Unlimited Snow provides best solutions for all imaginable snow & ice leisure experiences with its creations and is known for its innovative and original concepts. Its snow-how is based on the experiences gained from many existing projects and continuous research and development. Services range from the realisation of turnkey projects to separate specialised advice and products. Unlimited Snow has a team with the technological, commercial and design experience in providing these facilities throughout the process. This ensures that budgets are maintained and that the highest quality in terms of finish, environment, safety and the final experience are achieved. Investors and owners can relax in the knowledge that Unlimited Snow is working to achieve maximum returns using the best and most efficient solutions tailored to the location and target groups.

Instant fun or sportive attractions for:
- Theme & water parks, shopping malls, casinos, family & urban entertainment centres, sports facilities, urban hills, summer & winter resorts.
- Choice of various above and below freezing snowmaking systems for snow play, snow domes, animal environments in zoos, saunas, science centres, winter events and more.

Summary services from start to finish:
- Concept development, architectural design, feasibility studies, business plans, project consulting & project management.
- Engineering & technical installations, climate control, snowmaking systems, ice rinks & ice climbing.
- Prefab & instant structures
- Rides & attractions
- Specialist equipment & systems
- Theming & special effects
- Operational support & planning
- Merchandising & promotion
- Additional leisure facilities and franchise

Real Snow & Ice Amusement Parks:
Arctic World develops several new Arctic World snow & ice facilities including “Arctic World Resort”, which comprises an extensively themed arctic landscape including a real snow igloo village offering every imaginable ‘instant fun’ activity on real snow and ice and edutainment; “Igloo SnowPlay” a complete kids snow and ice amusement park; “Arctic Kart” an outrageous patented indoor circuit for snowmobiles, sled dogs and X-country skiing; “The Alps” represents an attractively designed and themed fully equipped larger snow dome, as a real indoor winter sports resort for especially skiing and snowboarding with lots of opportunities for additional sports, leisure and entertainment activities.
Summary Unlimited Snow Services for All Snow & Ice Leisure Experiences

Scope of winter sports experiences and target groups

- Alpine Skiing
- Snowboarding
- Cross Country Skiing
- Snow playing
- Tubing
- Dog Sledding
- Snowmobiling
- Bumper cars on ice
- Snow Digging
- Skating
- Alpine Curling
- Ice Climbing
Summary Unlimited Snow Services for All Snow & Ice Leisure Experiences

Stages services from start to finish:

The Outline Plan of Work organises the process of managing, and designing building projects and administering building contracts into a number of key Work Stages. The sequence or content of Work Stages may vary or they may overlap to suit the procurement method.

(A+B) Appraisal & design brief
Identification needs * objectives and constraints * Assessment of feasibility studies and development options * Design brief & initial statement of requirements * Identification procurement method, organisational structure, range of consultancy and phased offer * Preliminary feasibility calculation based on questionnaire including general description and preliminary layout.

(C) Concept design
Site / building survey * Preliminary general story book and selection of attractions and facilities * Story and description of guest experience per attraction * Briefing for artist impressions and relevant designers * Preliminary architectural concept design & concept integration of services and layout plans * Preliminary 3D artist impressions * C&S (civil & structure): Preliminary sketches of structural design & physical requirements * MEP (mechanical, electrical & public health): Preliminary sketches of building services systems and climate conditions * Environmental analysis / sustainability * Preliminary snow & ice production calculations and power & water supply requirements * Preliminary local cost plan * General feasibility including extensive parameters, preliminary operations forecast, investment estimate and IRR calculation * BREEAM (environmental assessment method) * Project management.

(D) Design development
Development of concept design to include structural and building services systems & planning application submission if appropriate * Design development of technical installations for costing purposes (pre-engineering of climate, snow, ice, water and energy systems) and budget * Sourcing of attractions and equipment * Setting out of rides & attractions and design development * Light & A/V plan and descriptions for costing * Revised cost plan & survey of quantities * C&S report & sketches to include loads, variations, options for costing & production final scheme * MEP report & sketches to include basic system descriptions & specifications: mechanical, ventilation, air distribution, electrical assessments, cabling, water discharge * Acoustics * Construction development management - health & safety * Fire Strategy * Preliminary theming design, logo and character design and special effects * Project management.

(E) Technical design
Building: Detailed architectural drawings, material and finishes list & building regulations submission, if appropriate * Rides: Detail design and material & finishes list * Facilities: Reception, rental, F&B and circulation areas interior design, detail design and material & finishes list * Engineering of technical installations, working drawings, details, materials, machine room layout and final budget * Light & A/V plan, layout & schematic cable layouts * Revised cost plan & survey of quantities * C&S work packages: detail design, key details, spatial coordination * MEP work packages: spatially coordinated schematic layouts with key details and invert positions *
Environmental analysis / sustainability * Envelope * Acoustics * Construction development management - health & safety * Fire strategy * BREEAM * Detailed theming design facilities and snow & ice area and special effects * Final artist impressions, animations and model * Merchandising design * Project management.

(F) Tender information
Information required for tender action: Architectural drawings, schedules, specification of materials and workmanship * MEP & C+S schedules, specifications * Final cost plan & survey of quantities * Materials list * Final investment estimate * Project management.

(G+H) Tender documentation & action
Preparation of Tender documentation * Identification of potential contactors or specialist subcontractors * Appraising tenders and recommendations to client.

(J+K) Implementation
Building implementation to practical completion * Administration of building contract * Issuing of information to contractor * Reviewing information provided by contractor and specialists * Interior and rides & attractions implementation to practical completion * Contract and cost control * Engineering structural * Engineering MEP * Building regulations * Shop drawings * Local construction * Handling, manufacturing, transport, installation and supervision of machine room and other technical installations, theming & furnishing incl. light, AV and special effects, rides & attractions, general systems and equipment, merchandising and rental hardware * Show control, testing & programming * Descriptions & procedures start-up * Certifications * On-site project management.

(L) Post practical completion
Administrating contract after practical completion and final inspections * Assisting operator during initial occupation period * Review of project performance during use * BREEAM - EPC (energy performance certificate) * Maintenance & operational manuals * Expat staff sourcing * Training technical installations * Training operations. Possible franchise agreement (if relevant) between Arctic World and the client on basis of 5% of the yearly turnover, including all benefits, rights and duties.
Summary Unlimited Snow Services for All Snow & Ice Leisure Experiences

Instant Structures

- **Steel and Membrane Structures**
  Re-locatable fixed or temporary building usually comprising a tower support structure linked by interconnecting steel or aluminium trusses, forming supports for walls, floor and roof with tensile membrane as external or internal envelope. More sculptural shapes can be achieved than with any other material.

- **Air Supported Clear Span Structures**
  Mobile building with single translucent to sun reflecting triple wall envelopes retaining structural integrity by low internal pressure, whereby the foundations do not support the structure. A special cable harness reduces the loads on the fabric by 80%. Erection in a matter of days, which would be impossible for any other kind of building.

- Completely prefab and turnkey with large variety of materials, colours, doors and additional packages for insulation, floors, climate control, theming, lighting, furnishing, equipment, activities and so on.

- Custom engineering for any size or purpose with cost effective, short erection and dismantling times, high wind and snow load resistant, durable and low maintenance.

- Suitable for any type of small or large span indoor amusement venue including snow or ice domes, such as The Arctic, Igloo-SnowPlay, The Alps on flat surfaces or existing hills.

Skyscape     Rehearsel Space           Midland Pavilion          Dome Ellipse

Radial Net Dome       Multi Sport Venue         Ice Rink Cover        Indoor Golf and so on
Summary Unlimited Snow Services for
All Snow & Ice Leisure Experiences

The Alps

Attractively themed multi entertainment centre, including ski slopes for advanced & beginners, snowboard half pipe, kids SnowPlay, extensive food & beverage facilities, rentals, hotel, shops, health & fitness, indoor karting, indoor climbing, in-line skating, laser games, cosmic bowling, parking and more.
Summary Unlimited Snow Services for All Snow & Ice Leisure Experiences

The Alps 2

Attractively themed snow centre, including ski slopes for advanced & beginners, snowboard fun park, ice rink with skating, bumper cars on ice, curling, snow play with kids snowmobiling, snow slides, snow laser games, snowball area, snow diggers, snowmen, snow merry-go-round, mini golf on ice, ice igloo with ice carving, ice climbing tower and so on, extensive food & beverage facilities, rentals, merchandising combined with indoor water park facilities within an existing industrial building.
Summary Unlimited Snow Services for All Snow & Ice Leisure Experiences

Mixed Use Buildings

In cooperation with its clients, S333 Architects, Giebros and other partners mixed use projects or resorts are being developed that may consist of The Alps, Arctic World, retail, food & beverage facilities, hotels, apartments, fractionals, indoor water park, SPA, wellness, health & fitness, and additional amusement, attractions and entertainment, parking and more.
Summary Unlimited Snow Services for All Snow & Ice Leisure Experiences

SNOW XS, beyond the tunnel Vision

Unlimited Snow in cooperation with LF Snow Concepts presents:

A multifunctional patented new generation indoor winter sport experience and leisure concept.

Present indoor snow domes are copies of each other, including several of the initial mistakes or shortcomings. No snow dome to date has applied more innovative and attractive slope designs. These snow domes do not offer a sufficiently complete range of facilities to remain interesting throughout the year, especially lacking an overall experience, such as a large variation in slopes, extensive theming and instant fun snow & ice amusement, required to successfully attract repeat visitors in the long term.

New development or the extension of existing projects, like large-scale retail/outlets, conference or other mixed use complexes, are searching for solutions and possibilities to generate new visitors or increase their number of visitors, by offering exclusive distinctions and experiences. Adding sportive, educational, leisure and entertainment facilities will create added value to these projects. Integrated mixed use ‘destinations’ are capable of attracting more visitors of all ages and will increase the visitor stay. This will provide a better/higher output yield for potential investors.

The patented butterfly shaped snow dome “Snow XS” efficiently integrates and accommodates a complete winter sport experience with all different kinds of facilities underneath the snow floor surface. Characteristics Oval - Covered - Bowl shaped - 3Dimensional - Asymmetrical – Realistic

The core of this new concept is a new generation and patented design for a (partly) ‘bowl' shaped Snow dome. This typical ‘butterfly’ shape enables, dependent of the chosen routes, extremely versatile and sufficiently challenging descents for a large range of skier levels. This concept is totally different from all present, 'straight', and rather dull existing 'old' generation snow domes, characterised by their 'tube/tunnel shape’. This new concept truly simulates the real situation in the mountains and provides a real complete winter sports experience.
Depending on the available space at the location, different snow dome shapes are possible. If there is enough space the efficient, challenging ‘butterfly’ concept is the best, innovative, patented and most spectacular snow dome option worldwide! Building snow domes against mountains or hills, in colemines or valleys can also be opportunities. Concepts can be customised to fit any location.
Most occurring technical and layout disadvantages of present Indoor snow domes

- The 'straight' shaped slopes with delimited walls provide little movement space to both sides. Skiers and snowboarders are 'obliged' to descend between two walls.
- The safety becomes an issue for the skiers and snowboarders because there are no escape possibilities to either side. Beginners make large and slow turns while advanced skiers make fast and short turns on the same, narrow slopes.
- The comparatively short, descent and minimum slope gradient becomes boring after a number of repetitive descents.
- Due to the increased winter sports interest long queues of skiers arise especially at the ski lifts, but also even on the top of the slopes. Skiers and snowboarders are waiting for each other to descent. For instance it may take 90 seconds to the top, 15 seconds to descent and 8 minutes waiting time at the ski lifts!
- Snow surfaces are not used effectively. Skiers and snowboarders will not descent close to ski lifts because of danger. This results in a narrow passage and as snow slides to both sides, ice is formed in the middle of the slope and safety decreases.
- The number of descents (for instance during ski lessons) per hour for skiers and snowboarders are not in proportion to quality and the relatively high entry price.
- Spectators mostly do not have a good, if any, view of the ski slope from 'valley' to the top. In all snow domes the food and beverage area at the bottom is too narrow due the straight 'tunnel' shape of the snow dome.
- A large number of visitors make use of ski lessons. Therefore it is essential that 'pupils' have safe and sufficiently wide practice slopes.
- Often the practice slopes for kids are to narrow and dangerous. As these target groups account for the largest numbers, they do not receive the important required attention. A large separate snow play area in new generation snow domes is a must!
- By missing essential, attractive and supplementary facilities most of the present snow domes do not make full use of the revenue potential. The new generation snow domes also offer instant snow and ice leisure, apartments, hotel, retail, conference, wellness/fitness and additional leisure and (summer) sport activities. This provides interesting synergies and overflow capability and an increase of visitors for all integrated facilities year round.
Snow XS characteristics and advantages:

**Variety.** Blue, red and black runs for beginners and experts smoothly blend into one another and the runs are not separated by structures. There is no time wasted by walking to another building and continue skiing or snowboarding at another level. A variety of different slopes with different gradients is offered under one roof. Skiers and snowboarders can make their own, clear choices and different routes to descent. This situation is almost equal to a real mountain experience and will significantly stimulate repeat visitors from the first steps to becoming high level competitors.

**Perception and emotion.** Emotions arise because the skiers and snowboarders imagine they really are in the mountains. This experience provides a 360 degrees experience. Essential are the details and finishing touch of winter (sports) theming. Visitors are beamed in to a virtual Alpine world, while all present snow domes around the world are dull steel structures or boxes with snow inside.

**Movement space.** Because of the wide range of slopes, beginners to experts can easily cross over from slope to slope. Many beginners, the largest target group, can descent safe and make optimal use of wide and flat slopes. Meanwhile the intermediates and experts can make use of the steeper and more challenging slopes without getting in each others way.

**Capacity and waiting periods.** The shape, space and division of slopes and ski lifts enables an efficient use of the entire snow surface. The waiting periods at the ski lifts will decrease considerably compared to the present snow domes. In all snow domes the ski lifts start at the bottom of the slopes. In many existing situations a large crowd is waiting at the ski lifts, to get them to the top. This way visitors are getting the idea of ‘high prices, low quality and quantity’. In the new generation ‘butterfly’ shaped snow dome, the ski lifts can be placed in different locations. Some ski lifts are moving conveyer belts placed on the outside edge for beginners, or tow lifts start at the middle of the slope only for the ‘fun park’ and half pipe. This situation will increase the numbers of skiers and snowboarders and will give a high repetition of descents.

**Safety.** All the above mentioned advantages jointly promote safety. Accidents will decrease because the skiers and snowboarders always have a choice and chance to ‘escape’ to an easy slope, even when beginners are standing on the top of the mountain!

**Multiple space use of ground surface and property.** Due to the ‘bowl’ construction, new operational space is created, which can be used for other facilities, underneath the snow floor surface. In this situation the ground surface can efficiently be used for parking, hotel, apartments, shopping malls, music hall, skating rinks or other leisure and entertainment facilities. Visitors to the multifunctional ski resort can quickly reach the desired location. From the parking area (underneath the snow floor surface) it only is a short distance or walk to the entrance of the ski area. Also the distance between shopping mall and other facilities is organised efficiently.

‘There is a need for a higher, longer, faster, more complete, challenging and adventurous multi functional concept where visitors will stay longer’

‘A destination for Living, Leisure, Sporting, Shopping & Entertainment…’