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## MANAGEMENT

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# Attractions

## MANAGEMENT

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VOL 22 2 2017



NEW OPENINGS

### MOXI

California's dynamic  
science museum

### Ferrari Land

PortAventura's  
red hot theme park

### ZOOS

Doug Cress  
takes over  
WAZA

### WATERPARKS

Experts look at  
future trends

### HERITAGE

Lascaux Caves  
reimagined

# Brian Cox

Star physicist teams up with BBC and  
science museums to engage public



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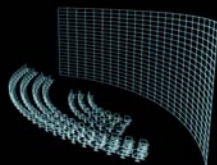
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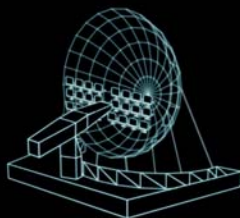
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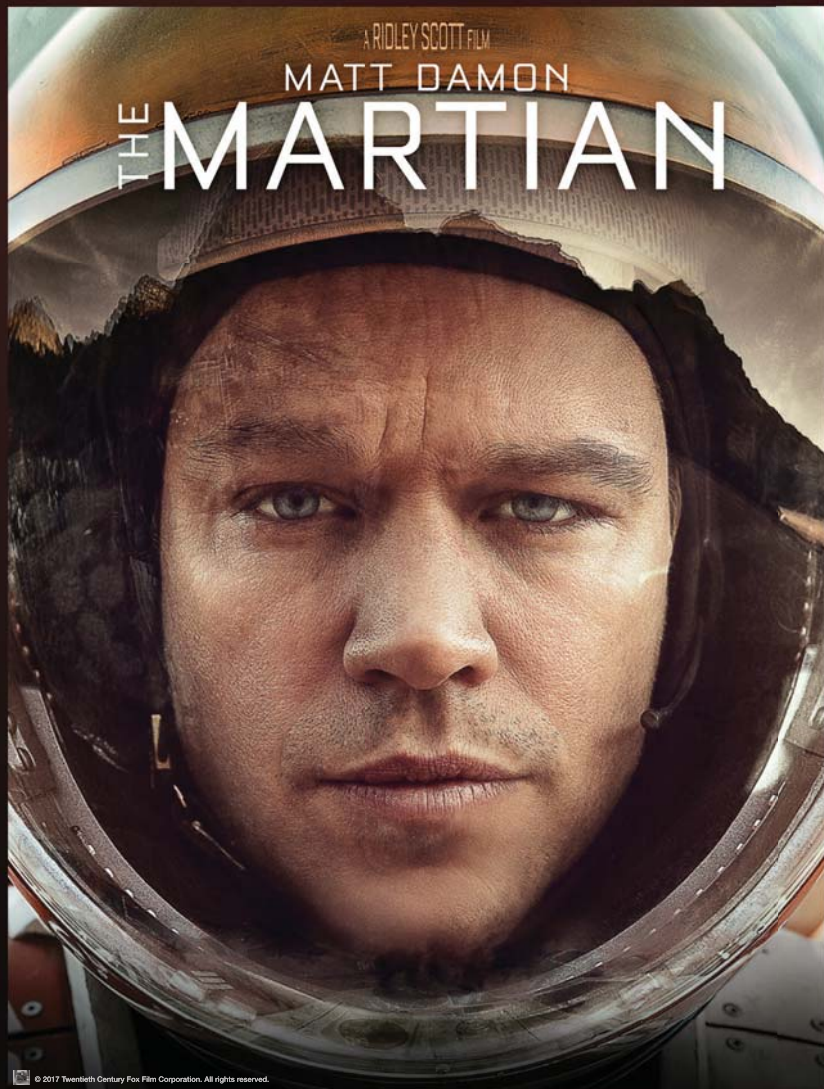
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ENTERTAINMENT



## THE ERA OF ZERO RISK

The days when real risk lent a frisson of excitement to rides – wherever you rode them – is over. Today's consumers want fun and thrills, but are looking for zero risk – guaranteed. All attractions must deliver this, even if it means changing the product to make it happen

**N**ews of the tragic death of an 11-year-old girl on a rapids ride at Drayton Manor Park has shocked an industry that is still reeling from the death of four people on a similar type of ride in Australia in October.

While both accidents are being investigated, it's wrong to jump to conclusions about causes, but we know that things must change as a result. Clearly, the risk factor is too high.

Any ride involving ballistic movement or momentum creates forces which – if they are deflected – can cause a catapult effect, hurling riders in ways they find impossible to control. Add water, heavy machinery and people into the equation and another whole set of challenges emerges.

The time has come for such rides – if we continue to install them – to have seat belts or harnesses to avoid accidents occurring which relate to user behaviour. The investigation into the Australian accident, in which the raft tipped, must additionally lead to the introduction of design features which act to prevent that happening again.

This industry has worked hard to improve rider responsibility, and it's very sensible and valid to encourage guests to follow guidelines while enjoying rides. However, we cannot harness our fortunes – and people's lives – to the hope that riders will always behave exactly as we would have them do.

If theme parks are going to continue to thrive as an industry sector, then we need to step things up to a new level when it comes to all aspects of safety, from staff training to supervision, from ride design and specification to manufacturing and from ride maintenance to safety checks.

In the days before the internet and social media, some theme park accidents were hushed up. Compensation paid, the ride quietly dismantled and sold to another park on the other side of the world to be rebranded, and then the case closed.

Perhaps a health and safety investigation some time later would throw up a fine and a small flurry of newspaper coverage, but few accidents seriously impacted the business. It was a dark time in the history of our industry.

Today, fortunately, the world has moved on, and this kind of

shadowy practice is no longer possible in most countries, nor deemed acceptable by anyone. The industry has grown up and in most places safety inspections and training are now transparent and professionally managed.

And yet as we have seen this May, there is still important work to do to achieve the level of

safety which we as an industry and our customers expect.

People's tolerance of risk has reached a point where any level is deemed totally unacceptable by the public. They want assurances that their time at attractions will be 100 per cent safe. That their children will be safe, no matter what.

So this is what we must make happen. We're in the era of zero risk, when nothing else will do. It's not acceptable for there to be any preventable accidents in theme parks.

And if we don't step up and improve, then our customers will leave in droves and our businesses will fail, and rightly so. If we can't keep our customers safe, we don't deserve them.

**Liz Terry, editor. Twitter: @elizterry**

**People want assurances  
that their time at attractions  
will be 100 per cent safe.  
That their children will be  
safe, no matter what**



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On the cover: Brian Cox

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For suppliers of products and services in the worldwide attractions industry, turn to page 108



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- Mystery toxin caused of Vancouver Aquarium beluga deaths

# Attractions **People**

“Tomorrow’s World represents the institutions of Britain coming together to inspire current and future generations”

**Brian Cox** scientist and broadcaster

**F**amed scientist and TV personality Brian Cox is teaming up with the BBC and a number of UK institutions and

charities to launch a year-long season of science and technology programming under the broadcaster’s iconic Tomorrow’s World banner, resurrected as the masthead for the initiative.

The Science Museum Group, Wellcome, The Royal Society and the Open University are joining the initiative, aimed at ensuring the UK

remains a driving force for technology and innovation in the years to come.

The BBC will collaborate with the science-based attractions, academic institutions and personalities to produce

more than 40 hours of television and radio programmes, podcasts and digital offerings under the Tomorrow’s World banner.

Cox hopes the 12-month Tomorrow’s World programming will help to address a growing distrust of science and public wariness of new technologies.

“The West, not just Britain, faces a deep crisis of confidence,

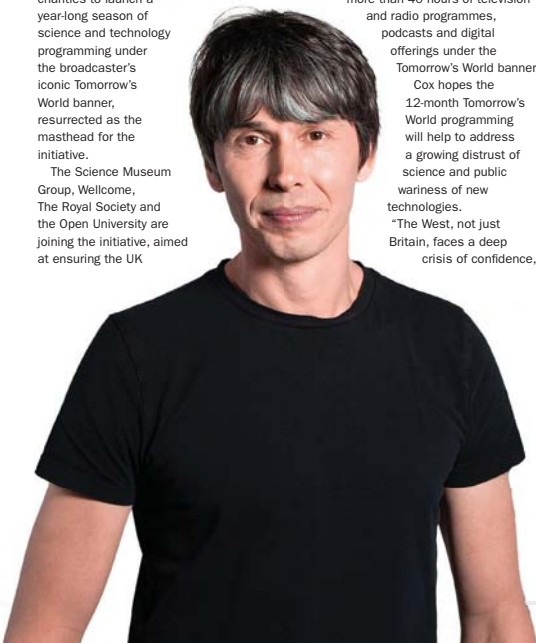
which threatens to turn us backwards, to devalue knowledge, expertise and wisdom and to retreat into what I’d call a destructive relativism where all ideas are equal and freed from challenge,” he tells the *Radio Times*. “Who should fight for Britain to continue to be the best place in the world to do science as it’s been, I would say, for over 350 years? In my view it falls, in part, to the institutions of Britain – the partners in this endeavour – but importantly it also falls to the BBC.”

## **Inventions in the vaults**

The Science Museum Group, which consists of the London Science Museum, Museum of Science and Industry in Manchester, The National Railway Museum in York and The National Media Museum in Bradford, will air a live show titled *Britain’s Greatest Invention* from its venues, with a public vote determining which inventions have been of most influence and importance in their lifetime.

Among the artefacts found in the Science Museum vaults that are up for nomination are James Harrison’s fridge, Alexander Fleming’s antibiotics, John Logie Baird’s television and Frank Whittle’s jet engine. The programme will be presented by British mathematician Hannah Fry.

“The marriage of our world-class collections, expertise and rich programming with the BBC’s worldwide reach is a truly exciting prospect,” says Ian Blatchford, director of the Science Museum Group.



Physicist Brian Cox is a figurehead for the Tomorrow’s World campaign, which will partner science attractions



PHOTO: BBC PICTURES

"The Tomorrow's World partnership is already bearing fruit with *Britain's Greatest Inventions*. BBC's cameras have exclusive access to our stores to explore our incredible objects and reveal the stories of some of the greatest inventions in history."

Wellcome, which runs the Wellcome Collection medical museum and library in London, is also participating in order to help improve people's understanding of health and modern health issues.

**Brian Cox presents multiple science programmes, including BBC Radio 4's *Infinite Monkey Cage*, with Robin Ince**

Simon Chaplin, director of culture and society, Wellcome, says: "We'll be working with Tomorrow's World on a project which makes science accessible and contemporary. Wellcome will be creating

original content which will bring different perspectives to themes including mental health, sleep and contagion based on current research and recent discoveries."

### Curated content and digital hub

A digital hub will be at the heart of the campaign, bringing together some of the UK's most respected science institutions for the first time. Curated daily, it will feature content from across the group, aimed at inspiring engagement with science.

BBC director general Tony Hall says: "Science is changing our world at an extraordinary rate. We want to engage and inspire on a scale that is unprecedented."

Professor Stephen Hawking is also involved, with a BBC2 show that shares his theory that the human race needs to colonise another planet. Other programming will look at astronaut training, green energy, being transgender, superbugs and more.

Cox says: "The 21st-century Tomorrow's World represents the institutions of Britain coming together to inspire current and future generations. It's our commitment to convince them to embrace the opportunities that sciences brings, to foster the spirit of curiosity and tolerance and to embrace the unknown, not in fear but in wonder."

*Tomorrow's World* was a popular BBC series that looked at new technologies and scientific breakthroughs. It aired for almost 40 years, from 1965 until 2003.



PHOTO: PRESS ASSOCIATION

**Tomorrow's World was a long-running BBC TV series that looked at future innovations**



James Cameron gives Whoopi Goldberg a tour of Pandora – the World of Avatar

PHOTO: ABC

“All these plants will glow purple and cyan and beautiful colours. It’s even more magical at night”

**James Cameron** director

**D**irector James Cameron has taken actress Whoopi Goldberg on a tour of the new Avatar-themed zone at Disney Animal Kingdom, Orlando, Florida. He showed her around the park, created to look like the magical planet of Pandora from Cameron’s 2009 film *Avatar*, revealing details of what guests can expect when the park opens on 27 May.

Pandora — the World of Avatar features a number of sites unique to the world of the movie, including its floating mountain ranges and glowing bioluminescent rainforests, plus a number of rides and attractions, such as the family-friendly Na’vi River Journey and the Avatar Flight of Passage over the alien planet of Pandora.

“We have a mixture of Earth plants and exotic Pandoran foliage that’s been



PHOTO: PRESS ASSOCIATION

sculpted by sculptors. It gives the illusion of a real ecosystem,” Cameron says during his talk with Goldberg for ABC programme *The View*.

“It’s fine to see something in a movie where you know it’s a visual effect, but when you’re standing in it and you’re looking around in every direction, you’re on Pandora everywhere you look,” he says.

Cameron has worked closely with Joe Rohde and his team of Disney Imagineers on the realisation of the area. He says the setting for Pandora — the World of Avatar is in the future, long after the existing film and its four sequels — which do not have release dates yet — take place, in a time when Pandora’s Na’vi inhabitants and humans are at peace. “The Na’vi have welcomed us to Pandora to help us understand nature and ourselves better.”

Cameron says: “This whole land will light up at night. All these plants will glow purple and cyan and these beautiful colours. I think it’s even more magical at night.”



Guests take a reed boat through a bioluminescent rainforest in the Na’vi River Journey

PHOTO: DISNEY

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This display case went from Dulwich Picture Gallery to the RAF Museum

## “Museum Freecycle has given a second lease of life to hundreds of thousands of pounds worth of museum items”

**Caroline Keppel-Palmer** founder, Museum Freecycle

A new exhibition at the Museum of London is highlighting an entrepreneurial waste-saving idea by Caroline Keppel-Palmer, that makes it easy for museums to recycle unwanted items.

Since the launch of Museum Freecycle in 2014, when it was the first industry freecycle group in the world, it's grown into a well-oiled machine serving museums, galleries and science centres UK-wide.

Keppel-Palmer used to work for a design and architecture studio and noticed that when temporary exhibitions closed, the equipment was often thrown out.

“Showcases, plinths and mannequins worth thousands and sometimes even tens of thousands of pounds were being thrown away simply because museums lacked the space to store them,” says Keppel-Palmer.

By posting items on the dedicated area of the Freecycle website, museums allow other attractions to get the equipment they need at no cost. Keppel-Palmer has seen everything from display cases and furniture to a fibreglass cow and a Victorian Courtroom dock change hands on the site.



“Recently, the volunteer-run Bloxham Village Museum replaced their homemade donations jam jar with a beautiful purpose built donation box from the Natural History Museum, which they sourced through Freecycle,” says Keppel-Palmer.

The 650-member group has helped the museum sector become more sustainable and as it's managed voluntarily by Keppel-Palmer, it's free to users and the taxpayer.

**Bloxham Museum used the site to replace this old donation box**



“By diverting waste to productive use, it is improving efficiency and saving museum budgets. Since its inception, Museum Freecycle has given a second lease of life to many hundreds of thousands of pounds worth of museum items,” she says.

The exhibition, *The City is Ours*, looks at the way modern cities are changing and what global urban communities are doing to improve city life. Museum Freecycle is one of 25 innovative projects chosen by the Museum of London for the exhibit.

“It's an honour to be a part of *The City is Ours*,” Keppel-Palmer says. “Curator Foteini Aravani compiled a list of projects – from sustainable food schemes to state-of-the-art technological ventures – that are working towards the sustainability of London. Foteini purposely selected projects that are in their infancy and immediate in their impact. Foteini chose to feature Museum Freecycle as an example of how we can help one another within a particular field.”

*The City is Ours* runs from 14 July to 2 January 2018. Keppel-Palmer also runs Museum Bookstore, which is an online store specialising in museum and exhibition publications.





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## Frost Museum finally opens in Miami

The \$305m (£278.2m, £235.1m) Phillip and Patricia Frost Museum of Science is celebrating its grand opening following a major expansion.

The museum – which sits in a prominent location on Miami's waterfront in the city's Museum Park – has navigated through difficult circumstances to reach this point.

Patricia and Phillip Frost had to step in last year to fill a \$45m (£41m, £34.7m) funding shortfall, while its CEO, Gillian Thomas, announced her sudden retirement in July last year after 13 years in charge of the science museum. In April 2016, Miami-Dade County also approved a \$45m bailout to cover swelling construction costs.

PHOTO: TWITTER.COM/FROST MUSEUM



■ The science museum features an aquarium and planetarium

Designed by Grimshaw Architects, the 250,000sq ft (32,225sqm) building is structured around a 'living core' which comprises terrestrial and aquatic exhibits. The Museum of Science features a 510,000 gallon aquarium, planetarium, health and science gallery,

hands-on exhibits and interactive digital technology.

Speaking to *Attractions Management* before her retirement, Thomas said the development would be the waterfront's "glue", adding that more exhibits be added over time.

■ Details: [http://lei.sr?a=S5J8F\\_T](http://lei.sr?a=S5J8F_T)

## INDUSTRY OPINION

### Science is political when politics seeks to undermine it

Andrea Bandelli

On 22 April, millions of people all over the world took to the street and joined the March for Science. For the first time in history the scientific community felt the need to massively demonstrate and state what used to be obvious, but is now in peril.

We need science to make sound evidence-based policy, to address climate change, improve global health, and other pressing issues. The scientific community is deeply concerned that governments are on the verge of cutting loose with science; that policy is increasingly based on opinions and beliefs, not facts. Even worse, that governments now create "alternative facts".

The March for Science mobilised millions of citizens and showed the activist side of the community. It also showed the activist side of the science engagement community, who organised the march in many countries. On 22 April, the streets filled with science communicators and professionals working in science centres and museums, making a statement that science is – necessarily – political at a time when politics try to undermine it.

For many, the march was a wake-up call that, without science, there is no science engagement – and that engagement with science means engagement with the politics of science. Public engagement with science is not an entertaining act: it is, more than ever, what science needs in order to remain relevant.

The march has passed; but the dialogue in the professional community continues. I look forward to hearing your views and comments at the Escite Annual Conference on 15-17 June in Porto, Portugal. ●

Andrea Bandelli, executive director, Science Gallery International, Dublin



## UK's National Media Museum focuses on science

The National Media Museum in Bradford, UK, has changed its name as part of a major revamp to demonstrate a new focus on science.

The newly-named National Science and Media Museum (NSMM) now focuses on the science behind the still and moving image.

The museum suffered a blow last year when it was announced its collection of 400,000 images by the Royal Photographic Society (RPS) would be moving to London's V&A museum. To compensate, the museum debuted its new £1.8m (\$2.2m, £2m) interactive gallery at the end of March, while also confirming plans to host British

PHOTO: NATIONAL SCIENCE AND MEDIA MUSEUM



■ The museum now focuses on the science of media

astronaut Tim Peake's spacecraft later this year.

The new Wonderlab gallery explores the science of light, sound and images through state-of-the-art exhibits.

"We want to draw in new visitors, encourage existing ones to come more often and open a whole new chapter

for the museum," said Jo Quinton-Tulloch, museum director. "Our collections across the technology and culture of photography, film and TV are unrivalled, and Wonderlab explores the science behind what makes these things magical in a very hands-on way."

■ Details: [http://lei.sr?a=X6c4y\\_T](http://lei.sr?a=X6c4y_T)

## Discovery unveils proposal for Costa Rica eco-theme park

Discovery Communications is hoping to entice some of its 3 billion worldwide viewers to a \$400m (£373m, £312m) eco-theme park resort it's developing in Costa Rica.

Discovery, which owns both the Discovery Channel and Animal Planet airing in more than 180 countries, will develop the 800-hectare (1,976-acre) project alongside local firm Sun Latin America, with the park to open in the province of Guanacaste by 2020.

Costa Rican President Luis Guillermo Solís announced the plans, which will include rock climbing, hiking, diving and other adventure activities. The park, which will have a strong focus on biodiversity and conservation, is also likely to include a waterpark, Discovery-branded hotel and a number of restaurants.

Development on the project is expected to start in 2018. More than 2,000 jobs will be created during the development process, according to the Costa Rican government.

"Millennials are interested in more than lying in a beach chair," said Leigh Anne Brodsky, executive vice president



PHOTO: SHUTTERSTOCK.COM

■ The Costa Rica adventure park will have a strong focus on biodiversity and conservation

of Discovery Global Enterprises, who added that viewers will be able to "live out the lifestyle of Discovery beyond the experience of a TV screen."

According to Bloomberg, Discovery will limit risk associated with the project,

as Sun Latin America will be taking charge of developing the park and managing it once open under a licensing agreement. The financial details for the deal have not been publicly revealed.

■ Details: [http://lei.sr?a=q5x3v\\_T](http://lei.sr?a=q5x3v_T)



PHOTO: DDB ENTERTAINMENTS

■ The chain will be linked to theme parks

### DXB plans expansion of Lapita hotel brand

DXB Entertainment – the parent company of Dubai Parks and Resorts – will expand its Lapita Hotel brand beyond the UAE, with plans to establish a collection of hotels tailored to theme park and entertainment destinations.

The Polynesian-themed Lapita Hotel, part of Marriott's Autograph Collection, opened on 2 January this year and is located within the multi-billion dollar Dubai theme park destination.

■ Details: [http://lei.sr?a=S3f7J\\_T](http://lei.sr?a=S3f7J_T)

## HollandWorld finds developer, expands scope

The Delta Development Group has signed an initial agreement to drive forward plans for a Dutch-inspired theme park and leisure destination near Amsterdam in the Netherlands. The scope of the project has also widened to include plans for on-site hotels providing up to 4,000 rooms.

Delta signed the deal with the City of Haarlemmermeer, a large suburb south of Amsterdam and the municipality where Schiphol Airport is located.

Concept drawings have also been drawn up for HollandWorld, which will consist of themed edutainment zones reflecting the culture and history of the Netherlands.



PHOTO: ANANTO D'SOUZA

■ Concept idea for a winter zone at HollandWorld

The 60-hectare themed attraction will be located inside a 1,000-hectare (2,471-acre) recreational parkland near Schiphol Airport, about 20 minutes from downtown Amsterdam.

The decision to earmark HollandWorld for future hospitality development is related to the growing

problem of overcrowding in Amsterdam. The project, first tabled by International Destination Strategies and M2Leisure in 2014, would provide a second gate to the city, taking the pressure off the historic destination and creating more space for tourists and locals.

■ Details: <http://lei.sr?a=m5p6P>

## Six Flags reacquires Waterworld California

Six Flags has acquired its 20th property, entering an agreement with Waterworld California owner EPR properties to operate the attraction in Concord.

The largest waterpark in California is 30 acres (12 hectares) and opened in 1995 under the Six Flags banner, operating as such until 2006 when it was acquired by Premier Parks.

"This is an exciting new venture and a great opportunity to provide families with more entertainment options in this important market," said Six Flags CEO John Duffey. "Guests in Northern California will now have the opportunity to enjoy two beautiful Six Flags parks. This is truly a win-win, as we welcome our 20th property – Waterworld



■ Waterworld California rejoins Six Flags

California – back into our family of parks."

Waterworld California has more than 35 attractions, including the region's largest wave pool, an interactive children's play area and its newest offering in Break Point Plunge – ProSlide's 270ft (82m) SuperLoop with Skybox

Technology. Other slides include Honolulu Halfpipe – a curved tube slide and Cliffhanger, one of the park's signature speed slides.

The park reopens for the 2017 season on 13 May. The agreement is subject to approval by the City of Concord.

■ Details: [http://ei.sr?a=q2c4q\\_T](http://ei.sr?a=q2c4q_T)

### INDUSTRY OPINION

## Facilities can help save lives by hosting global swim lesson events

Aleatha Ezra

The 2017 World's Largest Swimming Lesson (WLSL) takes place 22 June. This will be the eighth year for the global event and we and our more than 50 life-saving and safety partners have set our sights on a new goal – reaching more than 1 billion people with our message "swimming lessons save lives" by 2019.

Local WLSL events will occur at hundreds of locations in more than 20 different countries on five continents over the course of 24 hours. The purpose of the event is to provide children and parents exposure to lifesaving water safety skills and build awareness about the vital importance of teaching children to swim to help prevent drowning. We are working to connect the dots between the real risk of childhood drowning and the need for basic water competency skills and crucial parental supervision to keep kids safe in and around the water.

According to a 2016 Safe Kids Worldwide report, despite the fact that lack of supervision played a role in the majority of drowning deaths, less than half of parents (49 per cent) said they remain within arms' reach of their child in the water.

Drowning is the third leading cause of unintentional injury-related death, accounting for 7 per cent of all injury-related deaths. Host facilities that participate in WLSL events are working hard to change these statistics by providing more than 20,000 man hours of water safety training in a single day.

Aquatic facilities can join Team WLSL for this event by registering as an official 2017 host location at [www.WLSL.org](http://www.WLSL.org). Registration remains open through mid-June. ●

Aleatha Ezra, director of park member development, WWA



## World first Dr Seuss waterpark for Carnival

A world-first Dr Seuss waterpark will debut onboard cruise line operator Carnival's newest vessel in 2018.

With slides supplied by Polin, the Dr Seuss WaterWorks on Carnival Horizon will be a thematic take on the waterslide complexes typically used on Carnival ships.

Included in the on-board attraction will be a 450-foot (137-metre), red and white Cat in the Hat water slide (Polin's Black Hole), a blue and white polka dot, 213-foot (65-metre) Fun Things water slide (Polin's Aquatube) with special lighting effects, a 150-gallon tipping bucket patterned after The Cat's hat, and a children's zone with water spray toys.



■ The waterpark will be the first to use the Dr Seuss IP

The addition of the IP to Carnival's waterparks is an expansion of the fleet's Seuss at Sea programme – a partnership that includes dining and entertainment experiences themed around the world of Dr Seuss for the estimated 800,000 children a year that enjoy a stay with Carnival.

The 3,934-passenger Carnival Horizon will set sail on 2 April 2018, with Dr Seuss WaterWorks leading the line in terms of children's entertainment. The liner will also feature a SkyRide attraction, IMAX Theatre and a SportSquare outdoor area with ropes course.

■ Details: [http://ei.sr?a=r4k4f\\_T](http://ei.sr?a=r4k4f_T)





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## Saudi Arabia imminent and Vietnam on hold for Six Flags

Six Flags CEO John Duffey has revealed new details about the company's international dealings, offering updates on the operator's blossoming Saudi Arabia deal and stuttering Vietnam project.

Discussing dealings with Saudi Arabia – which is also reportedly interested in purchasing a stake in Six Flags through the kingdom's Public Investment Fund – Duffey said “good progress” was being made to deliver a theme park to the region.

“We've had numerous discussions and meetings with the Saudis,” he said. “We've recently completed our first phase of the work and we're moving towards signing definitive agreements. Our hope is that we can have that accomplished in the near term and I feel very good about the status of the project.”

Six Flags' proposed Vietnam park hit a stumbling block in February after its franchise partner NaVi Entertainment failed to fulfil “contractual obligations”, with the operator serving the company a Notice of Default.

“Expanding into emerging markets will not be without challenges and our partner in Vietnam has continued to experience delays in gaining title to



PHOTO: SHUTTERSTOCK.COM

■ Six Flags is expecting to expand into further overseas markets this year

the land, which impacted their abilities to secure financing for the next phase of the project and caused them to miss project payments,” said Duffey.

“Although they are trying to remedy this situation, we have suspended

work on the project, and we have initiated discussions with other interested parties in the region. Vietnam continues to be a very good market for us, so we'll continue to pursue that.”

■ Details: [http://lei.sr?a=X6p9r\\_T](http://lei.sr?a=X6p9r_T)



■ Warner Bros reveals IP partners

### Gotham and more for Warner Bros park

Miral has said its upcoming Warner Bros attraction will be made up of six immersive worlds inspired by top IPs.

DC's Metropolis and Gotham City make up two of the worlds, while Cartoon Junction will feature the likes of Bugs Bunny. The Flintstones appear in a recreation of Bedrock, and Dynamite Gulch will include Looney Tunes characters. Finally, Warner Bros Plaza will tell the history of the brand.

■ Details: [http://lei.sr?a=R7R9y\\_T](http://lei.sr?a=R7R9y_T)

## Universal theme parks continue to impress

Universal's theme parks continue to act as a growth driver for parent company Comcast, after the company recorded revenue increases of 9 per cent to \$1.1bn (£1bn, £853m) in the first quarter of 2017.

For the quarter, Universal's theme parks drew a profit of \$397m (£364m, £308m) – a 6.1 per cent increase on last year's figures.

Continued growth in the company's theme park business – achieved thanks to continued investment and the 100 per cent purchase of Universal Studios Japan in late 2015 – helped boost the results. That is particularly impressive considering the spring break period, which traditionally falls



PHOTO: SHUTTERSTOCK.COM

■ Universal revenue has grown over 150 per cent since 2011

in the first quarter, fell outside of the first three months of the year.

Universal's theme parks continue to do exceptionally well for Comcast, with revenue growing around 150 per cent between 2011 and 2016, thanks in large part to the addition of

Harry Potter attractions at Universal parks, which have been a huge draw for visitors.

The parks division was so successful in 2016 that it contributed more profit to the company than Universal's film and broadcast unit.

■ Details: [http://lei.sr?a=w9Q5X\\_T](http://lei.sr?a=w9Q5X_T)

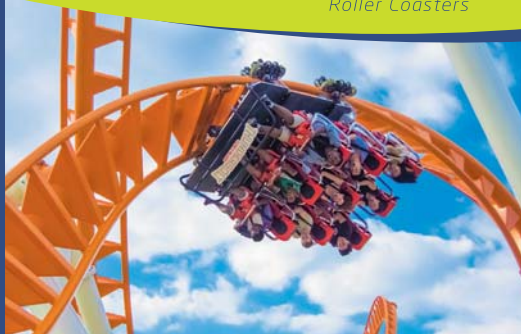




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## Delays and costs stack up for Los Angeles' Academy Museum

Los Angeles' Academy Museum of Motion Pictures isn't following the script Hollywood would want it to, with skyrocketing costs and lengthy delays holding up the long-awaited project, according to new reports.

The Renzo Piano-designed museum, which will be dedicated to exploring and curating the history and future of cinema and the moving image – was budgeted at \$250m (£233m, £195m) when it was first conceived several years ago, but since then the building costs have swollen to \$388m (£362m, £302.5m), with some projections pushing that figure as high as \$400m (£373m, £312m).

Breaking ground in March last year, fundraising delays also led to construction delays, which meant a completion date of December 2017 was pushed back several times. An opening date is now set for April 2019 – nearly two years behind schedule.

Variety reports that the Academy's board met recently to discuss the position of CEO Dawn Hudson. According to the publication, one board member said the project was "heading for an iceberg", and expressed a lack of confidence in Hudson's



PHOTO: ACADEMY MUSEUM OF MOTION PICTURES

■ A 130-foot glass sphere is the focal point of the under-construction museum

leadership. Hudson would survive the meeting, but there have been concerns that the Academy, which earns nearly four-fifths of its annual revenue from the Oscars TV broadcast – \$113m (£105m, £88m) in 2016 – is running low on funds.

To be located next to the Los Angeles County Museum of Art (LACMA), which is currently undergoing an expansion, the Academy museum will draw an estimated 860,000 people on an annual basis.

■ Details: [http://lei.sr7a-z9F6C\\_T](http://lei.sr7a-z9F6C_T)



PHOTO: TODD WILLIAMS

■ The design merges the library and park

## Obama presidential library unveiled

Former US president Barack Obama and his wife Michelle have unveiled the design of the planned Obama Presidential Center on Chicago's South Side. Designed by Todd Williams Billie Tsien Architects, the complex will be formed of a museum dedicated to Obama's presidency, a library of his archives and a forum to advance the Obama Foundation's public mission to promote global progress.

■ Details: [http://lei.sr7a-z4A9e\\_T](http://lei.sr7a-z4A9e_T)

## Opening date set for expanded Tate St Ives

Work is nearing completion on Jamie Fobert Architects' cliffside extension of Cornwall's Tate St Ives, with an official opening date now set for 14 October this year.

A four-year construction project, the plans go back 12 years to 2005 when the London-based Jamie Fobert was first appointed to double the size of the museum.

In addition to lengthy delays because of planning issues, Jamie Fobert lost the project in 2011 when the site was changed, but then reclaimed it after winning a second competition in 2012 for the modified site. BAM Construction is carrying out the redevelopment works.

Adding another 600sqm (6,460sq ft) of gallery space, the four-storey



PHOTO: JAMIE FOBERT ARCHITECTS

■ A public roof garden will be connected to the cliff above

extension gives the gallery ample space to accommodate its 250,000 annual visitors – a figure more than three times the numbers the building was originally designed for. The expansion also means Tate St Ives will be able to stay open year-round for the first time, without the need to

temporarily close while new exhibitions are installed.

The new gallery, sunk into the cliff alongside the original building, will offer artists and curators a column-free space lit by six large skylights. A public garden on the roof will be connected to the cliff above and the beach below.

■ Details: [http://lei.sr7a-j4r8Z\\_T](http://lei.sr7a-j4r8Z_T)

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## Half of all natural World Heritage sites threatened by crime

The World Wildlife Fund (WWF) has said that close to half of the world's natural heritage sites are being "plagued" by wildlife criminals.

According to figures released by the conservation charity, crimes of illegal poaching, logging, harvesting and trafficking are rampant in places recognised as being of outstanding international importance and allocated the highest levels protection.

The WWF report, titled *Not For Sale*, looks at threats to species that are already protected under the Convention on the International Trades in Endangered Species (Cites). It found that under-threat animals and plants are being poached or illegally harvested across 45 per cent of the world's natural heritage sites.

The report says that current approaches to prevent illegal trade within world heritage sites are failing, with the suggestion that there is "urgent need" for greater collaboration between Cites and UNESCO.

In addition to being identified as sites of international importance that need to be protected, more than 90 per cent



PHOTO: WWF

■ The Doñana wetlands in Andalusia have been affected by illegal extraction of water

of natural World Heritage sites actively support recreation and tourism, creating jobs and stimulating local economies.

Of the world's officially-designated 200 natural heritage sites, UNESCO lists 74 per cent of them as 'in danger'.

The illegal trade of rare animals has been valued at \$19bn (£17.8bn, £15.2bn) a year. The unlicensed timber trade is reportedly responsible for a staggering 90 per cent of deforestation in major tropical countries.

■ Details: [http://lei.sr?a=E8h6w\\_T](http://lei.sr?a=E8h6w_T)



PHOTO: SHUTTERSTOCK.COM

■ European history is central to the plan

### MEPs approve Year of Cultural Heritage

The European Parliament has secured €8m (\$8.7m, £6.7m) in funding for cultural projects ahead of its 2018 European Year of Cultural Heritage.

Proposed in February, MEPs voted in favour of the initiative, which aims to raise awareness of European history and values and to strengthen a sense of European identity. The €8m budget will be sourced from existing funds for promotional activities throughout 2018.

■ Details: [http://lei.sr?a=b2j5T\\_T](http://lei.sr?a=b2j5T_T)

## UN law makes heritage destruction a war crime

The United Nations Security Council has unanimously passed a resolution designed to deter wilful destruction and looting of cultural heritage sites – potentially making such activities punishable as war crimes.

The resolution, passed on 24 March at a meeting in New York, strengthens the UN's message that attacks on important and historical world heritage sites in acts of conflict or terrorism cannot be tolerated.

The resolution states that unlawful attacks against cultural, educational or religious sites or historic monuments can be classes under international law as a war crime and those who carry out such attacks may be tried accordingly.



PHOTO: AP PHOTO/ANNA KOSTOMAROVA

■ Iraq has seen the destruction of its heritage in recent years

Resolution 2347 also addresses the illicit trafficking of antiquities, money from which can be used to fund terrorist groups.

"The deliberate destruction of heritage is a war crime," said UNESCO director-general Irina Bokova. "It has

become a tactic of war to tear societies over the long term, in a strategy of cultural cleansing. This is why defending cultural heritage is more than a cultural issue, it is a security imperative, inseparable from that of defending human lives."

■ Details: [http://lei.sr?a=w8r2Z\\_T](http://lei.sr?a=w8r2Z_T)

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## ‘Personal connection key for zoos’, says expert psychologist

A leading academic in the fields of psychology and conservation has said that zoos need to foster a personal connection between guests and animals in order to encourage repeat visits and continued contributions to conservation efforts.

Delivering the keynote at the European Association of Zoos and Aquariums (EAZA) European Zoo Educators Conference (EZE), Susan Clayton explained that creating the connection was crucial in encouraging zoo visitors to understand conservation efforts.

Clayton, who is professor of psychology and chair of environmental studies at the College of Wooster in Wooster, Ohio, focuses her research on the human relationship with the natural world, how it is socially constructed, and how it can be utilised to promote environmental concern.

“From a psychological point of view, emotion is really important,” said Clayton. “It’s a signal to the brain to pay attention. Emotional experiences can have greater impact and they’re more likely to change the way we think about things.

“In studies of human relationships, perceived similarity is very important in



■ According to Susan Clayton, a zoo visit is primarily a social experience

predicting empathy. If you are perceived to have something in common, you’re much more likely to empathise with their plight and are more likely to offer help.

“This statement is also true even for the relationship between human and animals.

Perceived similarity has been found to be associated with a desire to help. Repeated experiences of connection can start to become stable for a longer sense of interest in the natural world.”

■ Details: [http://lel.sr7a=e8C6p\\_T](http://lel.sr7a=e8C6p_T)



■ Dolphin drives are widely condemned

## Aquariums quit JAZA over Taiji ban

Two aquariums in Japan have left the Japanese Association of Zoos and Aquariums (JAZA) over the organisation’s decision to ban members from procuring dolphins from controversial drive hunts, specifically off of Taiji in Wakayama Prefecture.

Those who support the drive hunt say they do not see it as cruel and say it is a sustainable fishing method, with the cetaceans usually sold for their meat.

■ Details: [http://lel.sr7a=E6u6Z\\_T](http://lel.sr7a=E6u6Z_T)

## Toxin blamed for Vancouver beluga deaths

A five-month investigation into the deaths of two beluga whales at Vancouver Aquarium last year has determined that the cetaceans were killed thanks to an unknown toxin introduced “by food, water, or through human interference”.

The investigation by the aquarium – which involved dozens of veterinary pathologists, toxicologists, genome specialists, medical doctors and field research scientists – concluded that the cause of death in both animals was a toxin.

“Extensive testing was unable to identify the exact substance involved, which is not uncommon due to the very limited time a toxin is traceable in the bloodstream,” said a statement.



■ Vancouver Aquarium houses six belugas

“The investigation has helped us understand what happened and, importantly, how we can best ensure the safety and welfare of marine mammals in our care.”

According to the aquarium, since the deaths of its belugas, several measures have been taken to test and reduce risks in the

Arctic habitat, including an enhanced food-screening process, removal of vegetation, an overhaul of mechanical systems and increased monitoring. Significant security updates have also been deployed to monitor perimeter access and reduce potential threats.

■ Details: [http://lel.sr7a=v8w2Z\\_T](http://lel.sr7a=v8w2Z_T)



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## Morgan's Wonderland debuts waterproof pneumatic wheelchair

Morgan's Wonderland – the San Antonio-based theme park that caters specifically to the disabled – has unveiled a revolutionary new technology for its guests in the form of a submersible wheelchair powered only by air.

Using no batteries or electrical components and only weighing a third of the weight of a normal wheelchair, the "PneuChair" can be operated using a joystick and is completely waterproof. The chair also takes just 10 minutes to recharge, compared to the eight hours of its electronic counterpart.

Ten prototypes – developed by a team of researchers headed by Rory Cooper, director of Human Engineering Research Laboratories (HERL) at the University of Pittsburgh – will be used at the park to allow severely disabled children to enjoy its facilities.

"Their needs and our research were essentially an ideal match," said Cooper. "The potential to open opportunities for people with disabilities who need powered mobility to access splash parks, water parks, beaches or pools is transformative."

In 2015 the theme park broke ground on a multi-million-dollar expansion to



■ The 'PneuChair' can be operated using a joystick and is completely waterproof

include the world's first ultra-accessible waterpark. In the pipeline since 2013 and expected to open in June, the \$16m (€15.1m, £12.9m) attraction, called Morgan's Inspiration Island, will be based around six themed areas.

As with Morgan's Wonderland, every element of the waterpark will be wheelchair accessible, while special wristbands will be able to tell parents the whereabouts of children within the park.

■ Details: [http://lei.sr7a=D8R9E\\_T](http://lei.sr7a=D8R9E_T)



■ The app helps to master a zoo trip

### Toronto Zoo develops autism-friendly guide

Toronto Zoo in Toronto, Canada, has launched a special support guide designed to assist those with cognitive special needs, including autism, in managing and mastering a visit to the zoo. Known as MagnusCards, the free downloadable app is fronted by Magnus – a cartoon character providing users with step-by-step instructions on their phone for navigating different places.

■ Details: [http://lei.sr7a=F5E6A\\_T](http://lei.sr7a=F5E6A_T)

## Disney Research tests real-time facial mapping

Disney's research arm has unveiled a new technology concept capable of live dynamic augmentation on human faces.

Dubbed Makeup Lamp, the concept uses projector-based illumination, which can alter the appearance of actors during different shows and performances.

"The key challenge of live augmentation is latency – an image is generated according to a specific pose, but is displayed on a different facial configuration by the time it is projected," the Disney Research publication said. "Our system aims at reducing latency during every step of the process, from capture, through processing, to projection."



■ The system uses facial mapping to create the effect

The system uses infrared illumination and a high-speed camera detecting facial orientation and expression. When the system detects this, estimated expression blendshapes are mapped and generated on to the user's face.

The paper said: "In contrast to existing methods, the presented system is the first method which fully supports dynamic facial projection mapping without the requirement of any physical tracking markers and incorporates facial expressions."

■ Details: [http://lei.sr7a=J8m5X\\_T](http://lei.sr7a=J8m5X_T)

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Meet Doug Cress, a bold and passionate conservationist who has just taken the reins at the WAZA. And he has an unequivocal message for zoos and aquariums: "our time is now"

Alice Davis, managing editor, Attractions Management

In March, the World Association of Zoos and Aquariums (WAZA), which oversees more than 300 accredited member zoos and aquariums, appointed a new CEO. His name is Doug Cress, and his aim is to lead the association and its members to the next level in the fight to save animals and their habitats from extinction, raising the profile of zoos and the work they do, and pushing them forward as an evermore vital cog in the machine.

"WAZA is progressive and forward-thinking," says Cress. "This is a global body that has already positioned itself to be a leader in conservation and a leader in animal welfare standards."

Cress joins WAZA from the United Nations. During his time there, he often worked with the zoos association and had a good relationship with former CEO Gerald Dick. He says he never thought about working for WAZA; it happened serendipitously. But now he's here, he's not sitting back, eyeing the organisation's Annual Conference – in Berlin, in October – as a platform for galvanising its members.

"The theme is 'our time is now'. We're not looking back. We're looking forward. We're 10 years down the line thinking about how we solve these problems."

Cress talks about the vast amount of data zoos and aquariums have worked hard to gather over the past few decades, the breeding programmes, the long-term genetic banks and genetic strategies, the conservation work that's quietly done in every corner of the planet and, of course, the fact that none of that comes for free.

"How can you be one of the largest funders of global conservation and keep so quiet about it?" he says. "Zoos and aquariums are the third-largest financial contributor to global conservation – and that's virtually unknown. We should be at the table and we should be setting the standards. We have a voice and we have the expertise. We know how to do this. And we will do it now, frankly."



Doug Cress takes over as CEO at WAZA

## ZOO POWER

Zoos and aquariums reach some 700 million people worldwide every year, people who are learning about the exhibits and their habitats in evermore innovative and memorable ways. When it comes to educating the next generations about how we preserve threatened and endangered species, and the importance of doing so, there is no other platform that can compete with this huge network.

Leading zoos and aquariums go much further than this. Far from just educating,

the money they generate from visitors goes towards actively saving and protecting species in the wild, and there have been some incredible success stories.

"Part of the problem is that zoos and aquariums still feel guilty," says Cress. "They feel guilty about the 20th century, carrying around this tradition of iron bars and imprisonment and punishment, essentially, on species, when in fact if you look at the record, they are the ones who have saved species from extinction and who are reintroducing species to the wild."



WAZA has a network of 340 accredited zoo and aquarium members

## IN THE NEXT 10 YEARS, WE'LL FIND ZOOS AND AQUARIUMS BEING THE ANSWER TO MANY OF THE MAJOR QUESTIONS FACING CONSERVATION, WILD SPACES AND PROTECTED AREAS

"And, they have taken some of the bolder steps to save iconic species."

Cress cites, as one example, the work of San Diego Zoo Safari Park and Los Angeles Zoo to save the California condor from extinction. Thirty years ago, when there were less than 30 condors left in the world, the two zoos captured the birds and began

a breeding programme that would restore the population to 435 at last count.

"You don't pull the last remaining condors out of the wild without taking a huge risk," he says. "But they did. And now there are hundreds of condors. It's happened with all kinds of species. I find that sort of risk-taking and leadership very inspiring."

"I think zoos will wind up being the real leaders in conservation. Zoos have all the pieces: the public; the expertise; the animals we need to replenish wild stocks; and, the income-generating machine, something NGOs just don't have. In the next 10 years, we'll find zoos and aquariums being the answer to many of the major questions facing conservation, wild spaces and protected areas."

Taking risks: zoos took drastic action in order to save the California condor



### ADDED VALUE

At the UN, Cress led the Great Apes Survival Partnership (GRASP). GRASP which was established in 2001, works to conserve chimpanzees, gorillas, bonobos and orangutans in their habitats.

Though appointing someone from outside of the zoos community was surprising to some, Cress's move to WAZA was a natural step in his career. Prior to the UN, he was managing a network of 23 primate sanctuaries across Africa and working with relevant parties to battle the illegal wildlife trade and encourage sustainable development to protect local ecosystems.

He joined the UN's great apes initiative in 2011, a role that involved handling large-scale partnerships and





Cress wants to educate the public about the work zoos do in welfare and conservation

► leveraging sometimes hundreds of other organisations, NGOs and governments to focus on specific causes. He was also charged with seeking out partners and overseeing design and implementation, fundraising and public awareness projects. It's experience that should come in useful.

"With WAZA, as with all the partnerships, there has to be a reason to be together," he says. "There has to be an added value that makes the organisation necessary. They've got to be stronger as a unit than they are individually. That's key, providing the extra something that keeps everybody together."

## WELFARE FOCUS

Cress hopes the power of the whole can be made to work harder to promote what zoos and aquariums do. Like other visitor

attractions, zoos have been subject to bad press because of a number of incidents that have upset the general public. Stories like that of Harambe, the gorilla who was shot in 2016 at Cincinnati Zoo, Ohio, after a child climbed into his enclosure, imply to some people that zoos don't take care of their animals. Cress says it's up to zoos to counter this kind of bad publicity.

"The animal welfare issue is always one that trips zoos up, because often it's a cheap win. It's easy to get everybody angry when a keeper hits an elephant and the video goes viral. But does that really reflect the industry? Of course not," says Cress.

"My job is to accentuate the positives, so I will be putting a real focus on welfare. Of course, when things like that happen, we don't want to overlook them. We want

to pool our resources and focus on making sure that it doesn't happen again."

He's taking immediate action on that front, hiring, for the first time at WAZA, a dedicated animal welfare director to manage any complaints or crises that arise, but also be tasked with ensuring that any

member failing to meet standards gets the training or resources they need to improve.

"We want to make sure that when we have a bad day or a video goes viral or an accident happens, we don't let the entire industry be pulled down. Those incidents are regrettable. They happen, but they don't reflect the industry every single day. Harambe was not shot because zoos exist."

"Anticipating where those problems might come up but also having an overwhelming number of examples of the good work that zoos and aquariums do is important. That's going to be a real focus."

## TELLING STORIES

Cress, who was born in Portland, Oregon, has always been passionate about animals. As a child, his house was full of them – not just pets, but a variety of animals thanks to his grandfather, who owned a zoo. The family moved overseas and his parents' work took them to different parts of Africa and Asia. Cress continued to live abroad, including in Tanzania, South Africa and Kenya. "We lived in a lot of different places and wildlife has always been there."

Cress was a journalist before he came to conservation. He was following a story about an illegally traded chimpanzee that had been confiscated and was going to be re-housed at a sanctuary in Zambia.

"I flew to Zambia to find out about this little chimpanzee. The sanctuary had a fascinating story so I wrote a book with the founder, Sheila Siddie. It got me going."



Doug Cress is pictured with WAZA chair and CEO of Perth Zoo in Australia, Susan Hunt

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## INTERVIEW

► The book was published in 2003, *In My Family Tree: A Life with Chimpanzees*, and part of its effect was to reveal to Cress the importance of storytelling in conservation.

"You can do all the great work in the world, but if no one knows about it, it is a silent scream," he says. "I realised that my storytelling and media skills could do good."

"And that still holds true of storytelling. There are zoos and aquariums doing fantastic conservation work, scientific work and research and their stories aren't told or aren't told well enough. That's not their primary focus and you can't fault them, but unfortunately it's one of the things that holds us back on the major issues. If you can't tell a story in 20 or 30 seconds and change opinions and get people inspired, then it's not going to happen."

### BUILDING DIALOGUES

As CEO of WAZA, it's Cress's mission to help member zoos tell their conservation stories in an impactful way that underlines the role they play in society, especially as the role becomes evermore crucial to the survival of species and their habitats.

"I think you'll see, by the end of this year, zoos and aquariums embracing that sense

of moving forward," he says. "We cannot be stuck in the past. History is not something we need to carry round like a scar."

Cress is also open to working with other organisations on finding solutions, including activist groups like PETA or Born Free. "You can't simply close all zoos and aquariums, it doesn't work that way. And you can't simply put all the animals back

in the wild, it doesn't work that way either. We are where we are. So let's figure this out. I am interested in dialogues with anybody who has good ideas."

The growth of the human population and its need for space and resources is at the centre of this "terrible equation" but there are reasons to be optimistic, Cress says. New species are being discovered, presumed extinct species are being spotted – recently, the night parrot in Australia, and possibly the Tasmania tiger (thylacine) – and, after an intensive and far-reaching conservation and breeding program, pandas were taken off the endangered list in 2016.

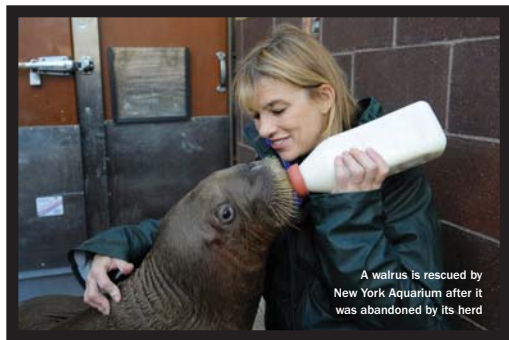
"However, with somewhat unstable leadership in the world right now, it's concerning that in the blink of an eye a lot of our work could be swept away by wildly irrational choices and decisions. We have major global problems and zoos are not a niche. They're part of the fabric of these issues and can be part of the solutions."

And zoos and aquariums are solving problems, Cress says. They have a role to play in ending the illegal wildlife trade. They have a role to play in addressing climate change. They have evolved dramatically and many facilities have found areas of expertise outside of the zoo walls and are excelling in what they do. As Cress says, it's about continuing to move forward.

"I don't think you need to be a zoo expert to run the World Association of Zoos and Aquariums," Cress says. "But you do need to be somebody who can help this community reach the next level. That's all I'm trying to do here. And I give them marks for stepping outside of their normal world. They didn't stay inside the community of aquariums and zoos, they stepped outside. And I find that encouraging." ●



Monterey Bay Aquarium staff release a southern sea otter into the wild



A walrus is rescued by New York Aquarium after it was abandoned by its herd

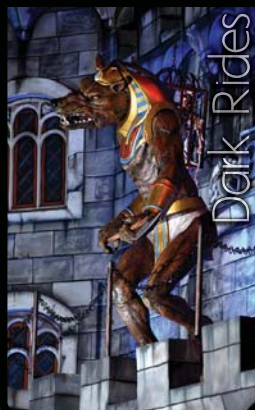
## ABOUT WAZA

The World Association of Zoos and Aquariums (WAZA) was established in 1935 by a small group of zoos and aquariums. Today WAZA is a global community dedicated to helping its 340 members play a role in conservation, education and animal welfare.

WAZA's recent strategies lay out its commitment to animal conservation and welfare. *Conservation - The World Zoo and Aquarium Conservation Strategy* and *Caring for Wildlife - The World Zoo and Aquarium Animal Welfare Strategy* can be found at [waza.org](http://waza.org)



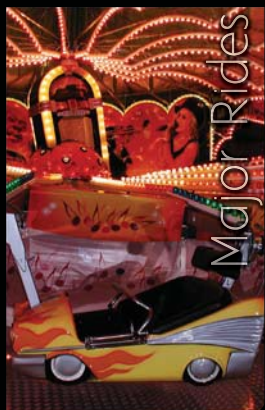
Venetian Carousels



Dark Rides



Bumper Cars



Major Rides

# New Ways to Tell Stories

Netflix is testing a new interactive technology where viewers choose the way their story unfolds. Is there a place for interactive storytelling in the attractions world? We asked the experts

The Ghostbusters Experience at Madame Tussauds New York, New York, offers guests a personalised journey



**N**etflix is trialling new technology that enables viewers to play a part in choosing their own character arcs, plotlines and endings when they watch shows.

This type of interactivity and personalisation of experience is being used more often in attractions, too. But how far can interactive storytelling go in

the world of attractions? Will every visitor someday be able to “choose their own adventure” inside a particular ride or attraction experience?

New and evolving technologies are opening up different avenues of exploration all the time. Virtual reality is one example of how technology is helping attractions tell stories in new ways and changing the

manner in which audiences are interacting with the attractions themselves.

Will operators one day give visitors free rein over their experiences, equipping them with the ability to make narrative decisions in the way Netflix is doing? And would this be a good thing, when much of the magic of story is being taken on a surprising journey that has been expertly prepared for you?



“Someday, visitors may be able to shape-shift, obtain super-heroic powers or teleport”



## CHRIS DURMICK

Principal, attractions and museums  
Thinkwell Group

Storytelling in location-based entertainment is unique because the audience doesn't experience the story as a narrative with a beginning, middle and an end; rather, they absorb the story bit by bit as they move through the environment. A solid narrative provides the guiding principles for design choices, and it also helps visitors navigate through the experience and form an emotional bond with the place.

Every facet of a physical place presents an opportunity to tell the story and shape

the world around them. When the details fit the story, the attraction just “feels right” and anything that doesn't line up with that reality can pull the guest out of the world. So, it is critical that we as designers create as rich and logical a world as possible, using as many tools as are available.

Technology is just one of our tools. When applied with care, technology is a powerful way to create magic and suspend disbelief, but like magic, if the guest sees the gimmick, the illusion crumbles. Technology must either be invisible, or become an integral part of the story.

For example, the buzzworthy developments of VR and AR require equipment that is



Technology must be invisible or integral to the story, says Chris Durmick

cumbersome – the headset requires lots of adjustment and places a physical barrier between visitors, their friends and the environment. But these very liabilities might become part of the experiential storytelling if the act of getting geared up and the isolation becomes seamless and relevant in the story (until this type of gear is no longer necessary).

Technology will continue to open new doors in the world of location-based entertainment, beyond VR and AR. We'll see advances in media quality and delivery systems that allow us to take visitors further than ever

before. High-tech ride and show control systems will continue to push the envelope and the integration of technology and analogue touchpoints will let visitors control the world in which they are immersed. They'll be able to choose their own adventure and affect ride paths, show-action and media.

They will, with AR, be able to see ghosts, fantastic creatures, or shadows of history co-exist in the real world. Someday, they may even be able to shape-shift, obtain super-heroic powers or teleport from place to place with some as-yet undiscovered molecular scrambling device.

“I foresee that visitors will be able to choose almost every element of some experiences”



## PAUL MORETON

Creative director  
Merlin Entertainments

At Merlin Magic Making, we believe the most successful attractions are the ones where guests feel totally immersed and have stepped into a world far from their everyday life. We are storytellers, obsessed with transporting people to the centre of the stories we tell. We are constantly trialling new ways to do this, and have discovered that by increasing interaction and personalisation we can often enhance the experience. However, it can also detract, so it's a fine art to get it right.

Advances in technology are providing us with further tools to customise guests' experiences.

We find mixing traditional techniques with new ones is the most effective way to create something special.

For instance, our recent attraction at Thorpe Park, Derren Brown's Ghost Train, uses grand illusion, theming, live action and VR. This has enabled us to create different experiences each time people ride and gives us the ability to add new endings and storylines.

Our Ghostbusters attraction at Madame Tussaud's New York also uses a mix of realistic theming and new technology, creating a personalised experience. The proposition is “Join the Ghostbusters and save NYC”. Guests get trained on types of ghosts, make Skype calls with psychic experts, test



out equipment. Finally they catch Slimer in the Mercado Hotel. An upsell VR experience allows four friends to go even further into the story.

The imaginative power of young minds has helped us to create some very personalised attractions at our LEGOLAND locations. In Ninjago City Quest

and Union Play Train Station, we give children story starters and equipment for them to create their own stories and endings.

Our live action attractions, like The Dungeons and Shrek's Adventure, already provide numerous opportunities for in-depth storytelling and guest involvement. We are about to launch new shows which will incorporate more guest choices and different endings based on the choices they make.

I foresee continued growth in personalisation and interaction, where visitors will be able to choose almost every element of some experiences. However, it's the power of story which transfixes consumers and storytelling will remain at the heart of everything we do at Merlin. ▶

## CHRISTIAN LACHEL

Vice president / senior  
creative director  
BRC Imagination Arts

The surprising answer is that this “next big thing” is just the latest wrinkle in the epic history of storytelling. Storytelling always has been and always will be an interactive “exchange of energy” between storyteller and audience. When Grok told the tribe how he killed that mammoth 30,000 years ago, he adjusted his narrative according to what the audience liked best.

Fairy and folk tales evolved over time, becoming leaner and more emotional through millions of re-tellings until they were finally written down in the 19th century. These tales evolved again when Walt Disney told them. When he made *Snow White* and the 7 Dwarves, he gathered his animators and told them the story every day for a

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Imagine rides that respond in real time to your emotions. Imagine shows that shift based on your eye movements

99

year, improving it each time by adjusting to their reactions.

Virtually every comedian – including the entire cast of *Saturday Night Live* – has come up through the world of improv. Improv is pure interactivity with actors crafting sketches from the suggestions from the audience. The audience members probably grew up reading *Choose Your Own Adventure* books and play video games like *Call of Duty* and *Grand Theft Auto*, starting in an interactive adventure that’s different every time it’s played.

So we know our customers expect to be involved. They want to participate and to achieve a deeper sense of knowledge and engagement.



BRC has completed a guest experience for the Jameson’s Distillery Bow St in Dublin, Ireland (see page 86) and part of the story is dictated by the guest. Guests select distillery artefacts, and those artefacts come to life to reveal the Jameson’s heritage. The tour is

different every time through this branching narrative approach.

Technology enhances the promise of interactivity. Imagine rides that respond in real time to the emotions of guests. Imagine shows that can shift in an instant based on the eye movements of guests. The one constant in this future is that attractions will always begin and end with the heart of the audience. All this interactivity will take place in the framework of a story grounded in fundamental human emotions. There will be heroes. There will be villains. There will be a quest than involves overcoming fear. Grok will slay the mammoth, and return to the tribe to tell the tale as everyone enjoys a feast.

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The idea of interactive narrative is truly embedded in our consciousness. After all, it’s how we live our lives

99

## AARON BRADBURY

VFX supervisor  
NSC Creative

The news that Netflix is going to implement technology to allow branching narratives sends me down two conflicting paths.

The cynical path stretches back through time and is littered with failed attempts and dead ends for media that

has employed interactive and branching narratives. Interfilm is one example of a failure – that bears uncanny resemblance to the Netflix proposal – in which you go to the cinema and press buttons to control the plot.

The idea of pressing a button on a remote at key points of the story feels archaic to me. I can already feel the frustration at not having access to the option



The optimistic path is the feeling that, among the dead ends, there are many more avenues to explore. The fact that we keep trying suggests that deep down we know there is a way to make interactive narratives work meaningfully. The idea of interactive narrative is truly embedded in our consciousness. After all, it’s how we live our lives.

As I embark on my journey into multi-narrative experiences within VR, I hope there is a meaningful destination. I hope Netflix does come up with something that opens up a new way of telling stories.

It makes sense to avoid travelling down paths that are already full of dead ends, but nothing is more rewarding than exploring new avenues and finding that special place that was hidden behind the trees. ●



I really want. How many people would have let Eddard Stark live, never knowing how powerful his death would be?

But linear media loves to toy with the idea of interactive and branching narratives whether it be the setting for visitors to *Westworld* or the mindbending world of *Rick and Morty* – and interactive and branching narratives are very much present in the games industry.



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The theme park combines ancient stories and well-loved characters with new technology and thrilling rides

# FLIGHTS OF FANCY

IDEATTACK is working on a magical destination resort in Hunan Province, China.

Founders Natasha Varnica and Dan Thomas walk us through the fairytale experience

**T**he Fairytale Experience Park is the first in China to be based on the concept of the fairytale, a unique testament to human creativity and imagination.

The park is envisioned as an ultimate, one-of-a-kind entertainment and leisure destination celebrating the world of fairytales, myths and legends. The Fairytale Experience Park is created to inspire, entertain and enrich the lives of its visitors. Fairytales that are used as inspiration in the park's attractions have evolved from centuries-old stories that have appeared with variations in multiple cultures around the world.

The theme park has six distinct zones:

## 1. FAIRYTALE AVENUE

A highly themed street full of unique food and beverage joints and original souvenir shops is the introduction to the park's overall experience.

## 2. ENCHANTED KINGDOM

Enchanted Kingdom occupies the central area of the theme park and consists of two parts:

### PROJECT DETAIL

**Project:** The Fairytale Experience Park

**Location:** Changsha, Hunan Province, China

**Size:** 60 hectares

**Client:** Evergrande

**IDEATTACK role:** Overall masterplan; concept design and schematic design; ideation, design and production of all rides and shows in the park

Fairytale Fortress, situated on an island on the lake, and Fairytale Forest around it. It's an eclectic fairytale land, celebrating fairytale culture and heritage.

One of the numerous attractions in this area is *Cinderella International*, a classic walkthrough attraction featuring scenes depicting versions of stories similar to *Cinderella*. These versions can be found in different cultures and regions of the world, such as Ye Xian from China, Bawang Merah Bawang Putih from Indonesia and Malaysia, Tam Cam from Vietnam, Kongwi and Patjiwi from Korea, Maah Pishànih from Middle East, and European versions including the Italian version and the version told by the Brothers Grimm.

## 3. MAGIC EUROPE

This land of Magic Europe is inspired by European fairytales and stories. The narrow, richly decorated streets open on to a central plaza anchored by the main fairytale tower. Surrounded by meticulous and elaborate façades and details, small cafés and exotic shops,







There's an array of magical rides, like the Fantasy Pagoda theatre and the Secrets of Kunlun Mountain boat ride

visitors are fully immersed in a fantasy world unlike anywhere else. Magic Europe has two internal zones: the Märchenstadt (a German Fairytale Town) and Gothic Quarter. Apart from exciting attractions, visitors can enjoy original and authentic European food and purchase creative and delightful European souvenirs.

One of the numerous attractions in this area is **The Nutcracker and the Mouse King**. The mini coaster is themed around *The Nutcracker and the Mouse King*, written in 1816 by German author ETA Hoffmann. In the story, young Marie Stahlbaum's favourite Christmas toy, the Nutcracker, comes alive and, after defeating the evil Mouse King in battle, whisks her away to a magical kingdom populated by dolls.

#### 4. TREASURES OF CHINA

Treasures of China, the largest themed land in the park, is dedicated to the rich heritage of Chinese legends, myths and fairytales. Visitors can explore this land in three segments: the City, with secrets hidden behind its stone walls; the Countryside, featuring a picturesque fisherman's village; and Heaven, created in

Chinese fantasy style.

In addition to the hi-tech story-based attractions, in Treasures of China guests can enjoy food and beverages unavailable locally, and buy customised souvenirs.

Some of the numerous attractions in this area are the **Secrets of the Kunlun Mountain** and the **Fantasy Pagoda**.

A signature attraction of Treasures of China land, **Secrets of the Kunlun Mountain** is a pleasant boat ride through a series of scenic chambers themed around a mythical mountain, a place of dwelling for a variety of divinities, and full of fabulous and extraordinary plants and animals. The ride features a series of highly elaborate chambers, culminating with a large hall depicting the Xuanpu – a mythical fairyland on Kunlun Mountain.

**Fantasy Pagoda** is a hi-tech motion-platform digital dome theatre attraction, featuring multimedia content that tells stories from Chinese legends and mythology. The media content is changeable, enabling the theatre to present different stories as often as required.

#### 5. ARABIAN NIGHTS

The Arabian Nights land is dedicated to fairytales of the Middle East region. Here, visitors can enjoy authentic Arabic specialities, shop in the exotic bazaar and take one of the several exciting adventure rides. Some of the numerous attractions in the Arabian Nights

themed land are **Ali Baba and the Forty Thieves** and **Coffee Time**.

A suspended dark ride takes visitors on a pleasant journey through the imaginary world of **Ali Baba and the Forty Thieves**. Flying high above different scenes from the story, the riders can enjoy one of the most famous stories from Arabian world from the perspective of Ali Baba himself.

Located in the Arabian Nights zone, **Coffee Time** is a classic spinning-round ride, which is appropriately themed in the fashion of a coffee drinking ceremony.

#### 6. LOST WORLD

Lost World is reachable by an adventure bridge across a river. It's a land of exotic fairytales and distant civilizations.

Here, the main attraction is **Lost Tribe**, which is a large capacity performance and the biggest show in the park. With live action, special effects and spectacular scenic sets, the show tells a story about an imaginary tribe from a fairytale world. ●

# SPARKS FLY

A new science and technology museum has opened in California, with a focus on kinetic, dynamic interactives, visitor-driven learning and staff engagement

Alice Davis, managing editor, Attractions Management



**A**fter a quarter of a century process, the long-awaited Wolf Museum of Exploration + Innovation (MOXI) opened its doors in Santa Barbara, California in February.

First proposed in 1990 as the Children's Museum of Santa Barbara, capital funding and a site was finally found, and the newly named MOXI broke ground in 2014.

Located next to the train tracks and the Santa Barbara

beach in the State Street tourist area – sometimes dubbed the American Riviera – the science and technology museum offers 17,000sq ft (1,600sqm) of exhibit space over three floors. MOXI is divided into

seven themed zones, called Tracks. MOXI staff, known as Sparks, encourage guests to experiment, observe, explore, question, make and design.

We asked museum CEO Steve Hinkley to tell us about the innovative new attraction.

## How did the science museum come into existence?

In the late 80s a concept was drawn up for a children's museum. Over the years, with a huge amount of community involvement, the idea transformed into an attraction that was not just for children, but welcomed the entire community. And then it developed a focus on science, technology, engineering, arts and maths.

We realised that as a science museum we would continue to serve children and they would be one of our core audiences, but when we thought about who could benefit from science experiences, we knew that was really everybody.

So our vision was to be accessible to all. We've created wonderful exhibits

## STEVE HINKLEY

Steve Hinkley joined MOXI in March 2015 from the Perot Museum of Nature and Science in Dallas, Texas, where he was director of education and then vice president of programmes. Similar to MOXI, he was there at the birth of the Perot museum. Prior to joining the attractions industry, Hinkley taught high-school Biology, Physics, Anatomy and Physiology.



that are open-ended and speak to people of all ages and abilities, and we've also specifically targeted adult audiences.

## What type of experience did you want to create?

When we looked at what a 21st-century education needs, we saw that it needs more creative thinking, more problem solving, more collaborative activity, more hands-on making and doing.

If people get excited by science and technology here in the museum, they might see there are great career opportunities available that are typically well-paid and have low unemployment rates.

However, many of the skills we are talking about here – scientific process,



MOXI CEO Steve Hinkley receives a ceremonial key, flown in by drone, at the science centre's opening ceremony

PHOTOS: MOXI



design thinking, problem solving – translate through all types of disciplines, not just science and engineering. We think that we can help to create a better informed population and a more prepared workforce by exposing everyone to those skills that are broadly applicable.

#### Can you tell us about the building?

The building was designed by Barry Berkus and it was the last design he did before he passed away. The building reflects on the outside the experience on the inside, that playful approach to learning. People perceive science as a very serious thing, but it's also a highly creative, fun and dynamic thing, and we wanted the building to reflect that.

#### Can you tell us about the location?

It's an ideal location for a museum. We're right next to the train station. There are hotels nearby, we are a block from Stearns Wharf and, of course, the beach. We are also near the Sea Centre, Santa Barbara Zoo and the Maritime Museum.

MOXI is also by the trendy Funk Zone, a thriving district which has wine bars, art exhibits, restaurants and retail. We are at

the centre of this vibrant hub of activity that's taking place in Santa Barbara. It's exciting for Santa Barbara to finally realise the potential of its waterfront, something that's long overdue.

#### Was the focus on interactivity planned from the beginning?

It was. We worked with exhibit designers Gyroscope and a committee of museum Board members, community members and educators, and we designed the exhibits collaboratively.

We wanted everything to be interactive and hands-on. We found one of the best ways to encourage people to just start playing with and touching things was to provide minimal instruction. We didn't want people to stand in front of an object and feel unsure about whether they should touch or not, and just read about it.

We encourage visitors to play, try it out and see what they learn. When they get



The Handprint Globe (top) in the Tech Track; guests design and make their own car and race it in the Speed Track

stuck, as often happens, our floor staff, our MOXI Sparks, are there to help them understand not only how to interact with the exhibit, but also what some of the applications of that are, and what we hope they can learn through that experience. It's a way of supporting learning, not teaching ▶



A view of the Fantastic Forces Courtyard and the Sound Track, which features an oversized Giant Guitar exhibit

- something to someone. It's really about having a conversation with the visitor.

There is this implied understanding that when you walk into a museum you're there to get answers and be taught something. We've moved away from that. We're asking the visitor to learn things. And the difference between teaching and learning is who is driving the bus. We want the visitor to drive the experience and spend the time it takes for them to learn before moving to the next exhibit.

### As the exhibits are engaging, interactive and untimed, does that cause problems with queuing or crowding?

We do limit the number of people in the building at any given time and we do that intentionally because we want people to feel they get to spend as much time as they would like. We don't want more than 400 people in the building at any one time. We've also tried to design experiences so that while they're waiting, visitors can also be learning through observing others. With nearly 70 exhibits in the building, there's always something for people to do. We find visitors rarely have to wait very long.

## DICK AND NOELLE WOLF

TV producers and philanthropists

Dick and Noelle Wolf saw a need for something to inspire young children in the area and expose them to STEM topics. The couple, significant donors to MOXI, wanted to support the museum in the hope it would make a significant impact on this community and be "the smile on the face of Santa Barbara".



The Wolfs have supported the project

PHOTO: KATHY HITCHING / SHUTTERSTOCK

### What's the average dwell time?

We've tracked some sample visitor times, and it's about 90 to 100 minutes, but you can certainly spend multiple hours here. It's not a huge museum, but it is a very dense space and there are a lot of different types of experiences.

We offer memberships that allow families to come back whenever they like. It's been a very popular programme and out-paced all of our expectations. The membership programme pays for itself in under three visits and allows people take it in their stride, and in bite-sized pieces.

We also recognise too that a number of families are coming with young children, and they might not be able to stay for three or four hours. We don't have a café or restaurant as there's a huge variety of food establishments nearby.

We create museum experiences that are dynamic, that we change relatively frequently. We may not change out big exhibitions – that's a very slow and expensive way of creating change – but there are a lot of small changes that we can do, such as spontaneous programming through our makerspace and refreshing





PHOTO: JASON RICK



THE DIFFERENCE BETWEEN TEACHING AND  
LEARNING IS WHO IS DRIVING THE BUS. WE WANT  
THE VISITOR TO DRIVE THE EXPERIENCE



The interactive Whitewater exhibit  
in the Sky Garden (right); the Colour  
Mixing Machine in the Light Track

#### MOXI'S SEVEN 'TRACKS'

- Tech
- Sound
- Fantastic Forces
- Light
- Speed
- Interactive media
- Sky garden



PHOTO: JASON RICK

PHOTO: JASON RICK



MOXI is located on State Street near the popular Funk Zone, Stearns Wharf and the beach



PEOPLE PERCEIVE SCIENCE AS A SERIOUS THING, BUT IT'S ALSO A HIGHLY CREATIVE, FUN AND DYNAMIC THING. WE WANTED THE BUILDING TO REFLECT THAT



### DESIGN

Santa Barbara, California-based AB Design Studio was responsible for taking the sandcastle-inspired museum building imagined by the late architect Barry Berkus and making it a reality. With whimsical features, a sweeping staircase, airy galleries, wide archways, a rooftop terrace and lookout tower, the design also draws on the colonial Spanish architecture of the neighbourhood.

"We did as much as we could to channel the original vision for the architecture on the outside," says Clay Aurell, co-founder, AB Design Studio. "On the inside, we took a more forward-looking, fresh approach to bring a level of excitement to this exploratory museum for all ages."

The building also has the distinction of being the first LEED-certified museum in Santa Barbara County.

looking for. It's not the way we are asking people to learn in this space. Many of the experiences here are developed just for us and they were developed specifically to the way that we wanted our guests to learn.

The floor staffing model that we have is not individually unique, but there are very few science museums that are really putting the learning in the hands of people and challenging guests to interact with our staff and challenging our staff to interact with the guests, and use that as the form of learning. It's a much more impactful way of doing it because you develop that relationship with an individual as you're talking to them, but also from a staff perspective, we recognise that everybody that walks into this building has a different understanding of science or a different perception of science, and a different way of interacting with it and a different way of learning.

### What was the biggest challenge in bringing this project to completion?

Pre-dating me, one of the biggest problems the museum ran into was securing a location. Even when the site was essentially gifted by the City – it's technically a lease, but it's a 50-year ground lease for one dollar a year – there was then a legal challenge from others who wanted the site. Eventually, the museum and the City prevailed, but for a while it was in question whether the museum would be able to have this spot. ►

- the media installations, and that for us is a way of keeping the experience fresh.

### You mentioned there's no café. Do you have a shop or any other way to generate secondary spend?

We have a gift shop, and that's been extremely popular. We have a local partner in that, a group called Chicken Little that runs a nearby children's store. They supply a range of science and engineering-themed toys and gifts.

### What extra programming do you offer?

We've done adults-only evenings on a Friday. We do birthday parties. We have school groups that come on field trips. Once we're more established, we are planning to do a huge number of education programmes, not just in the building but also eventually moving out into the community as part of our outreach.

### Why is MOXI different from other science centres?

When I look at the community of science centres and museums, I think it's evolutionary, especially in terms of full immersive interactivity. We've continued that trend and taken it in a new direction.

The approach that we have to providing very minimal instruction is quite different. A lot of science museums still put a lot of graphics up, trying to explain something to you in writing, which is hard to do but also not necessarily what people are



Scenic views from the Sky Garden



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A makerspace known as the Innovation Workshop is part of the Tech Track

PHOTO: JASNYRICK



## SCIENCE CENTRES CAN AND SHOULD PLAY A VERY VOCAL ROLE IN HELPING PEOPLE TRULY UNDERSTAND THE IMPACT THAT LEARNING SCIENCE AND VALUING SCIENCE CAN HAVE



### ► What's the biggest success?

When I walk through the museum on an afternoon and see a young couple on a date or a couple in their 60s playing with the exhibits and having a wonderful time, that makes me feel like this has been very successful. To see MOXI embraced by the full community, to see students and families from every conceivable background in Santa Barbara and all around coming here, that's the greatest measure of success for where we are right now.

### In the current climate, where people are talking about fake news and "alternative facts", do you think science centres have a bigger role to play than ever before?

I do. I think it can be a bit of a third-rail topic in some cases, and we have to be careful about what we're advocating, but there is tremendous value in science. There is value in helping to make a better world and there is value in helping to make a better society. Once science gets tangled in the political discourse and becomes politicised, we lose a lot of that potential because there will automatically be a category of people that disregard it.

And to disregard scientifically proven facts is just not acceptable because science is about understanding the way

### FAST FACTS

**Museum cost:** \$25m  
**Predicted attendance:** 100,000  
**Architect:** Barry Berkus/AB Design Studio  
**Exhibits:** Gyroscope  
**Size:** 17,000sq ft  
**Admission:** \$14 / \$10  
**Family membership:** \$130  
**Opened:** 25 February 2017  
**Website:** [moxi.org](http://moxi.org)  
**Twitter:** @MOXISb

the world works and how things work. Those things just are the way they are, regardless of what we might individually believe or want to believe. I think that science centres can and should, quite frankly, play a very vocal role in helping people truly understand the value of scientific exploration, the joy of that, the fun in it, but also the impact that learning science and valuing science can have.

It's a long conversation to figure out where the politicisation of science comes in. Maybe it's that certain scientific ideas threaten certain business interests. But at the end of the day, science is a facts-based system, not a belief-based system.

### What more do you think can be done by the sector to address this?

What we can try to impress on people here is the process of science, more than just the facts of science. When people understand the process of science, they understand better when they read scientific articles or watch scientific TV shows or listen to scientific dialogue. It gives them a better appreciation for what it takes to actually arrive at a scientific conclusion – that this isn't just a random guess, it's a well tested, thought-out and proven idea.

One of the other things science centres can do, very importantly, is push back on the idea that when science is proven wrong that it somehow calls all of science into question. Science is constantly seeking to improve. It's constantly exploring and examining its understood ideas. This doesn't weaken science, it strengthens it. Then, when an idea stands the test of time, we know that it must be reliable because it is under constant scrutiny and evaluation by other scientists. They are constantly re-assessing the established ideas.

And, when we see a discovery that contradicts our previous understanding, that shouldn't be a bad thing. Let's embrace the fact that science is constantly seeking to improve our understanding of the world. ●



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# SHINING STARS



The Annual Museums + Heritage Awards takes place in May, celebrating the best museum, gallery and heritage programs, exhibitions and innovations of the year. We've brought together a selection of standout projects from the shortlist

Alice Davis, managing editor, Attractions Management

## Natural History Museum

### The Blue Whale Project

In the museum's Hintze Hall, the huge dinosaur skeleton that hung from the ceiling has been taken down, and when the space reopens this summer a gigantic blue whale skeleton will be in its place. The real 25-metre (82-foot) whale skeleton is being assembled by an expert team of scientists, conservators, designers and engineers.

**SHORTLISTED**  
**Restoration/  
Conservation/  
Award**

"The natural world is changing fast and so are we. It's in our grasp to shape a sustainable future - but our decisions have to be informed by understanding our past and present. The blue whale is a perfect symbol of this story of hope"

Sir Michael Dixon, director, Natural History Museum



## The National Holocaust Centre

### The Forever Project

The Forever Project is using advanced digital technologies to record Holocaust survivors telling their stories, so that future visitors will be able to engage with them by listening to them and even asking questions and hearing them giving their answers. Ten survivors' testimonies were filmed in high-definition 3D in 2015/16 for this digital heritage project, and visitors will be able to "meet" them this summer.

**SHORTLISTED**  
**Innovation  
Award**

Holocaust survivors were filmed telling their stories for the project

"Every year we sadly lose Holocaust survivor speakers. They have such important testimonies, and can engage young people like nothing else. The Forever Project keeps this experience alive. It enables adults and children alike to connect with living history and to hear the lessons of the past from those that experienced it firsthand"

Sarah Coward, deputy CEO, National Holocaust Centre



The museum lobby uses pieces of Helsinki history to challenge the museum archetype

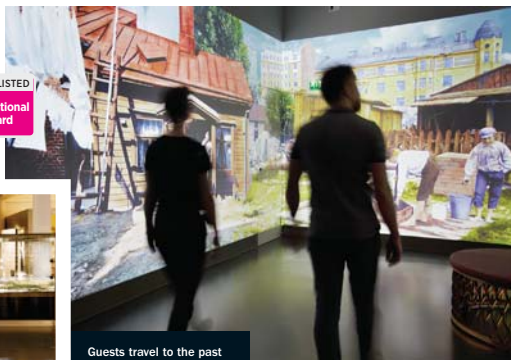


## Helsinki City Museum

### The New Helsinki City Museum

The museum, which opened in May 2016, recreates past social and physical settings, incorporating interior exhibitions and outdoor courtyards to immerse visitors in the daily life of yesterday's Helsinki.

SHORTLISTED  
International  
Award



Guests travel to the past in the Time Machine exhibit (above); and can even visit a 1970s bar



"Building the new Helsinki City Museum has been a thorough transformation process. We wanted to challenge the traditional roles of a museum, and we are so happy that it proved to be a success – the museum attracted over 315 000 visitors in 2016, in only eight months, smashing all previous city museum records"

Tiina Merisalo, museum director, Helsinki City Museum



## ► MUSEUMS

SHORTLISTED

Innovation  
Award

Permanent  
Exhibition  
Award

### Mary Rose Trust

#### Mary Rose Revealed

Mary Rose Revealed marks the unveiling of the Mary Rose warship some 471 years after its sinking. The ship has undergone millions of pounds worth of restoration and conservation treatment over the past 23 years, including cutting-edge innovations that have been keenly watched by the heritage sector.



Heritage and preservation groups have watched the Mary Rose project closely

“Mary Rose Revealed is described by our visitors as ‘a world class, spellbinding experience’ and ‘truly mind blowing’. Visitors love the panoramic views of the ship, the unique experience of breathing the same air as Henry VIII’s warship on Upper Deck and the poignant projections of the crew going about their work on board ship”

Helen Bonser-Wilton, chief executive, Mary Rose Trust



Coachbuilders restored the fire truck for a recent exhibition about the Great Fire of London

“The reconstruction revealed incredible insight into how our fire engine would have worked. It would have been extremely difficult to manoeuvre and was only able to squirt out about six pints of water. It was hard for visitors to imagine this object as a working fire engine when it was just a barrel and pump”

Meriel Jeater, Fire! Fire!  
curator, Museum of London



### Museum of London

#### Restoration of Fire Engine

A 17th-century fire engine was restored as part of last year’s Great Fire of London exhibition, Fire! Fire!.

Very little remained of the 1670s fire truck, but expert coachbuilders were able to rebuild it working from a 19th-century photograph of the artefact, taken when it was still intact.

SHORTLISTED

Restoration/  
Conservation  
Award

PHOTO: MATT ALEXANDER



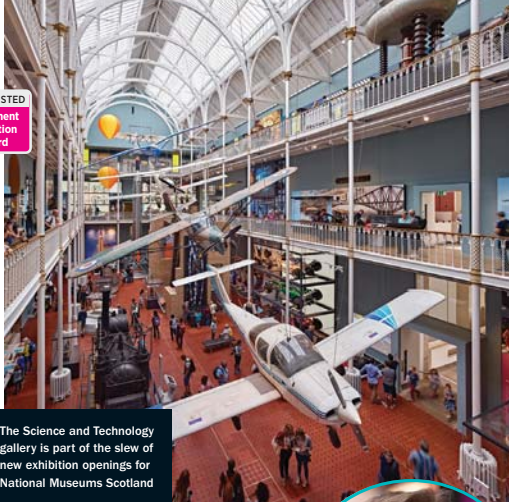
## National Museums Scotland

### Ten New Galleries

Ten major new galleries, focusing on decorative art, design, fashion science and technology, have opened at the National Museum of Scotland, Edinburgh, following a £14.1 million redevelopment. Over 3,000 artefacts are housed in the galleries, which also feature more than 150 interactive exhibits and working machines.

SHORTLISTED

Permanent  
Exhibition  
Award



"It is fitting that in this, our 150th anniversary year, we unveil the latest phase in the transformation of the National Museum of Scotland. These ten major new galleries aim to excite and engage our visitors both today and for generations to come. I hope visitors will be inspired by our exceptional collections and innovative displays"

Gordon Rintoul, director, National Museums Scotland



## Shakespeare's Birthplace Trust

### Shakespeare's New Place

Shakespeare's New Place allows visitors to walk in the shoes of the Bard, learning about his homelife in Stratford-upon-Avon. A new bronze gateway, a sculpture garden and exhibition help narrate the story of the place where the playwright lived for almost 20 years.

SHORTLISTED

Permanent  
Exhibition  
Award



"Shakespeare's New Place as presented today provides visitors with an imaginative contemporary perspective of the life of William Shakespeare at the height of his success. Although long since demolished, the spot where New Place once stood is now a new kind of cultural destination; allowing visitors to discover more about the man while inspiring personal emotional connections with our greatest playwright"

Nic Fulcher, project manager, Shakespeare's Birthplace Trust



## ► MUSEUMS

### Casson Mann/La Cité du Vin

#### La Cité du Vin Permanent Exhibition

La Cité du Vin is a new cultural wine centre in Bordeaux, France, celebrating the history of winemaking. The building's curving form was designed by architects Anouk Legendre and Nicolas Desmazières, and the exhibition – with 22 large-scale displays and installations, blending audio-visual, sensory and digital technology – was designed by Casson Mann.

SHORTLISTED  
International  
Award

At a height of 35 metres, on the eighth floor of La Cité du Vin, is the Belvedere

“Our vision was to create a richly textured experience in which visitors can be inspired by wine in all its wonderful complexity. This exhibition is completely audiovisual and multimedia, with sensory elements to surprise, delight, intrigue and educate visitors about the drama, art and craft that surrounds wine”

Roger Mann, creative director, Casson Mann



La Cité du Vin features an array of exhibitions and installations, and offers guided tours



PHOTOS: CITÉ DU VIN / ANKA

### Llechwedd Deep Mine Slate Caverns

#### The Deep Mine Tour

SHORTLISTED  
Innovation  
Award

The Llechwedd Deep Mine Tour, which launched in March 2016 near Blaenau Ffestiniog in Snowdonia, is a digital – and harshly realistic – re-telling of the Victorian slate industry that once thrived in North Wales. Deep underground, augmented reality, light and video projections, 3D audio and special effects are used to illustrate the daily lives of the mine's workers.



“The ability to tell an age old story using modern techniques offered a real opportunity to share this wonderful place with a new generation”

Michael Bewick, managing director, Llechwedd Deep Mine

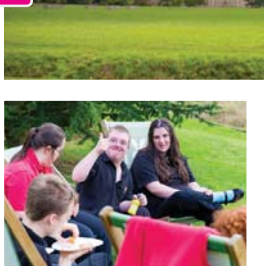
## National Trust, Croome

### Potter and Ponder

At the National Trust's Croome property, Potter and Ponder is a sensory experience designed for children with disabilities and their parents. The project used sensory stimulus to bring to life in unconventional ways the landscape and story of Croome. The experience is steered by a specially commissioned sensory map.

Potter and Ponder at Croome in Worcester encourages families with disabilities to explore the parkland

SHORTLISTED  
Education  
Initiative  
Award



PHOTOS: JACK NELSON



“This moving project gets my heart thumping and tear ducts tingling. It demonstrates how creatively addressing the needs of a marginalised community can be inclusive to all. It teaches us how to make our places uniquely valuable and meaningful. Potter and Ponder provides rare access to inspiring leisure and learning experiences”



Tate Greenhalgh, national interpretation specialist, National Trust



# How multi-touch AV is bringing the museum visitor experience to life

3M Touch Systems is introducing interactive multi-touch displays to the museums sector, helping them create engaging visitor experiences that won't be forgotten

**M**useums are among some of the biggest investors in the latest AV technology right now, and for good reason. Getting visitors into museums is a hard task in a market where there is so much competition, not just from other museums, but from all kinds of entertainment and learning experiences, including the digital world.

Plus, consumers – especially the younger generation – are increasingly tech savvy and have higher expectations than ever before. Let's face it, the average youngster has more exciting, engaging information in his or her pocket than most of us could have imagined a few years back.

That's why we're seeing museums increasingly investing in multi-touch AV technology. This is particularly true of high-end venues such as automotive, science and art museums, but also in a wide variety of different attractions, large and small. While these are typically permanent AV installations, we're seeing the content being updated more frequently, to reflect current themes or seasons.

## Collaborative engagement

By introducing interactive, multi-user elements, this technology does more than just provide wayfinding or basic information. For instance, people can compete in virtual games, perhaps 'paint' their own

masterpiece, design a car, or find hidden treasure. Groups of people can either collaboratively engage with the same on-screen content, together or separately: the kids can be collating a 'virtual' puzzle or watching a video, while mum and dad work out the shortest way to the museum café.

Also, multi-touch technology can be used to generate museum revenue. Since it engages with visitors in a fun and non-confrontational way, it breaks down many of the barriers associated with more traditional sales techniques. If connected to other IT systems in the museum, it can gather visitor data and patterns of interest, either for future or immediate use. For example, if the system picks up that



Riga Motor Museum has found children are able to use 3M's multi-touch technology intuitively





The museum, which re-opened in 2016, puts AV/multimedia at the heart of its exhibit strategy

## “MULTI-TOUCH TECHNOLOGY CAN BE USED TO GENERATE MUSEUM REVENUE AND IT CAN GATHER VISITOR DATA AND PATTERNS OF INTEREST, EITHER FOR FUTURE OR IMMEDIATE USE”

someone seems especially interested in Roman history, it could suggest immediate booking to get discounted tickets on relevant events, or books on that subject available for purchase in the gift-shop.

### Riga Motor Museum

One example of a European venue that's making the most of multi-touch AV technology is Riga Motor Museum, located in Latvia's capital city, which houses one of the most comprehensive and exciting collections of antique automobiles globally.

The museum, which re-opened its doors in July 2016 after an ambitious three-year redevelopment project, has put audiovisual at the heart of its exhibit strategy, with a heavy emphasis on multi-touch technology – supplied by local audio-visual technology specialist SOLAVI – to take the visitor experience to a whole new level of engagement and interaction.

“Modern technology such as multi-touch displays are essential for a museum which positions itself as a modern, knowledge sharing and educating institution,” says Ajia Bauere, public relations specialist at

the Riga Motor Museum. “Interactive and entertaining, multi-touch screens allow the museum to share information in a more exciting way. Also, a museum's collection accumulates an immense amount of information: multi-touch displays make this content easily accessible.”

As with any user-facing technology, it's imperative multi-touch systems can cope with large volumes of unsupervised use.

### Exceeding expectations

Ints Berzins, founder of SOLAVI, says: “It's no longer enough to just give people a button to press. We chose 3M technology for several reasons. The displays are extremely robust, so they can cope with visitors leaning on them. 3M displays also offer plenty of touch points and the bezel-free design means that the AV experience goes right to the very edge of the screen.”

Riga Motor Museum's positive experience of the current generation of multi-touch technology is increasingly typical, with reports that it keeps users engaged for longer periods of time, at a deeper level. All this contributes to a better overall visitor

experience while creating opportunities for museums and other attractions to keep people coming back for more.

“The multi-touch displays have exceeded our expectations,” says Bauere. “It's been particularly important for our museum, where the main audience is families; we've noticed that children use the displays intuitively. By choosing multi-touch displays, we have made our content more accessible and fulfilled our mission of teaching and sharing knowledge.” ●

### FURTHER RESOURCES

3M, which works closely with specialist systems integrators and designers, has developed a best practice guide and is launching an animation video, both specifically for the museum market.

These resources are designed to give museums interested in multi-touch AV some inspiration and practical advice.

To find out more, please go to [www.attractionsmanagement.com/3M](http://www.attractionsmanagement.com/3M)



# LONG LIVE

SMALL PHOTO: DAN CLARKE



MAIN PHOTO: LUC BOEGLY & SERGIO GRAZIA

The new International Centre for Cave Art tells the story of Montignac's Paleolithic caves, France

A near-perfect replica  
of the Lascaux cave  
has been created by a  
dedicated team



# LASCAUX

**A dramatic new museum celebrating some of  
the world's most famous prehistoric cave art  
has opened at the Lascaux Cave complex in  
France. Kim Megson visited the new attraction**

Kim Megson, journalist, Attractions Management





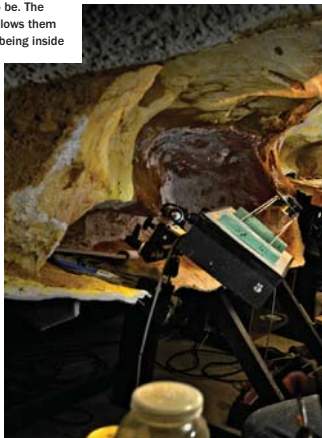
The galleries ask visitors to consider the different interpretations of how the caves came to be. The replica cave allows them to experience being inside



PHOTO: ERIC SOLE



PHOTO: AFSP



**A**t the Lascaux Caves in the Dordogne region of France, the new International Cave Art Centre has opened, which includes Lascaux IV, a 1:1 replica of an original Lascaux cave.

The €66m (\$70.3m, £56.2m) International Centre for Cave Art is located in the town of Montignac-sur-Vézère, at the foot of the hill where the Lascaux caves – adorned with the highest concentration of Paleolithic cave art in Europe – were discovered in 1940.

Within the new centre, designed by Norwegian architects Snøhetta and scenographers Casson Mann, is a replica of the caves called Lascaux IV.

Developed with the assistance of advanced 3D laser-scanning and casting technologies to a tolerance of 1mm, the replication was created by the Périgord Facsimile Workshop (AFSP). The levels of humidity and light, the sounds and smells, and the 16°C temperature of the UNESCO-protected original were also replicated.

Over two years, 25 artists hand-painted 900 metres (2,900 feet) of resin rock reproductions, using the same pigments that the prehistoric painters used 20,000 years ago to recreate 1,900 paintings.

### Visitor journey

Visitors to the centre ascend from the lobby to the building's rooftop, where there is a panoramic view of the surrounding valley. In groups of no more than 30, they then descend a gentle slope, as if retracing the steps of the four young boys

who discovered the original caves several decades before, and enter the facsimile.

After journeying through the caves, visitors emerge into the Cave Garden and then enter four linked exhibition rooms. There is also a 3D theatre, which explains the environmental and cultural context that paved the way for the creation of the cave art, and the techniques and equipment used by the original painters.

"There's a massive amount of knowledge about Lascaux, but also many different interpretations about how it came to be – and no real answers," says Casson Mann founder Roger Mann. "Our goal then was to provide context to these questions, to move people and to give them room to explore the permutations of what they have just seen inside the facsimile."

"Despite the centre being built around a replica, the visitor experience is designed to be one of magic and authenticity."

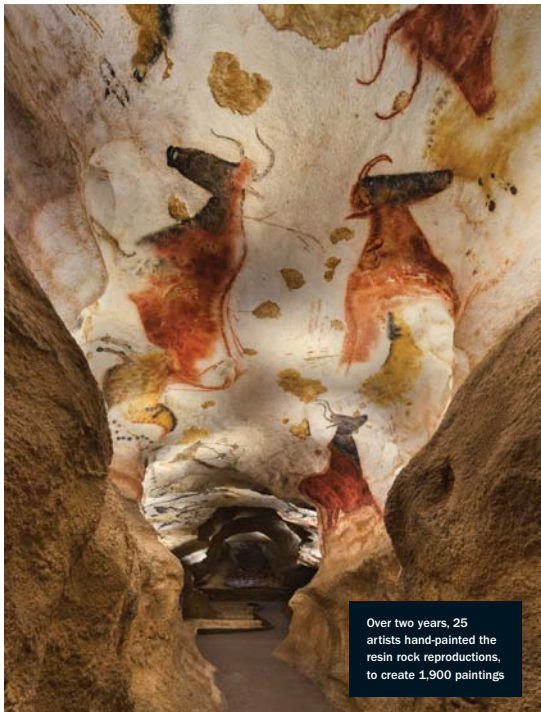
### Contemporary design

Snøhetta's museum building, conceived with local firm SRA Architectes, is a low-



A 3D cinema experience takes visitors to the heart of the story





Over two years, 25 artists hand-painted the resin rock reproductions, to create 1,900 paintings

PHOTO: LUC BORGST & SERGIO GARZA



DESPITE THE CENTRE BEING BUILT AROUND A REPLICA, THE VISITOR EXPERIENCE IS DESIGNED TO BE ONE OF MAGIC AND AUTHENTICITY



PHOTO: DENNIS HODOS  
rising glass and concrete structure designed as "a horizontal fault that accentuates the line between the surrounding valley and Lascaux hill."

"The building feels like neither landscape or architecture," says Snøhetta founder Craig Dykers. "It occupies space and likewise you occupy it. You walk on the roof, it feels like it's yours and you own your experience. It is very connected to the earth we stand on, and it mediates between the municipal context of the nearby town, the agrarian landscape of the immediate surroundings and the palaeolithic cave within."

He added that by framing the experience of the cave replica in



**Yves Coppens is tasked with preserving the heritage site**

contemporary design, the approach counters the trap of artifice. The visitor understands they are in the presence of a reproduction, without distracting from its impact.

### Honest reproduction

The International Centre for Cave Art complements Lascaux II – a replica cave that opened in 1983 near the original – and prevents that attraction from becoming too busy or overcrowded.

There is also Lascaux III, an 800sqm (8,600sq ft) mobile cave replica, also made by AFSR, that travels around the world.

"The public has a right to figure out what the whole cave looks like," says Yves Coppens, president of the Scientific Advisory Board in charge of conserving Lascaux Cave. "Creating the replica was a matter of honesty. Lascaux Cave is a whole entity which can only be grasped if visitors have a reproduction of the whole cave before their eyes."

Coppens compares it to the idea of creating a reproduction Sistine Chapel: it would be no use if it was in fragments.

He says: "It's important that visitors know that for approximately 50,000 years humans have had the desire to express themselves in graphic form. They've had an idea to convey, a surface on which to do it, and a tool. It existed and does still exist, and it's a good thing that we can give a wide overview of this." ●



© Cartoon Network Amazone, Pattaya - Thailand

## WHAT'S HAPPENING IN WATERPARKS IN ASIA?

**Söhret Pakis**, Director of Marketing and Communications, Polin Waterparks

**What do you think are the real hot spots right now for waterpark growth?**

In our 40 years of doing business, we have increased our reach to 100 countries. We feel lucky to work with such a wide variety of clients, each with their own culture, language, and religion, who still, despite their difference, share a love of waterslides! We're proud of the success we've found in such diversity. We see the world as our market. Even countries that don't seem like potential candidates today are still candidates for the future. Take for example Iran. We are proud to say we built the very first waterpark there!

With that said, studies have shown (and our personal experience can confirm) that there is a huge demand in Asia right now.

**Who are some of the key players / project developers you think industry professionals should keep an eye on in the international market?**

Key players include Marvel, Merlin, Disney, Universal, Cedar, Six Flags, and Chimelong. I also believe we will see some surprising

names pop up when it comes to investing in amusement parks, especially in Asia.

**What effect, if any, is the Asian explosion in waterparks having on the more mature markets in the US and Europe?**

Looking at the latest TEA/ECOM report, we can see that 10 out of 25 top waterparks globally are now in Asia. I think it's safe to say that this trend will continue. In fact, studies have shown that the Asian market will surpass the US market within the next 5 years. It will be very interesting to see how this develops.

**The Chinese market sometimes gets stereotyped as looking for less thrills in theme parks; is there a similar feeling for water attractions?**

I wouldn't say this is the case for waterparks. In general there is a limit to the "thrill factor" due to government regulations. However, despite this, the thrill expectation in this market is no less important than it is in other parts of the world. Both park planners and visitors are increasingly demanding thrilling waterslides, so in our upcoming projects, we are making sure we offer at least one fusion and signature ride, each with their own features and quirks. For example, we have completed attractions in China such as King Cobra, Family Turbulence, Sphere Combo, Looping Rocket and Space Shuttle.

**What one or two installations opening soon or within the last year do you think is most indicative of the global waterpark market right now?**

I love our Cartoon Network Amazone Waterpark in Thailand! What sets it apart from any other waterpark is its theme. It is the home of Cartoon Network's most beloved characters such as the Powerpuff Girls, Ben 10, and Adventure Time. It is the only place

© Camping Chateaux Vieux - France



in the world where Cartoon Network fans can have meet and greets with their favorite characters while enjoying waterslides and live shows. On top of this, each fiberglass waterslide is designed for a specific character. I love that in the park you can hear a kid saying, "I want to ride the Humangasour," a character in the Ben10 animation series, instead of saying "I want ride a waterslide." Check out this video to see what I mean: Another of my favorites is the themed Splashworld Provence Waterpark in France. After almost 30 years, the first waterpark in France has opened with a variety of its own "firsts." Not only does the tropical-themed park feature Europe's tallest free-fall slide, but it is also home to the region's largest racing slide, longest toboggan slide, and longest leisure river.

#### **Other major projects;**

Amazzia Waterpark in Surat, India  
 Dahabya Radisson Blu Resort in Sharm El Sheikh, Egypt  
 Mega Fun Waterpark in Anji, China  
 Qizibay New Century Grand Hotel in Hainan, China  
 Langkawi Water Fantasy, Kuala Lumpur, Malaysia  
 Dragonna Gold Water Fantasy, Lampang, Thailand  
 Dalian Sweetland Hotspring Park, Dalian, China  
 Dinglong Bay Resort, Guangdong Province, China

These are all great locations that have very well equipped waterparks.

We also have Agagin, Dino Waterpark, which covers more than 40 acres. Dino Waterpark - as its name suggests - is dinosaur themed, and takes visitors back more than 100 million years to a time when dinosaurs roamed the earth. Austing Heights opened in January 2016 and expects to host almost 300,000 visits in its



Amazoo Amusement Parks, Surat - India

first year. This is a tropical-themed park which offers 12 outdoor attractions in a 33,450-square-meter (360,052.8-square-feet) area on 8 hectares (19.8 acres) of land, along with a variety of indoor attractions such as an adventure park, a trampoline park, a tropical skating rink and a drift kart. It features a unique combination of waterslide designs that were installed by us here at Polin Waterparks, which I think sets the park apart from other venues.



#### **In what ways do you see the market evolving in the next 5 to 10 years?**

Technology will be a driving factor. I believe we will begin to witness the synchronization of technology with the attractions and the parks themselves. Manufacturers are already integrating their manufacturing methods, material technologies, design programs, game technologies, virtual and augmented reality, projection technologies, media-based attractions and special effects into more and more waterparks.

As technology continues to improve, there will be higher demand for innovation, interactivity, and engagement from the customers. Social media, gamification, virtual reality, and augmented reality are all impacting the market now. However, at the end of the day, the content and storytelling in the park is still extremely important.

The waterpark industry is continually evolving. Waterparks want to offer the most attractive, exciting, and appealing rides possible. With our current society demanding unique and novel experiences, I think the biggest challenge for the waterpark operators is to make sure they continually grow and offer exciting rides that attract visitors, keep their interest, and make them want to come back again and again.

#### **We hope to help with that effort both as a supplier and a builder!**

Santorini Water Fantasy, Cho-am - Thailand



ProSlide worked on the  
Alpamare Scarborough  
waterpark in the UK

We asked waterpark suppliers to look into the future  
and tell us the trends and themes they envision for the sector

# THE NEXT BIG SPLASH

## PROSLIDE

### LARS LENDERS

VP business  
development Europe

In some ways, the waterparks in Europe have not evolved and innovated as much as their US counterparts over the past 20 years, but now new and existing waterparks are trying to differentiate themselves as the market becomes more densely populated. They're looking for one-of-a-kind water rides that not only create capacity and the wow factor, but also are a marketing and communication tool for being the "first" in the region, country, or in Europe.



We just opened Alpamare Scarborough, an indoor waterpark in the UK and as an example of a trend towards more immersive environments. Center Parcs Woburn is a park offering immersive, authentic surroundings, while Belgium's



ProSlide is designing rides that maximise interaction between people

Plopsaqua combines IP with a highly themed experience.

People also want to share experiences as a family or a group of friends, so our rides shaped like four-leaf clovers and double tubes, where everyone faces each other, are popular.

Now guests can get videos of their ride experience and post it on social media. That's an interesting trend because the operator can use guest data to start building up a conversation. And, social media is instant marketing for parks.



We're seeing a few trends in Europe for the bigger, better,  
faster, higher and more exhilarating experiences







Amaazia in Surat, India (top left) and O'Gloss in Le Bernard, France are new openings from Polin

Our research tells us three aspects will be key to meeting guests' future expectations: gaming, slide technology and design, and theming

#### POLIN

### SOHRET PAKIS

Director of marketing

At Polin, we've created a new division specifically targeting the integration of technology and interactivity into our attractions. That means our rides will incorporate more media-based elements such as lighting effects and full-sensory stimuli, synchronised VR and AR displays that change throughout the ride, 5D cinematic experiences,



smart phone integration and interactive competitions.

Slide design will become more complex, as amping up

the adrenaline demands more turns, drops and accelerations.

When it comes to theming, facilities must compete on every level, increasingly offering experiences that enhance every aspect of a guest's investment, even before they arrive.

Not only can slides be made to look like characters in the park's story, theming can also extend to many other offerings. And while well-known IPs will often be critical to these experiences, we also expect to see home-grown brands jump into this area successfully.

Over the past few years we've seen a pretty explosive rate of growth, which the whole industry has experienced

#### WHITEWATER WEST

### PAUL CHUTTER

Chief business development officer

Historically, theme parks have developed more rapidly than waterparks and been the main driver of the industry. However, in sheer volume and relevance, waterparks are catching up. Many people who've been involved in theme parks now want to get into water. That's the natural progression.

We are seeing a real evolution of the client profile. There is no question that

our buyers are becoming far more sophisticated than they ever have been. Sometimes that's because they're industry veterans, or they could be financiers, private equity groups, or business people. It's not surprising this has happened because the industry is doing well and there's a real opportunity to generate revenue and a lot of profit, particularly on the operations side.

Clients now have elevated expectations on innovation, products, service and delivery model. The tolerance for not meeting deadlines is effectively nil. This shows we're becoming



a mature global industry with incredibly sharp people who are doing really good work.

We're going to see waterparks playing catch-up with theme parks in terms of

overall look, feel and theming. Buyers are more sophisticated, wanting to create meaningfully immersive experiences. For example, compare waterparks of old, which were very static, with theme parks where there's always something moving – a Ferris wheel or a rollercoaster.

Theming is going to get more over the top as we move away from standard slide towers.

Buyers are also upping budgets in order to create richer experiences. Theme parks went in that direction some years ago. It's taken waterparks longer to catch up, but that catch-up has happened.

Guest experience remains the most important consideration in the planning and design of any waterpark

**FORREC**

**GLENN O'CONNOR**

Senior director, waterparks

Guests will pay for high-quality experiences and their expectations are growing exponentially.

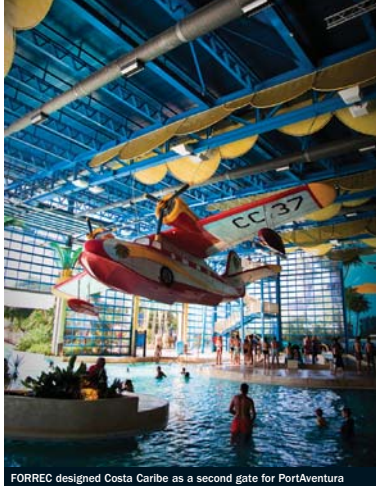
Globally, we see a continuing evolution from standalone waterparks to ones integrated into year-round resorts, offered as a second gate to another major attraction such as a theme park, or as part of a larger entertainment district.

That means themed and branded experiences, such as the extension of an IP, are growing in popularity in some regions, but are still less common in smaller or emerging markets.



Wet/dry attractions are also on the increase and work well as part of a strategy to increase park attendance during the shoulder season, while also offering more variety.

Waterpark operations are increasingly sophisticated and require experienced trained personnel to manage and safely operate newer technologies.



FORREC designed Costa Caribe as a second gate for PortAventura

Technology is appearing with integrated applications for competitive games. For some markets, such as teens and adults, operators need to set a higher bar to really wow guests.

Thrill rides combined with emerging technology/gaming are growing in popularity. Newer rides are always interesting and parks require renewal on a

regular cycle, as with any other entertainment experience.

The use of cashless payment is increasingly expected by guests. Digital photography connected to social media is also growing in popularity. But no matter how sophisticated the features of a waterpark, guests always expect clean, well-maintained facilities.

Some of the hottest trends right now are taking the industry away from the traditional waterpark ride, (aka the slide) and redefining what a water ride means

**AQUATIC DEVELOPMENT GROUP**

**DAVID KEIM**

VP business development

We've got used to thinking that adding a slide or play structure is the only option available, but this isn't true, and new, non-traditional water rides are entering the market.

With advances in wave technology, waterpark staples such as the lazy river and the wave pool are also being transformed, with new configurations, higher throughput and skill-based excitement, creating new experiences.



Boogie-boarding and surf pools give a new twist to the wave pool, as do double-entry, dual-beach wave pools.

Adventure rivers with wave entry zones remove the dry queue and immediately



New trend: boogie-boarding at Water World in Denver, Colorado

engage guests with the ride, while experiences that lend themselves to a destination setting – with the ability to blend surrounding deck space, cabanas and room for F&B – are growing in popularity

as parks look for ways to keep guests engaged and on property longer.

In addition to adding new rides, parks are also becoming more focused on enhancing the overall guest experience. ►



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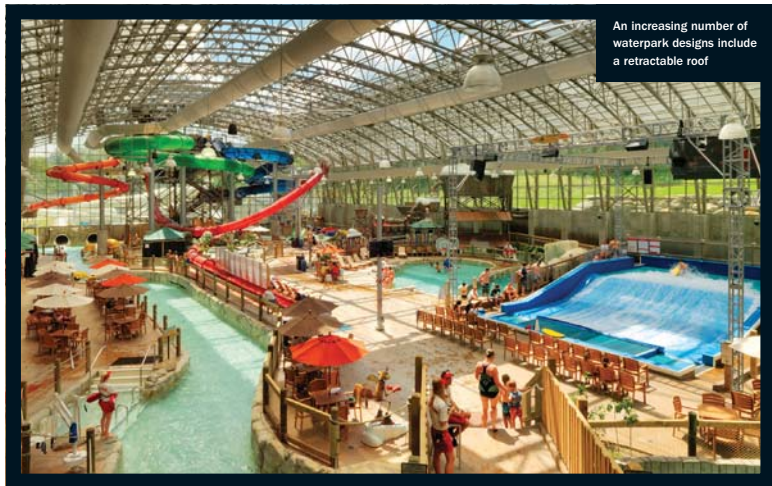
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An increasing number of waterpark designs include a retractable roof



Today a growing number of waterparks operate as year-round, indoor destinations with many advanced rides and amenities



**OPENAIRE**

**MARK ALBERTINE**

President



Many waterpark operators recognise that outdoor parks still offer advantages over the static, artificially-lit atmosphere of indoor parks. This is why retractable roofs and enclosures are set to be the designs of choice for the waterpark of the future.

Retractable roofs and enclosure designs offer waterparks the best of both an outdoor and an indoor environment. These dynamic structures can open at the touch of a button to let in the fresh air and natural light of warm, sunny days, yet also offer shelter and warmth from cold or inclement weather.

Their retractable glazed panels offer operators approximately 20 percent savings on lighting and HVAC costs, while also naturally ventilating, thus helping to

eliminate the odours of pool chemicals for guests. The use of corrosion-proof aluminium structures also gives these retractable-roofed venues excellent durability and low maintenance costs.

With dozens of leading waterparks around the world already choosing to build retractable roof enclosures or skylights and the constant improvements to operable structure technology, there is little doubt that retractable structures are set to become one of the hottest trends in waterpark design.



► A retractable roof can help operators save on energy consumption



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66

Big changes are coming for the industry in the Middle East, Far East and especially in Europe

**VAN EGDOM**

**SIMON VAN DIJK**  
Commercial director



We are designing more inclusive rides to allow young children to enjoy them with adults and teenagers. Demand for large tube rides accommodating groups of people is also growing. This allows families and friends to experience the ride while having fun together.

Multi-slides that create competition, where people want to beat a time or improve their skill, and rides that integrate interactive play features will become more common.

Technologies such as iSlide's AquaXperience, interactive special effects and digital lighting for water attractions, are driving the demand for waterplay entertainment. New and better integrated themed sound and light, visual systems and social media integration will become the norm on rides, slides and waterplay structures. They can change a new or existing ride by adding an exciting experiential dimension.



66

The success of waterpark attractions in 2017 and beyond will depend greatly on attention to key visitor demographics and their unique play needs

99

**WATERPLAY SOLUTIONS**

**SHANLEY HUTCHINSON**  
Creative manager

As the world becomes more connected and digital technology a more integral part of our lives, we've seen play habits and expectations change dramatically among consumers of all ages.



Where before manufacturers were focused on designing something fun, today's consumers want and expect more. They want to be delighted, thrilled and surprised by truly immersive experiences that are engaging and unforgettable.

As innovators, it's an exciting time to be experimenting with the possibilities of waterplay. ●

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# ONWARD & UPWARD

Gordon Dorrett is stepping down as CEO and president of themed entertainment design firm FORREC, with Cale Heit taking over from October 2017. With more than 50 years between them in attractions, we asked them what the journey's been like, what the future holds and for their thoughts on the industry

## GORDON DORRETT

CEO and president

### **Congratulations on your "retirement". How does it feel to step down after all these years?**

I am definitely not retiring. It's precisely because my life has been so entwined with FORREC for 30 years that stepping down isn't really an option – it's more like stepping to one side to make way for new blood. We decided to do this now because it's the right time for FORREC. The company is in a good place in terms of our finances and our work, so Cale will have a good basis to build on.

### **What are you doing next?**

My role will be focused on strategic corporate development, mentorship and creative project development – so I'll very much be around day to day. My real joy is helping young designers realise their potential. I'm looking forward to spending time helping the talented people in our company grow. I've also been very involved in shaping FORREC as a



"I've always been part of FORREC, and in turn FORREC has been a huge part of who I am"

corporation. For example, I set up our succession program that has helped Cale become the CEO. I plan to take on other strategic initiatives where the company feels that I can be helpful.

### **What have you enjoyed the most about working FORREC?**

First, I have never felt that I worked at FORREC. I have always been part of FORREC, and in turn FORREC has been a huge part of who I am. That's what makes this a challenge for me personally. No one day is the same as the day before. I am always excited by what our clients are thinking and the work our team does. Other than the obvious pride I have in our work, the most enjoyable part for me has been watching this company grow from an initial idea into an international success.

### **Could you name a couple of projects you're most proud of?**

Certainly any of our work for Universal Studios and LEGO has been a real pleasure. These are huge projects and I'm honoured that we are entrusted to work on them for our clients. But some of the smaller projects, like Aesop's Village for Everland, have always been special to me. And some of my favourite projects are the really interesting ones that, sadly, never got built ... but there is still time.

### **What has been most important in achieving FORREC's success?**

FORREC is above all else versatile. We have business plans and strategic initiatives, but we always make sure we are flexible enough to respond to the opportunities that arise. Our clients have trusted us for this long because we don't only dream up crazy stuff that looks interesting. We're just as focused on making sure the project works – financially and as a plan.

### **What advice would you give a young person coming into the industry?**

For any young person coming into this industry, I would say keep an open mind and try as much as you can. It's important to stay curious about the work you do and continually ask why you're doing it – that's the way good designers should think anyway. ►

Aesop's Village at Everland is one of Gordon Dorrett's most memorable projects





FORREC counts Universal, Merlin and Wanda Group among its clients. Wanda Xishuangbanna International Resort in Yunnan Province, China, is a recent project



## CALE HEIT

Executive vice president of operations and incoming CEO

### How is your job going to change?

I'm fortunate to be taking on the leadership at such an opportune time. Under Gord's direction, we've never been stronger and together we've built a recognised brand in the industry. We're proud of the industry relationships we've fostered over the years.

As executive vice president, I've been involved in every aspect of our business and in serving our clients and giving them the best design possible. I might be kidding myself a little to think there won't be a lot that changes as president and CEO.

Working for a company that's nimble and is continually challenged by change excites me on a daily basis. I've yet to experience a "groundhog day" at FORREC. This industry is always evolving, and it's going to be my job to navigate what's ahead.

### What have you learned from Gord that you will be consciously taking forward with you and building on?

Gord is a leader who isn't afraid to ask the difficult questions, to challenge the status quo. He always asks what we could do to make things better. I plan to take a page from his playbook and work with our teams in the same way, challenging them to always look at things differently, without a one size fits all approach.

### Are there any areas of the business you want to change?

FORREC's mission statement is one I stand behind: we create places that make the people who visit them, own them and



"Our sectors of work are created in response to where we see the opportunities. We'll remain flexible"

design them very happy. This is core of who we are and how we approach our business.

My focus will be on delivering this in every aspect of our business by continuing to design environments that offer engaging experiences and memorable moments for families to enjoy. I want to ensure that we deliver the high-quality service we've built our reputation on to help our clients maximise their business opportunities.

How we execute on that changes according to the evolving marketplace. Our sectors of work are created in response to where we see the opportunities. I plan to remain flexible as we go forward because this makes good business sense.

For the team, I'll to continue to support their professional and personal growth.

Whether it's education classes, touring benchmark attractions or letting go at any of our teambuilding events – it all matters. It's rewarding to participate in the development of people and seeing them stretch out of their comfort zones.

### What do you like about working in this industry?

Put simply, it's the people. Seeing how happy guests are when they go to a project we've designed is very rewarding.

I also really value the friends and colleagues I've worked with: the owners, operators, consultants and our team.

### In your 25 years at FORREC, the themed entertainment industry has changed a lot. What big changes have affected you?

The "we to me" cultural shift has impacted the industry far more than I expected. The balance between what you can experience at home versus a destination experience is eroding. We're moving away from the shared experience to a more individualistic one.

We spend less time being in the moment with family or friends to share and talk about the experience. There are many distractions that people plug into to occupy their time. Designers are now having to compete with all these changes.

I think about this a lot, how we can encourage being part of the group experience. Technology, specifically the smartphone, will continue to impact our industry. It's how we use them that impacts how we share time with others. Possibly this is being nostalgic, but I believe this is fundamental to our belonging and, yes, having fun. Sharing the experience in person, with another person, is half the fun.

### Where do you see the next big developments in the industry?

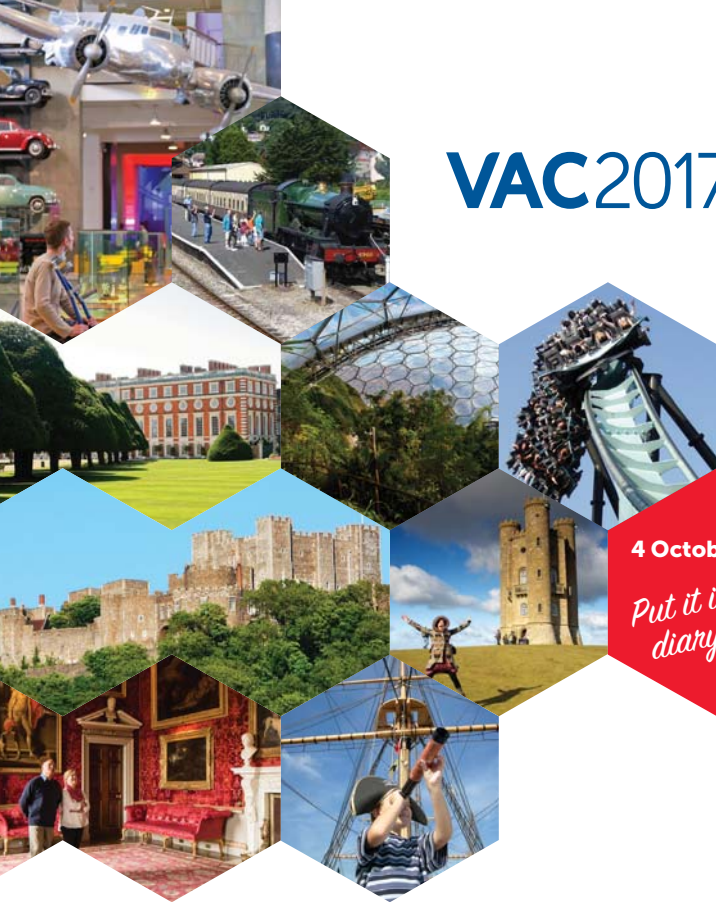
Technology for the sake of technology is not sustainable. Technology that helps tell a story or makes the experience more authentic or engaging is more interesting as a goal, and more easily operationalised.

Recognisable IP in emerging markets continues to be a much sought after goal for many of our clients. The benefits of having an immediate impact through brand recognition is undeniable. I also see great potential in understanding how these brands are experienced in the specific market and how they can be celebrated within the framework of the local culture. I'm excited about where this is going and how we can help our clients and the IPs looking for development opportunities realise their potential. ●

FORREC also designed a jungle-themed waterpark for Wanda Xishuangbanna



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# SPEED DEMONS

Ferrari Land has opened for its maiden season. We met up with PortAventura's chief commercial officer Mark Robinson to find out more about Europe's latest attraction

Alice Davis, managing editor, Attractions Management

In April, Ferrari Land was officially opened, a €100m (\$106m, £85m) theme park and a third gate for PortAventura. The 70,000sqm (750,000sq ft) Ferrari-themed zone is the latest part of the Spanish destination resort's €400m (\$426m, £342m) expansion strategy, which hopes to boost annual visitor attendance to the 5 million mark.

Attractions Management met Mark Robinson, PortAventura's chief commercial officer, at the new park, and asked him about the project.

**What characteristics does Ferrari share with PortAventura – and why did you think the two brands would complement each other?**

Four years ago, we started talks with Ferrari. We're owned by two private equity companies and they know Ferrari pretty well. One of our private equity partners is Italian, so there was a natural bond there. They started to talk and dream about putting Ferrari Land with PortAventura. We have the expertise in running theme parks in the Mediterranean, they're an Italian brand, and they thought it would be a great fit. It was an honour to accept their offer. We made an agreement 2.5 years ago, and started building two years ago.

**What is the structure of partnership?**

Ferrari has been involved with the design of the project up until the opening of the park, and with all decisions of this type. We worked hand in hand with them on the designs and everything in the park.

We paid a licensing fee and the investment is all ours. It's 100 per cent owned by the PortAventura Group. PortAventura also has exclusivity until 2030 to be the only Ferrari Land park in Europe, including Russia.

**Do you hope to attract a new audience with Ferrari Land?**

With Ferrari Land opening, we're hoping to increase from 4 million visitors in 2016 to about 5 million visitors this year. Our main markets are the UK, France, Italy and Russia, but the Ferrari brand has power internationally to attract visitors from Germany, Benelux and the Nordic countries.

I've just done a presentation to a group of Silversea passengers who were mainly American press and major travel agents on a cruise ship here in Tarragona. The feedback they gave me was that Ferrari Land would also sell well in the US.

So yes, we want to expand our reach in Europe, but the mid-term plan is to look even further afield. There are 14 direct flights a day from the US into Barcelona. My main role when I joined was to internationalise the park, as it was traditionally a Spanish park. We currently have 48 per cent Spanish guests, and 52 per cent international.



Mark Robinson, chief commercial officer at PortAventura, is eyeing the US market

**"The investment is ours. It's 100 per cent owned by the PortAventura Group. PortAventura also has exclusivity until 2030 to be the only Ferrari Land park in Europe, including Russia"**





A ceremony marked the official opening of Ferrari Land, PortAventura, in Salou, Spain. The park was finished on time and on budget

#### Why did you want it to be a third gate?

We wanted to keep the area more exclusive with Ferrari so the experience is a little bit different. We'll hold two different turns in high season, opening from 10am til 5pm and then 6pm til 1am. Each experience is completely different. In the evening when it's dark, the lighting looks amazing, and I think that's something we can do a lot of more of in the evening time. This also helps limit capacity and maintain the feel and the exclusivity of the place.

When we got feedback from the one-entrance-two-parks ticket at €60, the feedback was really positive and people thought it was great value for money.

#### Is there scope for expansion?

We achieved what we planned to do, and extended the area behind Red Force where we've added a stage. We learned going through the construction of the park that we could expand it, and we have got further plans and we have got some land for expansion. So yes, there is room to expand the park. Over the opening period, we'll be gathering feedback from guests to find out if they want more family attractions, more adrenaline attractions, for example, and then we'll be in a position to decide what's next.

#### Do you have to consult with Ferrari if you expand?

No, it will be our decision if we want to add new rides, but Ferrari is great to work with.

#### What challenges have you encountered?

Throughout the process, timing has been the most difficult thing, as we had an

opening date of 7 April that we had to meet. We're happy with how it went in terms of the build, and we came in on time and on budget. With 50 companies and 550 people working on the project, it speaks to the success of our development team.

Now the theme park is open, it's a bit like a new car, it needs wearing in. We

The design of the 4,000sqm Ferrari Experience is inspired by the iconic car



- will be able to gauge capacity and get feedback. What's great is we have a lot of experienced PortAventura staff to help with the launch of the new park. Having two shifts is new to us as well, so there will be some fine tuning to do there to make sure it runs properly.

### How long do you predict before you see an ROI?

Obviously with €100m investment we're expecting an ROI, and that will come quickly when the park is filled. The bookings already look very good, and that's what gives us confidence to already be considering expansion. Bookings for the convention centre have increased dramatically because of Ferrari Land, which we can use off-season for events. We can open up the area at night, and it's the customer's own private park.

In the future we want to extend the season, if not becoming year-round, then pretty close. It's not as costly to keep Ferrari Land open as the other parks, and I think with the hotels, convention centre and three golf courses, we're on to a good thing. We feel very positive because last year was a record year for PortAventura in terms of attendance and also marked our sixth consecutive year of financial growth.

Piero Ferrari – son of Enzo Ferrari, who founded the company – opened the park



Thrill Towers offer different rides - one is a free-fall tower and one bounces up and down



### How does this park differ from Ferrari World in Abu Dhabi?

It's a different experience because Ferrari World is an indoor theme park, and we're a destination, an open space. We also have built up the connection with Enzo Ferrari's dreams, so we have the Ferrari Experience which is the heart of the attraction, offering an explanation of the brand, but also their dedication to innovation and technology and what makes that brand an icon of Italy.

It fits well in PortAventura, too, as we now have this Mediterranean themed

area with the trattoria and Italian heritage and so on, which complements our other worlds in the park, such as our Mexico, China, Tibet and Indonesia-themed zones.

Ferrari wanted the theming to be very close to how it really looks in the village of Maranello, where Ferrari has been based since the 1940s.

It's a completely different park to Ferrari World. The feeling we get talking to our guests is that it's not like a theme park – it's cool, it's a neat place to hang out, it's chilled and relaxed. It's an experience.

## RIDES & GAMES

As well as Red Force, the 112-metre rollercoaster that dominates the skyline, the park also offers twin drop towers and a 500-metre (1,640ft) race track, a child-friendly simulation of racing a Ferrari 488 Spyder. Inside the Ferrari Experience building, which is shaped like the iconic race car and in the same trademark red that characterises the brand, is the Flying Dreams immersive flying theatre, and Racing Legends, an immersive dome experience that tells the story of Scuderia Ferrari. There are also interactive exhibits in the Ferrari Land Gallery that explain the history and spirit of the brand.



At Pit Stop Record, visitors can put their skills as an F1 pit stop mechanic to the test



“The feeling we get talking to our guests is that Ferrari World isn’t like a theme park – it’s cool, it’s a neat place to hang out, it’s chilled and relaxed”



The coaster ride itself lasts about 25 seconds

## BUILDING RED FORCE

Ferrari Land boasts Europe's tallest and fastest rollercoaster. Named Red Force, the vertical launch coaster reaches 112 metres (367ft) into the sky accelerating from 0mph to 112mph (180kph) in just five seconds

We asked Sascha Czibulka, executive vice president at Intamin, about the design and manufacture of Europe's most thrilling ride.

### What was the hardest part of building this coaster?

The hardest part was managing to stay within the available budget in consideration of the requirements determined by the client in respect to height, speed and capacity.

### How do you get a coaster to 112mph in 5 seconds?

It's a secret combination of our latest Linear Motor technology and over 20 years' know-how in the field of launch coasters.



Sascha Czibulka oversaw Intamin's latest coaster

### You've built other coasters that accelerate faster. Did you use the same technology?

We have built coasters with a higher top speed and slightly faster acceleration, such as Formula Rossa at Ferrari World Abu Dhabi, which reaches 239kph (149mph). They use hydraulic catapult technology. For Red Force, we use our state-of-the-art linear synchronous motors (LSM), so the technology is different.

### What makes this coaster different?

We have done similar coasters before, both in respect to layout and speed. But the red colour of the tower structure together with the prominent Ferrari logo makes it absolutely one of a kind.



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# SIMWORX AROUND THE WORLD

UK-based attractions manufacturer Simworx is building on its global portfolio with a range of new projects in Dubai, China and Spain

Headquartered on the Pensnett Estate in Kingswinford, West Midlands, Simworx is a media-based attractions specialist acknowledged as one of the world's leading suppliers of Dynamic Motion Simulation Attractions and 4D Effects Cinemas for the entertainment, education and corporate markets.

The company's skills and capabilities extend from full turnkey solutions, custom attractions, product development, manufacturing and service support, to film content, motion programming and complete themed attractions. It has built a global customer base and serves a variety of venues such as amusement and theme parks, seaside piers, family entertainment centres, resorts, museums, zoos, aquariums and cultural and heritage sites, with clients including many of the

leading operators in these various sectors. Clients also have access to a vast film library with hugely varied subject content suitable for the wide variety of venue types the company works with.

In addition to projects within the UK, Simworx has designed, built and installed its products throughout the world, including in Europe, North America, South America, New Zealand, Asia and the Middle East.

The product range includes 3D/4D effects theatres, Immersive Tunnels, motion theatres, the Stargazer motion ride, a new 360° Flying Theatre, AGV dark rides, the Cobra motion ride and static/track based RoboCoaster attractions. Indeed, through the acquisition of RoboCoaster, the company now offers a new generation of AGV dark rides, together with the pioneering RCX attractions using passenger carrying robotic technology.

## Dubai Parks and Resorts

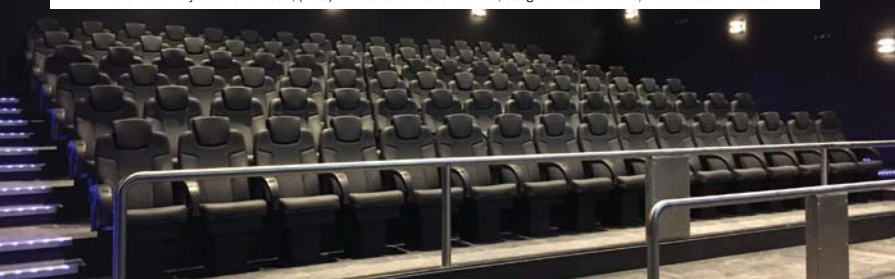
Looking at examples of recently completed projects, a wide range of venues in Dubai, including parks within the newly-opened prestigious Dubai Parks & Resorts (DPR) project, are now operating various products supplied by Simworx.

DPR's Bollywood Parks Dubai features a 100-seat, 4D cinema based on the Indian intellectual property, RaOne, while the Motiongate park also incorporates a 100-seat, 4D cinema, based around Sony's film *Underworld*, as well as a 100-seat Cobra motion theatre.

The two 4D cinemas have large 3D screens, HD projection and a variety of special effects. The Cobra motion theatre experience is based on the DreamWorks Kung Fu Panda IP and includes large, curved 3D screens, 4K projection and a host of special effects, along with four,



4D cinema at Bollywood Parks Dubai; (Inset) Immersive Tunnel at Hub Zero; Stargazer at Ferrari Land; RoboCoaster at HubZero





Simworx's 360°  
Flying Theatre

## “WITH THE ACQUISITION OF ROBOCOASTER, SIMWORX NOW OFFERS A NEW GENERATION OF AGV DARK RIDES TOGETHER WITH PIONEERING RCX ATTRACTIONS USING PASSENGER CARRYING ROBOTIC TECHNOLOGY”

25-seat, 3DOF, hydraulic motion platforms. Inkeeping with the attraction style, it's themed like a Hong Kong junk boat.

### Hub Zero

Three major attractions are also now operating at Hub Zero in downtown Dubai's City Walk area. Operated by Meeras Holdings, it is the region's first immersive entertainment park and a 'gamer's paradise' that offers experiences created in association with a number of renowned video game developers.

Simworx provided three attractions for Hub Zero, including a 50-seat, 4D cinema based on the Japanese video game *Asura's Wrath*. The cinema incorporates 1DOF seats and a range of effects such as leg ticklers, air blasts, water sprays and wind, along with special effects lighting. A large curved screen and Christie projectors provide the visual elements.

A 30-seat Simworx Immersive Tunnel is also in operation, this being based on the *Final Fantasy* video game series by Square

Enix. With a futuristic themed vehicle, the attraction features 3D projection on both sides and to the front of the vehicle, giving guests a truly immersive experience.

The third attraction provided to Hub Zero is a four-seat RoboCoaster based on Sony's *Dragon Age* video game. Guests board the ride within a castle-themed loading station before the experience begins and the passenger vehicle tilts over to hang riders in front of a quarter dome screen where all the action takes place.

And in addition to the Hub Zero projects, at the Mattel Play! Town entertainment centre also in City Walk, Simworx has installed a 4D cinema based around the hugely popular IP Thomas and Friends, with blue seats, Thomas badges on the seats and other related features.

### Other export sales

Elsewhere, Simworx has secured a major contract for the supply of three attractions to each of 10 individual venues in China over the next two years. The attractions

to be provided to each location will all incorporate new product developments.

The company has also signed a deal with a new theme park opening in France in 2018 to supply a 360° 4D Cinema, an AGV Dark Ride, a Stargazer motion theatre and the first European example of its new Dinosaur Island Immersive Tunnel.

Among Simworx's 2017 project openings is one at the brand new Ferrari Land theme park at PortAventura World in Spain, where the company has supplied a major media-based attraction based on its Stargazer motion theatre solution, named Racing Legends by the park.

Additionally this year the company has completed the installation of over 200 new 4D seats in the Mar Rojo Theatre at the Oceanogràfic Aquarium in Valencia, Spain, to provide a new experience opportunity for guests to Europe's largest aquarium. ●

**Simworx will be promoting its complete range of attractions on booth B1030 at AAE 2017.**

# THAT'S THE SPIRIT

**BRC Imagination Arts has turned the Jameson brand home into a completely new visitor experience. The team explains how it came about and how it's shaping up since the relaunch**

Tom Anstey, Journalist, Attractions Management

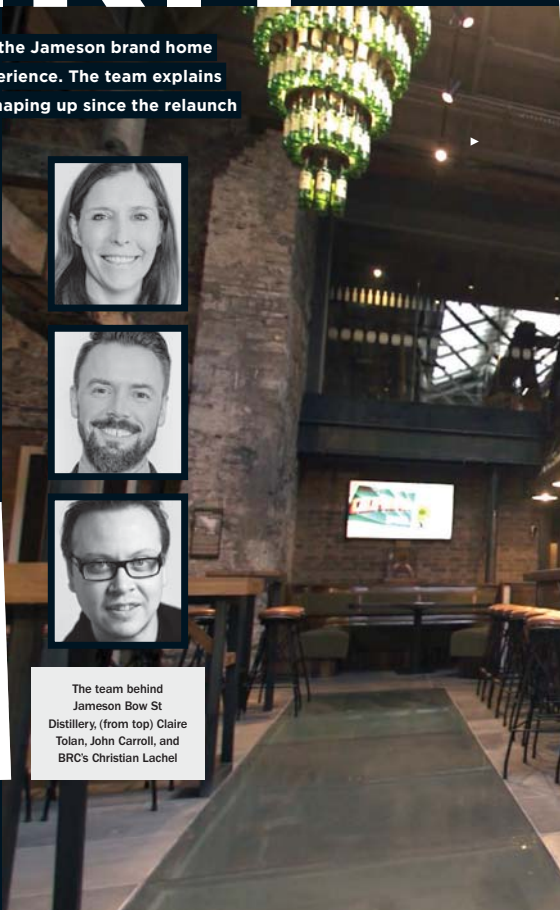
**J**ameson Irish Whiskey is a brand that dates back to 1810, when John Jameson took ownership of the Bow Street Distillery in Dublin, Ireland, established in 1780.

Jameson would go on to become a global brand, with annual consumption of the product now exceeding 56 million bottles. The brand is particularly popular in the US, where consumption is largest.

The newly launched Jameson Distillery Bow St brand home in Dublin tells the story of the historic company, using new technologies and set in the historic surroundings of the Bow Street Distillery to create an all-new state-of-the-art storytelling experience. ▶



The team behind Jameson Bow St Distillery, (from top) Claire Tolan, John Carroll, and BRC's Christian Lachel







In the 40-minute Bow St Experience, brand hosts tell the story of the Jameson distillery and its barrelmen



As part of the experience, guests learn about the whiskey-making process



## CLAIRE TOLAN

Managing Director of  
Jameson Brand Homes

### How does Bow Street fit into the Jameson story?

Everything used to be done here, from 1780 to 1971. The chimneys outside were part of the original distillery. This was all distillery buildings. A lot of the surrounding housing used to be workers' housing too.

When we created the new brand home, we wanted to really work with what we have in terms of all the historical buildings, but then add a lot of the stories that we had in the archive. All of the information had been in storage for a long time. Our archivist had to put on a mask and protective suit as she rummaged through the Jameson files.

She found these amazing stories – information on the barrel men, for example, and other stories that you hear during the tour. We wanted to really make it more personal, more rich, whereas before it was about the production process and that alone. We wanted to add in more people stories, stories that visitors will remember after they leave.

### Why did you opt for a full revamp?

When the tour was set up originally, the big thing was tourists and groups of tourists.



Tolan: the revamped attraction is more fun and more memorable

The numbers grew really quickly – we went from 40,000 to 150,000 in a few years. Then in 2007, we did another revamp, and at that point we also put in a restaurant. Then we had daytime visitors coming in, and then evening guests for the restaurant.

It's been 10 years since we last revamped the distillery. The brand has moved on and it wasn't really working for us any more. The old tour was very focused on the seven steps of production, from start to finish, in a linear format.

So we knew from a business perspective it was off-brand, and from an experience perspective it was dated. You had stuffed cats, you had mannequins,

**We want people to hear stories that they'll talk about when they get home, because fundamentally our reason for existing is advocacy**

you had things like that, which just weren't right for us any more. Within the building, everything needed re-doing.

We focused on making it more interactive, more fun, more engaging, more memorable. We want people to hear stories that they're going to talk about when they get home, because fundamentally our reason for existing is advocacy. Everything that we do here is about promoting Jameson. If that's not working, then what's the point in investing £11m (\$14m, €13m)?

### What is the visitor experience?

There are three – Bow Street, Makers, which is a whiskey masterclass, and Shakers, which is a cocktail class. Our Bow Street tour has two different routes, both identical, so we can get twice as many people through. The tour takes 45 minutes and then you visit the shop and use a voucher to get a drink from the bar.

## JOHN CARROLL

Project Director at  
Irish Distillers

### Why did you decide to reinvent the space?

We were welcoming 305,000 people through our doors annually. It was almost like a pilgrimage to come and see where it all began and walk in the footsteps of John Jameson in the original distillery buildings. The visitors were fans of Jameson, having interacted with the brand wherever they're from in the world. They had an expectation that when they came to Bow Street, they would have this elevated experience.

There was a disconnect between the experience itself and the expectation level. As proud of the experience as we were, it was a bit tired. It was dated, it wasn't very visceral, it wasn't very interactive, it wasn't very immersive and it relied heavily on the delivery of our brand ambassadors.

### How important are the brand ambassadors to the story?

All of our experiences have always been fully hosted from start to finish. We could have reopened with multimedia and headsets and hit play on a video, but we didn't want to do that. A host means we can focus on immersive storytelling, and the visitor is at the heart of that process.

With the three new experiences, multimedia features prominently. Our ambition, however, was to use technology to support the brand ambassador to deliver our story. It should sit in the back seat with the brand ambassador at the wheel.

### How does responsible drinking come into the attraction?

Alcohol awareness is really important from our perspective in terms of the responsible drinking message and approach. We actively encourage people to be aware. In terms of the tasting opportunities, it's all quite measured. Water is offered throughout and we don't permit people to mix and match the experiences on the same day. For any of our evening events that we host here, food is mandatory as well. It's just an incredibly important area for the brand and for us as a company.

### What's your target audience?

Our target audience, both from the Irish market here and abroad, want to interact with the brand and love the brand. With



Carroll: brand ambassadors are still at the heart of the experience

our international audience, they kind of make a pilgrimage to come here. You've got lifelong fans of Jameson introduced to the brand in their 20s and 30s, who have stayed with us ever since. We're a top tourist attraction in Dublin and the majority of people who come through our doors are from overseas. The US is our number-one audience. It's fantastic to see so many American tourists in Ireland.

It's estimated that 600,000 people come to Ireland specifically to visit a distillery and by 2025, it's estimated that number

will jump to about 1.9 million people. We look forward to being at the forefront of Ireland's whiskey tourism strategy.

### Does that strategy mean you work with local players?

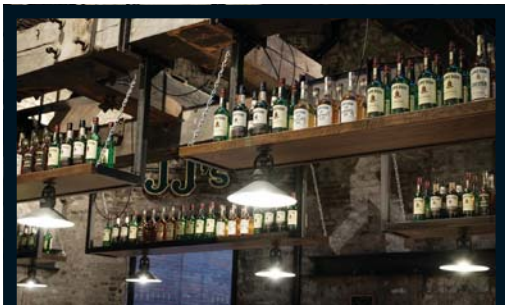
As part of the Irish Whiskey Association, we work with all of the other players within the market and there are more entrants to the category every year. It's fantastic for Irish whiskey and we work with them across the board to ensure that all whiskey experiences are of a very high level.

We also work closely with the local community. Dublin 7, as a district within the city, is enjoying a rejuvenation and there's lots of cool stuff happening.

### How do you work with the nearby Guinness experience?

If you go to JJ's Bar now, you'll see bags from the Guinness Storehouse, and if you go over to the Guinness Storehouse, you'll see green Jameson bags, and that's fantastic. We have a strong and long-standing relationship with the team there. Paul Carty, the CEO, is very much like us – he supports the whole tourism strategy. I think the more premium experiences we have in the city and in Ireland, the better it is for everybody – from tourists right through to people who work in the industry.

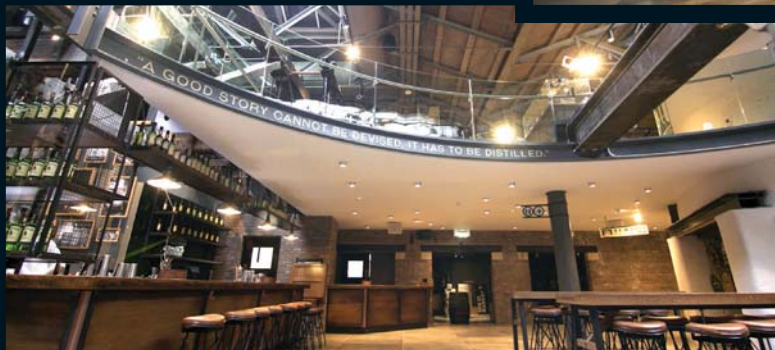
**This year, it's estimated that 600,000 people will come to Ireland specifically to visit a distillery. By 2025, that number will jump to about 1.9 million**



The Jameson experience ends in JJ's Bar with a complimentary drink



The new entrance to the Jameson brand experience (right); and the larger, more social and more modern JJ's Bar (below)



### CHRISTIAN LACHEL

Executive Creative Director  
at BRC Imagination Arts

#### How much change was there in the distillery?

It was a complete reboot. I don't think we kept a single thing. One of the aspects we talked about early on was making sure it was aligned to the modern audience.

The last experience was much more of a museum. It was a bit static and there was no real engagement. The experience was more passive and we needed to make sure that wasn't the case anymore.

We also wanted to make sure when we did this that the staff had better facilities, so we moved the back of house and improved operations – that was a big part of the change. You can't underestimate the importance of this. I think Disney is a prime example of someone who gets that.



Lachel says people increasingly want to engage with their favourite brands

If your employees are happy, that directly relates to the happiness that they're going to be able to deliver to the guest. If you're going to deliver the exceptional then you have to deliver that in terms of quality of

workplace. If you can really be willing to transform not only the guest experience but also the operational experience for the staff and the ambassadors, it's a real win for everybody. The audience feels that, the ambassadors feel it, it's all good.

#### To enter and exit the distillery, you go through the bar. What was the thinking behind this?

When you walked into the old Jameson experience, there was a small bar in the corner and then guests were smacked right in the eye with the ticket office.

We wanted a space where people can hang out. When guests finish their experience, they can continue their journey in the bar and just enjoy it. It's a wonderful social space and its design reflects that. I really like that different way of thinking – so guests don't immediately walk in and it's 'here's the welcome desk and here's where you need to pay'. It was a conscious decision to put the bar at the end and it's something people are really enjoying.





The tour leads to the Maturation Warehouse where guests can sample whiskey straight from the cask



## If you transform not only the guest experience but also the operational experience for the staff and the ambassadors, it's a real win for everybody

### How do you see the brand home as a visitor attraction?

A core focus at BRC has been working with brand homes. We've worked with Coca Cola, Ford, Guinness, Heineken, Jameson and more. All these great brand homes have become really popular with visitors and successful in terms of the business model.

One of the things we've also been seeing as a trend is experiential branding. People are looking for real bonding, connecting moments with brands they love, so we're exploring ways in which consumers can engage with brands, not just in a passive way, but as a two way conversation.

We've been working towards a concept of 'brand theatre', which is a new

term for how we're approaching these opportunities. It can be a combination of sensory, it can be a combination of live, or simply creating social spaces where people can just have a great drink and there are wonderful cocktails.

### How important is storytelling?

A lot of projects are about putting in the latest technology, but you're not going to put something like a Harry Potter ride into this project – it doesn't make any sense for a brand like Jameson to do that.

There are ways to deliver storytelling that are authentic and meaningful, using the techniques of our industry, but not in the same way as in other attractions.

For example, there's something about real people talking to real people. It means guests tend not to look at their phones – they're actually in the moment.

Several years ago, everybody was asking about the use of apps and mobile devices – and they can be great – but you can also say 'let's just talk to each other for a moment and have a meaningful experience'.

### What's next for the Jameson project?

At BRC we never really leave our projects and we've got a great relationship with Jameson. We're going to be continuing to look after the attraction as the operational team ramps up, helping and optimising here and there as new things come up.

Like any attraction, you have a test and adjustment phase for the first six months. You're dialling things in, making sure of the efficiencies and if something needs to be dialled up or dialled back, you do that. ●

# Four secrets for transforming a brand into an experience

FORREC has worked with some of the world's most recognisable characters and IPs. Here Steven Rhys shares some tips on bringing those cherished worlds to life

If you were dropped into a LEGOLAND park blindfolded, you'd know exactly where you are the minute that blindfold came off. It's obvious everywhere you look, right down to the signage and graphics, and in everything you experience. This is a prime example of a brand that has been extended to its fullest potential. The play-and-learn philosophy behind this brand is masterfully evident in every one of its theme parks around the world. Such synergy between the brand



Steven Rhys is executive vice president at FORREC

and the experience doesn't just happen by accident.

Working with an established brand is as challenging as it is rewarding. How do you preserve the integrity of the brand while turning it into a real-life experience? How do you balance the familiar with the new and exciting? How do you attract brand loyalists? After more than 30 years' experience working with brands like LEGO,

BBC Worldwide, Nickelodeon, Universal Studios and many others, here's what we've learned, summarised into four brand extension secrets.

## 1. Immerse yourself in the brand

Get to know the brand on a cellular level. Study its DNA. Understand what makes the brand tick and what people love about it. The more you know, the easier it is to capture the essence of the brand in the environments and experiences you create for it. When FORREC took on the task of creating The Little Big Club and Heartful Party at Puteri Harbour in Johor, Malaysia,



FORREC worked with Sanrio's Hello Kitty IP for Puteri Harbour, Malaysia



we were working with two major brands: HIT Entertainment, which owns a number of IPs, including Thomas the Tank Engine, Barney, Pingu, Bob the Builder and Angelina Ballerina; and Sanrio, which owns Hello Kitty. We became absorbed in the culture of cuteness that surrounds each of these adorable characters so that everything we created for them would be believable.

## 2. Create authentic experiences

Once you understand the nuances of the brand, parlay that knowledge into broader, new, unexpected experiences that feel absolutely right for the brand. At Puteri Harbour, we knew that children already believe that each character is real so they are the most discerning brand loyalists. Our designs had to live up to their very high expectations. HIT Entertainment's branded characters were born on TV so the scale of the real worlds we created had to measure up to their media counterparts. Sanrio's Hello Kitty came from a merchandise background with very strictly defined parameters as to how the branded character can be portrayed, but we had more latitude with what her world could look like. We paid particular attention to Hello Kitty's well-known preference for all things pink and pretty in designing her environment and the experiences within it.

## 3. Engage the brand loyalists and attract new fans

Call them enthusiasts or call them fans, these people want to get inside the brand they love. The more zealous their devotion, the more heightened their expectations. Passivity is simply not an option. One of the most intense fan bases FORREC has ever encountered was for WWE (World

**FORREC worked with the WWE brand and its passionate fan base (above); and on Wanda's Xishuangbanna park**



## FORREC

FORREC is an entertainment design firm that creates places of escape and destinations of distinction. FORREC's creative house has led in the design of theme parks, waterparks, mixed use + entertainment developments, resorts and attractions in more than 20 countries for over 30 years. [www.forrec.com](http://www.forrec.com)

Wrestling Entertainment). Studying this brand revealed that these fiercely devoted fans want to live the WWE experience to its extreme. We played up the names and personas of WWE superstars and based some of the experiences on their signature wrestling moves. The branded attraction concepts we designed are as wildly thrilling and adrenaline-pumping as stepping into the ring itself – so much so that the attractions themselves would attract a whole new legion of thrill-seeking fans.

## 4. Understand your market

A recent theme park study revealed that, in China, there is increased interest in building branded attractions, but in a way that showcases local culture and heritage. While Western-based global brands like Disney and Universal are having a positive effect on what is the largest consumer market in the world, an Eastern-based global brand, Wanda Group, is especially adept at fulfilling the cultural goals of the Chinese government. Wanda Xishuangbanna International Resort theme park reflects the astonishing natural beauty and multicultural character of Yunnan Province, while Wanda Nanchang Outdoor Theme Park captures the unique aspects of JiangXi region. The tea trade features prominently in one park while the porcelain industry is spotlighted in the other. FORREC's work on these projects recognises that such historical and cultural elements are integral to the Wanda brand.

There is no question that a powerful brand is a powerful tool in the hands of those who know how to use it. These four rules can help: know and respect the brand, create extended experiences that are true to it, keep the brand loyalists happy, and find the cultural heart. ●

# THE ATTRACTIONS BUSINESS

## Controlling costs



David Camp

### SERIES ROADMAP

This eight-part series outlines the patterns and dynamics that define every attraction – from visitor behaviour and guest spending to operating costs and profitability

### CONTENTS

1. An overview
2. How are you perceived?
3. Benchmarking
4. Planning a new attraction
5. Driving revenues
- 6. Controlling costs**
7. Is it worth it?
8. Benefits and impacts

In part six of our series, David Camp explains how measuring operating costs correctly can help ensure maximum profitability

Management of operating costs is critical for all successful businesses. With visitor attractions reliant on guests coming through the entrance, and the patterns of these visits being influenced by weather, competitor activity and a range of external events, understanding the drivers of cost and how to manage these is essential.

There are two components of costs, fixed and variable. Fixed costs reflect the costs that are incurred whether the attraction is open or not. These include salaries for permanent staff, rent and rates, insurance, repairs and maintenance, animal welfare (for zoos and aquariums), administration and many of the utilities costs. Considering these costs spread evenly across the year gives a base level of business costs.

Variable costs are those that change with visitor or business volumes. Expenses such as the cost of goods for restaurants, shops and games, pay for temporary or seasonal staff, credit card fees, and some utilities are variable. Most of these expenses are only incurred if the attraction is open.

### Seasonal considerations

A substantial proportion of costs at most attractions are fixed, and at attractions that are open year-round almost all costs could be considered fixed. However, an analysis of revenues against costs often reveals that attractions lose money during autumn and winter months. This raises the question of whether attractions should be open all year, or would benefit from closing to reduce the variable costs.

This is particularly relevant at theme and amusement parks where the large staff requirement to operate the rides and attractions represents a significant



PHOTOS: ANITA MARIC / MARC SETH





Food and beverage can account for up to 40 per cent of an attraction's outgoings

**"A park cut marketing budget by a quarter, causing a 15 per cent drop in attendance. Once reinstated, attendance rose to historic levels"**

proportion of expenditure. Knowledge of historic visitor demand patterns aligned with a sound understanding of cost management allows for planning of an operating season to maximise days when revenue exceeds the variable costs and provide the strongest profitability.

While costs vary between attractions, examination of a range of different attractions reveals broad similarities in the benchmark ratios of operating costs.

### Cost of goods sold

Cost of goods sold at restaurants and shops as well as for redemption games tends to follow typical percentage ranges:

- **F&B** – 20-40 per cent
  - **Merchandise** – 30-50 per cent
  - **Games and other** – 20-40 per cent
- These costs exclude staff and only represent the cost of the goods. This is an important factor. If staff are added into the cost of these operations it often means profits generated from these activities can equate to 20-30 per cent of turnover. With such a small proportion of this income passing to the attraction, it's not surprising that a number of attractions outsource the catering and retail activities to third parties.

Credit card, debit card and contactless payments have increased the scale of charges payable on these transactions. Fees can be up to 3 per cent of revenues. Cost of goods generally represents 10-15 per cent of operating costs.

There is no standard way of reporting operating expenses so it is often difficult to benchmark attraction performance. We

look to group costs into a limited number of broad headings to allow for such comparisons. The three pie charts show the average mix of operating expenses at different types of attractions.

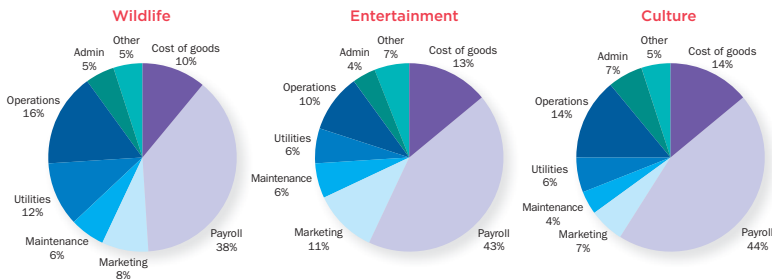
### Staff

As can be seen, the largest proportion of operating costs is almost always staff and this generally accounts for between 35 per cent and 50 per cent of operating costs with entertainment and cultural attractions spending a greater proportion of overall costs on staff than wildlife attractions.

This does not reflect low staffing levels at wildlife attractions, rather it is a reflection of the higher levels of utilities, animal husbandry and general operating costs that are incurred in the year-round operation of wildlife attractions.

Managing payroll costs presents a delicate balance. As it is the largest area

The three pie charts show the mix of operating costs between wildlife, entertainment and cultural attractions





- ▶ of cost it offers the greatest potential for control. However, at attractions the front of house staff are the public face of the business. To recruit and maintain good staff requires competitive rates of pay and conditions and so any cuts in this area need to be carefully managed.

## Marketing

The greater requirement for and spending on marketing at entertainment attractions and theme parks can clearly be seen in the pie charts, spending far more than wildlife or cultural attractions on marketing activities. Theme parks in particular undertake regular investment in new rides and it's critical that their target markets are made aware of these additions.

The range of marketing channels increases every year. For many attractions, the traditional route of adverts, posters and brochures has been superseded by online activity and social media. For a number of attractions this has served to spread an already thin budget across too many channels and has resulted in some attractions focusing their marketing activity on social media almost entirely.

For attractions looking to cut costs, reducing marketing expenditure appears an easy target but this is often a short-sighted saving that leads to declining attendance through lack of awareness. By way of example, in the 1990s a theme park operator in Europe decided to cut the marketing budget by a quarter



one year. This resulted in a 15 per cent drop in attendance that year and when the marketing budget was reinstated the following year admission numbers increased back to historic levels.

## Rent

One aspect that can create significant variances at attractions is rent. This is generally included within the operations cost heading. A benchmark study across theme and amusement parks around

the world in 2015 indicated that the on average, park operators spend around 10 per cent of their operating costs on rent and/or mortgage payments.

Clearly, paying low rent is advantageous to attractions but in city centres and retail environments it is often difficult to find suitable space at an affordable rent. A major factor in the failure of some city centre attractions has been unsupportable property costs and a business plan based upon meeting these costs rather than on a sounds assessment of likely demand.

## Overall

There are other aspects that can be included in financial statements. Many organisations include depreciation, taxes and/or financial charges in their reported accounts. While these are expenditure items for accounting purposes they do cloud the picture and make comparisons and benchmarking difficult.

A clearer measure is made by excluding these items and assessing the operating profits on the basis of EBITDA. This stands for Earnings Before Interest, Tax, Depreciation and Amortisation and is a standard measure of a business's true operating position. In the next article, we will discuss profits and the valuation of attractions based on EBITDA. ●

David Camp, D&J International Consulting  
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# WHEELS IN MOTION

Orlando, theme park capital of the world, could become one of the first cities in the world where driverless vehicles become standard. We looked at their testing and deployment plans

Alice Davis, managing editor, Attractions Management

Self-driving cars look set to become a part of life, offering many advantages over the traditional automobile. Automated Vehicles (AVs) represent a complete rethink of the way we'll get around.

Research shows that AVs could drastically reduce the number of traffic collisions, improve traffic flow and ease congestion, make more efficient use of fuel or energy, facilitate journey-sharing and increase mobility among the public, and reduce the need for parking spaces, traffic police, and insurance.

Imagine a family getting picked up from Orlando International Airport in an AV that looks like *Tow Mater* from *Cars* and taken directly to their Disney resort hotel. It's not a stretch to think the AV might be able to recognise the family and know exactly what time they'd be ready to be collected.

But the technology is still new and needs to be thoroughly tested. So where better to create an AV testing hub than the pioneering city of Orlando, Florida? The city already has a \$13bn (£10bn, €11.8bn) tech industry, leading the way in sectors like aviation, aerospace and IT, not to mention its theme park industry, often a testing ground for visionary new technologies.

The US Department of Transport (USDOT) selected the City of Orlando to pilot this new technology, making Central Florida one of the US's most important centres for



Former USDOT secretary Anthony Foxx

research and development of AV technology, including cars, buses, and other vehicles.

The long-term programme will involve the simulation testing and closed-track testing, before introducing public transport testing such as autonomous city buses.

## Testing partners

To facilitate testing, the City of Orlando has teamed up with academic and private sector agencies – including the University of Central Florida, Florida Polytechnic University and NASA Kennedy Space Center – to form the Central Florida AV Partnership.

Plans focus on two testing tracks. The first is a proposal for a 2.25-mile (3.6km) multi-lane track designed to test AVs at

high speeds, a partnership between Florida Department of Transport and Florida Polytechnic University. Dubbed SunTrax, it will be located in Polk County and aims to recreate realistic city situations to test how AVs interact with other vehicles, bicycles and people. The \$51m (£39m, €46m) test track is expected to open in late 2018.

The second testing centre is at NASA Kennedy Space Center, where researchers will test how AVs perform in extreme weather and unpredictable situations. The centre has an environment chamber specially designed for testing AV software and hardware in such conditions.

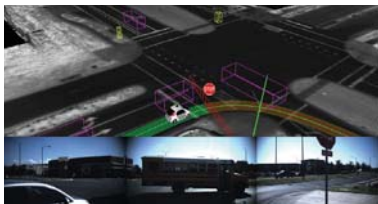
Following on from that, AVs can then be deployed on specifically chosen roads and public transit routes. Investment in the I-4 highway – the I-4 Ultimate project – will help facilitate real-world testing.

Central Florida is one of 10 AV Proving Grounds designated by USDOT, with others in Pennsylvania, Texas, North Carolina, Wisconsin, California and Iowa.

"The 10 proving grounds will collectively form a Community of Practice around safe testing and deployment," says Anthony Foxx, former USDOT secretary under the Obama administration. "They will openly share best practices for the safe conduct of testing and operations as they are developed, enabling the participants and the public to learn at a faster rate and accelerating the pace of safe deployment." ●



Waymo, Google's self-driving technology arm, is already allowing volunteers in the US to try out its driverless cars



PHOTOS: WAYMO



The technology is here. All Tesla cars are equipped with self-driving capability



PHOTOS: TESLA

“IMAGINE A FAMILY GETTING PICKED UP FROM ORLANDO INTERNATIONAL AIRPORT IN AN AV THAT LOOKS LIKE TOW MATER FROM CARS AND TAKEN DIRECTLY TO THEIR DISNEY RESORT HOTEL”



# EURO ATTRACTIONS SHOW 2017



EAS

Euro  
Attractions  
Show

## DETAILS

### Location:

Berline Messe  
Exhibition Centre,  
Berlin, Germany

### Dates:

Conference:  
24-28 September  
Trade Show:  
26-28 September

The 2017 edition of the Euro Attractions Show is coming to Berlin, and it's set to be bigger and better than ever

**T**his year, the leaders of the leisure, attractions, tourism, and entertainment industries will gather in Berlin, Germany, at Europe's biggest showcase of products and services, complete with a range of educational sessions and networking events.

As well brushing up on their industry knowledge, best practices and the latest trends, attendees can meet with more than 500 different companies across the 12,000sqm (130,000sq ft) trade show floor.

**EAS 2016 offers attendees the opportunity to grow, explore and connect through multiple channels:**

- Get an up-close look at the latest strides in amusement and entertainment technology.
- Meet with key players in the global attractions industry.
- Make central business decisions on the trade show floor.
- Stay informed on industry best practice through seminars and demonstrations.

EAS 2017 also offers a comprehensive conference programme that features more than 20 educational seminars, plus the IAAPA Institute for Attractions Managers, IAAPA Safety Institute, CEO Talks, Lunch and Learn seminars, FEC and Waterpark forums, and the Leadership Breakfast.

This year also sees the launch of four brand new educational tracks.



- The **Digital Future Track** focuses on modern technologies that can transform the visitor experience, from VR and AR, to big data and social media, to operational technologies like ticketing.
- The **Profit/Revenue Track** includes seminars on fine dining versus volume dining, revenue generation and the pros and cons of hosting special events.
- The **Safety/Security Track** focuses on ride safety, touching on crisis management and security, and offers a special panel for wildlife attractions operators.
- The **TEA Presents Track** will include seminars on IP and branding, and "emmersive" experiences.

## EAS IN NUMBERS

- 11,000 attractions industry professionals
- 20+ education sessions
- 500+ exhibiting companies
- 130 product categories
- 21 hours of exhibit time
- 4 days of networking opportunities
- 1 IAAPA Safety Institute
- 1 IAAPA Institute for Attractions Managers





## IAAPA EMEA Forums

In 2017, IAAPA EMEA expanded its events schedule with the addition of a winter and spring forum. The inaugural IAAPA EMEA Winter Forum was held in Dubai in January, giving attendees a valuable insight into the booming leisure and attractions industry in the Middle East region. The forum included educational visits to Bollywood Parks Dubai, Ferrari World Abu Dhabi, IMG Worlds of Adventure and LEGOLAND Dubai.

The IAAPA EMEA Spring Forum was held over three days in May in Krakow, Poland. The event focused on the country's attractions market, including trips to Energylandia, the Wieliczka Salt Mine and the Rynek Underground.

**Look out for forum dates for next year.**

The inaugural IAAPA EMEA Winter Forum took place in Dubai and included a visit to Bollywood Parks Dubai



PHOTO: WASSIM RASLAN



Thousands of industry professionals do business on the trade show floor

## IAAPA

The International Association of Amusement Parks and Attractions (IAAPA) is the premier trade association for the attractions industry worldwide. Founded in 1918, IAAPA is the largest international trade association for permanently situated amusement facilities and attractions, and is dedicated to

the preservation and prosperity of the attractions industry.

### Mission Statement

"Our mission is to serve the membership by promoting safe operations, global development, professional growth, and commercial success of the attractions industry."

### IAAPA hosts three trade shows on an annual basis:

- Asian Attractions Expo from 14-16 June in Singapore
- Euro Attractions Show from 26-28 September in Berlin, Germany
- IAAPA Attractions Expo from 14-17 November in Orlando, Florida

### MORE INFORMATION ON EAS:

Visit [www.IAAPA.org/EAS](http://www.IAAPA.org/EAS) or contact the IAAPA EMAE offices at [Europe@IAAPA.org](mailto:Europe@IAAPA.org)





Marina Bay Sands, Singapore, provides the backdrop for the upcoming trade show

# ASIAN ATTRACTIONS EXPO

The Asian edition of IAAPA's trade show returns to Singapore this June.

Here's what to expect from the show - plus, news from a selection of exhibitors

**T**he 2017 Asian Attractions Expo (AAE) is heading back to Singapore's stunning Marina Bay Sands this June, and will offer attendees the chance to participate in a variety of educational programs and seminars.

The sessions are designed to help operators and industry professionals share best practices and get up to speed with the latest developments in safety standards, using IPs, revenue generation, and the latest in innovations and technologies.

Since 2013, when Singapore last hosted AAE, the show has increased in size and stature, indicative of the growth of the attractions industry in the Asia-Pacific region. Attendance at attractions in the region has increased from 367 million visitors in 2013 to more than 418 million visitors in 2015, and is predicted to reach 595 million by 2020, according to IAAPA's *Global Theme and Amusement Park Outlook Report*.

On the educators conference bill are Mike Barclay, group CEO at Mandai Park Holdings; Jean-Christophe Canizares, CEO at ECA2; Neva Heaston, director of revenue operations at Wild Wadi

## NEED TO KNOW

**What:** Asian Attractions Expo 2017

**When:** 13-16 June 2017

**Where:** Marina Bay Sands Expo and Convention Centre, Singapore

**How much:** \$69 - \$149

**Register:** [mil-events.com/aae/](http://mil-events.com/aae/)

**Tweet:** @IAAPAHQ #AAE17

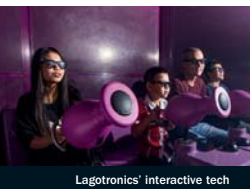


Waterpark; Thomas Megna, president of TEA Asia-Pacific; Tom Mehrmann, founder and CEO at Themed Advisors Limited, and Ron James, chief theming creative director at Wanda, to name just a few.

The IAAPA Safety Institute and the IAAPA Institute for Attractions Managers will also be taking place. All educational offerings at AAE can be used as credits by those seeking IAAPA Certification.

AAE 2017 expects to welcome 8,000 attendees, and more than 300 global exhibitors across the 10,000sqm of trade show floor. There will be a variety of networking events and the opportunity to visit some of Singapore's best attractions.





Lagotronics' interactive tech

## LAGOTRONICS ▲

### Booth #L1321

Lagotronics Projects is showing interactive experiences, including a realistic model of GameChanger, a 3D game ride on a rotating platform. Lagotronics has also added gesture technology to its controller offering, allowing users to play interactive games with swipe control or hand symbol control. The 3D game BeachFun, housed inside a GameCabin, will be on display.



IdeAttack's Vertigo Hotel

## HUSS

### Booth #L221

HUSS is highlighting its film-based rides, especially the flying theatre Movie Base XS. The attraction is a next generation Movie Base concept with a new and improved design, including a new seat configuration. The XS concept alludes to the ride being smaller and more compact than the original version. The first Movie Base XS will open in Moscow, Russia, at the new Dream Island theme park in 2018.

## IDEATAK ▼

### Booth #L749

IdeAttack is presenting Vertigo Hotel at Yangshuo Resorts World, in Guangxi Province, China. Yangshuo is known for its karst mountains, winding rivers, caves and

Vekoma's family coaster,  
Space Warp at Energylandia



temples and the Vertigo Hotel is a destination specifically designed for this environment. The exclusive hotel is located on the top of one of karst hills, designed to blend with the natural scenery – and reachable by helicopter.

## IPLAYCO

### Booth #L752

IPLAYCO's Lil Ninjas courses are an "extreme"-style Ninja attraction with custom challenges, timers, high scores, social media and team building opportunities. Custom monitors provide video of the racers and high score displays facilitate team challenges and individual races. Giant angled climbing walls, slides, ball pools and other obstacles create a unique experience that is different every time.

## VEKOMA ▲

### Booth #L929

Space Warp at Energylandia is the first to debut of a whole new generation of Vekoma sitdown thrill coasters, using the company's latest track design tools and new track

production methods, as well as the new MK1101 trains. Plus, a Firestorm launch coaster is opening in Vietnam this year, and in 2018 in China. The Firestorm model is a high energy design based of the same MK1101 ride system as Space Warp, though the overall scope of Firestorm is of a much greater order. Bermuda Blitz is opening in 2017 in Slaski Wesoie, Poland, designed with interaction with the park ride area in mind, with lots of near-miss effects and close fly-bys.

## BROGENT

### Booth #B1728

Brogent Technologies has recently completed work on an i-Ride Flying Theatrical inside the Ferrari Experience building at Ferrari Land, PortAventura. Named Flying Dreams – Around the World with Ferrari, it's a three-level, 70-seat experience that follows Ferraris driven through some of the world's most exciting scenery. Brogent delivered the full package of ride system, dome screen and AV system, while Mousetrappe created the film content.

## INTAMIN ▶

## Booth #L1221

Celebrating 50 years of innovation, Intamin will present several new products at this year's AAE in Singapore. The ride maker recently opened Soaring with Dragon at Hefei Wanda, China, a LSM Launch Coaster with a unique "swing launch" element and the world's highest non-inverted loop. In April 2017, Intamin celebrated the opening of Turbo Track at Ferrari World in Abu Dhabi, a LSM-driven Reverse Free Fall Coaster, and Red Force at Ferrari Land at PortAventura, Spain, the highest and fastest LSM Launch Coaster in Europe. Visitors can also find out about Intamin's newest concept, the Multi-Dimension Coaster, which combines the traditional coaster experience with a number of special effects.



Intamin's launch coaster, Turbo Track at Ferrari World (above); Holovis's multi-technology solutions

## TRIOTECH

## Booth #L937

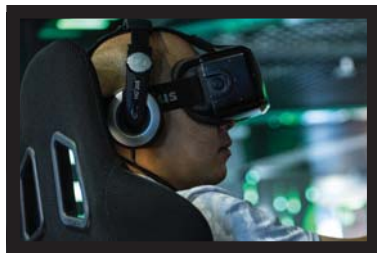
Triotech has developed a first-of-its-kind ride for the flying experience ride segment. The Flyer's features include 3D content in both CGI and live footage, a wider motion range, and seat-based motion instead of platform-based motion. The attraction can be scaled to different sizes and throughput, with the corresponding impact on space and investment requirements. Triotech believes this "scalability" fills a void in

today's market. The first Flyers will be in the US and China.

## SIMWORX ▼

## Booth #B1030

Simworx is a world leader in the design, development and manufacture of 3D/4D dynamic simulation attractions and 4D effects theatres. At AAE, Simworx is promoting its complete range of attractions, which includes 4D/5D cinemas; the Immersive Tunnel; the new 360° Flying Theatre; a variety of AGV dark rides; a selection



of innovative products under the RoboCoaster umbrella; the Cobra Motion Theatre and Cobra Dark Ride; and, last but not least, the Stargazer seven-seat motion theatre.

## HOLOVIS ▲

## Booth #B1302

Holovis is unveiling a high-capacity, real-time robotic arm experience at the Asian Attractions Expo, a new concept for next-generation media and motion-based immersive experiences that combines VR with real-time media, gesture-tracked interactivity and robotic motion technology. Holovis has worked alongside Kuka Robotics and BEC Engineering on the concept.



Simworx's four-seat RoboCoaster

## WALLTOPIA

## Booth #L238

Walltopia Adventure is introducing its new product, Adventure Hub. Adventure Hub is a massive entertainment station built on several levels that combine adventure, sport and fun. The first Walltopia Adventure Hub opened in early 2017 in Lavina Mall in Kiev, Ukraine, and includes Ropetopia low and high ropes courses with 23 different challenges, a 154-metre (505-foot) Rollglider, interactive Fun Walls climbing challenges and a Rocktopia artificial caving system, as well as a Quick Jump free-fall – which safely mimics for users the experience of base-jumping.



Simex-Iwerks  
launches  
*The Martian*  
4D Experience

#### CAVU

##### Booth #L1145

CAVU Designwerks is promoting two new products and a new VR venture. The media-based attractions supplier is unveiling Turbo Racer, a dual-purpose dark ride that can transition from indoor to outdoor track with speeds up to 80kph (50mph). Eagle Force is a 30-metre-tall (98-foot) rotating thrill ride, featuring multiple changing forces. CAVU is also promoting its DreamCraft VR offering to the Asian market.

#### JORA VISION

##### Booth #L234

Dutch masterplanner and design company Jora Vision

is showcasing a range of new projects as examples of the firm's high-quality environments and attractions for theme parks and family entertainment destinations. Visit the booth to learn how Jora Vision architects, illustrators, graphic designers and art directors work together to create a design that is feasible and realistic – technically as well as budget-wise – at every phase.

#### INTERLINK

##### Booth #L723

Interlink is planning to unveil details of its first Immersive Flume Ride. The ride – a world-first concept – combines Flume Ride technology from Interlink, with Immersive Tunnel and

AV technology from Simworx. Interlink is also showcasing a Superflume ride set to open in June in Europe, as well as details of several other upcoming installations in the Asian attractions market.

#### SIMEX-IWERKS ▲

##### Booth #L1231

SimEx-Iwerks is launching a 4D theatre experience based on the blockbuster movie *The Martian*. With state-of-the-art 3D projection and action-heightening special effects, *The Martian 4D Experience* takes its audience on a journey into space. Matt Damon stars Mark Watney, a brave astronaut who must use his scientific ingenuity, wit and spirit to

overcome being stranded alone on Mars. As he battles the extremes of this hostile planet, his crewmates plot a daring, if not impossible, rescue mission.

#### JRA

##### Booth #L617

Imaging technology firm Eastman Kodak Company has partnered JRA (Jack Rouse Associates) to plan, design and implement a visitor experience centre at the Kodak offices in Rochester, New York. The attraction will tell the story of the company's journey through the years and explain modern innovations in imaging, printing and software. To find out more about this and other projects, visit the JRA booth. ●

# PRODUCT INNOVATION

Suppliers tell Attractions Management about their latest product, design and technology launches

For the latest supplier news and company information, visit

[attractions-kit.net](http://attractions-kit.net)



Smartify has partnered with London's Wallace Collection, putting a personal interactive art guide in the visitor's hand



## New Smartify app brings visitors closer to their favourite artworks, explains Anna Lowe

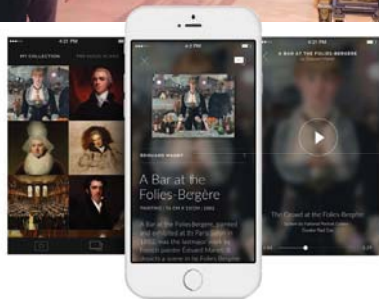


Anna Lowe, Smartify

Smartify is an app that allows gallery visitors to use their mobile phone to identify an artwork and unlock a wealth of information and content about it.

"When visiting museums, galleries or art fairs, we all see artworks we are curious about but then struggle to access more information or to remember the artwork afterwards," says Smartify's Anna Lowe. "Smartify was founded by a team who all encountered the same problem when visiting these attractions. Our goal is to make the rich stories about every artwork more accessible, and to support art venues financially and in reaching new audiences."

The app uses advanced image recognition and AR to scan the painting and release a variety of audio, text and video insights. The user can save artworks to a personal library.



Smartify is already working with partner museums – including the Met, The Wallace Collection, Rijksmuseum and the Royal Academy of Arts – to supply tailor-made digital visitor guides. Smartify's founders want to "democratise access to art" by putting the information the visitor wants directly in their hands.

The not-for-profit initiative – a UK government funded social enterprise – was founded by tech experts Thanos Kokkiniotis and Nick Mueller, mobile solutions specialist Ron Vrijmoet, and arts education project manager Lowe.

"We work in partnership with museums or galleries globally to

make artworks and information available on the platform, and then provide data analytics on the audiences visiting and scanning artworks," Lowe says. "The service is completely free to the partners and we actively encourage them to advise us on future development and new features for the app."

"We believe nothing beats the physical experience of visiting a museum or gallery and want to make it easy to discover, remember and share art."

ATTRACTIONS-KIT KEYWORD

SMARTIFY



## Holovis's Amy Steele opens the door to the Mystic Timbers shed



● Amy Steele, Holovis

At Cedar Fair's Kings Island, Holovis has created a multi-layered story-driven pre-show for the newly opened wooden coaster, Mystic Timbers, with the possibility guests will see a different outcome each time.

"This project sets a trend for rollercoasters going forward," says Amy Steele, vice president of development at Holovis.

The multimedia queue line experience invites visitors to delve into the story of the lumber mill where Mystic Timbers – built by Great Coasters International – is situated.

The mill, property of the Miami River Lumber Company, was abandoned in 1983, but no one knows the reason why. Seemingly, the answer is in the shed.



● Holovis's queue line experience tells a multi-layered, multimedia story

"We took compelling and immersive storytelling and combined it with an incredible wooden coaster. That mix created something truly special and shows how storytelling can be as integral a part of the experience as the coaster itself," says Steele.

The detailed backstory begins in the queue line and ends with the shed, a multimedia experience with cutting-edge audiovisual, multimedia and animation effects.

"Every detail alludes to why the mill has been abandoned for so long," Steele says. "But they'll never discover all of its secrets. The experience changes, playing out different scenarios so guests are unlikely to see the same show twice. Multiple rides are essential to truly discover 'what's in the shed.'"

ATTRACTIONS-KIT KEYWORD

HOLOVIS

## MULTIMEDIA/AV CASE STUDY

### Christie articulates Richard Mosse's thermographic art

A recent exhibition at the Barbican, London, featured footage taken by a long-range infrared thermographic camera capable of detecting body heat some 30km (19 miles) away.

The filmmaker and artist Richard Mosse took video and images of refugees arriving in Europe using the military-grade technology for an art installation called Incoming. The camera

blurs the faces of the subjects and makes it impossible to tell what they look like or what their origin is, both dehumanising them and simultaneously showing there is no difference between people.

"This camera technology is a very special, unique way of imaging the world," says Mosse. "It's not a particularly hi-res camera, only one megapixel, and it's monochrome. It's a heat signature of relative temperature



● Richard Mosse, artist

filmed from hundreds of metres away – and displayed them on 8x5-metre screens around the Barbican's curved walls.

"The high-end projection technology married to this very unusual military surveillance technology created an experience that felt entirely new, shockingly unfamiliar, and beautifully articulated," said Mosse.

"The Christie projectors provide enormous scale and staggering level of detail, very crisp and sharp, and an extraordinary intensity of luminosity. Christie was also able to adjust focus on a curving arc. The articulation of the original image is far beyond our wildest expectations."

Cinematographer Trevor Tweeten and composer Ben Frost worked with Mosse on the project.

ATTRACTIONS-KIT KEYWORD

CHRISTIE



● The projections were displayed along the Barbican's curved wall

difference. It's showing us the contours of relative heat difference within a given scene, so it's about contrast."

To display the works at the Barbican, Christie M Series 3DLP projectors were used for their ability to show the luminous quality and tiny details of the footage on a large-scale projection. Three HD10K-M 11,000 lumen projectors took the tiniest details – as small as human hairs, which were

# Attractions MANAGEMENT DIRECTORY

## ATTRACTIONS SHOW AND EXHIBITION



EURO ATTRACTIONS SHOW 2017  
**BERLIN** ▶ SAVE THE DATE  
GERMANY

Messe Berlin Exhibition Center  
Berlin, Germany

Conference: 24-28 Sept. 2017  
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