

- + STRUCTURES AND ENVELOPES
- + SPORT AND PLAY
- + EDUCATION









SMC2 in numbers















> 1000 + REFERENCES



1 000 000 m² OF SURFACE COVERED



100 000 m³ OF TIMBER STRUCTURES



SMC2 is a specialist international design @ build company headquartered near to Lyon in France with offices in Frankfurt, London and Montreal. Respect for nature lies at the core of our activities. As developers and builders of both simple and complex structures we contribute to the provision of spaces that are both sustainable and pleasant to use.

Every day, our teams provide aesthetic functional buildings to private and public sector clients matching ecologically responsibility with affordability.

We are anxious to innovate and are constantly exploring promising new pathways to develop what we offer.

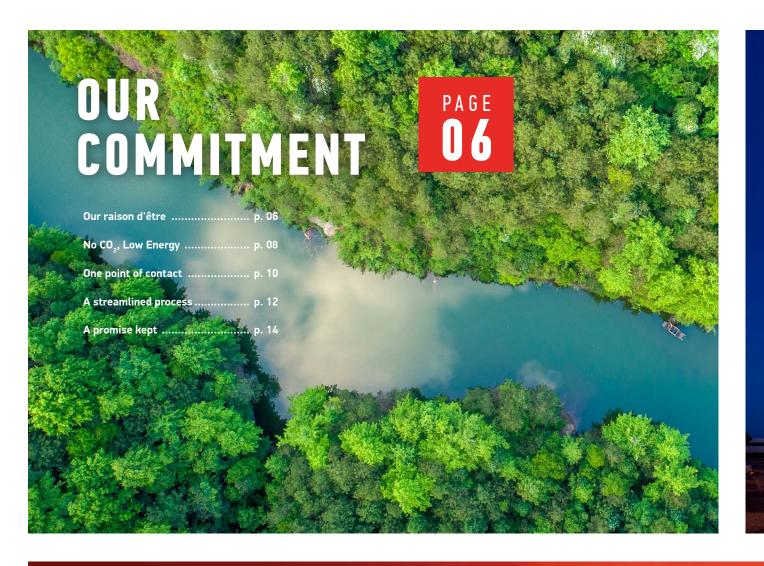
New ideas are the foundation of our creativity. We express this desire in our dialogue and exchanges with our partners whether they be architects, consultancy firms, municipalities, private institutions, suppliers or manufacturers.

Our foremost commitment is in accompanying our clients from a project's conception through to its successful fruition.

Nicolas Robin *Managing Director*

Samuel Guillermard

Deputy Managing Director





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OUR raison d'être

IMAGINE CONCEIVE **CONSTRUCT PLEASANT SUSTAINABLE SPACES FOR A BRIGHTER FUTURE**

'The essence of a project is the perfect harmony between the aesthetic, the useful and the just.'

FRANK LLOYD WRIGHT. ARCHITECT









In 2020, the UN declared a climate emergency. With a controlled carbon footprint, reduced energy consumption during fabrication, construction and use, the goal of creating spaces with minimal impact is not a utopia; SMC2 strive to make this aspiration a tangible reality. We choose low carbon materials with minimal embodied energy. Our buildings make use of renewable energy and IT resources in ways that respect the principles of a sharing economy.



BIOMATERIALS

Elegant and sensitive materials that connect us with nature, biomaterials serve as **carbon sinks** that use the sun's energy to produce renewable and sustainably available materials for construction. The energy required for their transformation is low thus helping to reduce the environmental footprint of those structures that make the fullest use of them.



FEWER MATERIALS

In the interest of sustainability, we minimise the material density used for our buildings while maintaining **maximum functionality**. Lightweight composite membrane materials require little energy during their production and installation yet deliver in terms of their mechanical, thermal and aesthetic performance.



RENEWABLE ENERGY

We integrate renewable green energies into our structures so that they are passive; they help play their role in **decarbonising our economy.** We minimise the energy necessary for the operation of our buildings with natural daylighting and hygrothermal control.



MUTUALISED TECHNOLOGY

We believe in the sharing economy and strive to optimise the goods and services that we offer by incorporating innovative IT tools and digitally accessible and disseminatable solutions in the delivery and operation of our buildings. The carbon energy footprint of a structure can be minimised on a per user basis if it provides integrated multi-use functionality that can serve the greatest number of people.

ONE POINT OF CONTACT











LISTEN

Our regional sales engineer will arrange an initial meeting with you to understand your project goals. Together we will prioritise the architectural features and preferences that you require and at the same time gain a thorough understanding of the challenges that the project's environment, budget and local planning constraints might present.

You have our ear and our expertise in helping determine the **best solution** and design brief for your project.

We accompany you from the very start of your project.



PROPOSE

The sales engineer will work with our in-house team of experts made up of architects, engineers, graphic designers, and estimators, to transmit a **comprehensive design solution proposal** to you that includes outline plans, images, technical specifications and a detailed budget price.



NAVIGATE

We will nominate one of our highly experienced Contract Managers to manage the logistics and execution of your project. He or she is your dedicated point of contact and will be in complete command of the construction process assuring that we deliver you a **high quality product on time and on budget.**

The Contract Manager is your constant link to the project build and will always be on hand for you throughout the entire project works. They will keep you informed of progress and will answer any questions that you may have along the way whether they be of a technical, logistical or administrative nature. They will ensure that you are entirely satisfied and that our contractual obligation to you is fully met.

In carrying out your project, we will respect your values and we commit to ensuring that the highest standards of health and safety are maintained throughout so as to guaranty no harm comes to our workforce, the public or the environment.

A STREAMLINED **PROCESS**

We constantly strive to perfect our methods, resources and processes - it is part of our DNA. We pay particular attention to, and place special effort on ensuring that we maintain state-of-the-art knowledge and expertise. Whilst delivering our current offerings on a daily basis we never cease researching the market in fields not necessarily associated with construction, seeking out new engineering design ideas (e.g. advanced software for parametric design); new material developments and industrial processes that we can take on board and use in our building systems: We are proponents for the efficient use of the latest technology in the service of construction.



3D BIM DESIGN

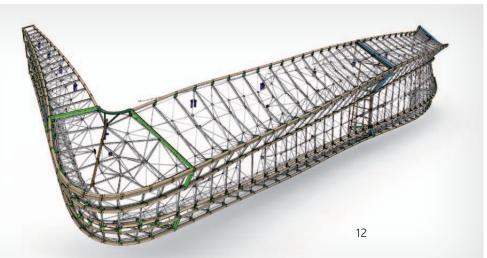
- In-house consultants combine their complementary expertise: engineers, designers, architects, graphic designers and estimators.
- In depth know-how of the technologies we use: timber structures, metal structures, surface tensile envelopes, etc.
- Engineering using digital 3D modelling and BIM methodology (Building Intelligence Modelling).
- Bespoke assessment and expertise for each and every project down to the smallest of details and ability to update and disseminate data in real time.





INDUSTRIALISATION

- Process engineering.
- Automation and CNC machining to deliver quality and precision.
- Maximum efficiency in manufacture as integrated BIM software allows 3D design files to be used for direct machining.
- ISO 9001 certified manufacture.





'Every time I've flown an aircraft, or visited a steelwork, or watched a panel-beater at work, I've learned something new that can be applied to buildings'

NORMAN FOSTER, ARCHITECT



INSTALLATION

- Pre-fabricated factory finished elements delivered to site.
- Fast and efficient sequencing of the on-site assembly process.
- Experienced site foreman and skilled teams ensure the safe and efficient implementation of the works.





MAINTENANCE

- Our customer support extends beyond the delivery of your building.
- Guarantee and maintenance postdelivery.
- An after-sales services which is reactive
- A dedicated Contract Manger as your point of contact.

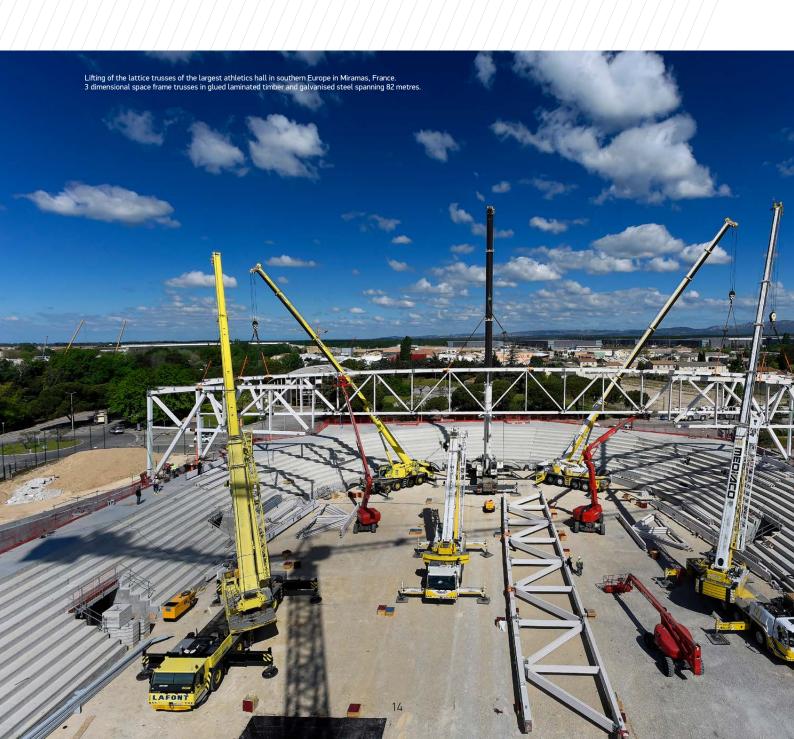




A PROMISE KEPT

Creativity / costs / quality / deadlines

Our unique process and our multi-disciplinary in-house teams focus on listening, liaison and dialogue, enabling us to guarantee the smooth rollout of your project; from the initial idea to the final outcome.





CREATIVE FREEDOM

Our knowhow of the process of design and transformation of tensile surface membrane materials and framed structures means that we can unleash our creative imagination to **explore** and **produce** all types of designs that make the most of these materials without the constraints imposed by traditional construction methods.



KNOWING THE WHOLE PICTURE

3D modelling at design phase means that we can ensure we have included and itemised each and every component part thus ensuring accurate costing, the adherence to which is then guaranteed.



THOROUGH PLANNING, MEETING DEADLINES

Factory **pre-fabrication** by ISO 9001 certified manufacturers enables us to shorten production times and ensure quality standards. Pre-fabrication optimises **on-site construction efficiency.**



GUARANTEED INDUSTRIAL QUALITY

We are committed to carrying out our work with an attention to detail and a desire to deliver a first-class installation. That is why each site is managed by an experienced team leader who ensures that the project is carried out with care. **Construction** is fast yet thoughtfully managed. The build is undertaken by a dedicated team who take pride in what they do.



STRUCTURES & ENVELOPES

With engineering techniques specialised in the design of structures and tensile envelopes, SMC2 works with architects and designers to create bold new elegant structures.

We are at your side from conception to fruition, modelling each detail of the design and making the virtual become a reality: bold design delivered with complete control over budgets and schedules.



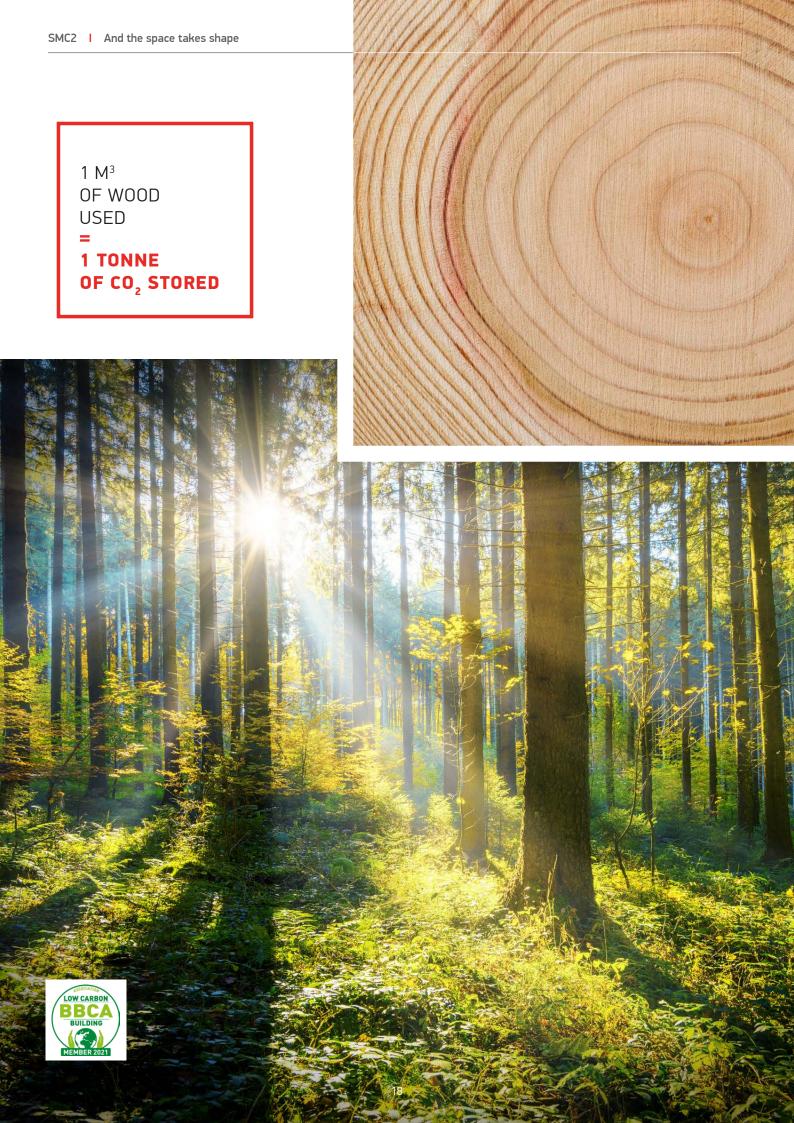
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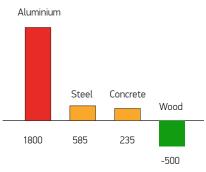
STRUCTURES & ENVELOPES TIMBER FRAMES

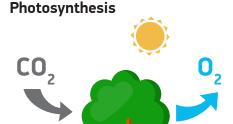
COMBAT GLOBAL WARMING

Unlike other structural materials, wood is one of the only building materials which stores ${\bf CO_2}$ through the process of photosynthesis during its growth phase.

Carbon footprint

Kilos of CO₂ emitted per tonne produced





Source : ADEME

FREE YOUR CREATIVE IMAGINATION

The architectural qualities of wood coupled with its excellent mechanical performance allow it to be integrated with a tremendous freedom of form into countless structures. Timber structures can be used in all manner of projects to deliver something that is both ecological and economical. A vast array of façade claddings materials to complete the building envelope are available: wood, mineral fibre panels, composite panels, glass, textile membranes etc....



LIBERATED ARCHITECTURE

The beauty of wood can be expressed in numerous structural formats: trusses, lattices, portals frames, shells...etc. Almost any shape is possible without being constrained by size or geometry. Wood comes in a vast array of natural colours and textures. It conveys an inherent warmth. Wood stains or paints enhance the available colour palette. Individual engineered elements help to impart elegance and refinement to the final structure. These elements can be rectilinear or curved. The natural durability of certain wood species means that they can be used outside; other species when treated with technologically advanced preservative systems also provide tremendous long-

Wood is a source of unlimited inspiration that reconnects humankind with nature.







Glued-laminated timber (Glulam) and solid wood structures

The wooden elements are manufactured with the aid of large robotic machines that receive direct instruction via software used to produce the 3D design models.

Glued-laminated timber has several technical advantages:

Flame resistance

- Acoustic qualities
- Resistance to atmospheric changes and aggressive chemicals
- Aesthetic warmth & beauty
- Dimensional stability during changes in temperature



The advantage of dry construction

- Faster **construction times:** By definition, dry construction does not require the use of water or 'wet trades', therefore drying and curing periods are avoided during construction and the whole process is less weather dependent.
- + Greater **precision** in the construction

Off-site preparation of building elements, accurately prefabricated in factory conditions, for rapid assembly on site.





Timber walls

Structurally insulated panels (SIPs) \otimes cross laminated timber (CLT) panels can be provided fully pre-fabricated with the inclusion of insulation and surface finishes.

Highly valued in passive construction, wood construction is particularly attractive to those who seek a healthy low energy building, with excellent thermal and aesthetic comfort.

Timber and steel superstructures

By combining timber with steel, SMC2 uses the intrinsic quality of each material for both **structural integrity and architectural optimisation.** Our engineering teams coordinate use of these materials for us to construct bold, elegant structures on your behalf.



YOUR CO₂ EMISSIONS

DIVIDED BY 5







Miramas (France) – Indoor Athletics Hall

STRUCTURES & ENVELOPES SURFACE TENSILE ENVELOPES

INTERWOVEN CREATIVE IDEAS

The degree of **transparency** and **translucency** of our tensile membrane can be adjusted according to use.

Solar heat gain can be managed with precision.

Tensile membranes can be delivered in a wide variety of shapes and colours that enables creativity of design: translucent roofs, perforated façades, curved and parabolic surfaces, smooth sides, faceted or straight edges, screen printing of graphics onto surfaces - all are available options.

COMBAT GLOBAL WARMING: LESS IS MORE

Tensile textile membranes allow for the creation of volume using a **minimal amount of material and energy.** They offer shelter from inclement weather and have a low environmental impact.

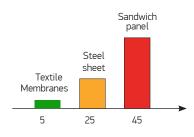
When comparing the Life Cycle Assessments (LCA) of textile membranes and metal or metal composite roofs, we find the following orders of magnitude:

Textile Membranes Profiled Steel Sandwich panel

1 kg/m² 6 kg/m² 15 kg/m²

Carbon footprint

Value in kilos of CO2 equivalent to m2 of covering





STRUCTURES & ENVELOPES > SURFACE TENSILE MEMBRANES

TENSILE ROOFS

Tensile roofs add character to a building thanks to the fluidity and airiness of the forms created. They have become a hallmark of contemporary architecture. The geometry of a timber or steel frame used in conjunction with a membrane and combined with elegantly ancillary detailing elements, enable a vast array of architectural expressions to be obtained.

The **translucency** of the textile membranes can be used by a designer to work with the manifestation of light and shadow.

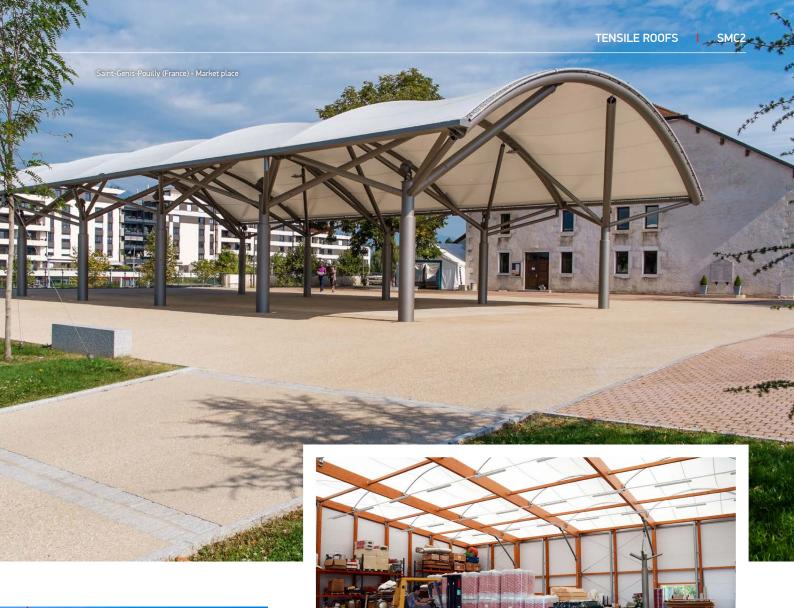
Use of tensile membrane architecture is well established and finds its most famous exponents among the landmark football stadiums that are found in cities throughout the globe.

Its exceptional durability associated with its great architectural qualities are the guarantors of fine architecture.















STRUCTURES & ENVELOPES > SURFACE TENSILE MEMBRANES

TENSILE FAÇADES

Tensile façades can be used to enhance your building's architectural expression by combining adaptations of form, texture, translucency, colour, and printed graphics.

They create bio-climatic shells which help to control solar gains and thermal losses. Addition of a secondary tensile skin to a façade imparts a strong visual identity and improves energy efficiency. SMC2 offer tensile fabric curtain wall facades that gentrify exiting buildings - "what's old is new again".

Tensile façades can be combined with all other façade materials (timber, steel, mineral, composite) for tailor-made solutions.

Facetted or curved shapes allow for daring novel design.

Use of **light projection** can animate and add dynamism to your building, totally changing its appearance at nightfall. Light architecture can be used to communicate a building's presence.

With SMC2 you're promised a comprehensive and highly engineered turnkey package that includes everything needed for a successful project: (structural calculations; thermal and acoustic analyses; architectural plans, layouts and renditions; detailing of joints; full fabrication and installation).



Clermont-Ferrand (France) - Tensile façades











STRUCTURES & ENVELOPES > SURFACE TENSILE MEMBRANES

ETFE FILMS ALTERNATIVE GLAZING

Transparent or coloured, ETFE films are primarily used to deliver striking transparent weatherproof roof coverings and façades that allow daylight to flood modern buildings with minimal use of material resources.

ETFE offers unique architectural qualities:

- More than 90% transparency
- Solar protection with customised prints and colours
- Ultra-Lightweight: ETFE films of 200 μm thickness weigh around 350 g/m²
- Recyclability: ETFE is made of fluorite, a common mineral that does not contain solvents
- ETFE is UV penetrable so that vegetation can be grown beneath it.

Roofs or façades made using ETFE technology are available in two formats:

- Monofilm layer incorporating a reinforcing mesh made of stainless-steel cables for
- Pressurised inflated cushions which maintain geometry and resist imposed climatic loads. The 'cushions' are insulating and can therefore be used be used to cover swimming pools for example.

Free your imagination. Our teams are here to help shed light on your ideas.

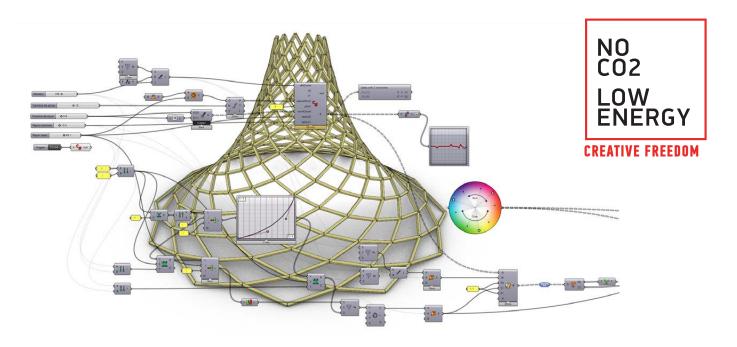


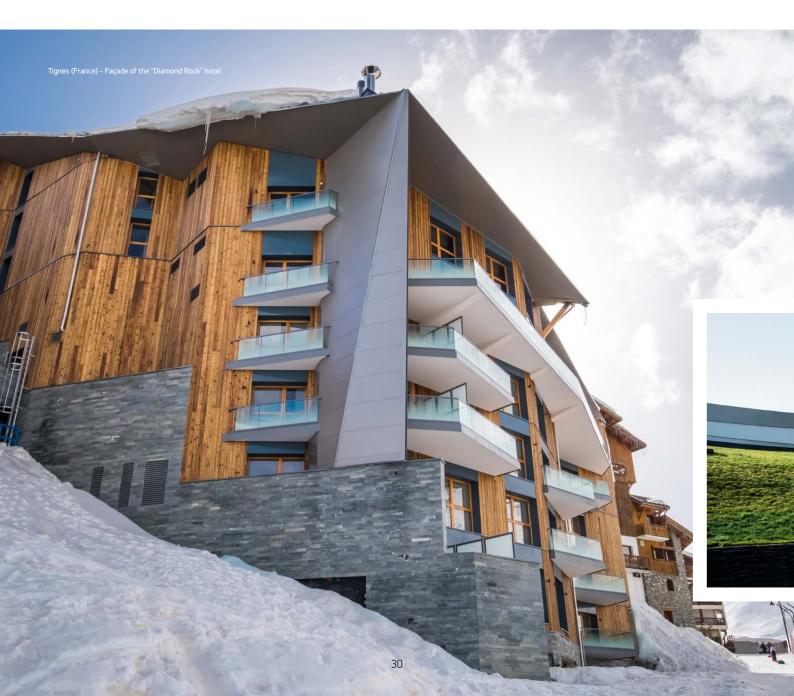














STRUCTURES & ENVELOPES PARAMETRIC ARCHITECTURE

Parametric architecture challenges our preconceived ideas of what buildings should be. It can be used to create forms with almost no visible corners or sharp edges that evoke the feeling of one continuous fluid space. 3D parametric design uses computer algorithms that allow the designer to create a multitude of accurately reproducible geometric shapes that combined to create a truly unique engineered building. Elements are individually manufactured by robots and combined and assembled on site with industrial quality and regularity in an economically efficient manner.

Liberating creativity: from conception to completion, we make the complex seem simple

Wood, steel, mineral fibre, nets, stainless steel mesh, etc. We offer all types of materials, textures, and colours to emphasise your building's personality.











STRUCTURES & ENVELOPES GREEN ENVELOPES

TOMORROW'S CITIES WILL BE GREEN

Taming concrete jungles, combating global warming, **reconnecting with nature**, providing coolness and shade; the reintegration of plant life into urban environments is no longer an option but a necessity.

Our green envelopes are made up of either deciduous or evergreen climbing plants which grow on secondary meshes carried by primary supporting structures. These latter frameworks, inspired by nature, are made from timber rather than steel to ensure a **perfect integration of the vegetation** into the built environment.

Modular balconies, and even play structures, can be incorporated into a building's green façade in keeping with the idea of delivering an **enhanced building**. These intermediary spaces, between the 'inside' and the 'outside' simultaneously link private, intimate spaces to the city. Harmonious places where we can forget the polluted concrete jungle and where everything becomes plant-like, serene and playful.

The dream becomes reality





SPORT & PLAY

We design and construct high-quality structures that are economic and ecological in in terms of investment and operation.

Turnkey solutions for the joy of play.

Our innovative solutions bring together sport and play in a responsive manner satisfying the needs of today as well as tomorrow.

Our construction expertise coupled with our knowledge of player need enables us to put forward solutions which deliver on the fundamental requirements of the ideal sports hall:

- Visual comfort
- () Acoustic comfort
- Thermal comfort

To provide the best possible playing experience we pay particular attention to the nature of the surface on which players compete and expend their energy.

Our construction systems combine the best structure and claddings to create **virtuous buildings:**

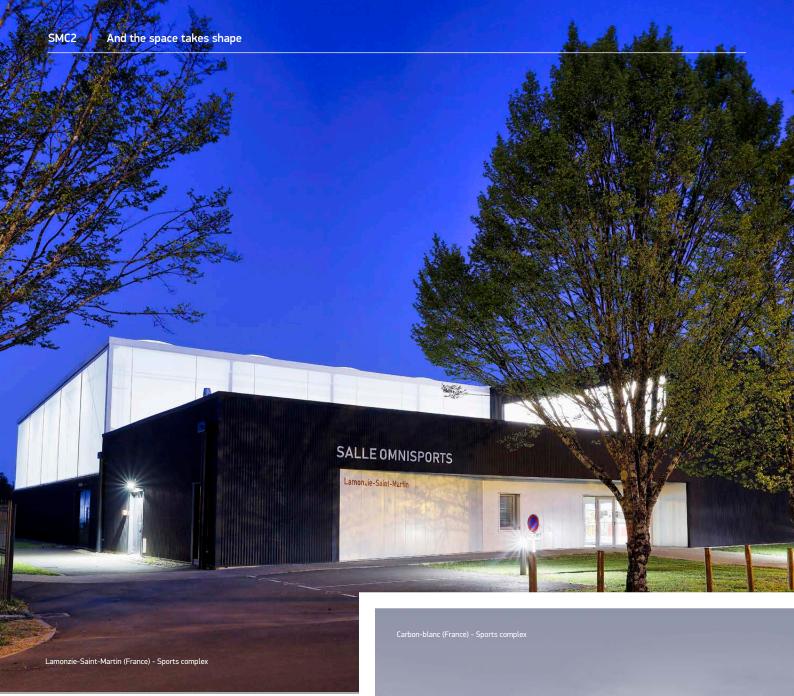
- + **Timber** for the structural frame to store CO₂
- → A tensile membrane roof to protect players from inclement weather and further minimising our environmental footprint.





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NO CO2 LOW ENERGY

ENDLESS FUN





We offer comprehensive **turnkey solutions** for sports halls, delivered to the required quality, on time and on budget. We listen intently to your needs, and together we build up a specification \otimes proposal that is sensitive to the site and complies with local planning policy.

We firstly define the requirements of the project's end users and then do what we need to do in order to make that resonate with the budgetary and environmental constraints.

To achieve this, the emphasis on individual facets of the facility can be adapted in different ways using different construction techniques:

- + Centres for dynamic sport
- Multi-purpose facilities for sport and culture
- Specialised facilities for martial arts, gymnastics, dance, etc.
- + Changing rooms
- + Club houses, cafeterias, etc.
- + Equipment and general storage





CENTRES FOR DYNAMIC SPORT

Dynamic sport encompass ball and racket games: handball, basketball, volleyball, badminton, futsal, etc.

Halls for dynamic sport are constructed using timber frames with textile membrane roofs and facades (at high level).

They protect players from inclement weather and ensure maximum comfort.



- Naturally luminous

Textile membranes are translucent. The degree of translucency can be selected to match the needs of each individual project. Our facilities use natural daylight to provide homogenous and harmonious environments free from glare and uneven shading.

Controlled acoustics

Tensile envelopes are supple and do not reverberate.



Tempered environment

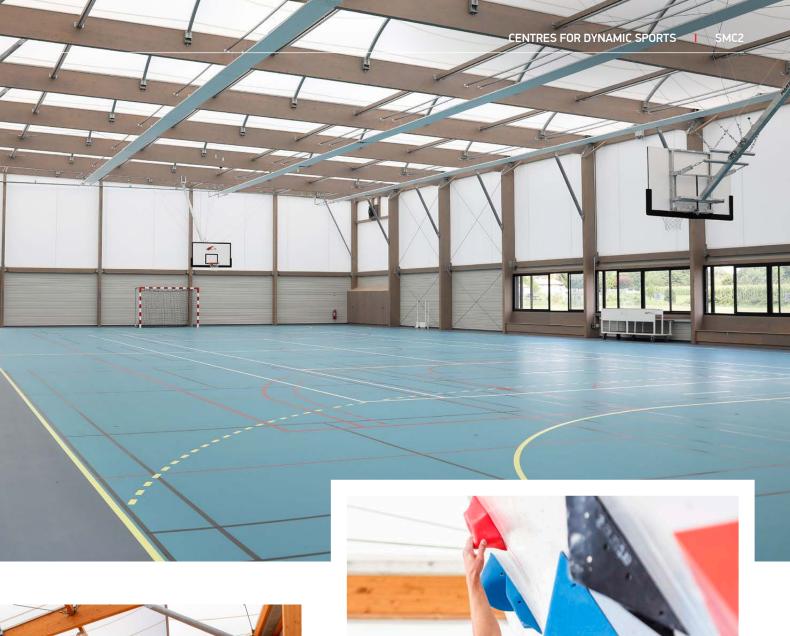
Player comfort is ensured by controlling the temperature* and relative humidity. *Refer to details on pages 40 and 41

Simplicity and functionality are the watchwords for our designs, ensuring that your needs are met in the most efficient manner.

This rationale has one goal: to make sure that our facilities are practical and can be conveniently put to optimal use.













COMFORT IN SUMMER

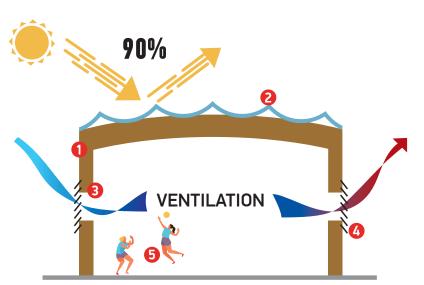
Textile membranes do not store heat nor transfer it to the interiors of our halls; our facilities remain temperate. Being white, our membrane roofs reflect 90% of solar radiation.

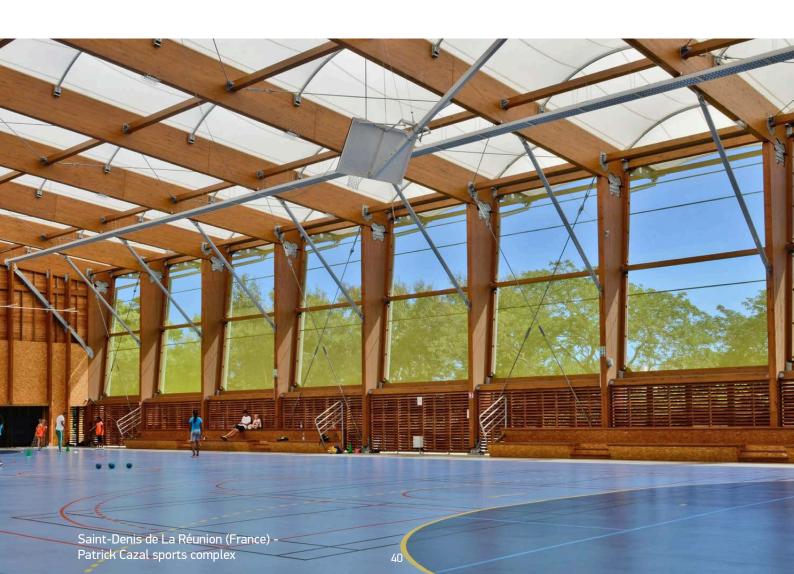
Ample natural ventilation ensures optimal comfort for players even during hot conditions.

In the fight against global warming, we advise against the use of air-conditioning in our sports hall facilities.

Comfort during the summer is passively provided by the specialised architecture.

- Wood: never gets too hot and doesn't accumulate heat
- White textile membranes: never too hot, prevents overheating
- Open facades: effective natural ventilation
- Louvred sun screens: prevents direct sunlight
- Summer dress code





COMFORT IN WINTER

Our facilities for dynamic sport incorporate **hygrothermal controls** (control of humidity and temperature) to keep humidity low and limit heat loss experienced by the players.

In the combat against global warming, we advise against heating our facilities used for dynamic sport, or limiting heating to no more than 12°C.

Supplementary heating can be supplied by a system of

energy-efficient radiant heaters fitted at ceiling level. The radiant panels emit heat similar to that of the sun by warming the surfaces and the users without heating the entire air volume within the hall. The system is furthermore only set to operate when the hall is in use.

- Wood: never gets too cold, never accumulates cold
- White textile membranes: low coefficient of transmittance; never too cold
- Open façades: effective natural ventilation
- Louvred sun screens prevent blinding
- Appropriate clothing for winter
- 6 Hygrothermal controls
- Optional heating





MULTI-PURPOSE HALLS, SPORTS AND CULTURE

These multi-use spaces can accommodate all manner of indoor sport (team sports, gymnastics, dance, martial arts, etc.) as well as cultural events, school performances, club events, etc.

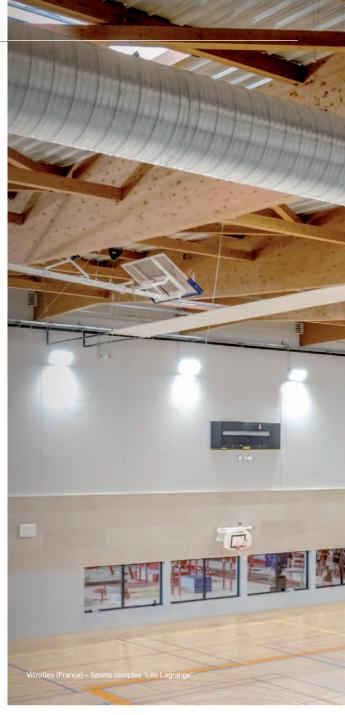
We build the venues using structural Glulam timber. They are designed to comply with prevailing building codes to ensure maximal thermal performance with an emphasis on insulation and ventilation to ensure optimal user comfort.

A heating system is chosen according to the renewable energy source that best matches the project.

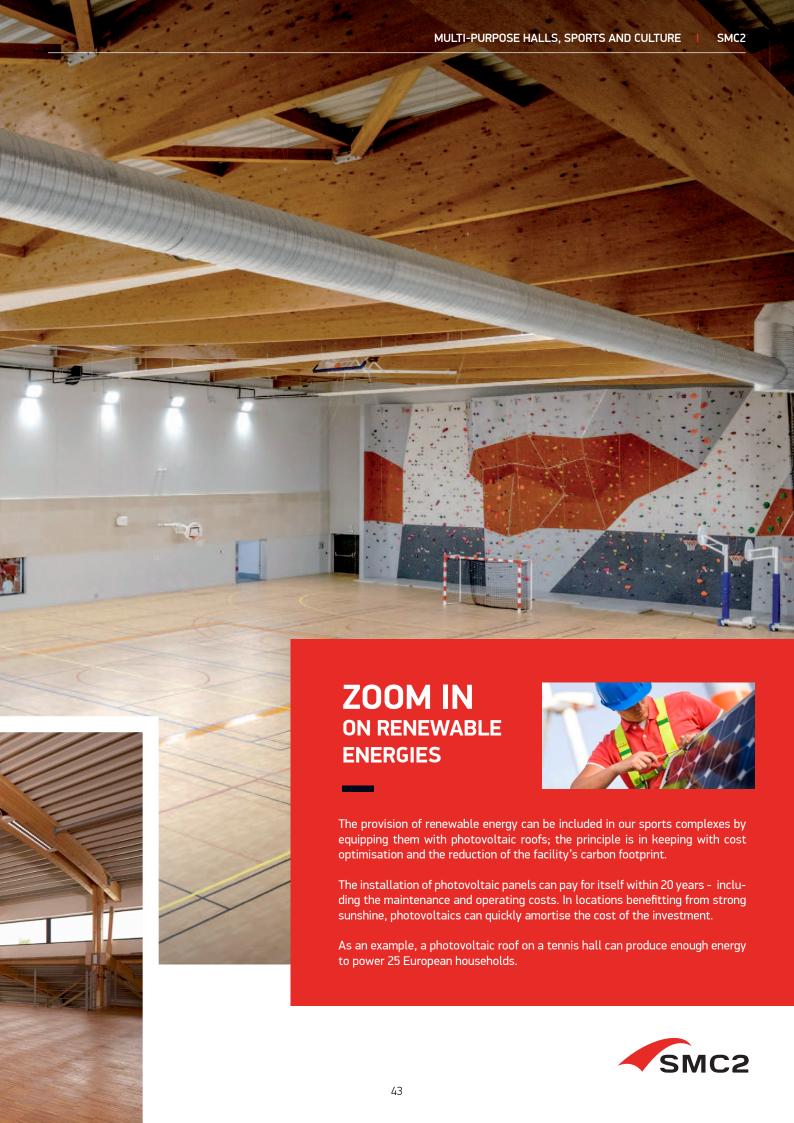
We also pay particularly close attention to the facility's acoustic performance to ensure acoustic comfort for athletes and spectators during sports or cultural events.

We will advise you as to the right choice of flooring that is best suited to the destined uses for the hall while also aiming to minimising the level of routine maintenance.

Pull out tribune seating options can be included in the hall to welcome the public when events are being held.







SPECIALISED FACILITIES / DOJOS / GYMS

Our specialised facilities can host martial arts, combat sports, gymnastics and dance disciplines, climbing walls (rock, speed and lead), etc.

The acoustic and thermal performances of these halls offer users ideal comfortable conditions all year round.

It is particularly important for us to bring in natural light to these spaces.

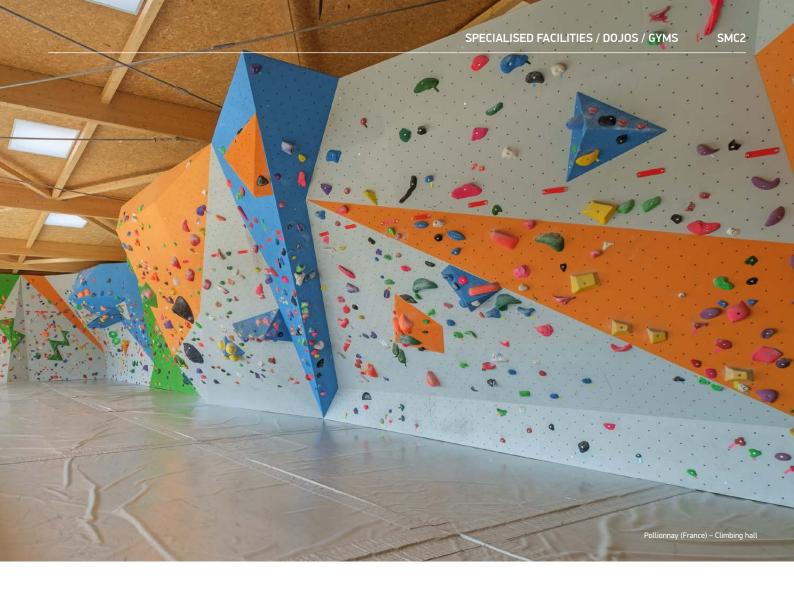
We design using wood construction systems in accordance with the standards recommended for the chosen discipline.(Clear interior sizes and heights).

Dry construction means that we can reduce investment costs as well as construction times.

We will advise you on the choice of ancillary equipment adapted to the uses of the hall (climbing walls, boxing rings, gymnastics apparatuses, tatamis, exercise machines, etc.).













CHANGING **ROOMS AND CLUB HOUSES**

We use wood construction for our club houses and changing rooms. The complete process of delivering these projects by using industrially prefabricated elements means reduced investment costs and construction times.

We use building systems and techniques which comply with or exceed the thermal performance criteria demanded by building codes, thereby reducing the environmental impact of these spaces to a minimum.

The changing rooms and sanitary facilities are designed to meet the occupation levels anticipated.

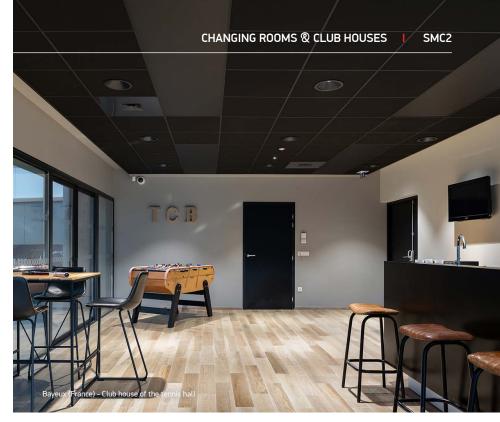
Club houses are places of conviviality where good times are had with others and where the club's atmosphere truly comes to life.... Let's make them beautiful.

Ideally, changing rooms and club houses must be robust, bright, and easy to maintain and should preferably allow easy and direct access to the sports venue.















SPORT & PLAY TENNIS & PADEL

Our considerable expertise in this area enables us to provide a **complete turnkey package** for the entirety of your tennis and/ or padel facility with control over quality, costs, and deadlines.

Be it introductory courses for juniors or high-level competition, we listen to your needs and put together an appropriate package allowing you to develop and grow.

We will accompany you in the construction of your **purpose built tennis complex**, which can incorporate: the main tennis hall, padel courts, storage areas, changing rooms, viewing galleries, club house @ offices, plant rooms and catering areas.







SPORT & PLAY > TENNIS & PADEL

TENNIS

As leaders in the field of indoor and covered tennis court buildings & structures, we have formulated ten recommendations to help ensure the success of your project:

#1 A building adapted to your site

Whether fully enclosed or open-sided, the type of structure and its format will in large part be dictated by your site. We will advise you as to the best possible placement and layout. With opensided canopy structures it might be advisable to consider closing one or more façades to add protection from prevailing winds or to simply screen off from adjacent areas. For harsher climates we can offer various heated and insulated building solutions.

A multi-material approach

Our multi-material approach and design expertise means that we can offer you a large choice of cladding materials to allow for the greatest of freedom in determining the aesthetics of the building. Sympathetic visual design can prove key in bringing on board and satisfying Local Planning Authorities. Our textile membranes can be enhanced by digital printing and customised with logos or other designs.

#3 A solution which complies with the codes for public-access buildings

Our covered tennis court buildings are engineered to comply with the building codes in force. The tensile façades have certified technical approval, and their tensile roof membranes are designed in accordance with industry best practice for permanent structures.







#4 User comfort takes centre-stage

The combination of wood and tensile membranes make for comfortable halls:

- Natural light

Sheltered by the translucent tensile membrane, users are protected from the sun's glare, ensuring perfect visibility of the ball.

() Controlled acoustics

The acoustic comfort offered by the textile membrane is complemented by the installation of backdrop curtains and /or acoustic wall panels.

Controlled atmosphere

Hygrothermic control help produce an ideal playing environment. Our ventilation and air-treatment systems provide player comfort during the summer as well as the winter.







Customised tennis surface

Since the choice of playing surface is essential to tennis, we tailor the building's features to suit your choice of surface: hard court, natural clay, artificial clay or polymeric.

The best equipment

We will provide you with the best tennis nets, posts and backdrop curtaining to equip your hall. Optional ancillary equipment such as player benches can also be provided.

Careful detailing of fenestration

Large glazed doors or sliding façades can be included to increase light and augment the aesthetic appeal. They create connection to the outside. Such openings also help optimise comfort during the summer through enhanced natural ventilation when opened.

Optimal LED lighting

To limit energy consumption, we use DALI controlled LED lighting to the standards recommended by the ITF and National Federations for the corresponding level of play.

Integration of the adjoining **facilities**

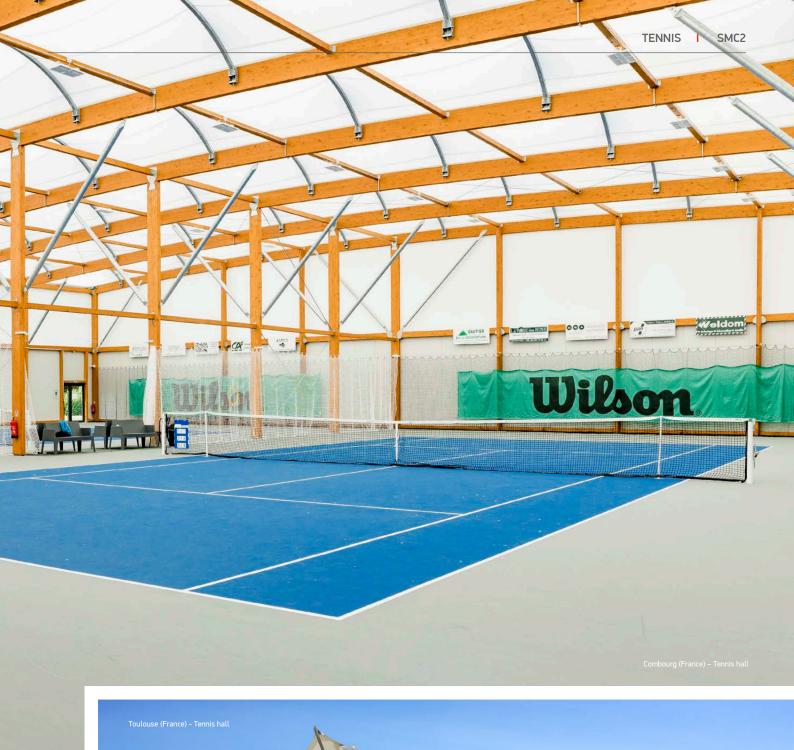
Our tennis court buildings can be complemented by the addition of adjoining or integrated social spaces, storage areas, changing rooms or club houses.

#10 Digital IT solutions to support the overall tennis experience

We can integrate automated access control systems tailored to your club or add digital video capture solutions for player training and feedback.









SPORT & PLAY > TENNIS & PADEL

PADEL

Our range of turnkey padel solutions are unique in their design as we incorporate the padel court within our structure. Our padel halls feature translucent textile membrane roofing and upper facades . The glazed court walls form part of the building envelope. This enhances the internal brightness, aesthetic merit and also connects players with the outside.

The **transparency** of the materials used allow the players to see and be seen as they play creating a more exuberant sporting environment.

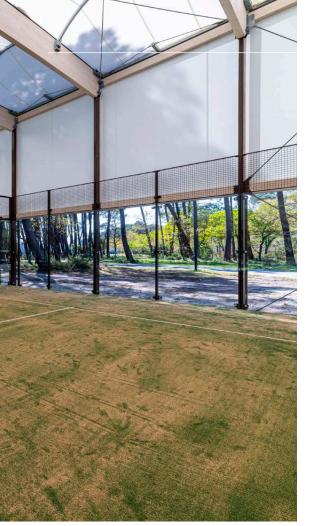
Ours are the only padel facilities that are fully engineered and certified as permanent structures that benefit from a ten-year quarantee. Our covered padel courts are in perfect compliance with the building control standards and legislative requirements for public buildings.

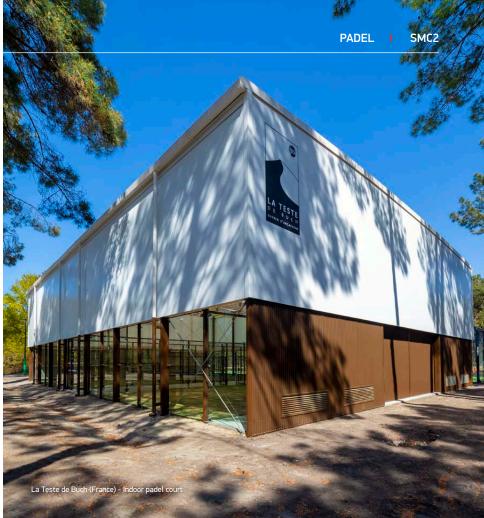
This fusion of padel and building makes it a unique product with perfect weathertightness ideal for comfortable play all year round.

100% protection from the elements, and most notably, from side winds, playing padel in an enclosed court within a tempered environment with hygrothermal regulation, ensures maximum player comfort. Risk of condensation on internal glass walls during the winter is eliminated. During the summer, comfort is ensured by louvred sunscreens and strategically placed openings for natural ventilation.



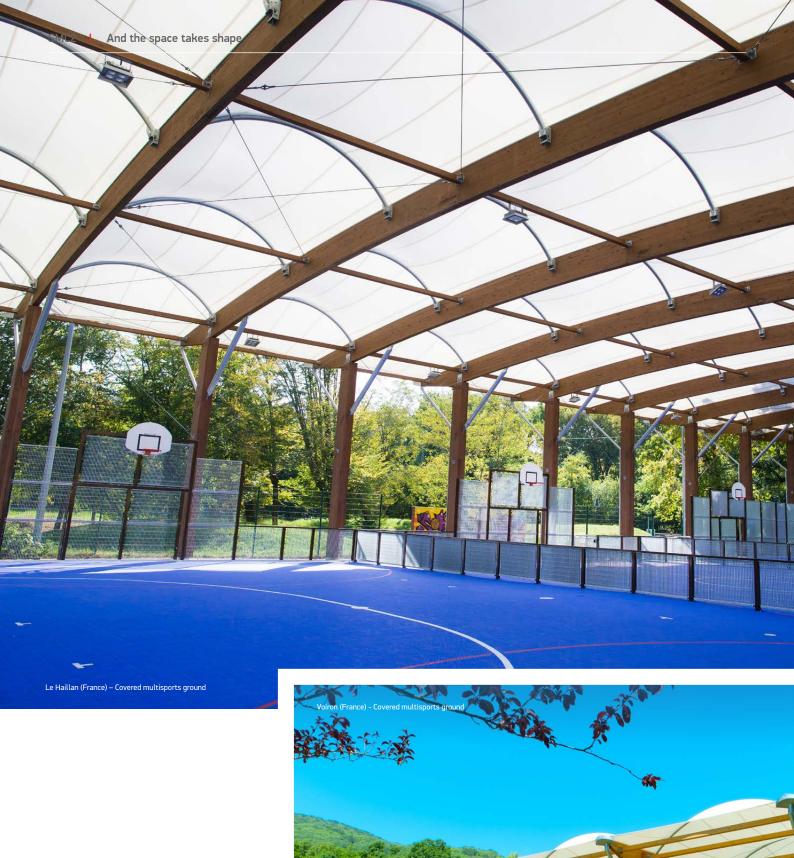


















SPORT & PLAY PREO® CANOPIES

Freely accessible sport and recreational spaces that can be **used all year round,** our Preo® Canopies provide economical and ecological structures which enable outdoor activity at all times, whatever the weather.

This is a simple and efficient solution which greatly encourages community sport and activities in parks and local neighbourhoods without requiring regular maintenance or security.

We offer **turnkey solutions** including all types of fixed goal equipment, fencing and sports surfacing.

For the façades that are most exposed to prevailing winds, we can offer added protection by use of louvred timber walls at low level and micro-perforated tensile membrane façades at high level.

Use PREO® to cover both existing @ new facilities.

LED lighting means that the facilities can be used for night time games.

Our PREO covered playgrounds come in two formats: multi-sport and $urban \ sport$.





SPORT & PLAY > PREO® CANOPIES

MULTI-SPORT PRÉOSPORT®

Our covered multi-sport (or multi-use-games areas (MUGAs) in the UK) are designed for playing a multitude of sports all year round whilst sheltered from bad weather.

This turnkey open-air facility is ten times more economical than a traditional sports hall in terms of its initial capital investment and operational costs.

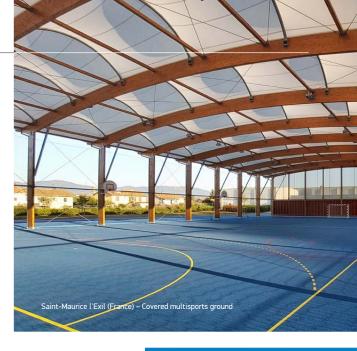
The **construction speed** is a major advantage: built in just one month once on site, they can be erected over existing play spaces without disruption or the need for mass concrete foundations.

Their architectural design brings together glued-laminated timber (or a combination of timber and steel) with a translucent membrane roof. Different façades can be added: wood panelling, louvre walls, micro-perforated tensile façades, etc.

Free access – a permanent invitation to practice sport that fosters social inclusion \(\&\) community connection.

Natural light enhances these convivial spaces that are open to all, for fun \mathbb{Q} play.

Play equipment is incorporated into the superstructure that will delight both young and old. The mixing of sport and play sheltered beneath a bright roof will enable everyone to engage in their favourite activity for hours of fun.















SPORT & PLAY > PREO® CANOPIES

URBAN **SPORTS**

Our PREO® canopies are perfectly adaptable to urban sports such as skateparks, pump tracks, street workout and 3x3 basketball.

They provide unrivalled solutions for maximising access and enjoyment of outdoor activities by ensuring that participants have protection from the elements.

We make use of all of our technical knowhow and architectural prowess to achieve the best possible incorporation of the project into any urban setting.

We design the facility so that any participants can use them, feeling at ease, and looking forward to coming back again and again.











SPORT & PLAY FOOTBALL PITCHES

Our comprehensive range of turnkey covered football solutions focuses on player **comfort** and **enjoyment**. The use of timber structures with textile membrane roofs make for pleasant bright surroundings in which to play football all year round.

Our system of hygrothermal regulation ensures comfort in winter, while during the summer automated louvre panels help create natural ventilation so it's never too hot nor too cold for play.

On pages 40 and 41 you will find more detailed information about player comfort during high summer and winter.



NO CO2 LOW ENERGY













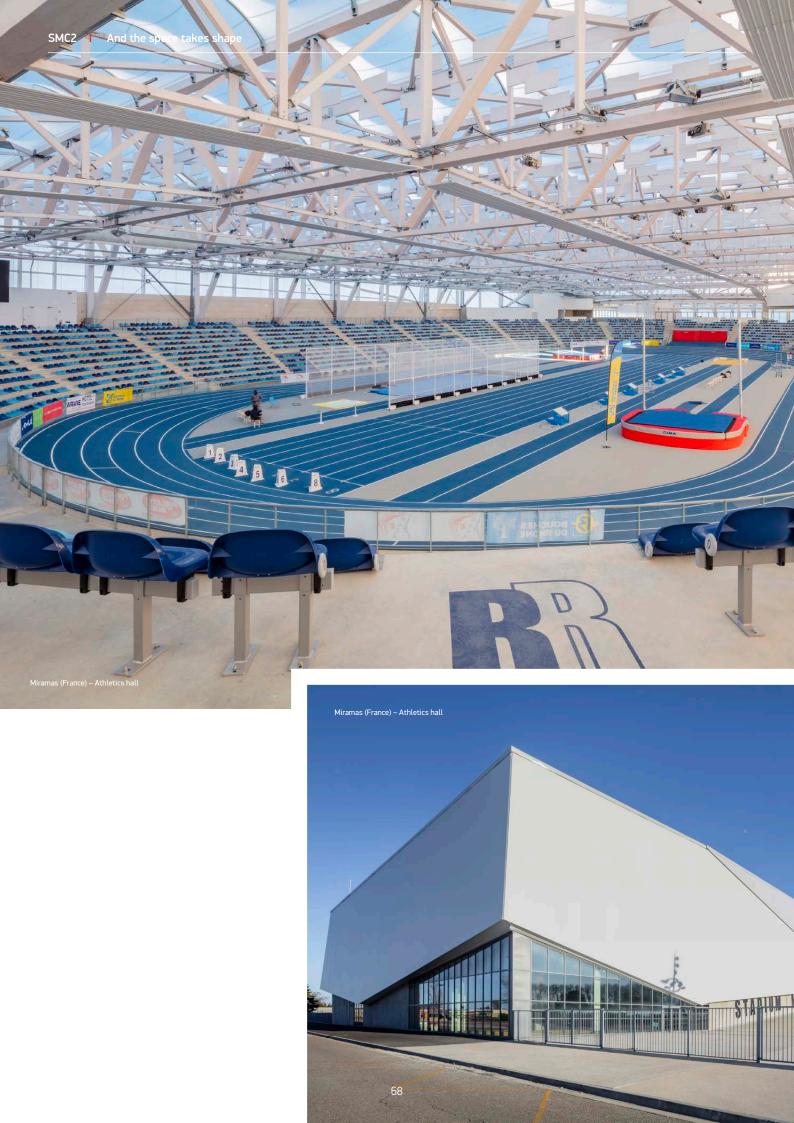
Thanks to our construction systems and the materials we use, we can build large-scale structures that are especially adapted to covering football pitches. The technical attributes of engineered timber and the lightness of the textile membranes are of particular advantage for both new projects or for extension or additions to existing buildings.

We will advise you on the choice of playing surface (artificial turf, EPDM, polymeric, etc.) and on the overall design to deliver a tailor-made covered football facility. Ball stop netting and fences need to be robust yet discreet and in some cases can even be fused with the building structure itself to ensure the best aesthetics whilst remaining optimal for play.

We will install LED floodlighting that is ideal for football without the risk of glare. Lights are placed at an elevated level to light pitches in accordance with Football Association guidelines.

We are also able to incorporate great IT solutions such as digital video capture for playback and dissemination of matches to team members.







SPORT & PLAY ATHLETICS HALLS

Athletics sports are usually practiced outdoors, and are often disrupted by the vagaries of climate and inclement weather.

The desire to free athletics from these constraints and to enable the practice of athletics all year round has created a growing demand for suitably adapted infrastructure.

We meet this demand with our **comprehensive turnkey solution** for indoor athletics halls. Right from the start of the design stage we consider the best possible layouts and options for the facility so as to overcome any challenges associated with constraints on space or configuration - such as using banked tracks etc.

This comprehensive approach using glued-laminated timber and textile membrane clad structures, allows us to offer economical as well as ecological solutions, both in terms of capital investment and operation.







Covering an athletics track brings with it certain inherent necessities in terms of large spans as well as considerable internal volumes and heights. Whether it is a 200m or 400m track to include facilities for pole vaulting or not; we aim to liberate spaces and construct buildings with great length and height. The physical properties of glued laminated wood and textile membrane together with our engineering prowess, enable us to erect large buildings with beautiful free-spanning timber trusses.

In Miramas (France), we designed and built the largest athletics hall in Southern Europe, which boasts a 80m free-spanning timber frame - a feat which was achieved thanks to our knowhow and expertise of Glulam construction systems combined with the lightness of surface tensile textile membrane coverings for the roof and façades.

A textile envelope has several advantages for the comfort of athletes. It guarantees excellent natural lighting without glare and provides acoustic comfort. Control of hygrothermics parameters within our athletics halls mean that comfort is ensured in summer as well as winter.

THE ATHLETICS HALL IN MIRAMAS IS A PUBLIC FACILTY OF THE HIGHEST QUALITY. WITH A SEATING CAPACITY OF 5,500, IT WAS CONCEIVED WITH ATHELETES AND SPECTATORS IN MIND. THERE IS NOTHING ELSE LIKE IT IN SOUTHERN EUROPE. IT'S DESIGN ENSURES THE BEST CONDITION FOR ATHLETICS. THE RUNNING TRACKS, THE POLE VAULTING AND LONG THROW AREAS ARE WELL-DESIGNED AS ARE THE WARM-UP TRACK AND TRAINING SPACES LOCATED BENEATH THE SEATING STANDS.

ANDRÉ GIRAUD, PRESIDENT OF THE FRENCH ATHLETICS FEDERATION













Official partner





SPORT & PLAY **BOULODROMES**

Highly sought after in the French market where playing boules is a national pastime, our boulodromes offer the highest of standards for playing all types of boules (petanque, boules Lyonais, Breton boules, Provençale bowls, etc.) all year round. They represent a solution which is suited to the demands of both amateurs as well as competitive players of these sports, who can engage in their passion year-round inside pleasant surroundings.

We will deliver the solution **best suited to your project** that respect the wishes of your players: from a covered courtyard to a closed building, or a building with sliding facades; players can enjoy the outdoors during the summer months and be sheltered during the winter months.

We can put our structures over existing boules areas, either covering them fully or partially.

We would be pleased to discuss the unique aspects of boulodromes with you, such as the need to include abutments and the need to provide irrigation.





ENDLESS FUN







Boulodromes are social spaces which are often used for much more than just playing this sport. This is why we like to offer **different turnkey solutions**. We can explore options for including seating stands, washrooms and WC's, meeting rooms, and storage spaces.



Sainte-Foy-les-Lyon (France) - Boulodrome "Le Karo"







SPORT & PLAY GRANDSTANDS

Grandstands are **statement features within a stadium.** For several decades now, textile membrane roofs using modular double inverse curve forms have come to be used to cover seating in the largest sports and event arenas.

It is our desire to democratise this technology and to provide the benefits it offers to much smaller community venues.

We use textile membranes on engineered timber or mixed steel and timber frames that impart a **delicate and elegant** shape to our stands whilst ensuring the best protection from inclement weather.

The seating structures might consist of prefabricated concrete, steel, timber, or a mixture of materials depending upon the design intent or ways in which the spaces beneath the seating are to be integrated and used.

We take great care in assuring the sightlines when designing our frames and seating so that spectators are guaranteed **excellent views** wherever they are seated within the stands.





Economical in terms of initial investment and operation, stands covered by a textile membrane have undeniable aesthetic qualities and blend perfectly with their surroundings.

The translucent textile membrane fulfils a shielding function: it protects spectators from inclement weather and UV rays whilst also ensuring excellent brightness and visibility.

During the summer, these materials prevent overheating and ensure spectators' comfort.

Transparent and translucent façades can also be added at the rear and sides of the stands to further improve protection.

Enjoyment of a sports event is guaranteed when you are sheltered from the elements by a textile membrane roof.











NO CO2 LOW ENERGY

ENDLESS FUN





Our play areas are spaces for the whole family to come together to enjoy themselves. They allow parents and grandparents to accompany children as they explore the world. They are truly wonderful places for inter-generational sharing.

Made of high-quality, durable materials, our playgrounds are designed to connect humans with nature through worlds that are both natural and fantasy, made of clouds, huts, totems and pebbles.

Our experts in play design go above and beyond to combine architecture and play to create striking, secure play environments that incorporate height and grandeur.

Covered by a tensile roof, our playgrounds can be used during all **four seasons for maximum fun** providing protection from the sun and rain.

Build a shelter, climb a tree, scramble up rocks... It is amazing how much can be learned through play. We help children expand their imaginations at each stage of their development with our creative play structures.





+ Their head in the clouds

A playground must be a creative space at heart in which a child can dream and develop their own imagination. We invite them into a universe that is light and delicate, a bubble where they can hide away again and again and imagine new worlds.





+ Treehouse

We are subconsciously all drawn back to the trees and the forest, and we continue to dream of that treehouse perched high in the branches. This is an ideal spot to develop ones imagination, well-hidden, far away from the worries of everyday life.

Play and sport intermingle, and it is often through play that children are drawn towards sports. By combining our universe of cabins with a sheltered multi-sports arena, we create family friendly places for sharing both play and sport.







+ Play towers

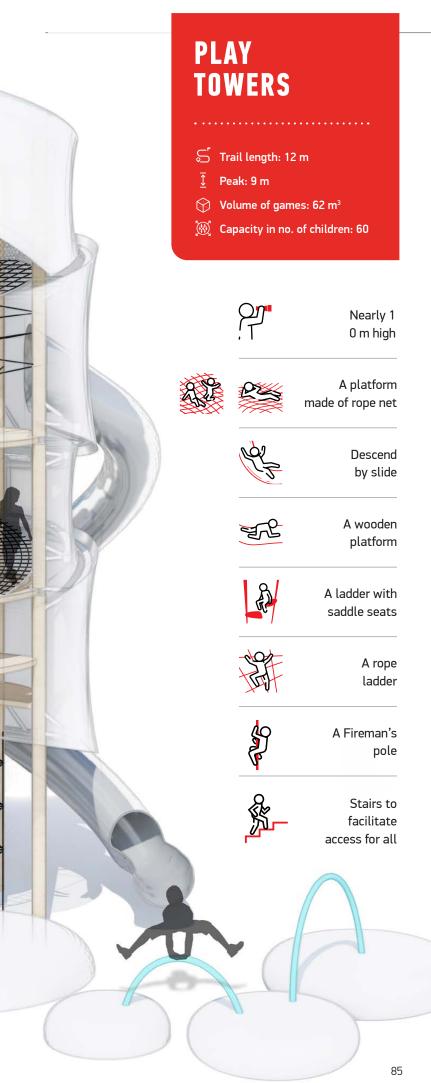
Play towers provide veritable lookouts with views over towns or fields, which enable both big and small to climb up high above their surroundings.

Climb, and expend your energy reaching the summit, then rest a little and slide right back down. Then do it all over again, only this time go higher and faster. Height itself is synonymous with creating a certain excitement, our aim is to promote a strong sense of joy from play that embraces this sentiment.

Our timber tower structures can be built in towns or countryside **reconnecting us with nature through use of sensitive materials.**

The whole family can join in thanks to the added stairways that give easy access.







Case Study: Cheshire Oaks Designer Retail Outlet Play Area, Ellesmere Port (UK)

This project is a true fusion of play and structure which demonstrates our expertise and knowhow when it comes to play area engineering and design. It's a project that illustrates our ability to complete complex landmark projects.

We worked hand in hand with Carve.nl, the Dutch play area designers of worldwide renown to deliver this innovative and highly bespoke conceptual design.

Helical towers and bridge structure are transformed into accessible play elements which entwine and fuse to create an playground space for ages 2 to 14.

The workmanship involved in dressing the towers in the stainless-steel netting illustrate the attention to detail given to perfecting the design. The use of this material ensures transparency and safety without overly confining the children.

The EPDM **safety surfacing** is equally a highlight of this play area, being a blend of six colour shades interspersed throughout the structures that help reflect the ambition of this project. Trampolines and spinners were included to add dynamism, drive and movement as do the sweeping stainless-steel slides. The grouped mushroom pebbles and polyester resin modules complement the above features to create a coherent ensemble.

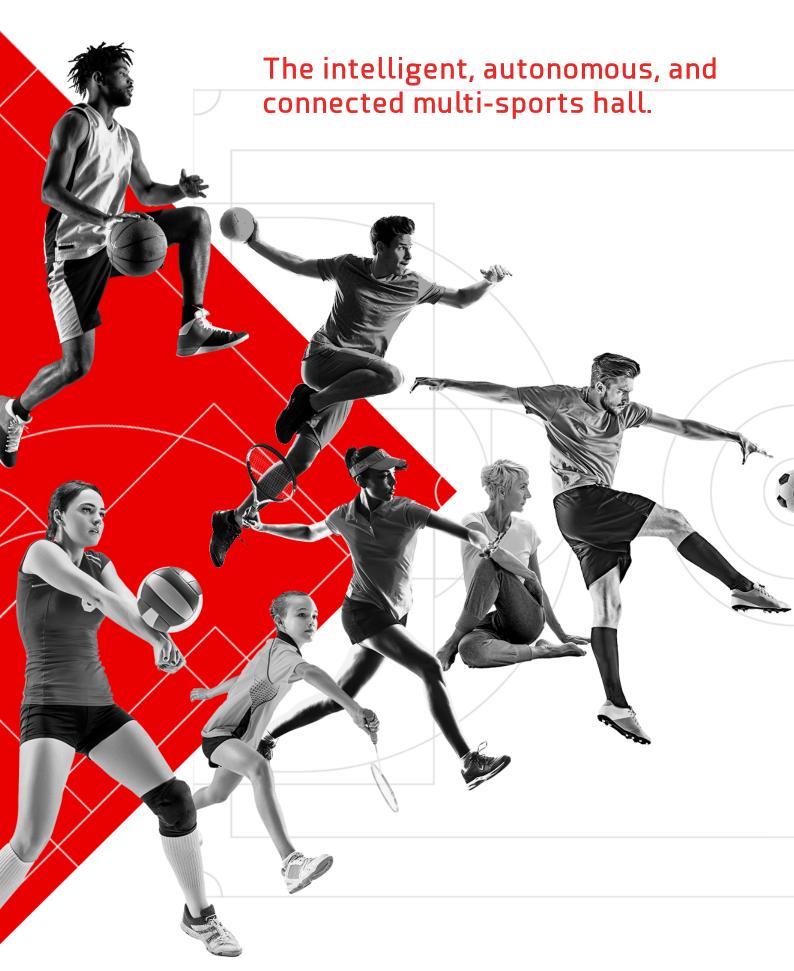
The striking translucent triple conic membrane roof protects the play area from rain and UV rays and ensures the facility is bathed in natural light throughout the day.

LED uplighters transform the facility's appearance at night.









SPORT & PLAY

#9

FIT ARENA

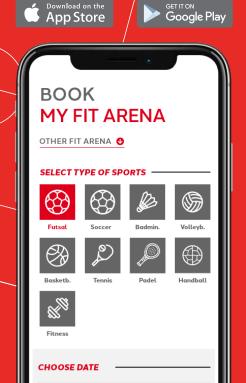


BOOK, SA PLAY, SHARE!

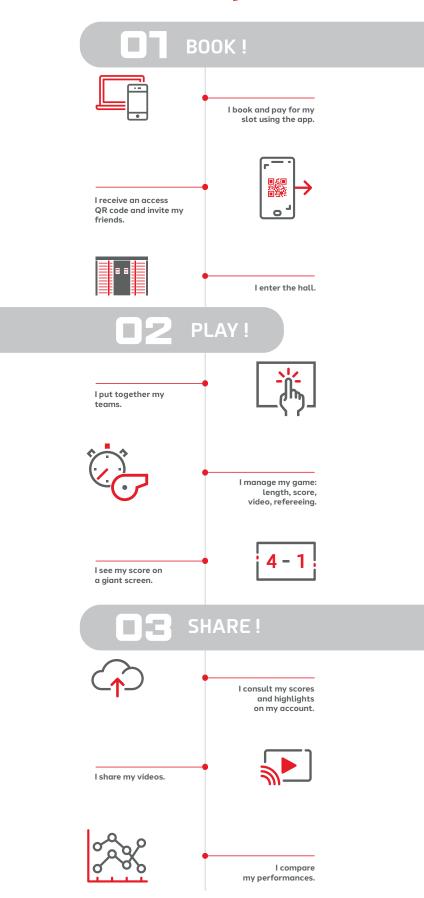


HALL ACCESSIBLE FOR THE GENERAL PUBLIC VIA AN APP

- My sports, my independence.
- When and with whomever I want it.
- My key moments on giant screens.
- **•** My scores recorded.
- My achievements in replay.
- My performance for sharing.



An original athletic experience only three clicks away





A hall that is versatile and connected.

Thanks to the motorised facilities, the hall configuration automatically changes according to the type of sports which it has been next reserved for.



















The online gym.

An innovation for municipalities.

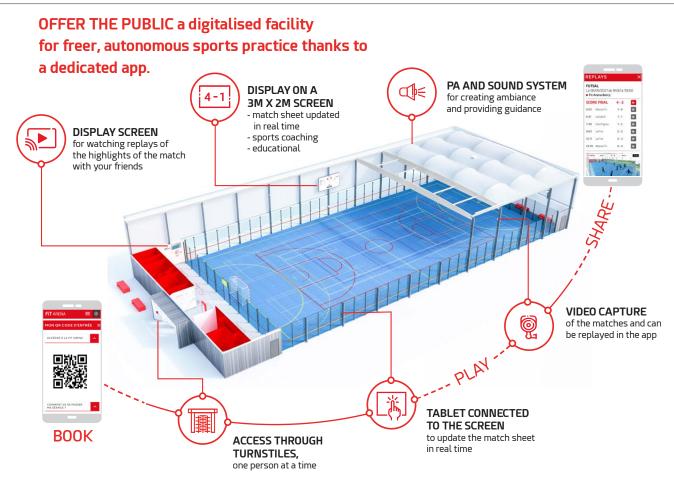


- + Offer local residents original sports **experiences**, in response to new expectations and to create a social link with the digital world.
- + Reduce the costs of managing and operating your sports complexes.
- + Generate revenues and finance your investment by opening your facilities to the public at large.

+ Facilitate access to the facility for the organisations in your municipality (clubs, associations, schools) as well as to the general public.







A comprehensive offer



A BUILDING WITH **ACCESS CONTROL**

- Glass walls to maximise brightness
- Timber structure with textile roof and sides for optimal comfort



For the municipality

- An online management interface for pricing and
- Control of activities and facility surveillance in real time





AUTOMATED ONLINE SPORTS COMPLEXES

- Robotic panels and goals
- Cameras for video capture
- Touchscreen tablets for managing the games
- Giant video screens for replaying highlights and scoring

For the general public

 A mobile app for online reservation and payment, and issuing the QR code for entry

For organisations (clubs, associations, schools, etc.)

A web interface to plan activities and to enter using a QR code



EDUCATION

As the seat of learning for our children's development, schools must guarantee to provide a **healthy respectful environment**.

It is our ambition to build durable sustainable spaces for the wellbeing of our children, which is why we have developed **turnkey tailormade solutions** for wooden classroom buildings and covered playgrounds..

Wood is not only a material with a negative carbon footprint, it is also valued for its aesthetic warmth and architectural qualities.

Wood reconnects us with nature; it promotes the well-being of children, teachers and educational staff.

- + Timber School Buildings
- + Covered Playgrounds
- Outdoor Classrooms

NO CO2 LOW ENERGY



A timber classroom offers a warm, pleasant, and welcoming atmosphere in which children can thrive.

To make sure that the air in our schools is healthy, we chose materials (insulation, cladding, paints, etc.) with low VOC (volatile organic compounds) emissions. We favour the use of natural materials that have been minimally processed. That way children become more aware of the elements which surround them. This awakens their curiosity and contributes to strengthening their link with nature.

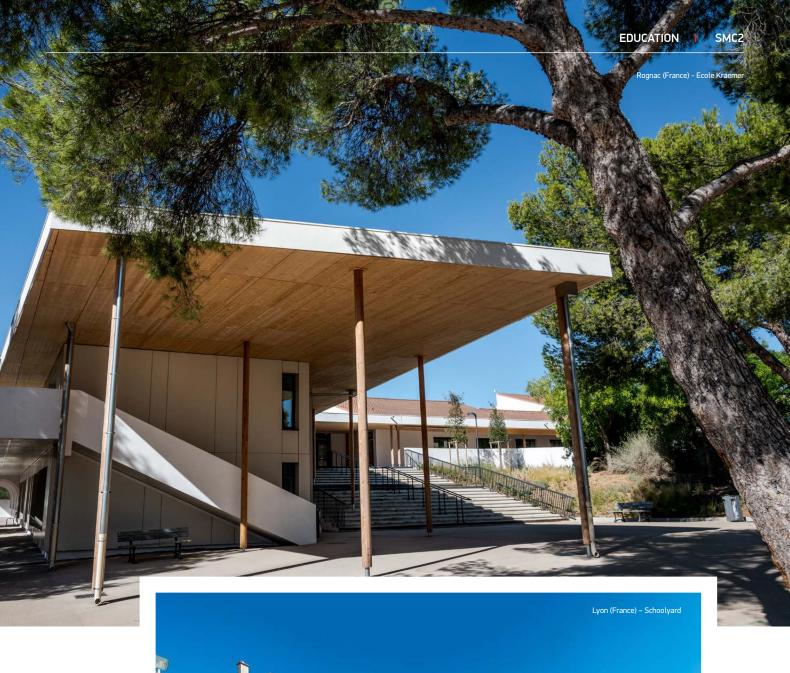
Air quality is also ensured by strong ventilation systems (double-flow ventilation (DFV)) which prevent the build-up of CO2 and controls humidity.

Thanks to the high degree of insulation within the timber walls and the installation of energy production systems (photovoltaic panels, VOC double flux recovery, biomass heating and cogeneration), buildings designed and built by SMC2 have very low energy consumption.

We favour the use of natural light for greater comfort and lower energy use.











For your school playgrounds we can offer turnkey covered solutions using timber structures (or a mixture of timber and steel), with tensile membrane roof coverings.

Made-to-measure facilities that are functional and aesthetically pleasing to the eye, providing children with sheltered play. They present a pleasant refuge in which they can play together and thrive; protected from bad weather and given cool shade on the hottest of days.

Our covered playgrounds blend into their surrounds; they make every breaktime a period of well-being whatever the weather.

Façade cladding can be added to provide further protection from prevailing winds. These are made of sturdy materials and pose no risk of injury.

The design and construction of SMC2's covered playgrounds meet building codes for permanent public access buildings.













An international presence.



