



# FLUIDRA

## HYDRO-LEISURE SOLUTIONS

for hotels, resorts, campings  
and water parks that make a  
difference

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## 01

## INTRODUCTION

The combination between a growing **competition** in leisure options and the increased **sophistication** of the average tourist profile translates into a certainty for this industry: in order to stay relevant, they must **innovate** and make a difference.

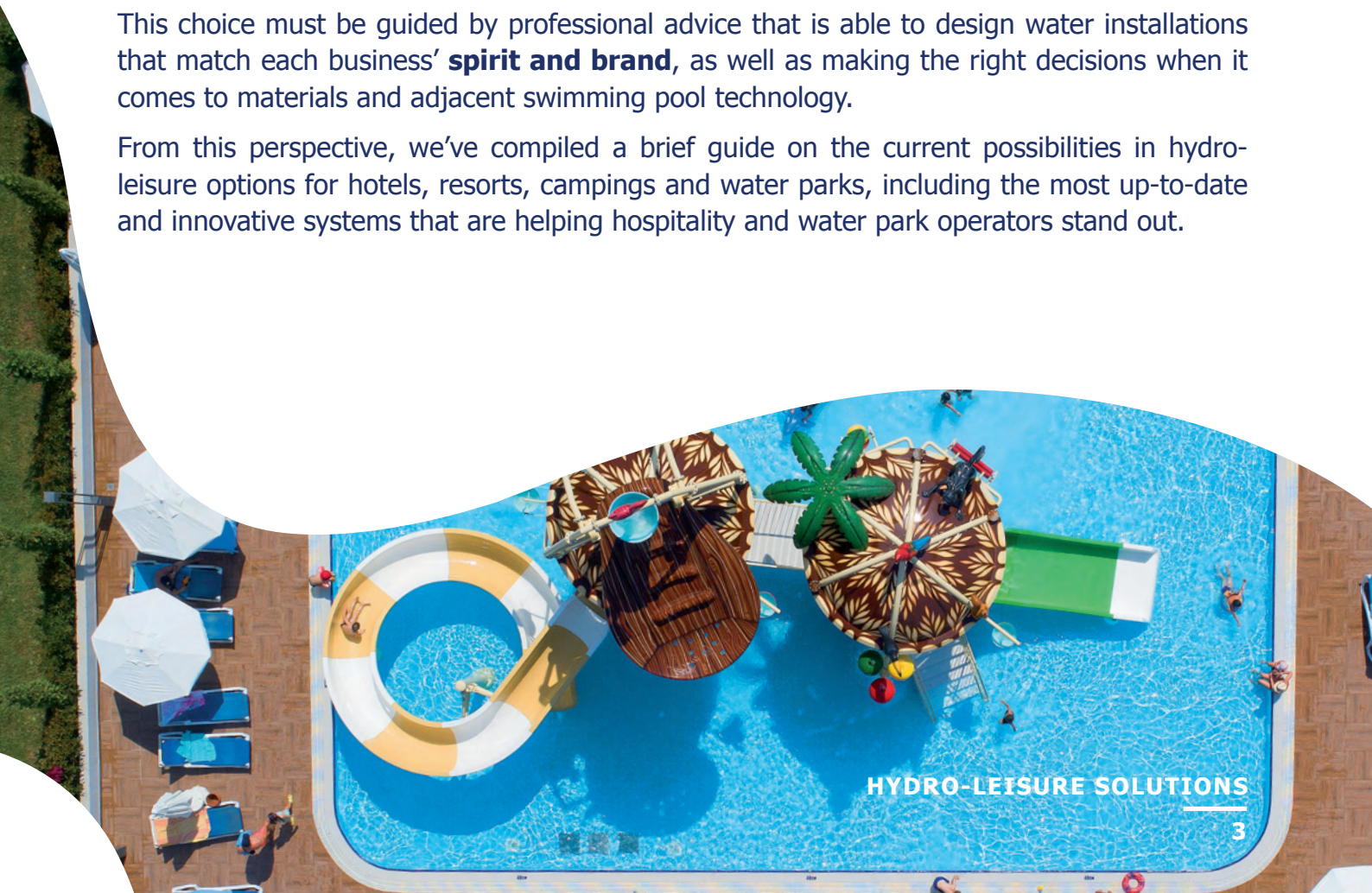
Today, many hospitality businesses (hotels, resorts and campings) and water park operators face the question of how to continue **adding value** to their clients. In fact, this is a particularly important issue in a sector that thrives on constantly exceeding their clients' expectations.

In this context, **innovative hydro-leisure installations** have emerged as a valuable choice that goes a step further in building unique experiences for clients, as well as establishing an original and bold brand image.

However, not all water installations are equal: operators must be confident that the choice they make represents a **robust investment** that will remain profitable in the mid and long term.

This choice must be guided by professional advice that is able to design water installations that match each business' **spirit and brand**, as well as making the right decisions when it comes to materials and adjacent swimming pool technology.

From this perspective, we've compiled a brief guide on the current possibilities in hydro-leisure options for hotels, resorts, campings and water parks, including the most up-to-date and innovative systems that are helping hospitality and water park operators stand out.



## 02

## WHY HYDRO-LEISURE SOLUTIONS TO ENHANCE HOTELS, CAMPINGS AND WATER PARKS

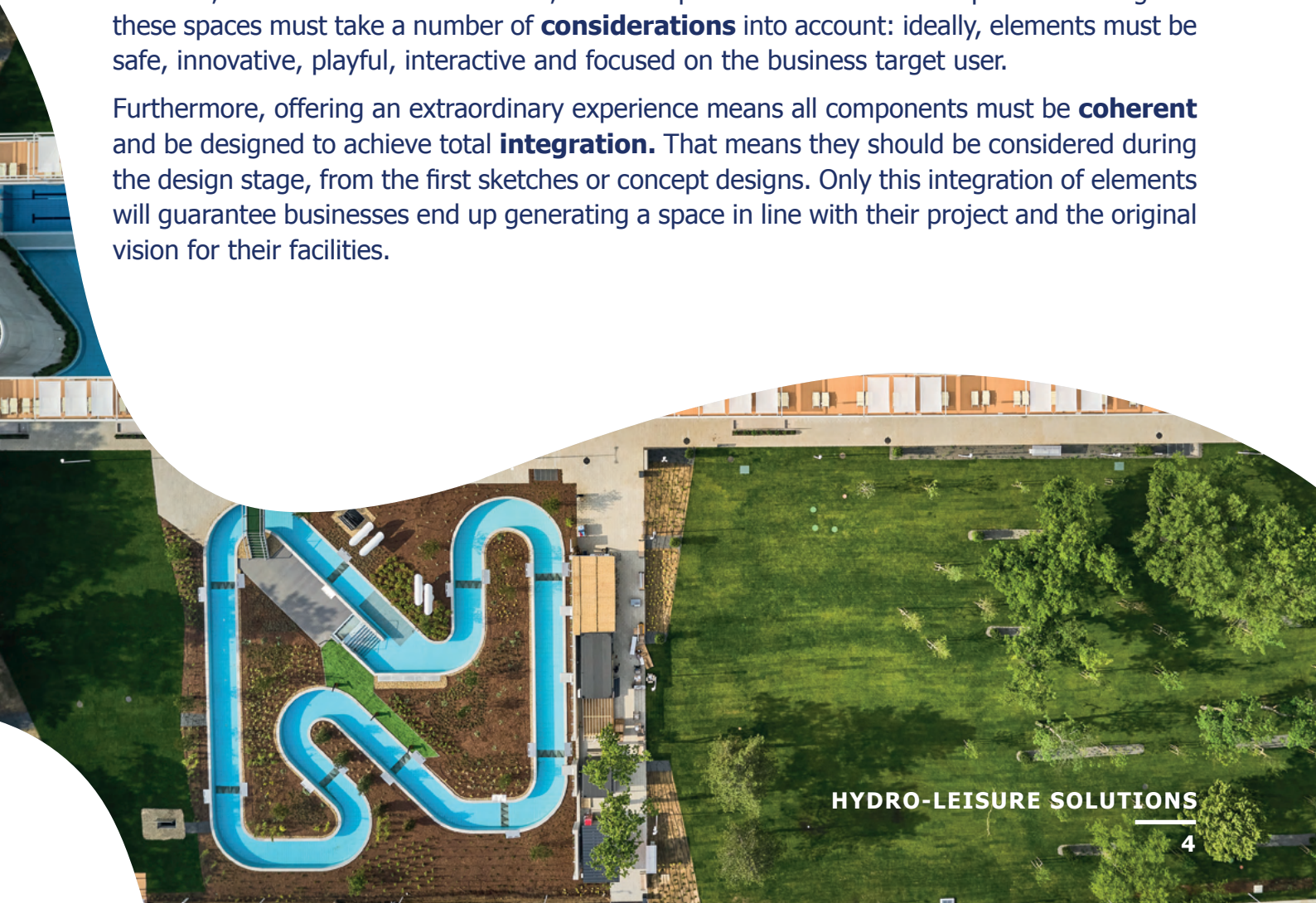
**Aquatic leisure areas** represent a crucial space for any type of establishment and sector, as they offer an opportunity for entertainment for customers and users. This is especially the case when it comes to water parks in hotels, campings and resorts, as these spaces' main appeal for users lies in their very capacity for providing fun.

Today, there are multiple types of **aquatic solutions and elements** to help operators achieve this goal and get more out of their aquatic facilities.

The reason is simple: adding leisure elements means operators are able to gain the attention of and attract more **potential users and customers**. Not only that, but clients tend to extend their stay and, consequently, increase their spending in the surrounding services (which may include bars, restaurants, sunbeds, visual shows, beauty and relax treatments, aquatic activities or supervised classes, among other possibilities).

However, as we've mentioned above, not all aquatic installations are equal. The design of these spaces must take a number of **considerations** into account: ideally, elements must be safe, innovative, playful, interactive and focused on the business target user.

Furthermore, offering an extraordinary experience means all components must be **coherent** and be designed to achieve total **integration**. That means they should be considered during the design stage, from the first sketches or concept designs. Only this integration of elements will guarantee businesses end up generating a space in line with their project and the original vision for their facilities.



## 03

## THEMED AQUATIC ELEMENTS: MAKING THE EXTRAORDINARY HAPPEN

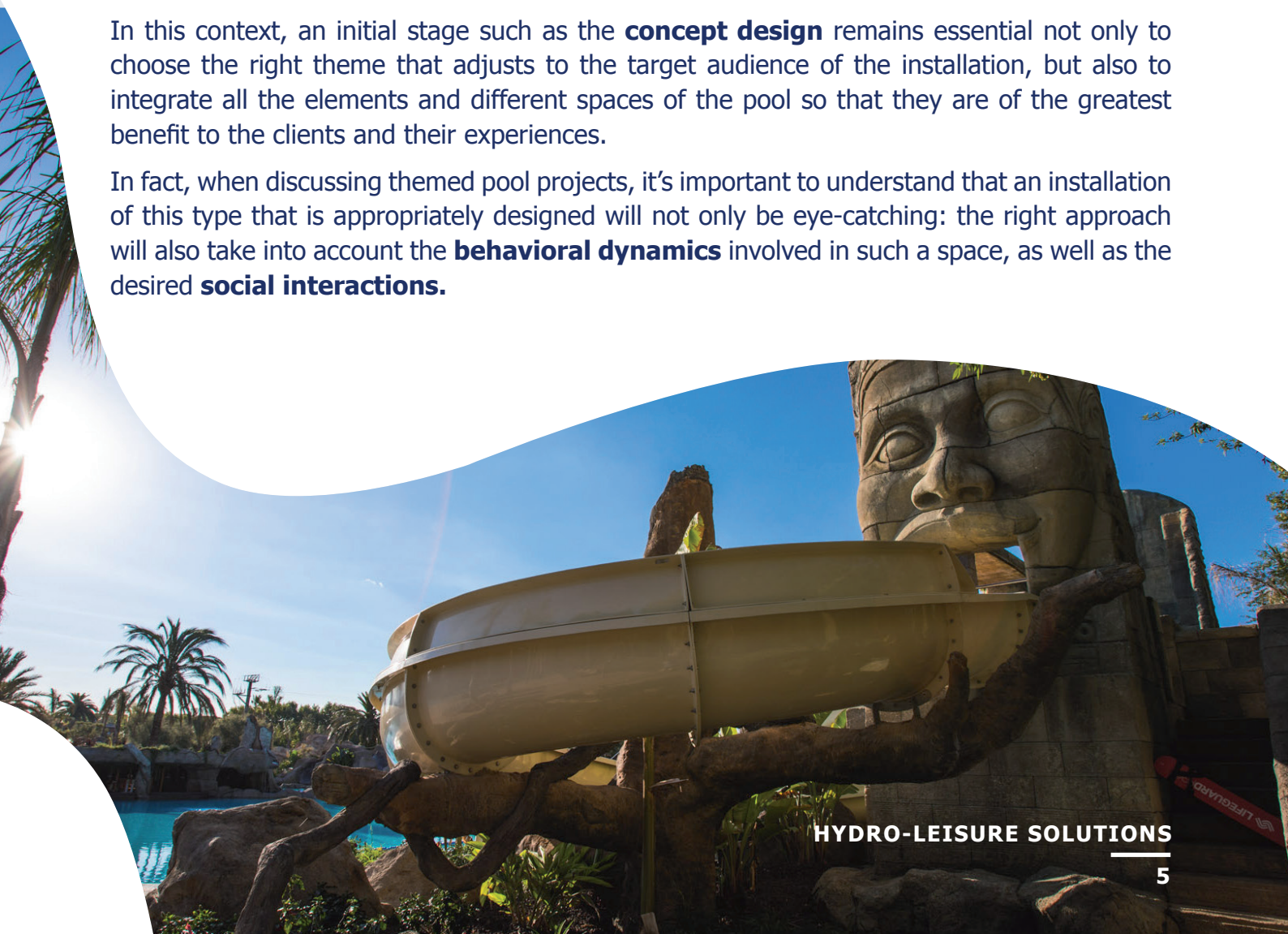
An ideal strategy to convert leisure time into an extraordinary experience is to generate a **totally immersive environment**. By becoming a place where attention is paid to every last detail, **themed spaces** go far beyond classic swimming pools and result in unique, memorable experiences for both children and adults.

Multiple customization and thematization possibilities are available today. This is why, to guarantee these elements remain coherent and integrated, this type of leisure spaces must be designed with an **end-to-end approach**, from their initial conceptualization to the final installation.

All in all, whether they are created from scratch or adapted from an existing space, themed swimming pool and lagoon projects require the **coordination of a team of professionals** in which engineers, architects and designers work harmoniously.

In this context, an initial stage such as the **concept design** remains essential not only to choose the right theme that adjusts to the target audience of the installation, but also to integrate all the elements and different spaces of the pool so that they are of the greatest benefit to the clients and their experiences.

In fact, when discussing themed pool projects, it's important to understand that an installation of this type that is appropriately designed will not only be eye-catching: the right approach will also take into account the **behavioral dynamics** involved in such a space, as well as the desired **social interactions**.



## What types of themed pools are available today?

The possibilities to create an extraordinary space for all ages and different user profiles are multiple.

On the one hand, there's the potential themes to choose from: safari, tropical Polynesia, pirate adventures... The possibilities are endless, and represent an added value when paired up with adjacent services that follow the same design line.

On the other hand, **themed pools** make use of a variety of elements. Caves, waterfalls, slides, swimming and relaxation areas are some of the examples of the elements that can be added to these installations.

Using rocks, cascades and vegetation to enhance the beauty of such installations has also proved useful as part of themed pools; while installing **fantasy pools** (which may include animated characters and other fantasy constructions such as pirate ships or medieval castles) represents a useful choice to spark customers' imaginations.

Great conceptualisation and design will also open the door to provide a **wide variety of services**, including water shows, music spectacles, sports bars, water parks, swimming pools, dry slides, water slides, ornamental features such as fountains, restaurants, sport activities, coffee shops, etc.

All in all, the goal of completely-integrated themed spaces is to offer a way to **boost the installations' financial performance** as well as the customers' holiday experience.



## Benefits of themed pools

- **Differentiation.** Companies in the tourism and leisure industry have experienced fierce competition in recent years and, as a consequence, have been looking for inspiration to stand out from their competitors. Themed pools represent an answer for many of these businesses, providing a memorable experience for users and enhancing their role as promoters and loyal customers for the brand.
- **Capturing market niches.** It is possible to design themed pools aimed directly at a target audience and a specific profile. Examples of target audiences include children, families, adult couples, young people...
- **Customer retention.** Themed swimming pools are places designed for users to stay in for an extended period of time, in addition to being a place to meet with family or friends. This benefits tourism and leisure companies, since stores or hospitality services can be installed in the area, thus increasing turnover for the businesses.

## 04

**WATER GAMES AND THEMED POOLS: INTERACTIVITY AND LEARNING POSSIBILITIES**

As we've mentioned above, themed pools go beyond the aesthetics: the right design will ensure the pool presents a cohesive plan that also considers **social and behavioral dynamics** within the installations.

This is especially important when it comes to family entertainment and themed pools for children. Today's interactivity in water installations and water games represents an important aspect in children's **educational opportunities**. This is true when it comes to behavior learning and socializing but also when it comes to enhancing their **psychomotor skills** in a playful way.

A successful way to achieve this is incorporating elements that maximize **interactivity** chances for bathers. This can be achieved through a number of innovative installations, including slides, water cannons, fountains (which can take original shapes such as those of mushrooms, animals that spit water, barrels that rotate...), water tunnels, water bubbles or elevated water buckets, among other elements.

Today, developments in the pool industry mean the possibilities regarding water games and interactive parts are endless. Additionally, an adequate design will ensure ornamentation and aesthetics for these water games remain **cohesive** with the pool's theme of choice. For example, a tropical pool can include various figures and water components in the shape of animals, an Easter Island totem...





## 05

## INNOVATIVE HYDRO-LEISURE SOLUTIONS FOR POOLS LOOKING TO BREAK NEW GROUNDS

### Water slides

There are many reasons why **water slides** are a strong choice for swimming pools in the leisure and hospitality sector. Beyond their obvious appeal to children, slides also represent the perfect opportunity to create thematic swimming pools, and they can also generate fun into aquatic spaces targeting the adult population.

All in all, the result for pool operators is to gain a real commercial advantage by adding swimming pool slides, increasing their business' turnover and customer retention.

On the one hand, they differentiate themselves from the competition; on the other hand, they add a new potential source of income through the incorporation of surrounding business and services. Additionally, the incorporation of slides can extend the offers made by leisure centers, campings, hotels and resorts, opening up the aquatic space to other visitors besides the usual members or residents.

There are multiple types of slides that can be integrated in a water space and to delight users of all ages:

- **Totally** or **partially-covered** slides.
- **Wet** or **dry** slides.



- Slides at different **speeds**: from long tracks with slow speed and open curves, to more straightforward and steep slopes that can attain a high speed.
- **Long or short** slides: depending on the size and the available space.
- **Multiple, single or wide** slides: these can be used by a single bather at a time, with multiple users in different attached slides; another option is to include a wide, straightforward slide with plenty of space for multiple bathers that are invited to test their speed in a slide race.
- Slides with **integrated lights** or **translucent materials**: some slides (usually, the ones that are totally covered) feature LED lights or translucent materials for an immersive experience.
- Slides for **riding inflatable rafts**: options here include slides that are meant for both single or multiple users at a time.

## Splash parks and splash pads

These represent two outstanding possibilities for family-oriented aquatic installations.

Firstly, a **splash park** is a very specific type of aquatic facility aimed at children that is typically shallow (usually up to an adult's ankle or even less deep), designed to promote entertainment and fun through the following elements:

- Interactive fountains: these installations create water streams that change their shape, color and sound when children step on coloured dots
- Splash, jet and wave areas
- Circuits and other interactive games



When installing a splash park, because they tend to target children specifically, **safety** measures in this type of installation remain the number one priority.

Secondly, a **splash pad** is a leisure and recreation area, often located in a water park or public park, with aquatic features installed in a surface without any water depth. There are different elements designed to promote this space:

- Water springs with jets that originate from different sources
- Ground nozzles that spray water upwards from the floor. These can be controlled by a hand-activated motion sensor so that they run for limited times
- Semi-circular pipe showers
- Showers with striking shapes such as mushrooms or trees
- Interactive nozzles that allow users to move them and spray at others

Again, because splash pads target children, they must be designed to eliminate the need for a lifeguard by minimizing the risk of drowning.

Additionally, and again with the aim of maximizing safety, all elements within splash pads are made with soft and rounded materials and present a floor made of non-slip textured concrete or granulated rubber.

## Wave pools

This extraordinary type of water installation is designed to mimic sea environments while maximizing safety for children and grown-ups. A wave pool features artificially-produced waves whose size, speed, and flow can be programmed to imitate the feeling of being in the ocean. These parameters might also be programmed so that bathers can surf or jump the waves.



## Lazy and torrent rivers

A lazy river is yet another water installation that can be added to parks, hotels, resorts, campings and leisure centers that seek to offer an extraordinary experience to their visitors.

This installation consists of a shallow pool that **flows like a river**. Designed to present a slow **current**, the lazy river is usually just fast enough to allow guests to gently ride along while lying on rafts. Some connect or lead into swimming pools or wave pools, while others are self-contained courses that follow an *ad hoc* circuit.

The current is generated by means of a gradual slope in the terrain and then aided by a pumping mechanism that allows for the river to continue flowing.

When intended as part of themed pools, this type of installation can be complemented with additional scenic elements, such as small waterfalls.

Torrent rivers represent an alternative to lazy currents. Featuring wave machines similar to those present in wave pools, this type of aquatic installation generates more solid water flow that pushes bathers (who ride rafts) down the river faster.

## Fountains: the perfect mix between leisure and ornamentation

Scattered throughout the facility spaces, **ornamental and interactive** fountains undoubtedly represent an added value to **themed pool areas**.

Today, there are many options when it comes to picking the right fountain: one example is a classic basin fountain that enhances an open area's beauty and provides a refreshing effect; another example are **dry deck fountains** (also known as 'funsquare'), which provide dynamic and interactive experiences for children who can play with water jets under the heat of the sun.

The integration of light systems into these structures also makes them ideal for night spectacles and watershows. In fact, **light** design is a crucial element, as it can help define the style and atmosphere of any type of aquatic installation. Today, opting for a sustainable and eco-friendly underwater and outdoor **LED lighting** represents a wise choice that provides stunning illumination while also guaranteeing significant **energy and cost savings** for operators.



## 06

**WHAT TO TAKE INTO ACCOUNT WHEN DESIGNING HYDRO-LEISURE SOLUTIONS****Regulations for water parks and play-oriented aquatic installations**

When considering aquatic leisure areas or spaces, it is necessary to consider multiple aspects in terms of **safety**, particularly because children tend to be the main target group for this type of installation.

There are currently no compulsory regulations regarding these aquatic facilities. However, design and construction that complies to the following standards represents an enormous added value for the spaces:

**EN 1176 Playground Equipment and Surfaces**

This standard aims at ensuring play areas for children are safe as well as able to encourage activities that provide valuable experiences for children.



### **EN 13451 Equipment for Swimming Pools**

A standard aiming at defining the safety requirements for the different play elements installed in swimming pools.



### **EN 1069 Water slides**

The goal of this norm is to ensure operators can guarantee total safety in slide installations, representing a compilation of technical rules for the design of water slides in public swimming pools in Europe.



### **EN 1177 Playground Surface**

The standard specifies test methods for measuring acceleration and impact attenuation on the surfacing used.



### **Class III Slipperiness Certificate for Water Playground Surfaces**

A certification that allows operators to ensure maximum safety in water installations aimed at children by limiting the risk of slipping accidents on water playgrounds.



## Materials and construction tips to ensure a robust investment

### Tips for water slide pools

Safety must remain a key consideration when designing and constructing swimming pool slides. In this context, here's some critical advice that should guide the construction of water slides:

- **Soft, irregular shapes** are recommended to prevent friction or safety issues. When it comes to the most suitable materials for the pool, finishing options include ceramic tiles, glass and PVC coating with non-slip materials to avoid risk of falls and injuries in the surrounding areas. Regarding the building of irregular shapes, the most recommended material is concrete.
- Construction tips for slide pools must also consider that **depth** must also be suitable for young children, recommended values varying from 1.2 to 1.6 meters.
- Regarding the **methods of production** for the slides themselves, ideally, water slides should be made of fiberglass material to facilitate a ride at desired speeds, while avoiding burning the skin due to friction.

As such, **L-RTM (Light Resin Transfer Moulding)** is one of the best technologies to create compound products such as water slides. An environmentally-friendly construction method, it involves inserting resin between two tightly fitting molds, a process that is supported by vacuum pressure. **Fiberglass** reinforcement is placed in the dry mold, and then covered with gel coating. This results in a smooth, clean and shiny finish and a result product that is outstandingly resistant compared to classic molding methods.



- After swimming pool slides are prepared and transported on-site, they must be tested before being put to use to ensure safety and optimal performance.

## Tips for splash parks and splash pads

There are a number of options concerning suitable materials for splash parks:

- **High-quality stainless steel** is used in the manufacture of hydro-leisure jets and typically includes a specific paint coating resistant to external aggressions.
- **Polymers** are employed to achieve a high degree of customisation, strength and durability for splash park elements. Polymethylmethacrylate (PMMA) and high density Polyethylene (PEDH) panels are used to achieve a bather-friendly finish that also guarantees greater safety.
- **Fiberglass:** this material is used in elements such as slides or decorative structures. In order to generate a greater rigidity, this material can be strategically interwoven and bonded with polyester resin.

Additionally, operators should take into account the following needs for this type of hydro-leisure space:

- **Soft pavement:** the best option includes waterproof safety flooring formulated on the basis of EPDM rubber with natural additives and polymers that are also environmentally friendly. This formula allows for the creation of a continuous, flexible and seamless layer, resulting in a play-friendly and highly resistant flooring.
- **Anti-rust nozzles:** made of polyacetal, a highly resistant and durable technical polymer, they prevent corrosion and facilitate cleaning.
- **Anti-vandalism system:** nuts and bolts in this aquatic space must be coated with anti-seize treatments and special anti-vandalism finishes to avoid accidents. These nozzles also present anti-vandalism systems that prevent them from being damaged or removed.
- **Foot protectors:** covering the base of play areas with specific protectors represents an additional guarantee for safety in hydro-leisure installations. These must be designed to cushion bare feet, so they're typically made of soft-touch elastomers.
- **Easy handling:** when it comes to water jets, swivel technology is recommended. Specially created and developed by a team of designers, the right method will allow for the creation of a 360° swivel angle and limit the splash angle to 100°, avoiding splashes in undesired areas.



## 07


## CONCLUSION

## How to ensure your facilities get the right hydro-leisure installation

Increased **competition** and higher **expectations** from clients are not the only challenges that the hospitality and leisure industry faces today. Wider **economic trends** such as the increase in the costs of energy, as well as the need for **sustainable** travel options, have put yet more pressure on designing attractive yet sustainable and efficient facilities for leisure.

In this context, the role of **professional project design and implementation** has become more important than ever as the only guarantee for accessing the most suitable water installation. This is particularly true for complex projects such as themed and interactive pools, where factors such as safety and behavioral dynamics must coexist with an outstanding user experience that transforms into an extension of business opportunities.



A photograph of children playing in a water play area. The scene is dominated by large, blue, perforated arches that create a tunnel-like structure. Water is spraying from the arches, creating a misty atmosphere. Three children are visible: one on the left, one in the center, and one on the right. They are all wearing red shorts and are barefoot. The ground is a light blue, textured surface. The background shows a bright, sunny day with some greenery and a building in the distance. The overall tone is bright and playful.

"This information contains general recommendations that must be taken into consideration on a case-by-case basis. This information is not an instruction manual and cannot be considered as such for any purpose. Any implementation or installation to be made must be made by a professional and under the appropriate guidelines. In this regard, each user is responsible for the application it makes of the information contained herein. Fluidra will not be responsible for its use. Consequently, under no circumstances will Fluidra be liable or responsible for any claim, damages or loss that may arise as a consequence of the use of this information".

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