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Annual Review 2018





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1

INTRODUCTION

1.1 Chief Executive Foreword

The Sport Ireland Institute has had a very successful year supporting the athletes in the Irish High Performance (HP) system. The results from the annual Sentiment Survey indicate high levels of impact on performance resulting from Sport Ireland Institute support. We are also particularly pleased with the level of cross-sport and disciplinary knowledge sharing within the emerging High Performance Community hub that we seek to promote at the Sport Ireland Institute.

The Institute continues to evolve and is responding to the demands of the performance leadership of the HP sports within the resource constraints which we all operate. Indeed, the growing number of sports investing their own resources into the Institute to directly increase services to their sports is evidence of the quality of service provided by the team. The principle of partnership working is critical to the continued growth of the Institute and the effective deployment of the resources available.

The approval of the Sport Ireland Institute Statement of Strategy 2018-2024 by the Board of Sport Ireland gives the Institute a clear blueprint to effect ongoing support services to Ireland's athletes for the coming years and sets out the six strategic priorities for us during that time. I'm pleased to say that work on implementing the strategy is well advanced and progressing across the organisation.

The Sport Ireland Institute is a key piece in the high performance system and continues to grow and create innovative support initiatives to athletes and sports. I welcome the greater system alignment with the Olympic Federation of Ireland that has already resulted in first time Institute support to Team Ireland at the Winter Olympic Games in Pyeongchang and the Youth Olympic Games in Buenos Aires. The designation of the Sport Ireland Institute as the dedicated performance support delivery partner to Team Ireland by the Olympic Federation of Ireland is a development we are very proud of and will work tirelessly to deliver our obligations under the agreement. This greater alignment will have a positive impact on the athletes in their preparations for and readiness for Tokyo 2020.

The results from the annual Sentiment Survey indicate high levels of impact on performance resulting from Sport Ireland Institute support.

I'm proud of the key support role the Institute plays for Irish sport and look forward to overseeing its continued growth. I'd like to thank the team at the Institute for their continued professionalism, quality of their work and their commitment to excellence in service delivery to the Irish HP sports.



John Treacy
Chief Executive, Sport Ireland

1.2 Director's Report

On behalf of the Sport Ireland Institute team I'm pleased to present the Annual Review for 2018. This review outlines the extent of work carried out by the Institute team in support of Ireland's high performance sports in a very significant breakthrough year for Irish High Performance sport on the World and European stage.

The new wave of high performance professionals working in Irish sport since Rio 2016 has brought a significant increase in demand for the various supports on offer from the Institute. At all times, we have done our utmost to respond to those demands despite the challenging resource environment. Our resources are increasingly prioritising those sports that are likely to deliver success at Tokyo 2020. The increase in service provision to sports in 2018 has been due to a number of sports investing their own resources into the Institute to do so. The launch of the Sport Ireland Institute Statement of Strategy 2018-2024 brought our revised mission into the frame: Drive Excellence, Create Solutions and Impact Performance. Through a range of initiatives designed to achieve the six strategic objectives of the Institute over the coming period, we will work more closely with our stakeholders as partners and ultimately contribute to their success.

This report will outline the range and quantity of services provided, identify the allocation of Institute resources across the various direct service disciplines on offer and present a report on the implementation of the strategy including highlights from each service discipline we offer. In addition the results of the first annual Sport Ireland Institute Sentiment Survey of athletes are presented. Of particular significance is the high reported satisfaction of the impact on athlete performance that the Institute and its team of service providers have delivered.

Of particular significance is the high reported satisfaction of the impact on athlete performance that the Institute and its team of service providers have delivered.

After a lengthy exploratory phase, we were delighted to agree a formal partnership with the Olympic Federation of Ireland. We look forward to working closely with the OFI and the NGB's to enhance the performance support services to Team Ireland at Olympic, European and Youth Games over the coming years. The core philosophy behind the partnership is to provide continuity of care to athletes in terms of performance support provision. The model developed should greatly enhance this need going forward. As a result of the partnership, support was provided by the Sport Ireland Institute to the Winter Olympic Team and the Youth Olympic Games Team for the first time in 2018. We look forward to working closely with the Chef de Mission, Patricia Heberle, to maintain the momentum through the 2019 European Games and the Tokyo 2020 Olympics.

Finally, I would like to express my sincere thanks to all stakeholders of the Institute who have contributed to our growth, development and success. We look forward to continuing our partnership with the NGB's, CEO's, Performance Directors, coaches, performance support personnel and of course, the athletes. In particular I'd like to acknowledge the team of staff and consultants at the Institute for their commitment, dedication and collaboration for the betterment of high performance sport in Ireland.



Liam Harbison
Director, Sport Ireland Institute

1.3 Sport Ireland Institute Purpose, Background & Governance

Purpose

The Sport Ireland Institute was set-up to create an environment which influences, supports and ensures that talented Irish athletes will achieve sustained levels of excellence in elite sport. Sport Ireland Institute coordinates a network of highly experienced, quality assured service providers to help support this high performance environment ensuring that sports have access to the sports science and medicine sports that they need.

The Sport Ireland Institute works directly with NGBs in developing sports specific science and medical support networks so that each sport has the support it needs to impact on performance.

The Sport Ireland Institute also works closely with service providers in developing systems, structures and protocols to ensure that athletes and sports receive the best support possible.

Background

Under the Sport Ireland Act (2015) Sport Ireland's functions which are delivered in whole or in part by the Sport Ireland Institute are as follows:

- to encourage the promotion, development and co-ordination of, and the achievement of excellence in, competitive sport;
- to support elite athletes in achieving excellence in sport;
- to disseminate information concerning competitive sport or recreational sport

The Irish Institute of Sport which preceded the Sport Ireland Institute was established in 2007. In the intervening years this unit of Sport Ireland has grown incrementally to a budget of €2.4m in 2018, is now situated at the heart of the Sport Ireland National Sports Campus and incorporates the High Performance Training Centre which has become the dedicated training base for a number of Irish high performance sports.

Governance

Sport Ireland Institute is a unit of Sport Ireland. The Institute is the high performance support delivery unit of Sport Ireland which works alongside the High Performance Unit (the high performance policy and investment unit).

The High Performance Committee is a full sub-committee of Sport Ireland and provides oversight on the programmes and services of the Sport Ireland Institute and makes recommendations on high performance to the Sport Ireland Board, whom are the ultimate decision making authority of Sport Ireland.

The Director of the Sport Ireland Institute reports to the Chief Executive of Sport Ireland.



The Sport Ireland Institute performance support team played key roles in the support teams around the bulk of successes in 2018.

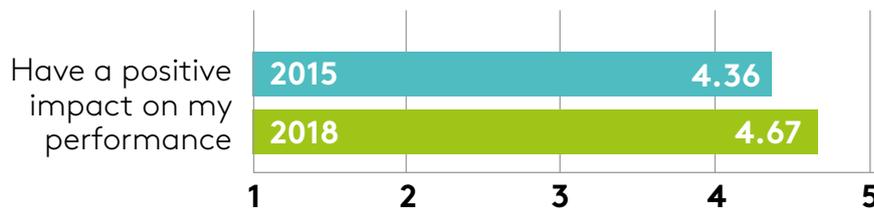
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2018 HIGHLIGHTS

2.1 Athlete Performance Impact

The primary purpose to performance support is to impact athlete performance at major championships. The success at European and World level by Irish athletes across many sports in 2018 have created a greater expectation for sustained success, particularly at Olympic & Paralympic Games. The Sport Ireland Institute performance support team played key roles in the support teams around the bulk of those successes in 2018. The results of the recent Sport Ireland Institute Sentiment Survey of athletes indicates the high level of satisfaction of athletes with the support provided by the Sport Ireland Institute. The satisfaction rating of 4.67 out of 5 (93.4%) is a significant improvement on the 2015 equivalent survey.

Athletes' experience of Sport Ireland Institute staff 2015-2018



2.2 Statement of Strategy

Following a nine month process of consultation, led by an internal steering group, the Board of Sport Ireland approved the Institute's Statement of Strategy 2018-2024. The strategy development included many key stakeholders and has identified a revised vision, mission and six strategic priorities.



This strategy aims to build on ten years of success for the Sport Ireland Institute and maps our priorities in performance support delivery to Irish High Performance Sport over the coming cycles to Tokyo 2020 and Paris 2024.

The six priorities with identified actions and measures of success, once implemented, should enhance the prospect of podium success for Ireland's elite athletes at major championships.

2.3 Olympic Federation of Ireland Partnership

Throughout 2018, officials from the Olympic Federation of Ireland and the Sport Ireland Institute, explored the potential for a closer collaboration and partnership with a view to progressing a new performance support delivery model for the full suite of Team Ireland events from the European Youth Olympic Festival to the Olympic Games.

A detailed model of support was agreed and formal partnership approved by the Boards of Sport Ireland and the Olympic Federation of Ireland. The model founded on four key principles, most notably continuity of care for athletes, has already resulted in closer alignment in the High Performance system and Institute service support to Team Ireland at the 2018 Winter Olympic Games in Pyeongchang and the 2018 Youth Olympic Games in Buenos Aires.



2.2 Head of Performance Support (HOPS) Role

Following the Rio Games the Sport Ireland Institute reviewed the structure around our service delivery. This identified that our operation was based on relatively stable multi-professional consulting teams and that the key role in successful similar organisations was the team or project leader. Consequently we developed a role description for this role in the Institute teams – the Head of Performance Support (HOPS).

The purpose of the HOPS role is to:

Lead a multidisciplinary support team to deliver tangible performance impact by ensuring that performance services are aligned and integrated around outcomes that are agreed with the Performance Lead to maximise the performance potential of the athletes/teams.

2018 marked the first year of this role amongst the priority sports. Feedback from the Performance Directors in sports with a HOPS has been very positive. They think that the HOPS have brought greater focus on critical performance factors and better alignment of the support team around shared objectives. To aid this process we have also rolled out Goalscape software to provide a common information sharing online platform for performance support teams.

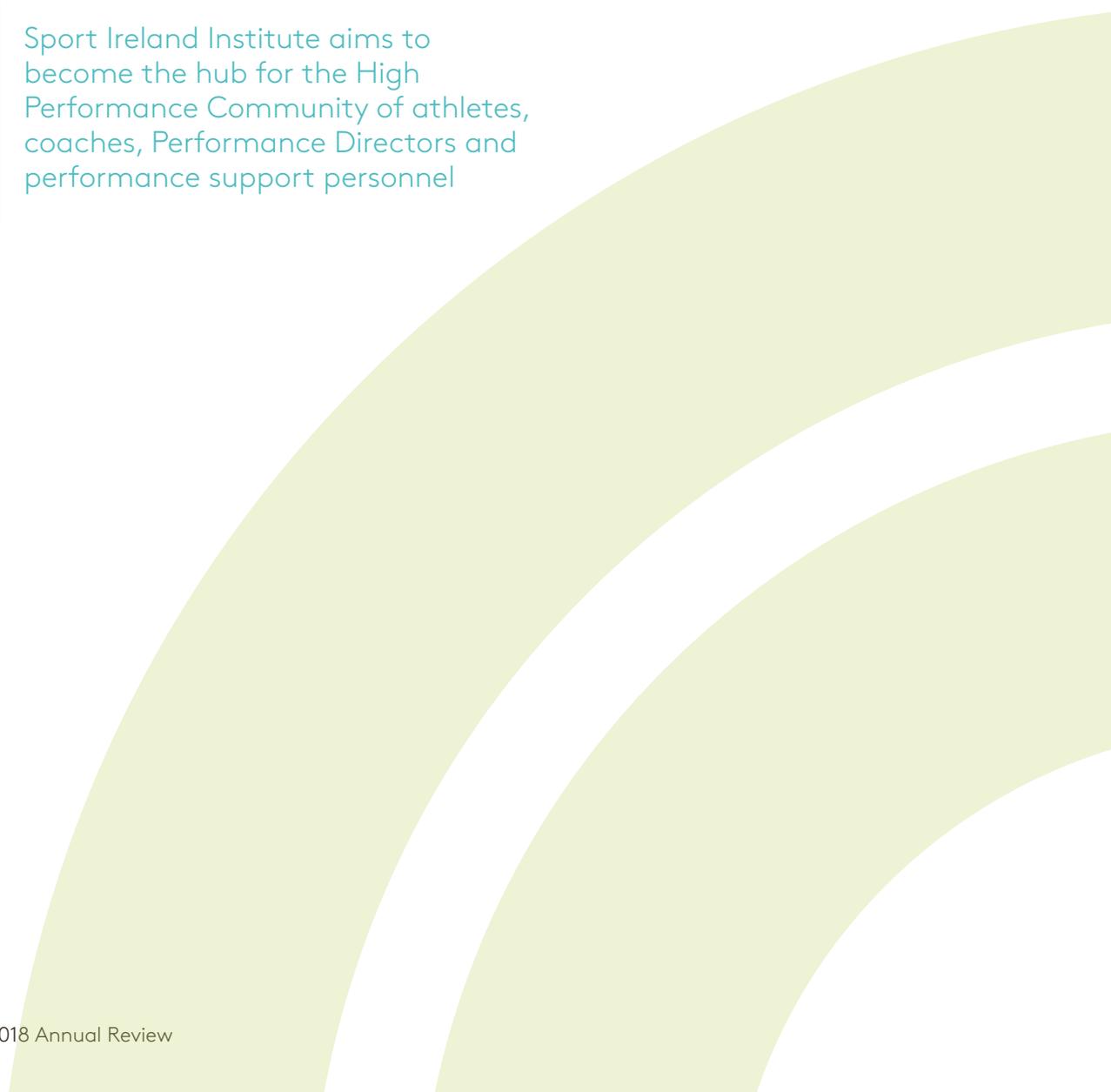
As we move into the key qualification period for Tokyo, the HOPS will focus increasingly on ensuring that the right support is delivered to athletes with qualification and medal potential in a holistic, integrated and timely manner by working in close partnership with the Performance Directors.

2.5 High Performance Centre Usage & the Athletes' Breakfast

The Tokyo 2020 cycle is the first cycle since the opening of the High Performance Training Centre at the Sport Ireland Institute. The level of usage of the centre continues to increase with a further 2% increase in 2018 after a 64% increase in 2017.

In addition, the Sport Ireland Institute aims to become the hub for the High Performance Community of athletes, coaches, Performance Directors and performance support personnel. The level of usage by all groups has increased significantly with a large amount of cross sharing of knowledge, experience and support evident across all groups.

One of the great successes has been the Institute Athletes' Breakfast which commenced in 2018 led by the Performance Nutrition Team. The breakfast has also allowed support staff and athletes to connect away from the training environment (e.g. S&C and athletes). From a nutrition standpoint it allows athletes to fuel and refuel after sessions and adds to the overall energy availability for the day.



Sport Ireland Institute aims to become the hub for the High Performance Community of athletes, coaches, Performance Directors and performance support personnel

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2018 HIGH LEVEL OUTPUTS

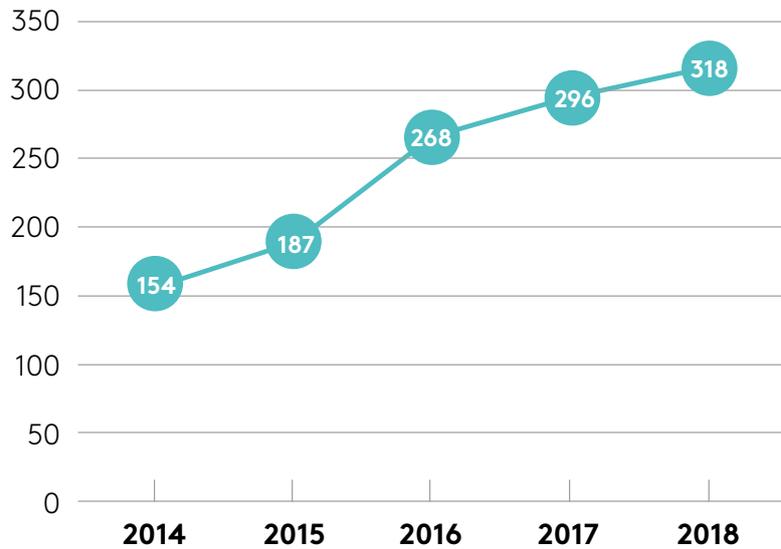


#	STRATEGIC AREA	GOAL	STATUS UPDATE	NOTE/ COMMENT
1	Strategy Development	Completion of the Sport Ireland Institute Strategy 2018-2024.	Complete	Strategy approved by the Sport Ireland Board in April 2018.
2	Performance Services Delivery	Implementation of new Head of Performance Support (HOPS) role with the key sports providing greater alignment of performance objectives with required supports between NGBs & the Institute. Resources prioritised on those sports and athletes that can deliver major championship success for Ireland. Performance Services Agreements completed between the NGBs & the Institute.	Complete	HOPS roles now active with the priority sports. Performance Partnership Agreements (PPAs) between the NGBs and the Institute finalised with the priority sports. Ten sports invested own resource to receive additional capacity from the Institute Performance Services team in 2018.
3	OFI Partnership	Secure a partnership with the OFI whereby the Sport Ireland Institute is formally appointed as the Performance Services Delivery Partner to Team Ireland <ul style="list-style-type: none"> • Sport Ireland Institute and the OFI work hand-in-hand with the support of athletes before, during and after Olympic Games. • Sport Ireland Institute personnel appointed to the core support team for Team Ireland for Tokyo 2020 • Sport Ireland Institute provide support to the Irish Winter Team for the first time 	Complete	Partnership approved by both Boards and formally launched on Dec. 11th at the Sport Ireland Institute. Support provided to the Winter Team at the Pyeongchang 2018 for the first time. Youth Olympic Games marked first event under new partnership - 3 Institute Team members provided support at the event in Buenos Aires (Oct). First Project Oversight Group (POG) meeting held on Dec. 20th.
4	Home of High Performance Sport	The Sport Ireland Institute further becomes the 'Home of Irish HP Sport' by increased usage of the High Performance Training Centre and improve operational efficiency of the Institute <ul style="list-style-type: none"> • Levels of athlete, Coach, PD usage of the Institute building increase reflecting the growing performance partnership between NGBs and Sport Ireland. • Embed the new Institute organisational and management structure - IMAG, HOPS, HOS - fully in adherence to the agreed terms of reference. 	Complete	Usage levels of the Institute in 2018 were broadly in line with 2017 where a massive 64% increase in usage was recorded. IMAG, HOPS and HOS now fully operational. Review of each groups terms of reference completed in Oct. '18.
5	HP People Development	Develop bespoke HP People development programmes to three key communities of professionals - Performance Directors, Coaches, Performance Support Personnel. <ul style="list-style-type: none"> • Performance Leadership Development Programme for PD's developed and year one rolled out • PEP programme for Coaches reactivated • Programme concept for Performance Support Personnel developed 	Futher Attention Required	Programmes delivery delayed due to departure of Daragh Sheridan as Head of Capability & Expertise in Sept 2018. PD's programme, Sparking Performance, has commenced with 16 Performance Directors currently active under the programme under the stewardship of newly appointed Programme Lead - Tricia Heberle. Planning on coaches programme and Performance support personnel programme deferred to 2019.

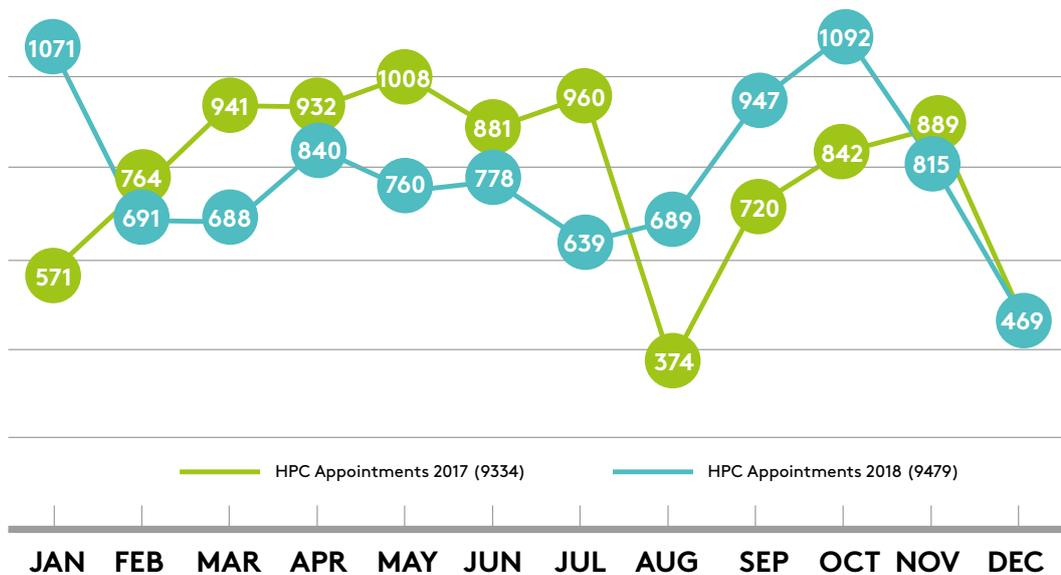
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2018 USAGE AND PERFORMANCE SUPPORT STATISTICS

4.1 High Performance Athlete Usage of Sport Ireland Institute



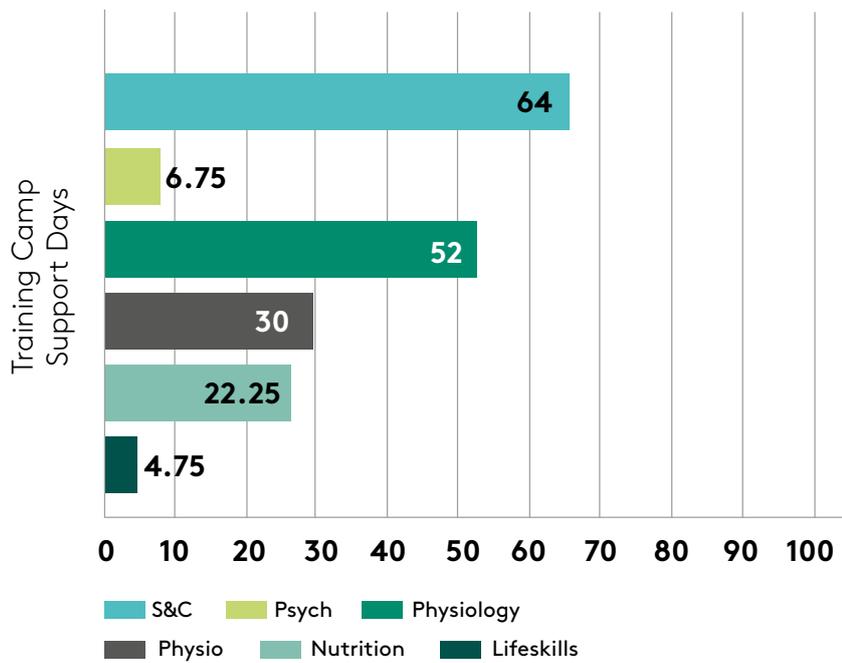
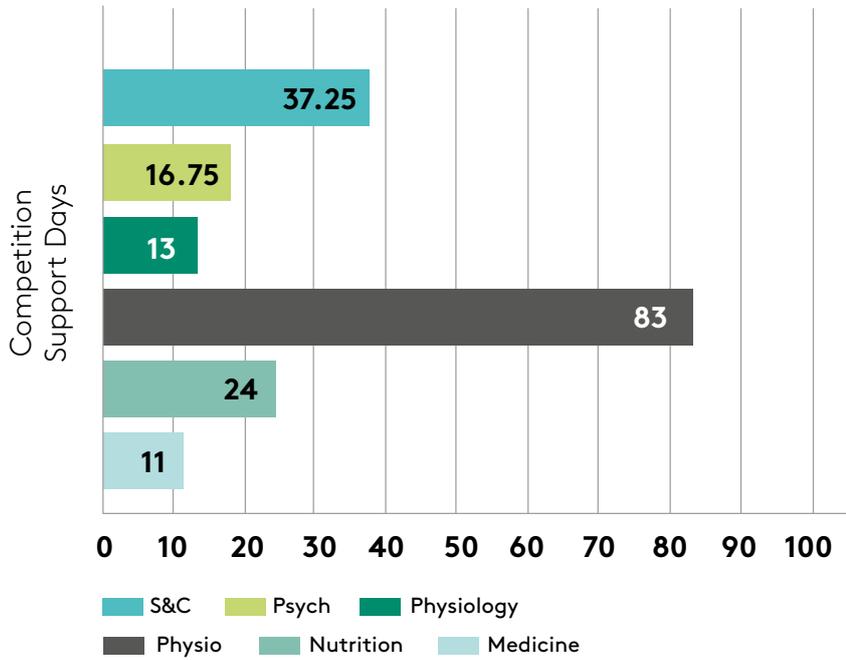
4.2 Athlete Service Appointments at the Sport Ireland Institute



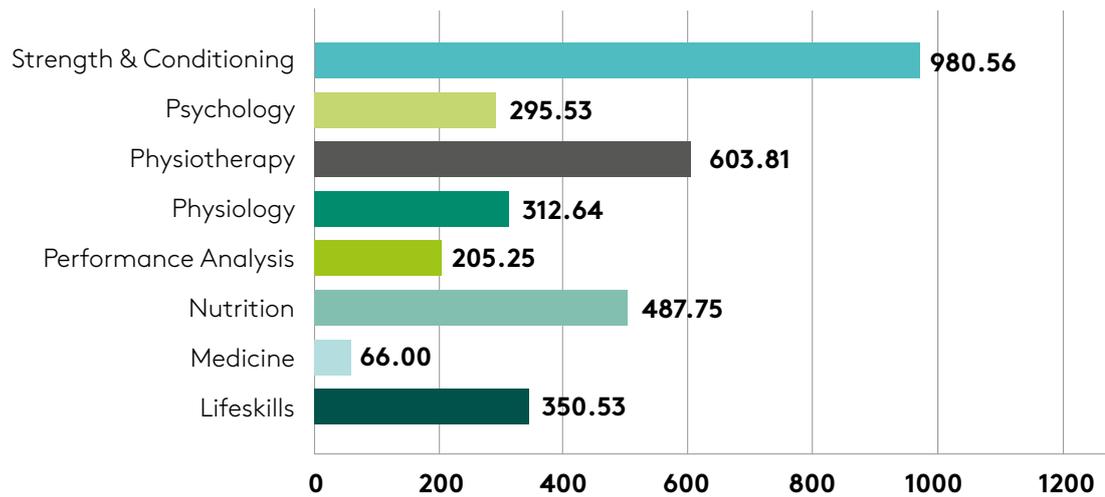
4.3 Number of Sport Ireland Institute Direct Support Days Per Sport

SPORT	DAYS	%
Athletics Ireland	435.9	19.55%
Badminton Ireland	29.75	1.33%
Canoeing Ireland	3.75	0.17%
Clay Pigeon Shooting	1.75	0.08%
Cricket Ireland	27	1.21%
Cycling Ireland	133.5	5.99%
Gymnastics Ireland	25.75	1.15%
Hockey Ireland	169.75	7.61%
Horse Sport Ireland	6.25	0.28%
Irish Athletic Boxing Association	346.85	15.55%
Judo Ireland	1	0.04%
Other	8.5	0.38%
Paralympic Athletics	134.6	6.04%
Paralympic Cycling	119.75	5.37%
Paralympic Other	8.75	0.39%
Paralympic Swimming	101.75	4.56%
Pentathlon Ireland	161.5	7.24%
Rowing Ireland	207.5	9.30%
Sailing Ireland	65	2.91%
Swim Ireland	218	9.78%
Swim Ireland/Diving	4.25	0.19%
Taekwondo	18.75	0.84%
Team Ireland Golf Trust	0.5	0.02%
TOTAL DAYS	2230.1	100%

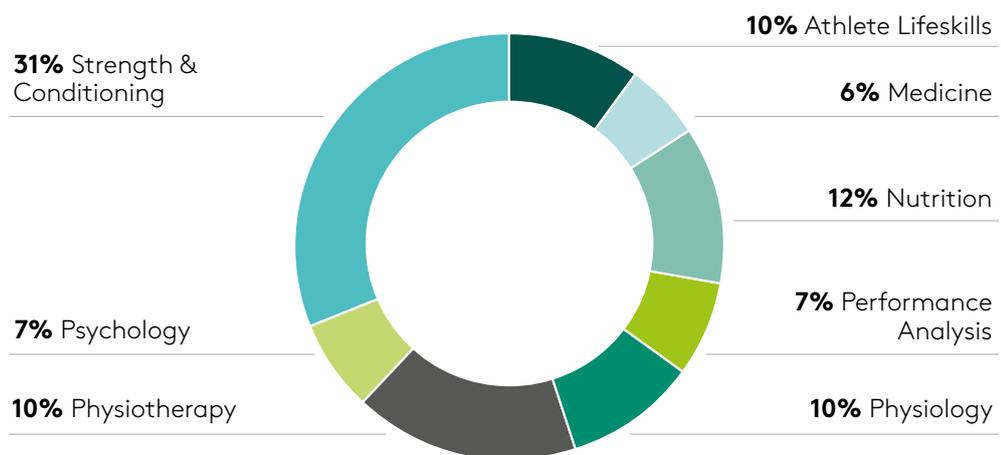
4.4 Sport Ireland Institute Provided Service Days at Camps & Competitions



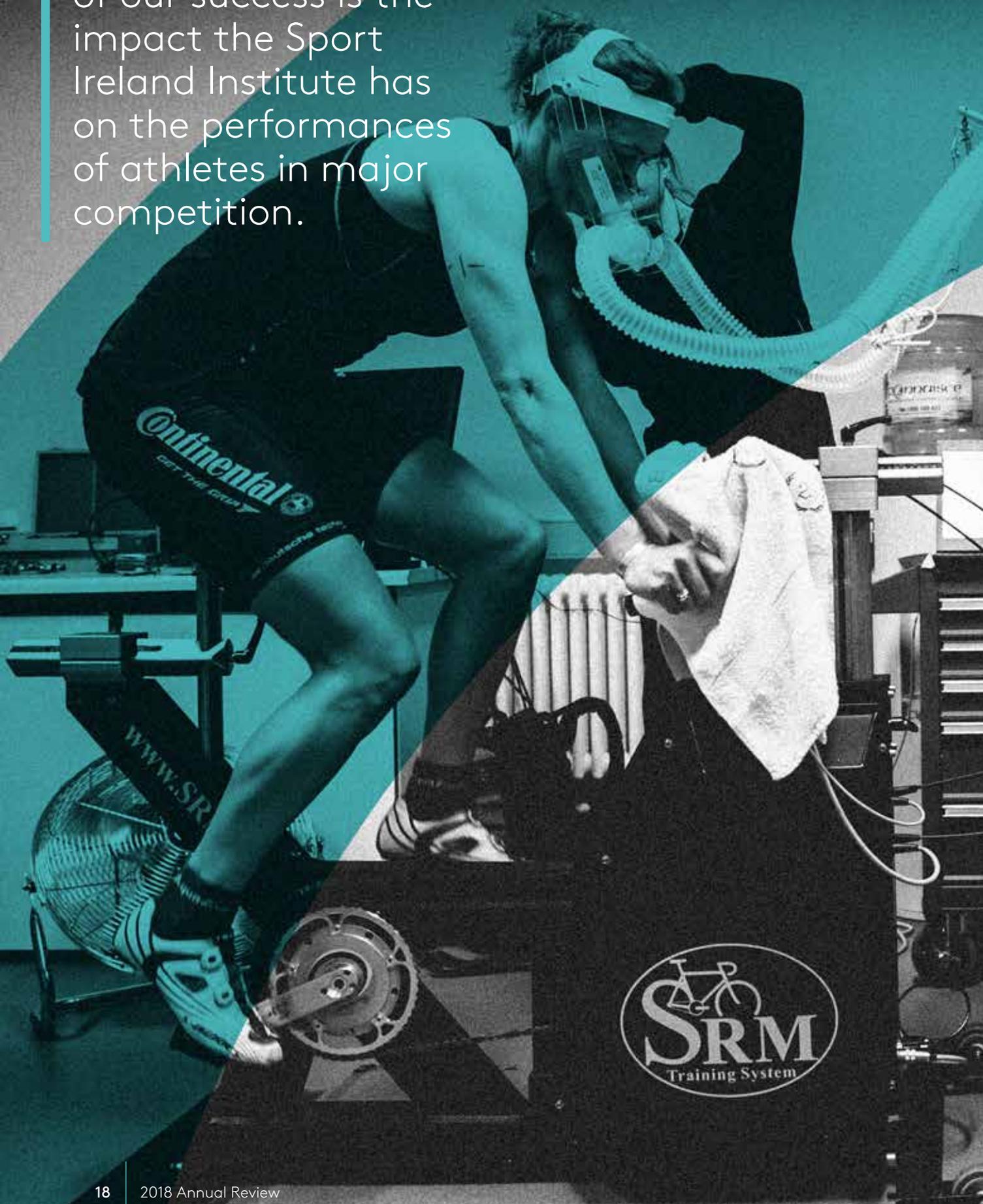
4.5 Total Number of Service Days Per Discipline



4.6 Performance Support Resource Allocation Per Discipline



The key determinant of our success is the impact the Sport Ireland Institute has on the performances of athletes in major competition.



5

ANNUAL SENTIMENT SURVEY

The Sport Ireland Institute issued the first annual Sentiment Survey in 2018 to identify the views of athletes as to the impact the Institute has on their performance and programmes.

The previous Sentiment Survey took place in 2015. Where a data point is available from 2015 it's illustrated on the charts below to indicate progress since that time. It should be noted that at that time, the High Performance Centre wasn't open and some performance support services were not available.

We set a target for all disciplines to attain a minimum 80% satisfaction rating for 2018. This was exceeded across all support services and operations of the Institute. The response from athletes (n=61) has been extremely positive as illustrated below in the four key areas examined:

- Quality of support services
- Access and availability of support services
- Staff qualities
- Institute facilities

The key determinant of our success is the impact the Institute has on the performances of athletes in major competition. The survey asked the athletes to identify on a 5-point Likert Scale (from strongly disagree to strongly agree) to how they viewed the following statement:

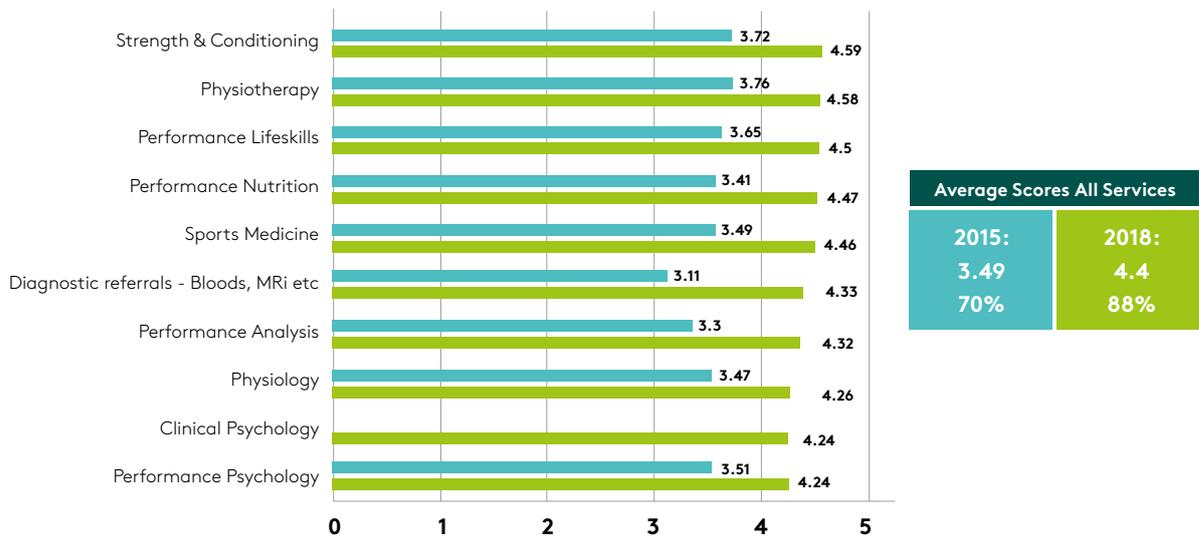
“Institute staff generally have a positive impact on my performance”

The result clearly indicated strong agreement with an aggregate score of 4.67/5 achieved.

Athlete satisfaction with the QUALITY of Sport Ireland Institute support services 2015-2018



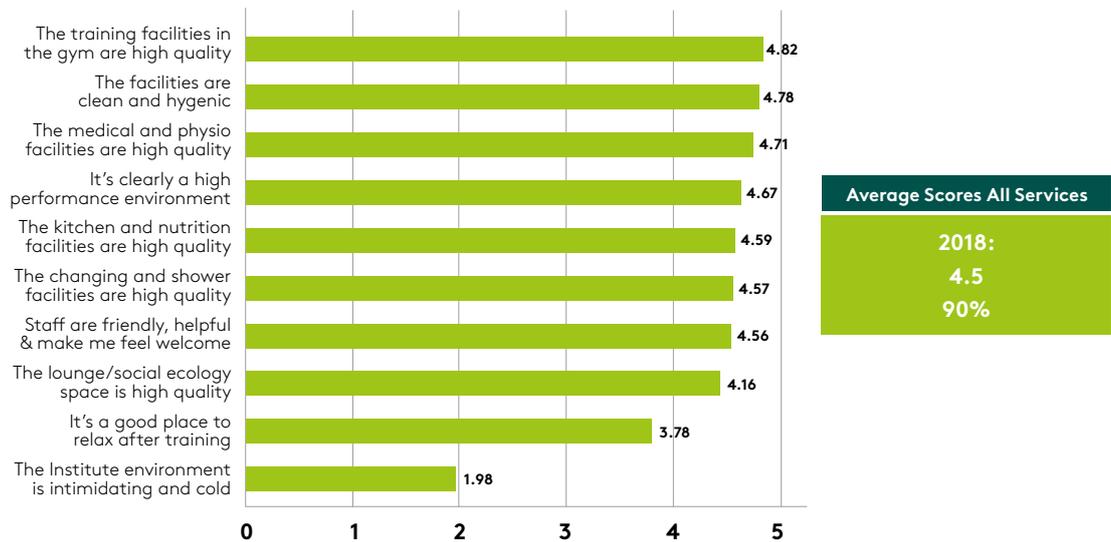
Athlete satisfaction with the ACCESS & AVAILABILITY of Sport Ireland Institute support services 2015-2018



Athletes' experience of Sport Ireland Institute staff 2015-2018



Athletes' experiences of the Sport Ireland Institute facilities



In summary, overall a very positive evaluation from our key stakeholders in all aspects was received. Very positive comments and scores were achieved around the:

- Open and friendly atmosphere created by the staff
- Quality and expertise of the service providers
- Positive impact on athlete performance
- Quality and upkeep of the facilities
- The professional/High Performance environment
- Interaction & training alongside other HP athletes
- Athletes' Breakfast Initiative

In terms of improvements suggested, a number of athletes commented on the need to improve the chill-out area and recovery facilities available between sessions.

The Sentiment Survey will be repeated annually on a fully anonymous basis and results tracked accordingly and reported in future editions of this annual review.

The key developments concerned a new vision, mission and six key priorities to be delivered.



6

SPORT IRELAND INSTITUTE STRATEGY IMPLEMENTATION

The Sport Ireland Institute Statement of Strategy 2018-2024 was approved by the Sport Ireland Board in April 2018 following a lengthy consultation process including key NGB stakeholders and Sport Ireland staff & contractors. The key developments concerned a new Vision, Mission and six key priorities to be delivered.

The six priorities for the Sport Ireland Institute for 2018-2024 are as follows:

Priority 1	Transition from a service provider to an essential performance support partner with the priority sports
Priority 2	Develop multi-professional support teams in priority sports with a focus on greater impact on performance outcomes at major championships
Priority 3	The Sport Ireland Institute will extend its support offering to pathway athletes of priority sport.
Priority 4	Provide an enhanced suite of athlete lifeskills support services to Irish athletes to achieve their full potential through education, career and performance lifeskills support.
Priority 5	World class impact relies on world class expertise, which resides in our people. We will build the capability of our high performance people.
Priority 6	Grow the capacity, capability and reputation of the Sport Ireland Institute by the creation of real value-added resource partnerships with state agencies, education institutions and commercial organisations who share our values and our commitment to excellence

The team at the Institute have set about delivering these priorities over the course of 2018. The implementation status of each priority is detailed in Appendix 1.

Each strategic priority is backed by a series of measures of success. A review of the plan will be conducted post Tokyo 2020.

7

PERFORMANCE SUPPORT HIGHLIGHTS PER DISCIPLINE

7.1 Performance Lifeskills & Advisory Service

The performance lifeskills team delivered against strategic objectives set across the three main pillars of the service – Education, Performance and Career.

Education

- In partnership with Student Sport Ireland, the lifeskills team facilitated the delivery of the Sport Ireland Dual Careers Forum. This provided an opportunity for leaders from third level institutions and national governing bodies to discuss and share their roles in supporting high performance student – athletes. With over 70 participants on the day this also provided a great networking opportunity and helped to strengthen our team's links with 3rd level institutions nationwide.
- Our lifeskills team of three joined with nine higher education institution representatives in participating in the Talented Athlete Lifestyle Support course accredited by TASS.

Performance

- Eoin Rheinisch was named Head of Performance Support for the Sport Ireland Institute (SII) team that supported and formed part of the wider Olympic Federation of Ireland (OFI) Team for YOG 2018. This role involved delivering performance life skills support to help athletes develop their skills of performance planning, preparation and review for an Olympic environment.
- The YOG team day provided education to over 40 athletes, parents, coaches and support staff and involved an Institute wide effort of over 12 support staff to develop and deliver.

Career

- The Sport Ireland Institute launched the Athlete Friendly Employer Network on the 30th November. This initiative is aimed at engaging organisations from corporate Ireland to develop relationships between elite Irish athletes and employers. With many athletes seeking to develop their work experience whilst still competing and others looking to develop post-competitive career plans, the purpose of the event was to give organisations an insight in to the advantages of employing elite athletes. The life skills team aims to engage with employers that are willing to offer the flexibility required for an athlete to balance their sporting commitments alongside part time work.
- 15 organisations signed up to the network following the launch event. Athlete placements will commence in 2019.

7.2 Performance Analysis

- Performance Analysis support was delivered in 2018 to Boxing, Diving, Para Athletics and Para Cycling.
- Sport Ireland Institute hosted the first meeting of the Irish Performance Analysis eXchange (IPAX) in April. The core purpose of this peer group is to provide a forum and platform for Irish analysts to come together and share working practices and experiences on a more frequent basis.
- In September 2018 Sport Ireland Institute & SAS, a world leader in analytics, business intelligence and data management signed a ground breaking partnership agreement. SAS will be providing us with software licensing & hosting, consultancy services and education support. As part of this partnership SAS will make their tools and expertise available to a number of high performance sport programs in Ireland.



7.3 Strength & Conditioning

- 2018 saw a continued increase in quantity of S&C support to elite Irish athletes and increased footfall/usage at the Sport Ireland Institute S&C facility. In particular increases in service delivery have been in identified with carded athletes and podium potential sports. In 2018, the S&C department delivered regular structure support to 12 sports covering approximately 110 athletes. The department also offers regular facility and “project support” to another 5 sports.
- In 2018 the S&C department increased the amount of camp, competition and off-site support it delivers to key carded athletes and sports. This included:
 - training camp support for national boxing program in their pre-season training camp in USA, and in key training camps ahead of the EU Championships and World Championships;
 - training camp support for key podium athletes in modern pentathlon ahead of World Cup events;
 - training camp support for the Paralympic swimming program in preparation for the European Championships;
 - increased delivery of S&C support to national training facilities such as Cycling Ireland (Mallorca) and Rowing Ireland (National Rowing Centre, Cork).
- A number of professional development and networking events for S&C coaches involved in elite sports in Ireland were hosted. Invitees ranged across Sport Ireland Institute staff, Irish Hockey, Swim Ireland, IRFU, Cricket Ireland, UCD and DCU. These events have been well attended with very positive feedback received and have begun to develop the profile of the Sport Ireland Institute as a centre of S&C excellence in the country.

7.4 Rehabilitation

- A new Athlete Management System was initiated in the Sport Ireland Institute in 2018. We now have medical records for all athletes stored on a centralized system, across NGB support staff and Sports Institute Northern Ireland. This allows us to provide monthly status updates and injury/illness audit data. The revised Data Privacy Policy ensures that the use of the new system complies with GDPR requirements.
- The support focus on building physically robust and resilient athletes was a key priority in 2018. In collaboration with Athletics Ireland the Sport Ireland Institute rehab team developed the AI Trackfit Injury Prevention Program Resource into an online video coaching manual.
- For the first time in 2018, the Sport Ireland Institute provided support to the OFI both pre, during and post Games to the Irish Winter Olympic Team. This support included pre Games medical screening and delivering on-site physiotherapy support for the Games period in PyeongChang.

7.5 Physiology

- Physiology service delivery supported athletes from 9 sports in 2018. The new HOPS roles identified opportunities to increase our service delivery within endurance sports of swimming and cycling. Additionally, we increased the number of athletes supported with weekly training load monitoring through the new athlete management system.

- In 2018, physiology commenced supporting Cycling Ireland's Olympic Track program with 4 training camps supported at their track base in Majorca, Spain and a domestic training and testing camp held at the Sport Ireland Institute in Dublin. Competition support was provided during the European Track Championships, Glasgow. Additional support was provided in developing travel and acclimation strategies for World Cup competitions to Hong Kong and New Zealand.
- Beginning preparations for Tokyo 2020, we provided support during the Paralympic Swimming familiarisation camp to Narita and Tokyo for two weeks in Oct/Nov. The purpose of this camp was to collect data and determine the travel responses of all swimmers in advance of World Championships in Malaysia 2019 and Paralympic Games in Tokyo 2020. Flight and travel strategies were devised and tested.
- Training was delivered to physiologists from Sport Ireland Institute and Sports Institute Northern Ireland in conjunction with Swim Ireland, for measurement of Haemoglobin mass (HbMass), a physiological measure typically used to monitor athlete blood responses to altitude. Additionally, we were involved in the development and design of Swim Ireland's altitude camps using specially adapted tents and tubing in their on-campus house to minimize disturbance to athletes whilst facilitating a "live-high, train-low" approach for two camps in January and April.
- Developed travel and acclimation strategies for Youth Olympic Games in Buenos Aires. These were presented to the athletes, coaches and support team during the OFI team day held in October.

7.7 Performance Nutrition

- The number of athletes and sports serviced by the nutrition team grew significantly in 2018. This service provision was delivered away at camp and within Ireland which is crucial to developing relationships with athletes but also by adapting personalised nutrition plans to suit training camp and competition environments. Named nutritionists are integral members of the service support teams in a range of sports.
- The nutrition team coordinated and delivered the HPX Nutrition Symposium held in the Campus Conference Centre in October with over one hundred researchers, practitioners and coaches in attendance. The speaker list and panellists included a range of national and international speakers. The National Dairy Council partnered with the Sport Ireland Institute in delivering the event.
- The Performance Kitchen has become the central hub of the athlete experience at the Sport Ireland Institute. The Athlete Breakfast initiative twice weekly have acted as a fulcrum for most other services during the year. This has allowed relationships to build across disciplines, sports and various elements of the high performance community in a natural way within the Institute. The breakfast has also allowed support staff and athletes to connect away from the training environment (e.g. S&C and athletes). From a nutrition standpoint it allows athletes to fuel and refuel after sessions and adds to the overall energy availability for the day.

7.8 Medicine

The provision of medical services is central to the role of Sport Ireland Institute. Sports medicine incorporates the total medical care of athletes from pre-participation medical screening through to management at consultant level of appropriate illnesses or injuries. The services include diagnosis, investigation, treatment and rehabilitation of injuries and illness occurring during or as a consequence of training and competition. The Sport Ireland Institute has established a rapid access referral system with the National Orthopaedic Hospital at Cappagh and with other centres for specialist opinion and services.

The Sport Ireland Institute operates a medical clinic for athletes across four half day clinics per week. In 2019 this service will be extended to four days per week.

The extent of medical testing, referral and supports provided to athletes by the Institute Medical Team in recent years are as follows:

Sport Ireland Institute Medical Tests	2017	2018
Blood Screens	125	157
Imaging:		
- MRI	33	38
- Dexa	19	25
- X-Ray	2	6
- CT Scan	1	2
Cardiac Screening	42	30
Respiratory Screening	41	0
Guided Injections	4	4
Flu Vaccines	77	68
Referrals	16	16

7.9 Capability & Expertise

- The Sparking Performance Programme was launched in 2018. The programme, a bespoke self-directed peer learning network for Performance Directors has been heavily subscribed with 16 participants active on the programme. Patricia Heberle was appointed as the programme lead.
- A full review of the 2017 HPX Conference was conducted in 2018. Following the review a new strategy for HPX was finalised with a biennial conference to continue in 2019 and 2021. The 2019 event (November 7th & 8th) will be a closed community event focussing on the theme of Games Readiness for Tokyo 2020. This will be followed in 2021 with an open conference focussed on the lessons learned from the Tokyo 2020 Games cycle and the strategy for Paris 2024 and beyond.

8

INSTITUTE EVENTS

The Sport Ireland Institute coordinated and/or hosted a range of events in 2018.

These included:

- HPX Nutrition Symposium in partnership with the National Dairy Council
- Inaugural meeting of IPAX (Irish Performance Analysis Exchange)
- Sport Ireland Dual Careers Event
- Launch of the Sport Ireland Institute Athlete Friendly Employers Network
- Official launch of the Olympic Federation of Ireland & Sport Ireland Institute Partnership
- Launch of the Sport Ireland partnership with SAS
- Team Preparation Days for OFI teams for the Winter Olympics and the Youth Olympic Games.

9

SUPPORTING TOKYO 2020

The Sport Ireland Institute concluded a ground breaking partnership agreement with the Olympic Federation of Ireland (OFI) in 2018 to which the Sport Ireland Institute has been appointed as the Official Performance Support Partner to Team Ireland. This partnership aims to provide full system alignment in Ireland with regard to planning, Games readiness, performance, transition and review throughout the Olympic Games quadrennial between the OFI, Sport Ireland and the National Governing Bodies.

The partnership is founded on four key operational principles with regard to performance support delivery to Team Ireland as follows:

Principle 1	Continuity of leadership and care throughout the Olympic cycle, with duplication, overlap and gaps between different support systems being identified and eliminated appropriately in a transparent and professionally managed manner.
Principle 2	All forms of support is delivered by highly qualified and experienced practitioners who are recruited through an agreed, transparent and robust process.
Principle 3	Staff are contracted, accountable and managed through an agreed appropriate professional structure.
Principle 4	Support is driven by performance needs rather than practitioner/discipline oriented.

All parties to the agreement are determined to ensure that athletes will have access to support providers at the Olympic Games that have provided support throughout the cycle.

The delivery of the agreement is the responsibility of the Project Oversight Group (POG) which is comprised of the senior executive leadership of the OFI and the Sport Ireland Institute. This group will be responsible on an annual basis for setting and monitoring progress on the achievement of key performance indicators for each Games and the OFI Science & Medicine Commission, which the Sport Ireland Institute will coordinate on behalf of the OFI.



Project Oversight Group: Peter Sherrard (CEO, OFI), Patricia Heberle (Team Ireland Chef de Mission), Liam Harbison (Director, Sport Ireland Institute), Phil Moore (Director of Performance Support, Sport Ireland Institute).

The extensive work programme has commenced with initial partnership activities including:

- Sport Ireland Institute support for the Irish Winter Olympic Team in PyeongChang and at the Youth Olympic Games at Buenos Aires.
- Institute representation on the selection panel for the Tokyo 2020 Chef de Mission
- Set up of the new OFI Science & Medicine Commission
- Institute participation on OFI recces to Japan in preparation for the Tokyo 2020 Games and the pre Games Holding Camp base in Fukuroi City.

10

FINANCE

Expenditure	€2,408,649
Human Resources	1,919,078
Performance Services	132,643
Capability & Expertise	26,453
Operations	253,557
Capital	76,919

Income	€2,435,545
Sport Ireland	2,183,575
NGB's	170,399
HPC Usage	58,881
Sponsor/Partners	15,000
PQAP	1,237
Capability & Expertise	6,453



The Sport Ireland Institute supported three PhD research programmes in 2018, a synopsis of each is detailed below. The Institute research policy was reviewed and finalised in 2018 which clearly outlines the type of project we will support and the process for candidates to seek such support.

11.1 Ciara Sinnott-O'Connor

The aim of this PhD was to develop, implement and evaluate a multi-faceted athlete monitoring system for Paralympic athletes in football and swimming, and determine if this can effectively identify the responses to training and competition. All components for the study were completed with the supervisory team at the University of Limerick in 2018 with the scholar awarded her PhD.

- Study 1 determined the relationship between training load (TL), subjective wellness markers and incidence of illness and injury in Paralympic footballers across three seasons. Results suggest wellness markers are significantly impacted by illness but not injury. Specific training load measures including weekly training load and ACWR were identified as significantly associated with incidence of illness and should be included in weekly monitoring of athletes.
- Study 2 examined the validity and reliability of session-RPE (Rate of Perceived Exertion) for quantifying TL in Paralympic swimmers. We determined the session RPE method to be a valid and reliable measure to quantify training load in Paralympic swimmers. Furthermore we identified a habituation period is necessary to ensure synergy between athlete and coach perception of training intensity when using an RPE scale.
- Study 3 determined the relationship between TL, subjective wellness markers and incidence of illness and injury in Paralympic swimmers. Both illness and injury were shown to negatively impact on scores for wellness markers. In agreement with Study 1, results identified specific training load measures that should be monitored for Paralympic swimmers which are associated with both injury and illness occurrence.
- Study 4 examined the use of salivary biomarkers in Paralympic swimmers as an objective monitoring tool and the response to training and major competition (Rio 2016 Paralympic Games). Results showed a dose-response relationship with TL during periods of training, intensified training and taper. Critically, significant increases were observed during competition despite a decrease in TL demonstrating the psychophysiological stress response associated with participation in major competition

The first journal article from this research was published online in 2017 and in print August 2018 in the International Journal of Sports Physiology and Performance.

Ciara Sinnott O'Connor was appointed as the Sport Ireland Institute's Head of Physiology during 2018.

11.2 Claire Brady

This PhD program has thus far:

- Established the reliability and validity of a strength diagnostic testing system for use with the Sport Ireland Institute.
- Established normative data for key strength diagnostics tests for athletes that use the Sport Ireland Institute.
- Established the relationship between isometric strength and sprint acceleration performance in track and field sprint athletes.
- Established the relationship between the isometric squat and stretch shortening cycle capabilities and sprint acceleration performance in hurling players.
- Begun to explore the link between strength diagnostic testing and sprint kinematics

The PhD scholar has contributed significantly to additional physical performance testing within the Sport Ireland Institute S&C team across sports including: Women's Hockey national team, U21 Men's Hockey, Athletics, Para-Athletics and Women's Sevens Rugby.

Progress of the research is in line with the proposed timeline. The scholar is completing a structured PhD through the University of Limerick and has completed all structured components.

11.3 Danielle Logue

The aim of this PhD programme is to identify low energy availability (LEA) risk in male and female athletes and to determine associations between LEA risk and injury, illness, health and performance in both gender groups. The identification of LEA risk may help to reduce musculoskeletal injuries, illness and improve performance.

To date the programme has:

- Published a narrative review on "Low Energy Availability in Athletes: A Review of Prevalence, Dietary Patterns, Physiological Health, and Sports Performance" in Sports Medicine.
- Published an original research paper entitled "Screening for risk of low energy availability in athletic and recreationally active females in Ireland" in the European Journal of Sports Science.
- Conducted an observational, cross-sectional study with 82 physically active males and females undertaking an introductory tactical training programme. The aims of this study were to investigate:
 - i) energy intake, exercise energy expenditure and energy availability;
 - ii) injury and illness incidence; and
 - iii) dietary intake vs. estimated nutritional recommendations in tactical training personnel at the beginning and end of a training phase.
- Conducted a cross-sectional online survey to determine symptoms of LEA among males (~1000n) and associations between LEA symptoms (e.g. sex drive) and injury, illness, health and performance in this gender group.

In 2018 the PhD programme has focused on publishing the cross-sectional online survey which was conducted to determine risk of LEA among females (900n) and associations between LEA and injury, illness, health and performance in this gender group. 40% of active females in Ireland were identified at risk of LEA. Risk of LEA was highest among those females competing at international and inter-county level. Risk of LEA was also associated with missing greater than 22 days of training due to illness and stress fracture occurrence. This original research has been published in the European Journal of Sports Science.

Another focus for 2018 was conducting a cross-sectional online survey in active males living in Ireland to determine symptoms associated with LEA. We aim to publish the results of this research and this data will be used to increase physical well-being in high performance sport and should lead to increased awareness of the important role nutrition has in protecting athlete health and performance.

12

PARTNERSHIPS

12.1 National Dairy Council

The National Dairy Council and the Sport Ireland Institute continued to partner in 2018 and in doing so agreed an ongoing annual partnership rollover. The partnership centres round the hosting of an annual HPX Nutrition Symposium and some NDC event appearances by the Institute's Performance Nutrition Team.



12.2 SAS

In 2018, Sport Ireland signed a multi-year partnership agreement with global leader in the field of business analytics software and services, SAS, which will see the multinational become the Official Analytics Partner to the Sport Ireland Institute through to March 2021.

The landmark agreement, a first for the Sport Ireland Institute, sees SAS analytics technology employed across a range of projects within targeted sports in order to enhance preparations and impact performance of Irish athletes at international competitions such as the Olympic & Paralympic Games in Tokyo.

Using information collected by the performance support teams in these sports, the SAS technology will facilitate the creation of dynamic performance databases and interactive tools. The insights from these will help athletes and coaches develop new and improved ways of working to improve athlete performance in training and competitions.

The partnership sees SAS providing a range of benefits to the Sport Ireland Institute including software licensing & hosting, consultancy services and education for key users of the SAS analytics tools.



Scott Comber (SAS), John Treacy (CEO, Sport Ireland), Rachel Lockwood (SAS), Liam Harbison (Director, Sport Ireland Institute)

13

OUTLOOK

The Sport Ireland Institute has a comprehensive work programme for 2019 centred on the following key strategic areas and accompanying high level goals.

#	STRATEGIC AREA	GOAL
1	Unit Strategy	Completion of phase 1 of Institute Statement of Strategy 2018-2024.
2	OFI Partnership	Ensure delivery of the Sport Ireland Institute commitment to the Olympic Federation of Ireland as per the OFI/SII Memorandum of Association signed in December 2018.
3	Performance Support	Deliver enhanced performance support services to the High Performance Sports delivering impact at major championships.
4	HP Community	Provide enhanced peer network and CPD supports for key personnel in the Irish HP Community – CEO's, PD's, Coaches & Service Providers.
5	National Sports Policy	Ensure Sport Ireland Institute strategy is reviewed and aligned with the publication of the new Irish High Performance Sport Strategy and obligations within the National Sports Policy.
6	Resources	Consolidate and build resource support with appropriate external partnerships that support delivery of the Institute mission to 'Drive Excellence, Create Solutions and Impact Performance'.

The high level objectives are underpinned by a detailed series of service level objectives for each department and discipline within the Sport Ireland Institute.



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APPENDICES



14

APPENDICES

14.1 Appendix 1 - Sport Ireland Institute Statement of Strategy Implementation 2018

Priority 1: Transition from a service provider to an essential performance support partner with the priority sports	
Estimated Completion: 30-40%	
How it will be achieved:	Status at Q1 2019:
1. We will extend the Service Level Agreement to an NGB/Institute Partnership with responsibilities, targets and accountabilities clearly assigned to each party.	Performance Partnerships agreements now in place with the priority sports for 2019-2020.
2. We will coordinate the performance planning process with the HP Sports, previously coordinated by the High Performance Unit.	The High Performance Unit and the Sport Ireland Institute will commence planning for the Paris 2024 Cycle investment and performance support process in 2019.
3. The Head of Performance Support (HOPS) role in each priority sport will be adequately supported and resourced to impact performance outcomes.	Post year 1 rollout in 2018, additional resource days will be allocated to each HOPS to maximise the impact of this new initiative. Training opportunities to be offered to HOPS
2019 Actions: <ul style="list-style-type: none"> • Development of 2021-2024 performance planning process to be advanced by the HPU & the Sport Ireland Institute. • Training opportunities to be identified and delivered to HOPS to maximise their impact in partnership with the Performance Director of each sport. 	

Priority 2: Develop multi-professional support teams in priority sports with a focus on greater impact on performance outcomes at major championships

Estimated Completion: 40-50%

How it will be achieved:

1. Head of Performance Support (HOPS) will work closely with the Performance Director of their sport to identify the needs of the athletes/squads.

2. Led by the HOPS in each of the priority sports, support staff will work to a set of agreed goals that are centred round the performance of athletes and teams.

3. Athlete squad profiling will be a core component of this system and appropriate online resources will be deployed to achieve a shared clarity of purpose and focus.

4. Robust communication, within the team and with the HP staff in the sports will ensure that the team stays focussed on the performance issues and resolve conflicts quickly and effectively.

5. Planning, evaluation, debrief and review processes will be established in each sport to provide feedback to the support team on their effectiveness.

Status at Q1 2019:

Heads of Performance Support role has completed the first year of operation with the Performance Directors of each sport. The rollout of the HOPS role has brought challenges but has resulted in significantly greater collaboration with key sports and their Performance Director in particular.

The Head of Performance Support is responsible for matching the support requests from sports with the resource availability across each service area in the Sport Ireland Institute. As the HOPS is embedded with the Performance Director, the performance questions emerge for the HOPS to seek solutions from the various institute supports available.

A new software system has been purchased and is operating with each sport. Access to the tool (Goalscape) is available to the key performance staff and service providers for each sport utilising it. With increased levels of Institute providers embedded within multi-professional support teams of priority sports, regular team reviews have greatly improved communication in the majority of sports. In others key relationships are still developing.

This is an ongoing process to ensure feedback loops exist as standard in each sport, led by the Performance Director. Annual programme reviews by sports are becoming more common with clear post review action plans impacting on future programme design and rollout.

The quality of each support discipline in the Sport Ireland Institute was rated very high in the Sport Ireland Institute Annual Sentiment Survey.

2019 Actions:

- Training opportunities to be identified and rolled out for HOPS to maximise their impact with sports.
- Increased resource time to be made available to Heads of Performance Support to have greater impact in their HOPS role.
- In-sport effectiveness measurement and feedback systems to be developed with each sport.

Priority 3: The Sport Ireland Institute will extend its support offering to pathway athletes of priority sports.	
Estimated Completion: 5-10%	
How it will be achieved:	Status at Q1 2019:
1. Grow the resource available with the priority sports to support larger numbers of athletes with Sport Ireland Institute services at earlier stages of the athletes development pathway.	Some services have been extended to younger athletes such as athletics and via Team Ireland for the Youth Olympic Games, however major structural alteration has been deferred to 2021 and subject to available resource.
2. Build our capacity with the recruitment of additional service providers in key service areas to target support at elite junior and development athletes.	Post Tokyo 2020, subject to resource availability, a dedicated multi-disciplinary pathway development support team will be put in place to specifically support younger athletes to transition in to senior programmes.
3. Extend the opening hours of the Sport Ireland Institute High Performance Centre to ensure it's accessible to athletes in full-time education or in employment.	The standard opening hours increased from 40 to 57 hours per week in 2018 to allow evening and Saturday training opportunities for sports. Sports can also access the Institute out-of-hours on request.
4. Develop regional Sport Ireland Institute service hubs.	Planning not commenced to date.
5. Coordinate & deliver elite multi-sport camp offerings to pathway athletes.	Deferred to the Paris 2024 cycle.
2019 Actions:	
<ul style="list-style-type: none"> • Commence planning on the rationale, purpose, composition and costings to commence the pathway development team in 2021. • Open discussions with Rowing Ireland and UCC on the development of an Institute Regional Hub in Cork. • Further extend the opening hours on Saturdays. 	

Priority 4: Provide an enhanced suite of athlete lifeskills support services to Irish athletes to achieve their full potential through education, career and performance lifeskills support.

Estimated Completion: 40%

How it will be achieved:	Status at Q1 2019:
1. Provide support to all Olympic and Paralympic pathway athletes to engage in education, and/or professional development during their competitive careers.	The performance lifeskills team was increased from 1 to 3 in 2018, led by Eoin Rheinisch. Emma Saunders focus is on education support with Niall O'Donoghue targeting the employment sector for athlete support.
2. Establish a Sport Ireland Dual Career Accreditation which sets the standard for 3rd level education providers in Ireland.	A longer term goal of the strategy. First Dual Career Network symposium held in 2018.
3. Secure access for Irish athletes to a wide range of learning opportunities anywhere in the world that is valuable and/or accredited.	A longer term focus in the strategy. The Performance Lifeskills team will identify and seek appropriate learning opportunities and partnerships in the first instance.
4. Promote engagement of Performance Directors, coaches and performance support personnel with the athletes lifeskills service of the Sport Ireland Institute because they recognise the impact it has on performance.	Ongoing work by the Lifeskills Team with the Heads of Performance Support to educate and engage with Performance Directors on the value of the Lifeskills support programme to athletes and sports programmes.
5. Update the content and widen the scope and delivery of the 'Evo Series' to include coaches. Service providers and family members of athletes.	This is scheduled in the 2019 work programme for rollout to stakeholders in 2020.
6. Provide the highest standard of career coaching which allows athletes to choose career paths which fit their values, interests and strengths.	All three members are trained in the delivery of a consistent model of career coaching delivery including validated psychometric testing.
7. Develop an athlete friendly employers network which provides athletes with flexible possibilities for meaningful work experience including shadowing, internships, part time and full time roles.	Sport Ireland Institute Athlete Friendly Employers Network launched in 2018. 15 organisations signed up to the network in 2018. Active athlete placements to begin in 2019.
8. Collaborate and rollout programmes with other lifeskills providers including Rugby Players Ireland, Professional Footballers Association of Ireland, the Gaelic Players Association and the Women's Gaelic Players Association.	Ongoing communication with all groups continues for the purposes of knowledge sharing and optimising athlete supports in Ireland.
<p>2019 Actions:</p> <ul style="list-style-type: none"> • Identify Tokyo 2020 Olympic & Paralympic longlist athletes for targeting of Performance Lifeskills support. • Review of the 2016 Evo Series and develop accordingly for the Tokyo 2020 Games Transition Programme. • Host further Dual Careers Network and Athlete Friendly Employers Network events. • Completion of the TASS tutor training programme by the full Lifeskills Team. • Commence development of the knowledge base of international third level education opportunities and programmes for athletes. 	

Priority 5: World class impact relies on world class expertise, which resides in our people. We will build the capability of our high performance people.

Estimated Completion: 25%

How it will be achieved:	Status at Q1 2019:
1. High performance support personnel have a responsibility to strengthen and evolve their professional practice in order to continually impact athlete performance. We will build and support a collective learning community that enables multi professional collaboration which will accelerate learning, innovation and drive performance.	Sport Ireland Institute is building peer learning networks across the High Performance community. The level of engagement across each sector of the community will be enhanced through the term of the strategy.
2. Implementation of the PEP Review report by building specific learning support strands for coaches, Performance Directors and performance support personnel.	Sparking Performance Programme for Performance Directors commenced in 2018 with 16 participants engaged under the programme leader Patricia Heberle.
3. Providing continuous professional development and continued learning opportunities for the Sport Ireland Institute team of staff and service providers.	Group CPD programmes are ongoing with 'Show & Tell's' a key feature within the Institute for shared learning.
4. Recruit cross sectoral resource support to enhance learning opportunities and capability of performance professionals that will enhance athletes' performance at major competitions.	CPD grant programmes are provided to Institute team members annually. Multi professional CPD opportunities are prioritised.
5. Building customised programmes to enhance HP capability and expertise.	Discussions commenced in 2018 to secure learning partnerships with external agencies. Targeting completion of MOU's and initial rollout in 2019. Sparking Performance programme developed in 2018. Specific programmes for coaches and service providers to be devised and rolled out in 2019. CEO Check-Ins also commenced in 2018.

2019 Actions:

- The Pursuit of Excellence Programme for high performance coaches to be restarted in 2019 with a new programme lead appointed.
- Secure MOU's with 2 external organisations for learning partnerships.
- Rollout Service Provider CPD programme
- Host the 2019 HPX Conference

Priority 6: Grow the capacity, capability and reputation of the Sport Ireland Institute by the creation of real value-added resource partnerships with state agencies, education institutions and commercial organisations who share our values and our commitment to excellence

Estimated Completion: 25%

How it will be achieved:	Status at Q1 2019:
1. A partnership strategy will be developed which will identify key target partners in areas that can assist the Sport Ireland Institute to achieve its mission and vision. This strategy will identify opportunities for support in terms of finance and value-in-kind.	2018 focus on retaining existing partners. Secondary focus in on a value-in-kind partners to supply the performance kitchen. Wider partnership strategy to be developed.
2. Existing Sport Ireland Institute partners will be targeted for multi-annual retention on improved terms to enhance Sport Ireland Institute services.	National Dairy Council partnership secured on a rolling annual basis.
3. We will seek partnerships with the 3rd level education sector to advance out support of research that impacts athlete performance and supports the Institute athlete lifeskills services.	SAS partnership secured in 2018 – discussions ongoing with a nutrition provider and 3 other providers in the capability and expertise area.
4. We will seek to enter memoranda of association with International Institutes of sport that can complement, develop and strengthen our support service offering to Irish high performance sport.	Research policy reviewed and implemented. Seeking suitable partnership research projects currently. Not advanced to date.
5. Develop a sponsor/partner management plan to enhance our reputation as a partner who delivers.	Currently operating on a partner specific plan. Overarching framework to be developed.
<p>2019 Actions:</p> <ul style="list-style-type: none"> • Secure non-perishable nutrition partner & a fresh food partnership to support the work of the performance nutrition team • Rollout the agreed marketing plan with SAS • Secure 2 further MOU's in the capability and Expertise area. • Commence the development of the high level partnership strategy • Identify potential international institutes of sport for collaboration, potentially via the Association of Sports Performance Centres. 	

14.2 Appendix 2 - List of international camps and competitions with Sport Ireland Institute service providers supporting

SPORT	EVENT	INSTITUTE SUPPORT
Athletics	Athletics Junior Camp, Portugal	Martina McCarthy – S&C
	World Indoor Athletics Championships, UK	Paul Carragher - Physiotherapy
	Junior Warm Weather Training Camp, Portugal	Paul Carragher - Physiotherapy
	World Junior Athletics Championships, Finland	Paul Carragher - Physiotherapy
	European Athletics Championships, Germany	Paul Carragher - Physiotherapy
	Senior National Indoor Championships, Ireland	Ciara Sinnott-O'Connor - Physiology Kate Kirby – Psychology
	AI Junior Camp, Alfamar, Portugal	David Tobin – Nutrition
	National Championships, Ireland	Kate Kirby - Psychology
Boxing	Pre-Season Training Camp/ Competition, USA	John Cleary – S&C
	Pre-Europeans Camp Support, NI	John Cleary – S&C
	Pre-Worlds Training Camp support, Germany	John Cleary – S&C
	World Championships, NI	Niall O'Donoghue – Life Skills
	Training Camp and Test Fights v USA, USA	Sharon Madigan – Nutrition
	Training Camp Pre EU, NI	Sharon Madigan – Nutrition
	Training Camp and International Sparring, NI	Sharon Madigan - Nutrition
Cricket	Women's Training Camps x 3, (prep for World Champs), Ireland	Rachel Stentiford - Nutrition
	Men's Summer Training camp, NI	Sharon Madigan - Nutrition

SPORT	EVENT	INSTITUTE SUPPORT
Cycling	Track Camp, Mallorca	Paul Carragher – HOPS Support
	Track World Cup 4, UK	Paul Carragher – HOPS Support
	Track Training Camp (Apr), Spain	Ciara Sinnott-O'Connor - Physiology
	European Track Championships, Scotland	Ciara Sinnott-O'Connor - Physiology
	World Cup Preparation Camp, Spain	Ciara Sinnott-O'Connor - Physiology
	Track Training Camp (Jun), Spain	Ciara Sinnott-O'Connor - Physiology
	Europeans Preparation Track Camp, Spain	Ciara Sinnott-O'Connor - Physiology
	European Prep Summer Camp, Spain	Niall O'Donoghue – Life Skills
	May Camp, Ireland	Niall O'Donoghue – Life Skills
Hockey	Men's Camp Support ahead of game series vs Germany, Dublin	Noel Murphy – S&C
	Training Camp, Malaga	Danielle Logue – Nutrition
	Preparation for World Cup Training camp, Malaysia	Danielle Logue – Nutrition
	Training Camp, Belfast	Danielle Logue – Nutrition
	Training Camp, Valencia	Danielle Logue – Nutrition
	FIH Hockey World Cup, India	Danielle Logue - Nutrition
Modern Pentathlon	World Cup 3, Hungary	Martina McCarthy – S&C & HOPS Support
	World Cup 4, Bulgaria	Martina McCarthy – S&C & HOPS Support
	World Cup Final, Kazakhstan	Martina McCarthy – S&C & HOPS Support
	Camp Support at Key Preparation Camps, UK	Martina McCarthy – S&C & HOPS Support
	European Championships, Hungary	Kate Kirby – Psychology

SPORT	EVENT	INSTITUTE SUPPORT
Multi-sport Events	Youth Olympic Games, Argentina	Eoin Rheinisch – Dep. Chef de Mission & Life Skills Dr. George Fuller - Medicine Paul Carragher - Physiotherapy
	Winter Olympics, South Korea	Sarah-Jane McDonnell - Physiotherapy
Para-Cycling	Training Camp (Sept) Dublin, Ireland	Ciara Sinnott-O'Connor - Physiology
	Training Camp (Dec) Dublin, Ireland	Ciara Sinnott-O'Connor - Physiology
	September Camp, Dublin	Niall O'Donoghue - Life Skills
	December Camp, Dublin	Niall O'Donoghue - Life Skills
Para-Swimming	Pre-Europeans Training Camp, Portugal	Noel Murphy - S&C
	Monthly Training Camp (Jan), Ireland	Ciara Sinnott-O'Connor - Physiology
	Monthly Training Camp (Mar), Ireland	Ciara Sinnott-O'Connor - Physiology
	Monthly Training Camp (Apr), Ireland	Ciara Sinnott-O'Connor - Physiology
	Europeans Preparation Camp, Fuerteventura	Ciara Sinnott-O'Connor - Physiology
	IPC European Championships, Ireland	Ciara Sinnott-O'Connor - Physiology
	Tokyo Familiarisation Camp, Japan	Ciara Sinnott-O'Connor - Physiology Kate Kirby - Psychology
	Preparation for European Championships, Fuerteventura	Ciara Sinnott-O'Connor - Physiology David Tobin - Nutrition
Rowing	World Cup 1, Serbia	Kate Kirby - Psychology
	World Rowing Cup III, Switzerland	Eimear Crowley - Physiotherapy
	Warm Weather Training Camp, Italy	Sarah-Jane McDonnell - Physiotherapy
	World Championships Prep Camp, Italy & Spain	Sarah-Jane McDonnell - Physiotherapy
	World Championship, Bulgaria	Sarah-Jane McDonnell - Physiotherapy

SPORT	EVENT	INSTITUTE SUPPORT
Sailing	Training Camp, Portugal	Ronan Doherty - Nutrition
	Junior National Championships, Ireland	Kate Kirby - Psychology
Swimming & Diving	European Championships, Scotland	Sarah-Jane McDonnell - Physiotherapy

14.3 Appendix 3 - Published Papers

Martin, D., Swanton, A., Bradley, J., McGrath D. The use, integration and perceived value of performance analysis to professional and amateur Irish coaches, *International journal of Sport Science & Coaches*, Vol 13, Issue 4, 2018

Brady, C.J., Harrison, A.J., Flanagan, E.P., Haff, G.G. and Comyns, T.M., 2018. A comparison of the isometric mid-thigh pull and isometric squat: intraday reliability, usefulness, and the magnitude of difference between tests. *International journal of sports physiology and performance*, 13(7), pp.844-852.

Brady, C.J., Harrison, A.J. and Comyns, T.M., 2018. A review of the reliability of biomechanical variables produced during the isometric mid-thigh pull and isometric squat and the reporting of normative data. *Sports biomechanics*, pp.1-25.

Guppy, S., Brady, C., Kotani, Y., Stone, M., Medic, N. and Haff, G., 2018. The Effect of Altering Body Posture and Barbell Position on the Between-Session Reliability of Force-Time Curve Characteristics in the Isometric Mid-Thigh Pull. *Sports*, 6(4), p.162.

Guppy, SN., Brady, CJ., Comfort, P., Haff GG. 2018. The isometric mid-thigh pull: a review and methodology – part 1. 2018. *Strength and Conditioning Journal*. Ahead of print

Guppy, SN., Brady, CJ., Comfort, P., Haff GG. 2018. The isometric mid-thigh pull: a review and methodology – part 2. 2018. *Strength and Conditioning Journal*. Ahead of print.

Brady, C.J., Harrison, A.J., Flanagan, E.P., Haff, G.G., Comyns, T.M. The relationship between maximum strength and acceleration performance in track and field sprint athletes. *Proceedings of NSCA International Conference*, Madrid, Spain. 26th – 29th September 2018.

Brady, C.J., Harrison, A.J., Flanagan, E.P., Haff, G.G., Comyns, T.M. The relationship between the isometric mid-thigh pull and sprint acceleration performance in sprinters. *Proceedings of Strength and Conditioning Society 1st Annual Meeting*, Rome, Italy. 18th November 2018.

Stewart, R., Flanagan, E.P. 2018. Ditroilo, M. The effect of fatigue on reactive strength in football players. In: *Conference Proceedings of European College of Sport Science*. Dublin, Ireland. July 2018.

Browne, D., Flanagan, E.P. 2018. Reactive Strength Endurance Part 1: The response of reactive strength to fast stretch shortening cycle fatigue. *Sport Performance and Science Reports*. Volume 1 (18).

Browne, D., Flanagan, E.P. 2018. Reactive Strength Endurance Part 2: Is maximal reactive strength associated with reactive strength fatigue? *Sport Performance and Science Reports*. Volume 1 (22).

Sinnott-O'Connor, C., Comyns, T.M., Nevill, A.M., & Warrington, G.D. (2018) Salivary Biomarkers and Training Load During Training and Competition in Paralympic Swimmers. *International Journal of Sports Physiology and Performance*, 13(7), 839-843

Logue DM, Madigan SM, Heinen M, McDonnell SJ, Delahunt E, Corish CA. Screening for risk of low energy availability in athletic and recreationally active females in Ireland. *European Journal Sport Science*. 2018:1-11.

Madigan SM. FODMAPS; Are they a solution to a common problem in elite sport? *The sport and Exercise Scientist*. Feb 2018.

11.4 Appendix 4 - Keynote Addresses

Sarah Jane McDonnell, Head of Rehabilitation:

Key note speaker "Rowers Conference" Eton Dorney, UK
"The practical first steps in building the robust athlete"

Speaker at Swim Ireland #Weplay Inspiring Girls in Sport Conference
"Swimming away from Injury"

Speaker AI Endurance Coaches Network
"Running away from injury: lessons learned"

Paul Carragher, Senior Physiotherapy Consultant:

Speaker at Athletics Northern Ireland Elite Coach Development Program –
"Workshop on Integrating Physiotherapy and Working with Medical Personnel at Major Championship"

Dr. Kate Kirby, Head of Psychology:

Speaker at Summit on Mindfulness and Acceptance Approaches in Elite Sport, hosted in the Swiss Olympic training centre in April 2018
"The use of mindfulness for increasing awareness and management of emotions in a high performance football team"

Jessie Barr, Performance Psychology Consultant:

Keynote at the Open University's "Competing in the Dark" conference in Milton Keynes in March 2018.
"Attitudes towards mental health help-seeking within Irish sport."

Ronan Doherty, Performance Nutrition Consultant:

Keynote speaker at the HPX Nutrition Symposium, October 2018.
"The role of sleep in athlete health and recovery"
He also presented at the ECSS conference in Dublin in July.

Dr. Sharon Madigan, Head of Performance Nutrition:

Keynote address with Jamie Pugh at BASES Winter Conference, UK.
"The health of the athlete gut and research into the microbiome of elite athletes"
She also presented as part of a multidisciplinary group including Sarah Jane McDonnell on Relative Energy Deficiency at the annual coaching conference for Athletics Ireland in April.

Danielle Logue, PhD Scholar:

Keynote at Swim Ireland's #WePlay Conference, Dublin
"Energy availability and its health consequences – the importance of fuelling adequately in sport"

THE ATHLETE'S BREAKFAST

WHAT DID IT TAKE TO KEEP OUR
ATHLETES FUELLED IN 2018?

115 BREAKFASTS

24 WORKSHOPS

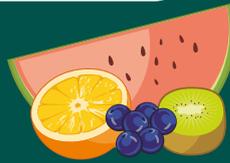
WE USED HOW MUCH?



OATS
316KG



EGGS
6,950

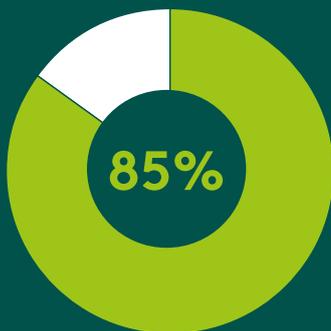


**FRUIT PER
BREAKFAST**
4.6KG



HONEY
27 LITRES

FEEDBACK



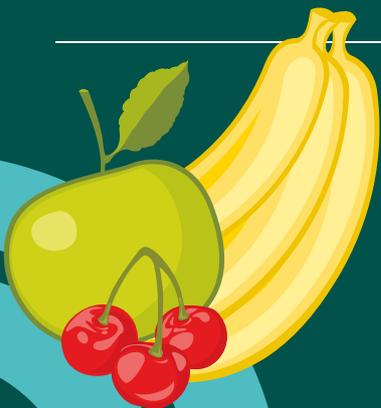
85% of athletes (n=36) that completed a survey of the breakfasts strongly agree that breakfast helped them **"effectively refuel and prepare for"** subsequent training sessions

78% felt "the breakfast reduces food preparation work-load at critical timepoints"

"additional days for breakfast"

92% of athletes felt they are "provided an opportunity for socialisation with my peer group" providing time to learn from other athletes and access to a nutritionist twice per week

BREAKFAST ATTENDANCE



35
DAILY AVERAGE

773
QUARTERLY TOTAL

21
The number of sports to grab a breakfast



SPÓRT
ÉIREANN
INSTITIÚID

SPORT
IRELAND
INSTITUTE