

# **sportscotland Estate Review**

## **Technical Appendices**

An assessment of the condition and investment needs of the sport estate to deliver high quality, sustainable facilities for an active Scotland where everyone benefits from sport.

October 2025

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# Appendices

## A.1 Appendix 1: Key Findings by Facility Type

### A.1.1 Outdoor Facilities

#### A.1.1.1 Athletics

There are 98 athletics tracks, at 98 sites, with a total of 204 athletics facilities across 197 sites.

188 facilities at 181 sites are local authority owned, with 102 of these facilities at schools.

The average age of the athletics facilities is 28 years, although it is assumed that surface replacements or upgrades may have been undertaken that are not captured in this data.

Condition data has been provided for 58 of these facilities. The average condition rating for these tracks is B.

A breakdown of facility condition ratings can be seen in the chart to the right.

50% of the athletics facilities that are aged between 0 and 10 years have a condition rating of A.

64% of facilities between 10 and 20 years old are rated B.

61% of the facilities that are older than 20 years have a condition rating of C.

70% of those aged between 20 and 40 years are rated C.

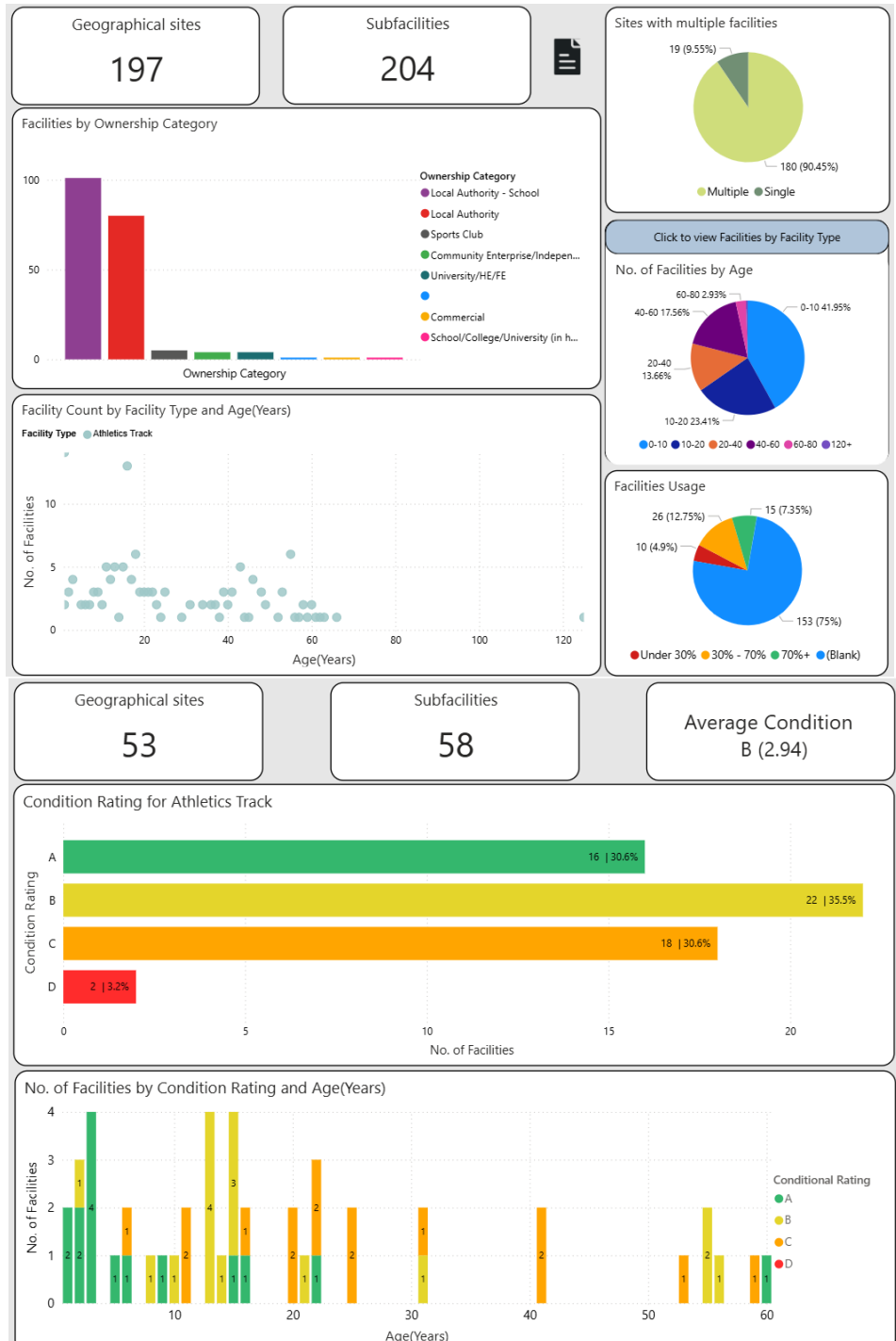


Figure 1: Athletics facility dashboard

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### A.1.1.2 Golf Courses

There are 497 golf courses across 446 sites in Scotland, as well as 434 facilities offering long game or short game practice areas, pitch and putt courses or driving ranges.

703 of the total golf facilities, at 351 sites, are owned by sports clubs, including 335 of the golf courses at 365 sites.

96 golf facilities at 56 sites are local authority owned, with 132 facilities at 58 sites in other ownership.

The average age of golf facilities is 101 years.

Condition data has been provided for 89 golf facilities across 50 sites. The average condition rating for these golf courses is B.

A breakdown of facility condition ratings can be seen in the chart captured to the right. This data relates to golf facilities, with pavilions/clubhouses considered separately.

65% of the golf facilities that are aged between 0 and 10 years have a condition rating of A. 79% of facilities between 10 and 60 years old are rated B. 58% of the facilities that are older than 60 years have a condition rating of B.

This data relates to golf facilities with pavilions considered separately.

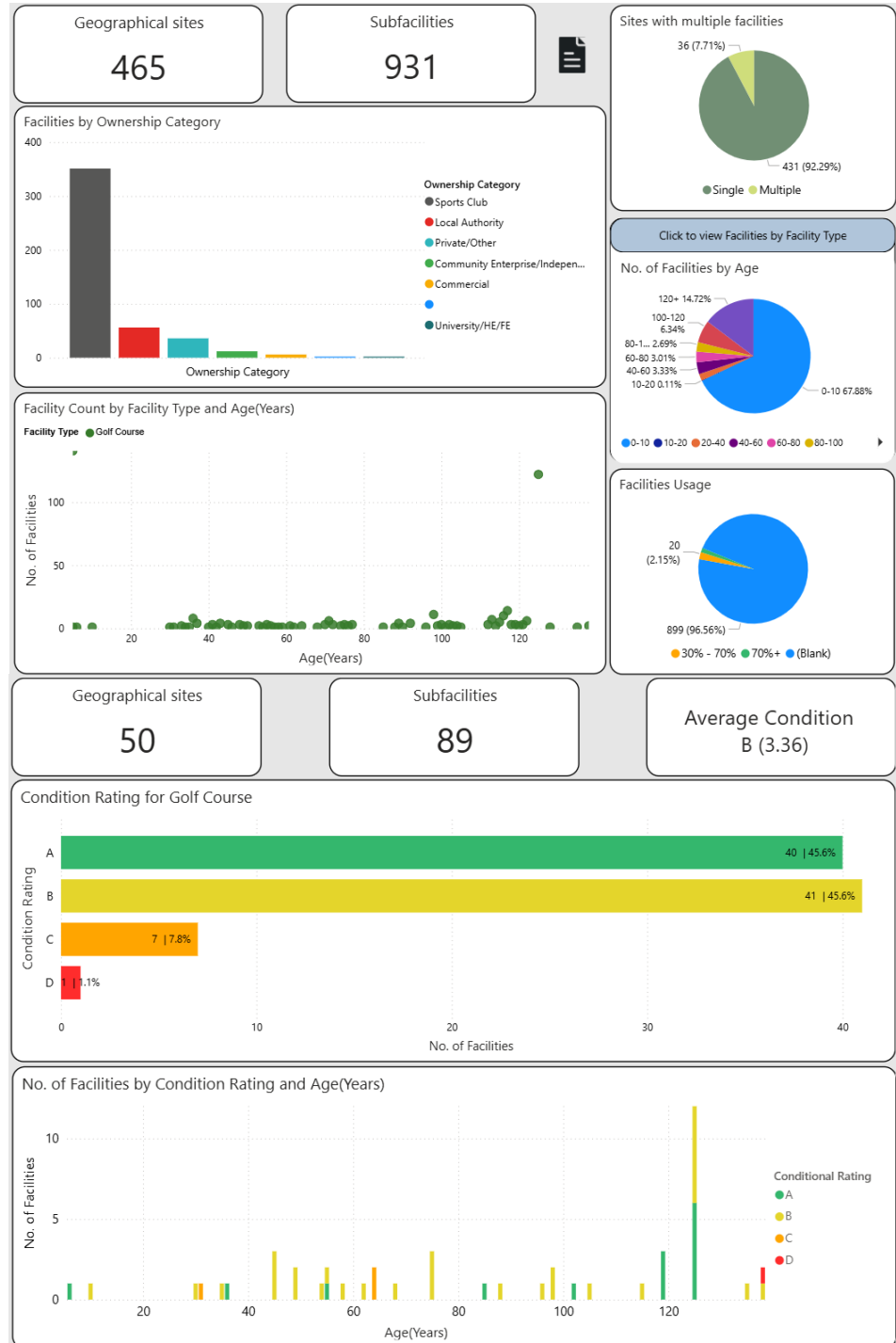


Figure 2: Golf facility dashboard

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### A.1.1.3 Pitches

There are 2,996 full size pitches across 1,670 sites in Scotland. This total includes 540 synthetic pitches.

The majority are owned by Local Authorities (including schools).

The average age is 30 years.

Condition data has been provided for 601 pitches (principally grass pitches) across 256 sites. The average condition rating for these pitches is B. The breakdown of facility condition ratings is shown in the chart on the right.

37% of the pitches aged between 0 and 10 years have a condition rating of A. This rises to 58% when looking at the pitches between 10 and 20 years old.

Nearly half of pitches over 20 years old are rated B.

Of the pitches that are local authority owned, 37% have condition rating of A, 46% are B, 11% are C and 1% are D.

Of the sports club owned facilities, 37% are condition rated A, 46% B, 11% rated C and 6% D.

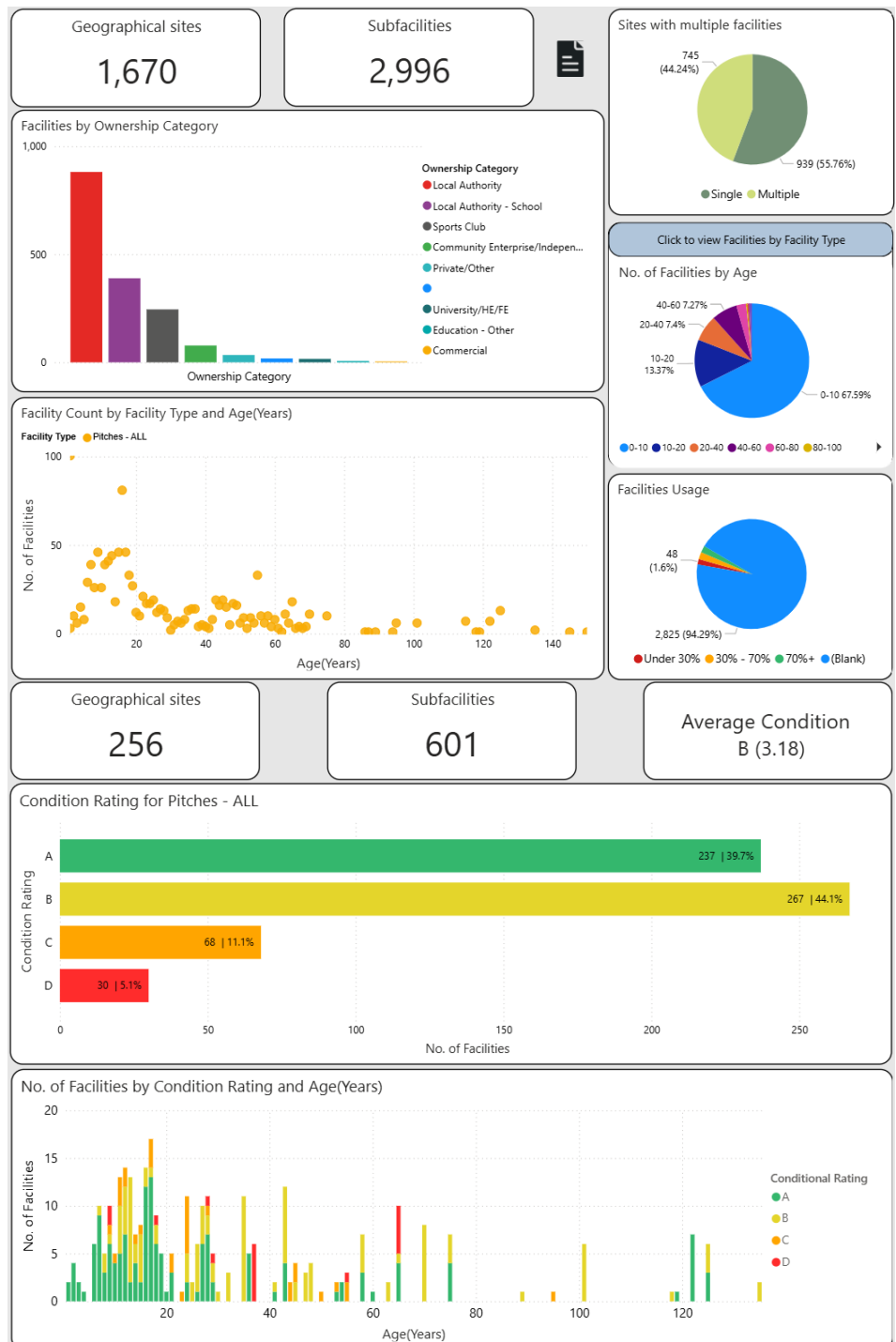


Figure 3: Pitch facility dashboard

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### A.1.1.4 Tennis Courts

There are 1,383 tennis courts across 472 sites in Scotland. 96% of these are outdoor tennis courts.

660 of the tennis courts, at 200 sites, are owned by sports clubs, almost half of all courts.

The average age of the tennis courts is 44 years, and the average age of the local authority owned facilities is 32 years old.

It is assumed that surface replacements or upgrades may have been undertaken which are not captured in this data.

Condition data has been provided for 463 tennis courts across 142 sites. The average condition rating for these tennis courts is B, but 46% of facilities have an A rating. A breakdown of facility condition ratings can be seen in the chart captured to the right.

This data relates to courts with pavilions considered separately.

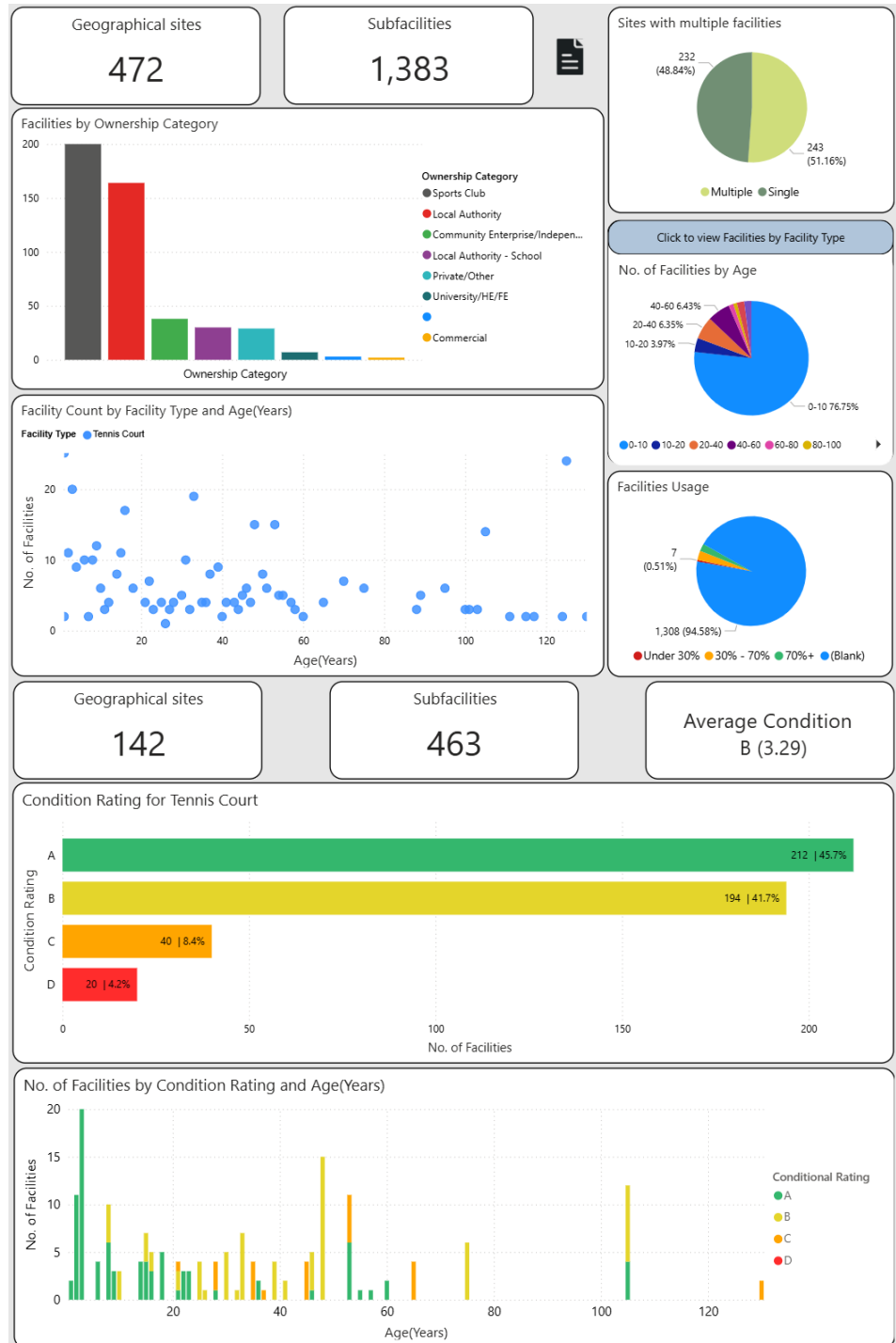


Figure 4: Tennis court facility dashboard

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### A.1.1.5 Bowling Greens

There are 984 bowling greens across 854 sites in Scotland. Most sites are owned by clubs, as seen in the chart to the right.

The average age is 84 years.

Condition data has been provided for 110 bowling greens across 83 sites. The average condition rating for these is B. A breakdown of facility condition ratings can be seen in the chart captured to the right. This data relates to bowling greens with pavilions considered separately.

The condition ratings of bowling greens over the age of 60 shows 48% at C or D, compared to 12% under the age of 60.

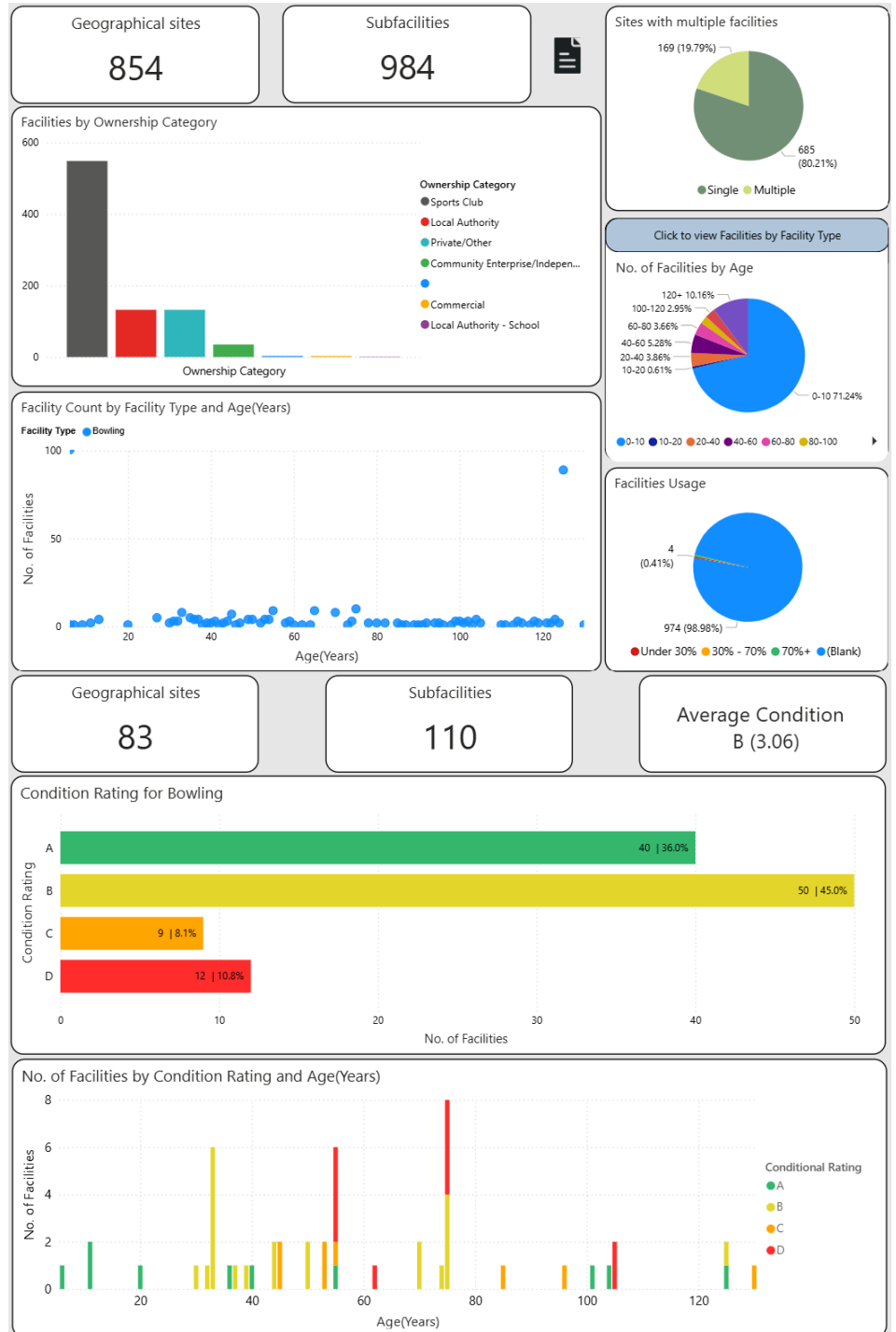


Figure 5: Bowling green facility dashboard

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## A.1.2 Built Facilities

### A.1.2.1 Sports Halls

There are 3,233 sports halls on 1,985 sites across Scotland.

This includes a range of sports hall sizes from under 3 courts to 8+ courts, fitness suites, gymnasiums, indoor training areas and studios.

The majority, 2,715 facilities at 1,594 sites, are local authority owned, with 1,468 of these at schools.

The average age is 42 years.

Condition data has been provided for 2,489 sports halls across 1,431 sites. The average condition rating for these facilities is B.

A breakdown of facility condition ratings can be seen in the chart to the right.

When condition rating is broken down into sub-type groupings of sports halls and gymnasiums, fitness suites, and studios, the percentage achieving each condition ratings is shown in the table on the bottom right.

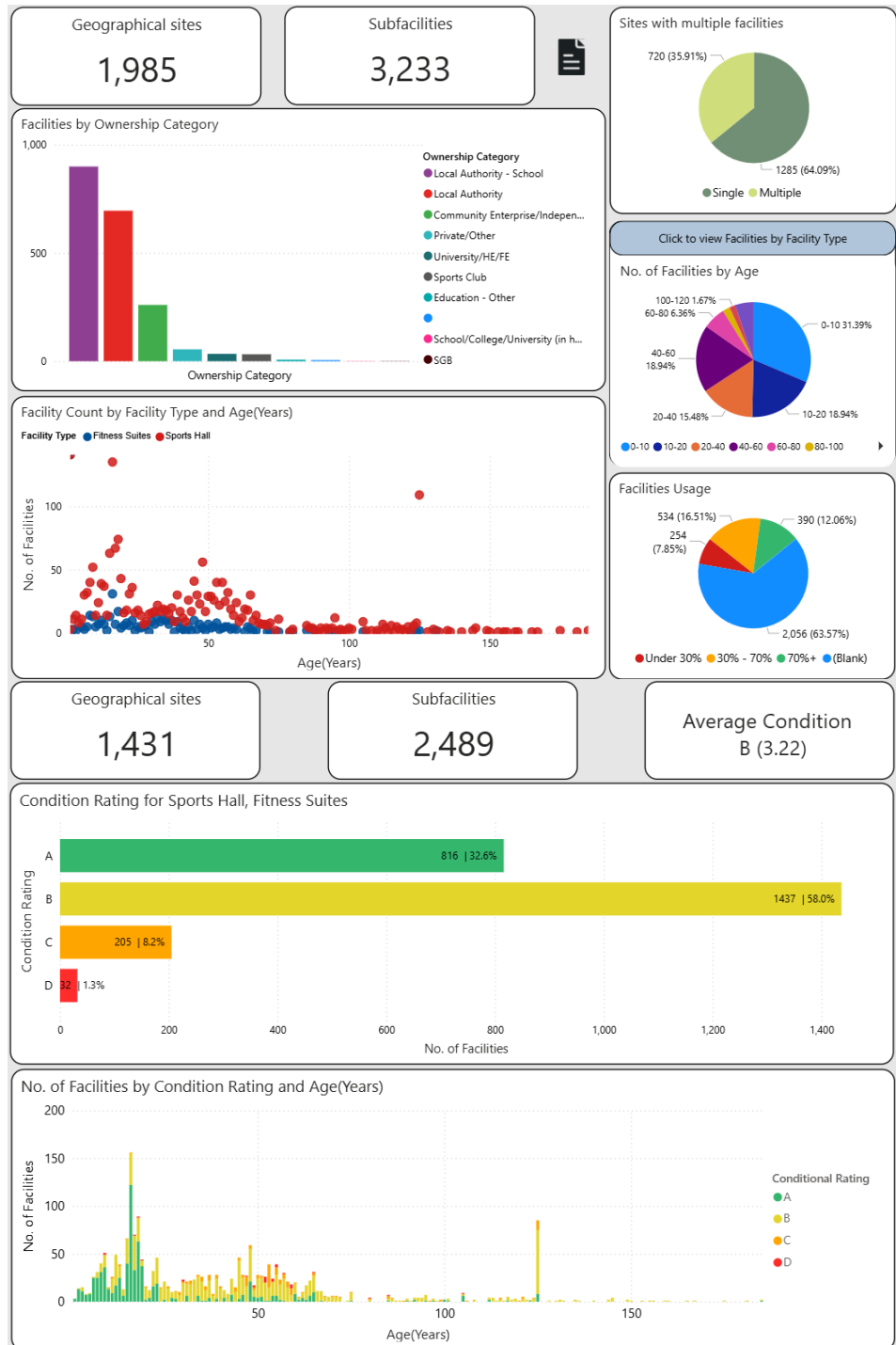


Figure 6: Sports hall facility dashboard

Sports Hall Count	< 3 Court	3 Court	4+ Court	6+ Court	8+ Court
	1,250	229	277	38	29

Table 1: Sports hall sizes

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### A.1.2.2 Gymnastics halls

There are 67 gymnastics facilities across 65 sites in Scotland.

Ownership data is incomplete, but of the 26 facilities where this is unknown, it is likely that many will be owned or operated by clubs.

13 gymnastics facilities, at 12 locations, are owned by sports clubs with 18 facilities owned by local authorities and local authority schools.

The average age is 28 years. This average age drops to 22 years when just looking at the sports club owned facilities but rises to an average of 42 years old in local authority owned facilities.

Condition data has been provided for 10 gymnastics facilities across 10 sites. The average condition rating for these gymnastics facilities is B (1 facility rated A, 8 rated B and 1 rated C).

A breakdown of facility condition ratings can be seen in the chart captured to the right.

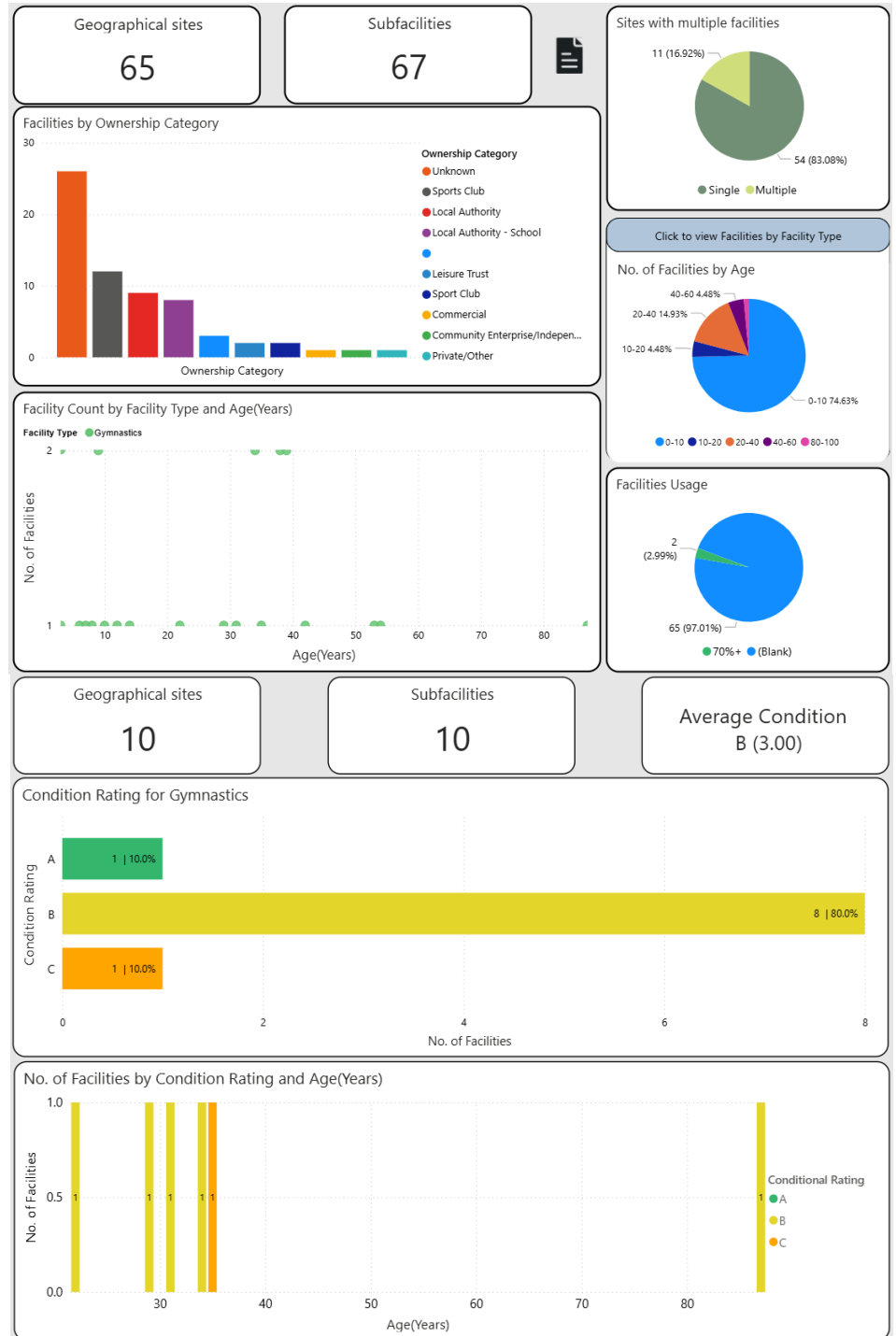


Figure 7: Gymnastics hall facility dashboard

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### A.1.2.3 Ice Rinks

There are 26 ice rinks across 25 sites in Scotland.

11 facilities at 11 sites are local authority owned, with 7 facilities across 6 sites commercially owned. The other facilities are owned by sports clubs (4), are privately owned (3), or are owned by community enterprise/independent trust (1).

The average age is 40 years. This average is slightly less (32 years) for local authority facilities. For commercial facilities, the average age rises to 56 years old. While commercial sites have been excluded for the remainder of this review, given the challenges facing ice rinks, these have been included for this facility.

Condition data has been provided for 23 ice rinks across 22 sites. Of these, the average condition rating is B, with 52% achieving an A rating. A breakdown of facility condition ratings can be seen in the chart captured to the right.

For facilities under 40 years old, the average condition rating is A, with 67% of facilities achieving this rating. 25% achieved B and 8% achieved C.

For facilities aged over 40, 36% achieved A, 45% achieved B, 9% achieved C and 9% achieved D.

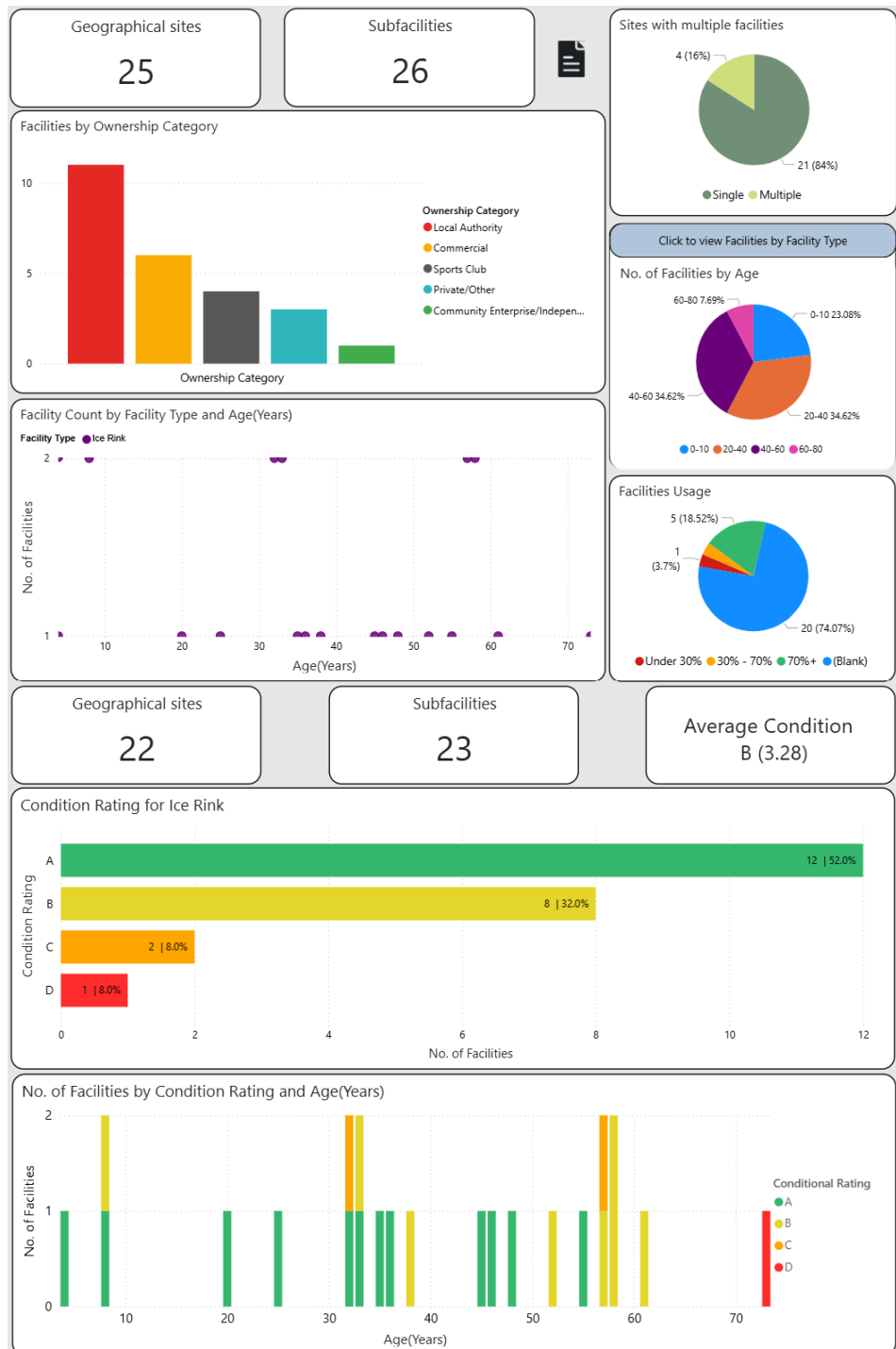


Figure 8: Ice rink facility dashboard

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### A.1.2.4 Squash Courts

There are 345 squash courts across 176 sites in Scotland.

Most courts (144 across 60 sites) are owned by sports clubs. 118 of the squash courts across 70 sites are local authority owned.

The average age is 46 years.

The average age of local authority owned squash courts is 38 years. The average age of the sports club owned squash courts is 66 years.

Condition data has been provided for 176 squash courts across 97 sites. The average condition rating for these squash courts is B. A breakdown of facility condition ratings can be seen in the chart captured to the right.

Of the squash courts aged below 20 years, 41% are rated A, 53% are rated B, and 7% are rated C.

Of the squash courts aged between 20 and 60 years old, 8% have a condition rating of A, 71% are B and 22% are C.

Of the squash courts over 60 years old, 6% are rated A and 94% are rated B.

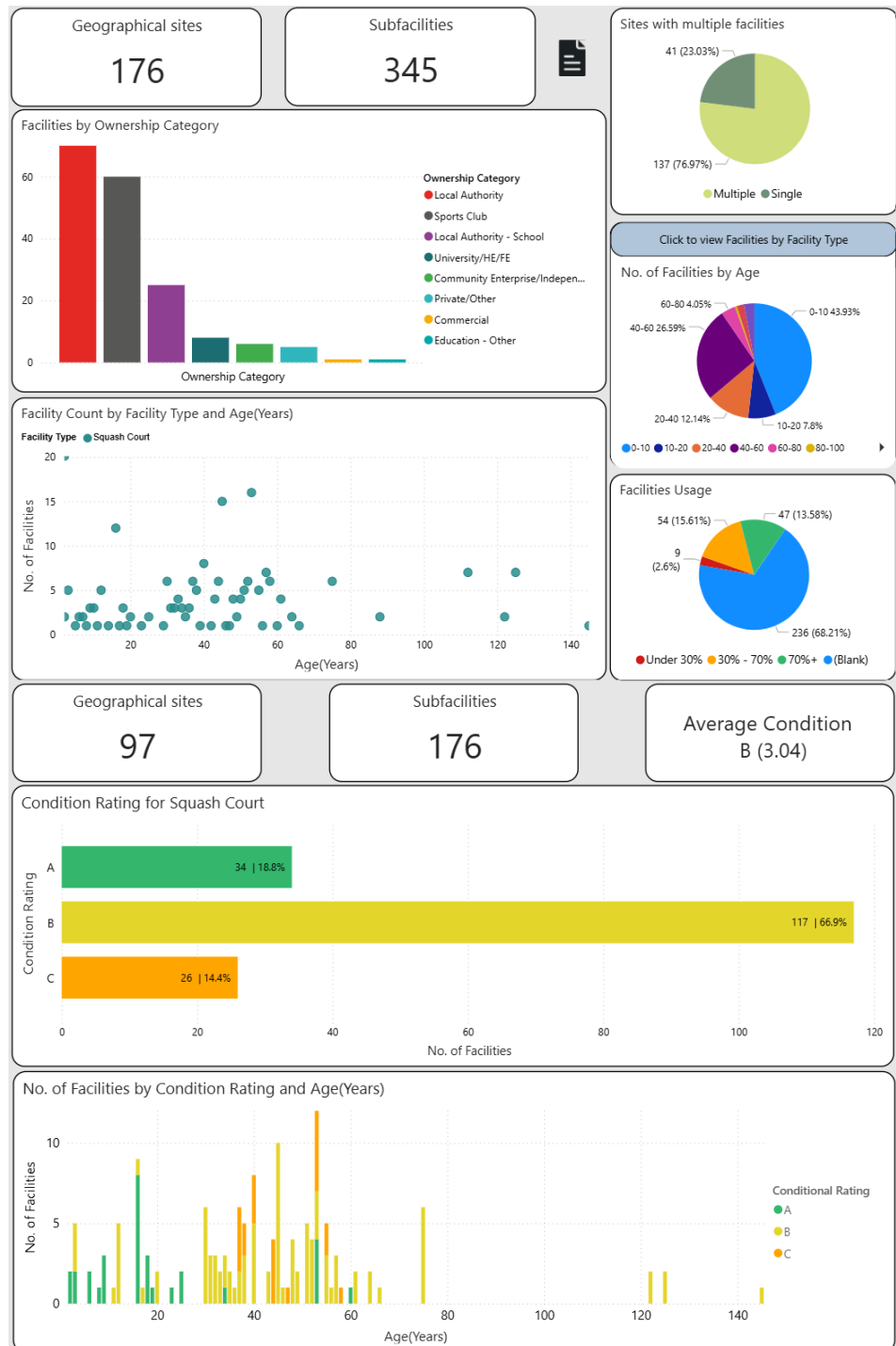


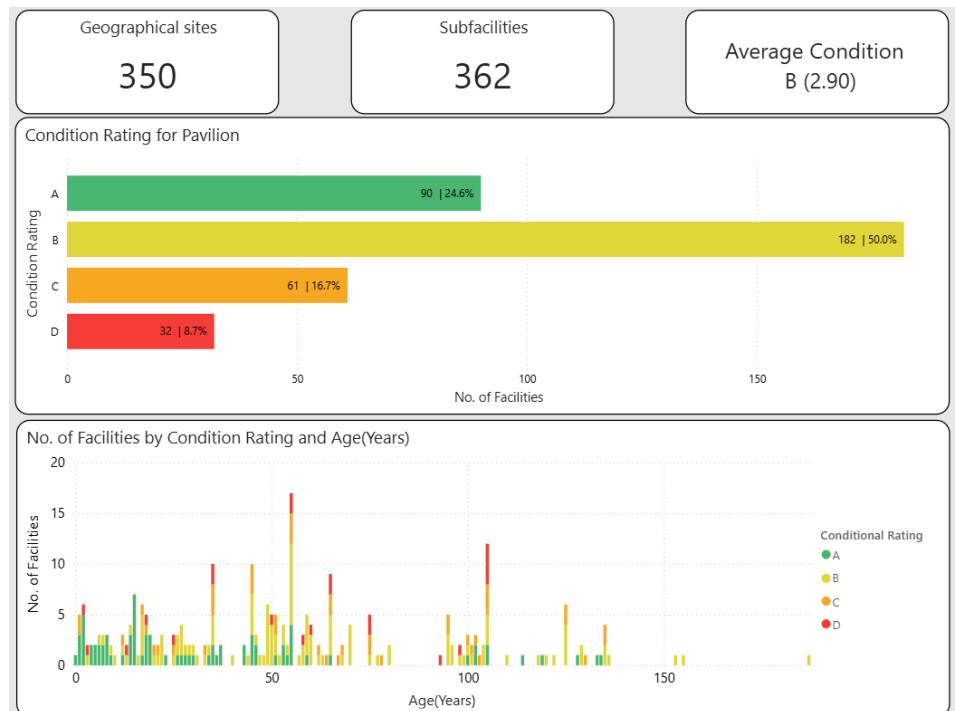
Figure 9: Squash court facility dashboard

### A.1.2.5 Pavilions

Pavilion data has been estimated based on the distribution of sports facilities across the estate, in line with the methodology previously used by **sportscotland** in the 2006 Estates<sup>1</sup> Audit.

Using the 2006 Audit approach, the following assumptions have been applied in calculating these figures: 70% of pitch sites are considered to have a pavilion, 80% of tennis sites are assumed to have a pavilion. All cricket, bowling, and golf sites are assumed to have pavilions.

Using this methodology, the total number of pavilions is estimated to be 2,867. This comprises 1171 pavilions at pitches (including cricket); 377 pavilions at tennis facilities; 465 pavilions at golf sites and 854 pavilions at bowling facilities.



**Figure 10: Pavilion facility condition dashboard**

A breakdown of the surveyed pavilions condition ratings is shown in the chart above.

Of the surveyed pavilions, the average age is 54 years old. The average age of the local authority owned pavilions surveyed is 49 years old. The average age of the sports club owned pavilions is 64 years old.

<sup>1</sup> *National Audit of Scotland's Sports Facilities: Summary Report.* **sportscotland.** 2006

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### **A.1.3 Swimming Pools**

Data on pools was received which confirms the outcomes of the separate piece of work commissioned by **Scottish Swimming in November 2023: *The Future of Swimming Facilities in Scotland***<sup>2</sup>.

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<sup>2</sup> *The Future of Swimming Facilities in Scotland*, Scottish Swimming, November 2023

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## A.2 Appendix 2: Approach

The focus has been to create a robust, data-driven evidence base that enables **sportscotland** to understand the current condition of the estate, identify future investment needs, and prioritise interventions that support Net Zero, Accessibility and Inclusivity, and increased Utilisation.

The approach set out an evidence base to '*demonstrate the issues*' and from which **the wider sector** can start to '*develop the best solution*' for a more sustainable future.

## A.3 Appendix 3: Scope

The three key questions the Estate Review addresses are:

1. What is the current condition of the national sport estate?
2. What level of investment is required over the next 25 years across the national estate to address current condition?
3. How suitable is the estate to meet Net Zero, Accessibility, and Inclusivity requirements and what level of investment is required to address these issues over the next 25 years?

**Facilities** in scope were:

- Athletics
- Golf Courses
- Pitches (natural and synthetic)
- Tennis Courts
- Bowling Greens
- Pavilions
- Sports Halls
- Gymnastics
- Ice Rinks
- Squash Courts

**Sub-facilities** in scope were:

- Athletics Track
  - Athletics Track
  - Athletics Track – Indoor
  - Indoor Athletics Arena
  - Outdoor Athletics Training Area
- Golf Courses
  - Golf Course
  - Golf Driving Range
  - Golf Long Game Practice Area
  - Golf Short Game Practice Area
  - Pitch and Putt Course
- Pitches
  - Pitch – Cricket Square
  - Pitch – Football
  - Pitch – Full Size
  - Pitch – Hockey
  - Pitch – Indoor Pitch
  - Pitch – Rugby
  - Pitch – Shinty
- Tennis Courts
  - Indoor Tennis Court
  - Outdoor Tennis Court
- Bowling
  - Bowling Green
  - Indoor Bowling
- Pavilions
  - Pitches (including cricket)

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- Tennis
- Bowling
- Golf
- Sports Halls
  - Fitness Suite – Cv
  - Fitness Suite – Weights
  - Fitness Suite – Weights and CV
  - Gymnasium
  - Sports Hall – 3 Court
  - Sports Hall < 3 Court
  - Sports Hall 4+
  - Sports Hall 6+
  - Sports Hall 8+
  - Studio
  - Studio – Combat
  - Studio – Dance/Aerobics
  - Studio – Spin
  - Studio– Fitness
- Gymnastics
  - Gymnastics Hall
- Ice Rinks
  - Ice Rink
  - Ice Rink - Arena
- Squash Courts
  - Squash Court

Facilities out of scope were:

- Swimming pools
- Church halls not predominantly used for sport

Ownership categories in scope were:

- Local authority facilities (including schools)
- Club/Community Enterprise owned facilities
- Higher Education/Further Education (HE/FE) facilities. (Tertiary Education Sector)

Ownership categories out of scope were:

- Commercial sector sports facilities; independent school sector

The data categories included for each facility type were:

- Unique ID#
- Location co-ordinates
- Ownership
- Management
- National or Regional SGB facility status
- Area (Sqm)
- Age
- Condition
- Energy use/ year

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- EPC rating
- Accessibility rating (based on 14 Qs)
- Utilisation

Data hierarchies:

- Site ID;
- Facility ID;
- Location (GS-X)
- Location (NG-Y)
- Site Name
- Post Code
- Local Authority Name
- Facility Type
- Facility Sub-Type
- Ownership Category
- Management Type
- Age (Year Built)
- Age (Years)
- Size: Area SQM
- Condition Rating (A-D)
- Gas Usage (Kwh/per year)
- Electricity Usage (Kwh/per year)
- SGB Facility
- SGB Region
- EPC

## A.4 Appendix 4: Data sources

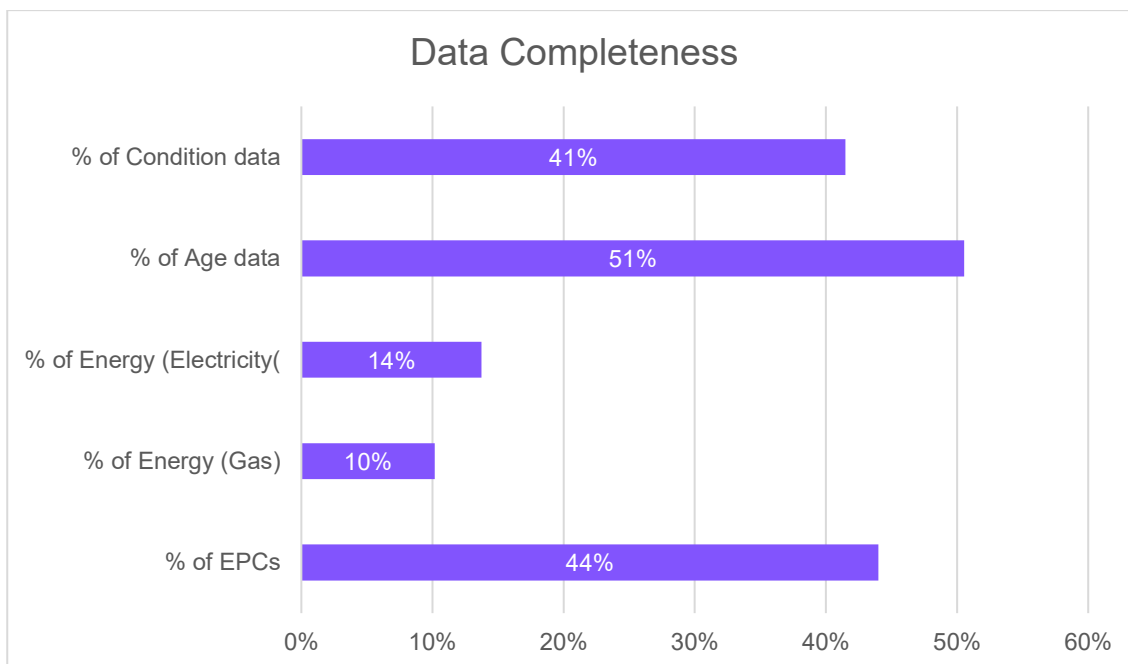
### A.4.1 Baseline information

The master dataset has been collated, cleansed and merged using multiple data sets. These are the Mott MacDonald survey, the **sportscotland** survey and a range of data referred to as “Baseline data”. Baseline data comprises age and condition data received directly from: local authorities and leisure trusts; Sports Governing Bodies (SGBs) and the tertiary education sector.

Every single data set that was collected and collated used different collection methodologies, data templates and with different levels of data rigour, discipline and validation which lead to highly disparate and inconsistent datasets to work with. None of the baseline data values had been validated. Data did not conform to defined formats including a lack of unique identifiers for some facilities that had to be added during the collation process. Data used was collected across several years.

Data completeness for the project ended (with 41% condition data completeness, 51% age data completeness, 14% electricity data completeness, 10% gas data completeness, and 44% EPCs data completeness).

Data completeness percentage was calculated by dividing the number of rows containing valid data by the total number of rows. For example, a completeness of 2% for electricity energy data means that out of 14,686 total rows for electricity energy data column, 237 rows contain valid data.



**Figure 11: Completeness of different data sets**

The statistics in this report are based on only the completed dataset with explicit statements

## A.4.2 Condition

**Condition Ratings** were determined, using the following datasets:

1. Condition data from condition surveys undertaken during October to December 2024 by Mott MacDonald of 42 facilities across 3 building typologies (sports halls, squash courts and gymnastics facilities) The sites were selected to be representative of the estate in terms of typology, size and age.

The MM condition survey data was collated on site using a digital survey App, Arc GiS Survey 123. Data was collated at a systems level across the building in accordance with RICS standards to determine the overall condition rating of the building.

2. Condition data from condition surveys undertaken during October to December 2024 by **sportscotland** of 222 pavilion facilities and a total of 128 other facilities including pitches, bowling greens, golf courses and tennis courts. The **sportscotland** condition survey data was collated using Excel spreadsheets. Data was collated based on visual inspection of built and outdoor facilities. The sites were selected to be representative of the estate in terms of size and age.
3. Condition information on all ice rink facilities and 28 athletics tracks was provided by the relevant Sports Governing Bodies.
4. Condition data was provided from 31 out of 32 Local Authorities. While this was not done on the basis of a representative sample, the data received, given its volume, is useful to gain a picture of the condition.

The condition rating assigned to each building surveyed is the current state of its fabric and systems. The condition ratings used in this study followed the Scottish Government guidelines for reporting on the condition of the Learning Estate<sup>3</sup> which align with the RICS and CiBSE standards for condition measurement.

Ratings for condition only were attributed. Suitability ratings or ratings relating to the adequacy and appropriateness of the design, security, contents, occupants and general health and safety requirements were not part of this study.

The following ratings are used to measure condition:

- A. Good – Performing well and operating efficiently
- B. Satisfactory – Performing adequately but showing minor deterioration
- C. Poor – Showing major defects and/or not operating adequately
- D. Bad – Economic life expired and/or risk of failure

The sample visual site surveys help provide a level of validation for the baseline condition data. A comparison of the mean average across both datasets, using a conversion value for condition ratings where A = 1; B = 2; C = 3; and D = 4 reveals that the average condition rating in the Mott MacDonald visual site surveys were slightly higher (i.e. slightly poorer condition) than the condition ratings in the baseline condition data.

Average Condition rating in Baseline data: 1.81

Average Condition rating in Mott MacDonald survey: 2.03

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<sup>3</sup> *School estates: condition reporting core facts*. Scottish Government. November 2017.

### **A.4.3 Net Zero**

Available datasets included baseline data and data collated by Mott MacDonald for all facilities included in the visual inspections for condition surveys. This included any available data for Facility Type, Age, Condition, Ground Floor areas (GIFA), Electricity usage, Gas usage, EPC ratings.

With limited energy consumption data for each facility, the EPC database was utilised to gather further information on each site. Utilising the postcode to cross-reference both sets of data resulted in a data match of 44%, which was used for further analysis.

Less than 50% of the key baseline data (including GIFA, EPC, energy consumption and heating system type) for the estate's facilities was available for assessment.

### **A.4.4 Accessibility and Inclusion**

Available datasets for current provision of accessible and inclusive elements at facilities included survey questionnaires, and survey data collated by Mott MacDonald for all facilities included in the visual inspections for condition surveys.

Data was gathered on the following areas at each of the facilities surveyed: Arriving at the facility; Level changes; Doors; Reception area; Welfare facilities; and Evacuation provisions.

Limited information was received through survey questionnaires, but there is a general acknowledgement by stakeholders that this is an issue across much of the estate.

### **A.4.5 Utilisation**

Availability, consistency and accuracy of Utilisation data was challenging. Sources included the baseline data shared by several Local Authorities for facility usage and bookings.

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### A.4.6 SGB Data

SITE NAME	Facility Sub Type	Local Regional National	Sports
Aberdeen Sports Village	Athletics Track; swimming pool; sports hall	National	Aquatics
Glasgow Club Tollicross	Swimming Pool - Main	National	Aquatics
Royal Commonwealth Pool	Swimming Pool - Main	National	Aquatics
University Of Stirling Sports Centre	Swimming Pool - Main	National	Aquatics
Aberdeen Sports Village	Athletics Track; swimming pool; sports hall	National	Athletics
Ayrshire Athletic Arena	Athletics Track	National	Athletics
Emirates Arena and Sir Chris Hoy Velodrome	Indoor Athletics Arena; sports hall	National	Athletics
Glasgow Club Scotstoun	Indoor Athletics Arena	National	Athletics
Grangemouth Stadium	Indoor Athletics Arena	National	Athletics
Riverside Sports Arena	Athletics Track	National	Athletics
Bob MacGregor Trails Academy, Craill		National	Auto Cycle
Knockhill Racing Circuit		National	Auto Cycle
Glasgow Club Scotstoun	Indoor Athletics Arena	National	Badminton
Easterhouse Sports Centre	Sports Hall 8+	National	Basketball
Playsport - Gladiators Arena	Sports Hall 4+	National	Basketball
Regional Performance Centre - Caird Park	Sports Hall 8+	National	Basketball
National Centre for Bowling	Bowling Green	National	Bowls
The Olympa Building	Sports Hall < 3 Court	National	Boxing
[EN]GAGE Sports and Fitness Centre	Indoor nets	National	Cricket
Cambusdoon Sports Club	Cricket Square	National	Cricket
Clydesdale Cricket and Hockey Club	Cricket Square	National	Cricket
Dollar Academy	Cricket Square	National	Cricket
Forthill Sports Club	Cricket Square	National	Cricket
George Heriots School - Goldenacre Sportsfield	Cricket Square	National	Cricket
Mannofield (Aberdeenshire CC)	Cricket Square	National	Cricket
The Grange Club	Cricket Square	National	Cricket
The Mary Erskine School	Pitch - Full Size	National	Cricket
Carl Aberdeen	Ice Rink - Curling Rink	National	Curling
Dewars Ice Rink	Ice Rink	National	Curling
Dumfries Ice Bowl	Ice Rink	National	Curling
Forfar Indoor Bowling & Sports Centre	Ice Rink - Curling Rink	National	Curling
Murrayfield Ice Rink	Ice Rink - Curling Rink	National	Curling
The Peak	Ice Rink	National	Curling
7stanes trails - Glentress		National	Cycling
Broadwood Stadium		National	Cycling
Cathkin Braes Trails		National	Cycling
Emirates Arena and Sir Chris Hoy Velodrome		National	Cycling
Knightswood BMX Centre		43101 National	Cycling
Nevis Range		National	Cycling
Scottish National Equestrian Centre		National	Equestrian
Hampden Park (Queens Park FC)	Pitch - Full Size	National	Football
Lesser Hampden (Queens Park FC)	Pitch - Full Size	National	Football
Oriam	Pitch - Full Size; sports hall 8+	National	Football
sportscotland National Centre Inverclyde	Sports Hall 8+; Pitch - Full Size	National	Football
Blairgowrie Golf Club	Golf Course	National	Golf
St Andrews Links Trust	Golf Course	National	Golf
Ravenscraig Regional Sports Facility		National	Gymnastics
Regional Performance Centre - Caird Park	Sports Hall 8+	National	Gymnastics
sportscotland National Centre Inverclyde	Sports Hall 8+; Pitch - Full Size	National	Gymnastics
Oriam	Pitch - Full Size; sports hall 8+	National	Handball
Ravenscraig Regional Sports Facility		National	Handball
Glasgow National Hockey Centre	Pitch - Hockey	National	Hockey
Emirates Arena and Sir Chris Hoy Velodrome	Indoor Athletics Arena; sports hall	National	Judo
Meadowbank Sports Centre		National	Judo
Ravenscraig Regional Sports Facility		National	Judo
sportscotland National Centre Inverclyde	Sports Hall 8+; Pitch - Full Size	National	Judo
Ravenscraig Regional Sports Facility		National	Karate
sportscotland National Centre Inverclyde	Sports Hall 8+; Pitch - Full Size	National	Lacrosse
University of Edinburgh Sports Ground (Peffermill)	Pitch - Lacrosse	National	Lacrosse
Eden Rock Edinburgh		National	Mountaineering
Edinburgh International Climbing Arena		National	Mountaineering
The Climbing Academy - The Newsroom		National	Mountaineering
The Ledge		National	Mountaineering
Dundee International Sports Centre	Sports Hall 8+	National	Netball
Dundee International Sports Centre	Sports Hall 8+	National	Netball
Emirates Arena and Sir Chris Hoy Velodrome	Indoor Athletics Arena; sports hall	National	Netball
Meadowbank Sports Centre	Sports Hall 8+	National	Netball
Napier University - En gage  centre	Sports Hall < 3 Court	National	Netball
Oriam	Pitch - Full Size; sports hall 8+	National	Netball
sportscotland National Centre Inverclyde	Sports Hall 8+; Pitch - Full Size	National	Netball
Strathclyde Sport	Sports Hall 4+	National	Netball
The Leisuredrome	Sports Hall < 3 Court	National	Netball

Figure 12: National SGB Facilities (Page 1)

An assessment of the condition and investment needs of the sport estate to deliver high quality, sustainable facilities for an active Scotland where everyone benefits from sport.

LHI Perth Academy of Sport & Wellbeing	Sports Hall 6+	National	Netball
University of Edinburgh - Pleasance Sports Centre	Sports Hall < 3 Court	National	Netball
University Of Glasgow - Stevenson Building	Sports Hall 4+	National	Netball
Balfour Orienteering		National	Orienteering
Balmoral Castle and Estate		National	Orienteering
Birse Orienteering		National	Orienteering
Cutbin Forest		National	Orienteering
Lossie Forest		National	Orienteering
Moray Estates		National	Orienteering
Roselie Forest		National	Orienteering
Wester Hailes		National	Orienteering
Grandtully Multi Sport Hub		National	Paddle
Pinkston Paddlesports Centre		National	Paddle
Ratho Performance Training Centre		National	Paddle
Strathclyde Park		National	Paddle
East Sands, St Andrews		National	Rowing
Strathclyde Park		National	Rowing
Murrayfield Stadium	Pitch - Rugby	National	Rugby
Blairvadach Outdoor Centre		National	Sailing
Bught Park	Pitch - Shinty	National	Shinty
Garscadden Sports Ground	Pitch - Shinty	National	Shinty
Mossfield Stadium & Glencruitten Park	Pitch - Full Size	National	Shinty
Cairngorm		National	Snowsports
Glencoe Mountain Resort	Ski Slope - Outdoor	National	Snowsports
Glenshee Ski Centre	Ski Slope - Outdoor	National	Snowsports
Lecht Ski Centre	Ski Slope - Outdoor	National	Snowsports
Midlothian Ski Centre	Ski Slope - Outdoor	National	Snowsports
Nevis Range	Ski Slope - Outdoor	National	Snowsports
Glasgow Club Scotstoun	Squash Court	National	Squash
Orlam	Pitch - Full Size; sports hall 8+	National	Squash
Pickaquoy Sports Centre	Squash Court	National	Squash
Lost Shore Surf Resort		National	Surfing
Bell's Sports Centre	Sports Hall 8+	National	Table Tennis
sportscotland National Centre Inverclyde	Sports Hall 8+; Pitch - Full Size	National	Table Tennis
Auchterhouse Country Sports		National	Target Shooting
Callander Target Shooting Club		National	Target Shooting
Denwood Target Shooting Centre		National	Target Shooting
University Of Stirling Sports Centre	Indoor Tennis Court	National	Tennis
Lochore Meadows Country Park		National	Triathlon
Aberdeen Sports Village	Athletics Track; swimming pool; sports hall	National	Volleyball
Emirates Arena and Sir Chris Hoy Velodrome	Indoor Athletics Arena; sports hall	National	Volleyball
Orlam	Pitch - Full Size; sports hall 8+	National	Volleyball
Ravensraig Regional Sports Facility		National	Volleyball
sportscotland National Centre Inverclyde	Sports Hall 8+; Pitch - Full Size	National	Volleyball
University of Edinburgh - Pleasance Sports Centre	Sports Hall < 3 Court	National	Volleyball
Town Loch		National	Waterski & Wakeboard
Glasgow Club Palace of Art		National	Wrestling
sportscotland National Centre Inverclyde	Sports Hall 8+; Pitch - Full Size	National	Wrestling

Figure 13: National SGB Facilities (Page 2)

An assessment of the condition and investment needs of the sport estate to deliver high quality, sustainable facilities for an active Scotland where everyone benefits from sport.

SITE NAME	Facility Sub Type	Local Regional National	Sports
Aberdeen Sports Village	Pitch - Full Size; sports hall	Regional	Aquatics
DG1	Swimming Pool - Main	Regional	Aquatics
Dollan Aqua Centre	Swimming Pool - Main	Regional	Aquatics
Inverness Leisure	Swimming Pool - Main	Regional	Aquatics
Michael Woods Sports and Leisure Centre	Swimming Pool - Main	Regional	Aquatics
Olympia Leisure Centre	Swimming Pool - Main	Regional	Aquatics
Royal Commonwealth Pool	Swimming Pool - Main	Regional	Aquatics
Meadowbank Sports Centre	Athletics Track	Regional	Athletics
ON-X Linwood	Athletics Track	Regional	Athletics
Pitreavie Sports Ground	Indoor Athletics Arena	Regional	Athletics
Queens Park Sports Ground	Athletics Track	Regional	Athletics
Ravenscraig Regional Sports Facility	Sports Hall 8+	Regional	Athletics
Regional Performance Centre - Caird Park	Athletics Track	Regional	Athletics
East Fortune, Boyndie		Regional	Auto Cycle
Sir Craig Reddie Badminton Centre	Sports Hall 6+	Regional	Badminton
Craggs Sports Centre	Sports Hall 4+	Regional	Basketball
Easterhouse Sports Centre	Sports Hall 8+	Regional	Basketball
St Columba's High School	Sports Hall 4+	Regional	Basketball
Kelvingrove Lawn Bowls and Tennis Centre	Bowling Green	Regional	Bowls
Curt Aberdeen	Ice Rink - Curling Rink	Regional	Curling
Dewars Ice Rink	Ice Rink	Regional	Curling
Dumfries Ice Bowl	Ice Rink	Regional	Curling
Greenacres Curling Rink	Ice Rink - Curling Rink	Regional	Curling
Inverness Ice Centre	Ice Rink	Regional	Curling
Murrayfield Ice Rink	Ice Rink - Curling Rink	Regional	Curling
Murrayfield Ice Rink	Ice Rink - Curling Rink	Regional	Curling
Stranraer Ice Rink	Ice Rink	Regional	Curling
Bellshill Cycle Hub		Regional	Cycling
Douglas Park		43519 Regional	Cycling
Fife Cycle Speedway		Regional	Cycling
Gordon Park		Regional	Cycling
Regional Performance Centre - Caird Park	Athletics Track	Regional	Cycling
Tarland Trails		Regional	Cycling
West Lothian Cycle Circuit		Regional	Cycling
Bogenraith Equestrian Centre, Banchory	Equestrian	Regional	Equestrian
Daimler Foundation at Morris Equestrian Centre, Kilmarnock	Equestrian	Regional	Equestrian
Braveheart Fencing and Archery Club	Indoor Training Area	Regional	Fencing
Forth Valley Fencing Club	Indoor Training Area	Regional	Fencing
Sallie Ossian Fencing Club	Indoor Training Area	Regional	Fencing
West Fife Fencing Club	Indoor Training Area	Regional	Fencing
Aberdeen Sports Village	Pitch - Full Size; sports hall	Regional	Football
Oriam	Pitch - Rugby	Regional	Football
Ravenscraig Regional Sports Facility	Sports Hall 8+	Regional	Football
Regional Performance Centre - Caird Park	Athletics Track	Regional	Football
Toryglen Regional Football Centre	Pitch - Full Size	Regional	Football
Alexander C Collie Sport and Community Centre		Regional	Gymnastics
Dundee Gymnastics Centre		Regional	Gymnastics
Glasgow Club Bellahouston	Sports Hall 8+	Regional	Gymnastics
Lasswade Centre (Lasswade High School)	Sports Hall 3 Court	Regional	Gymnastics
Ravenscraig Regional Sports Facility	Sports Hall 8+	Regional	Gymnastics
Alistair McCoist Complex	Sports Hall 4+	Regional	Handball
Bell's Sports Centre	Sports Hall 8+	Regional	Handball
Grange Leisure Centre (Grange Academy)	Sports Hall 8+	Regional	Handball
Tryst Sports Centre	Sports Hall 8+	Regional	Handball
A Vertical World		Regional	Mountaineering
Above Adventure Bouldering Centre		Regional	Mountaineering
Alien Bloc		Regional	Mountaineering
Alien Rock		Regional	Mountaineering
Block10 Bouldering		Regional	Mountaineering
Bouldover Climbing Centre Limited		Regional	Mountaineering
Glasgow Climbing Centre		Regional	Mountaineering
Hang On Climbing Centre		Regional	Mountaineering
The Climbing Academy - The Prop Store		Regional	Mountaineering
The Ice Factor		Regional	Mountaineering
Three Wise Monkeys Climbing		Regional	Mountaineering
Transition Extreme		Regional	Mountaineering
UHI Perth		Regional	Mountaineering
Bell's Sports Centre	Sports Hall 8+	Regional	Netball
Dundee International Sports Centre	Sports Hall 8+	Regional	Netball
Meadowbank Sports Centre	Athletics Track	Regional	Netball
Oriam	Pitch - Rugby	Regional	Netball
Regional Performance Centre - Caird Park	Athletics Track	Regional	Netball

Figure 14: Regional SGB Facilities (Page 1)

An assessment of the condition and investment needs of the sport estate to deliver high quality, sustainable facilities for an active Scotland where everyone benefits from sport.

Strathclyde Sport	Sports Hall 4+	Regional	Netball
UHI Perth		Regional	Netball
University of Edinburgh - Pleasance Sports Centre	Sports Hall < 3 Court	Regional	Netball
University Of Glasgow - Stevenson Building	Sports Hall 4+	Regional	Netball
Caledonian Canal, Inverness		Regional	Rowing
Glasgow West Boathouse		Regional	Rowing
Portobello Beach		Regional	Rowing
River Dee, Aberdeen		Regional	Rowing
Union Canal		Regional	Rowing
Aberdeen Sports Village	Pitch - Full Size; sports hall	Regional	Rugby
Broadwood Stadium	Pitch - Full Size	Regional	Rugby
Oriam	Pitch - Rugby	Regional	Rugby
Regional Performance Centre - Caird Park	Athletics Track	Regional	Rugby
Mossfield Stadium & Glencruitten Park	Pitch - Full Size	Regional	Shinty
Aberdeen Snowsports Centre	Ski Slope - Outdoor	Regional	Snowsports
Bearsden Ski and Board Club Centre	Ski Slope - Outdoor	Regional	Snowsports
Bearsden Ski and Board Club Centre	Ski Slope - Outdoor	Regional	Snowsports
Fir Park	Ski Slope - Outdoor	Regional	Snowsports
Glasgow Ski Centre	Ski Slope - Outdoor	Regional	Snowsports
Glenmore Lodge	Ski Slope - Outdoor	Regional	Snowsports
Huntly Nordic Ski Centre	Ski Slope - Outdoor	Regional	Snowsports
Newmilns Dry Ski Slope	Ski Slope - Outdoor	Regional	Snowsports
Polmonthill Ski Centre	Ski Slope - Outdoor	Regional	Snowsports
Polmonthill Ski Centre	Ski Slope - Outdoor	Regional	Snowsports
Belhaven Surf Centre		Regional	Surfing
Broch Surf Club		Regional	Surfing
North Shore Surf Club		Regional	Surfing
Tiree Surf Club Hut		Regional	Surfing
Aberdeen Sports Village	Pitch - Full Size; sports hall	Regional	Table Tennis
Bathgate Academy	Sports Hall 6+	Regional	Table Tennis
Ward Road Gym	Sports Hall < 3 Court	Regional	Table Tennis
Alloa & District Rifle & Pistol Club		Regional	Target Shooting
Central Scotland Shooting School		Regional	Target Shooting
North Ayrshire Shooting Ground		Regional	Target Shooting
Aberdeen Tennis Centre	Indoor Tennis Court	Regional	Tennis
Craiglockhart Sports and Tennis Centre	Indoor Tennis Court	Regional	Tennis
David Lloyd - Dundee Club	Outdoor Tennis Court	Regional	Tennis
David Lloyd Club Renfrew	Outdoor Tennis Court	Regional	Tennis
David Lloyd Hamilton	Outdoor Tennis Court	Regional	Tennis
David Lloyd West End	Indoor Tennis Court	Regional	Tennis
Game4Padel Edinburgh Park		Regional	Tennis
Glasgow Club Scotstoun	Outdoor Tennis Court	Regional	Tennis
Gorbals Community Indoor Tennis Centre	Indoor Tennis Court	Regional	Tennis
Kilgraston School	Outdoor Tennis Court	Regional	Tennis
Kilgraston School	Outdoor Tennis Court	Regional	Tennis
Meadows City Tennis Club	Outdoor Tennis Court	Regional	Tennis
Newlands Lawn Tennis Club	Outdoor Tennis Court	Regional	Tennis
Nuffield Health Milingavie	Outdoor Tennis Court	Regional	Tennis
Oriam	Pitch - Rugby	Regional	Tennis
Thistle Lawn Tennis Club	Outdoor Tennis Court	Regional	Tennis
University of Saint Andrews Sports Centre	Indoor Tennis Court	Regional	Tennis
University Of Stirling Sports Centre	Indoor Tennis Court	Regional	Tennis
Whitecraigs Tennis Club	Outdoor Tennis Court	Regional	Tennis
Dumfries Campus (UWS)	Sports Hall 3 Court	Regional	Volleyball
Dundee University Sports Centre	Sports Hall 4+	Regional	Volleyball
Edinburgh College - Midlothian Campus		Regional	Volleyball
Glasgow Club Kelvin Hall	Sports Hall 8+	Regional	Volleyball
Kyle Academy	Sports Hall 3 Court	Regional	Volleyball
Liberton High School	Sports Hall 4+	Regional	Volleyball
UHI Perth		Regional	Volleyball
University Of Glasgow - Stevenson Building	Sports Hall 3 Court	Regional	Volleyball
Wishaw Sports Centre	Sports Hall 4+	Regional	Volleyball
Glasgow Club Palace of Art		Regional	Wrestling
sportscotland National Centre Inverclyde	Sports Hall 8+	Regional	Wrestling

Figure 15: Regional SGB Facilities (Page 2)

An assessment of the condition and investment needs of the sport estate to deliver high quality, sustainable facilities for an active Scotland where everyone benefits from sport.

SITE NAME	Facility Sub Type	Local	Regional	National	Sports
Cardenden Motocross Track		Local			Auto Cycle
Sir Craig Reddie Badminton Centre	Sports Hall 6+	Local			Badminton
Auchenharvie Leisure Centre	Ice Rink	Local			Curling
Aviemore Ice Rink	Ice Rink	Local			Curling
Borders Ice Rink	Ice Rink	Local			Curling
Dundee Ice Arena	Ice Rink	Local			Curling
Fife Ice Arena	Ice Rink	Local			Curling
Galleon Centre	Ice Rink	Local			Curling
Kinross Curling	Ice Rink	Local			Curling
Lanarkshire Ice Rink	Ice Rink	Local			Curling
Lockerbie Ice Rink	Ice Rink	Local			Curling
Moray Leisure Centre	Ice Rink	Local			Curling
Olympia Ice Bowl	Ice Rink	Local			Curling
The Time Capsule	Ice Rink	Local			Curling
Waterfront Leisure Complex	Ice Rink	Local			Curling
Easterhouse Phoenix Centre	Sports Hall < 3 Court	Local			Fencing
Acrobay Gymnastics Trust		42370 Local			Gymnastics
Allander Leisure Centre	Sports Hall 8+	Local			Gymnastics
Auchterarder Gymnastics Club		Local			Gymnastics
Bucksburn Academy (Beacon Centre)	Sports Hall 3 Court	Local			Gymnastics
Carron Gymnastics Centre		Local			Gymnastics
East Kilbride Gymnastics Club		Local			Gymnastics
Glasgow Club Kelvin Hall		Local			Gymnastics
Glasgow Club Palace of Art		Local			Gymnastics
Hamilton Gymnastics Club (Hamilton)		Local			Gymnastics
Sparta Trampoline Club		Local			Gymnastics
Tumbles at Portobello		Local			Gymnastics
West Lothian School of Gymnastics Trust		Local			Gymnastics
Broughton High School	Pitch - Full Size	Local			Lacrosse
Alford Community Campus		Local			Mountaineering
Glenmore Lodge	Indoor Climbing Wall	Local			Mountaineering
Pickaquooy Sports Centre		Local			Mountaineering
The Peak		Local			Mountaineering
Third Ridge Climbing		Local			Mountaineering
West Mainland Leisure Centre		Local			Mountaineering
Alistair McCoist Complex	Sports Hall 4+	Local			Netball
Allander Leisure Centre	Sports Hall 8+	Local			Netball
Armadale Academy	Sports Hall 4+	Local			Netball
Bertha Park High School	Sports Hall 4+	Local			Netball
Clydebank Leisure Centre	Sports Hall 8+	Local			Netball
Craigroyston Community Centre	Sports Hall < 3 Court	Local			Netball
Duncanrig Secondary School	Sports Hall 3 Court	Local			Netball
Easterhouse Sports Centre	Sports Hall 8+	Local			Netball
Edinburgh Academy Sports Centre	Sports Hall 4+	Local			Netball
George Watsons College	Sports Hall < 3 Court	Local			Netball
Glasgow Caledonian University - City Campus	Sports Hall < 3 Court	Local			Netball
Glasgow Caledonian University - City Campus	Sports Hall 6+	Local			Netball
Glasgow Club Gorbals	Sports Hall 8+	Local			Netball
Glasgow Club Kelvin Hall	Sports Hall 4+	Local			Netball
Glasgow Club Scotstoun	Sports Hall 6+	Local			Netball
Glasgow Club Tollcross	Sports Hall 4+	Local			Netball
Glasgow Gaelic School	Sports Hall < 3 Court	Local			Netball
Grangemouth Sports Complex	Sports Hall 4+	Local			Netball
High School of Dundee Mayfield Sports Centre	Sports Hall 6+	Local			Netball
Inch View Primary School		Local			Netball
Jack Kane Centre	Sports Hall 4+	Local			Netball
Jesmond Centre	Sports Hall 4+	Local			Netball
Napier University - En gage) centre	Sports Hall < 3 Court	Local			Netball
North Inch Community Campus (St Johns Academy)	Sports Hall 4+	Local			Netball
Peebles High School	Sports Hall 3 Court	Local			Netball
Robert Gordon University - Garthdee	Sports Hall 8+	Local			Netball
St Aloysius College		Local			Netball
St Georges School for Girls	Sports Hall < 3 Court	Local			Netball
St Kentigern's RC Academy	Sports Hall 3 Court	Local			Netball
Strathallan School	Sports Hall 3 Court	Local			Netball
The Peak	Sports Hall 8+	Local			Netball
University of Edinburgh Sports Ground (Peffermill)	MUGA	Local			Netball
Xcite Winchburgh Sport and Wellbeing Hub (Winchburgh Academy)	Sports Hall 4+	Local			Netball
Castle Semple Loch		Local			Rowing
Firhill Basin		Local			Rowing
Loch Lomond		Local			Rowing
Lochore Meadows		Local			Rowing

Figure 16: Local SGB Facilities (Page 1)

An assessment of the condition and investment needs of the sport estate to deliver high quality, sustainable facilities for an active Scotland where everyone benefits from sport.

River Ayr		Local	Rowing
River Forth		Local	Rowing
River Nith		Local	Rowing
River Tay		Local	Rowing
Beaully Shinty Club	Pitch - Shinty	Local	Shinty
Blairstown Park (Glenurquhart Shinty Club)	Pitch - Shinty	Local	Shinty
Kinlochshiel Camanachd Club	Pitch - Shinty	Local	Shinty
Abermethy Outdoor Centre	Ski Slope - Outdoor	Local	Snowsports
Ancrum Outdoor Centre	Ski Slope - Outdoor	Local	Snowsports
Condor Dry Ski Slope	Ski Slope - Outdoor	Local	Snowsports
Craigclowan Preparatory School	Ski Slope - Outdoor	Local	Snowsports
Fife Cycle Park		Local	Snowsports
Lagganlia Outdoor Centre	Ski Slope - Outdoor	Local	Snowsports
Loch Insh Watersports	Ski Slope - Outdoor	Local	Snowsports
Aberdeen Sports Village	Sports Hall	Local	Table Tennis
Drumchapel Sports Centre	Sports Hall 3 Court	Local	Table Tennis
Dumfries Table Tennis Club	Indoor Training Area	Local	Table Tennis
Grange Community Centre	Sports Hall 3 Court	Local	Table Tennis
St Matthew's Academy	Sports Hall 6+	Local	Table Tennis
Ward Road Gym	Sports Hall < 3 Court	Local	Table Tennis
Alloa & District Rifle & Pistol Club		Local	Target Shooting
Target Technique at the Bunker		Local	Target Shooting
Bridge of Allan Sports Club	Outdoor Tennis Court	Local	Tennis
Giffnock Tennis Club	Outdoor Tennis Court	Local	Tennis
Newlands Lawn Tennis Club	Outdoor Tennis Court	Local	Tennis
Prestwick Tennis Club	Indoor Tennis Court	Local	Tennis
Thistle Lawn Tennis Club	Outdoor Tennis Court	Local	Tennis
Whitecraigs Tennis Club	Outdoor Tennis Court	Local	Tennis
Aberdeen WSW		Local	Waterski & Wakeboard
Foxlake Adventures		Local	Waterski & Wakeboard
Glasgow Wake Park		Local	Waterski & Wakeboard
Kyle WSW		Local	Waterski & Wakeboard
Loch Earn Wake School		Local	Waterski & Wakeboard
Loch Lomond Wake Board		Local	Waterski & Wakeboard
Loch Lomond WSC		Local	Waterski & Wakeboard
Wild Shore Dundee		Local	Waterski & Wakeboard

Figure 17: Local SGB Facilities (Page 2)

## A.5 Appendix 5: Methodology

### A.5.1 General

#### The Review Methodology:

- Collated available datasets to build an interactive **National Sport Estate Knowledge Base** for each of the 10 different Facility types, categorised by: Unique ID; location, relevant sub-facilities, multiple /single facility; ownership, age, energy usage and utilisation.
- Attributed a condition rating A to D (A=Good; B=Satisfactory; C=Poor; D=Bad) to as many facilities as possible, through completion of condition surveys across a sample facility set and collation of condition data held by owner/ operators. See section in Data Sources below for further detail on sources and ratings.
- Built a Geographic Information System (GIS) based platform, allowing users to spatially visualise and analyse the Estate Knowledge Base facilities information, bringing together maps and data for analysis<sup>4</sup>.
- Built a PowerBI dashboard, allowing users to visualise and analyse the Estate Knowledge Base information in an aggregated or filtered format to suit their area of interest.
- Cost modelled the interventions required over the next 25-year lifecycle to bring and maintain facilities to a Satisfactory condition (B) rating for twenty four different building typologies, using BCIS cost and degradation models based on condition, age and construction type data.

Cost modelled the interventions required over the next 25-year lifecycle to bring and maintain facilities to Net Zero standards

- Cost modelled the interventions required over the next 25-year lifecycle to bring and maintain facilities to meet requirements of the Equality Act 2010, using a minimum, desirable and excellent tiered approach.
- Compiled the Review Report presenting context and summaries of the Sport Estate Knowledge Base and Investment Requirements.

#### The Review Deliverables:

- The **Sport Estate Knowledge Base** which can be accessed in two ways, either through:

A **Geographic Information System (GIS)**, allowing users to spatially visualise and analyse all sports facilities information, bringing together maps and data for analysis<sup>5</sup>.

This web-based platform uses different layers to support analysis e.g. different facility types or condition categories. The sports facilities data can be layered with open source GIS layers for example, Scottish Constituency boundaries or Scottish Index of Multiple Deprivation (SIMD) This could be useful to gain further insights and provide context to support future decision making

Or

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<sup>4</sup> *Geographic Information System | What is GIS?. Ordnance Survey.*

<sup>5</sup> *Ibid*

A **PowerBI dashboard**, allowing users to visualise and analyse the information relating to the sports facilities in an aggregated or filtered format to suit their area of interest.

The Dashboard has Overview and Condition pages for each of the 12 different Facility types and can be filtered by single or multiple filters including: Unique ID; location; relevant sub-facilities; multiple /single facility; ownership; age; condition; energy usage and utilisation. Users also have the ability to drill down into the underlying data to review the detail of the individual facilities data.

- **Investment Requirements** charts setting out the Lifecycle Cost models for the interventions required over the next 25-years to bring and maintain facilities to a Satisfactory condition (B) rating and meet Net Zero, Accessibility and Inclusion requirements.
- **Review Report** presenting context and summaries of the Sport Estate Knowledge Base and Investment Requirements.

## A.5.2 Lifecycle Cost Modelling

To support long-term investment planning and value optimisation across the estate, a comprehensive 25-year Life Cycle Cost (LCC) model was developed. This model evaluates the financial implications of various asset interventions—such as maintenance, renewal, disposal, or replacement—across all facility typologies over the next 25 year lifecycle.

Key elements of the methodology include:

- **Structured Cost Modelling:** A standardised LCC methodology was agreed upon and applied to each facility typology. This ensures consistency and comparability across the estate.
- **Typology-Based Analysis:** Costs were calculated for representative facilities within each typology and then extrapolated across the wider estate using a per-square-metre (sqm) rate. Adjustments were made for unique characteristics or outliers.
- **Dual Cost Outputs**
  - **WLC Repair and Maintain:** The total cost of maintaining existing assets over 25 years.
  - **WLC Capital Replacement and Maintain:** The cost of replacing assets at end-of-life and maintaining them thereafter.
- **Value Optimisation:** The model enables scenario planning and prioritisation by balancing cost against performance, risk, and strategic outcomes. This supports informed decision-making on where and when to invest for maximum impact.

A representative sample of facilities across different typologies—based on age, condition, and utilisation—was analysed to determine the most appropriate interventions, including: Capex, Planned Maintenance and end of life (demolish and rebuild esp for Condition D); Net Present Value; and Green Book standards. These findings were then proportionally extrapolated across the wider estate, with adjustments made for unique or outlier cases.

### Factoring data from existing sources

To derive meaningful insights and projections from existing datasets, the following methodology was applied:

- **Data Review and Validation.** Begin by thoroughly reviewing the available data. Validate the source, relevance, and accuracy of the data to ensure it aligns with the current scope and context.

- Prorating Technique. Where direct data is unavailable, prorating is used to estimate values proportionally based on known Site condition, Age and Area. This involves scaling figures according to relevant parameters such as site, Age and area.
- Assumption-Based Adjustments. Apply logical assumptions to fill gaps in data, guided by industry standards, previous project benchmarks, or professional judgment. Clearly document all assumptions to maintain transparency.
- Extrapolation and Trend Analysis. Use extrapolation techniques to project future values based on existing data
- Sensitivity Checks. Perform sensitivity analysis to understand the impact of varying key inputs. This helps in identifying critical factors and validating the robustness of the derived figures.

## **Basis of Methodology to calculate costings**

### Generally

BCIS was utilised as the source of information to establish the costs associated for each asset typology. The elemental rates on a m2 basis were re-baselined to current prices and adjusted to Scotland region. Where elemental gaps existed, comparable rates on a like-for-like basis from other similar typologies was used to ensure scope compliance.

In some instances (for example golf courses), it was apparent that the area accounted for the site only. It was also determined these club houses were included in the pavilion data set. Therefore, to keep the cost output reasonable and fit for purposes, a rate of £511/m2 (applicable to External Works associated for pitches within BCIS) was used and adjusted to cover works involved for the up-keep of the green areas.

### Accessibility

Upon receipt of accessibility interventions based on a low, medium & high requirement, these were costed utilising the BCIS cost data.

For example, where there was a requirement to provide designated accessible parking spaces for people with temporary impairments, the BCIS cost data identified a rate of approx. £210/m2 for External Works (Gym & fitness centre). It was deemed necessary to adjust the rate on a percentage basis to cover this additional requirement. In this example, it is considered to cost an additional 1%, therefore £2.10m2.

Furthermore, it was found that if there is a need to provide the intervention to a high requirement, then costs associated with low and medium was necessary in addition to the high cost. This has been accounted for in the cost model.

### Net zero

This information was provided by the relevant team. The information contained a list of categories and cost per m2 for each. This amounted to a cost of approx. £400/m2 and based on the average overall cost of £2,500m2, this is considered in the region of 20%. Therefore a provision of 20% has been applied on a weighted basis across the entirety of the building areas. The basis of this has been previously discussed with the client and subsequently agreed. In addition, based on previous experience of dealing with net zero costs this is considered reasonable.

### Condition

For lifecycle planning, Condition A assumes no expenditure in Year 1 with a standard lifecycle profile applied. Condition B also requires no Year 1 spend but uses a typical lifecycle profile assuming half of the asset's life remains. Condition C involves allocating 50% of the replacement cost in Year 1, with the remaining lifecycle based on half-life assumptions. Condition D requires 80% of the replacement cost in Year 1, followed by a standard lifecycle profile with half-life remaining.

## **BCIS TPI**

The BCIS TPI (Tender Price Index) Inflated Rate is calculated by applying the projected TPI values from the current year through to 2050. This approach helps estimate future construction costs by factoring in inflation and market trends over time. The TPI reflects changes in tender prices for building work, and by extending these values across the planning horizon, the inflated rate provides a more realistic forecast of capital expenditure. This methodology ensures that long-term financial planning accounts for anticipated cost escalations, enabling more accurate budgeting and lifecycle costing.

### **A.5.3 Lifecycle Cost Modelling – Assumptions and Exclusions**

#### **Assumptions**

1. Allowance for stripping out when system needs replacement.
2. No inspection and maintenance assumed during asset replacement years.
3. Lifecycle estimate subject to change as design develops.
4. Costs for external works based on benchmarking; site-specific info not provided.
5. Missing data considered based on online sources (Table 1).
6. Same rate considered regardless of age and condition.
7. Categorization of sites/buildings by age brackets (0–25, 25–75, 75–125 and 125 years above.).
8. Model calculates costs under three categories: Discounted Total, Inflated Total, Total Cost till 2050.
9. A total of 2,867 facilities—including pitches, tennis courts, bowling greens, and golf areas—have been grouped under the 'pavilions' category. Their age, condition, and area have been assessed using existing pavilion data
10. The underlying dataset contains gaps and in order to estimate costs for all facilities, a factor has been applied
11. Estimating tolerance of +/- 50%
12. 25-year study period
13. Discount rate of 3.5% applied as per Green Book guidance
14. Inflation rate based on BCIS and running average used for periods beyond BCIS forecasted dates
15. Accessibility intervention assumed as a one-off cost
16. Basis of cost includes BCIS data for costs and life cycle data. Adjustment made for golf courses
17. Assumes follow typical maintenance profile
18. Accessibility costs assumed based on interventions and given likely proportion of required level of interventions
19. Net Zero calculated as a percentage on the base building cost

#### **Exclusions**

1. Employer's risk (other than Employer Change Risks).
2. Demolition, decommissioning, dismantling at end of 25 years.

3. Future updates to building regulations.
4. Decanting and associated costs.
5. Client internal security costs.
6. Professional / Legal fees for in-use period.
7. Planning costs.
8. Party Wall Awards / Rights to Light contribution.
9. Financing costs.
10. Contamination remediation.
11. Capital allowance receipts.
12. Out of hours working.
13. Statutory water usage and drainage costs.
14. Administrative / Occupancy Costs.
15. Catering.
16. Income.
17. Externalities.
18. Staffing costs.
19. Opening Value.
20. Transactions.
21. Residual Value.
22. Effect of dilapidations from tenant contracts, letting agency fees, insurance premiums, business rates.
23. Reactive maintenance (allowance made for planned maintenance only).
24. Exclude optimism bias
25. Exclude VAT
26. Exclude operation costs including utilities, cleaning, daily/regular maintenance such as golf course landscaping maintenance

## **Definitions**

### **Net Present Value**

BCIS definition: "The present day worth of a future cost discounted at a given interest rate. It can be considered to be the amount invested in a bank today at a given interest rate to accrue a required amount at a given point in the future" (Life cycle costing Guidance Note by RICS).

### **Total Cost**

The costs before adjustment for inflation or discounting

### **Inflated Cost**

The costs with inflation factor applied.

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### A.5.4 Net Zero Cost Modelling

For the purpose of carrying out Net Zero cost modelling for sport estate, this report focuses on sport facilities and their related Scope 1 and 2 emissions decarbonisation and reduction. The following modelled data, baseline energy consumption data were used for calculating pre and post implementation of energy conservation measures.

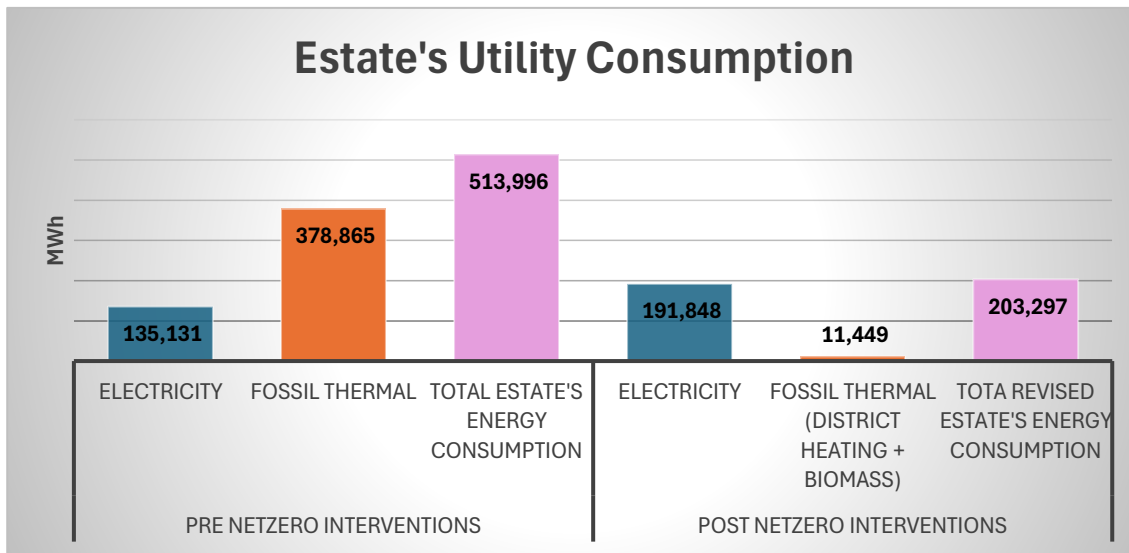


Figure 18: Estate's modelled utility consumption, pre and post net zero intervention

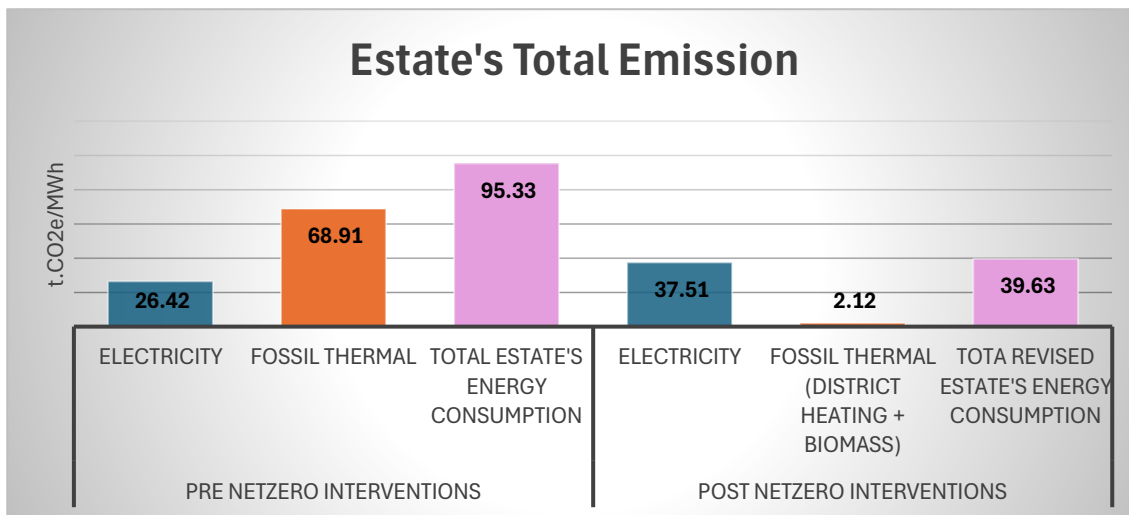


Figure 19: Estate's modelled carbon emissions, pre and post net zero intervention

The following ECM implementation matrix, based on the EPC rating of the facilities, was applied. A cost metric (£/m<sup>2</sup>-GIFA) was developed to assist with Net Zero and energy efficiency intervention cost analysis, using the EPC band rating and GIFA (both known and predicted) of the facilities within the estate.

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EPC Rating	Indicative ECM Categories for Achieving One EPC Band up or minimum EPC Band C and above.								
	ECM1	ECM2	ECM3	ECM4	ECM5	ECM6	ECM7	ECM8	ECM9
<b>A+</b>	Solar PV								
<b>A</b>	Solar PV								
<b>B+</b>	Solar PV	Heat Pumps							
<b>B</b>	Solar PV	Heat Pumps							
<b>C+</b>	Solar PV	Heat Pumps	Smart Control	MVHR/Heat Recovery					
<b>C</b>	Solar PV	Heat Pumps	Smart Control	MVHR/Heat Recovery					
<b>D+</b>	Solar PV	Heat Pumps	Smart Control	MVHR/Heat Recovery	LED Lights	Draught Proofing			
<b>D</b>	Solar PV	Heat Pumps	Smart Control	MVHR/Heat Recovery	LED Lights	Draught Proofing			
<b>E+</b>	Solar PV	Heat Pumps	Smart Control	MVHR/Heat Recovery	LED Lights	Draught Proofing	Wall/Roof Insulation		
<b>E</b>	Solar PV	Heat Pumps	Smart Control	MVHR/Heat Recovery	LED Lights	Draught Proofing	Wall/Roof Insulation		
<b>F+</b>	Solar PV	Heat Pumps	Smart Control	MVHR/Heat Recovery	LED Lights	Draught Proofing	Wall/Roof Insulation	Glazing Replacement	
<b>F</b>	Solar PV	Heat Pumps	Smart Control	MVHR/Heat Recovery	LED Lights	Draught Proofing	Wall/Roof Insulation	Glazing Replacement	
<b>G</b>	Solar PV	Heat Pumps	Smart Control	MVHR/Heat Recovery	LED Lights	Draught Proofing	Wall/Roof Insulation	Glazing Replacement	Full Retrofit

**Table 2: Indicative ECM implementation matrix based on facility EPC rating**

ID	ECM	Cost	Unit
1	PV+Battery	133	£/m2 - GIFA
2	Heat Pumps	25	£/m2 - GIFA
3	Smart Control	6	£/m2 - GIFA
4	MVHR/Heat Recovery	140	£/m2 - GIFA
5	LED Lights	38	£/m2 - GIFA
6	Draught Proofing	4	£/m2 - GIFA
7	Wall/Roof Insulation	13	£/m2 - GIFA
8	Glazing Replacement	38	£/m2 - GIFA
9	Full Retrofit	10	£/m2 - GIFA

**Table 3: Costs of ECMs**

Based the modelled indicative baseline data and implementation of potential ECMs, the following predicted energy consumption and carbon emission savings can be achieved in the sport estate.

Description	Total Energy Reduction	Total Carbon Emission Reduction
<b>Electricity</b>	-42%	-42%
<b>Fossil Thermal</b>	97.0%	96.9%
<b>Total Estate's Energy</b>	<b>60%</b>	<b>58%</b>

**Table 4: Indicative energy and carbon emission reduction across estate based on modelled data**

The assessment incorporated energy and carbon data to develop tailored Net Zero Pathways for the estate. This included identifying opportunities to:

- Reduce energy consumption and operational loads
- Integrate low/zero carbon technologies (e.g. ground and air source heat pumps)
- Collaborate with local stakeholders to develop shared energy solutions, such as community or district heat networks

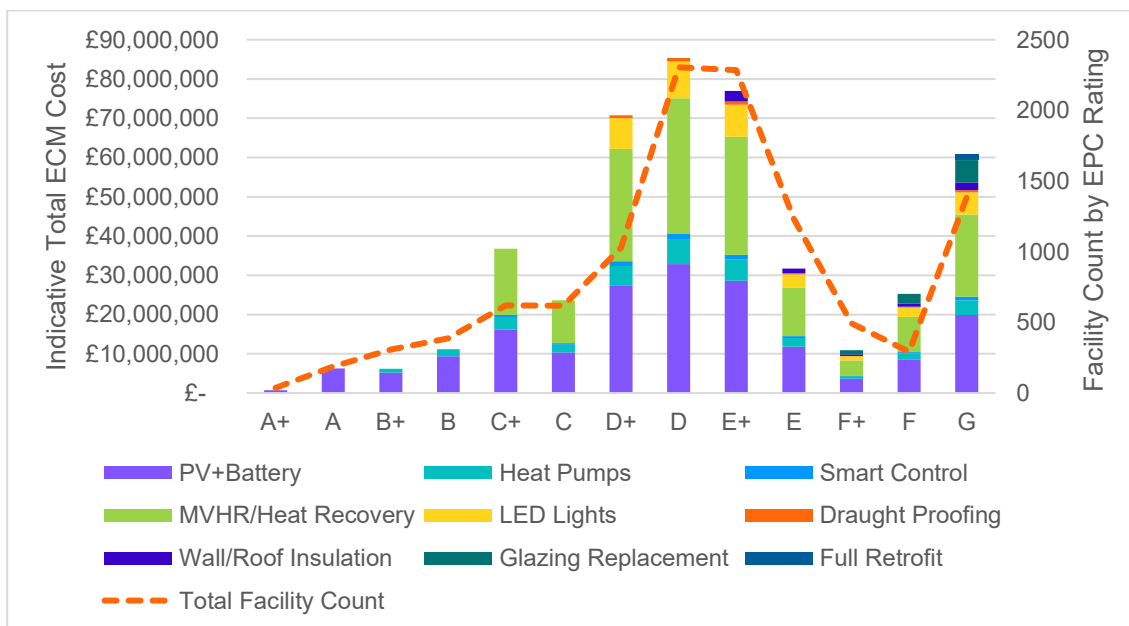
A statistical analysis of information received, further data gathered on condition of each facility and EPC data was undertaken to establish potential intervention measures for the estate.

With limited energy consumption data for each facility, the EPC database was utilised to gather further information on each site. Utilising the postcode to cross-reference both sets of data resulted in a data match of 44%, which was used for further analysis.

A series of ratings were established to grade each facility resulting in potential energy conservation measures required which are dependent on the current performance and condition of each facility. For example, a building with an EPC rating of 'A', would require minimal interventions but may include removal of fossil fuelled systems with heat pumps, whereas an EPC rating of 'G' would require fabric improvements, systems efficiency improvements, transition to heat pumps and a likely installation of roof mounted PV.

The results are extrapolated across the estate, to account for missing data, and graded on current EPC rating and facility type.

The figure below presents a high-level cost estimate for implementing energy conservation measures across the estate's longlist facilities, categorised by EPC bands for **sportscotland**.



**Figure 20: Net zero cost and facility count by EPC rating**

Based on the availability of key baseline data (including GIFA, EPC, energy consumption and heating system type), the following assumptions has been included within the Net Zero cost modelling:

### **Predicted Energy Performance Certificate**

EPC data matching each facility's postcode has been retrieved from the Scottish Energy Performance Certificate Register<sup>6</sup> to assign indicative EPC ratings. These ratings help identify opportunities for energy conservation measures that could improve a facility's predicted EPC by one band. For facilities currently predicted at EPC band D or lower, the maximum uplift is capped at band C.

For facilities without a direct EPC match, we applied a blended data-driven approach to estimate their EPC ratings. This involved two complementary methods:

- **Analogue Matching** – Identifying similar facilities based on known type, heating system, age, and complexity, and using their known EPCs as reference.
- **Predictive Modelling** – Using statistical modelling to estimate EPC ratings based on facility characteristics like age and system type.

The final EPC estimate for each unmatched facility combines both methods, with a 60% weighting given to the analogue match and 40% to the predictive model.

This approach provides a robust, data-informed estimate to support planning and prioritisation. However, it is not a substitute for formal EPC assessments.

### **Predicted Gross Internal Floor Areas (GIFA)**

The initial estate data was assessed, and it was observed that approximately 45% of facilities had missing GIFA values. When outdoor facilities were excluded, the proportion of missing GIFA reduced to around 34%.

As GIFA is a fundamental baseline for modelling cost metrics required to estimate potential Net Zero investment, we undertook a predictive modelling approach to estimate missing GIFA values. This involved filling data gaps using the mean GIFA of the most similar indoor facility types. Given that sports facilities are constructed generally to meet established sports premises building standards in line with regional, national and international standards, we consider this approach appropriate, as it is likely that the minimum GIFA requirements for these facilities are satisfied.

### **Benchmarked Energy Consumption**

The available utility consumption data, covering electricity and fossil-thermal use, represents less than 15% of the estate's total facilities. Additionally, the data was provided at the whole-site level rather than broken down by individual facility, and with possible duplication across the same facility line item at the same site.

To address these gaps and inconsistencies, indicative utility consumption at the estate level was remodelled using relevant benchmarking tools appropriate for sports and leisure centres in Scotland using typical energy consumption benchmarks. These included the **Scottish Public Sector Energy Benchmarking Tool (SPSEBT)**<sup>7</sup> and **Energy Consumption Guide 78 (ECON 78)**<sup>8</sup>.

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<sup>6</sup> *Scottish Energy Performance Certificate Register*. energy saving trust.

<sup>7</sup> *Scottish Public Sector Benchmarking Tool*. Zero Waste Scotland. April 2022.

<sup>8</sup> *Energy Consumption Guide 78: Energy use in sports and recreation buildings*. BRECSU.

## A.5.5 Accessibility and Inclusion cost modelling

### Accessibility and Inclusion Cost Modelling

A baseline performance review was conducted to identify barriers preventing participation by individuals with protected characteristics, or underrepresented groups. Interventions were then proposed and costed to bring facilities up to agreed accessibility and inclusivity standards, with the Equality Act 2010.

The interventions and costs to address the issues were then built up on a 3-tiered classification approach as set out in the table below:

Classification	Definition	Implications	Examples
Minimum	Elements that, if not addressed, will present a direct barrier to access or pose a safety risk. These elements are essential for basic functionality.	Not addressing these elements will prevent certain users from safely or independently accessing or using the facility	<ul style="list-style-type: none"> <li>Lack of step-free access</li> <li>Inaccessible changing rooms/toilets</li> <li>Poor lighting</li> <li>Lack of hearing loops</li> <li>Uneven flooring/slippery surfaces</li> </ul>
Desirable	Features which, if not addressed, will not prevent access but may enable access via sub-optimal means.	Not addressing these elements will not prevent access but will reduce inclusivity and the user experience, diminishing the quality, dignity or independence of experience for some people.	<ul style="list-style-type: none"> <li>Separate stepped and step-free entrances</li> <li>Glare on screens at reception desks</li> <li>Lack of quiet/restorative spaces</li> </ul>
Excellent	Elements which, if not addressed, will not prevent access but will lead to a less welcoming, inclusive and user-friendly environment.	Not addressing these elements will not prevent access but could diminish the user experience and/or inclusivity.	<ul style="list-style-type: none"> <li>Provision of assistive technology charging facilities</li> <li>Landscaping/spaces designed for sensory stimulation</li> </ul>

**Table 5: Classification of intervention and cost**

The investment required to improve access and inclusion across the sport estate to a **desirable level** has been calculated as £472.4m.

This investment figure includes £310.3m of improvements to provide a minimum level of accessibility and inclusion provision and overcome the main access barriers. These elements are essential for basic functionality. The implications of not addressing these elements will be to prevent certain users from safely or independently accessing or using the facility.

Such interventions could be considered critical to improve elements that, if not addressed, will present a direct barrier to access or pose a safety risk. These elements are essential for basic

functionality. The implications of not addressing these elements will be to prevent certain users from safely or independently accessing or using the facility.

Interventions include improving lack of step-free access; inaccessible and lack of inclusive changing rooms/toilet provision; poor lighting; lack of hearing loops and uneven flooring/slippery surfaces

The implications of not addressing desirable elements will not prevent access but will reduce inclusivity and the user experience, diminishing the quality, dignity or independence of experience for some people. The desirable features, if not addressed, will not prevent access but may enable access via sub-optimal means.

Interventions include improving

- Separate stepped and step-free entrances
- Glare on screens at reception desks
- Lack of quiet/restorative spaces

A further £65.5m of investment would deliver additional improvements to provide an **excellent standard** of accessibility and inclusion provision across the estate.

Elements which, if not addressed, will not prevent access but will lead to a less welcoming, inclusive and user-friendly environment. The implications of not addressing these elements will not prevent access but could diminish the user experience and/or inclusivity.

Examples of interventions include

- Provision of assistive technology charging facilities
- Landscaping/spaces designed for sensory stimulation

## A.6 Appendix 6: Previous Related Studies

**The National Audit of Scotland's Sports Facilities 2006** found that a large number of facilities will require considerable refurbishment before reaching the end of their useful life. It also found that many of them fail to meet acceptable standards of access for disabled people. The audit's findings stressed the importance of planning and investment in sports facilities to ensure the availability, accessibility, and quality of sports facilities that meet the targets set out in Sport 21, the national strategy for sport current at 2006<sup>9</sup>.

A report commissioned by **Scottish Swimming in November 2023: *The Future of Swimming Facilities in Scotland***, found that the average age of a facility is 36 years old and that 56% of the total 396 public pools are in excess of 30 years old. It concluded that using the 38-year-old closure model, Scotland could have a net loss of over 150 pools by 2040 if investment levels remain at 2022/23 levels.

It identified the urgent need for investment in refurbishment and rebuild, however what is more prevalent is the need to ensure that investment produces sustainable facilities, both economically and environmentally. The report stated that the level of new build investment required to maintain current provision of water space is £40.5m per year<sup>10</sup>.

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<sup>9</sup> *National Audit of Scotland's Sports Facilities: Summary Report*, sportscotland, 2006

<sup>10</sup> *The Future of Swimming Facilities in Scotland*, Scottish Swimming, November 2023

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A further report looking at modern technology and how it could be utilised to reduce operational costs interventions, ***A Sustainable Future: Enhancing Energy Efficiency in Scotland's Swimming Pools*** highlighted that Environmentally, the urgency to act cannot be overstated.

For clarity Scotland's Swimming Facilities have been included within the data overview in this report but excluded from the Investment Costs within the report as these have been covered by the 2023 study referenced above.

**School Estate Audit** completed in 2013 by sportscotland identified 'improving access to the school estate' as one of the key success measures in their 2011-15 corporate plan<sup>11</sup>. This supported sportscotland's goal to work towards 'developing and supporting a world class sporting system at all levels' in Scotland, including the opportunities for young people and communities to take part in sport and using the school estate to help facilitate this.

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<sup>11</sup> *School Estate Audit: Sports facilities in schools. sportscotland. July 2013.*

## A.7 Appendix 7: Stakeholder Group

Thanks to wider members of the sporting system who made up the stakeholder group, which supported the delivery of this review. The membership of the group was comprised as follows:

Steven Anderson – Scottish Futures Trust

Kirsty Cumming – Community Leisure UK

Stew Fowlie (part) – Scottish Student Sport

Keith Heslop – Sport Aberdeen

Scott Hughes – West Lothian Council

Euan Lowe (part) – Scottish Swimming

Doc McKelvey (part) - Scottish Gymnastics

Angela Robinson – Scottish Government

Emma Walker – Fife Sport and Leisure Trust

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## A.8 Appendix 8: Cost Findings



Figure 21: Investment required spread across the 25-year lifecycle

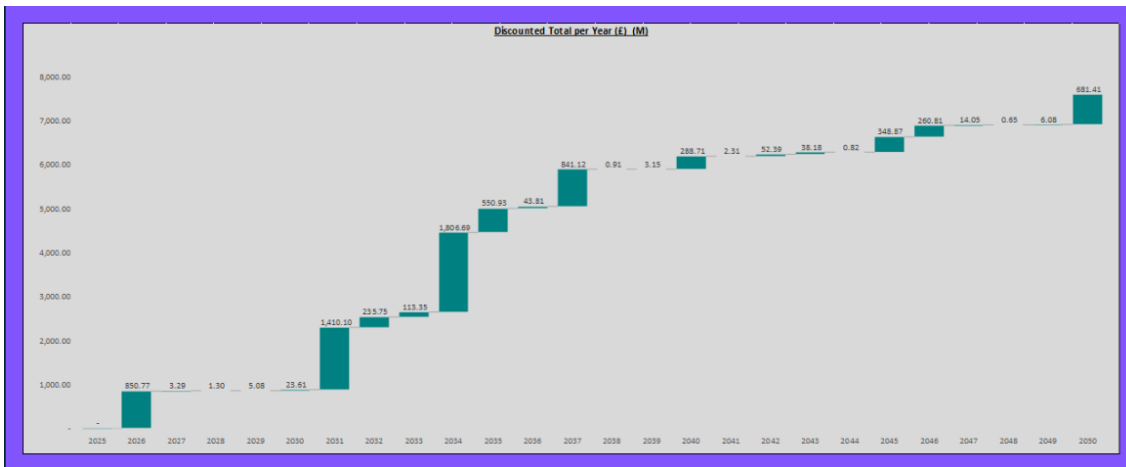
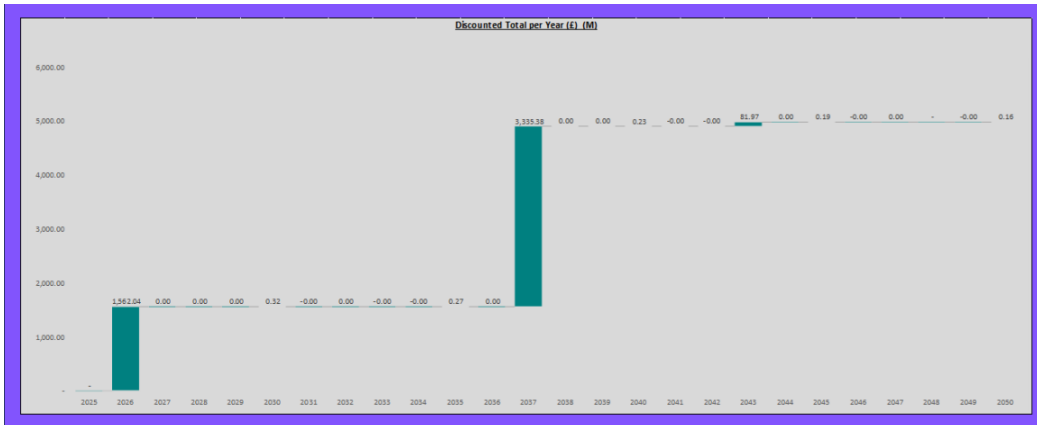


Figure 22: Investment required to address condition of built estate across the 25-year lifecycle

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**Figure 23: Investment required to address condition of outdoor estate across the 25-year lifecycle**

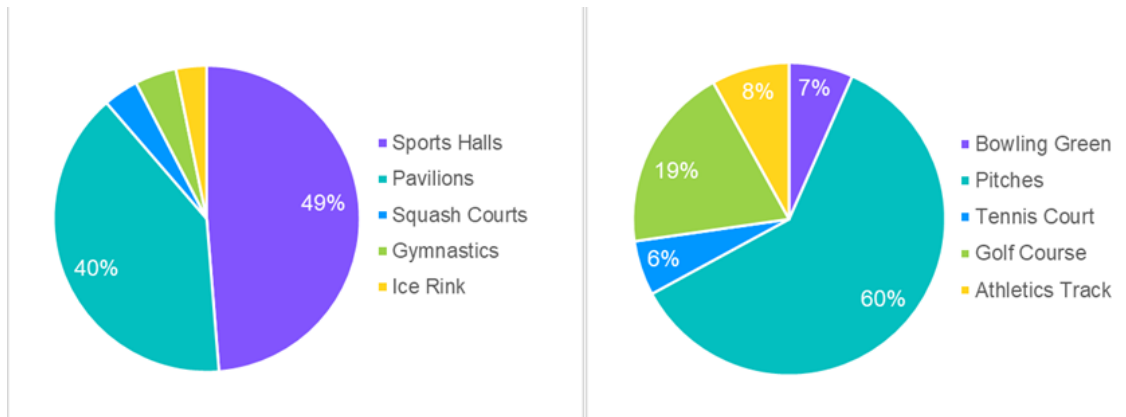
Built Facilities	Built facilities			
		Total (Capex and Opex)	Average total cost/ year	Average total cost per facility
Cost to address condition over 25 years = £7.6bn  Average cost per year to address condition = £0.3bn	Sports halls	£3.7bn	£147.8m	£1.1m
	Gymnastics	£0.3bn	£13.3m	£5.2m
	Ice rinks	£0.3bn	£9.8m	£8.8m
	Squash courts	£0.3bn	£11.3m	£0.8m
	Pavilions	£3.0bn	£121.2m	£1.1m

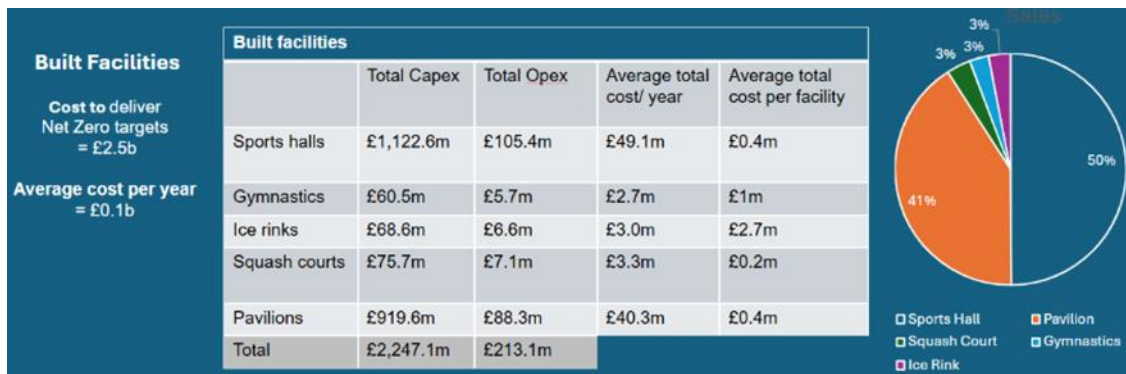
Outdoor facilities	Outdoor facilities			
		Total (Capex and Opex)	Average total cost/ year	Average total cost per facility
Cost to address condition over 25 years = £5.0bn  Average cost per year to address condition = £0.2bn	Golf	£1.0bn	£38.3m	£1m
	Tennis	£0.3bn	£11.3m	£0.2m
	Bowling	£0.3bn	£13.2m	£0.4m
	Pitches	£3.0bn	£120.4m	£1m
	Athletics	£0.4bn	£16.1m	£1.9m

**Figure 24: Cost to address condition and maintenance of built and outdoor facilities**

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**Figure 25: Percentage breakdown of cost to address condition and maintenance of built and outdoor facilities**



**Figure 26: Cost to deliver net zero for built facilities**

