A National Winter Sports Centre for Ireland

- Initial Feasibility Study -

prepared for

The Olympic Federation of Ireland

by

CHL Consulting Company Ltd.

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EXECUTIVE SUMMARY

1. The Need and Opportunity

Winter sports have a long history in Ireland, with participants performing well in the international competitive arena. However, to date, numbers have remained modest due to a combination of climatic factors and a lack of facilities.

There are no permanent ice rinks in Ireland at present. Ice sports enthusiasts and participants must travel to the Dundonald International Ice Bowl in Belfast or to rinks in Britain and further afield. Ireland has only a number of small temporary rinks that appear in a small number of locations during the Christmas season. It is estimated that some 480,000 people went ice skating in Ireland between the October bank holiday weekend 2019 and 30th Jan 2020.

It is clear that the lack of a permanent, Olympic-standard ice rink in Ireland is a major gap in Ireland's sporting infrastructure. The lack of an ice-rink is not only an obstacle for existing participants in ice-based sporting disciplines, it also impedes the further development of ice sports by blocking potential new participants.

Filling this gap presents an outstanding opportunity. The proposal to establish a National Winter Sports Centre (NWSC) has been developed to meet this need and opportunity.

2. Mission and Objectives

The mission for the NWSC project can be proposed as follows:

'To provide the Irish market with a world class, permanent indoor winter sports facility which can be used both for recreational activity and for amateur and professional ice sports events, and which will be operated to the highest business and sustainable management standards'.

The primary objectives of the project may be summarised as follows:

1) To stimulate high levels of participation in winter sports in Ireland
2) To work with the OFI and the six national governing bodies for winter sports in the promotion and development of those sports to internationally competitive standards.
3) To establish the NWSC as a major venue for national and international ice sports events.
4) To operate the NWSC on a fully sustainable environmental and financial basis.

3. Project Description

The proposed NWSC will contain two full-size (Olympic / International Ice Hockey Federation) ice rinks, each measuring 60 metres by 30 metres. It is envisaged that the Centre will also have a dedicated curling sheets/lanes, and a start ramp for luge and skeleton.

In summary, it is envisaged that the NWSC will include the following facilities:

NWSC – Proposed Facilities

Facilities
- 60m x 30m Ice Pad in a 6,000-seat arena
- 60m x 30m practice rink with 300 seats for spectators
- Curling lanes
- Start ramp for sled sports (bobsleigh, luge, skeleton)
- High performance gym
- Function/meeting room (c.120 guest/delegate capacity)
- Restaurant & bar
- Retail area
- Changing rooms
- Office and storage spaces.

A key goal of the NWSC would be to become a home for a professional ice hockey team that would compete in the UK Elite Ice Hockey League. The Belfast Giants, based at the SSE Arena, compete with considerable success in this league. They will play 34 home games over the 2022-23 season, and their average attendance is 4,423 fans.

Finally, the NWSC will be able to host concerts and other non-ice events in its 6,000-seat arena. As an example, the SSE Arena in Belfast hosted 70 non-ice events – a mix of concerts and family shows - in the 2019-20 year, with an average audience of over 5,600 per event. It hosted 79 non-ice events in 2018-19.

4. Location

At this stage, a specific site for the proposed NWSC has not yet been identified. However, it is the intention of the promoters that it would be best located close to the M50 motorway to enable ease of access for the largest available catchment population in the country.

Choosing a suitable location will be key to the success of the business. The site will require:

- easy access by road
- access by public transport, important for younger customers
- a large population concentration in the surrounding area
- good infrastructure
- proximity to amenities, e.g., schools, retail and leisure centres, hotels; and
- sufficient parking for cars and coaches.

5. Source Markets

The NWSC will have two main user groups: public recreational skaters and ice sports participants, including those learning and developing the necessary skills. In addition, it will have the potential to host ice sports and non-ice events that will be attractive to both the general public as well as to those involved in specific ice disciplines. It will also have an opportunity to cater for school groups.

The primary source of demand will be the Greater Dublin Area. However, it is anticipated that there will be demand from ice sports participants across a much wider area, given the lack of any similar facility in Ireland.It is envisaged that, in mature operation, the catchment population will be the origin of more than 266,000 admissions a year for recreational skating and classes, while ice sports, including ice hockey, are projected to generate a further 167,000 admissions, including audiences and participants.

In addition to the footfall that will be generated by daily casual skating activity, the ice rink will be in a position to host national and international ice sports events, including regular ice-hockey matches.

The 6,000-seat arena at the proposed NWSC would fill a long outstanding gap in Dublin's arts and entertainment infrastructure. It is reasonable to assume that the NWSC would host at least the same number of events as the SSE Arena Belfast, At this level, the NWSC would host some 75 non-ice events a year, with an average audience of 5,000. This would bring 375,000 visitors through the doors.

6. Costs & Funding

At this early stage in the project's development, and with various design solutions possible with different levels of associated costs, it is premature to propose a detailed costing here. However, based on current examples of ice sports centres elsewhere, we have used an illustrative figure of €60 million as a capital budget for the purposes of the economic impact assessment in Section 7 of the report.

The funding of ice sports centres elsewhere follows different models from fully funded by local authorities and/or central government (e.g., Dundonald Ice Bowl, Lee Valley Ice Centre), to funding by private finance (e.g., planned new Lansing Event Center, Michigan) to a hybrid public-private model (e.g., SSE Arena Belfast).

7. Projected Financial Performance

A summary of the projected operating results for the NWSC facility over its first five years of operation is provided in the table below in accordance. The underlying assumptions are detailed in Section 6 and Appendix 1 of the report.

Summary of Projected Operating Results

	Year 1	Year 2	Year 3	Year 4	Year 5
Admissions (incl. events and ice hockey)	**296,624**	**566,382**	**804,710**	**845,714**	**883,900**
Revenue	3,540,898	5,678,851	7,971,063	8,384,030	8,824,191
Cost of sales	277,254	492,030	694,364	734,403	773,356
Gross profit	**3,263,644**	**5,186,821**	**7,276,698**	**7,649,628**	**8,050,834**
Total operating expenditure (excl. rent)	**2,924,370**	**3,520,178**	**4,144,163**	**4,227,789**	**4,316,922**
EBITDA	**339,275**	**1,666,643**	**3,132,535**	**3,421,839**	**3,733,913**
%	9.6%	29.3%	39.3%	40.8%	42.3%

This preliminary financial analysis indicates a good potential to be sustainable in operations and to achieve an EBITDA of around 40% of turnover, net of VAT, by the third year of operation. Achievement of this outcome depends on the admissions targets being reached, and the assumptions regarding pricing and operating costs being realised in practice. Non-ice events make a very substantial contribution to revenue. The model of combining ice sports and events with non-ice events is critical to the overall financial sustainability of the project.

8. Economic Impact

The economic contribution arising from the development of the National Winter Sport Centre will derive from the employment and expenditure generated directly on-site during the construction phase, and the flow of visitors and their expenditure generated in the subsequent years of operation. The impact analysis takes into account direct, indirect and induced effects.

- **Construction Phase:** on the basis of a €60 million capital budget, it is estimated that the construction of the NWSC would deliver a gross economic contribution of €111 million; it would generate 726 work-years of FTE; and it would generate up to €25.5 million in tax revenues for the Exchequer.

  - **Operations Phase:** it is estimated that the NWSC would generate some €8.9 million per annum in additional spend by visitors to the Great Dublin Area; it would support 240 additional jobs in the GDA (direct employment is projected at 28 full-time and 54 part-time jobs); it would generate €2.05 million in tax receipts per annum.

1. INTRODUCTION: THE OPPORTUNITY

Winter sports have a long history in Ireland, with participants performing well in the international competitive arena. However, to date, numbers have remained modest due to a combination of climatic factors and a lack of facilities. Of these, by far the greater obstacle to participation is the latter as experience in other countries with little snow, such as the UK, demonstrates. Indeed, the current National Sports Policy, 2018 – 2027, prepared by the then Department of Transport, Tourism & Sport, underlines the importance of investment on facilities, stating that:

"Our investment will support a broad range of facilities to promote participation with an emphasis on projects which develop multi-sport, multi-use options around participation."

The only dedicated winter sports facility in Ireland is the dry ski slope at Kilternan, Co. Dublin run by the Ski Club of Ireland. However, no permanent ice sports centre currently exists in Ireland, and Dublin is the only capital city in Northern Europe without such a facility. Despite this, there is considerable interest in recreational skating, with the pop-up Christmas ice skating rinks attracting up to 500,000 visits each year.

Winter sports are organised in Ireland by six National Governing Bodies:

- the Ice Skating Association of Ireland (ISAI)
- the Irish Ice Hockey Association (IIHA)
- the Irish Curling Association (ICA)
- The Snowsports Association of Ireland (SAI)
- The Irish Bobsleigh & Skeleton Association (IBSA)
- The Irish Luge Federation (ILF)

All six are members of the Olympic Federation of Ireland (OFI) and all are recognized by their international federations.

With the closure of the previous permanent ice rinks in the Republic of Ireland - two in Dublin (closed 1999 and 2000) and one in Dundalk (closed 2010) – sportspeople involved in ice sports have been hampered in their ability to develop their skills. (See Section 3.4 for reasons behind the closures.) Access to ice for practice and competitions has been limited to the availability of temporary ice rinks (e.g., at the Point Village and RDS), the ability of the clubs and members to travel outside the Republic, either to Dundonald International Ice Bowl in Northern Ireland or overseas, and the back-up alternative of practising with inline (roller) skates.

The lack of a winter sports centre is not only an obstacle for existing participants in ice-based sporting disciplines, it also impedes the further development of winter sports by blocking potential new participants. In addition to the loss of opportunity for athlete development and talent progression for Ireland as a whole, ice sports participants and teams must spend heavily on travel, access to ice, accommodation, food and ancillary services in other countries due to the lack of facilities here.

It is clear that the lack of a permanent facility is both an obstacle to the development of winter sports and also an opportunity. This initial feasibility study of a national winter sports centre has been prepared by CHL Consulting Company on behalf of the Olympic Federation of Ireland. It has been prepared to inform prospective funders, investors and development partners. We have drawn on our extensive previous research on ice sports supplemented with input from the six winter sports NGBs. We are indebted to the OFI and the six NGBs for their time and willingness to answer detailed questions regarding the proposed project.

2. OVERVIEW OF THE PROJECT

2.1 Mission and Objectives

The mission for National Winter Sports Centre (NWSC) can be proposed as follows:

'To provide the Irish market with a world class, permanent indoor winter sports facility which can be used both for recreational activity and for amateur and professional ice sports events, and which will be operated to the highest business and sustainable management standards'.

The primary objectives of the project may be summarised as follows:

1) To stimulate high levels of participation in winter sports in Ireland

2) To work with the OFI and the six national governing bodies for winter sports in the promotion and development of those sports to internationally competitive standards.

3) To establish the NWSC as a major venue for national and international ice sports events.

4) To operate the NWSC on a fully sustainable environmental and financial basis.

2.2 Project Description

The proposed centre will contain two Olympic standard ice rinks, each measuring 60 metres by 30 metres. One will be an arena rink with 6,000 seats – see example in Figure 1. The other will have a small spectator capacity of c.300 seats – see example in Figure 2. This will provide a total ice surface of 3,600m^2, more than four times the area of the largest temporary rink available (800m^2 at Blanchardstown).

Figure 1: Belfast SSE Arena with rink covered for Events

Figure 2: Fussen, Germany – Winter Sports Training Centre

There is a considerable advantage in having 2 rinks in operation. Not only is the overall capacity of the facility doubled, more importantly it is possible to run different activities simultaneously – for example, ice sports on the arena rink with public skating or classes on the other. The potential revenue gain of having a second rink is significant while the overall operating cost increase is relatively modest due to operational efficiencies in staffing, energy costs and facilities management.

It is envisaged that the Centre will also have a dedicated curling sheets/lanes, and a start ramp for luge and skeleton.

In summary, it is envisaged that the NWSC will include the facilities listed in Table 2.1.

Table 2.1: National Winter Sports Centre – Proposed Facilities

Facilities
- 60m x 30m Ice Pad in a 6,000-seat arena
- 60m x 30m practice rink with 300 seats for spectators
- Curling lanes
- Start ramp for sled sports (bobsleigh, luge, skeleton)
- High performance gym
- Function/meeting room (c.120 guest/delegate capacity)
- Restaurant & bar
- Retail area
- Changing rooms
- Office and storage spaces.

It is worth emphasising the fact that there is no other permanent ice rink within the country, which means the proposed development will not be in direct competition with any other venue. The Dundonald International Ice Bowl, just outside Belfast, is currently the only facility in operation on the island of Ireland. It opened in 1986 and attracts up to 600,000 visitors a year (see Section 3.3), Due to the prevailing level of local demand, it is unable to meet the demand for ice access from sports bodies in the Republic, notably the Irish Curling Association.

2.3 Activities to be Offered by the National Winter Sports Centre

The NWSC will be a very significant addition to the current range of sporting and leisure facilities in the Greater Dublin Area (GDA), and, indeed, at national level. It will cater to the training needs of existing and new skaters, ice hockey and curling clubs, and sled sports, up to and including high performance athletes from all over the country. It will also cater for casual skaters and offer lessons to adults and children at all levels from beginner to advanced. The programme at the new facility will feature the activities outlined in Table 2.2.

Table 2.2: Planned Range of Activities at the National Winter Sports Centre

Public Sessions	Training & Matches	Other
'Learn To' classes and courses (children/adults/special needs, etc. as well as holiday programmes)	Figure / synchro/ speed skating High performance training	School programmes and trips
Drop-in skate sessions		Children's parties
Toddler classes & coffee mornings	Ice hockey	Venue hire

The Centre will also be a venue for events, including inter-club matches as well as national and international competitions. This is a significant opportunity for the new venue with potential to attract considerable national and international visitors in the form of participants, coaches, spectators and families. The Belfast Giants matches - of which there are approximately 35 home games a season - attract up to 5,000 spectators per match at the SSE Arena (formerly called the Odyssey Arena), with an average audience of 4,423 (2019-20 season).

The proposed scale of the facility also means it will be capable of holding international competitions, such as a Grand Prix event in figure skating or short track speed skating, as well as ice-based entertainment shows.

Finally, the 6,000-seat arena will be capable of hosting a very broad range of music, entertainment, and cultural events, as is the case at the SSE Arena, Belfast. There is a gap in the Greater Dublin market for an arena of this size and it is envisaged that it will host an extensive range of events which will make a major contribution to its economic sustainability.

2.4 Key Performance Indicators

The NWSC will apply a number of key performance indicators in assessing its annual progress and effectiveness in meeting its objectives. These will include:

- number of admissions [by day, week & month]
- repeat custom
- number of users of fitness suite
- number of memberships
- total revenue per visitor
- average ticket price achieved
- number of users of café
- average transaction value in café
- total retail sales
- retail sales per visitor
- average retail transaction value
- volume of traffic in the NWSC website
- accreditation by the winter sports national governing bodies
- accreditation by ice sports international governing bodies [International Skating Union, International Ice Hockey Federation, World Curling Federation]
- number of ice sports events and competitions
- audiences attending ice sports events, competitions and shows.

2.5 Policy Considerations

2.5.1 Health and Social Impact of Sport

The strong correlation between participation in sport and the health and social gains generated by such participation, has long been understood and recognised. At a public policy level, this strong and constructive correlation has been a primary driver of continued government support for public spending in the sports sector. In his introduction to the National Sports Policy 2018-2027, the then Minister for Transport, Tourism and Sport referenced the particular policy context as follows:

"*Increasing participation is the cornerstone of this policy. This will not be easily achieved. We want to see every citizen engaging regularly in some form of sport and physical activity, irrespective of their age, economic or social circumstances, their ethnic background or their physical capabilities. The benefits of sport and physical activity to physical and mental health are well proven. An estimated €1.5 billion cost to our annual health budget due to physical inactivity indicates the scale of the financial benefit to be gained. This policy aims to elevate Ireland to the top of the table globally for both participation in sport and high performance. We will pursue these aims relentlessly over the next decade*."

It is reasonable to expect that the development of the National Winter Sports Centre would - in a similar manner - help to raise the profile of winter sports and in so doing encourage more people to come into the sport for both competitive and recreational purposes. Ice sports are accessible to people of all ages, with participants in curling having an age range from 8 to 80 years.

At an international level the health benefits of winter sports have also been recorded. For example, Ice skating has been described as follows:

"*Ice skating has been known to have a multitude of health benefits, including improved cardiovascular health, strengthening of the muscles, better balance, and more. Learning different moves and gliding through ice is not only fun but it's a great form of aerobic exercise as well. According to the Sports and Fitness Industry*

Association, there were about 9.7 million ice skating participants in the US in 2019, making it a popular sport in the country."[1]

In terms of health benefits, Ice Hockey has been described as a sport that "*helps burn fat and calories, develops the cardiovascular system of the body, enhances muscular strength, and is a full body workout*"[2]

2.5.2 Economic Impact of Sport

Sport also contributes significantly to the Irish economy.[3] Recent data indicated that:

- Irish households spend €3.3 billion annually on sport and sport-related goods and services, equal to 3.1% of the value of consumer spending in the Irish economy.
- sport-related spending contributes €3.7 billion in value-added to the Irish economy, equivalent to 1.4% of economy-wide Gross Domestic Product (GDP).
- for every €100 invested by Government, it received €209 in return in taxes.
- sport and sport-related activities support over 64,000 full-time equivalent jobs, over 2.8% of the overall level of employment in Ireland.
- sport-related volunteering activity is estimated to have an economic value of €1.5 billion per annum.

The continued expansion of sport in Ireland and, most particularly, the introduction of new and less familiar sports (which nevertheless have a global following outside Ireland) can only be a positive development offering as it will new possibilities for Irish people to participate in new sporting opportunities.

2.5.3 Irish Winter Sports – Future Direction

In April 2022, the Olympic Federation of Ireland, together with Minister for Sport, Jack Chambers T.D., launched the Irish Winter Sports Strategy 2022-2026, and set out the following strategic pillars:

[1] How Ice Skating Can Enhance Health and Wellness - Sports Medicine Weekly (March 2022)
[2] Top 10 Health Benefits of Hockey (healthfitnessrevolution.com)
[3] Press Release on Sport Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media (21 March 2019) gov.ie - Sport (www.gov.ie)

- Pillar 1: Facility Development
- Pillar 2: Athlete Carding, Participation and Talent Development
- Pillar 3: Visibility
- Pillar 4: Governance

The key objective under Pillar 1 is to *"support the development of a permanent Ice Facility in Ireland*".

The development of the National Winter Sports Centre represents a key step in building the type of platform upon which the further development of winter sports in Ireland can be built.

3. MARKET ASSESSMENT

All businesses are impacted by the environment in which they operate and there are numerous factors that affect the ability of an enterprise to operate sustainably, many of which are beyond the control of the business itself. Among the most relevant for the proposed Centre are:

- Location and access
- Source markets and market segments
- The experience of competitors and comparators.

These factors are addressed in this Section. We also project a potential level of demand at the proposed Centre.

3.1 Location

At this stage, a specific site for the NWSC has not yet been confirmed. However, it is the intention of the promoters that it would be best located close to the M50 motorway to enable ease of access for the largest available catchment population in the country.

Choosing a suitable location will be key to the success of the business. The site will require:

- easy access by road
- access by public transport, important for younger customers
- a large population concentration in the surrounding area
- good infrastructure
- proximity to amenities, e.g., schools, retail and leisure centres, hotels
- sufficient parking for cars and coaches.

Given the planned scale of the project, and the fact that it will be the only such facility in the country, it is expected that it will draw considerable attention and make a significant contribution to tourism in the location in which it is established. Apart from offering additional sporting and leisure activities to the local community, it will also attract people from throughout Ireland for training, competitions and as spectators, bringing additional revenue into the area. Additionally, it will host international events and competitions that will draw overseas visitors to Ireland – visitors who will be likely to stay for a number of nights. The various visitor segments, as well as the volume of such visitors, are assessed in Section 3.2.

3.2 Source Markets & Segments

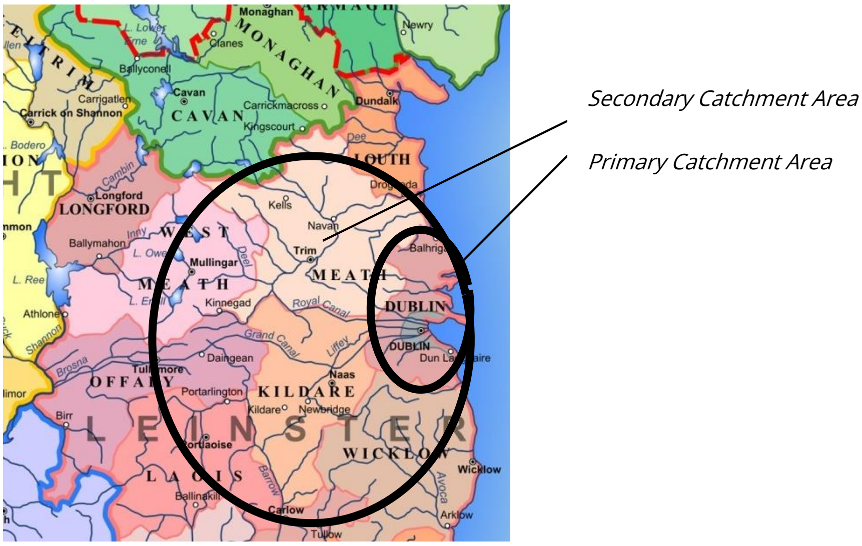
The NWSC will have two main audiences: public recreational skaters and ice sports participants (both high performance/national team athletes and general participants), including those learning and developing the necessary skills. In addition, it will have the potential to host events that will be attractive to both the general public as well as to those involved in specific ice disciplines. It will also have an opportunity to cater for school groups. These audiences are discussed in more detail below.

3.2.1 The Catchment Area

The catchment area is an important source of regular repeat business for a leisure or tourist attraction. The primary catchment area is generally considered to be an area of up to 30 minutes' drive and it is from this area that the NWSC can expect to draw much of its regular business. Location close to the M50 would facilitate access from Dublin City and the three surrounding counties – Fingal, South Dublin and Dun Laoghaire-Rathdown. It would also be conveniently located for parts of Kildare, Meath and Wicklow. This means it would be on the doorstep of a significant catchment population which is important in providing a substantial customer base for regular repeat business – drop-in sessions, classes, school groups, local club membership and event spectators. This is defined as the primary catchment area.

In such a location, it would also be easily accessible for a broader catchment population living along and close to the motorway access routes, including Meath, Kildare and Wicklow. This secondary catchment area includes people living within an hour's drive – that is, those who are close enough to consider a trip to the sports centre to join a casual drop-in session, to participate in classes or to attend an event. The catchment areas are illustrated in Figure 3.

Figure 3: Primary and Secondary Catchment Areas



There is a population of almost 1.5 million within the four Dublin County Council areas and a total of almost 2.2 million within approximately an hour's drive of the M50, as detailed in Table 3.1. Since the proposed NWSC will be the only permanent indoor ice skating and associated winter sports facility in Ireland, the rest of the country can be considered to be a tertiary catchment area.

Table 3.1: Proposed National Winter Sports Centre
Projected Catchment Areas & Penetration Rates

	Geographic Area	Population Size (2022)	Penetration Rates	Number of Visitors	Number of Visits
Primary Catchment Area	South Dublin, Dublin City, Fingal, Dun Laoghaire-Rathdown	1,450,701	3%	43,521	174,084
Secondary Catchment Area	Areas outside Dublin within an hour's drive*	735,934	2%	14,719	58,876
Tertiary Catchment	Rest of Country	3,050,077	0.5%	15,250	15,250
Total		**5,123,536**		**73,490**	**248,210**

Source: CSO, 2022

Notes:
1) *Secondary catchment includes an area comprising Kildare, Meath and Wicklow plus the urban areas in the east of counties Carlow, Laois, Offaly and Westmeath.*
2) *Penetration rates for primary and secondary catchment area based on lower end of experience at UK ice rinks.*
3) *Number of visits based on average of 4 visits per visitor, as in UK (except for visitors from Rest of Country).*

As can be seen from Table 3.1, the primary catchment area is expected to provide the largest proportion of visitors for the proposed Centre, creating a sustainable base for the business. Experience in the UK suggests that ice rink users visit an average of just over 4 times a year, and a frequency of 4 visits a year has been applied to the projections here for visitors from the primary and secondary catchment areas.

The rest of the country can be considered a tertiary catchment area, given the uniqueness of the facility, and will be a source of additional revenue to the area. Visitors from the tertiary catchment travelling to the NWSC are assumed to visit just once a year. In addition to ice sports clubs around Ireland, who will travel to the proposed Centre on a regular basis for training and to compete, or to accompany those who are competing, a proportion of the general population will also be drawn to the Centre for a casual skating session or to attend an event. It is worth noting that many of the immigrant population now living in Ireland are used to ice sports from their birth countries and offer strong potential as customers for the winter sports centre.

3.2.2 Schools

Although also part of the catchment area, the schools' market can be considered a separate segment and there is potential for the new ice facility to cater specifically for school groups during off-peak hours, if it chooses to. It represents a significant market but would require the facility being open during the morning hours on weekdays. For the purposes of the demand projections, it is assumed that 5% of the school population, a total of just over 18,000, will visit the NWSC in any given year.

Table 3.2: School Population Greater Dublin Area, 2022

Area	Primary School Pupils	Secondary School Pupils	Total
Dublin (Dublin City, South Dublin, Fingal, DLR)	141,841	97,851	239,692
Kildare	29,531	20,843	50,374
Meath	26,803	16,103	42,906
Wicklow	17,867	12,389	30,256
Total	216,042	147,186	363,228
% of national primary and secondary school students	*39%*	*38%*	

3.2.3 Members of Ice Sports Clubs and National Governing Bodies (NGBs)

The winter sports NGBs have all stated in the past that the opening of a permanent ice rink and winter sports centre with all associated facilities would be the catalyst for an increase in the number of ice sport clubs and teams in the country, and that there would be a definite demand for the use of the new facility for regular training, inter-club matches and competitions, as well as the hosting of international events. However, the potential level of demand from these sources is difficult to quantify accurately at this stage, as club development is also contingent on ice availability and not all clubs are affiliated to the NGBs.

- *Ice Skating & Ice Hockey:* Membership of the Irish Ice Hockey Association and the Ice Skating Association of Ireland numbered over 2,000 between them when Ireland had a permanent ice facility and, while it has since dropped to a fraction of that, both NGBs expect membership levels to re-assert themselves at the earlier levels and to grow beyond them with the opening of a new ice rink. The IIHA would expect membership to grow quite quickly from its present level of c.350 to 1,100 with opening of a permanent facility in Ireland.

- *Curling:* this sport dates back to the 1800s in Ireland, but the lack of any facility in Ireland means that very few are attracted to the sport and there are only 62 members of the Irish Curling Association. Irish players, especially those on representative teams, are mainly based in Scotland where there are 10,000 participants in the sport. The ICA has previously stated that it would expect to be in a position to attract similar numbers to the sport, based on the experience of countries such as the Czech Republic and Estonia where it was introduced from an almost zero base but grew quickly[4].

- *Sled Sports:* there are no facilities in Ireland for bobsleigh, luge or skeleton and, unsurprisingly, there are few participants, However, there have been Irish competitors in these sports, most recently Elsa Desmond who competed in the luge at the 2022 Winter Olympics in Beijing. The proposed winter sports centre would not incorporate tracks for these sports, but could have a start ramp, say 50 metres long, that could accommodate luge at one end and skeleton at the other as each has different specifications.

Finally, it should also be noted that, at present, elite winter sports athletes frequently travel abroad for training, with Scotland, England and Canada being among their destinations. A winter sports centre of the size proposed would be in a position to offer suitable facilities for these elite athletes.

[4] Data and feedback from NGBs in this Section is from in-house research by CHL, 2016

3.3 National & International Events

The NWSC would be in a position to host a regular calendar of annual events, including international Elite Ice Hockey League events, national championships and a full international event.

Previous feedback from the NGBs suggests the following with regard to competitions and events for their specific sports: [5]

- *Ice Skating:* the ISAI would hope to establish at least one international club competition and one international ISU competition annually and an ISU Junior Grand Prix every second year. In ice skating, international club competitions can draw up to 200 competitors; international ISU competitions (2–3-day events) attract up to 150 competitors; international ISU Grand Prix competitions (2-to-3-day events) attract up to 100 competitors; and each of these competitors travels with support teams and families. Typically, every international competitor brings two support personnel and each event would also bring up to 20 officials (depending on the size of the event). Competitions of one day's duration would have 2 to 3 overnights per person, with 2 to 3 day events resulting in 3 to 5 overnights per person.

  At domestic level, the aim would be to re-establish regional and national competitions - as was the case when the Dundalk ice rink was open and competitions were held there 2 or 3 times a year. These would be one-day events attracting up to 150 competitors and would be in addition to the Irish National Championship which has been organised annually since 2009 (most recently at the Lee Valley Ice Rink in London, 2019).

- *Ice Hockey:* the new ice rink would have the potential to host both domestic senior league 'round robin 'games, which typically last 2 to 3 days, as well as offering the opportunity to host the Division 3 Ice Hockey World Championship.

5 Source: Consultations held by CHL with NGBs

In 2007, the latter was hosted at the Dundalk Ice Arena and attracted maximum capacity participation. There are 8 ice hockey clubs in Ireland, and domestic games would include up to 40 people travelling for each club, including 16 team members, plus family and coaches, while the international games would attract up to five participating nations. Club members usually train three times a week between September and May.

A key goal of the NWSC would be to become a home for a professional ice hockey team that would compete in the UK Elite Ice Hockey League. The Belfast Giants, based at the SSE Arena, compete with considerable success in this league which currently has 10 teams. The Giants programme for the 2022-23 season schedules 34 home games, including 3 Challenge Cup and 3 European Champions League games. The average attendance for games at the SSE during the 2019-20 season was 4,423.

- *Curling:* in Scotland, where there are 20-22 curling rinks, the average registered number of curlers per rink is 500 (though obviously this will be larger in areas of greater population and lower elsewhere). With the proposed size of the new ice rinks, Ireland has the opportunity in the short term of hosting a number of Championships, such as the World Seniors, World Juniors and World Mixed Championships. In the longer term, there is potential to host the World Men's and Women's Championships and the European Championships. For comparison, the European Curling Championships were held in Helsingborg, Sweden, in 2019, attracting 46 teams[6].

[6] http://worldcurling.org/2018/08/ecc-venue-2019

Table 3.3: NWSC Illustrative Calendar of Ice Sports Events – in Full Operation (year 3)

Event	No. of Events	No. of Nights	Total Participants (incl. supports)	Total Audience	Total Bednights
Senior Ice Hockey Elite League & Challenge Cup	31	1	40 x 31 = 1,240	4,000 x 31 = 124,000	1,240
National Ice Hockey - Domestic League	30	2	40 x 30 = 1,200	1,000 x 30 = 30,000	2,400
Regional Ice Skating Competitions	2	-	180 x 2 = 360	1,000 x 2 = 2,000	
National Ice Skating Competition	1	1	150	2,400	150
One Skating Grand Prix	1	3	330	2,470	990
One Full International Championship (additional ice skating, ice hockey or curling)	1	3	330	2,470	990
Audiences attending ice sports events				163,340	16,334
Total			**3,610**	**163,340**	**22,104**

Notes:
1) *The events included in Table 3.2 are based primarily on the draft plan prepared for the previously proposed Liffey Valley Ice Rink with modifications to take account of NGB feedback.*
2) *Participation in the Elite League is assumed to be on the basis of there being a professional team based in the NWSC that will be accepted into the UK Elite League or similar.*
3) *As Junior Ice Hockey is taking second place to Seniors, the 30 Junior Games included in Table 3.3 are based on the future scenario of the gap between Junior and Senior Ice Hockey closing once more with the availability of ice.*
4) *As mentioned by the NGBs and with the Governmental interest in Sports Tourism, it is expected that the NWSC will be in a position to host more than the one full international a year.*
5) *Audience estimates for Elite League ice hockey games are assumed to average 4,000 per event.*
6) *It is assumed that 10% of the audience for events will stay for one night.*

3.4 Competitor Ice Rinks

As noted previously, there is no permanent ice rink in the Republic of Ireland. There is one in Northern Ireland – the Dundonald International Ice Bowl – which is located just outside Belfast. This facility, which opened in 1986 and is owned by the local Council, attracts up to 600,000 visitors every year. It is the only public Olympic-size rink in Northern Ireland and is used as a training ground for the Belfast Giants as well as the jurisdiction's top figure skaters. The large admission numbers at the Ice Bowl are also driven by the range of complementary attractions that include a 30-lane 10 pin bowling alley, a children's play zone, a climbing wall and a laser combat game zone.

Plans are now in place for a comprehensive redevelopment of the Ice Bowl, including a new ice facility and a variety of play and wellbeing areas. [7]

There were three ice rinks in the Republic of Ireland in operation in recent decades, all of which were popular when they were open:

- Dolphin's Barn Ice Rink
  - South Dublin
  - open from 1980 – 1998
  - ⅓ the size of an Olympic rink
  - closed due to fire.

- Silver Skate Ice Rink
  - North Dublin
  - open from 1982 – 1998
  - closed for financial reasons.

- Dundalk Ice Dome
  - open from 2006 – 2010
  - Olympic size rink
  - 1 hour drive from Dublin
  - Staged the International ICC Hockey Federation Division III World Championships in 2007
  - closed due to technical issues with the ice-making equipment and the impact of economic downturn.

After closure some skaters were willing to travel to Dundonald to skate whilst others stopping participating. These skaters would be expected to return to skating at proposed winter sports facility.

[7] https://www.theicebowl.com/uploads/activities/DIIB_-_A1_Consultation_Boards_(FINAL).pdf

In the Republic of Ireland, the only provision for ice skating at present occurs when temporary ice rinks are set up between October and January for the Christmas period. Research undertaken by the Ice Skating Association of Ireland in 2019-2020 found that based on ticket sales some 480,000 people went ice skating between the October bank holiday weekend 2019 and 30th Jan 2020. Many 'learn to skate' classes run by the ISAI were booked out well in advance[8]. Although this level of demand is partially fuelled by association with the festive season, it nonetheless illustrates a frustrated demand for ice skating. Table 3.4 presents an overview of visitor numbers, fees and scale of a selection of temporary ice rinks open in 2019[9].

Table 3.4: Overview of Temporary Ice Rinks

Location	Avg. Fee €	Public Customers	Size of ice m^2	Operational Weeks
Blanchardstown	16	80,000	800	10
Cork	15.5	60,000	700	10
Mullingar	15	60,000	700	10
Dundrum	15.5	50,000	250	10
Swords	16	40,000	200	10
Tallaght	14	20,000	350	10
Malahide	16	10,000	200	10

Source: CHL research

However, such temporary rinks have disadvantages that the current proposal for the winter sports centre addresses, including:

- inadequate size for sports development
- ice quality is variable
- a lack of ice-time for sports development
- no opportunity to divide skating areas according to skill levels.

8 ISAI
9 There are also temporary rinks in Galway and Waterford.

It is expected that the festive temporary ice rinks will have a marginal impact on demand for public skating during the ten-week period they are open, and will have no impact on demand from sports segments.

3.5 The Experience of UK Comparators

Given the absence of competition in Ireland, it is useful to look at the experience of comparator ice rinks in the UK and the following facts give a sense of the popularity of ice skating and other ice-based sports in that market.

- There are about 62 ice skating venues in the UK, generating 11 million visits annually - an average of 180,000 visits per venue.

- Rinks vary from large, international, twin-pad rinks to small single pad facilities.

- Investment in skating is ongoing, indicating sustained demand, with old rinks being redeveloped and new ones being built (see Table 3.4).

- An estimated 3.4% of the population went ice skating at least once during 2018-2019 period[10], an increase from 2.7% in 2015-2016 – equivalent to approximately 1.6 million people.

- 74% of all ice skating participants skate on a regular basis, with over 27% skating at least once a week[11].

- The key customer group for ice skating is female (between 64% and 73% of all ice skaters, depending on the source of data).

Table 3.5 presents an overview of a number of ice rinks in the UK for comparison.

[10] Sport England
[11] British Ice Skating

Table 3.5: A Selection of Comparator Ice Rinks, UK

Ice Rink	Annual Visits	Commentary
Lee Valley Ice Centre, London	279,000	A new and expanded ice facility is due to open in late 2022. and will include a new Olympic-sized, twin pad rink. Once the new venue opens it will offer a range of learn to skate courses, public skating sessions and lessons that suit all ages and abilities – from toddlers to adults – plus a gym, café, exercise studios and community space. The centre will also be a new community hub and will be a setting off point for people visiting the surrounding open spaces. It will remain as the home to Lee Valley Lions (Junior and ED2) as well as Lee Valley London Skating Club. Capacity at the new facility will be doubled to 557,000 visits per year.
Ice (Viola) Arena Wales, Cardiff	250,000	Opened 2016; recent rebranding to Viola Arena and expected to broaden the programming beyond ice sports to boxing and other events.
Murrayfield Ice Rink, Edinburgh (Following closure in 2020 and 2021, this facility is reopening in October 2023 under the management of a new operating company.)	250,000	Opened in 1956, Murrayfield is a 3,800 capacity arena.

3.6 Non-Ice Events

The NWSC will be able to host concerts and other non-ice events in its 6,000-seat arena. These can be combined successfully with ice hockey as the ice can be covered with protective insulating covers on which a wooden floor is laid. The set up and take down times are therefore short as there is no need to melt and refreeze the ice. As an example, the SSE Arena in Belfast hosted 70 events – a mix of concerts and family shows - in the 2019-20 year, with an average audience of over 5,600 per event. It hosted 79 non-ice events in 2018-19.

Further examples can readily be found in Britain and elsewhere. Ice hockey arenas frequently host non-ice events as a means of generating additional revenue. The Motorpoint Arena in Nottingham, which has a 10,000-seat capacity, is the largest live entertainment venue in the East Midlands, and hosts over 100 events a year. The Braehead Arena in Glasgow, home to the Glasgow Clan ice hockey team, has a capacity for event audiences up to 5,200 seats (4,000 for ice hockey games) and attracts almost 200,000 events visitors a year. Hull Arena, home to the Hull Pirates ice hockey team, hosts around a hundred events a year.

The 6,000-seat arena at the proposed NWSC would fill a long outstanding gap in Dublin's arts and entertainment infrastructure. At present, the large indoor venue in Dublin is the 3Arena which has a capacity of 14,000. The next largest are Bord Gais Energy Theatre (2,100), the auditorium at the Convention Centre Dublin (2,000), the Olympia Theatre (1,289) and the National Concert Hall (1,200). A 6,000-seat venue would fill the space between the 3Arena and the smaller venues, and would facilitate the hosting of mid-size concerts and other events, enabling a wider range of shows and artistes to be presented in Dublin.

It is reasonable to assume that the NWSC would host at least the same number of events as the SSE Arena Belfast, At this level, the NWSC would host some 75 non-ice events a year, with an average audience of 5,000 – 83% of capacity. This would bring 375,000 visitors through the doors. Based on CHL's research at other venues, including the 3Arena and the INEC in Killarney, the performance and production personnel delivering the events would add a further 1,500 to the total. It is assumed that 10% of the total audience would stay for a night in Dublin, as would 95% of the performance and production personnel.

3.7 Summary of the Demand Projections

Making projections with regard to consumer demand for an experience or product is an inexact science. However, in estimating demand in this Section, we have reviewed some of the factors that have a particularly significant influence, including:

- location and access
- overall market size
- the inherent attractiveness of the proposition
- the experience of competing attractions.

Other factors, such as pricing and marketing, are discussed later.

Table 3.6 presents projected levels of demand for the proposed winter sports centre once it is fully operational. As mentioned previously, the scale of demand from the catchment area depends on the selection of the final location for the new facility – estimates in Table 3.6 are based on a location along the M50 corridor, which would facilitate access from the Greater Dublin Area. The penetration rates used are conservatively based at the lower end of what would be considered normal for an attraction in the leisure and tourism sectors and take into account ice rink experience in the UK.

In total, the number of annual admissions for winter sports activities is projected at 433,000. A significant part of demand will be delivered by amateur and professional participants in ice sports. The general public demand will comprise recreational skaters and participants in classes. It is anticipated that the number of participants in classes will account for an increasing share of admissions as a growing proportion of recreational skaters decide to improve their skills.

Non-ice event audiences are projected at 375,000 with a total of 1,500 performance and production personnel delivering these events. This is comparable to the SSE Arena Belfast where there were almost 400,000 admissions to non-ice events in the 2019-20 year.

Table 3.6: Summary of Visitor Segments for NWSC

Segment	Number of Visits
Catchment Areas	248,210
Schools	18,161
Event Audiences	163,340
National and International Events, Participants & Support	3,610
Non-ice event audiences	375,000
Non-ice events performers & production	1,500
Total	**809,821**

The achievement of such levels of demand will be dependent on a number of factors, including:

- top product quality
- excellent customer service
- effective marketing
- active engagement with the ice sports NGBs
- the drive and ambition of the owner/operator
- positive changes in the market environment (in particular, the ending of current restrictions arising from Covid-19).

It is expected that a substantial number of visitors will be from outside the local area, attending events and competitions, resulting in additional demand for overnight accommodation and related services. The potential bednight demand arising from such visitors at the NWSC is summarised in Table 3.7. It is assumed that 10% of visitors from the tertiary catchment area, along with 10% of the audiences attending events, will stay for one night in Dublin. The majority of these overnights are likely to be spent in accommodation in the Dublin area.

Table 3.7: Summary of Bednight Demand

Source	No. of People	Total Bednights
Participants in events	3,610	5,770
Audiences for events	163,340	16,334
Visitors from tertiary catchment area	15,250	1,525
Non-ice event audiences	375,000	37,500
Non-ice events performance & production	1,500	1,425
Total	**558,700**	**62,554**

4. OPERATIONS & MARKETING

4.1 Operational Approach

The statement of objectives set out a clear vision for the National Winter Sports Centre. This may be summarized as follows:

The National Winter Sports Centre will be an economically and environmentally sustainable, national facility focused on increasing participation in winter sports and being a centre of excellence for ice sport, hosting national and international events. Programmes of use will balance commercial activity with community, educational, club and skills development.

The operator will seek to develop lasting interest and participation by members of the general public in the Centre's catchment area. This will be accomplished through its marketing activities, by appropriate programming and working with schools and colleges, community groups, sports and social clubs.

Simultaneously, the operator will work closely with the six national governing bodies in winter sports with a view to the NWSC becoming their natural home and the venue for domestic and international ice sports events. By working actively with these bodies to raise interest and participation in ice sports, the Centre will fill a valuable role in the Irish sporting world.

Given the existing lack of facilities in Ireland, and the associated weakness in terms of market demand, a co-operative approach with the relevant governing bodies to stimulating demand for ice sports will be vital to building high ice rink utilisation rates at the proposed Centre. A concentrated drive to stimulate market awareness and interest - directly and through the governing bodies - will be required in the pre-opening and early years of the NWSC to ensure demand levels grow to their full potential.

It is also envisaged that a phased approach to the introduction of the full programme of sessions will be required. Initially, sessions are likely to be primarily targeted at beginners, with demand from more advanced skaters and for competitions being at a lower level in the short term than will be the case in the medium and longer term (due to the low level of membership at the moment).

To support the partnership approach with the ice sports governing bodies, the NWSC would seek to establish a Memorandum of Understanding (MoU) with each. These MoUs would identify objectives, resources, intended development initiatives, event proposals and operational planning implications and intentions, together with an understanding of financial arrangements agreed in principle. They would also be subject to periodic review, with any financial arrangements reviewed annually

The intention would be that the NWSC would become the natural home for the NGBs and the venue for domestic and international ice sports events. By working actively with these bodies to raise interest and participation in ice sports, the facility would fill a very valuable role in the Irish sporting world.

The operational approach to be taken would include:

- the availability of two full-size ice rinks supported by equipment hire, retail and café
- scheduling of two different activities simultaneously on the two ice rinks
- an unrelenting emphasis on safety
- dividing skaters according to their skills and levels in order to improve satisfaction and safety
- the hiring of professional staff that have the ability to assess skaters' abilities and skill levels
- investment in staff training and ongoing safety measurement
- strong customer service and the use of feedback to improve operations.

Finally, it is appropriate to highlight the importance of safety as the leading operational priority. There is a perception that ice skating can be dangerous and it is important this would be allayed, not only in marketing communications but also in attention to operations. The following have been identified as the key areas of weakness at other rinks:

- poor ice quality (cracks, dents, wetness)
- safety rules are ignored/breached
- suitable equipment is not used
- insufficient supervision
- activity not matched to skill-level.

4.2 General Marketing Approach

- **Positioning:** the NWSC will be positioned for the general public as the must-try activity that is safe, fun and suitable for all ages. For learners and improvers, it will be the centre for acquiring and developing ice skating and ice sports skills. For sports enthusiasts, it will be positioned as the state-of-the-art ice facility for which they have been campaigning for years. The strategy will be to build loyal customers who use the ice rink year-round. A busy programme of classes at different levels from beginner to advanced will be a key tool in building utilisation levels.

- **Pre-Opening:** Commencing with the launch of the construction programme, the Centre will build up a broad-based marketing campaign to raise awareness and interest among the targeted demographic groups. It is anticipated that the campaign will use a combination of digital marketing, social media, as well as radio and newspaper promotion and advertising. It will build a robust online presence by developing a state-of-the-art website and ensuring effective search engine optimisation and marketing, which will underpin ongoing marketing of the facility.

- **Post-Opening:** The onset of operations and the hosting of events, including ice hockey matches, will strengthen the NWSC's market profile and positioning. Word-of-mouth promotion will also increase as a result – a critical aspect being the responsibility of the operator to ensure very high levels of customer satisfaction. Marketing will vary by season to take account of changes to the skating schedule, e.g., for school holidays during the summer months and at Christmas.

- **Strategic partnerships** with sporting associations to develop activities and events will form an essential element of the marketing approach. The associations will publish their schedules on their own websites enabling information to reach members directly.

4.3 Sustainability

The importance of achieving high standards in environmental sustainability cannot be over-emphasised. This starts with the design and construction of the Centre. An example of contemporary design is the new Lee Valley Ice Centre in London which has been designed to be highly sustainable. The project includes environmental improvements which would transform the area with significant native planting and landscape enhancements which will result in a significant biodiversity net gain of over 35%. According to the architects, energy efficiency in the new Centre will be maximised through high performance insulation and highly efficient air source heat pumps. Roof mounted photovoltaic panels will generate energy for the new centre. Water from the daily ice scrape and melted ice will be filtered through reed beds and then used to create new wetland habitats on site with an emphasis on biodiversity enhancement.

Energy management in operations will be essential for environmental and economic sustainability. In addition to the measures being adopted at the Lee Valley Centre noted above, the potential to use the excess heat generated from ice making should be explored, for example by co-locating another facility such as a swimming pool close to the NWSC so that this surplus heat could be used.

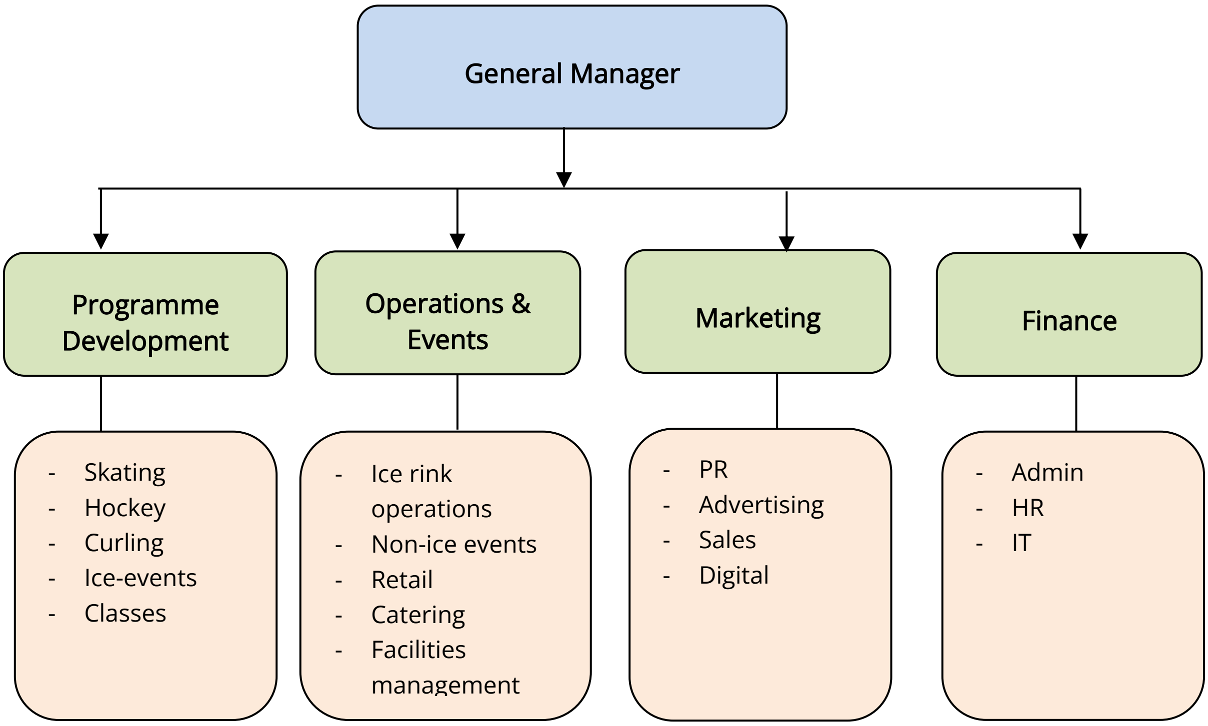
5. MANAGEMENT, ORGANISATION AND OPERATIONS

At this early stage in project concept development, ownership and operational management structures have yet to be determined. This section is intended to illustrate a possible approach to management and staffing.

5.1 Management and Organisation

A possible organisational structure for the operation, based on the logical distribution of functions, is illustrated in Figure 4.

Figure 4: Possible Organisation Structure for the NWSC



5.2 Staffing

Staff will be employed at the NWSC on a full-time, seasonal and casual basis, and the number to be employed will vary by time of year and development stage of the project. Given that an ice rink may operate for up to 18 hours a day, seven days a week, it is important that sufficient man-hours are in place to cover the operation. Over time, a volunteer programme may help to provide some of this required labour, especially for classes and events.

Cross-functional training would be important in developing and encouraging flexibility of job roles for operational efficiency and improving customer experience. This would ensure that staff can be assigned as required to cater for larger public sessions or special events. It would also ensure that there are a number of staff available that can drive the ice resurfacer, work less popular shifts and maintain building cleanliness.

It is proposed that 28 full-time staff and 54 seasonal and casual staff would be employed. The seasonal and casual staff will provide the necessary resources required for the Christmas skating season and for events – both ice and non-ice. Casual events staff will be engaged for events and their number builds from a low base in the first year of operation.

A possible management and staff configuration is detailed in Table 5.1. In this configuration, catering, cleaning and security services would be outsourced.

Table 5.1: NWSC Management and Staff Team

	No. of Staff	Full Time	Part Time
General manager	1	1	
Deputy manager	1	1	
Ice rink manager	1	1	
Hockey coach/skate rental	2	2	
Figure skating coach/skate rental	1	1	
Curling coach	1	1	
Zamboni driver	2	1	1
Finance manager	1	1	
Administration assistant/bookkeepers	2	2	
Sales & marketing manager	1	1	
Sales & marketing executive	1	1	
Ice events programming executive	1	1	
Technical manager	1	1	
Facilities management	2	2	
Event technicians	2	2	
Box office manager	1	1	
Admissions, ticketing and bookings	8	5	3
Retail service	3	3	
Christmas season temporary staff	20	0	20
Events casual staff	30		30
Total	82	28	54

Responsibilities of the management team would include:

- Health and safety of staff and customers
- Programming use of the Centre
- Day to day operation of the Centre
- Management of cleaning and maintenance

- Management of contracted services
- User liaison and customer experience
- Meeting and maintaining all licensing requirements
- Operating procedures for all areas of control
- Quality systems and procedures
- Staff training and development
- Financial accountability
- Marketing and promotion of the facility
- Monitoring and evaluation of performance according to agreed indicators.

6. FINANCIAL PROJECTIONS

Detailed projections are provided in Tables A1.1 - A1.7 in Appendix 1. The underlying assumptions and a summary of the main points are presented in this section. It should be noted that, as is the case with any projections, achievement of the results indicated is entirely dependent on the various explicit assumptions being fulfilled. While these have been calculated carefully and conscientiously, and with reference to extensive research and experience, there can be no guarantee that they will be fulfilled. Reference should also be made to the disclaimer at the beginning of Appendix 1.

6.1 Capital Costs and Funding

At this early stage in the project's development, and with various design solutions possible with different levels of associated costs, it is premature to propose a detailed costing here. Instead we propose to use an illustrative figure based on comparable projects at international and national level.

Large-scale winter sports centres currently under construction have substantial budgets. For example, a 159,000 square foot multi-sports and event facility planned Lansing, Michigan, has a construction budget, including fit-out and fees, of $76 million. The new Lee Valley Ice Centre under development in London, which will have two Olympic rinks, is budgeted at €30 million. Closer to home, the redevelopment of the Dundonald Ice Bowl, where the planned new facility will include an Olympic size ice rink, ten pin bowling, a multi-use sports hall, and a primary healthcare facility, is expected to cost up to £50 million (€59m).

Taking these examples into account, we have used an illustrative figure of €60 million as a capital cost for the purposes of the economic impact assessment in Section 7. The funding of ice sports centres elsewhere follows different models from fully funded by local authorities and/or central government (e.g., Dundonald

Ice Bowl, Lee Valley Ice Centre), to funding by private finance (e.g., planned new Lansing Event Center, Michigan) to a hybrid public-private model (e.g., SSE Arena Belfast).

6.2 Demand and Pricing

6.2.1 Ice Sports

The target sources of demand are described in Section 3. It is envisaged that, in mature operation, the catchment population will be the origin of more than 266,000 admissions a year for recreational skating and classes, while ice sports are projected to generate a further 167,000 admissions, including audiences and participants. The distribution of admissions between adults, children and groups is based on experience at ice rinks abroad. Essentially, the majority of users will be children, youths and young adults, while audiences for events are more mixed in age profile.

It will take a number of years to build up utilisation levels, especially events, to these targets, and this is factored into the projections. The prices for admission to other venues is summarised in Table 6.2. The pricing at Dundonald looks low, but this reflects its age and ownership by the local council. Perhaps most pertinent are the prices that were charged by the Blanchardstown and South Dublin on Ice and temporary rinks during the 2019 Christmas season.

Table 6.2: Prices at Ice Rinks and Other Venues
(Prices for 2022 at Dundonald and the SSE Arena; 2021 at other venues)

Category	Dundonald Ice Bowl €	SSE Arena Tickets for Ice Hockey games €	Tallaght Stadium South Dublin on Ice €	Blanchardstown Christmas Ice Skating €	Swords on Ice (peak times) €
Adult	8.85	20.00	15.00	13.00 – 17.00	15.00 – 17.00
Child (U.12)	6.50	12.00	13.00	12.00 – 16.00	14.00 – 16.00
Family (2+2)	29.50	51.00	50.00	38.00 – 50.00	46.00 – 56.00
Group (15+) p.p.	6.50				

These suggest a competitive price point for the NWSC would be €16 for adult admissions and €12 for children under 12, including skate hire and VAT. The pricing structure applied in the projections is therefore as indicated in Table 6.3. Multi-visit season tickets may also be made available but are not factored into the projections. Note that revenue from professional ice-hockey games would be in the form of rental of the arena.

Table 6.3: Proposed Pricing Structure for NWSC

	€ (incl VAT)
- Recreational skating & classes adult	16.00 per hour
- Recreational skating & classes - U12	12.00 per hour
- Recreational skating & classes – U6	5.00 per hour
- Families	45.00 per hour
- Adult groups (min.10 persons)	12.00 per hour per person
- Event spectators – adult	20.00
- Event spectators - child	10.00

6.2.2 Ice Events

The NWSC will host professional and amateur ice-hockey matches and other ice sports events – see Section 3.3. The rental charge for these events is assumed at €6,000.

6.2.3 Non-ice Events

The NWSC will be a receiving venue rather than promoting and producing its own shows. Revenue may be earned in the form of a fixed rent for a show, a share of the ticket receipts, or a combination of both. For the purposes of the projections, we have assumed a 12.5% share of ticket receipts, with an average audience of 5,000 and average net ticket price of €50 – i.e., €31,250 per event.

6.3 Other Operating Revenues and Costs

- Other Revenues: the NWSC will have the potential to generate income from a number of sources including facility hire, courses and coaching, the café, bar and shop. The assumptions underlying the revenue projections for these activities are detailed in Table A1.4 in Appendix 1. Not included is the potential to generate significant sponsorship income from, for example, naming rights, as is the case with the SSE Arena in Belfast.

- VAT: it is assumed that the operating entity will be registered for VAT, which is charged at 13.5% on admissions and 23% on retail sales (this ignores the current temporary reduction in the VAT rate to 9%).

- Inflation: not included – the projections are in 2022 prices.

- Gross margins: assumed to be 50% on shop sales and 97% on admissions. [The 3% direct cost of admissions covers ticket printing, credit and debit card charges.]

- Staffing: apart from casual events staff, the number of staff is assumed to be at 100% of full-time complement from year 1, in accordance with the staff schedule in Table 5.1. The number of casual events staff accords with the number of events. Wages and salaries are set at prevailing rates for visitor attractions.

- Repairs and maintenance: charged at 3% of total income (1% in year 1).

- Professional fees: allowance for financial, legal and marketing services.

- Energy: a substantial allowance has been made for energy costs, at 14% of gross revenues (this level of cost is taken from the model for an ice sports facility in the USA). However, at the time of writing, this is an area of considerable uncertainty and the energy efficiency of the NWSC must be maximised in its construction and operations.

- **Insurance:** again, following a model from the USA, insurance is budgeted in the projections at 3% of gross revenue, which is a substantial figure.

- **Other operating costs:** these are estimates based on ice rinks and visitor attractions elsewhere. A budget of €150,000 p.a. is provided for marketing, and provision is made for outsourced cleaning and security services.

- **Depreciation:** in the absence of an estimate of development costs, we have not included a figure for depreciation, and the projections simply show a projected EBITDA.

6.4 Projected Financial Performance

A summary of the projected operating results for the NWSC over its first five years of operation is provided in Table 6.4 in accordance with the assumptions listed above together with those detailed in the Tables in Appendix 1 (Tables A1.1 - A1.8).

Table 6.4: Summary of Projected Operating Results

	Year 1	Year 2	Year 3	Year 4	Year 5
Admissions (incl. events and ice hockey)	**296,624**	**566,382**	**804,710**	**845,714**	**883,900**
Revenue	3,540,898	5,678,851	7,971,063	8,384,030	8,824,191
Cost of sales	277,254	492,030	694,364	734,403	773,356
Gross profit	**3,263,644**	**5,186,821**	**7,276,698**	**7,649,628**	**8,050,834**
Total operating expenditure (excl. rent)	**2,924,370**	**3,520,178**	**4,144,163**	**4,227,789**	**4,316,922**
EBITDA	**339,275**	**1,666,643**	**3,132,535**	**3,421,839**	**3,733,913**
%	9.6%	29.3%	39.3%	40.8%	42.3%

This preliminary financial analysis indicates a good potential to be sustainable in operations and to achieve an EBITDA of around 40% of turnover, net of VAT, by the third year of operation. Achievement of this outcome depends on the admissions targets being reached, and the assumptions regarding pricing and operating costs being realised in practice. Non-ice events make a very substantial contribution to revenue. The model of combining ice sports and events with non-ice events is critical to the overall financial sustainability of the project.

It must be emphasised that the assumptions underlying the revenue and cost projections, while based on experience elsewhere, may not materialise as expected and there is, therefore, no guarantee that the operating results will be as projected.

The sensitivity analysis in Table A1.7 shows that net revenues fall sharply as demand falls – for the purposes of the analysis, demand drops are applied equally to all revenue streams. Breakeven in operations is roughly at 50% of projected year 3 demand. However, at this level, the project would make no return to capital and would not generate a sufficient surplus to provide for its own periodic renewal. As shown by the analysis, the outcome is far less sensitive to the level of admission charge for public skaters.

6.5 Risk Factors

The development of new visitor attractions is not without risk. They are very expensive to establish and cannot easily be developed in a cautious, phased way. The complete facility should be in place from opening day to attract consumer interest – if such a facility is not well-received when it first opens, it is very difficult for it to establish subsequently a stronger market position, even if a lot more money is spent on improvements. The following are relevant risk factors:

- Planning Consents: there could be some resistance and/or objections to the development of the new Centre and associated facilities.
  Mitigation/avoidance: pre-planning consultations with the planning authority, and with other interested parties; conform with requirements of planning authority.

- Capital cost overrun: the project may be under-budgeted at the outset through inadequate specification, which has to be remedied, or because of unforeseen factors such as problems with the site that were unknown at the time of costing. Changes may also be made to the specifications during construction, which add to costs, or unforeseen input material price increases may arise. Accurate specification and site surveys are vital, as is effective project management. The biggest cost risk at the time of writing pertains to the very high current rate of inflation in the cost of construction materials.
  Mitigation/avoidance: completion of thorough site and services surveys; accurate design and specification; good project management, enabled by an experienced and expert project management team. However, it is very difficult to mitigate the current high rate of inflation in the cost of construction materials.

- Risk of Optimism Bias: Optimism bias describes the effect when project analysts overestimate the benefits and underestimate the costs and timings for a project. A range of ex-post reviews of investment projects have shown a systematic tendency to overstate the benefits and understate the costs in the ex-ante appraisal. It is generally accepted that optimism bias can be a common feature of capital appraisal in many countries for both the public and private sectors. Typical examples of optimism bias include forecasts of demand which turn out to exceed actual usage levels for projects or overly ambitious planned schedules for projects which take a much longer time to deliver.[12]
  Mitigation/avoidance: standard optimism bias factors may be applied to costs and benefits. Project appraisers may also use project specific bias factors where detailed information is available for similar projects previously undertaken. Optimism bias could also be addressed by appraisers by systematically testing low benefit outturns against highest cost outturns to identify critical variables.

[12] DPER: Public Spending Code A Guide to Economic Appraisal: Carrying Out a Cost Benefit Analysis (p28)

- Product Quality: the building quality, facilities and fit-out do not meet required standards and consumer expectations. Post-construction correction may be possible, but this will add to costs.

  Mitigation/avoidance: accurate specification, design quality and good project management relying on an experienced and expert project management team.

- Visitor numbers: while the projections have drawn on experience elsewhere, including Dundonald Ice Bowl and the SSE Arena Belfast, it is impossible to predict visitor numbers to a unique, new attraction with precision – the margin of error is high. Advance market testing can increase the confidence in projections. However, the challenge with a new visitor attraction is that consumers cannot really test and assess the experience before it is built; up to that point, all that is available is imagery and text, which essentially force consumers to imagine a future experience. The findings of such advance research must be treated with caution.
- *Mitigation/avoidance:* consumer product testing at design stage, advance marketing and PR, and ensuring the quality of the visitor experience will all be influential factors. In practice, if visitor numbers and revenues fall significantly below target, operating costs, including staff numbers, will have to be reduced.

- Market conditions: the operating environment may change significantly between the date a decision is made to build the facility and the date the doors actually open for business. The consequences of negative external developments such as a pandemic, economic recession or civil disturbance can be a failure to achieve visitor number and/or targets.

  Mitigation/avoidance: ensure quality of visitor experience; intensive pre-opening marketing; incentivise markets, reduce operating costs.

- Operations: operational problems may arise in a number of areas including, inter alia, a failure to deliver a good visitor experience due to poor management and inadequate staff training, poor operating cost control, poor operating standards and unforeseen operating problems with the building, equipment and/or other visitor facilities.

Mitigation/avoidance: Appoint experienced management, ensure staff are well trained, and ensure that contractors, suppliers and maintenance personnel meet required standards.

- **Staff Costs:** the sustainability of the operation will depend on careful management of staff. It is not surprising that many, if not most, visitor attractions in Ireland avail of employment schemes to subsidise their staff costs.

  Mitigation/avoidance: ensure efficient staff rostering; develop volunteer corps to assist with events and classes. If necessary, pursue additional operational subsidy through employment schemes etc.

- **Energy Costs:** at the time of writing, soaring energy costs are an issue for everyone. Substantial provision for energy has been included in the preliminary projections, but the future remains uncertain.

  Mitigation/avoidance: the importance of energy efficiency in construction and operations is discussed in Section 4.3. The possibility of using the heat generated by ice-making should also be explored, for example by co-locating another facility such as a swimming pool close to the NWSC so that this surplus heat could be used, or by using it for district heating.

- **Consultant or contractor delays:** in some cases, project delays are unavoidable, for example where there are shortages in the supply of construction materials. However, in other cases, delays can be caused by inefficiencies on the part of consultants or contractors, and these are avoidable.

  Mitigation/avoidance: include late penalties in contracts – build in and protect lead time in the schedule. Communicate the schedule widely and early. Appoint strong project managers.

- **Stakeholder impacts:** the risk of project delays, overruns or even failures can arise from the actions or inactions of key stakeholders.

  Mitigation/avoidance: Identify stakeholders – analyse the power and influence of all stakeholders – create a stakeholder engagement plan - revisit the plan at regular intervals to check all stakeholders are being well-managed.

7. ECONOMIC IMPACT OF THE PROPOSED NATIONAL WINTER SPORTS CENTRE

The economic contribution arising from the development of the National Winter Sports Centre will derive from the employment and expenditure generated directly on-site during the construction phase, and the flow of visitors and their expenditure generated in the subsequent years of operation. In addition to direct impacts, conventional economic impact assessment methodology introduces two further impacts that arise as a consequence of the employment and expenditure generated on site and the incomes and expenditure this stimulates in other sectors of the economy. This is the multiplier effect, and it occurs at two levels:

a) **Indirect effects** arising from firms in the project's supply chain hiring workers and buying goods and services in order to meet the particular demand that the project's operations generate.
b) **Induced effects** arising from the increase in individual and household expenditures generated by incomes earned directly in the project and indirectly in the project's supply chain.

7.1 Construction Phase

The illustrative development cost of the NWSC is €60 million. Such expenditure could generate the following impacts:

- **Investment Multiplier:** the economic impact of investment in construction is magnified by the increases in incomes and expenditure stimulated in other sectors of the economy. This is the multiplier effect as described above.

  Based on the Input-Output tables published by the CSO[13] it is estimated that every €1 invested in construction in Ireland generates, directly and indirectly, €1.582 in

[13] Central Statistics Office: '*Supply and Use and Input-Output Tables for Ireland 2015*' CSO 2018

the broader economy. According to a report by EY on the economic impact of the construction industry, the induced effect adds a further €0.26 bringing the total impact to €1.85 per €1 invested. While such multipliers are estimated at overall sectoral level, and are properly applied to increases in sectoral activity, they nevertheless provide an indicator of the potential economic gain generated by an individual project. These multipliers are also national rather than regional. However, given that a significant share of expenditure and employment generated by the development of a construction project such as the National Winter Sports Centre would be local and regional – as is typical of construction projects – it is reasonable to assume that a significant share of the overall economic impact would also accrue to the locality. The overall gross economic impact of the investment would therefore range up to €111 million[14].

- **Employment:** the construction industry has a much higher intensity of labour per unit of output than most other sectors of the economy. According to a report for the Construction Industry Federation by EY DKM, each €1 million invested in construction generates, directly, indirectly and induced, 12.1 work-years of employment (full-time job equivalents or FTEs).[15] This indicates that the construction phase of the project would generate 726 work-years of FTE.

- **Taxation:** some years ago, a report by the Nevin Economic Research Institute (NERI) calculated that 42.5% of the capital cost of investment in construction was returned to the State in the form of tax revenues.[16] A large share of this is generated by payroll, income and corporation taxes arising from increased employment and economic activity. If this proportion is applied to the capital investment cost of the project, it will generate up to €25.5 million in tax revenues for the Exchequer during its construction phase.[17]

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14 €60 million development costs x €1.85 multiplier effect
15 EY DKM: *"The Economic Impact of the Construction Industry"* Construction Industry Federation, 2020.
16 R O'Farrell: '*An Examination of the Effects of an Investment Stimulus*', NERI Working Paper No. 4, 2012
17 Some commentators have estimated that a larger proportion of investment in construction is ultimately returned to the Exchequer through taxation and savings on social welfare payments arising from numbers exiting the Live Register.

7.2 Operations Phase

The economic contribution of the NWSC, once it has commenced operations, will arise from the employment generated, the procurement of goods and services, and the expenditure of visitors who travel to the venue to experience winter sports and other events hosted at the facility.

At this stage of the project, it is impossible to quantify these variables with precision. However, based on the demand projections, the following are possible economic outcomes:

- **Visitor Expenditure:** The expenditure of visitors to the NWSC will contribute to incomes and employment in the area. Using Fáilte Ireland visitor spend profiles[18] and making an allowance for daytrip expenditure (drawing on large scale surveys in Britain as a proxy[19]) it is estimated that the development of the National Winter Sports Centre will directly generate some €8.9 million additional spend in the Greater Dublin Area each year by visitors from outside the Greater Dublin Area. This includes expenditure at the National Winter Sports Centre itself.

- **Employment:** Direct employment at the NWSC is projected at 28 full-time site/operations management staff and 54 part-time staff (for event management and to cover high seasonal demand at Christmas). The expenditure of visitors to the venue will also support employment in the wider area. Fáilte Ireland estimate that every €1 million of tourist expenditure helps to support 27 jobs in tourism. On this basis, the project would support 240 jobs in Greater Dublin Area.

Thus, the Irish Congress of Trade Unions in its 2012 report 'Delivering Growth & Jobs' stated that '*for every €1 spent on an infrastructure project, it is estimated that close to 51% accrues back to the State'.*

18 Fáilte Ireland estimate that overseas tourists spend €96 per day, on average, with domestic tourists spending €74 per day. (Tourism Facts 2019)

19 https://www.statista.com/statistics/629041/average-spend-day-trips-by-activity-great-britain-uk/; we have applied an average spend of €25 as trips to the National Winter Sports Venue could be generally be evenings/half-days.

- Taxation: Fáilte Ireland estimates that for every euro spent on tourism (domestic and overseas), 23 cents are generated in tax – this would represent a net Exchequer gain of €2.05 million per annum arising from the operation of the NWSC.

8. APPENDICES

Appendix 1:

Preliminary Financial Projections

A1. PRELIMINARY FINANCIAL PROJECTIONS

National Winter Sports Centre

Preliminary Financial Projections

Version 1.3

September 2022

TABLE A1.1: NWSC Preliminary Profit & Loss Projections					
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Revenue net of VAT	**€**	**€**	**€**	**€**	**€**
Admissions revenue	2,007,061	2,586,813	3,518,406	3,852,916	4,220,011
Shop sales	434,084	828,851	1,177,624	1,237,630	1,293,512
Cafe concession	133,481	254,872	362,120	380,571	397,755
Gym (net revenue)	132,159	176,211	220,264	220,264	220,264
Pro ice hockey game rental	0	163,877	163,877	163,877	163,877
Other ice event rentals	52,863	105,727	185,022	185,022	185,022
Non-ice events commission revenue	781,250	1,562,500	2,343,750	2,343,750	2,343,750
Total Income	**3,540,898**	**5,678,851**	**7,971,063**	**8,384,030**	**8,824,191**
Cost of sales	277,254	492,030	694,364	734,403	773,356
Gross Profit	**3,263,644**	**5,186,821**	**7,276,698**	**7,649,628**	**8,050,834**
Expenditure:	**€**	**€**	**€**	**€**	**€**
Wages & salaries	1,654,001	1,796,056	1,955,868	1,955,868	1,955,868
Pension contribution	21,655	21,655	21,655	21,655	21,655
Training & uniforms	10,000	10,000	10,000	10,000	10,000
Travel	15,000	15,000	15,000	15,000	15,000
Light/heat/power (14%)	495,726	795,039	1,115,949	1,173,764	1,235,387
Water & waste	40,000	40,000	40,000	40,000	40,000
Insurance (3%)	106,227	170,366	239,132	251,521	264,726
Telephone/postage	10,000	10,000	10,000	10,000	10,000
Stationery/office supplies	10,000	10,000	10,000	10,000	10,000
Marketing	150,000	150,000	150,000	150,000	150,000
Bank charges	8,852	14,197	19,928	20,960	22,060
Professional fees	50,000	50,000	50,000	50,000	50,000
Repairs and maintenance (3% of Income; 1% Y1)	35,409	170,366	239,132	251,521	264,726
Rates (notional amount)	87,500	87,500	87,500	87,500	87,500
Licences, memberships, sundries	20,000	20,000	20,000	20,000	20,000
Security (outsourced) - excl. events	80,000	80,000	80,000	80,000	80,000
Cleaning (outsourced)	80,000	80,000	80,000	80,000	80,000
Launch	50,000				
Total Operating Expenditure	**2,924,370**	**3,520,178**	**4,144,163**	**4,227,789**	**4,316,922**
EBITDA	**339,275**	**1,666,643**	**3,132,535**	**3,421,839**	**3,733,913**
%	**9.6%**	**29.3%**	**39.3%**	**40.8%**	**42.3%**

Table A1.2: NWSC Revenue Projections - Ticket Sales						
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Adults						
No. of adult visitors		79,911	99,889	133,185	146,504	161,154
Average entrance fee	€	16.00	16.00	16.00	16.00	16.00
Total adult admissions revenue	€	**1,278,576**	**1,598,220**	**2,130,960**	**2,344,056**	**2,578,462**
Children (under 12)						
No. of children U16 visitors		31,964	39,956	53,274	58,601	64,462
Average entrance fee	€	12.00	12.00	12.00	12.00	12.00
Total children admissions revenue	€	**383,573**	**479,466**	**639,288**	**703,217**	**773,538**
Children (under 6)						
No. of children U6 visitors		7,991	9,989	13,319	14,650	16,115
Average entrance fee	€	5.00	5.00	5.00	5.00	5.00
Total concession admissions revenue	€	**39,956**	**49,944**	**66,593**	**73,252**	**80,577**
School Groups						
No. of group visitors		11,188	13,984	18,646	20,510	22,562
Average entrance fee (per capita)	€	12.00	12.00	12.00	12.00	12.00
Total adult group admissions revenue	€	**134,250**	**167,813**	**223,751**	**246,126**	**270,738**
Family Parties						
No. of family tickets		7,192	8,990	11,987	13,185	14,504
Average entrance fee	€	45.00	45.00	45.00	45.00	45.00
No. of persons covered (@ av. 4 per ticket)		28,768	35,960	47,947	52,741	58,015
Total revenue from families	€	**323,640**	**404,549**	**539,399**	**593,339**	**652,673**
Event Audiences						
No.attending events (excl. ice hockey)		11,802	23,604	39,340	41,307	43,372
Average admission price	€	10.00	10.00	10.00	10.00	10.00
Total event admission revenue	€	**118,020**	**236,040**	**393,400**	**413,070**	**433,724**
Total Admissions Revenue	€	**2,278,014**	**2,936,033**	**3,993,391**	**4,373,060**	**4,789,712**
Total Admissions Revenue net of VAT	€	2,007,061	2,586,813	3,518,406	3,852,916	4,220,011
Cost of Sales 3%	€	60,212	77,604	105,552	115,587	126,600
GOP of 97%	€	**1,946,849**	**2,509,209**	**3,412,854**	**3,737,328**	**4,093,410**
VAT		**270,953**	**349,220**	**474,985**	**520,144**	**569,701**

Table A1.3: Skating Admissions Breakdown

		%	Year 1	Year 2	Year 3	Year 4	Year 5
Adults		50.00%	79,911	99,889	133,185	146,504	161,154
Children (U 12)		20.00%	31,964	39,956	53,274	58,601	64,462
Children (U 6)		5.00%	7,991	9,989	13,319	14,650	16,115
Families		18.00%	28,768	35,960	47,947	52,741	58,015
School Groups		7.00%	11,188	13,984	18,646	20,510	22,562
Total		100.00%	159,822	199,778	266,370	293,007	322,308
Average entrance fee							
Adults	16.00	8.00					
Children U16	12.00	2.40					
Children U6	5.00	0.25					
School Groups	12.00	0.84					
Families (pc)	11.25	2.03					
	Total	13.52					
	Total net of VAT	12.40					
	GOP 97%	**12.03**					
	Total Admissions		**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
	Skaters		159,822	199,778	266,370	293,007	322,308
	Ice Events		11,802	23,604	39,340	41,307	43,372
	Elite League		0	93,000	124,000	136,400	143,220
	Non-ice Events		125,000	250,000	375,000	375,000	375,000
	Total		**296,624**	**566,382**	**804,710**	**845,714**	**883,900**

Table A1.4: NWSC Revenue Projections - Other Revenue						
		Year 1	Year 2	Year 3	Year 4	Year 5
Visitor Numbers All Activities		**296,624**	**566,382**	**804,710**	**845,714**	**883,900**
Pro Ice Hockey Games						
No. of games		0	31	31	31	31
Rent per game	€	0	6,000	6,000	6,000	6,000
Total rent	€	0	186,000	186,000	186,000	186,000
Total rent, net of VAT	€	**0**	**163,877**	**163,877**	**163,877**	**163,877**
Other Ice Event Rentals						
No. of events		10	20	35	35	35
Rent per event	€	6,000	6,000	6,000	6,000	6,000
Total rent	€	60,000	120,000	210,000	210,000	210,000
Total revenue net of VAT	€	**52,863**	**105,727**	**185,022**	**185,022**	**185,022**
Shop Sales						
Total visitors		296,624	566,382	804,710	845,714	883,900
% who spend in shop		15%	15%	15%	15%	15%
Est. avg. transaction	€	12.00	12.00	12.00	12.00	12.00
Total shop sales	€	533,923	1,019,487	1,448,478	1,522,285	1,591,020
Total shop sales, net of VAT	€	434,084	828,851	1,177,624	1,237,630	1,293,512
Cost of sales 50%	€	217,042	414,425	588,812	618,815	646,756
GOP @ 50%	€	**217,042**	**414,425**	**588,812**	**618,815**	**646,756**
Café Concession						
Total no. of visitors		296,624	566,382	804,710	845,714	883,900
Average spend per head (net of VAT)	€	3.00	3.00	3.00	3.00	3.00
Total revenue	€	889,872	1,699,145	2,414,130	2,537,142	2,651,700
Total concession revenue (15%)	€	**133,481**	**254,872**	**362,120**	**380,571**	**397,755**
High Performance Gym Revenue						
Number of users		300	400	500	500	500
Annual membership fee		500	500	500	500	500
Revenue p.a.		150,000	200,000	250,000	250,000	250,000
Total revenue net of VAT		**132,159**	**176,211**	**220,264**	**220,264**	**220,264**
Non-ice event rentals						
No. of events		25	50	75	75	75
Average audience		5,000	5,000	5,000	5,000	5,000
Average ticket price (net of VAT)	€	50	50	50	50	50
Total revenue net of VAT	€	6,250,000	12,500,000	18,750,000	18,750,000	18,750,000
Commission revenue (12.5%)	€	**781,250**	**1,562,500**	**2,343,750**	**2,343,750**	**2,343,750**
VAT		**124,817**	**250,821**	**347,691**	**361,492**	**374,345**
Cost of Sales		217,042	414,425	588,812	618,815	646,756

Table A1.5: NWSC Preliminary Projections - Payroll

	No. of employees	Full Time	Part time	Equivalent annual rate	Employer's PRSI	PRSI Total	Year 1 €	Year 2 €	Year 3 €	Year 4 €	Year 5 €
General manager	1	1		90,000	11.05%	9,945	99,945	99,945	99,945	99,945	99,945
Deputy manager	1	1		70,000	11.05%	7,735	77,735	77,735	77,735	77,735	77,735
Ice rink manager	1	1		50,000	11.05%	5,525	55,525	55,525	55,525	55,525	55,525
Hockey coach/skate rental	2	2		40,000	11.05%	8,840	88,840	88,840	88,840	88,840	88,840
Figure skating coach/skate rental	1	1		40,000	11.05%	4,420	44,420	44,420	44,420	44,420	44,420
Curling coach	1	1		28,000	11.05%	3,094	31,094	31,094	31,094	31,094	31,094
Zamboni driver full time	1	1		24,000	11.05%	2,652	26,652	26,652	26,652	26,652	26,652
Zamboni driver part time	1		1	24,000	11.05%	1,326	13,326	13,326	13,326	13,326	13,326
Finance manager	1	1		60,000	11.05%	6,630	66,630	66,630	66,630	66,630	66,630
Administration assistant/bookkeepers	2	2		30,000	11.05%	6,630	66,630	66,630	66,630	66,630	66,630
Sales & marketing manager	1	1		60,000	11.05%	6,630	66,630	66,630	66,630	66,630	66,630
Sales & marketing executive	1	1		30,000	11.05%	3,315	33,315	33,315	33,315	33,315	33,315
Ice events programming executive	1	1		40,000	11.05%	4,420	44,420	44,420	44,420	44,420	44,420
Technical manager	1	1		60,000	11.05%	6,630	66,630	66,630	66,630	66,630	66,630
Facilities management	2	2		30,000	11.05%	6,630	66,630	66,630	66,630	66,630	66,630
Event tech	2	2		30,000	11.05%	6,630	66,630	66,630	66,630	66,630	66,630
Box office manager	1	1		40,000	11.05%	4,420	44,420	44,420	44,420	44,420	44,420
Admissions, ticketing and bookings, full time	5	5		24,000	11.05%	13,260	133,260	133,260	133,260	133,260	133,260
Admissions, ticketing and bookings, part time	3		3	24,000	11.05%	3,978	39,978	39,978	39,978	39,978	39,978
Retail service	3	3		25,000	11.05%	8,288	83,288	83,288	83,288	83,288	83,288
Christmas season temporary staff	20		20	25,000	11.05%	18,233	295,948	295,948	295,948	295,948	295,948
Events casual staff	30		30	25,000	11.05%	27,349	142,055	284,110	443,922	443,922	443,922
Total	**82**	**28**	**54**			**139,230**	**1,654,001**	**1,796,056**	**1,955,868**	**1,955,868**	**1,955,868**

Table A1.6: NWSC Preliminary Operating Projections: Annual Cashflow					
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Total Visitor Numbers	**296,624**	**566,382**	**804,710**	**845,714**	**883,900**
Receipts					
Admissions revenue	2,278,014	2,936,033	3,993,391	4,373,060	4,789,712
Shop sales	533,923	1,019,487	1,448,478	1,522,285	1,591,020
Cafe concession	133,481	254,872	362,120	380,571	397,755
High performance gym	150,000	200,000	250,000	250,000	250,000
Pro ice hockey game rental	0	186,000	186,000	186,000	186,000
Other ice event rentals	60,000	120,000	210,000	210,000	210,000
Non-ice events commission revenue	781,250	1,562,500	2,343,750	2,343,750	2,343,750
Total Receipts	**3,936,668**	**6,278,891**	**8,793,738**	**9,265,666**	**9,768,237**
Outgoings					
VAT	329,809	565,996	785,570	871,809	933,644
Cost of Sales	254,149	474,132	677,503	731,066	770,110
Staff Costs	1,675,656	1,817,711	1,977,523	1,977,523	1,977,523
Other Operating Expenses	1,144,654	1,664,654	2,127,959	2,243,297	2,331,971
Total Expenses	**3,404,268**	**4,522,493**	**5,568,555**	**5,823,695**	**6,013,249**
Net Cash Flow	532,400	1,756,399	3,225,183	3,441,971	3,754,989
Cumulative Cash Flow		2,288,799	5,513,982	8,955,953	12,710,942
Notes	*No credit on receipts*				
	VAT payments made two months in arrears				
	Purchases made on basis of 30 days credit				
	VAT on expenses is fully reclaimed with neutral impact				

	Table A1.7:	Sensitivity Analysis, % demand change, year 3 as 100%				
	Skater Nos.	Admissions GP	Other Rev (GP)	Total Gross Profit	Expenses	Balance
50%	133,185	1,601,831	2,100,027	3,701,858	3,279,649	422,209
70%	150,000	1,804,067	2,940,038	4,744,105	3,490,704	1,253,401
80%	213,096	2,562,929	3,360,044	5,922,973	3,729,425	2,193,548
90%	239,733	2,883,295	3,780,049	6,663,344	3,879,350	2,783,994
100%	266,370	3,203,661	4,200,054	7,403,716	4,029,275	3,374,440
110%	293,007	3,524,027	4,620,060	8,144,087	4,179,201	3,964,887
120%	319,644	3,844,394	5,040,065	8,884,459	4,329,126	4,555,333
130%	346,281	4,164,760	5,460,071	9,624,830	4,479,051	5,145,779
	Skaters' Admission Price, year 3 basis					
Av. Net Price						
7.00	266,370	1,864,590	4,200,054	6,064,644	3,758,113	2,306,531
8.00	266,370	2,130,960	4,200,054	6,331,014	3,812,053	2,518,961
9.00	266,370	2,397,330	4,200,054	6,597,384	3,865,993	2,731,391
10.00	266,370	2,663,700	4,200,054	6,863,754	3,919,933	2,943,821
12.00	266,370	3,196,440	4,200,054	7,396,494	4,027,813	3,368,681
14.00	266,370	3,729,180	4,200,054	7,929,234	4,135,693	3,793,542
16.00	266,370	4,261,920	4,200,054	8,461,974	4,243,573	4,218,402

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