

ENVIRONMENT
SUSTAINABILITY
ECONOMIC
SUSTAINABILITY



IAKS

International Association
for Sports and Leisure Facilities

2023 TRENDS REPORT

SOCIAL
SUSTAIN
HEALTH
PLANNING
DIGITALISATION
OUTDOOR
PHYSICAL ACTIVITY

2023 IAKS TRENDS REPORT

Design trends in sports and leisure facilities are continually evolving to meet the changing needs and preferences of users while addressing emerging challenges. As the world's leading association for these facilities, the IAKS aims to provide an overview of recent developments and industry trends.

We have asked IAKS board members, members of our Expert Circles, as well as board members from our national IAKS sections for their observations.

This trend report summarizes their feedback, starting with the most frequently mentioned topic of „environmental sustainability“ in the areas of „construction“ and „operation“. Other topics - ranked by the number of mentions - include „social sustainability“, „health“, „planning“, „outdoor physical activity“, „economic sustainability“, and „digitalisation.“

While it is impossible to capture the full range of factors involved in current approaches to sports and leisure facility design and operation, we hope you find this summary of trends received from our world-wide network helpful as you consider the future of your facilities.

IAKS

Cologne, 20 October 2023

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TRENDS IN ENVIRONMENTAL SUSTAINABILITY IN CONSTRUCTION

The Climate Crisis is the most pressing issue of our time. With the ultimate goal of achieving net-zero carbon emissions, the ecological sustainability of sports and leisure facilities remains a key priority for those who design, build, operate, and use these centres.

ADAPTIVE REUSE OVER NEW CONSTRUCTION

To reduce our collective carbon footprint, sports and leisure facilities are increasingly choosing to reduce, reuse or recycle, rather than build new. This includes repurposing of obsolete buildings as well as recycling / reuse of old building stock.

Refurbishing an existing facility (rather than building new) can have significant benefits when it comes to reducing embodied carbon. There are trade-offs, however, including functional limitations or increased operational costs.



CHOOSING BETTER MATERIALS

It has become vital to consider the entire life cycle of materials – from extraction and production to transportation and disposal. In the construction of sports and leisure facilities, there is a trend towards:

- Achieving CO2 savings through new materials with low-embodied carbon (e.g. timber) or energy efficiencies
- Pursuing certifications for traceability of product lifecycles and carbon footprints
- Considering health: increased awareness about plastic pollution and so-called 'forever chemicals' (PFAS) in artificial turf may lead to a global ban for rubber infill systems and impact the circular economy (recycling and re-use)

ENCOURAGING RESILIENT COMMUNITIES

Sport and leisure facilities are increasingly being called upon to act as emergency shelters in times of need. As such, it is crucial to consider extreme weather conditions, including heavy storms and rain, flooding, extreme heat, sun protection, drought, and power outages.

TRENDS IN ENVIRONMENTAL SUSTAINABILITY IN OPERATIONS

Sport and leisure facilities are being made more ecologically sustainable through heat recovery, energy-saving technology (e.g. LED lights), and optimised operations.

REDUCING ENERGY CONSUMPTION AND WASTE

Efficient use of natural resources can be achieved through:

- Energy monitoring: metrics have become useful in measuring energy use, the goal of reducing operational energy
- Water reduction: water-saving technology is being used in showers and toilets, while improvements to pool water treatment reduces the need for fresh water. Many projects are also utilising on-site water collection or recycling for irrigation or flushing toilets
- Synthetic ice reduces both and energy consumption
- Waste collection and recycling in spectator venues
- Maintenance requirements are considered already in the planning stage

CREATING HIGH-PERFORMING BUILDING ENVELOPES

High-performance envelopes mean a higher proportion of highly-insulated 'solid' walls, while at the same time trying to introduce filtered non-glare natural light into the programme spaces to reduce electricity consumption.



RENEWABLE ENERGY VS. FOSSIL FUELS

There is a move towards renewable energy sources such as geothermal heat from wells or open water through heat pumps, photovoltaic panels, or solar thermal systems.

TRENDS IN SOCIAL SUSTAINABILITY

To increase activity levels in our societies, there is a growing awareness that sports and leisure facilities must serve everyone. This shift was – and still is – supported by the trend for greater inclusivity in our communities.

ENCOURAGING MEANINGFUL ACCESS FOR ALL

Inclusion / universal design trends promote equity – regardless of age, gender, cultural or socio-economic background, ability, or sexual orientation. This has implications on the design of sports and leisure facilities, including: stairs, lighting, materials, acoustics, wayfinding, privacy, safety, etc.

IMPLEMENTING NEW RESEARCH IN FACILITY DESIGN

There is a shift away from standardization, high performance and competition, to facilities where the focus is participation, play, social qualities, flexibility, progression, and physical literacy.

LISTENING TO THE COMMUNITY

Public engagement is key to creating sports and leisure facilities that meet a broader range of needs in a community, including those of organised sports groups, institutions such as schools and the public, as well as individuals.

By listening to – and collaborating with – the community, we can future-proof facilities and forecast the needs / demand to come. Public engagement should include open discussions and presentations, surveys, interviews, as well as targeted group research.

ASPIRING A LEVEL PLAYING FIELD

In countries with lower wealth, it is a challenge to create access to sports and leisure facilities at all. We must find low-cost ways to do this.

CELEBRATING CULTURAL HERITAGE

Integrating cultural heritage into a sports and leisure facility is a meaningful way to celebrate and preserve the history, traditions, and identity of a region. This could include using culturally significant traditional building styles, materials, or motifs, or promoting the work of local artists and storytellers.

MEASURING SOCIAL VALUE AND DEFINING GOALS

Understanding and communicating the social performance of a facility requires analysis of its social return on investment. These types of analyses help determine what is the 'right cost' of a facility, for its purpose.

SPECTATOR VENUES AS CATALYST FOR URBAN REGENERATION

Increasingly, spectator venues are being designed and situated in a way that extends their benefits by enhancing urban renewal.

TRENDS IN HEALTH

Health and wellness are an enduring trend – which, coupled with an awareness of our rapidly-ageing societies and lessons learned from the COVID-19 pandemic – have translated into a renewed focus on facilities that prioritize health and wellbeing outcomes, as well as community benefits. Health-related activities, in particular, have become an important goal for sports and leisure facilities.



FROM TRADITIONAL LEISURE SERVICES TO ACTIVE WELLBEING

This may include more warm water options in swimming pools, additional programme and meeting rooms, and integrated health services. New services, such as individual or small-group fitness training, wellbeing programme, and healthier food options are also on the rise.

CONSIDERATION FOR ATHLETES' HOLISTIC HEALTH

As the concern for an athlete's overall health grows, so too has the spectrum of services available to meet their physical and mental health needs. We observe an increase in programming for doctors, physiotherapists, psychologists, and nutritionists in sport and leisure facilities.



IMPROVING THE AIR WE BREATHE

There has been a growing focus on air quality, including new unheated zones between outdoor spaces and climate-controlled indoor spaces, as well as facilities in sheltered outdoor areas that were formerly housed entirely indoors. Furthermore, there has been a demand to reduce or remove chlorine byproducts from indoor swimming pools.

INTEGRATING POST-PANDEMIC CHANGES

Facilities are being designed with one-way traffic flow, wider corridors, more operable windows, and the ability to shut down and/or operate separate areas of the building.

TRENDS IN PLANNING

Recently, individual sports have gained popularity. Sports and leisure facilities must adapt to this behavioural change.

FROM SINGLE-PURPOSE TO MULTI-USE

- Individual sports can be economically challenging for sports and leisure facilities to provide. One strategy to help with this is to clearly state the fundamental goals and outcomes of a project as early as possible.
- The trend for individual sports has implications regarding individual access 24/7, multifunctionality, demand in urban areas, and digitisation. Traditional sports halls should also become accessible to individual users like an “indoor common”.
- Economic development in towns puts pressure on sports and leisure facilities – therefore, it is beneficial to envisage facilities for more than one use through multi-purpose programming, stacking, developing outdoor areas. Potential examples are summer splash pads that become ice skating rinks in the winter, alternative uses of spectator venues to increase user numbers, etc.
- Combining sportive and non-sportive municipal functions, such as ice areas, swimming pools, sports halls, libraries, childcare centres, and exercise rooms, public meeting halls, as well as outdoor play areas and courts.
- Scalable facilities for everyday participation and larger events. Build less and share more.
- Adaptive (re-)use: sports and leisure facilities need to be flexible in their use to last longer.

DEMAND-ORIENTED AND REGIONAL PLANNING

prevents the creation of duplicate capacity and leads to higher utilization rates and higher efficiency.

INTERNATIONAL HARMONISATION OF FACILITIES

e.g. stadia tend to become similar in design and offering.



TRENDS IN OUTDOOR PHYSICAL ACTIVITY

As a potential outcome of the COVID-19 pandemic, outdoor activities have gained even more prominence in our cities and in nature. This has led to some strain on existing infrastructure – with over-utilization often reported in nature. In some cases, conflict has also bubbled up between those sharing the space (cars, cyclists, pedestrians, etc.).

CONNECTING INDOOR AND OUTDOOR SPACES

As people increasingly take activities outdoors, sports and leisure facilities must respond. Architects and designers are increasingly asking themselves how indoor facilities can create a connection to the outdoors, or act as a starting point or a pitstop for outdoor activities.



MAKING THE MOST OF PUBLIC SPACE

As the demand for – and cost of – real estate rises in our already-dense cities, there is a need to maximize the potential of urban greenspaces and public plazas as 'sports halls of the future'. There is a trend toward creative use of public space, including ice in the public realm, rooftop courts, and harbourfront swimming decks.

INCORPORATING ACTIVITY AND SPORTS INTO URBAN PLANNING

To maximise the potential of the built environment for sports and leisure, municipal governments are beginning to see the value of cooperating across departments (e.g. urban, traffic, and sports planning).



SCHOOLYARDS AS A SHARED COMMUNITY ASSET

Rather than locking up these fenced yards for the sole use of students and staff, many schools are allowing the extended use of their fields and courts before or after classes to serve a wider group of potential users.

TRENDS IN ECONOMIC SUSTAINABILITY

With ballooning global inflation and an economic downturn, financial sustainability remains a critical factor in determining the success of building projects. Sports and leisure facilities are a costly investment for many local governments – with operational costs that can strain the limited public funds available.

DIVERSE FACTORS IMPACTING FISCAL EFFICIENCY



- Increasing construction costs, paired with increasing costs of financing, reduce the ability for refurbishment
- operational cost pressures, especially regarding energy and staff
- Staff shortages
- Life-cycle costing is needed to get the balance between investment and operational costs
- Suppliers are experiencing decreasing export markets (Russia, Ukraine and China) and operational costs

COMMUNICATING PUBLIC VALUE

to continue building sports and leisure facilities with public funds, there is a need to educate and communicate the true value of these spaces – for health, wellness, and community building.

TRENDS IN DIGITALISATION

While activity and sports are « real-life » experiences, digitisation is a growing trend in sports and leisure facilities.

 **BUILDING INFORMATION MODELLING (BIM)**
being utilized to support effective operations

 **MOBILE TICKETING:**
access control, bookings, etc.

 **DIGITAL ADMINISTRATION**

 **ARTIFICIAL INTELLIGENCE (AI)**
e.g. for water surveillance in pools

 **AUGMENTED REALITY (AR)**
for users and spectators

 **APPS AND SOCIAL NETWORKS**
to create groups for individual users

 **PERFORMANCE MEASUREMENT** (self-tracking)
through wearables, which can also be linked to sports facilities

 **IT SECURITY**
to avoid hacking attempts.

IAKS - International Association for Sports and Leisure Facilities

WHO WE ARE

The IAKS is the leading global non-profit organisation for professionals from the sports, leisure and recreation facilities industry. Since 1965, IAKS has been enabling international networking for the exchange of expertise in the fields of architecture, construction and operations. IAKS is an IOC Recognized Organisation and cooperates with the IPC and many more international non-profit bodies.

Our network is the meeting place for architects, engineers, clients, designers, local authorities, technical and operative management, sports federations and clubs!

IAKS has partners and members in 153 countries. National sections serve local interests, organise regional and own events and provide information to the members of their countries.

You're enthusiastic about high-quality, functional and sustainable sports facilities? You appreciate cross-sector exchange among experts? You're looking for or can provide forward-looking information on the architecture, construction and operation of sports and leisure facilities? If so, you'll feel at home in the international IAKS network: for inspiration, solutions and a global forum.



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