1. Source long term sustainable funding	Incentives; grants; resources and staff - EU funding is important (but is a band aid solution). (wf: impression is that market funding is required). (Commercial users were listed: Dublin Port; Freight handlers; Logistics/haulage; fisheries; Aquaculture; Businesses (leisure activities, restaurants etc); State and Semi-State. Plans are certainly not integrated and there is need to account for multiplier effects stemming from sub-sectors.).	
		2. Statutory backing and political buy-in at local, regional and national levels is required for effective management of the maritime economy	Licencing and planning need to be streamlined further with metrics to measure how well the plan is working.	
		3. Science-policy Interface; Stakeholder forum	All interested parties need to combine and progress from a group to an actual Dublin Bay governance mechanism.	
Environmental practices and protection	2.1	1. Forum	Plans and Strategies only cover parts of the Bay. There is a need for a forum or platform to share information and progress. Need a structure that facilitates people working together on a number of objectives. Any structure needs a political champion. Biosphere reserve could be a catalyst for further action. (All these actions are linked and could happen concurrently or sequentially)	
		2. Memorandum of Understanding	A memorandum of understanding based on a shared vision is required - which is championed by a civic leader.	

		3. Stakeholder information portal	A stakeholder information portal should outline who is responsible for agreed objectives. A directory of projects and actors in this area would be helpful. In order to get people to work together they need to work to an agreed vision and within a campaign - branding Dublin as a Beautiful City.	
Places and Spaces	2.3	1. Consultation/Steering Group for Dublin Bay Planning across sectors	Potential learning from WFD mechanisms, Biosphere, etc - any future planning recommendations for Dublin Bay must have statutory basis.	
		2. Data standardisation	A spatial repository which is standardised and collates information from across government agencies, universities etc is required. Different layers. (wf: propose to do this on Dublin Dashboard).	
		3. Need on government department to take responsibility	Steer from central government needs to come with clear lines of communication (wf: Simon Coveny TD had announced that Jan O'Sullivan would assume responsibility for Marine planning before cabinet reshuffle in 2014). (WF: Guidelines on MSP are under development)	
Culture and Recreation	2	1. Need to identify data gaps	1. Need a baseline of services/goods and their users; need to discuss user demands of culture and recreational services.	
		2. Governance of Dublin Bay	2. An inclusive governance structure is required with guidelines for how community, business, sports groups can be involved in actions and policy formation. Longer term commitment with multi-annual budgeting is required.	
		3. A Key Performance Indicator(s) for management	3. A key performance indicator which relates to management of the assets/services for implementing bodies.	

Next Steps

Discussion paper follow up

The first step will be to request feedback, within the context of the Discussion Paper, and opinion, on the value and content design of a Strategic Management Framework for Dublin Bay. (Some feedback received)

Distribution of workshops results

Concurrent to this the results of the workshop and feedback (from evaluation forms) will be distributed to each of the stakeholders as an information piece with invitation for comment. (March)

Boundary delineation (based on community associations)

Further material will be distributed to the stakeholder group on the Discussion paper topic of boundary delineation for Dublin Bay. This will include as an addendum to administrative and environmental (hydrogeographical and Natura 2000 delineations) boundaries, community profiles of coastal and adjacent communities. (End of May)

More inclusive stakeholder involvement

The workshop provided stakeholders from different backgrounds but with a shared interest in Dublin bay to engage in an exercise which valued (in non-monetary terms) the various services and assets provided by the Bay. Based on this first meeting there is needed to broaden the stakeholder scope and to invite stakeholders to participate further in the development of a strategic management framework. Recruitment of stakeholders will therefore be continued on a needs basis with initial focus on the shipping, renewables and fisheries sectors. (Ongoing)

Stakeholder led measures

The results of Session 3 on the Dublin Bay Marine Management Maturity Model yielded some action suggestions for progression up the maturity ladder. These suggestions and others either arising from feedback from the Discussion Paper or in-house research, will be used to develop a suite of tangible actions that can be integrated into a future strategic management framework. (Ongoing and up to 2016)

Integrated Coastal Management Guidelines

The Celtic Seas Partnership will develop a suite of Integrated Coastal (Zone) Management Guidelines for terrestrial planning. We are currently working with the EPA, the ERBD and other relevant bodies to see how these can be of use in the Irish context. (September 2015 Draft 1)

Data Audit and Dissemination

The Dublin Dashboard (www.dublindashboard.ie) has agreed to place a "Dublin Bay Module" of real time and time series data on the Dublin Dashboard. Stakeholders will be asked to share data in this regard. (Ongoing)

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Appendix 1 – Session 2 Scenario's

Development pathway #1 – Economic Prosperity

Dublin is a more compact and high density city by 2022. Intense commercial and residential development activity is ongoing and planned for across a range of greenfield and brownfield sites, including coastal locations. Dublin Port is thriving with trade volumes improving year-on-year by an average of 3%. Tourism numbers are up 50% on 2014. The Greater Dublin Area draws in further investment proportionally on a national scale. Labour productivity increases in line with increasing manufacturing and employment density. Inward migration is marked by high skilled talent, a consequence of Dublin's financial services, IT sector and now marine services growth.

The Port and Docklands have become more economically and socially integrated with the city as it migrates further towards the Bay and coastline. Increasing resident population and visitors place added pressures on the coastline. Local economies and indigenous enterprise both in the city centre along the necklace of coastal villages extending from Fingal to Dun Laoghaire benefit from increased consumer spending. Over 10,000 additional jobs directly and indirectly related to the maritime economy have been created.

Green infrastructure and coastal environments are placed under increasing pressure from demand for residential development as well as increased industrial and recreational activity. Exploitation of the marine environment is closely controlled but some aesthetic degradation occurs as a result of developments in the food and renewable energy sector.

Development pathway #2 – Pristine Environment

In pathway #2, Dublin commits to a more environmentally focussed approach to Dublin Bay and city region development. A closely managed distribution of population growth is encouraged in order to ease future pressures on protected areas and species within the region and in particular along areas in close proximity to Natura 2000 and other sensitive areas. Coastal erosion and the impacts of climate change are managed through realignment incorporating the development of wetlands. Dublin markets itself as the Green City capital of Europe with positive spin-off benefits for the accommodation, food and wider tourism sectors.

Good water status is achieved in the ground waters, rivers lakes, estuaries, coastal and marine waters of Dublin and its Bay before 2027. A robust network of green and blue infrastructure evolves and the status of and outlook for EU and national protected habitats and species greatly improves.

Ireland exceeds its renewable energy contribution targets for 2020, by achieving 25% renewable energy contribution. This is driven in no small part by wind, tidal and wave energy technologies. However, local policy greatly restricts or forbids exploitation of both non-renewable and renewable energy sources across Dublin Bay in line with national landscape policy.

Development pathway #3 – Society and Well Being

Pathway #3 champions the well-being of citizens who live, work or visit the Bay. The citizen and community are very involved in decision-making and policy formation with greater local government autonomy over planning decisions and funding. Human activities and needs are central to the functioning of the Bay. Jobs, recreational and leisure services, aesthetic quality of the Bay, cultural heritage and natural amenity value are all central to this development scenario. Marine related

recreational activities are greatly encouraged in particular. The development of renewable energies which may be perceived as unsightly or damaging to the coastal amenity value with insufficient jobs return are prohibited.
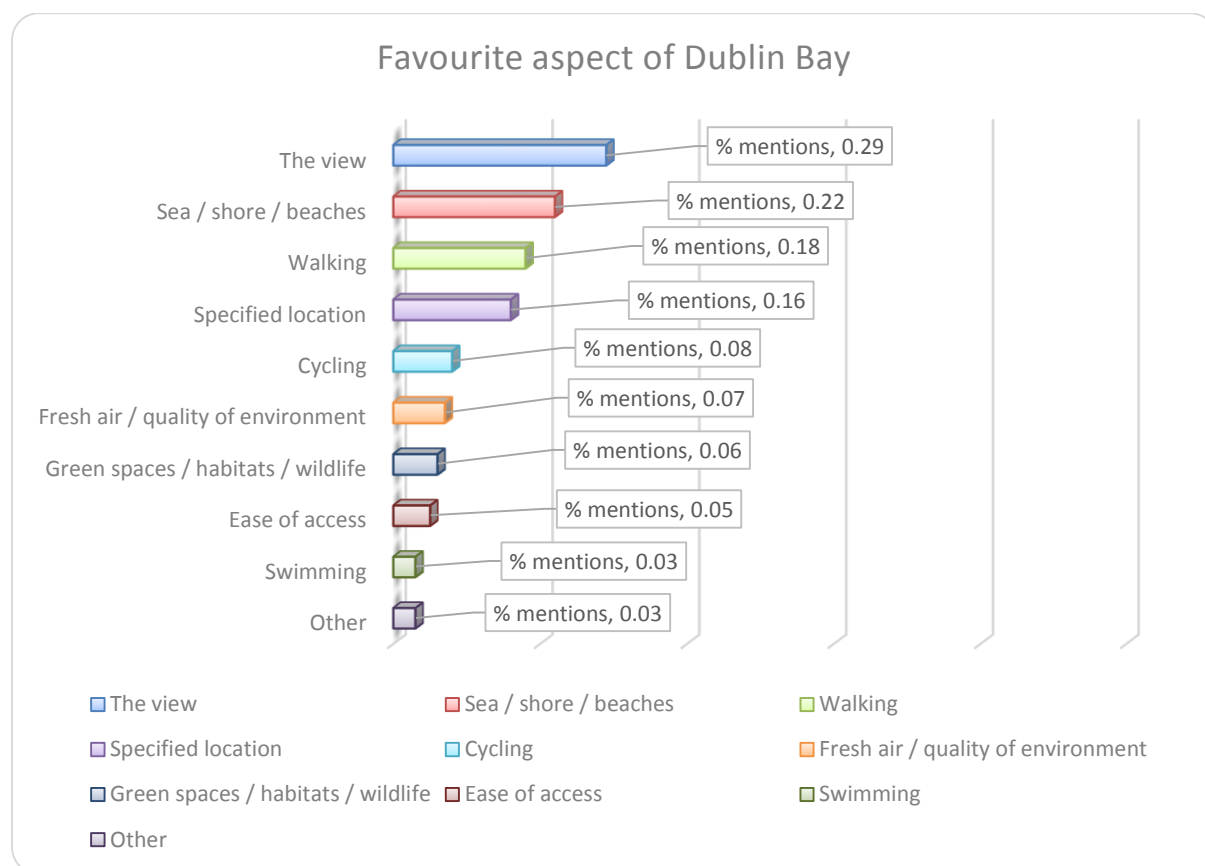
With development controls more moderate than in the pristine environment scenario economic development grows steadily but sustainably with considerable benefits seen in a number of coastal communities with new residential growth concentrated into the network of coastal villages and within the city core around a mixture of new residential and mixed sites and into regeneration sites. An emphasis is placed on growth of the indigenous and SME sector.

In terms of climate change adaptation, people living in coastal communities are encouraged to take action and adopt local level strategies that deal with flooding events and sea-level rise. Coastal defences are put in place to prevent damage to homes and managed realignment is not considered a viable option.

Appendix 2: International, European and Irish legislation & policy relevant to estuarine and coastal management

Source: Diagram based on an adaptation of Boyes and Elliott's 'horrendogram' (2014**). Courtesy IMMERSE (Funded under EPA Strive Program)**

Appendix 3: Favourite aspects of Dublin Bay (Your Dublin Your Voice Citizen Panel 2014, courtesy Dublin City Council (DCC)).

Favourite aspect of Dublin Bay

Aspect	% mentions
The view	0.29
Sea / shore / beaches	0.22
Walking	0.18
Specified location	0.16
Cycling	0.08
Fresh air / quality of environment	0.07
Green spaces / habitats / wildlife	0.06
Ease of access	0.05
Swimming	0.03
Other	0.03

Legend:
The view
Sea / shore / beaches
Walking
Specified location
Cycling
Fresh air / quality of environment
Green spaces / habitats / wildlife
Ease of access
Swimming
Other

Appendix 4: Marine Management Domains Help-sheet

Marine Management Maturity Model

Introduction

Stakeholders will be asked to give their opinion on how well managed Dublin Bay is across a number of management domains at the 28 November 2014 Dublin Bay Workshop. These domains included:

- institutional management (governance)

- community and citizenship

- maritime economy

- environmental practices

- places and spaces

- culture and recreation

The maturity model[1] describes, and provides opportunity to rank, marine management in Dublin Bay. Management of Dublin Bay is provided through a multitude of stakeholders. For example, coastal local authorities have responsibility for nearshore developments, An Bord Pleanala is the consent authority on foreshore development, Dublin Port Company and its master plan assume responsibility for the port area, the regulation of sea-fishing activity is delivered by the SFPA, the NPWS have responsibility for areas of special conservation and protection, the EPA regulate discharges into receiving environments and voluntary activities are carried out by various individuals and groups (e.g. An Taisce's coastal clean-ups, to name just one of many). Extending the concept of marine management to include coastal economies necessitates inclusion of a broader scope of stakeholders and activities and the coalescence of business interests and representatives, tourism management and many others into the management mix.

Conceptualising and scoring the management of Dublin Bay from hyper-local situations to broader strategic Dublin Bay scale is therefore not a simple task. It is necessary to differentiate between the

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[1] The maturity model is designed to measure management of Dublin Bay across 5 levels. Level 1 management is ad-hoc and does not recognise the full range of connections between the various systems (biological and physical) of the Bay ecosystem nor the interconnectivity of cross sectoral policies. Level 2 management is broadly described as project based but reactive rather than proactive. Level 3 is more defined and proactive, with a management structure in place which examines future management and conservation scenarios. Level 4 is an extension of level 3, whereby, plans or processes have been monitored and are having a positive impact on the receiving environment and development control. Level 5 sees iterative improvement to reflect new knowledge or changing circumstances and replication of best practice.

types and scales of actions that might be implemented to achieve improved management for Dublin Bay and the roles and responsibilities of the various stakeholders. As a first step each stakeholder (participant) is asked to consider management across 6 domains. These domains are similar to some of the development themes found in terrestrial, county and city development plans, across the Dublin region. It is intended that breaking management into several domains will help stakeholders to more easily identify a comprehensive range of actions (within each domain) through which they can improve the management of Dublin Bay.

The **institutional** management domain covers the overall management of Dublin Bay from the perspective of institutional cooperation, alignment of cross-sectoral plans and local to international policy and integration of socio-economic considerations into overall planning. Coordination and cooperation are key. The Marine Coordination Group (MCG) which operates across a number of governmental departments, marine agencies and interests is a national level example of moving beyond silo'd and disjointed operation with regards to management of marine issues. Questions arising might include: What are the types of flexible and adaptable management structures required to ably manage the dynamic coastal area of Dublin Bay? What are the pathways that need to be followed to evolve a more bottom-up approach to governance in Dublin Bay? How can we ensure that future approaches to marine governance are adequately resourced and legally underpinned and recognised so that the principles of ICZM or similar can be delivered through local authorities and/or other statutory agencies?

The domain of **community and citizenship** focuses on citizen-centric approaches to management and the network/necklace of coastal communities found along the extent of Dublin Bay. How are the opinions and positions of coastal communities integrated into overall management structures for Dublin Bay? The model tries to distinguish between understandings of the complex and sensitive system of human-nature interactions. Actions required to move up the management model in this domain can vary from research based to practical, such as, better integration of social sciences or local knowledge into coastal management and community based events, respectively.

The domain of **maritime economy** encapsulates a number of important management considerations. It can be argued that the impact of the marine economy has until recently been somewhat overlooked or under-appreciated in Ireland. The marine economy will include industries, groups or individuals that directly (including marine food, transportation and energy) and indirectly (marine services such as marine related commerce, tourism, etc.) utilise or benefit from marine resources. As the maritime economy is not fully defined it is equally difficult to appreciate the structures in place to manage it in the context of both broader economic policy and a sub-regional location such as Dublin Bay. However, there are a number of stand-out considerations, such as marine tourism, the marine resources sector active in Dublin Bay including energy exploration and fisheries and the importance of Dublin Port, its infrastructure and activities. In addition the integrated marine plan for Ireland titled "Harnessing Our Ocean Wealth" is a national level policy document which sets out maritime economy vision, goals and key enabling actions. Stakeholders should consider how Dublin Bay can be better managed (eg. through policy and plan alignment) in the context of national policy and Dublin's marine economy.

Consideration of management maturity within the domain of **environmental practices and protection** should incorporate appraisal of the impact of various Directives (Birds, Habitats, WFD, SEA, MSFD, etc.); national policy on climate change, biodiversity; direction from city and county development plans; the marine environment and so forth. This appraisal should consider how policy is vertically aligned from EU level down to the scale of Dublin Bay, how it is adapted to local contexts and how it is aligned across various sectors and sectoral interest groups. At national and sub-national level, collaboration between responsible or competent authorities and their respective strategies and plans is a further consideration in terms of management maturity.

Enforcement, monitoring and resourcing are other important considerations in terms of appraising the domain of environmental practices and protection. The use of evidence based planning, the ecosystem-based approach, crowd sourced information, citizen science projects are emerging themes and endeavours which respectively could be integrated into more optimised management of the environment.

Places and Spaces is a domain which encapsulates management practices in and between land-based and marine spatial planning. It is closely tied to institutional reform. How well are uses of marine space in the transitional and coastal zones managed presently? Are marine spatial policies and coastal management principles reflected in local area plans or county development plans in Ireland? What are the key policy levers advancing marine spatial planning and land-sea interaction in Ireland at present? What are the statutory bases for MSP related policy in Ireland and Dublin? Are recommendations regarding the management of Dublin Bay more indicative in function and largely reliant on sectoral interests and inputs in terms of practical implementation? It is arguable that the primary driver for Marine Spatial Planning in Ireland and beyond is that it will provide greater certainty in terms of investment opportunity. The certainty that clearly defined MSP brings extends beyond enhancement of investment potential as it has a role in resolving user conflicts and bringing harmony to a fragmented system of sectoral decision-making. The role of MSP and the designation of responsibility for its delivery at sub-national level is central to effective implementation of the MSFD and vice-versa.

Maritime Culture and Recreation is a catch-all domain for a variety of activities and services that relate to using and appreciating Dublin Bay for leisure and cultural enjoyment. The effective management of marine culture and recreation involves a variety of user groups, plan and strategy forming organisations, clubs, societies, volunteers and general sectoral interests. Maritime culture not only encapsulates built and natural heritage but also the inspiration, commerce and broader history that is intermingled in its past and present. Dublin is a city and region rich in maritime history, from Viking times to the present. Designations such as the UNESCO City of Literature designation, events such as the Riverfest, the Dublin Kite Festival and Battle for the Bay, places such as the Martello Towers and the National Maritime Museum, as well as built and new development all contribute to appreciation and integration of maritime culture into the lives of Dublin citizens and visitors alike. How then are Dublin's rich maritime traditions and culture integrated into sectoral plan-making? What is the future for Dublin in terms of ties between the Bay, Port and city life? How will these developments impact on the aesthetics and enjoyment of the Bay? How can we protect and enhance both the tourism product, maritime commerce and the environment? How holistic is our developmental plan-making with regard to either heritage or recreational activities? What are the roles of clubs and societies in managing the Dublin Bay culture and recreation product? How do we manage off-shore activities and how big can they grow?

The Six Domains of Dublin Bay

The descriptions of the domains and the various levels of maturity for each domain are intended to provide guidance to help the stakeholder decide the state of governance in Dublin Bay presently. There are not definitive.

1. Institutional (with links to Goal 3 of Our Ocean Wealth – – the Integrated Marine Plan for Ireland - Engagement with the Sea)

    Examination of Dublin Bay governance mechanisms – from bottom-up local level management structures and non-statutory activities such as volunteering to top down governance influencers such as EU directives and international best practice.

2. Community and Citizenship (links to Goal 3 of Our Ocean Wealth – Engagement with the Sea)

    Examination of the social fabric, health and well-being of the citizens and communities who

live within Dublin Bay and access its services and the mechanisms through which human interaction with Dublin Bay is appreciated.

3. Maritime Economy (analogous with Goal 1 of Our Ocean Wealth)

   Examination of the marine economy in Dublin bay, including marine resources, marine services and marine manufacturing – any activity which directly or indirectly uses the sea.

4. Environmental Practices and Protection (analogous with Goal 2 of Our Ocean Wealth)

   Examination of various approaches to maintaining and enhancing coastal and marine habitats. The stakeholder is drawn to existing legislation (eg Foreshore); Directives (WFD, MSFD, Habitats and Birds, Flood, etc); and policy. The stakeholder should moreover, consider the range of bodies with responsibility for managing or controlling activities in Dublin bay (EPA, NPWS, LAs, SFPA, etc) .

5. Places and Spaces

   Sustainable management of and planning for the marine environment incorporating stakeholder participation and the ecosystem based approach, evidence based decision-making, objective setting and better understanding of the land-sea interaction.

6. Maritime Culture and Recreation

   Examination of the value of marine heritage in Dublin Bay and the importance of Dublin Bay as a leisure, recreational, human health and well-being and tourism asset.

Stakeholder and Facilitator Guide

Consider "Ad-Hoc" as point 1 on the scale and the starting point for the management maturity of Dublin bay and "Advanced" as point 5 and the best outcome for management of Dublin Bay.
Indicate the management maturity of your assigned domain in Dublin Bay. Each table/group is assigned a domain (20 minutes). It is advised to take 3-5 minutes to familiarise yourself with the domain that you have been assigned. Then, apportion 5-10 minutes to discuss, based on your own experience where the management of Dublin bay rates in your collective opinion. If you are unable to agree on the maturity level as a collective please indicate separate values and average.
Having scored the management maturity of your assigned domain on the 1-5 point scale, the group should now attempt to come up with one to three actions which would help Dublin bay management move to the next point on the maturity model. (20 minutes)

For the identified action(s) please indicate whom you think should be **primarily responsible for implementing the action** and who could support it in terms of fiscal or human capital. You may want to **consider partnerships** and reflect on the various services in Dublin Bay (discussed on exercises 1&2) which may be impacted by your suggested actions (20 minutes).

Feel free to share actions. While some actions will be localised and others more strategic they all have value in terms of contributing to a future framework for management of Dublin bay.
The facilitator at your table will take notes and provide guidance as necessary.

Marine Management Model (short version in pink)					
Maturity Level	**Institutional (Overall)**	**Community and Citizenship**	**Maritime Economy**	**Environmental Practices and Protection**	**Places and Spaces**	**Maritime Culture and Recreation**
5. Optimised (process is considered best practice across multiple jurisdictions)	**The management plan** and process for Dublin Bay **is proven and recognised as best practice internationally.** Responsibility for implementation of a shared Dublin Bay vision is delivered by a transparent, powerful and **cohesive cooperative of Bay stakeholders.** The management plan for Dublin Bay complements and aligns national and regional sea plans, agreements and practices.	**The citizen centric approach to governance in Dublin Bay has been copied and repeated in other countries and Bays internationally.** An established coastal partnership for Dublin incorporates citizen input directly into plan-making and management processes, contributing to a singular vision and management process for Dublin Bay whose progress is full monitored.	**The economic growth strategy in the maritime sector for Dublin Bay is a template for sustainable economic growth strategies across coastal areas of intense maritime economic activity in Europe and further afield.**	**The management partnership for Dublin Bay has been demonstrated as cost beneficial to the region and has been adapted and adopted transnationally.** The management framework for Dublin Bay contains a seamless collection of recognised and tailored best practice.	**The planning model for Dublin Bay has been demonstrated through monitoring and evaluation to have improved the overall status of the environment,** the strength of the marine economy and the social fabric of coastal communities. Land and marine interaction are considered within an internationally recognised framework and process for marine spatial planning.	**The approach to the management and appreciation for the ecosystem services provided by cultural and recreational activities and assets in Dublin Bay is recognised as an example of international best practice.**
4. Advanced (process has been refined, is monitored and improved)	**The statutory plan or strategy has been tested, repeated and improved over time. Citizen engagement and consideration of human activity is integral to the overall governance structure.** Discrepancies between planning systems have been addressed.	Citizen engagement including crowd sourcing of information and funding are integrated into public policy making, have been tested and repeated elsewhere. **Integrated Coastal Zone Management principles and the ecosystem based**	**Specific actions** for the maritime economy in Dublin are in place and areas of responsibility have been assumed **by relevant bodies under a unified maritime economic strategy for Dublin and**	Within a strategic management framework for Dublin Bay, **program of measures are in place whereby stakeholders are committing financial and human capital jointly towards targets for environmental improvement.**	**A holistic, ecosystem based approach to planning for the coastal zone and marine environment of Dublin Bay is achieved and is working towards an agreed and collective vision.** Terrestrial and marine planning and zoning are considered	**The role and culture and recreational services are aligned across a multitude of sectors with common goals and evaluation of the impact integrated into these plans and managed through a strategic management**

Marine Management Model (short version in pink)						
	Economic and community strategies have been aligned with regulatory requirements within the environmental domain. A broad range of sectoral considerations such as marine energy, safety, security, transport, fisheries and so forth are now considered within an adaptable and flexible framework for cross-sectoral cooperation.	**approach are fully integrated into decision-making processes.**	**Dublin Bay.** These are aligned with national policy which incorporates amongst other areas, marine renewables.	Critically, **citizen engagement and collaboration is fully incorporated into this management structure.** Monitoring is reliable and reproducible using sensor and e-technology where appropriate.	in combination, supported by an in-depth and evidence base of data and information, inclusive of numerous stakeholder input and expertise and cognisant of future impacts across the economic and social dimensions of Dublin Bay.	**framework.**
3.Intermediate (e.g. process is adopted, integrated and recognised at government level)	**A plan or strategy has been adopted** by a management agency or by collective consensus **and is recognised as a statutory document** by statutory and key non-statutory bodies.	Community and/or citizen input has been documented as effecting change in policy relating to the management of Dublin Bay. **Integrated coastal zone management or equivalent is considered as part of other plan making processes.**	**A recognised plan for maritime economic growth is in place and is linked to current or future growth strategies for the Dublin economic region.**	**Various** biodiversity plans, **management plans,** climate change strategies, green infrastructure initiatives etc, as well as requirements of EU Directives (WFD, MSFD) and other national plans **have been integrated within a framework for the protection and enhancement of Dublin Bay**	**Planning across sectors is better integrated and incorporates direction from statutory and non-statutory sources such as EU Directives, planning guidance for coastal areas, etc.** A process for data share is in place and a forum for streamlining of planning targets across sectors and government departments is in place.	**The value and impact of cultural and recreational services are evaluated within a strategic management framework for Dublin Bay** and contribute to future plan-making and decision-making processes. However, there are still discrepancies between plans and strategies across sectors.
2. Basic (e.g. process has	**Basic management process or processes**	**A process of public engagement has been**	**Maritime economic activity**	**Some stakeholders working directly with**	The **effects of planning decisions** on	**Cultural heritage is recognised as an**

Marine Management Model (short version in pink)					
been documented and repeated)	**are in place and have been documented and repeated over time.** Plans and strategies while funded and clearly outlined are at sectoral level only with contrasting visions.	**delivered on a consistent basis** regarding issues relating to Dublin Bay (within sectors)	**across both the services and non-services sectors has been documented.** Targets for future growth have been set broadly at national level only.	**each other and across sectors have integrated their strategies or actions (or parts thereof) for the purposes of protecting or enhancing the environment of Dublin Bay.**	the maritime economy, the environment, etc, **have been demonstrated** either qualitatively or quantitatively (data and modelling) over time and space. **Plans and strategies** (tourism, culture, climate change, planning and development and marine spatial plans) **continue to be made and operate in relative isolation.**	**asset for the Bay while recreational activity is regulated through various EU Directives and local planning instruments.** However, the impact and value of recreational activity and cultural heritage is unknown. Plans and (promotional) packages for the cultural and recreational assets of Dublin Bay have only been adopted at individual sectoral level.
1. Ad Hoc (e.g. starting point, no formal plan or organisation)	**No formal plan or strategy for the management of Dublin Bay**; institutional arrangements are disparate; management is delivered at project level only.	**Individuals or small groups are working independently** with no links to policy and decision-makers	**Economic activity is silo'd. There is no definitive plan or targets for maritime economic output**	**Environmental protection and enhancement strategies are instigated according to existing regulatory requirements only.** There is little or no cooperation across sectors or plans	**Planning decisions for Dublin Bay are made in isolation of consideration of the other governance domains**, with little or no data share and disparate targets and visions for Dublin Bay.	**Recreational and leisure activities are largely unregulated**; cultural heritage is recorded but not integrated into other plans and policies across other marine sectors; the value of leisure and recreation and cultural heritage while appreciated is quantitatively unknown.

Marine Management Templates for Individual Domains

Institutional

Maturity Level	Institutional
5. Optimised (process is considered best practice across multiple jurisdictions)	**The management plan** and process for Dublin Bay **is proven and recognised as best practice internationally.**
	Responsibility for implementation of a shared Dublin Bay vision is delivered by a transparent, powerful and **cohesive co-operative of Bay stakeholders.**
	The management plan for Dublin Bay complements and aligns national and regional sea plans, agreements and practices.
4. Advanced (process has been refined, is monitored and improved)	**The statutory plan or strategy has been tested, repeated and improved over time. Citizen engagement and consideration of human activity is integral to the overall governance structure.** Discrepancies between planning systems have been addressed. Economic and community strategies have been aligned with regulatory requirements within the environmental domain. A broad range of sectoral considerations such as marine energy, safety, security, transport, fisheries and so forth are now considered within an adaptable and flexible framework for cross-sectoral cooperation.
3.Intermediate (e.g. process is adopted, integrated and recognised at government level)	**A plan or strategy has been adopted** by a management agency or by collective consensus **and is recognised as a statutory document** by statutory and key non-statutory bodies.
2. Basic (e.g. process has been documented and repeated)	**Basic management process or processes are in place and have been documented and repeated over time.** Plans and strategies while funded and clearly outlined are at sectoral level only with contrasting visions.

1. Ad Hoc (e.g. starting point, no formal plan or organisation)	No formal plan or strategy for the management of Dublin Bay; institutional arrangements are disparate; management is delivered at project level only.

Maturity Level	Community and Citizenship
5. Optimised (process is considered best practice across multiple jurisdictions)	**The citizen centric approach to governance in Dublin Bay has been copied and repeated in other countries and Bays internationally.** An established coastal partnership for Dublin incorporates citizen input directly into plan-making and management processes, contributing to a singular vision and management process for Dublin Bay whose progress is full monitored.
4. Advanced (process has been refined, is monitored and improved)	Citizen engagement including crowd sourcing of information and funding are integrated into public policy making, have been tested and repeated elsewhere. **Integrated Coastal Zone Management principles and the ecosystem based approach are fully integrated into decision-making processes.**
3.Intermediate (e.g. process is adopted, integrated and recognised at government level)	Community and/or citizen input has been documented as effecting change in policy relating to the management of Dublin Bay. **Integrated coastal zone management or equivalent is considered as part of other plan making processes.**
2. Basic (e.g. process has been documented and repeated)	**A process of public engagement has been delivered on a consistent basis** regarding issues relating to Dublin Bay (within sectors)
1. Ad Hoc (e.g. starting point, no formal plan or organisation)	**Individuals or small groups are working independently** with no links to policy and decision-makers

Community & Citizenship

Maritime Economy

Maturity Level	Maritime Economy
5. Optimised (process is considered best practice across multiple jurisdictions)	**The economic growth strategy in the maritime sector for Dublin Bay is a template for sustainable economic growth strategies across coastal areas of intense maritime economic activity in Europe and further afield.**
4. Advanced (process has been refined, is monitored and improved)	**Specific actions** for the maritime economy in Dublin are in place and areas of responsibility have been assumed **by relevant bodies under a unified maritime economic strategy for Dublin and Dublin Bay.** These are aligned with national policy which incorporates amongst other areas, marine renewables.
3.Intermediate (e.g. process is adopted, integrated and recognised at government level)	**A recognised plan for maritime economic growth is in place and is linked to current or future growth strategies for the Dublin economic region.**
2. Basic (e.g. process has been documented and repeated)	**Maritime economic activity across both the services and non-services sectors has been documented.** Targets for future growth have been set broadly at national level only.
1. Ad Hoc (e.g. starting point, no formal plan or organisation)	**Economic activity is silo'd. There is no definitive plan or targets for maritime economic output**

Environmental Practices and Protection

Maturity Level	Environmental Practices and Protection
5. Optimised (process is considered best practice across multiple jurisdictions)	**The management partnership for Dublin Bay has been demonstrated as cost beneficial to the region and has been adapted and adopted transnationally.** The management framework for Dublin Bay contains a seamless collection of recognised and tailored best practice.
4. Advanced (process has been refined, is monitored and improved)	Within a strategic management framework for Dublin Bay, **program of measures are in place whereby stakeholders are committing financial and human capital jointly towards targets for environmental improvement.** Critically, **citizen engagement and collaboration is fully incorporated into this management structure**. Monitoring is reliable and reproducible using sensor and e-technology where appropriate.
3.Intermediate (e.g. process is adopted, integrated and recognised at government level)	**Various** biodiversity plans, **management plans,** climate change strategies, green infrastructure initiatives etc, as well as requirements of EU Directives (WFD, MSFD, etc) and other national plans **have been integrated within a framework for the protection and enhancement of Dublin Bay.**
2. Basic (e.g. process has been documented and repeated)	**Some stakeholders working directly with each other and across sectors have integrated their strategies or actions (or parts thereof) for the purposes of protecting or enhancing the environment of Dublin Bay.**
1. Ad Hoc (e.g. starting point, no formal plan or organisation)	**Environmental protection and enhancement strategies are instigated according to existing regulatory requirements only.** There is little or no cooperation across sectors or plans

Places and Spaces

Maturity Level	Places and Spaces
5. Optimised (process is considered best practice across multiple jurisdictions)	**The planning model for Dublin Bay has been demonstrated through monitoring and evaluation to have improved the overall status of the environment,** the strength of the marine economy and the social fabric of coastal communities. Land and marine interaction are considered within an internationally recognised framework and process for marine spatial planning.
4. Advanced (process has been refined, is monitored and improved)	**A holistic, ecosystem based approach to planning for the coastal zone and marine environment of Dublin Bay is achieved and is working towards an agreed and collective vision.** Terrestrial and marine planning and zoning are considered in combination, supported by an in-depth and evidence base of data and information, inclusive of numerous stakeholder input and expertise and cognisant of future impacts across the economic and social dimensions of Dublin Bay.
3.Intermediate (e.g. process is adopted, integrated and recognised at government level)	**Planning across sectors is better integrated and incorporates direction from statutory and non-statutory sources such as EU Directives, planning guidance for coastal areas, etc.** A process for data share is in place and a forum for streamlining of planning targets across sectors and government departments is in place.
2. Basic (e.g. process has been documented and repeated)	The **effects of planning decisions** on the maritime economy, the environment, etc**, have been demonstrated** either qualitatively or quantitatively (data and modelling) over time and space. **Plans and strategies** (tourism, culture, climate change, planning and development and marine spatial plans) **continue to be made and operate in relative isolation.**
1. Ad Hoc (e.g. starting point, no formal plan or organisation)	**Planning decisions for Dublin Bay are made in isolation of consideration of the other governance domains**, with little or no data share and disparate targets and visions for Dublin Bay.

Culture and Recreation

Maturity Level	Maritime Culture and Recreation
5. Optimised (process is considered best practice across multiple jurisdictions)	**The approach to the management and appreciation for the ecosystem services provided by cultural and recreational activities and assets in Dublin Bay is recognised as an example of international best practice.**
4. Advanced (process has been refined, is monitored and improved)	**The role and culture and recreational services are aligned across a multitude of sectors with common goals and evaluation of the impact integrated into these plans and managed through a strategic management framework.**
3.Intermediate (e.g. process is adopted, integrated and recognised at government level)	**The value and impact of cultural and recreational services are evaluated within a strategic management framework for Dublin Bay** and contribute to future plan-making and decision-making processes. However, there are still discrepancies between plans and strategies across sectors.
2. Basic (e.g. process has been documented and repeated)	**Cultural heritage is recognised as an asset for the Bay while recreational activity is regulated through various EU Directives and local planning instruments.** However, the impact and value of recreational activity and cultural heritage is unknown. Plans and (promotional) packages for the cultural and recreational assets of Dublin Bay have only been adopted at individual sectoral level.
1. Ad Hoc (e.g. starting point, no formal plan or organisation)	**Recreational and leisure activities are largely unregulated**; cultural heritage is recorded but not integrated into other plans and policies across other marine sectors; the value of leisure and recreation and cultural heritage while appreciated is quantitatively unknown.