

PREPARED BY:

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## LATENT DEMAND REPORT

SCENARIO ANALYSIS: Full site optimal facility mix
SITE: Bury St Edmunds Leisure Centre (Postcode: IP33 3YU)
PREPARED FOR: Abbeycroft Leisure

## REPORT STRUCTURE:

## 1. INTRODUCTION:

about 4global and DataHub
2. CATCHMENT OVERVIEW:
drive time catchment map and local competition.
3. PROJECTED NUMBER OF USERS:
current latent demand based on optimal site capacity and facility mix (i.e. how many more users could the site accommodate)

## 4. ESTIMATED OPTIMAL CAPACITY:

the optimal capacity calculations and user per facility unit graphical representation

## 5. SOCIAL VALUE GENERATION

the estimated Social Value generated from the current and future projected user population.

## 6. SERVICE ATTRIBUTES:

description of model and approach

## 7. CONTACT DETAILS

8. APPENDIX

## Introduction

## Without exception, every investor and operator should have the most accurate and up to date intelligence available to make informed decisions. Powered by the DataHub, 4global enables all partners to grow participation outcomes, commercial returns and social value. <br> A data driven return on investment. A more active and healthy nation.

## 4global

4global is an international sports business with offices in London, Istanbul, Rio de Janeiro and Sydney providing information management solutions and consultancy services to governments, event organisers, national and international sports governing bodies, facility operators and other sports delivery partners since 2002.

The latent demand model in this report is developed by the 4global Sport Planning team using the intelligence generated by the DataHub - the largest data repository within the sports and leisure sector in the UK. The model is further enhanced with the social value projections from the Social Value Calculator - the award-winning DataHub solution, aligned to the DCMS model developed by Sheffield Hallam University and using Experian risk profiling datasets.

## DataHub

The DataHub initiative was launched in 2013 as an automated way for all sport, leisure and physical activity providers across the sector to securely bring their data together, align it with consistent sector data standards and then access and share business intelligence and best practice, at the point of decision.

As of April 2018, the DataHub tracks and generates insight from over 450 million visits of $7+$ million participants to 1600 leisure centres and sports venues in the UK. This is unprecedented intelligence for the sector and enables detailed outcome and impact modelling.

It is this data that means the latent demand model accurately reflects real world participation and commercial outcomes. This also enables our team to constantly refine the model, ensuring it aligns with known and checked outcomes received back by the DataHub. This de-risks investment decisions. We continue to strive for better!

Thank you for partnering with 4global, ukactive and the DataHub, and using sector intelligence to assess your investment options

## CATCHMENT OVERVIEW



Bury St Edmunds Leisure Centre competing sites and drive time catchments
(up to 20 minutes drive time)

## PROJECTED DEMAND

|  | Projected demand (individuals actively using the facility over a 1 month period) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Drivetime Catchments (Users) |  |  |  |  |  |  |
| Facility type | 0-5 | 5-10 | 10-15 | 15-20 | 20-30 | Total users | Visits per week |
| Health and Fitness Suite | 1,209 | 777 | 107 | 153 | 73 | 2,319 | 3,144 |
| Swimming Pool | 749 | 729 | 71 | 141 | 65 | 1,755 | 2,261 |
| Studio | 472 | 448 | 35 | 49 | 42 | 1,046 | 1,939 |
| Sport Hall | 353 | 497 | 28 | 64 | 49 | 990 | 1,341 |
| Artificial Grass Pitch | 220 | 213 | 15 | 47 | 60 | 555 | 617 |
| Tennis Courts | 78 | 65 | 1 | 2 | 2 | 148 | 246 |
| Creche | 88 | 82 | 1 | 3 | 4 | 179 | 205 |
| Climbing Wall | 47 | 50 | 2 | 3 | 0 | 104 | 118 |
| Squash Courts | 35 | 38 | 7 | 10 | 7 | 98 | 109 |
| Martial Arts Area (Dojo) | 27 | 18 | 4 | 2 | 3 | 53 | 69 |
| Boxing gym | 27 | 18 | 4 | 2 | 0 | 51 | 66 |
| Indoor Bowls | 15 | 28 | 2 | 2 | 0 | 46 | 51 |
| Athletics Track | 17 | 19 | 0 | 1 | 1 | 39 | 43 |

[^0]
## USER LOCATIONS



Bury St Edmunds Leisure Centre projected users active over an average month in a $\mathbf{2 0}$ minute drive time catchmnet and competing sites

## OPTIMAL NUMBER OF STATIONS

| Stations | Number of projected <br> active users | User to station ratio |
| :---: | :---: | :---: |
| 70 | 1,599 | 22.839 |
| 80 | 1,844 | 23.047 |
| 90 | 2,084 | 23.155 |
| 95 | 2,202 | 23.179 |
| 100 | 2,319 | 23.187 |
| 105 | 2,434 | 23.180 |
| 110 | 2,548 | 23.160 |
| 120 | 2,771 | 23.088 |



## OPTIMAL CAPACITY SUMMARY

The below table show the optimal point for each facility type (the point of greatest projected user per unit ratio). A further detailed explanation like shown on page 8 can be found in the appendix for each facility type.

| Facility Type | Unit Type | Optimal Capacity | Users per unit |
| :---: | :---: | :---: | :---: |
| Health and Fitness Suite | Stations | 100 | 23.187 |
| Swimming Pool | Pool Area ( $\mathrm{m}^{2}$ ) | 300 | 5.851 |
| Studio | Studio Space (m²) | 200 | 5.231 |
| Sport Hall | Badminton Courts | 4 | 247.46 |
| Artificial Grass Pitch | Area ( $\mathrm{m}^{2}$ ) | 6,000 | 0.0925 |
| Tennis Courts | Courts | 3 | 49.39 |
| Creche (Children's Area) | Creche Areas | 1 | 179.08 |
| Climbing Centres | Centres | 1 | 104 |
| Squash Courts | Courts | 2 | 48.09 |
| Martial Arts Area (Dojo) | Dojos | 1 | 53.43 |
| Boxing Gym | Gyms | 1 | 50.79 |
| Indoor Bowls | Rinks | 2 | 23.07 |
| Athletics Track | Lanes | 6 | 6.51 |

## SECTOR BENCHMARKS

The below quartile graphs display the members per unit of facility sector benchmark for all sites in DataHub with the facility. Sites falling in the top $25 \%$ are located in the $4^{\text {th }}$ quartile (top quartile performance).

The top 5 facility types (by throughput) have been analysed in the graphics below, with sector benchmarking for the remaining facility types provided in the accompanying appendix.

## HEALTH AND FITNESS - USERS PER STATION

Optimal = 100 stations
23.187


SWIMMING POOL - USERS PER M ${ }^{2}$
Optimal $=300 \mathrm{~m}^{2}$
5.851


STUDIO - USERS PER $\mathrm{M}^{2}$
Optimal $=200 \mathrm{~m}^{2}$
5.231


## SPORT HALL - USERS PER BADMINTON COURT



ARTIFICAL GRASS PITCH - USERS PER $\mathbf{M}^{2}$


## OPTIMAL FACILITY MIX

The following table displays the optimal facility mix for the site. The options are selected based upon generating the most throughput of people (visits per week). The approximate space required for each facility type has been calculated by gathering a sector average from DataHub sites.
$4 m^{2}$ per station has been assumed when calculating the total approximate space required for health and fitness.

A more detailed and customized analysis is available, pending a greater understanding of the potential site footprint.

| Facility Type | Number of Unit | Approximate Space <br> required $\left(\mathrm{m}^{2}\right)$ | Visits per week |
| :---: | :---: | :---: | :---: |
| Health and Fitness <br> Suite | 100 Stations | $400 \mathrm{~m}^{2}$ | 3,144 |
| Swimming Pool | $300 \mathrm{~m}^{2}$ pool area | $600 \mathrm{~m}^{2}$ | 2,261 |
| Studios | $200 \mathrm{~m}^{2}$ studio space | $200 \mathrm{~m}^{2}$ | 1,939 |
| Sport Hall | 4 badminton courts $^{\text {Artificial Grass Pitch }}$ | $6,000 \mathrm{~m}^{2}$ | $600 \mathrm{~m}^{2}$ |
| Total |  | $\mathbf{7 , 8 0 0} \mathrm{m}^{2}$ | $\mathbf{9 , 3 0 2}$ |

## SOCIAL VALUE CALCULATOR



| Category | Social Value projections |
| :---: | :---: |
| Improved health | $£ 415,916$ |
| Improved subjective well-being | $£ 1,409,558$ |
| Increased educational attainment | $£ 50,693$ |
| Reduced crime | $£ 1,409$ |
| Total | $£ 1,877,576$ |

For more information on Social Value please use the following link to the recent ukactive report, powered by DataHub:
https://web.datahubclub.com/wp-content/uploads/2017/09/Physical-Activity-A-Social-Solution-2017.pdf

OUR PARTNERS:

## Sheffield <br> Hallam University

## KEY OBSERVATIONS AND RECOMMENDATIONS

- When considering facilities for the new Bury St Edmunds Leisure Centre latent demand analysis identifies an optimal health and fitness offer of 100 stations, with 2,319 individual users expected over an average month.
When this is translated into approximate spatial requirements, an assumption of $4 m^{2}$ has been used per station. If the operator would like to create a more open and spacious health and fitness facility, a higher assumed spatial requirement can be used (such as $5 \mathrm{~m}^{2}$ ), however this would increase the overall space requirement for health and fitness.
- The optimal swimming pool offer is $300 \mathrm{~m}^{2}$ of water space, which equates to approximately $1 \times 25 \mathrm{~m} 6$-lane pool ( $325 \mathrm{~m}^{2}$ ). The current site provides a main pool of this size and additional smaller teaching pool, activity pool and leisure pool. To accommodate demand for these pool types and considering the lack of leisure pool competition in the area, it is recommended that these pool types are also considered in the facility mix of the new site.
- DataHub identifies a recent trend in sites using sports halls to accommodate other sessions such as a fitness classes, martial arts or multi-sport programmes, which would normally require studio space or a purpose-built facility. If the site was to provide a flexible sport offer, particularly in off peak hours by making the site multipurpose, it would cater for this demand from other sports, such as the demand for boxing and martial arts identified in this report.
- A full-size artificial grass pitch (AGP) has been included in the facility mix, due to the levels of projected usage. Given that the site currently provides a sand-filled pitch it is recommended that consultation is undertaken with local users to determine the best surface type to provide given local demand.
Considering there are two further full-size sand-based pitches in the area, 3G provision may be required. Investing in 3G AGP provision aligns with the strategic objectives of the FA, Sport England and other notable investment partners. Using 3G AGP for grassroots training and matchplay is also a proven business model, with operators generating significant surpluses that can be reinvested back into wider facility improvement.
The model considers the willingness to drive of individuals, the strategic advantage of locating a facility in one location over another and the perceived quality of a facility in calculating the allocation of demand within an area. Given the close proximity to the existing 3G AGP at Skyliner Sports Centre, further analysis would be required to determine the impact that the new site is likely to have on the existing facility and whether there is enough demand for two financially sustainable full size 3G AGP pitches in the area.
- The total throughput for athletics is limited in comparison to other facility types, so a track has not been included in the optimal facility mix. It is recommended,
however, that further consultation is undertaken to understand the usage of the current track by clubs and schools in the area and the impact the loss may have.
- As an alternative to an AGP, if there are spatial constraints with the new site, substituting this with 2 squash courts and 3 tennis courts would generate a larger visits per $\mathrm{m}^{2}$ with these two facilities combined projected to receive 355 visits in $1,140 \mathrm{~m}^{2}$ of space, as opposed to the 617 visits for $6,000 \mathrm{~m}^{2}$ of AGP.
- An indoor tennis court caters for longer opening hours and provides year-round access to service demand, rather than outdoor courts, particularly over the winter period. Although they are deemed to be the preferable option for new leisure centre facilities, the high capital build cost is understood. Further financial modelling is therefore required to calculate projected return on investment.
- A café can increase the secondary spend of users at a site by up to $65 \%$. Therefore, it is recommended to be included within the optimal facility mix if the space is available on-site. Additional benefits can include more frequent visits by individuals and a perceived higher quality, driving acquisition.
- The social value analysis provides a view of projected social value across the entire leisure facility, identifying the total number of unique users and the social value that they are projected to generate.


## PROCESS

## DataHub Sample

National sample of sites and individuals by Age, Gender, Postcode and programme (1 Million people per day)

## Demand Population

Extrapolate profile ratios of age/gender/Mosaic types of sample to the whole population nationally by LSOA to show the demand locally


## Mosaic Type by Postcode

User Postcodes aligned to corresponding Mosaic lifestyle types and aggregated by lower

## Travel Time Decay

Identified the travel time ratio between actual and projected demand for each drive time using DataHub sites and user postcodes

## Metrics Included

- Capacity for demand at each site (based on performance benchmarks from DataHub
- Facility mix at each site and demand within catchment
- Access Policy of each site (often reflects opening times and pricings)

- Drive Time preference of individual

Facility Drive Time Catchments $0-5,5-10,10-15,15-20$ and 20-30minute drive time catchments around
each facility
 super output area (LSOA)


## Competition

Identified the competition which overlap within each LSOA drive time catchment. Assigned demand based upon impact of competitors)


## Facility Demand

Distributed the demand per facility taking into account travel time decay, site capacity and catchment overlaps. This accounts for unmet demand due to accessibility and availability constraints of other sites

## APPROACH

4global has undertaken a supply and demand analysis, considering the current distribution of competition. The model assesses the likely additional users the site should accommodate if capacity is increased. The model combines multiple national datasets, Experian mosaic information, drive time analysis calculations, as well as data from 450 million visits from over 1,600 venues sourced from DataHub.

Using various analytical techniques such as correlation and regression exercises the model identifies what factors influence which outcomes and what the strength and significance of each is.

## OUTCOMES:

- An individual's propensity to use a facility type;
- Why an individual uses one facility as opposed to another;
- How far an individual is willing to travel to use each facility type; and
- The time of use (peak/off peak) which an individual uses the facility type.


## DEMAND FACTORS:

- Age;
- Gender;
- Lifestyle segment (Experian Mosaic dataset);
- Resident, workplace and student population;
- Mobility;
- Population growth;
- Deprivation;
- Risk of inactivity (DataHub data profile using up to data from multiple points);
- Drive time preferences;
- Daily differences in activity; and
- Health indicators.


## SUPPLY FACTORS:

- Accessibility: Opening hours, car parking spaces, access type, ownership type, annual train station through-put (Office of Road and Rail);
- Quantity: Unit of facility type, Access type, ownership type, likely programming of site (DataHub); and
- Quality: Access type, ownership type, age of facility, co-location of additional facilities, management type, changing rooms, price point, additional amenities.

The result of this statistical research enables the prediction of active users and visits per week to over 96\% accuracy, when checked against the actual performance of sites (DataHub).

Using the geographical locations of sites, a 40-minute drive time catchment is placed around each, identifying the Lower Super Output Areas (LSOAs) where possible individuals can originate from. This also allows for identification of all competing sites.

Individuals within LSOAs are then assigned to sites based upon the contextual and situation-al factors of both the site and individual, using the statistical analysis previously outlined. This varies by facility type and again reflects actual current market trends.

## SOCIAL VALUE CALCULATOR

4global developed the Social Value Calculator in partnership with Experian and Sheffield Hallam University (SHU) as a tool that is used by the leisure sector via the DataHub.

The model used was originally developed for the Department of Culture, Media and Sport (DCMS), using the profile of expected use of a facility to identify the monetary value of community savings that are likely to be generated through individuals undertaking a minimum threshold of activity at venues. These savings fall under subcategories of health, education, crime and subjective wellbeing.

Further information on the SVC can be found at:
https://web.datahubclub.com/social-value-calculator/

## DATAHUB PROCESS



## CURRENT SERVICES:

Single facility type scenario: for example, investing into a gym - knowing the optimal capacity that should be provided, and what the participant outcome from investment is likely to be. This also means knowing what a new operator contract could deliver if supported by capital investment (or not, and just based on the status-quo, but factoring in latent demand in the area today);

New site scenario: based on a known site, what facility mix will generate greatest participant numbers (and returns);

Optimal site scenario: which site, based on a proposed facility mix, and participant numbers (and re-turns);

Full site optimal facility mix: new site and new facility mix to meet local need. This includes UK-wide scanning to support large private sector chains.

NOTES

More people More active More often

# CONTACT INFORMATION 

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## APPENDIX

## OPTIMAL SWIMMING POOL CAPACITY

| Pool area $\left(\mathrm{m}^{2}\right)$ | Number of projected <br> active users | User to $\mathrm{m}^{2}$ ratio |
| :---: | :---: | :---: |
| 200 | 1,133 | 5.663 |
| 250 | 1,452 | 5.809 |
| 300 | 1,755 | 5.851 |
| 350 | 2,040 | 5.828 |
| 400 | 2,305 | 5.764 |
| 450 | 2,553 | 5.674 |
| 500 | 2,784 | 5.569 |
| 550 | 3,000 | 5.454 |
| 600 | 3,201 | 5.335 |

Users per $\mathrm{m}^{2}$ pool area


## OPTIMAL STUDIO CAPACITY

| Studio space (m²) | Number of projected <br> active users | User to $\mathrm{m}^{2}$ ratio |
| :---: | :---: | :---: |
| 100 | 486 | 4.862 |
| 150 | 776 | 5.175 |
| 200 | 1,046 | 5.231 |
| 250 | 1,292 | 5.167 |
| 300 | 1,514 | 5.045 |
| 400 | 1,896 | 4.741 |
| 500 | 2,213 | 4.426 |



## OPTIMAL SPORT HALL CAPACITY

| Badminton courts | Number of projected <br> active users |  |
| :---: | :---: | :---: |
| 2 | 466 | User to court ratio |
| 3 | 741 | 233.17 |
| 4 | 990 | 246.97 |
| 5 | 1,209 | 247.46 |
| 7 | 1,401 | 241.83 |
| 8 | 1,569 | 224.11 |
| 2 | 1,717 | 214.57 |



## OPTIMAL ARTIFICAL GRASS PITCH CAPACITY

| AGP area $\left(\mathrm{m}^{2}\right)$ | Number of projected <br> active users | User to $\mathrm{m}^{2}$ ratio |
| :---: | :---: | :---: |
| 4,000 | 361 | 0.0902 |
| 5,000 | 461 | 0.0922 |
| 6,000 | 555 | 0.0925 |
| 7,000 | 643 | 0.0918 |
| 8,000 | 724 | 0.0905 |



## OPTIMAL TENNIS CAPACITY

| Courts | Number of projected <br> active users | User to court ratio |
| :---: | :---: | :---: |
| 2 | 95 | 47.69 |
| 3 | 148 | 49.39 |
| 4 | 197 | 49.36 |
| 5 | 242 | 48.45 |
| 6 | 283 | 47.10 |



## OPTIMAL CRECHE CAPACITY

| Children's area | Number of projected <br> active users | User to children area <br> ratio |
| :---: | :---: | :---: |
| 1 | 179 | 179.08 |
| 2 | 215 | 107.45 |
| 3 | 269 | 89.54 |



## OPTIMAL CLIMBING CAPACITY

| Centre | Number of projected <br> active users | User to Centre ratio |
| :---: | :---: | :---: |
| 1 | 104 | 104.00 |
| 2 | 160 | 80.00 |
| 3 | 217 | 72.39 |
| 4 | 247 | 61.75 |



## OPTIMAL SQUASH COURT CAPACITY

| Squash courts | Number of projected <br> active users | User to court ratio |
| :---: | :---: | :---: |
| 1 | 49 | 48.50 |
| 2 | 98 | 49.09 |
| 3 | 141 | 46.86 |
| 4 | 177 | 44.15 |



## OPTIMAL DOJO CAPACITY

| Dojos | Number of projected <br> active users | User to dojo ratio |
| :---: | :---: | :---: |
| 1 | 53 | 53.43 |
| 2 | 88 | 44.07 |
| 3 | 113 | 37.58 |



## OPTIMAL BOXING GYM CAPACITY

| Boxing gyms | Number of projected <br> active users | User to gym ratio |
| :---: | :---: | :---: |
| 1 | 51 | 50.79 |
| 2 | 83 | 41.53 |
| 3 | 106 | 35.21 |



## OPTIMAL BOWLS RINK CAPACITY

| Bowls rinks | Number of projected <br> active users | User to rink ratio |
| :---: | :---: | :---: |
| 1 | 23 | 22.56 |
| 2 | 46 | 23.07 |
| 3 | 65 | 21.76 |
| 4 | 80 | 20.07 |
| 5 | 92 | 18.40 |
| 6 | 101 | 16.89 |

Users per bowls rink


## OPTIMAL ATHLETIC TRACK CAPACITY

| Lanes | Number of projected <br> active users |  |
| :---: | :---: | :---: |
| 4 | 22 | User to lane ratio |
| 5 | 32 | 5.50 |
| 6 | 39 | 6.40 |
| 7 | 42 | 6.51 |
| 8 | 43 | 6.00 |



## SECTOR BENCHMARKS

TENNIS COURT - USERS PER COURT
Optimal $=3$ courts
49.39


CRECHE - USERS PER CHILDREN AREA
Optimal $=1$ children's area
179


CLIMBING WALL - USERS PER CENTRE
Optimal = 1 centre
104


SQUASH COURTS - USERS PER COURT
Optimal = 2 court


## DOJO (MARTIAL ARTS AREA) - USERS PER DOJO



## BOXING GYM - USERS PER GYM

Optimal $=1$ gym
50.79


## BOWLS RINK - USERS PER RINK



## ATHLETIC TRACK - USERS PER LANE

Optimal = 6 lanes
6.51



[^0]:    * All demand projections are for the optimal capacity of each facility type.

    More information as to calculation of optimal capacity is shown on page 9 and can be found in the appendix section of the report.

