



# Specialists in the economics of visitor attractions, entertainment, resorts and leisure





# Leaders in market and economic testing

# Why LDP?

- Experts in visitor attraction economics
- Specialists in leisure and tourism based real estate
- Analysis based on real world benchmarking
- Global projects for developers, operators and investors

SLOBAL experience

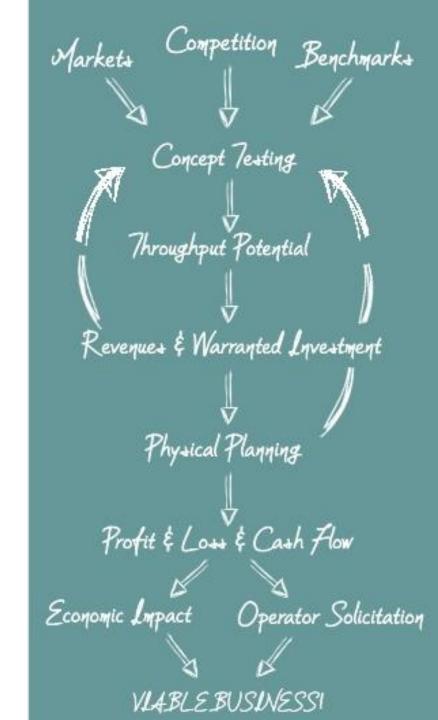
60 years experience

OBJECTIVE ANALYSIS CREATIVE THINKING



# LDP's analytical process is driven by rigorous benchmarking

- Established by the economist for Disney sixty years ago (who started the company that all of LDP's company partners began their careers with)
- Universally used by all major destination attraction operating groups to test new ventures
- Refined and enhanced over the years
- Relies on the quality of benchmarking data and deep understanding of comparables
- Relies on deep market knowledge
- LDP's database and experience is exceptional



# Disclaimer

- Leisure Development Partners LLP (LDP) is a leading consulting firm specialised in the feasibility, review and performance improvement of visitor attractions and leisure real estate. LDP's Partners have more than 55 years experience in this niche.
- The LDP approach relies upon detailed market analysis and the application of carefully chosen real world benchmarks from existing comparable projects. This nuanced approach came out of the original feasibility work for Disney and has been developed further over the past 50 years.
- Disclaimer: This Report is based on estimates, assumptions and other information developed by Leisure Development Partners LLP (LDP) from its independent research effort, general knowledge of the industry and other comparable developments elsewhere and publicly available research efforts/surveys. No warranty or representation is made by LDP that any of the projected values or results contained in this Report will actually be achieved. All intellectual property rights in this Report including any forecasts, benchmarks, spreadsheets, tables or other materials provided are the property of LDP. You may use and copy such materials for your own internal use

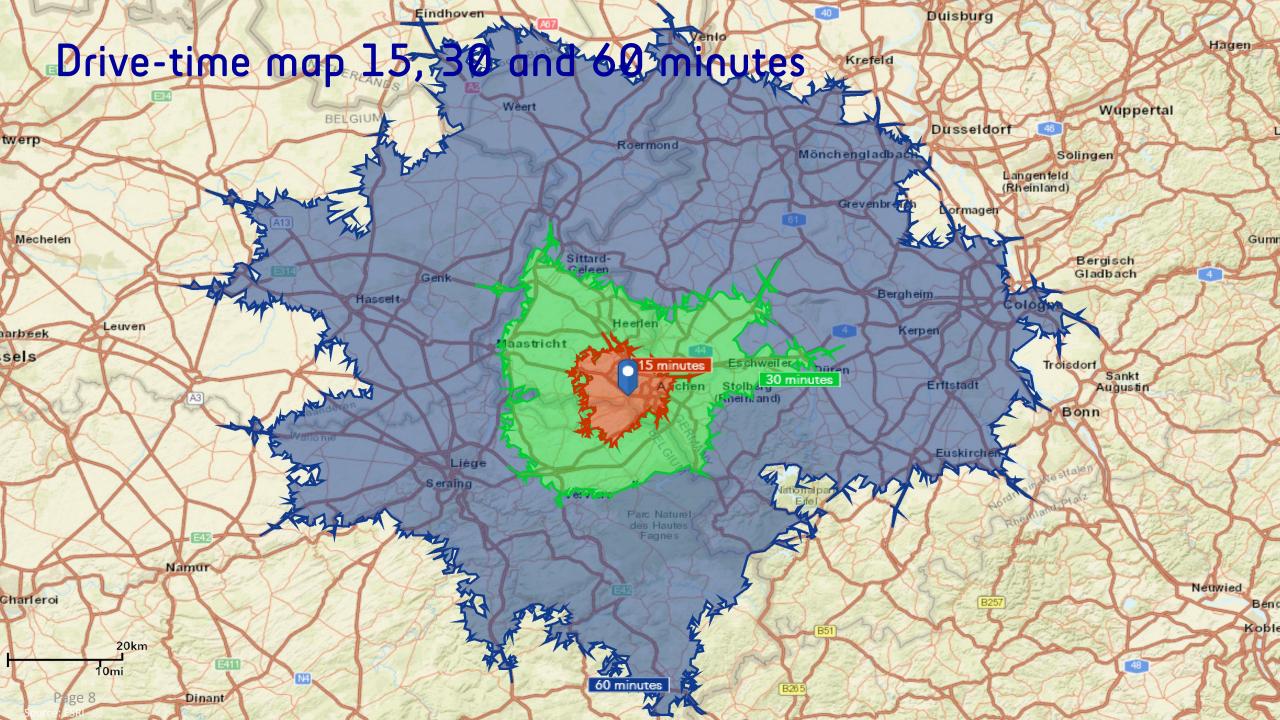


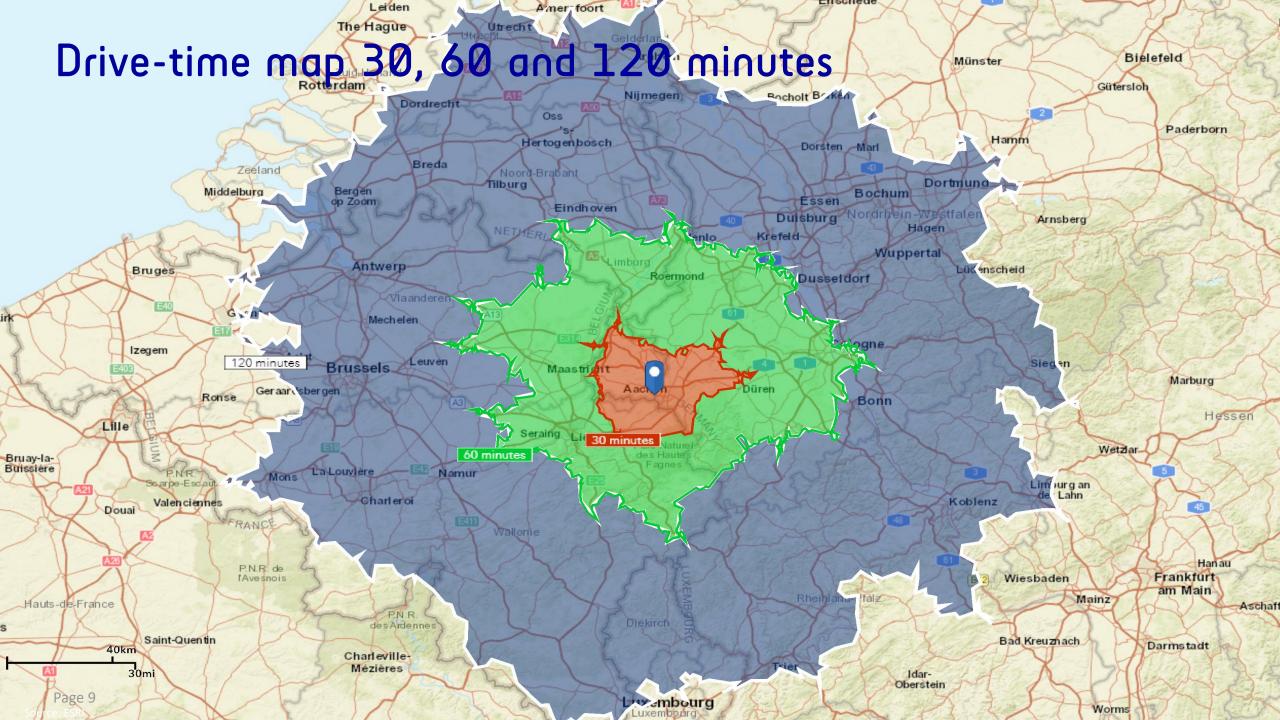
# Available markets

## Available markets

- As discussed on the previous slide we have typically segmented the available markets into the following:
  - Primary resident market
     (those living within 0-60 minutes of the site)
  - Secondary resident market
     (those living within 60-120 minutes of the site)
  - Domestic tourists
     (domestic tourists staying overnight within 0-60 minutes of the site)
  - International tourists
     (international tourists staying overnight within 0-60 minutes of the site)
- Looking at these strictly defined market segments allows us to benchmark like-for-like with regional and international comparables and this is the basis for attendance estimation.

- On the following slide we show the extent of the drive time isochrones.
- As shown, the 15-minute catchment goes into Aachen in Germany and covers the surrounding area of Vaals. The 30-minute market reaches into Maastricht, Heerlen, Sittard and covers more of Belgium and Germany.
- The 60-minute market covers almost up to Eindhoven and Venlo in the north, almost in Dusseldorf in the north east, into Cologne in the east, further into Belgium in the south and it covers Liège and Hasselt to the west.
- The 120-minute market reaches up to Utrecht in the north, Dortmund in the east, into Luxembourg in the south and into Brussels and Antwerp in the west.





# Resident market size

- The table opposite summarizes the available resident markets split between catchment bands.
- In 2018, the total population within two hours of the site is estimated at 29.2 million.
- We have calculated historic population growth by various regions in the catchment area and weighted according to the catchment area.
- Based on these blended historic growth rates we have forecast likely future population growth.
- Overall we expect population growth to be 0.6 percent per annum to 2028, growing the total market to 30.9 million.

Resident market size				
Market segment	2018	2023	2028	CAGR
Total market				
0 - 15 minutes	218,235	219,973	221,725	0.2%
15 - 30 minutes	944,669	957,236	969,969	0.3%
30 - 60 minutes	4,715,873	4,788,919	4,863,096	0.3%
60 - 120 minutes	23,317,793	24,055,869	24,817,308	0.6%
	29,196,570	30,021,997	30,872,098	0.6%
Source: ESRI, UN and LDP				

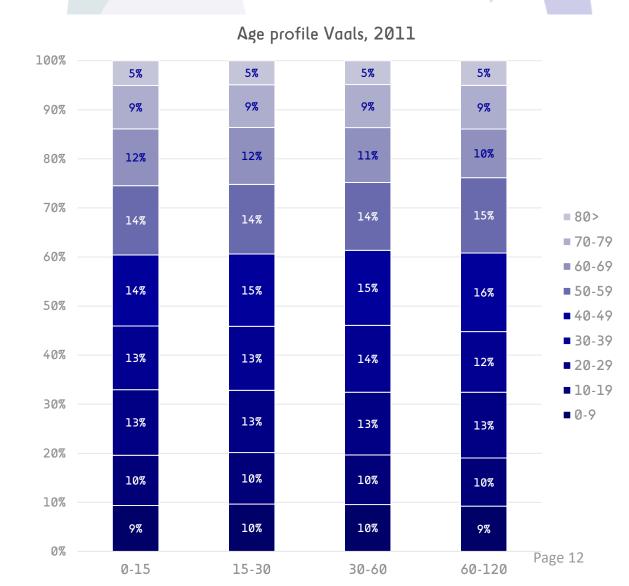
# Resident market characteristics

- The chart opposite shows the average gross domestic product per capita across the population in the catchment area. This is shown to illustrate relative wealth distribution.
- The purchasing power per capita on average is highest further away from the site with 37,179 in the 60-120 minute market segment this includes some of the heavy density areas in the north Germany. After that the 0-15 minute market is the wealthiest with 36,400.
- The 15-30 and 30-60 minute market are similar with 33,267 and 33,567 respectively.
- Overall this shows a wealthy resident market who are in the main capable of a potential visit to an attraction. Having a cluster of wealth close to the site in this instance is a positive sign for the potential attraction.

Gross Domestic Product per capita (€)					
Market segment	2016				
Total market					
0 - 15 minutes	36,400				
15 - 30 minutes	33,267				
30 - 60 minutes	33,567				
60 - 120 minutes	37,179				

## Resident market characteristics

- The age profile of the catchment area is shown in the chart on the right.
- All market segments show a similar age distribution with a maximum deviation of two percent.
- It shows that about 19 and 20 percent of the population is between 0 and 19 years old. Which means that there is a good proportion of young people for a potential attraction visit, should be the direction that the development goes.
- Around 31 to 33 percent of the population is aged between 30 and 59 years.



## Tourist market size

- In terms of attendance most attractions rely more heavily on resident markets than tourists.
- Based on our experience and patterns observed across the industry over time, those people visiting any attraction or leisure use and who live more than two hours from the site are likely to stay in the area overnight and are therefore considered in the tourist market.
- We segment the tourist market into two distinct categories: domestic and international tourists.
- We base our analysis on the 'real' or **qualified** number of overnight tourists. By qualification of the tourist markets we typically mean the official overnight tourist figures at registered accommodation.
  - Including those staying in unregistered accommodation, i.e.
     rented flats and homes of friends & relatives, and
  - Excluding those already residing within the two hour resident market to avoid double counting.
- So we take the number of tourists staying in official accommodation, then adjust upwards to include those staying in unregistered accommodation, then adjust down again to exclude residents

- In this instance domestic tourism in the catchment area does need an adjustment as the data shows that most domestic tourists come from the regions covered by the catchment area. As such it is necessary to remove those already residing within the two hour catchment. Based on data collected we have removed 43 percent of domestic tourists.
- This calculation is not typically needed for international tourism as
  it is assumed the majority stay in some form of registered
  accommodation. In this instance, however, international tourism to
  Vaals is more complicated, as it is on the border of three countries.
  Tourism to Aachen for example is counted as international tourism,
  though only a few minutes away from Vaals. Considering this, 25
  percent of international tourists are removed.
- We have forecast our tourist numbers based on historic growth rates, applying 2.0 percent to the domestic market and 2.6 percent to the international tourist markets.

# Tourist market overnights

## DRAFT

- The table opposite shows our baseline tourist market with our assumed growth rates based on historic growth.
- In 2018 the total qualified tourism market within the 1-hour catchment area is estimated to be 7.1 million. This grows to 8.8 million in 2028.
- These are significant markets and represents a solid opportunity for the proposed attraction development.

Tourism market size				
Market segment	2018	2023	2028	CAGR
Unqualified Tourist Market  Domestic Tourism  International Tourism	7,966,000 3,335,000 <b>11,301,000</b>	8,724,000 3,768,000 <b>12,492,000</b>	9,575,000 4,287,000 <b>13,862,000</b>	1.9% 2.5% <b>2.1%</b>
Qualified Tourist Market	11,501,000	12,472,000	13,002,000	2.1%
Domestic Tourism	4,558,000	5,035,000	5,567,000	2.0%
International Tourism	2,502,000	2,839,000	3,242,000	2.6%
	7,060,000	7,874,000	8,809,000	2.2%

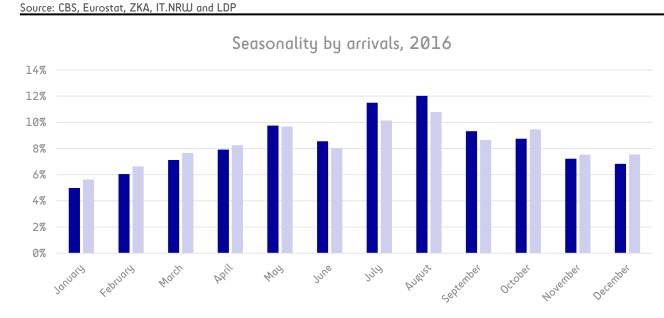
Source: CBS, Eurostat, ZKA, IT.NRW and LDP

# Tourist market characteristics

## DRAFI

- Shown on the table on the top right is the average length of stay for domestic and international tourists. Domestic tourists, in this case, stay for longer with 3.4 nights than international tourists with 2.5 nights.
- In this case the average length of stay isn't particularly long, but is impacted by the nearby large conurbations where the average length of stay is typically shorter.
- On the lower right we show seasonality by arrivals. The split between domestic and international tourists is not huge. Tourism peaks in July and August with lower months around the winter months, especially January.

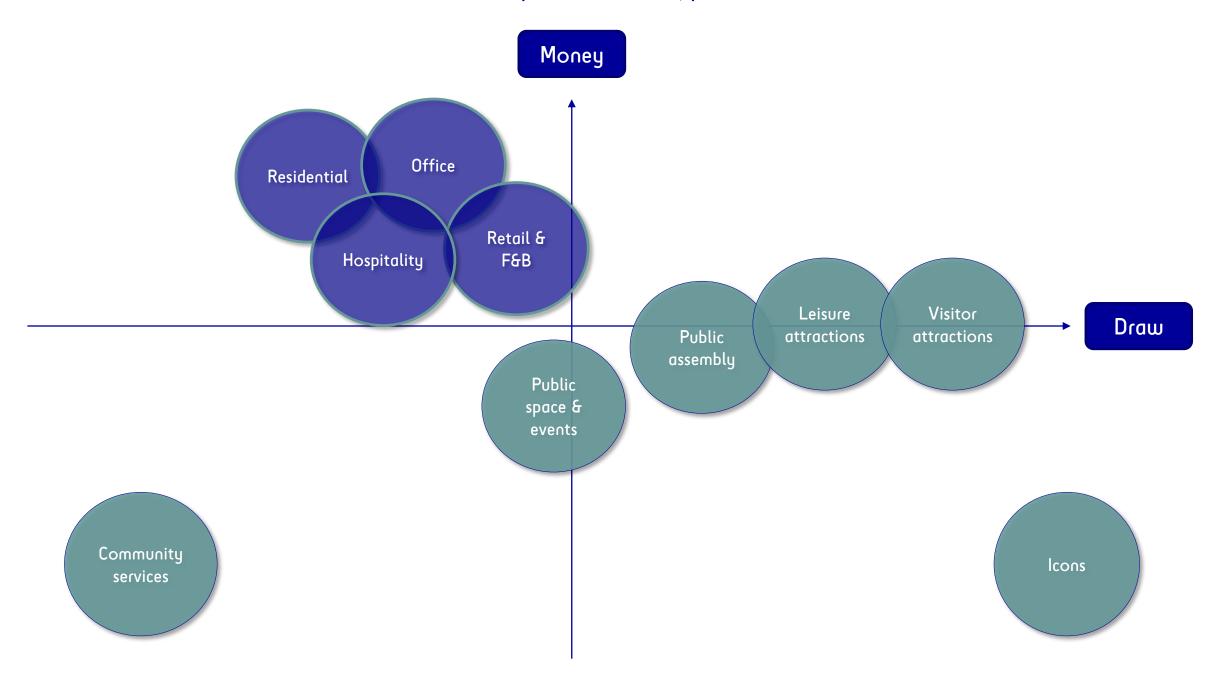
Average length of stay, 2016	
	Vaals
Domestic	3.4
International	2.5
Average	2.9



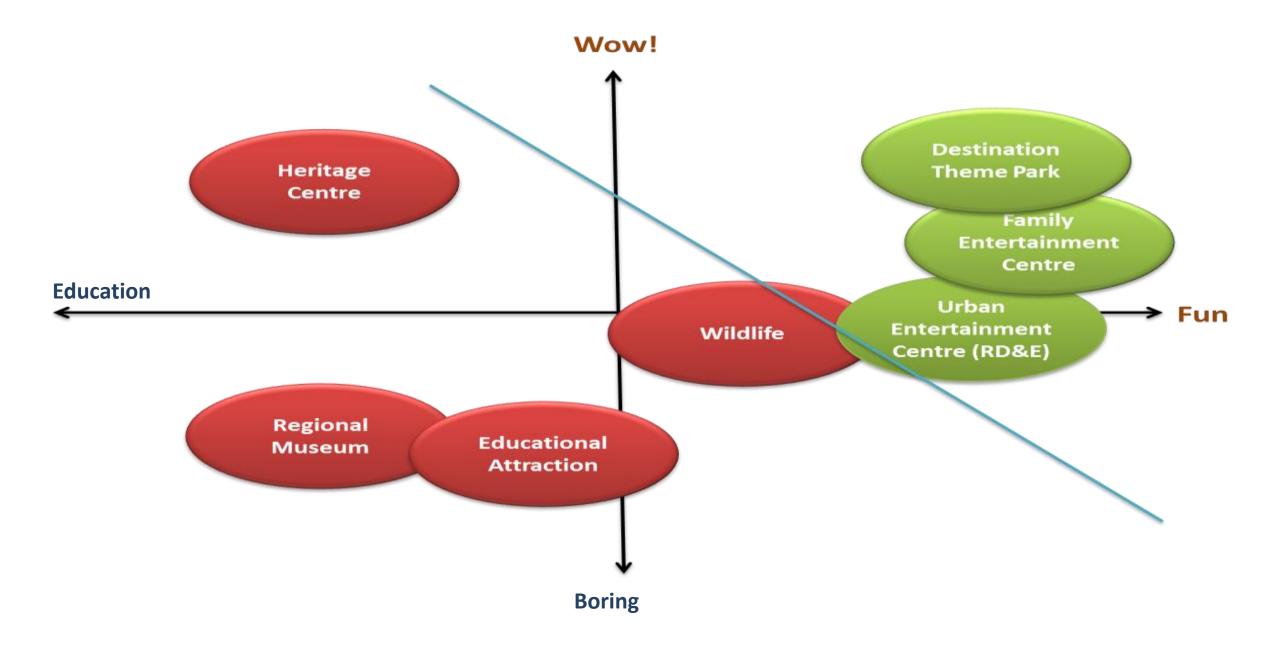


# International benchmarks

### Return compared to drawing power



## The Wow factor and sustainability

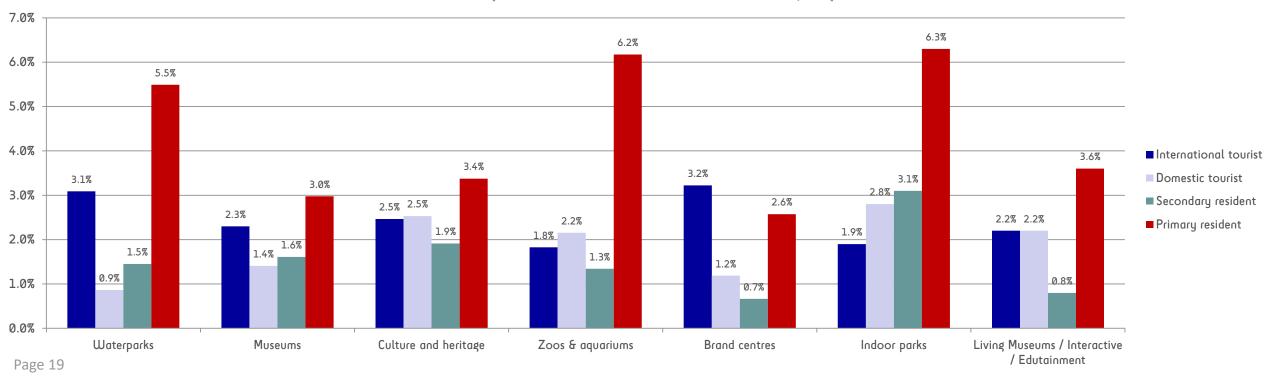


# Penetration rates at typical attraction groups

## DRAFT

- Below we show average penetration rates, by market, across a selection of more typical attraction types from our database. We have taken a selection of each type of attraction and given average penetration rates – clearly there will be outliers in each case but this helps to frame future assessments.
- As shown, the primary market penetration typically out performs the all other markets and the penetration rate of the international tourist market rather depends on the type of attraction, but is typically between two and three percent.

#### Market penetration rates across attraction groups





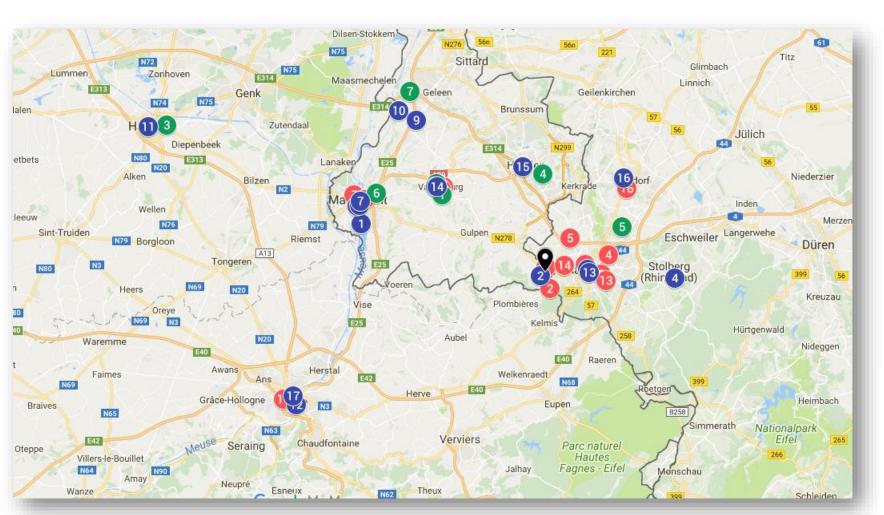
# Competitive environment attractions

# Competitive Environment

- The attractions listed are the attractions we deem to be the most relevant and/or important in terms of offering an alternative to the proposed attraction – we have included a range of attraction types.
- Entertainment value (or EV) is a solid measure of value to the visitor and a tool used in forecasting prices, it is the price per hour of entertainment. EV is used to project pricing at any of the proposed attraction elements. If we can estimate the average length of stay at the proposed attraction we can multiply this by the market EV to get to projected lead price.
- The market includes plethora of museums, which in this case are gated rather than free admission. We have based the average length of stay on our experience or based on desk research.
- Current EV in the local market (less specialty experiences and premium products) is currently €5.46.
- The maps on the next few pages show the location of selected regional attractions, by category.
- The maps show that most attractions are situated around the bigger cities in the region as one might expect.

Attraction	Category (A-Z)	Adult Entry	Child Entry	ALOS	EV
Labyrint Drielandenpunt	Activity	€ 5.00	€ 4.00	0.75	€ 6.67
Pretpark De Valkenier	Amusement park	€ 14.95	€ 14.95	2.50	€ 5.98
Plopsa Coo	Amusement Park	€ 25.99	€ 10.99	5.00	€ 5.20
Bubenheimer Spieleland	Amusement Park	€ 8.00	€ 8.00	2.00	€ 4.00
Aquarium et Musee de Zoologie	Aquarium	€ 7.50	€ 6.20	2.00	€ 3.75
Kasteelruïne & Fluweelengrot	Culture	€ 12.00	€ 9.00	2.50	€ 4.80
Maastricht Underground	Culture	€ 10.40	€ 8.00	1.50	€ 6.93
Snowworld Landgraaf	Indoor Ski Slope	€ 20.00	€ 17.50	1.50	€ 11.67
Museum Vaals	Museum	€ 5.00	€ 2.50	1.00	€ 5.00
Cube Design museum	Museum	€ 11.00	€ 11.00	1.50	€ 7.33
Thermenmuseum	Museum	€ 8.75	€ 7.50	2.00	€ 4.38
Museum Romeinse Katakomben	Museum	€ 9.75	€ 6.25	1.25	€ 7.80
Oorlogsmuseum Eyewitness	Museum	€ 10.00	€ 6.00	1.50	€ 6.67
Eynderhoof Limburgs Openluchtmuseum	Museum	€ 6.00	€ 2.50	2.00	€ 3.00
La Boverie	Museum	€ 10.00	€ 0.00	1.50	€ 6.67
Maison de la Metallurgie	Museum	€ 5.00	€ 4.00	2.00	€ 2.50
Baugnez 44 Historical Centre	Museum	€ 7.50	€ 6.00	1.50	€ 5.00
Centre Charlemagne	Museum	€ 6.00	€ 3.00	1.50	€ 4.00
Chocolate Museum	Museum	€ 11.50	€ 7.50	2.00	€ 5.75
German Sports and Olympic Museum	Museum	€ 6.00	€ 3.00	1.50	€ 4.00
Romisch-Germanisches Museum	Museum	€ 6.50	€ 3.50	1.50	€ 4.33
Stars of the Galaxy	Museum	€ 8.50	€ 7.00	1.00	€ 8.50
Odysseum	Science Centre	€ 16.00	€ 8.00	2.50	€ 6.40
Attractiepark Toverland	Theme park	€ 25.50	€ 18.00	6.00	€ 4.25
Phantasialand	Theme Park	€ 47.50	€ 37.00	7.00	€ 6.79
GaiaZ00	Zoo	€ 20.50	€ 16.50	4.00	€ 5.13
Tierpark Aachen	Zoo	€ 6.00	€ 3.00	3.00	€ 2.00
Koelner Zoo	Zoo	€ 19.50	€ 9.00	4.50	€ 4.33
Average		€ 12.51	€ 8.57	2.38	€ 5.46

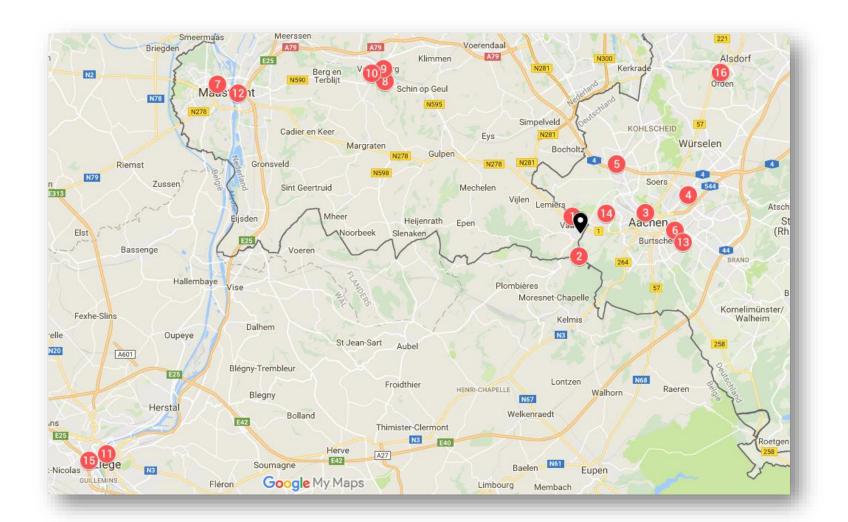
# Selected Vaals attractions (full view)



- Outdoor Karting
- 2 Labyrint Drielandenpunt
- Team Escape Aachen | The E..
- 4 LaserGame Aachen Black L...
- Paintballpark Aachen
- 6 Raus! Escape Room Aachen
- Room Escape Maastricht
- 8 A GoGo Valkenburg
- Bowling Valkenburg
- Mystery House Valkenburg
- Aquarium-Museum
- 12 Euroscoop Maastricht
- 13 Aachener Tierpark Euregio Zoo
- BIOZAC Freilandlabor Wasser
- 15 Botanical Garden
- 16 Alsdorf Zoo
- 🕡 Steam Train Katwijk Leiden
- Fairytale Forest
- 2 Pretpark de Valkenier
- 3 Plopsa Indoor Hasselt
- 4 Monkey Town Heerlen
- 6 Aquana
- 6 Geusseltbad
- 7 Steinerbos

- Maastricht Caves Zonneberg
- 2 Museum Vaals
- 3 Centre Charlemagne
- 4 Heimat- Und Handwerksmus...
- Matuurhistorisch Museum M...
- 6 Regionaal Historisch Centru...
- 7 Drukkunstmuseum
- Museum Romeinse Katakom...
- 9 Eyewitness WO2
- 10 Streekmuseum Elsloo
- 1 Villa Imagination (formerly Li...
- 12 Museum of public transport i...
- 13 Theater Aachen
- 14 Openluchttheater Valkenburg
- 15 Theater Heerlen
- 16 ENERGETICON gGmbH
- 17 House of Science
- Vaals

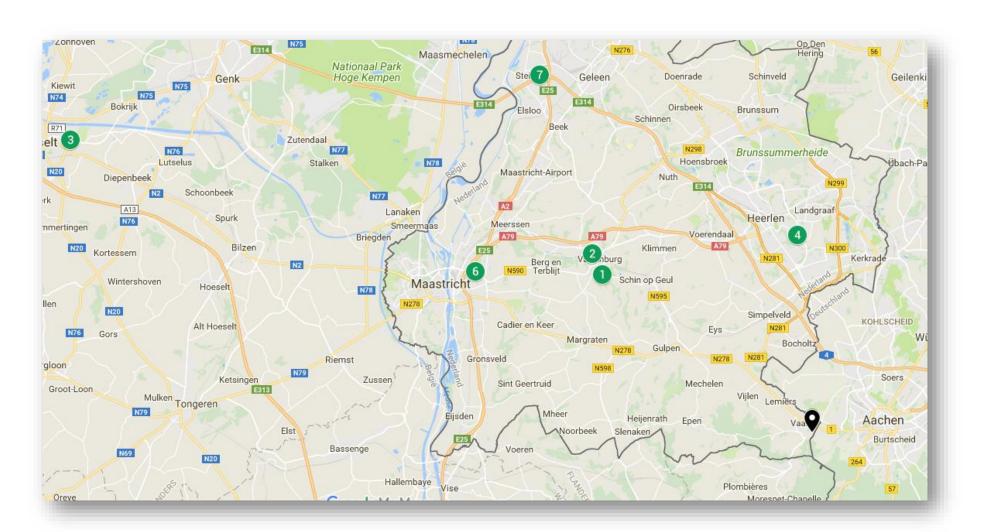
# Selected Vaals attractions – activities, aquaria and nature





- Outdoor Karting
- 2 Labyrint Drielandenpunt
- Team Escape Aachen | The E...
- LaserGame Aachen Black L...
- 6 Paintballpark Aachen
- 6 Raus! Escape Room Aachen
- Room Escape Maastricht
- 8 A GoGo Valkenburg
- Bowling Valkenburg
- Mystery House Valkenburg
- Aquarium-Museum
- 12 Euroscoop Maastricht
- 13 Aachener Tierpark Euregio Zoo
- 14 BIOZAC Freilandlabor Wasser
- 15 Botanical Garden
- 16 Alsdorf Zoo
- 🕡 Steam Train Katwijk Leiden

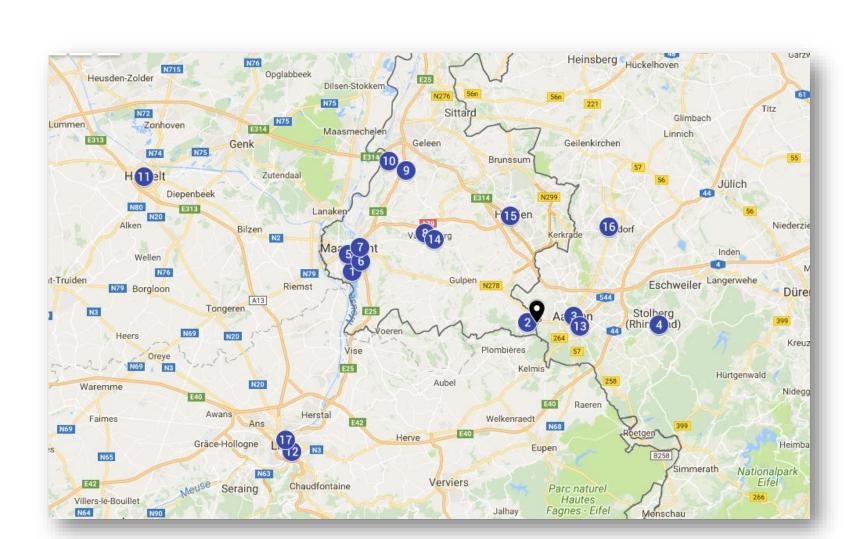
# Selected Vaals attractions – amusement & water





- Fairytale Forest
- Pretpark de Valkenier
- Plopsa Indoor Hasselt
- 4 Monkey Town Heerlen
- 6 Aquana
- 6 Geusseltbad
- Steinerbos

# Selected Vaals attractions – museums, heritage, science & theatres





- Maastricht Caves Zonneberg
- 2 Museum Vaals
- 3 Centre Charlemagne
- 4 Heimat- Und Handwerksmus...
- Matuurhistorisch Museum M...
- 6 Regionaal Historisch Centru...
- Drukkunstmuseum
- 8 Museum Romeinse Katakom...
- 9 Eyewitness WO2
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- 16 ENERGETICON gGmbH
- 17 House of Science



# Performance Assessment

# Performance assessment – feasibility assumptions

## DRAFT

#### Introduction

- We have run an assessment of potential economic performance of the Vaals experience.
- The current assessment is based on the designs which have been presented to us to date. The concept is in early stages and therefore this assessment is somewhat topline in nature. As the concept moves on, more details could be layered in the model (outside of our current scope). We believe that it will be extremely important that the concept is highly engaging and board in appeal and that the marketing is well funded and targeted and we assume this to be the case in our forecasts.
- We have split the attraction into two major gated components:
  - 1) the walkthroughs half pulsed and then half free flow walk through experience. We have assumed the average length of stay (ALOS) of 1 hour (30 mins for each half)
  - 2) the Augmented Reality (AR) Experience free flow progress AR game somewhat similar to the wand experience of Harry Potter Wizarding World (but with more of a quest and puzzle solving behind). We have assumed an ALOS of 45 minutes.
- Firstly we outline some core feasibility assumptions:
  - We have assumed that the attraction is designed and built to international standards;

- We have assumed that technology is used as a tool to tell an exciting story and provide an engaging experience, and not as the attraction itself;
- We have assumed that the attraction will be operated to the very highest standards by experienced operators from inception;
- We have also assumed excellent pre-opening and ongoing marketing; we assume, based on discussions with the project team, that support would be available from regional marketing (given the potential economic and tourism impact on the area) with promoting the experience as part of the overall destination (circa €0.9m over 4 years).
- We assume that appropriate preparation and soft opening is allowed for;
- We assume that the full experience is available on opening;
- Our work assumes healthy and ongoing reinvestment to keep the experience fresh and ensure repeat visitation;
- We have used 2022 as the first full operating year and 2024 as a stable year of operation (typically it takes time for the attraction to achieve a 'stable' level of performance, with resident markets showing a champagne effect in early years);
- We have not assumed any rental payments or management fees at this stage but this can be updated;
- We have used the VAT rate of 6% on admissions, 9% on F&B and of 21% on merchandise and other; and
- Annual inflation rate is assumed at 1.5%.

# **Attendance**

- For a batched capacity constrained experience, the attendance projections are estimated via utilisation of capacity, and then sense checked using penetration rate analysis. The goal here is to ensure that the capacity utilisation method results do not exceed the market potential.
- For the Walkthroughs we have assumed up to two groups of 5
  people entering the attraction every 7 minutes. Clearly,
  attendance to the second half of the experience (the batched/
  free flow part) will be entirely dictated on how many people and
  how frequently are released into the first half (pulsed part).
- For the AR Experience we have assumed that several small groups will be able to be in the space at the same time. We have assumed 10 groups of 5 people, rotating every 45 mins (ALOS).
- We have assumed an 8-hour operating day (on average, in reality this is likely to vary from shorter days during slow periods and longer days during busy times). We have also assumed a 360-day operation meaning the attractions will be closed for 5 days a year.
- Our capacity utilisation assumptions are somewhat on the high side assuming efficient cycle time and that the concept appeals to school groups therefore working well during the week.
- Typically, exceptionally engaging unique experiences located in Page 28 destinations with low seasonality fluctuations and high tourist

- turnovers (ex London, Amsterdam, Edinburgh, Paris etc) can push beyond these utilisation parameters. In case of Vaals, we understand the tourism is fairly seasonal.
- We have allowed for stronger utilisation in the first two years of operation driven by latent demand which will be created in anticipation of the opening, and the novelty effect the attraction will first create.
- The utilisation of the AR experience is slightly lower than that for the walkthroughs due to the nature of this attraction and the fact that free flow experiences are less efficient in utilising maximum capacity.
- The total attendance is estimated at around **155,000 visits** per annum in a stable year. Clearly there will be an overlap between the experiences.
- Assuming that 35% of Walkthrough visitors would go ahead and visit the AR experience as part of the same visit (purchasing a joint ticket, for example), the total annual visitors (as opposed to visits) are estimated at 122,000 visitors in a stable year.
- The remaining visits to the AR experience (c.20,000) are likely to be made by repeat visitors from the local market who do not wish to revisit the walkthroughs. Equally, these could be special events (birthday parties, etc).

Attendance

Projected attendance using Utilisation of Capacity						
	Walkthrou	ighs	AR Exper	ience		
People per group	10		50 (instantaneous capacity)			
Group enters every	7 mins		45 mi	ns		
Groups per hour	8.6		1.33			
People per hour	86		67			
Operating hours/ day	8		8			
Daily capacity, people	686		533			
Operating Days/ year	360		360	360		
Annual capacity	246,85	7	192,000			
	<b>Utilisation of Capacity</b>	<b>Attendance</b>	Utilisation of Capacity	Attendance		
Year 1	45%	45% 111,086		67,200		
Year 2	42.5%	104,914	32.5%	62,400		
Year 3 onwards (stable)	40%	98,743	30%	57,600		
Source: LDP						

# Performance Assessment – operating revenues

## DRAFT

#### Admission spend per head

- Price: we have assumed a lead price of €12.00 for the
  Walkthroughs, and a lead price for €12.00 for the AR
  Experience, in 2018 values. This pricing exceeds the local EV by
  a significant measure based on the unique and experiential
  nature of the attractions and a fairly short anticipated length of
  stay. We assume the final product will be a 'high value'
  experience.
- Admission yield reflects discounts for joint tickets, children, groups, promotions, free visits, etc. We have used a strong admission yield of 70% for the Walkthroughs, and 75% for the AR Experience. These are high yields reflecting the uniqueness of the experiences which should be able to justify less discounting.

#### Secondary spend per head

• Food & Beverage: we have allowed for an F&B spend per head of €2.00 in 2018 values which is in line with short stay attractions (we note here that the two attractions are modelled separately), which translates into a spend of €2.60 per visitor (i.e. excluding overlap) in a stable year. We have assumed that the restaurant will be open to public taking advantage of

external lunch and dinner demand. We have assumed more of a quick service operation for lunch (with the ability to opt for a longer meal) and a casual sit down table service restaurant operation for dinner, and have modelled external restaurant revenues separately.

- Merchandise: we have used a strong merchandise spend per head of €2.75 in 2018 values. This includes spend on souvenir 'passports'. We have assumed that 50% of AR Experience visitors purchase the passport at a cost of €5.00 in current values (but would not purchase again as they return for subsequent visits).
- Other: Other spend typically includes photo opportunities and some upcharges (games, special events, etc.), among other potential token spends. There have not yet been identified and therefore we have allowed for a standard spend of €0.50 in 2018 values. Shall some upside be identified in later stages of design, this could be updated (outside our current scope).

#### Total spend

• Total net spend per visitor equates to €13.38 in current 2018 values. These have been inflated by the model using an annual inflation rate of 1.5%.

# Performance Assessment – operating revenues

#### Other revenues

- These opportunities have not yet been identified but could include things like room rental for meetings and weddings or parties. Based on client's input, we have therefore assumed there will be an additional gross income of €75,000 per annum (including VAT at 21%) from room revenues, in 2018 values. This is subject for discussion with the design team.
- We have also included the external **restaurant revenue**. Using a standard assumption of 2.5 sqm per cover and the total available space of 270 sqm, we have arrived at 108 available covers. Excluding the requirement for the attraction of 38 covers for lunch (assuming quick service), we have arrived at 70 covers available for lunch and 108 covers for dinner. Further calculations are presented in the table on the right. These have been inflated accordingly. The restaurant could potentially be outsourced to a third party and run on a rental basis (the flip side of this is lack of control of the concept and quality).

#### **Exclusions**

• We have not included the **basement bar** in our model but, depending on the operation's setup, this may represent a good upside to the revenue numbers. This can be run internally or on a third party rental basis.

Projected NET visitor spend per head, 2018 values						
Category	Walkthroughs	AR Experience				
ADMISSION SPEND PER HEAD						
Lead Admission Price	€12.00	€12.00				
Admission Yield	70%	75%				
Admission Spend per Head (gross)	€8.40	€9.00				
Admission Spend per Head (net)	€7.92	€8.49				
BLENDED SPEND PER HEAD (net)						
Admissions	€8.13 (sta	ble year)				
Food & Beverage	€2.0	00				
Merchandise & Passport	€2.7	75				
Other €0.50						
Total Secondary Spend (net of VAT)	€13.	38				
Note: VAT at 67 as Admissions 07 as ESP and 217 as a	Il other revenue items					

Note: VAT at 6% on Admissions, 9% on F&B, and 21% on all other revenue items

Note: VAT at 9%

Parameter	Lunch	Dinner	Total
Available covers	70	108	
Turns per shift	3	2	
Daily capacity, covers	210	216	
Average Occupancy	40%	20%	
Daily Attendance	84	43	
Annual Attendance (@ 360 days)	30,240	15,552	45,792
Net Spend per Head	€ 7.00	€ 15.00	€ 9.72
Cost of Goods Sold			30%
Gross Profit per Head (net of VAT)			€ 6.80

Source: LDP

# Performance Assessment - Staff Costs

### DRAFT

- Over the next pages we set out our assumptions for the operating costs, based on benchmarks.
- The concept is of a top-line nature. However, we have set out our anticipated staff schedule here clearly this is a rough estimate. Salaries and on-cost have been based on regional businesses and discussed with Imagine Leisure. We have added a social security contribution at 40%.
- Our assumed staffing is fairly lean and considers longer opening hours for the restaurant. Depending on the operation and setup of the restaurant there may be ways to reduce the staff cost, however, we wanted to be on a slightly more conservative side.
- Typically, 40-50% of operating expenses at these type of attractions are staff costs. In our assessment, this line item is 40% of total revenues in a stable year which is in the ballpark.
- As the design progresses, a more comprehensive staffing schedule should be built to reflect the requirements and ensure that the allowance is sufficient. This is outside of our current scope.

Staffing schedule, 2018 values		
Position	Salary incl. On-cost	FTE (stable year)
Management Team		
General Manager	€70,000	1.0
Finance Manager/ Accountant	€55,000	1.0
Marketing/ PR Manager	€50,000	1.0
Secretary	€25,000	1.0
Catering & Retail Manager	€35,000	1.0
Technician/ maintenance/ IT	€25,000	1.0
Total Management Team	€ 260,000	6.0
Operations		
Cashier/ Reception	€20,000	3.0
Cleaning	€17,500	2.0
Security	€30,000	2.0
Floor Supervisors for AR	€25,000	2.0
Guides for Walkthroughs	€25,000	2.0
Chef	€45,000	1.0
Catering/ F&B ops (waiters, kitchen, hostess)	€20,000	10.0
Retail ops	€20,000	3.0
Total Ops	€ 560,000	25.0
Total Staff, 2018 values	€ 820,000	31.0
Social Security Contributions	40%	
Total Staff Costs, 2018 values	€ 1,148,000	

Source: LDP

# Performance Assessment - Operating Costs

- The table on this page sets out our assumptions for the operating costs, based on benchmarks.
- Marketing: We assume, based on discussions with the project team, that support would be available from regional marketing (given the potential economic and tourism impact on the area) with promoting the experience as part of the overall destination (and without a fee allocated to the attraction). We have assumed a support in order of €0.9 million in current values over first few years including pre-opening. In the model, we have allowed for a modest marketing cost allocation of 10% of revenues, which equates to around €1.50 per visit in current values.
- We have assumed an increasing allocation for **repairs & maintenance**, as the attraction gets older, to a stable level of 4% in Year 3 of operation. This is in line with the industry norms.
- The remaining assumptions are within the industry ranges. We have not allowed for **rent or management fee** at this juncture.
- The assessment yields an EBITDA margin of 20% in a stable year of operation, as demonstrated on the following page. This is a fair margin reflecting a staff intense operation demonstrating that the facility should be able to cover its operating costs without any ongoing operational subsidy.

Key operating cost assumption	S
Operating Expense	As % of Total Revenue
Cost of Goods Sold – F&B	35% of F&B revenue
Cost of Goods Sold – Merchandise	35% of Merchandise revenue
Cost of Goods Sold – Other	25% of Other revenue
Staff Costs	42% $ ightarrow$ 47% (staffing schedule)
Marketing Expenses	10% (external support assumed)
Repairs and Maintenance	2.0%  ightarrow 4.0%
Utilities	3.0%
Admin & General	3.0%
Other Expenses	2.0%
Rent	Not included
Management fee	Not included
Source: LDP	

# Profit & Loss

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#### Projected Account of Profit & Loss for the Proposed Vaals Experience

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	pre-opening														
Estimated Annual Attendance	-	178,286	167,314	156,343	156,343	156,343	156,343	156,343	156,343	156,343	156,343	156,343	156,343	156,343	156,343
Operating Revenues															
Admission	-	1,539,898	1,466,407	1,390,365	1,411,220	1,432,388	1,453,874	1,475,682	1,497,818	1,520,285	1,543,089	1,566,236	1,589,729	1,613,575	1,637,779
Food & Beverage	-	378,452	360,490	341,904	347,033	352,238	357,522	362,885	368,328	373,853	379,461	385,152	390,930	396,794	402,746
Merchandise & Passport	-	520,371	495,674	470,118	477,170	484,327	491,592	498,966	506,451	514,047	521,758	529,585	537,528	545,591	553,775
Photos & Other		94,613	90,123	85,476	86,758	88,060	89,380	90,721	92,082	93,463	94,865	96,288	97,732	99,198	100,686
<b>Total Visitor Revenues</b>	-	993,436	946,286	897,498	910,961	924,625	938,494	952,572	966,860	981,363	996,084	1,011,025	1,026,190	1,041,583	1,057,207
Room Rental	-	65,787	66,774	67,775	68,792	69,824	70,871	71,934	73,013	74,109	75,220	76,348	77,494	78,656	79,836
Restaurant	-	330,585	335,544	340,577	345,686	350,871	356,134	361,476	366,898	372,402	377,988	383,657	389,412	395,253	401,182
<b>Total Other Revenues</b>	-	396,372	402,318	408,352	414,478	420,695	427,005	433,410	439,911	446,510	453,208	460,006	466,906	473,910	481,018
Total Revenue	-	2,929,707	2,815,011	2,696,215	2,736,659	2,777,708	2,819,374	2,861,665	2,904,590	2,948,158	2,992,381	3,037,267	3,082,826	3,129,068	3,176,004
Operating Expenses															
Cost of Goods Sold	<u> </u>	321,684	306,417	290,618	294,978	299,402	303,893	308,452	313,079	317,775	322,541	327,380	332,290	337,275	342,334
Gross Margin	-	2,608,023	2,508,594	2,405,597	2,441,681	2,478,306	2,515,481	2,553,213	2,591,511	2,630,384	2,669,839	2,709,887	2,750,535	2,791,793	2,833,670
Staff Costs	243,689	1,218,445	1,236,722	1,255,273	1,274,102	1,293,213	1,312,612	1,332,301	1,352,285	1,372,570	1,393,158	1,414,056	1,435,266	1,456,795	1,478,647
Marketing Expenses	146,485	292,971	281,501	269,622	273,666	277,771	281,937	286,166	290,459	294,816	299,238	303,727	308,283	312,907	317,600
Repairs and Maintenance	-	58,594	84,450	107,849	109,466	111,108	112,775	114,467	116,184	117,926	119,695	121,491	123,313	125,163	127,040
Utilities	21,973	87,891	84,450	80,886	82,100	83,331	84,581	85,850	87,138	88,445	89,771	91,118	92,485	93,872	95,280
Admin & General	21,973	87,891	84,450	80,886	82,100	83,331	84,581	85,850	87,138	88,445	89,771	91,118	92,485	93,872	95,280
Other Expenses	5,859	58,594	56,300	53,924	54,733	55,554	56,387	57,233	58,092	58,963	59,848	60,745	61,657	62,581	63,520
<b>Total Operating Expenses</b>	439,979	1,804,387	1,827,874	1,848,440	1,876,167	1,904,309	1,932,874	1,961,867	1,991,295	2,021,165	2,051,482	2,082,254	2,113,488	2,145,190	2,177,368
EBITDA	(439,979)	803,636	680,720	557,157	565,514	573,997	582,607	591,346	600,216	609,219	618,357	627,633	637,047	646,603	656,302
EBITDA Margin		27.4%	24.2%	20.7%	20.7%	20.7%	20.7%	20.7%	20.7%	20.7%	20.7%	20.7%	20.7%	20.7%	20.7%

Source: Leisure Development Partners

# Cash Flow Assumptions

### DRAFT

- We have allowed for an annual **re-investment** level of 7% of total revenues. This is lower than our typical recommended rate of 8-10% to reflect the somewhat constrained nature of an indoor attraction. At this allocation, the attraction should be able to afford replacing just over a third of the experience by the end of the model.
- The construction cost has been provided by the design team at €5.0 million. This is
  the ready to operate cost as pre-opening operating costs are reflected in the P&L.
  Further €2.0 million have been added upon client's request to reflect the building
  value to the city.
- We have used our standard financing assumptions summarised in the table on the right. Clearly, the resultant performance is driven, in part, by financing assumptions.
- Cashflow: As seen on the following page, assuming 50:50 debt / equity, the experience has a relatively modest IRR of 4% (although typical of an attraction performance). This suggests some support would be necessary if private investment is to be sought. With a **government grant** of €2.3 million, the IRR within the model equals 10 percent (also assuming marketing support). Clearly the capital costs, availability of grants or other support are all areas that should be investigated further by the client team.

Cash flow assumptions							
Indicator	Assumption						
Re-investment (% of revenues)	7%						
Total Capital Cost	€5.0 million						
Building value	€2.0 million						
Total CAPEX	€7.0 million						
Financing Assumptions							
Debt/Equity	50%/50%						
Loan interest rate	5%						
Loan repayment period	10 years						
Capitalisation rate	12.5%						

Source: LDP

#### Projected Cash Flow for the Proposed Vaals Experience

Projected Cash Flow for the Pro		1													LDP	Creative Thinki	ng
		<u>Total</u>	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032		2034	203
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	1
Estimated Annual Attendance			-	178,286	167,314	156,343	156,343	156,343	156,343	156,343	156,343	156,343	156,343	156,343	156,343	156,343	156,343
SOURCES OF FUNDS																	
Attraction Operation																	
Gross Revenues		40,906,631	-	2,929,707	2,815,011	2,696,215	2,736,659	2,777,708	2,819,374	2,861,665	2,904,590	2,948,158	2,992,381	3,037,267	3,082,826	3,129,068	3,176,004
Less: Cost of Goods Sold		4,418,118	-	321,684	306,417	290,618	294,978	299,402	303,893	308,452	313,079	317,775	322,541	327,380	332,290	337,275	342,334
Less: Operating Expenses	-	28,178,140	439,979	1,804,387	1,827,874	1,848,440	1,876,167	1,904,309	1,932,874	1,961,867	1,991,295	2,021,165	2,051,482	2,082,254	2,113,488	2,145,190	2,177,368
EBITDA		8,310,373	(439,979)	803,636	680,720	557,157	565,514	573,997	582,607	591,346	600,216	609,219	618,357	627,633	637,047	646,603	656,302
Financing																	
Grants		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equity @	50%	2,500,000	2,500,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Borrowing @	50%	2,500,000	2,500,000														
Total Financing		5,000,000	5,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Capitalised Income @	12.5%	5,250,416															5,250,416
Total Sources of Funds		20,560,789	6,560,021	803,636	680,720	557,157	565,514	573,997	582,607	591,346	600,216	609,219	618,357	627,633	637,047	646,603	5,906,718
ISES OF FUNDS																	
Capital Costs																	
Attraction Construction		5,000,000	5,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Distributed Infrastructure Costs		<u>-</u>															
Total Capital Costs		7,000,000	7,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Debt Service</u>																	
Interest @	5.0%	800,114	62,500	125,000	115,062	104,627	93,670	82,166	70,086	57,402	44,084	30,100	15,417	-	-	-	-
Principal		2,500,000		198,761	208,700	219,134	230,091	241,596	253,676	266,359	279,677	293,661	308,344				
Total Debt Service		3,300,114	62,500	323,761	323,761	323,761	323,761	323,761	323,761	323,761	323,761	323,761	323,761	-	-	-	-
On-going Reinvestment		2,689,976	-	87,891	140,751	188,735	191,566	194,440	197,356	200,317	203,321	206,371	209,467	212,609	215,798	219,035	222,320
Total Uses of Funds	-	12,990,090	7,062,500	411,653	464,512	512,497	515,328	518,201	521,118	524,078	527,083	530,133	533,228	212,609	215,798	219,035	222,320
NET CASHFLOW		7,570,699	(502,479)	391,983	216,208	44,660	50,186	55,796	61,489	67,268	73,133	79,087	85,129	415,024	421,249	427,568	5,684,398
CASHFLOW FOR EQUITY																	
Net Cashflow		7,570,699	(502,479)	391,983	216,208	44,660	50,186	55,796	61,489	67,268	73,133	79,087	85,129	415,024	421,249	427,568	5,684,398
Less: Equity		(4,500,000)	(4,500,000)														
Net Cashflow for Equity		3,070,699	(5,002,479)	391,983	216,208	44,660	50,186	55,796	61,489	67,268	73,133	79,087	85,129	415,024	421,249	427,568	5,684,398
Cumulative Net Cashflow for Equity			(5,002,479)	(4,610,496)	(4,394,288)	(4,349,628)	(4,299,442)	(4,243,646)	(4,182,157)	(4,114,889)	(4,041,756)	(3,962,670)	(3,877,540)	(3,462,516)	(3,041,267)	(2,613,698)	3,070,699
EQUITY IRR & NPV																	
Internal Rate of Return (IRR)			4.1%														
Net Present Value (NPV)																	
Discount Rate 1	10%		(2,086,224)														

(2,086,224) 10% 11% 12% Discount Rate 2 (2,284,849) (2,454,628) Discount Rate 3

Note Inflation @ 1.5%

#### Projected Cash Flow for the Proposed Vaals Experience



	i																
		<u>Total</u>	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Estimated Annual Attendance			-	178,286	167,314	156,343	156,343	156,343	156,343	156,343	156,343	156,343	156,343	156,343	156,343	156,343	156,343
SOURCES OF FUNDS																	
Attraction Operation																	
Gross Revenues		40,906,631	-	2,929,707	2,815,011	2,696,215	2,736,659	2,777,708	2,819,374	2,861,665	2,904,590	2,948,158	2,992,381	3,037,267	3,082,826	3,129,068	3,176,004
Less: Cost of Goods Sold		4,418,118	-	321,684	306,417	290,618	294,978	299,402	303,893	308,452	313,079	317,775	322,541	327,380	332,290	337,275	342,334
Less: Operating Expenses		28,178,140	439,979	1,804,387	1,827,874	1,848,440	1,876,167	1,904,309	1,932,874	1,961,867	1,991,295	2,021,165	2,051,482	2,082,254	2,113,488	2,145,190	2,177,368
EBITDA		8,310,373	(439,979)	803,636	680,720	557,157	565,514	573,997	582,607	591,346	600,216	609,219	618,357	627,633	637,047	646,603	656,302
<u>Financing</u>																	
Grants		2,504,287	2,504,287	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equity @	50%	1,247,856	1,247,856	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Borrowing @	50%	1,247,856	1,247,856														
Total Financing		5,000,000	5,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Capitalised Income @	12.5%	5,250,416															5,250,416
Total Sources of Funds		20,560,789	6,560,021	803,636	680,720	557,157	565,514	573,997	582,607	591,346	600,216	609,219	618,357	627,633	637,047	646,603	5,906,718
USES OF FUNDS																	
Capital Costs																	
Attraction Construction		5,000,000	5,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Distributed Infrastructure Costs																	
Total Capital Costs		7,000,000	7,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Debt Service</u>																	
Interest @	5.0%	399,371	31,196	62,393	57,432	52,224	46,755	41,012	34,983	28,652	22,004	15,024	7,695	-	-	-	-
Principal		1,247,856		99,210	104,171	109,379	114,848	120,591	126,620	132,951	139,599	146,579	153,908				
Total Debt Service		1,647,227	31,196	161,603	161,603	161,603	161,603	161,603	161,603	161,603	161,603	161,603	161,603	-	-	-	-
On-going Reinvestment		2,689,976	-	87,891	140,751	188,735	191,566	194,440	197,356	200,317	203,321	206,371	209,467	212,609	215,798	219,035	222,320
Total Uses of Funds		11,337,203	7,031,196	249,494	302,354	350,338	353,169	356,043	358,959	361,920	364,924	367,974	371,070	212,609	215,798	219,035	222,320
NET CASHFLOW		9,223,586	(471,176)	554,142	378,366	206,818	212,345	217,954	223,647	229,426	235,292	241,245	247,288	415,024	421,249	427,568	5,684,398
CASHFLOW FOR EQUITY																	
Net Cashflow		9,223,586	(471,176)	554,142	378,366	206,818	212,345	217,954	223,647	229,426	235,292	241,245	247,288	415,024	421,249	427,568	5,684,398
Less: Equity		(3,247,856)	(3,247,856)														
Net Cashflow for Equity		5,975,730	(3,719,032)	554,142	378,366	206,818	212,345	217,954	223,647	229,426	235,292	241,245	247,288	415,024	421,249	427,568	5,684,398
Cumulative Net Cashflow for Equity			(3,719,032)	(3,164,891)	(2,786,524)	(2,579,706)	(2,367,361)	(2,149,407)	(1,925,760)	(1,696,334)	(1,461,042)	(1,219,797)	(972,510)	(557,485)	(136,236)	291,332	5,975,730

#### **EQUITY IRR & NPV**

Internal Rate of Return (IRR)

Net Present Value (NPV)

Discount Rate 1

Discount Rate 2

Discount Rate 3

100

(13,642)

(268,240)

(490,630)

Note Inflation @

1.5%



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