The LEGO logo is centered on the page, rendered in its iconic yellow, rounded, and outlined font. The background of the entire page is a white surface scattered with various LEGO bricks in red, green, blue, and yellow. The bricks are of different sizes and orientations, creating a playful and colorful border around the central text.

Data Visualization

# Final Project

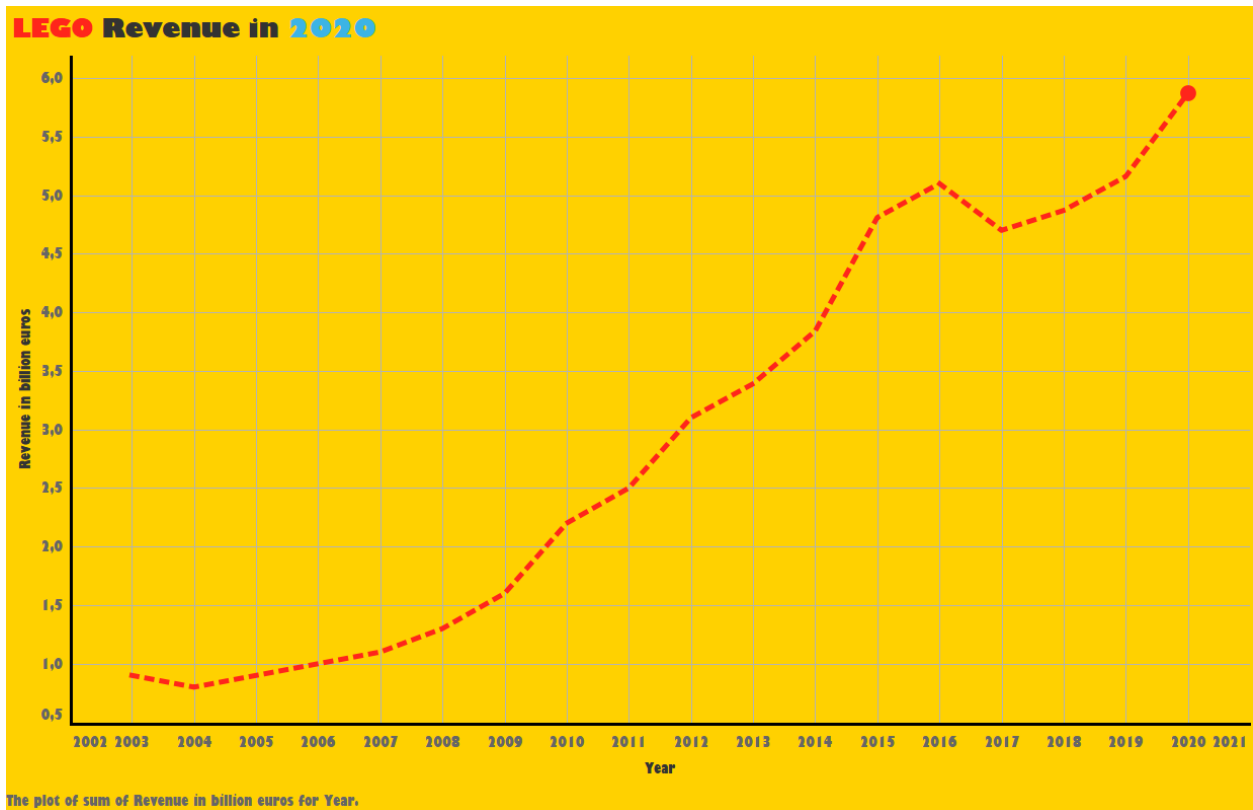
**Sofia Baltussen** s2261448  
**Senna Claes** s2379333  
**Mariska Geelhoed** s2298732  
**Marin Grinwis** s2380099  
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# Visualisation 1: Revenue

LEGO revenue 2020



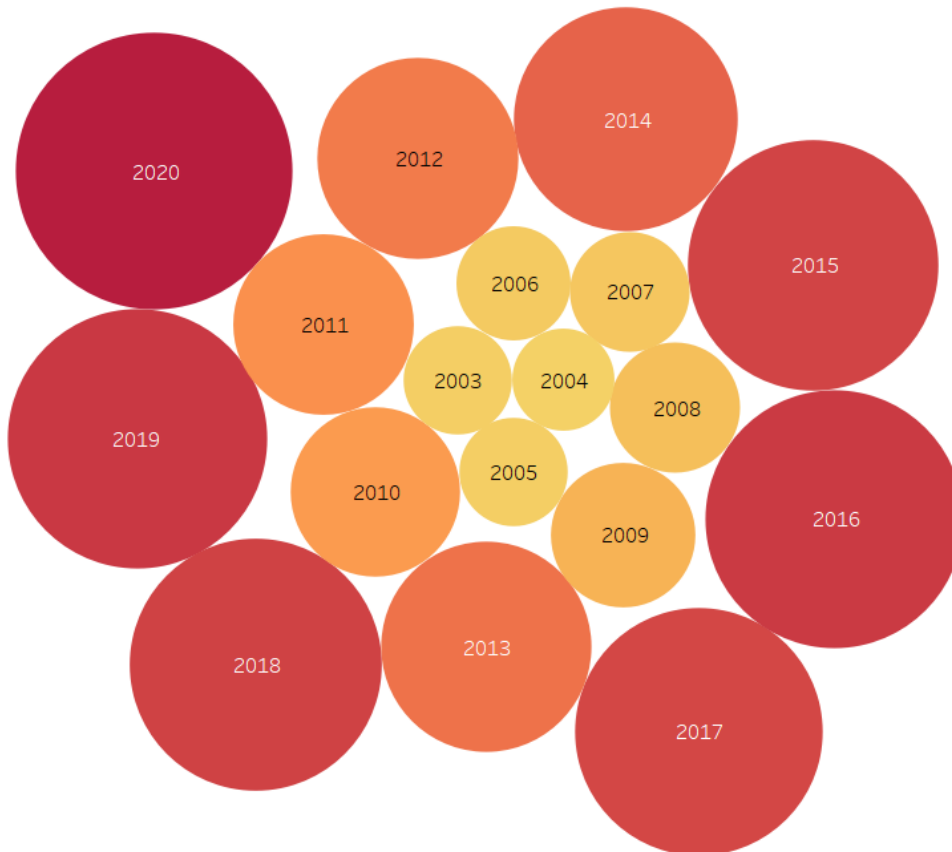
This is a line graph displaying the LEGO's revenue over the years 2003-2020. We can see that due to the Coronapandemic, there has been a surge in revenue in an otherwise dropping total revenue.

This visualisation also features an animation of the line graph over the years.

Source: <https://www.statista.com/statistics/282870/lego-group-revenue/>

## LEGO group revenue

LEGO Group revenue



Year. Color shows sum of Revenue in billion euros. Size shows sum of Revenue in billion euros. The marks are labeled by Year.

In this visualisation we see a circle packing visualisation of the revenue per year created in Tableau. It can be seen that the revenue has thoroughly increased since 2004.

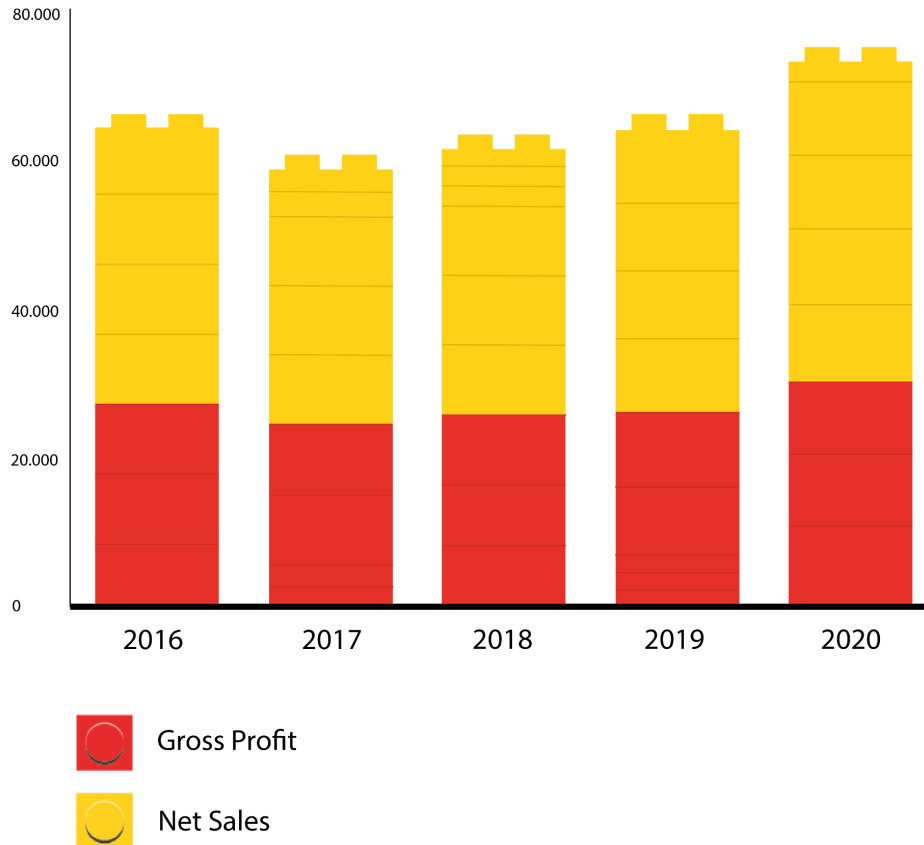
Source: <https://www.statista.com/statistics/282870/lego-group-revenue/>

## Visualisation 2: Net value

Net sales and gross profit of LEGO

### Net sales and gross profit of the LEGO group worldwide

(in million Danish kroner)



In this visualisation you can see a bar chart that has been processed in Numbers. The default bar that came out of this has been edited in Illustrator. In this barchart you can see that the gross profit and net sales have had some fluctuations, with a slight decrease in 2017 but a great rise in 2020.

Sources:

<https://www-statista-com.ezproxy2.utwente.nl/statistics/1103049/lego-net-sales-worldwide/>

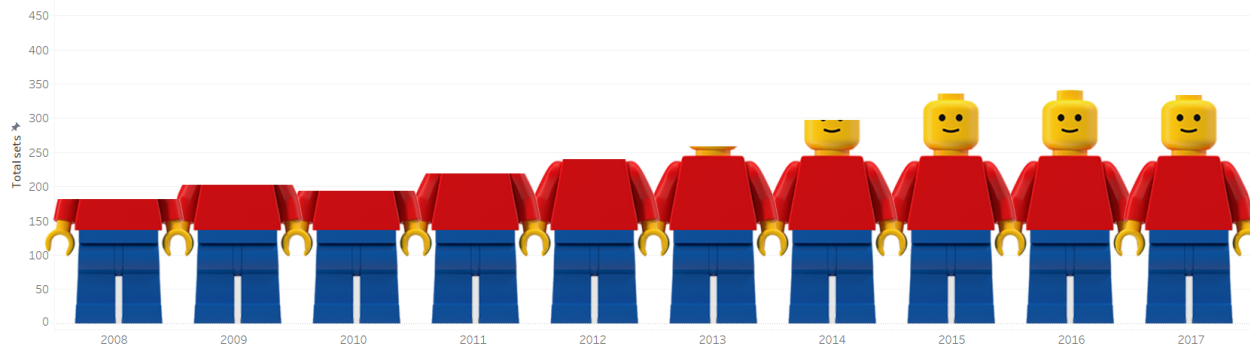
<https://www-statista-com.ezproxy2.utwente.nl/statistics/1103044/lego-gross-profit-worldwide/>

## Visualisation 3: Growth

The growth of new LEGO sets

### The growth of new LEGO sets

The total amount of new LEGO sets that were made by year (from 2008 to 2017)



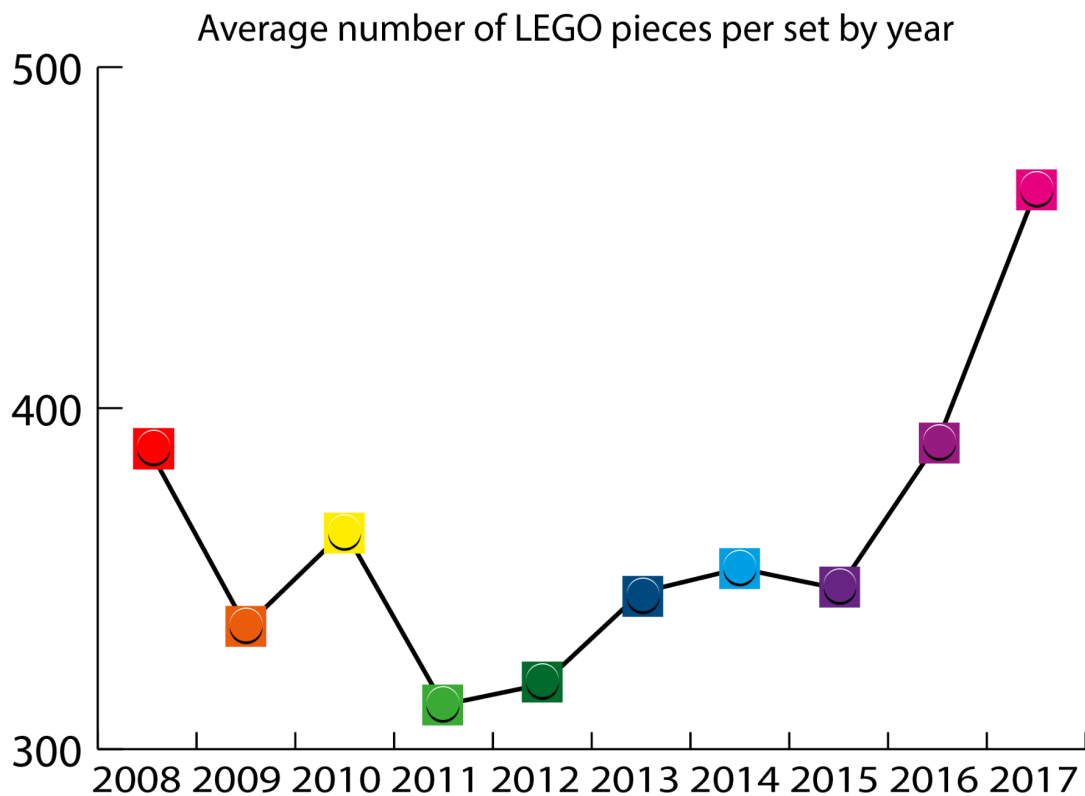
Sum of Total sets for each Year.

In this visualisation you can see a bar graph firstly made in tableau and later edited in illustrator. It shows the growth of new made LEGO sets from 2008 until 2017. In the time period of 2010 till 2016 there is an increase, but after 2016 it is slightly decreasing again.

Source:

<https://brickset.com/article/31370/a-decade-of-lego-in-graphs>

## Average number of LEGO pieces per set



Here we can see a line graph that was made in Adobe Illustrator. It shows the average number of LEGO pieces per LEGO set from 2008 to 2017. It started with a decrease, but from 2011 on it is increasing again (with the exception of 2015, where it had a slight decrease)

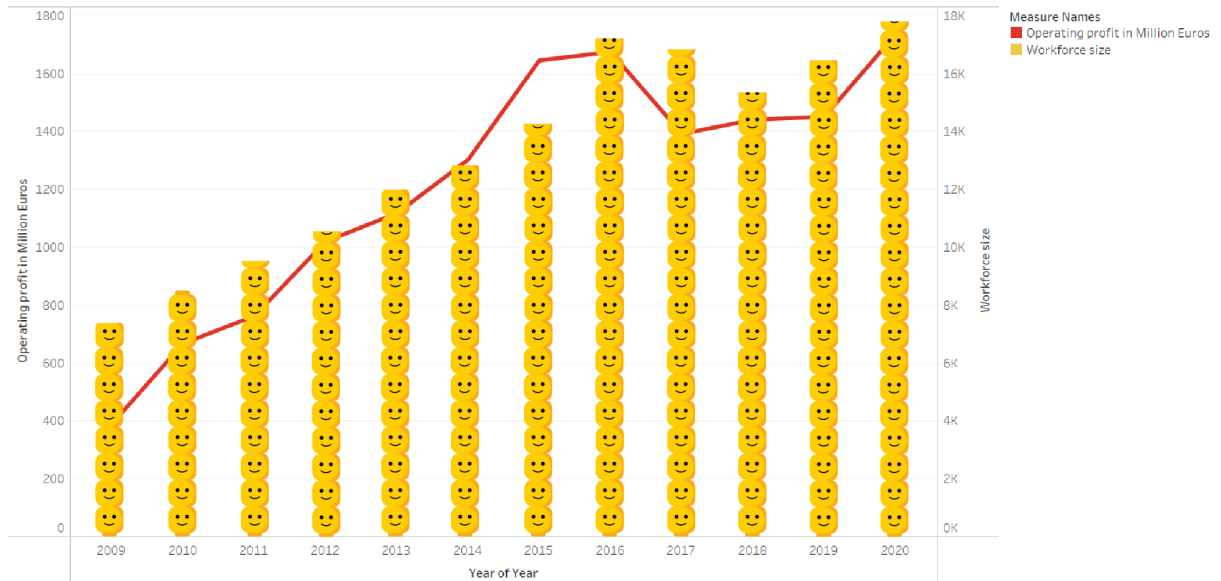
Source:

<https://brickset.com/article/31370/a-decade-of-lego-in-graphs>

## Visualisation 4: Workforce

### LEGO group workforce size and profit

LEGO group workforce size and operating profit



The trends of Operating profit in Million Euros and Workforce size for Year Year. Color shows details about Operating profit in Million Euros and Workforce size.

A bar graph depicting the LEGO workforce size and operating profit. It was created in Tableau and later edited in Illustrator to add the LEGO puppet heads. Looking at the bar graph and accommodating line graph, it can be seen that the increase and decrease of the workforce and profit are closely interconnected due to the fact that they rise and fall at approximately the same times.

Sources:

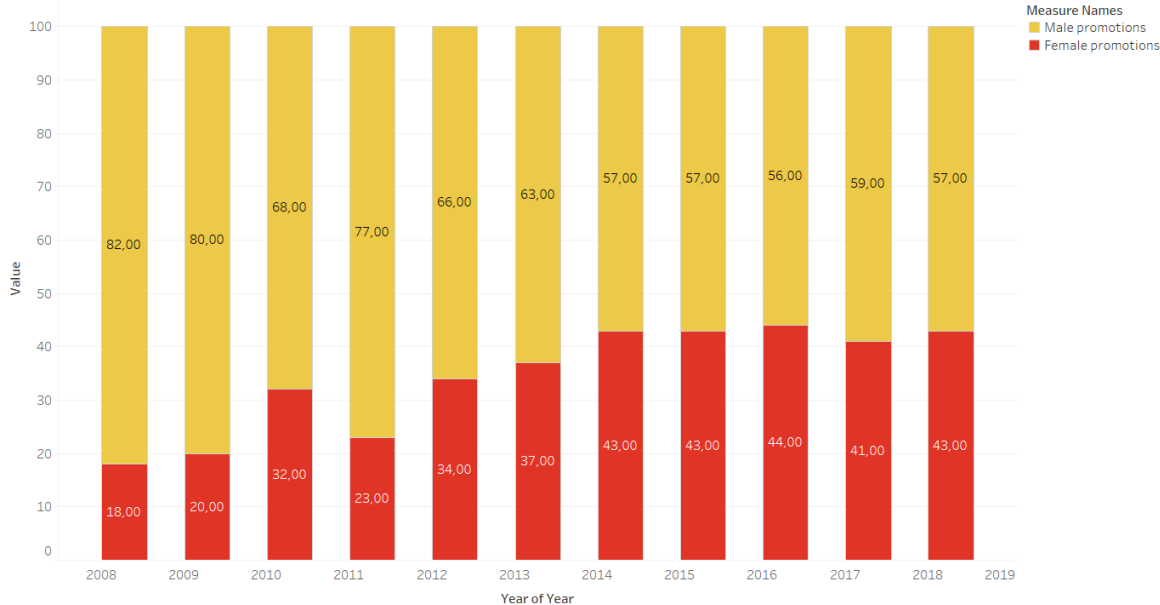
<https://www.statista.com/statistics/292286/lego-group-operating-profit/>

<https://www.statista.com/statistics/292314/number-of-employees-of-the-lego-group-worldwide/>



# Male vs. female promotions

Male vs. Female promotions to director level and above in percentages.



The plots of Male promotions and Female promotions for Year Year. Color shows details about Male promotions and Female promotions. The marks are labeled by Male promotions and Female promotions.

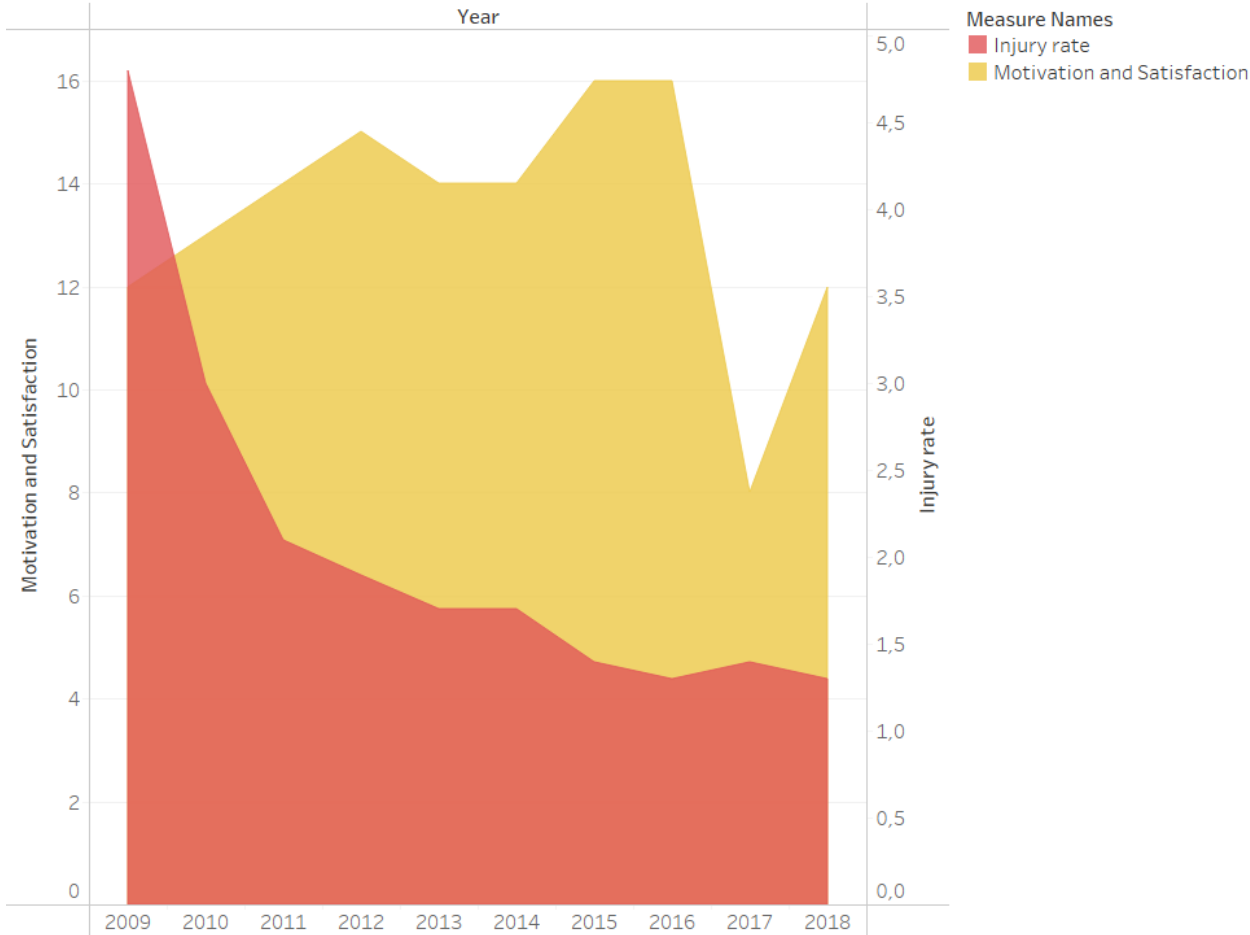
A bar chart created in Tableau showing the promotions of males and females to director level or higher where yellow are males, and red are females. It can be seen that there has been an increase in the amount of promoted females, such that it is almost divided 50/50. According to the annual reports this is also one of Lego’s goals for the future.

Sources:

- <https://www-statista-com.ezproxy2.utwente.nl/study/87292/lego-annual-report-2020/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/71368/lego-annual-report-2019/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/61311/lego-annual-report-2018/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/54284/lego-annual-report-2017/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/43180/lego-annual-report-2016/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/34309/lego-annual-report-2015/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/26789/lego-annual-report-2014/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/20606/lego-annual-report-2013/>

# LEGO motivation and injury rate

LEGO motivation and injury rate under workforce.



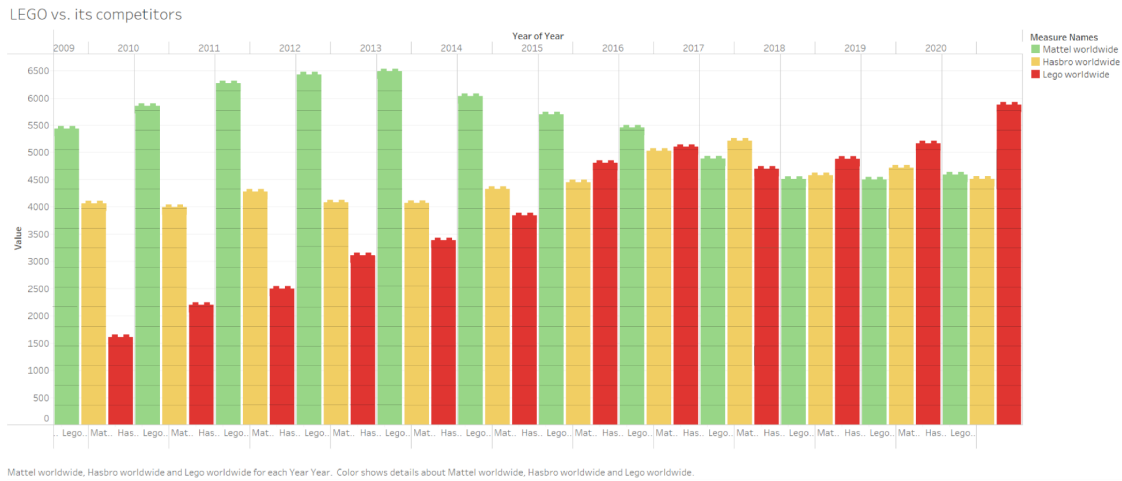
Motivation and Satisfaction and Injury rate for each Year Year. Color shows details about Motivation and Satisfaction and Injury rate.

An area graph created in Tableau that shows the injury rate and job motivation & satisfaction rate of the LEGO employees. You can notice that they are slightly interconnected, because since the injury rates went down, the job motivation & satisfaction rate increased, with it turning around slightly in 2017.

Source: <https://www.lego.com/en-us/aboutus/lego-group/policies-and-reporting/reports/>

# Visualisation 5: Competitors

## LEGO vs. its competitors



A bar chart created in Tableau, and later edited in Adobe Illustrator to resemble stacked blocks, showing the revenue of LEGO compared to its main competitors Mattel and Hasbro. You can see that while LEGO has been continuously increasing (with a dip around 2017), the other two companies have seen a decrease in their revenue. Thus showing that LEGO has had a bigger growth and competitive position in the last few years.

Sources:

<https://www.statista.com/statistics/282870/lego-group-revenue/>

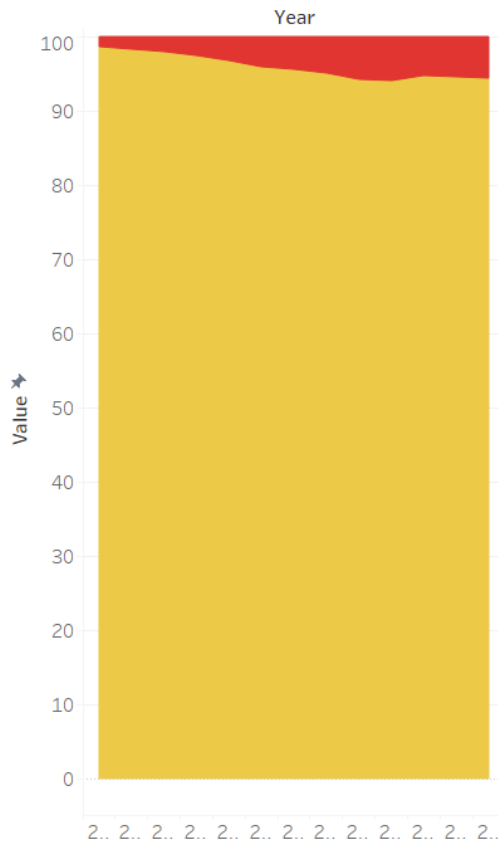
<https://www.statista.com/statistics/198763/net-sales-of-us-toy-manufacturer-mattel-since-2006/>

<https://www.statista.com/statistics/198755/hasbro-revenue-by-region-worldwide/>

# LEGO revenue compared to world toy revenue

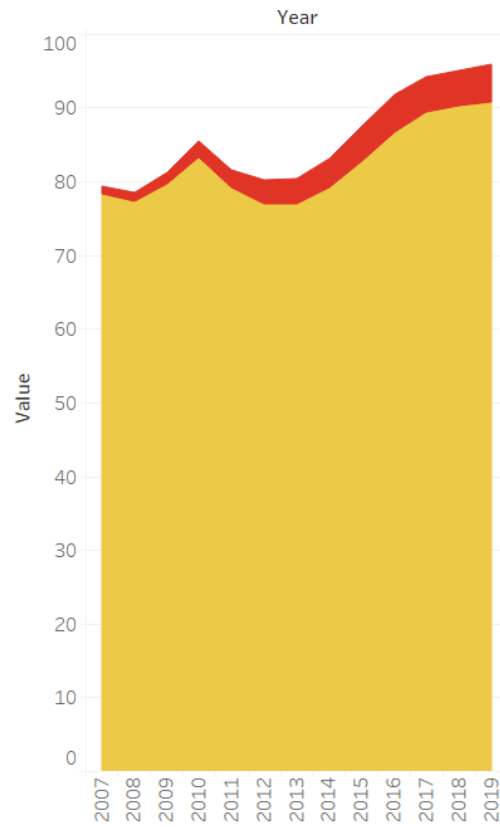
LEGO revenue compared to global toy revenue

From 2007-2019 in percentages



LEGO revenue compared to global toy revenue

From 2007-2019 in million US dollars



Measure Names  
■ Lego revenue  
■ Global toy reven..

2 area graphs created in Tableau showing the LEGO revenue compared to the global toy revenue. The left one shows the data in percentages, whereas the right one shows the data in million US dollars. It can be seen that LEGO is taking up a greater percentage of the total revenue each year, which is consistently increasing.

Sources:

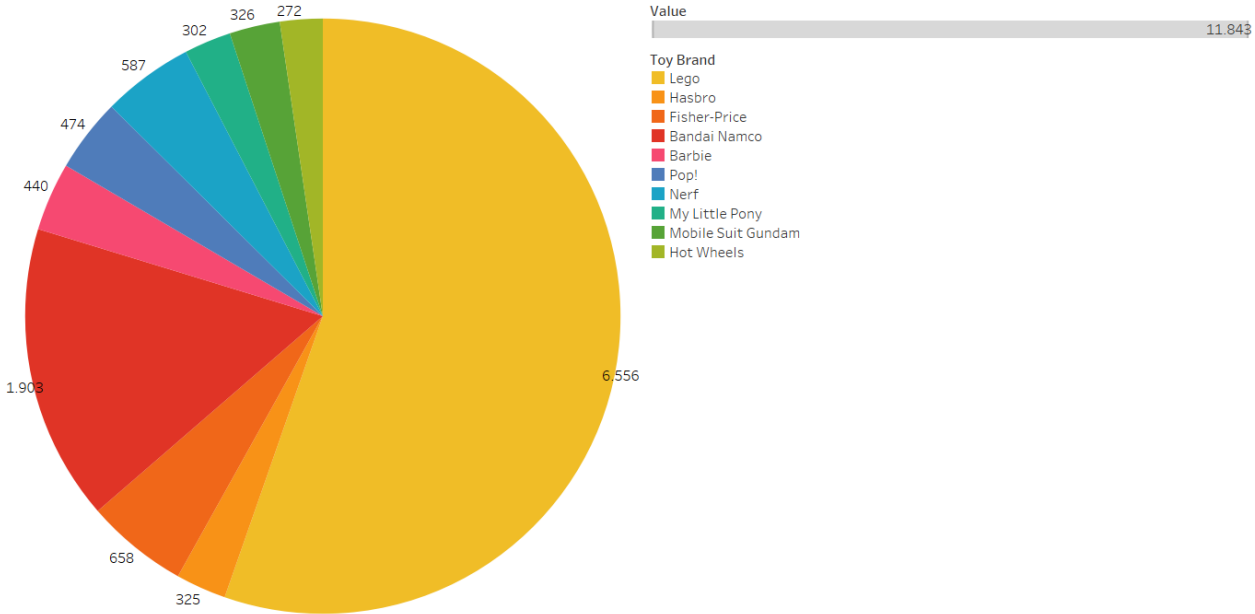
<https://www.statista.com/statistics/194395/revenue-of-the-global-toy-market-since-2007/>

<https://www.statista.com/statistics/282870/lego-group-revenue/>

# Biggest toy producers compared to LEGO

Biggest toy producers compared to LEGO

In million US dollars



Sum of Value. Color shows details about Toy Brand. Size shows sum of Value. The marks are labeled by sum of Value.

A pie graph created in Tableau showing the biggest toy producers in the world next to LEGO. You can easily see that LEGO takes up more than 50% of the total value, thus being the biggest of them all.

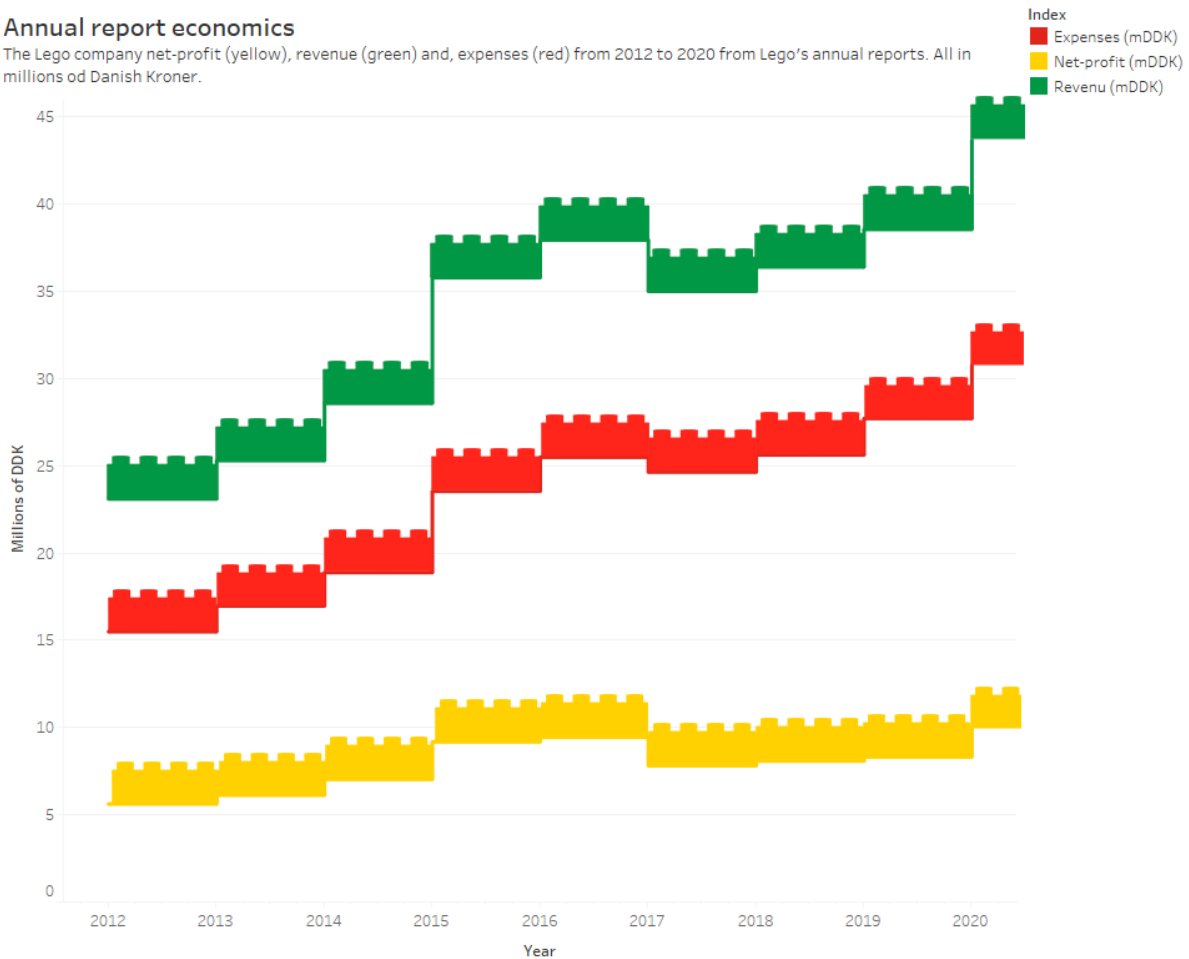
Source: <https://www.statista.com/statistics/399131/value-of-the-leading-global-toy-brands/>

# Visualisation 6: Annual report

## Annual report economics

### Annual report economics

The Lego company net-profit (yellow), revenue (green) and, expenses (red) from 2012 to 2020 from Lego's annual reports. All in millions of Danish Kroner.



A basic line graph made in Tableau that has been visually enhanced in Adobe Photoshop to resemble lego blocks. It shows that the expenses, net-profit and revenue of the LEGO company are all closely related, each can only increase when the other increases.

Sources:

- <https://www-statista-com.ezproxy2.utwente.nl/study/87292/lego-annual-report-2020/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/71368/lego-annual-report-2019/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/61311/lego-annual-report-2018/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/54284/lego-annual-report-2017/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/43180/lego-annual-report-2016/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/34309/lego-annual-report-2015/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/26789/lego-annual-report-2014/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/20606/lego-annual-report-2013/>

# Most popular LEGO themes

## Most popular Lego themes

From 2013 to 2020 the top 5 most popular Lego themes per year. In order from most popular (top) to fifth-most popular (bottom) as stated in Lego annual reports.



Because of the different graph type this one was made in RAWgraph and a title and caption added in Tableau.

Sources:

- <https://www-statista-com.ezproxy2.utwente.nl/study/87292/lego-annual-report-2020/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/71368/lego-annual-report-2019/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/61311/lego-annual-report-2018/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/54284/lego-annual-report-2017/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/43180/lego-annual-report-2016/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/34309/lego-annual-report-2015/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/26789/lego-annual-report-2014/>
- <https://www-statista-com.ezproxy2.utwente.nl/study/20606/lego-annual-report-2013/>

## Visualisation 7: Price

Price per set

Price per set

The average price for a lego set by year (from 2008 to 2017).



Sum of Average (\$) for each Year.

This is a bar graph firstly made in tableau and later edited in illustrator. You can see the average price for a LEGO per year from 2008 until 2017. In the beginning you cannot see a certain pattern but from 2014 until 2017 it has only been increasing.

Source: <https://brickset.com/article/31370/a-decade-of-lego-in-graphs>

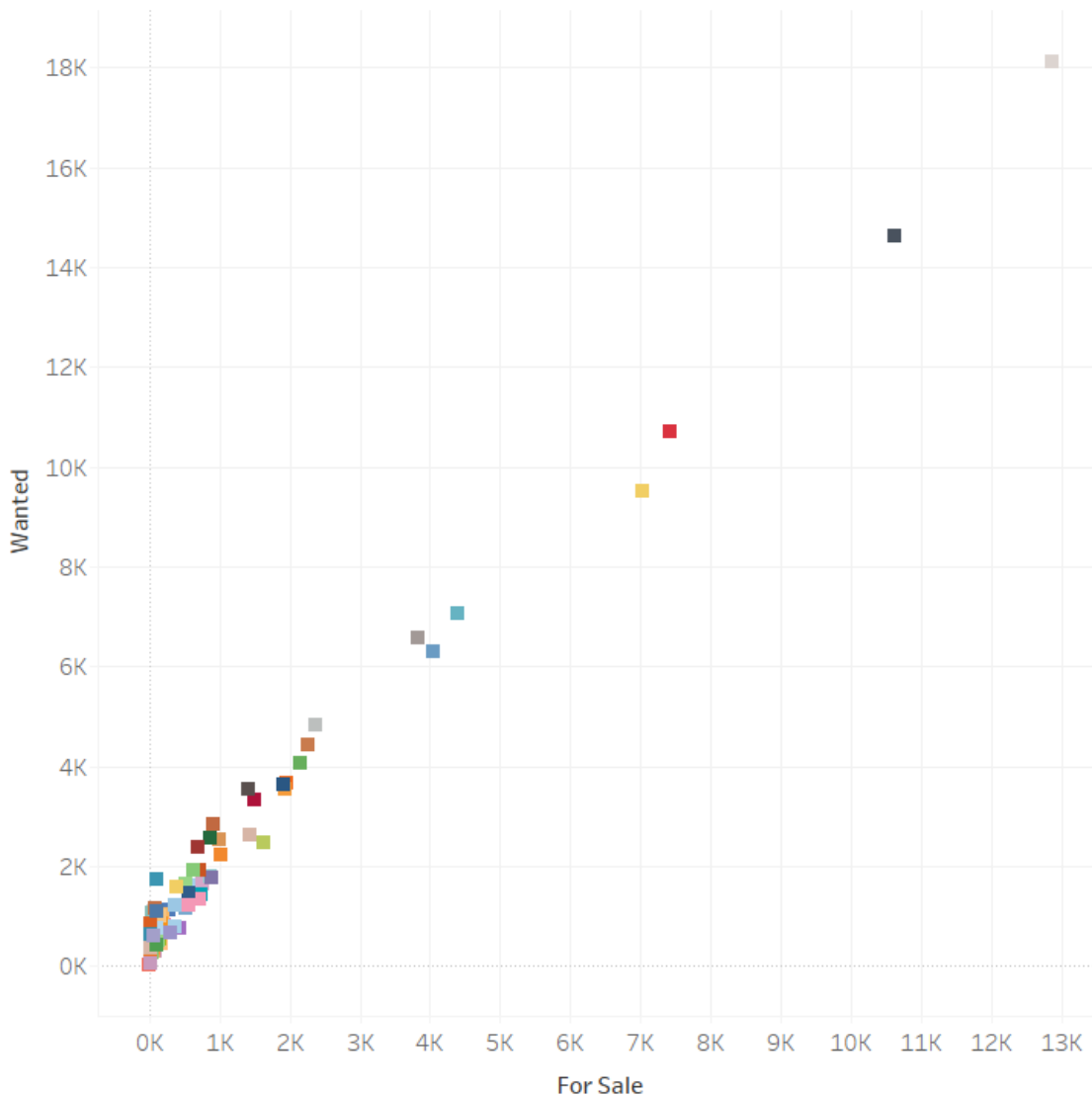




## Visualisation 8: Color

Wanted versus sale

How much a color is wanted versus for sale



Sum of For Sale vs. sum of Wanted. Color shows details about Name.

This is a visualisation made in Tableau.

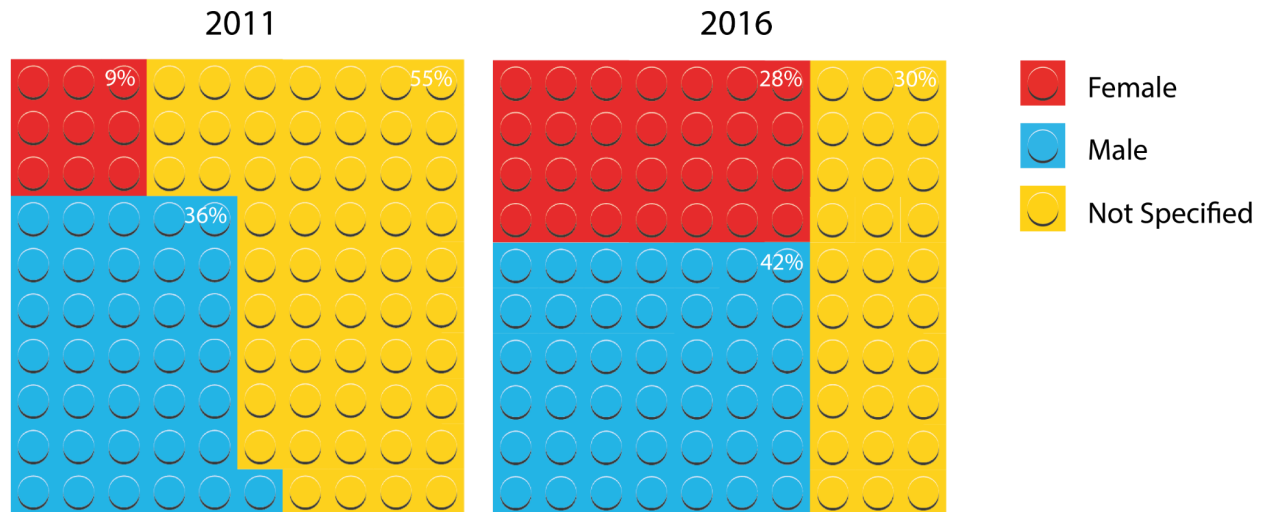
In this visualisation you see how much a color is wanted versus the sale of the specific color. It can be concluded that the colours white, black, red and yellow are the 4 most wanted colours of all the available ones.

Source: <https://www.bricklink.com/catalogColors.asp>



## Visualisation 9: Gender in LEGO

Gender distribution of LEGO minifigures



Data used for this visualization is processed in Numbers. The default pie chart that came out of this has been edited in illustrator. It can be seen that in 2016 there are very few female minifigures in LEGO sets compared to male minifigures. This has become more than 3 times as much in 2020. What is also striking is that in 2016 gender is often not always visible in a Lego minifigure. In 2020, this has been significantly withdrawn and more distinction is being made between male and female figures.

Source:

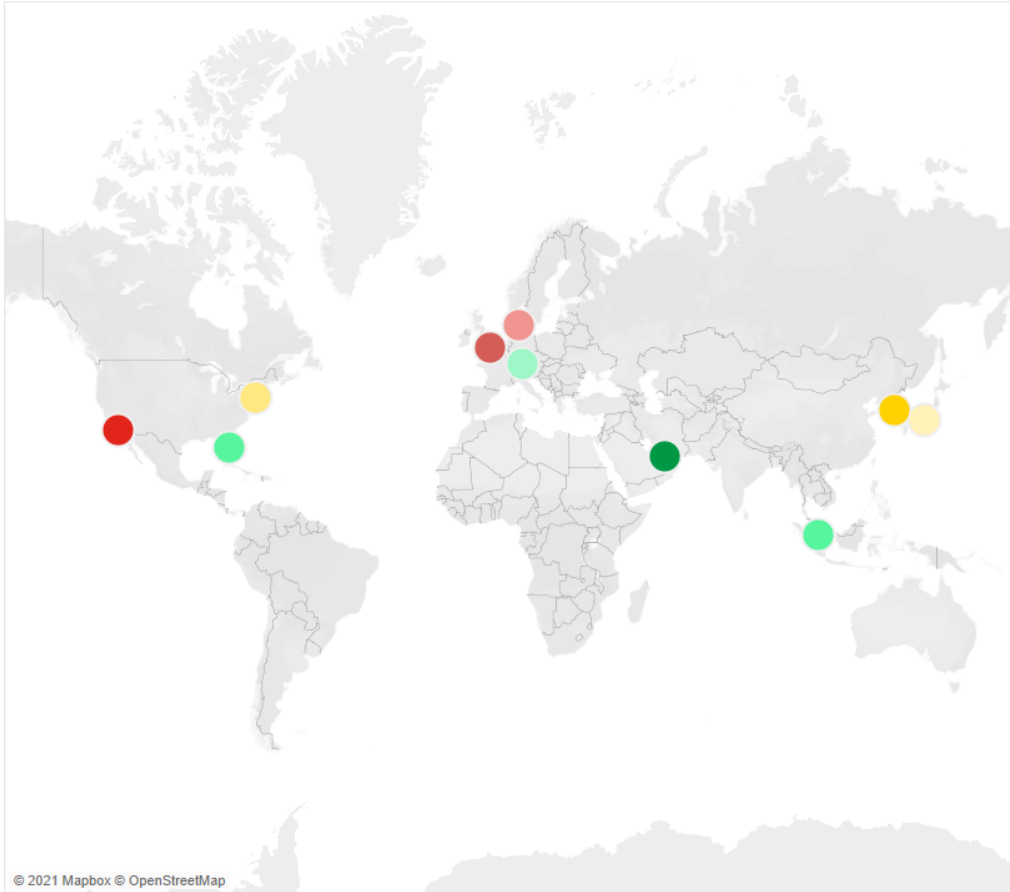
<https://ramblingbrick.com/2016/09/29/living-with-divercity-changing-depictions-of-gender-roles-with-lego-minifigures-in-the-post-friends-era/>

# Visualisation 10: Theme parks

## Legoland location openings

### Legoland location openings

All the Legoland locations and their (planned) opening years.



### Index

Location	Year
Billund	1958
Windsor	1996
California	1999
Deutschland	2002
Florida	2012
Malaysia	2012
Dubai	2015
Japan	2017
New York	2021
Korea	2022

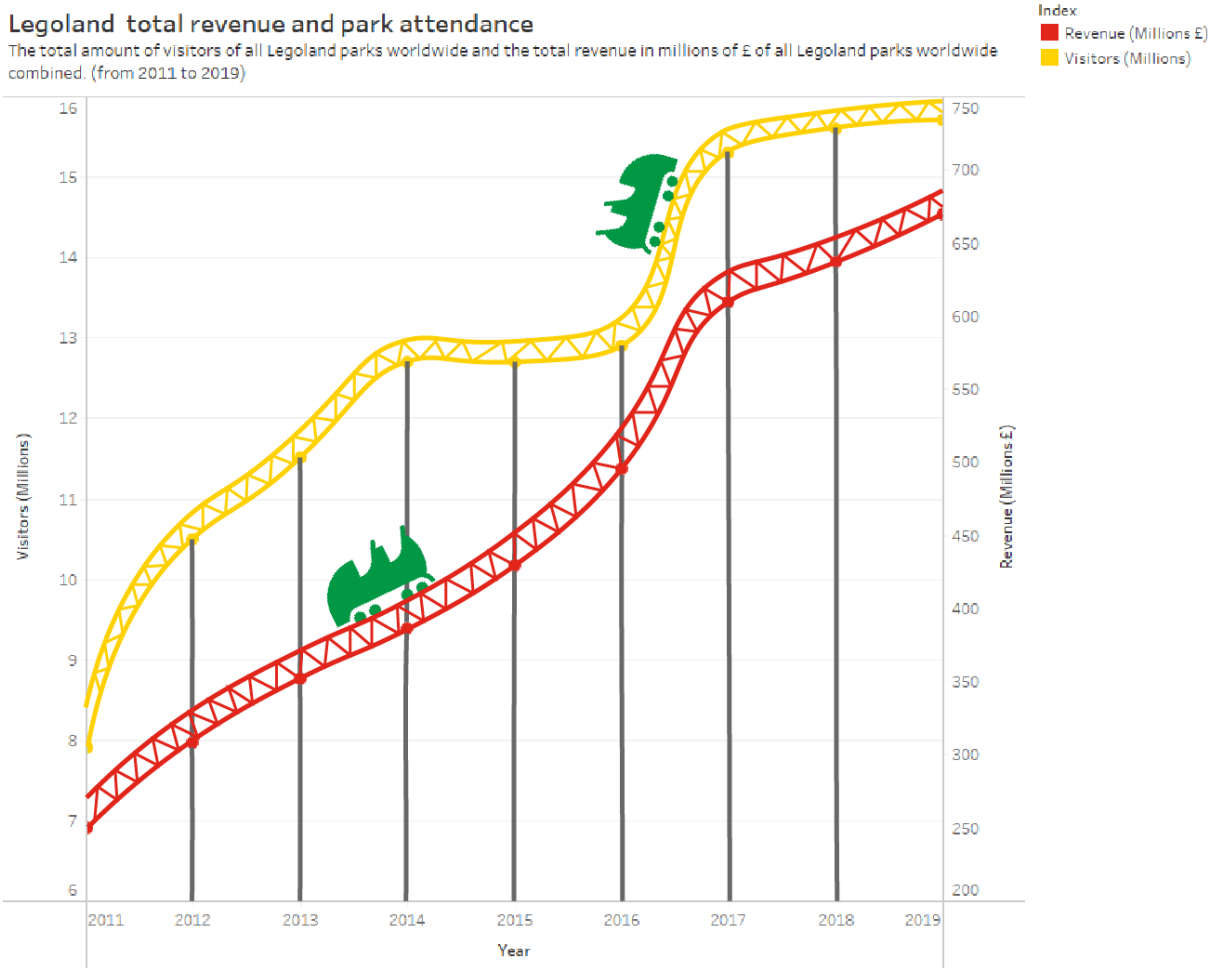
This visualisation is created in Tableau with our custom LEGO themed color palette, showing the locations and opening years. It can be seen that about 3 new parks are recently opened/opening, with 6 already existing.

Source: <https://blooloop.com/theme-park/in-depth/legoland-parks-worldwide-expansion/>

# Legoland revenue and attendance

## Legoland total revenue and park attendance

The total amount of visitors of all Legoland parks worldwide and the total revenue in millions of £ of all Legoland parks worldwide combined. (from 2011 to 2019)



The main basic graph has been created in Tableau, and visually enhanced in Adobe Illustrator to resemble roller coasters. It can be seen that the attendance and revenue are similarly increasing, with the revenue having a slight dip in 2015/2016.

Sources:

<https://www-statista-com.ezproxy2.utwente.nl/statistics/663963/merlin-entertainments-legoland-parks-revenue/>

<https://www-statista-com.ezproxy2.utwente.nl/statistics/663955/merlin-entertainments-legoland-parks-visitor-numbers/>

## Visualisation 11: Benefits of LEGO

Parents' opinions about LEGO

Parents say LEGO's:



What parents say about LEGO. Color shows details about What parents say about LEGO. Size shows sum of F4.

This visualisation consists of a word cloud created in Tableau about what parents say what beneficial effect LEGO has on their children and themselves. The size of the words is determined by the percentage of parents that agree on the same line.

Source: [https://www.lego.com/cdn/cs/aboutus/assets/blt2278c7a21e58e900/LEGOCCompanyProfile\\_2020.pdf](https://www.lego.com/cdn/cs/aboutus/assets/blt2278c7a21e58e900/LEGOCCompanyProfile_2020.pdf)