

# Thrill see!



Europa-Park,  
Rust, Germany

A photograph of a roller coaster track against a cloudy sky. The track is dark and silhouetted against the lighter sky. The word 'KPIs' is overlaid in large, bold, orange letters across the center of the image. A yellow banner at the top contains text.

Theme park projects don't have to be a wild ride. Here's how project managers keep new attractions on track. **BY NOVID PARSİ**

# KPIs



PHOTO BY REUTERS / ALAMY STOCK PHOTO

When Walt Disney Co. launched the first foreign-backed theme park project in mainland China, the global entertainment power knew it had to go big or go home. The US\$5.5 billion Shanghai Disney Resort, which opened last year, delivered one of the company's fastest roller coasters ever—and the tallest and largest castle in any Disney park.

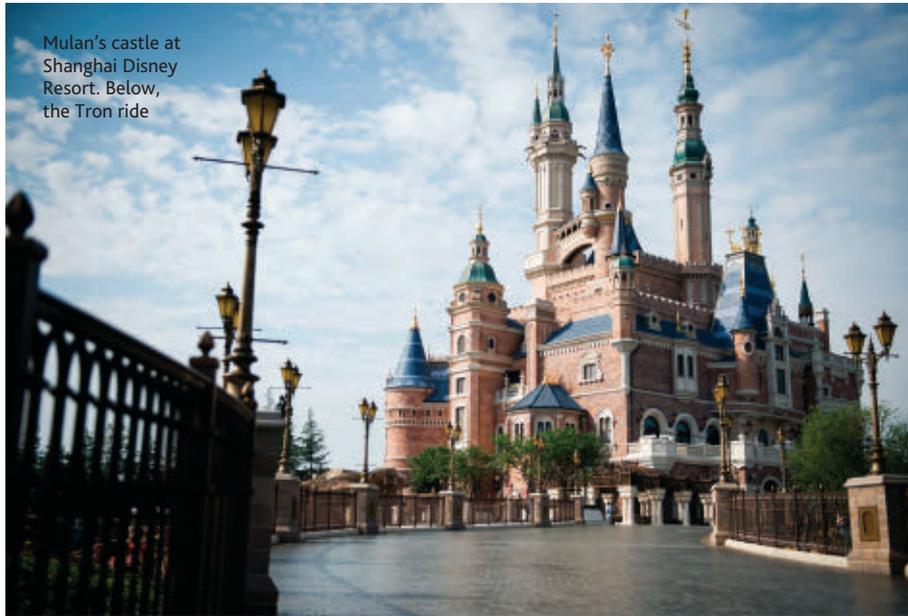
And Disney's not the only organization raising the bar for amusement parks worldwide. With global attendance and demand for new attractions at an all-time high, theme park projects must meet soaring consumer expectations—whether they deliver sprawling new parks, heart-pounding rides or IT improvements that reduce wait times.

“We have to reinvent ourselves every year as part of a master plan,” says Patrick Marx, a project manager responsible for new rides and attractions at Europa-Park, Germany's largest theme park, in Rust, Germany. “We have to think many years in advance to make sure we meet the needs of all of our guests. If we don't have a new ride or attraction every year, many of our guests won't come back the following year.”

But getting it right could bring a financial boon. The record 236 million people who visited the world's 25 most popular amusement parks in 2015 marked a 5.4 percent increase from the previous year, according to a 2016 report by Themed Entertainment Association and engineering firm AECOM. As parks seek to capitalize on this trend, investments in global theme park projects are also on the rise, projected to reach US\$56.4 billion in 2019—a US\$16.6 billion increase from 2014. For instance, last year, IMG Group completed the US\$1 billion IMG Worlds of Adventure in Dubai, United Arab Emirates. It's the world's largest indoor theme park, holding more than 30,000 guests per day.

Regardless of scope, projects to build theme parks or add attractions present similar challenges. Project teams must work safely around tight timelines with rigid deadlines, manage a diverse group of stakeholders and grapple with evolving technology. All the while, they must align with the sponsor's

Mulan's castle at Shanghai Disney Resort. Below, the Tron ride



ultimate goal: to deliver thrills that keep crowds coming back for more. That means conducting thorough market research before every project, incorporating lessons learned and monitoring key performance indicators, such as customer satisfaction indexes, to help ensure benefits realization, says Francesco Luna, PMP, senior project manager, Gardaland, Lake Garda, Italy.

“Our business is to entertain people,” he says. “So if we deliver a project that's on budget and schedule but doesn't deliver a memorable experience to our guests, the entire project is a failure.”

#### READY FOR LAUNCH

Even the coolest new attraction can disappoint if it's not ready to go when visitors arrive. That's particularly true for seasonal outdoor parks, where projects are usually slated for completion ahead of opening day.

“A majority of our clients have just three or

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—Patrick Marx, Europa-Park, Rust, Germany



A rendering of IMG Worlds of Adventure in Dubai, United Arab Emirates

IMAGE COURTESY OF IMG GROUP

# Crowd Appeal

Growing attendance at theme parks worldwide drives a steady demand for projects.

Attendance growth rate at top 25 theme parks worldwide

**5.4%**  
2014-2015

**26.3%**  
2006-2015



**236 million**

Visitors to the world's top 25 theme parks in 2015

Source: *Global Attractions Attendance Report*, Themed Entertainment Association and AECOM, 2016

four months of the year for prime revenue time, so we have to make sure their projects open on time,” says Lannie Thielen, PMP, water parks and attractions manager, WhiteWater West Industries, Vancouver, Canada. Mr. Thielen makes up for delays caused by inclement weather or late shipments by shifting project activities or having team members work overtime.

Mr. Marx’s teams also have reshuffled tasks to keep projects on schedule. For instance, a two-year project to create a flight-simulation theater experience at Europa-Park by 2017 ran into problems last year during the early construction phase. A supplier in Belgium informed Mr. Marx that parts for the ride’s steel structure would be two weeks late because meeting Germany’s safety regulations had taken more time than the vendor had anticipated. To

keep things moving, Mr. Marx rescheduled installation of the ride’s gondolas and then quickly brought in a vendor to install soundproofing material ahead of schedule.

“The primary risk is always time,” he says. “If we open a new ride one or two months late, guests will stay away that much longer.”

Projects at parks with year-round operations face their own set of risks. For instance, to execute an 18-month, US\$12 million renovation of a theme park inside the Sahara Centre shopping mall in Sharjah, United Arab Emirates, the project team divided the park into seven zones. Three of the zones had to stay open at all times to meet the owner’s minimum required revenue, says Mones Hegazi, PMI-RMP, PMP, projects director, Bukhatir Properties International, Dubai.

To mitigate the risk of injury to the public during construction, the team installed a new roller coaster at night and during holidays. But the fact that the mall and theme park share much of the same infrastructure—such as lighting systems, climate control and even some structural beams—complicated the planning process. Mr. Hegazi’s team used software to create a 3-D model of the ride to ensure work in one area didn’t disrupt operations elsewhere and help determine the most efficient construction sequence.

# Built for

Theme park projects are a hot ticket around the world.

# Fun



## **Ark Encounter**

**Location:** Williamstown, Kentucky, USA

**Budget:** US\$100 million

**Timeline:** 2014-2016

**Attraction:** The replica of Noah's Ark, built to biblical specifications, is made of timber and weighs 2,100 tons. The construction team worked around the clock six days a week for 11 months to keep the project on schedule.



## **EuropaCity**

**Location:** Paris, France

**Budget:** US\$3.3 billion

**Timeline:** 2019-2024

**Attraction:** As the largest project in Europe by a single investor, the retail and leisure development will cover more than 198 acres (80.1 hectares)—and provide competition for Europe's most popular theme park, Disneyland Paris.



## **Shanghai Disney Resort**

**Location:** Shanghai, China

**Budget:** US\$5.5 billion

**Timeline:** 2009-2016

**Attraction:** Walt Disney Co.'s sixth theme park and mainland China's first foreign-backed theme park took decades of planning, including nearly 20 years of negotiations between Disney and the Chinese government.



## **Hurricane Harbor**

**Location:** Oaxtepec, Mexico

**Budget:** US\$16 million

**Timeline:** 2016-2017

**Attraction:** Six Flags renovated a shuttered water park, creating new slides, rides and eateries across 67 acres (27.1 hectares). The U.S. company negotiated with the Mexican government for two years before purchasing the park.



## **Wizarding World of Harry Potter**

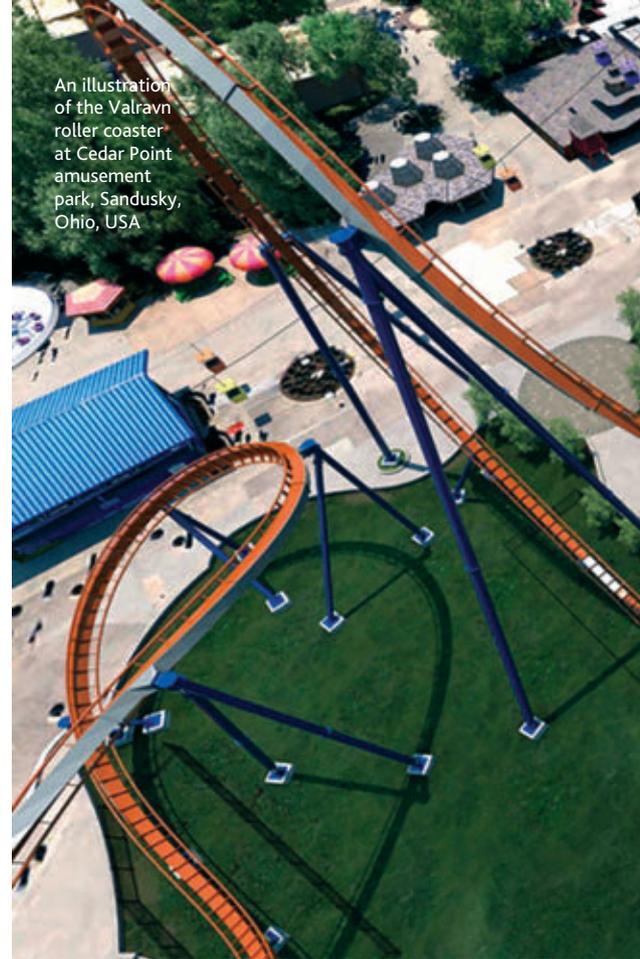
**Location:** Universal City, California, USA

**Budget:** US\$500 million

**Timeline:** 2011-2016

**Attraction:** Universal Studios' second Harry Potter theme park in the United States added a 3-D viewing experience to differentiate it from the original Harry Potter park in Florida.

Investments in global theme park projects are projected to reach **US\$56.4 billion** in 2019—a US\$16.6 billion increase from 2014.



An illustration of the Valravn roller coaster at Cedar Point amusement park, Sandusky, Ohio, USA

“We didn’t have any room for deviation between design and execution,” he says. “3-D modeling ensured that there’s no contradictions at all between elements before installation begins. We can build everything with no errors.”

### IN THE LOOP

Each theme park project “is like a small city with a variety of stakeholders, and sometimes their objectives conflict,” Mr. Luna says. “The project manager has to sit in the middle of all of them, get all their requirements, make sure their input is taken into consideration, and then properly communicate any deviation in scope, budget or schedule.”

For instance, before Mr. Luna’s team built Gardaland’s first dive coaster in the center of the park (dive coasters give riders the sense that they’re free-falling), he created a detailed analysis of all stakeholders and their requirements to ensure the new ride would seamlessly integrate with surrounding attractions, such as shops and restaurants.

That preconstruction engagement led his design team to suggest building a temporary platform over a small creek so park visitors could detour around the construction. But after stakeholders convinced Mr. Luna it would deliver long-term benefits, the platform was upgraded to a permanent feature.

“We ended up creating a huge plaza that allows guests to move more easily among all the attractions,” Mr. Luna says. “We integrated what might have been a business risk into the project’s design.”

Strong relationships with vendors and contractors can also help mitigate project risks. Theme parks occupy a niche within the construction industry, so project managers must cultivate a roster of reliable contractors and manufacturers they can go back to for each new project, says Adam Pooch, PMP, manager of project development

and construction, Cedar Point amusement park, Huron, Ohio, USA.

Mr. Pooch has seen such relationships pay off. For example, when Cedar Point began construction on the world’s tallest and fastest dive coaster in September 2015, his team encountered a surprise that had to be immediately resolved to meet the May 2016 project completion deadline. The problem? The dive coaster weighed more than what Mr. Pooch’s team had indicated, so the construction contractor—tasked with lifting and supporting the structure as high as 223 feet (68 meters)—requested a higher payment. Mr. Pooch didn’t worry. His team’s strong relationship with the contractor meant he didn’t think twice about dipping into the contingency budget to negotiate a lump-sum change agreement that helped keep the project on schedule.

### SMOOTH RIDE

At Ocean Park in Hong Kong, a project team developed PFlow, a mobile app that tracks the number and location of visitors. The park uses the data to provide guests with up-to-date wait times for rides and attractions and to direct them to less crowded areas of the park, says Cyrus Wong, enterprise system architect, Ocean Park, Hong Kong, China.

Before launching the project, Mr. Wong’s team

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—Francesco Luna, PMP, Gardaland, Lake Garda, Italy





PHOTOS COURTESY CEDAR POINT

conducted extensive interviews with employees tapped to test prototypes of the platform. But employee input on new ways to leverage the app's data created the risk of scope creep, as any major changes would have to undergo additional quality assurance testing, Mr. Wong says.

"We had to control the frequency of requests to update PFlow with new features," he says. The team accomplished that by conducting change impact analyses that identified the potential consequences of any request—and helped the team determine whether changes could be pursued while staying within schedule and on budget.

For Mr. Pooch, smart contingency planning meant his team could absorb the extra cost when Cedar Point's marketing and product development teams decided—during construction—to add an augmented reality component to the new dive coaster. For instance, if guests take smartphone selfies with the ride in the background, the ride's logo, a raven, appears to land atop the ride behind them. To satisfy the development team's requirements, his team had to install park-wide Wi-Fi so guests had immediate access to the ride's interactive app.

"During the design phase, we're always aware of the fast-track project management process," he says. "We understand that deliverables are still being considered, so we're ready to accommodate changes."

Change requests happened almost daily during the first phase of Turkey's TRY4 billion Land of Legends Theme Park project, says Ahmet Colakoglu, business development director, Rixos Group, Antalya, Turkey. The project, which was completed last year, included a water park, hotel and retail shops. "You have to deal with changes, some major, some minor—and you have to be flexible," he says.

For instance, the project team decided to lower the planned height of a retail building because it would block visitors' view of the park's castle—a central thematic element. But the decision had immediate ripples. "The day after that decision was made, we had to manage it on the construction site," Mr. Colakoglu says.

To convince the architectural and financial teams that change was necessary, his team revisited the project goals with them to show how reducing the height would help achieve the project's primary objective of delivering a satisfying visitor experience.

"We have to stay ahead of the trends and always provide new thrills and exciting experiences," Mr. Pooch says. "Each phase is integral to delivering the best experience possible—and I couldn't do this without a strong project management team that understands the value of success." **PM**



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—Adam Pooch, PMP, Cedar Point amusement park, Huron, Ohio, USA