

Study of the impact of IFFR 2020 on the city of Rotterdam

July 2020





PricewaterhouseCoopers Advisory N.V.
Thomas R. Malthusstraat 5,
1066 JR Amsterdam, Postbus 9616
www.pwc.nl



Gulbahar Tezel
Partner PwC
Mobile: +31 (0)613915671
Gulbahar.tezel@pwc.com

IFFR
T.a.v. mevr. L. Hemme
Karel Doormanstraat 278b
3012 GP Rotterdam

Amsterdam, 10 July 2020

Dear Ms. Hemme,

In accordance with our engagement letter dated February 11, 2020, we are pleased to present our study regarding the impact analysis of IFFR on the city of Rotterdam. In this study we analyze the extent to which IFFR 2020, that took place from January 26 to February 2, contributed to the economy of Rotterdam.

We note that the impact of the 2020 edition of the festival is no guarantee for the impact of future editions. Circumstances can be significantly different, for example due to Covid-19.

For the further important disclaimers applicable to this study, please refer to page 12.

Sincerely yours,

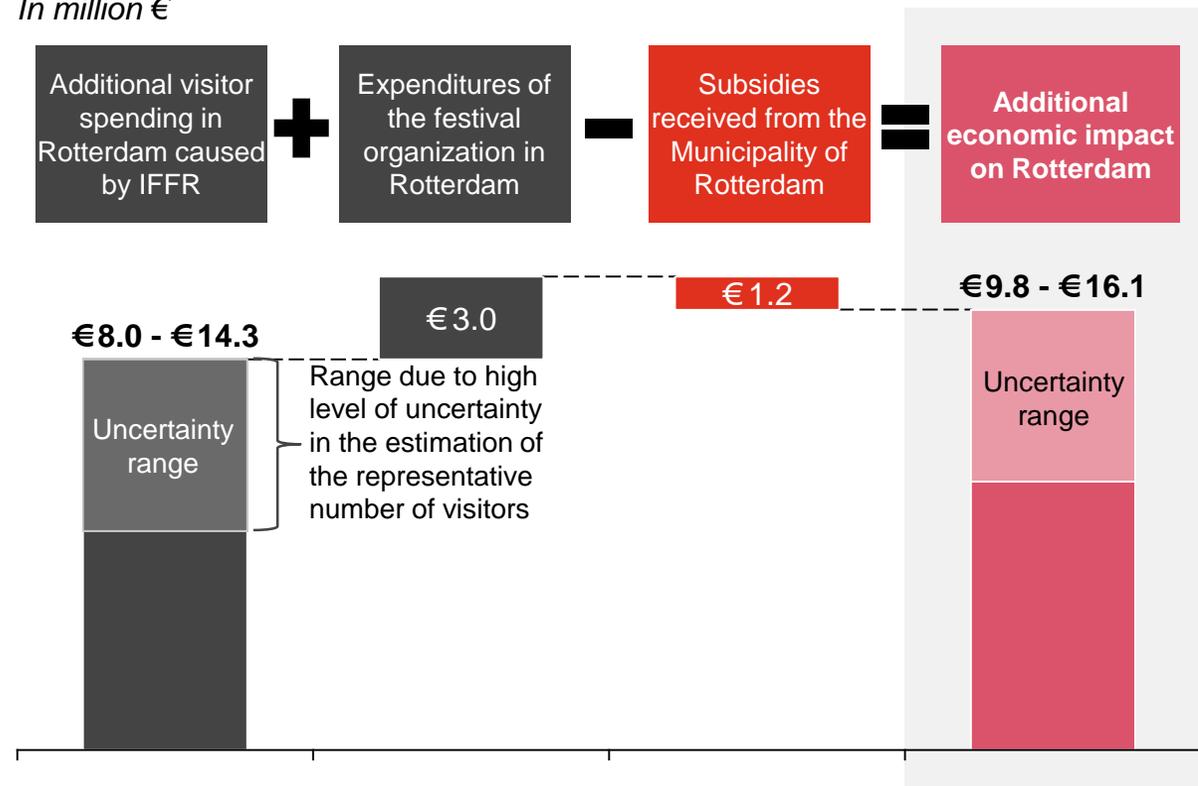
PricewaterhouseCoopers Advisory N.V.

Gulbahar Tezel
Partner

In this study we estimate the economic and reputational impact of the IFFR festival in January 2020 on Rotterdam

The direct economic impact of IFFR is estimated to be in a range between ~~€9.8~~ and €16.1 million in 2020...

In million €



...and IFFR contributes to a good reputation of Rotterdam

93% Visitors think that IFFR adds to a positive image of Rotterdam

47% Visitors will visit Rotterdam at least once again within the next year

IFFR is an international film festival organized yearly. In 2021, the 50th edition will take place

Highlights of the 49th edition of IFFR in January 2020

12 days

Films from
almost 90
countries

575 feature,
mid-length and
short films

340.000
visits

About IFFR

- IFFR is one of the largest yearly events held in Rotterdam for general audiences, for education and for professionals (such as CineMart, Hubert Bals Fund or the Reality Check conference). The festival also organizes year round events for these three target groups.
- IFFR is a globally acclaimed and well reputed international art film festival that offers a high quality line-up of carefully selected fiction and documentary feature films, short films and media art.
- IFFR distinguishes itself from other film festivals by:
 - ❶ Focusing on innovative and experimental filmmaking
 - ❷ Providing extensive support for talented new film professionals, with a special focus on talents from developing countries and/or cultural minorities
 - ❸ Stimulating both the audience (including youngsters) and the filmmakers, and bringing them together
- IFFR is currently preparing for its 50th edition in January 2021



In this study we estimate the economic and reputational impact of the IFFR festival in January 2020 on Rotterdam

Our analysis focuses on the festival in January 2020 and is based on a survey and financial data

- In this study we estimate the direct economic and reputational impact of the 49th festival edition of IFFR in 2020 on the city of Rotterdam.
- We did not consider year round activities as part of the measurement of the economic impact of IFFR and merely focused on the organization and impact of the festival from 22 Jan – 2 Feb 2020.
- The estimation of the economic impact is based on:
 - **Visitor spending**¹. A survey, conducted by Blauw Research, among festival visitors of IFFR in 2020 provides us with the visitor expenditures in Rotterdam that are caused by IFFR.
 - **Expenditures of IFFR**. Financial data of IFFR is used to determine the expenditures of the organization in Rotterdam.
 - **Subsidies of the municipality**. Subsidies from Rotterdam are subtracted from visitor and IFFR's expenditures
- The estimation of the reputational impact is based on the same survey among festival visitors of IFFR in 2020.

Note 1) The visitor spending regards visitors that bought film tickets including professionals. The visitor spending excludes educational events attendees, free events attendees (i.e. IFFR Club, Art Directions or free Talks & Masterclasses) and volunteers/employees of the festival that did not buy a film ticket.

Economic impact of IFFR on Rotterdam

PwC



The economic impact analysis focusses on expenditures in Rotterdam that are caused by IFFR



Scope of our research¹

- Our analysis focusses on **economic additionality**, which means that we only consider expenditures in Rotterdam that are primarily caused by IFFR. These expenditures are additional to expenditures that would have occurred without IFFR.
- Our analysis **focusses on the benefits** for the city of Rotterdam. We did not perform an analysis of all potential costs incurred by the Municipality of Rotterdam because of IFFR apart from the subsidies they granted to IFFR. For example, additional costs for cleaning public spaces or additional police costs. This can lead to an overstatement of the impact.
- We did not analyze the indirect and induced effects of the expenditures of IFFR's visitors and the organization via **multipliers**, which means that the direct expenditures lead to increased economic activity in other sectors. This can lead to an underestimation of the impact (see appendix 3 for a further explanation of multiplier effects).



Sources

Survey data to estimate visitor spending

- Blauw research conducted a survey among the visitors (including professionals) of the festival to estimate the amount of additional spending (see appendix 1 for all survey questions and appendix 3 for the representativeness of the survey). PwC formulated the relevant survey questions for the purpose of this study and analyzed the final survey output.
- We distinguished between visitors who would not have been in Rotterdam without IFFR (additional visitors) and visitors who would be in Rotterdam even without IFFR (non-additional visitors). The expenditures made by the latter group were excluded from our analysis because these expenditures would have occurred even if IFFR would not have taken place.
- All expenditures made by the additional visitors in Rotterdam are primarily caused by IFFR and therefore are relevant for the economic impact assessment. Examples of additional visitor expenses are overnight stays in a hotel, transport in Rotterdam, spending on food and drinks, shopping, visits to the museums and other cultural activities other than IFFR.
- Visitor expenditures on IFFR (e.g., ticket purchase) are not included, because this does not directly benefit Rotterdam. These purchases only have an impact on Rotterdam when the IFFR organization spends the income again in Rotterdam.

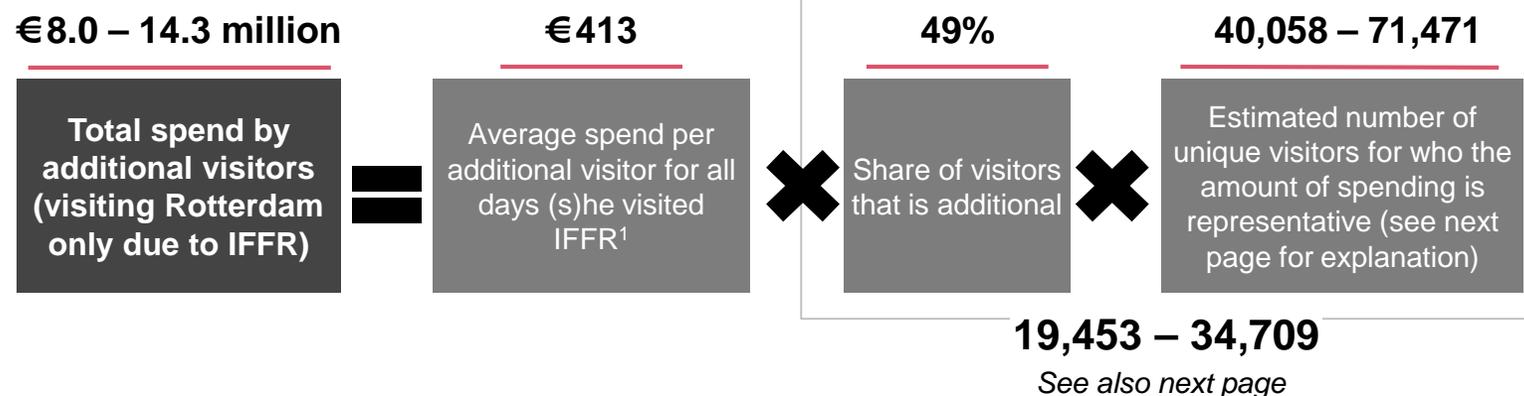
Financial data of IFFR to estimate IFFR's expenditures

- We analyzed the expenditures of the IFFR organization in Rotterdam incurred because of the festival. We considered expenditures to firms in the Municipality of Rotterdam. These expenditures have an economic impact on Rotterdam by causing economic activities for these companies.

We did not verify the survey data and financial data that we received from IFFR

The total additional visitor spending in Rotterdam because of IFFR is estimated to be between € 8.0 and € 14.3 million

In 2020, IFFR's visitors were responsible for additional spending of between €8.0 and €14.3 million in Rotterdam...

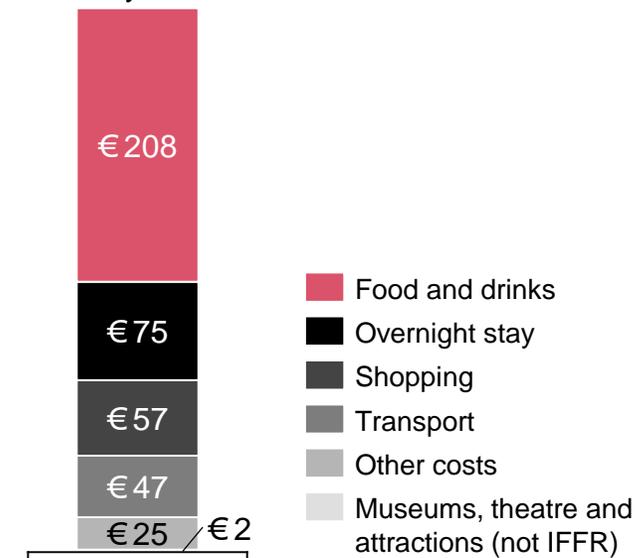


1) We calculated the total expenditures from additional visitors at IFFR based on Blauw's survey amongst professional and non-professional visitors (a total of 1.113 visitors responded to the survey). We assumed that the expenditures of the last day (question 9; appendix 1) are also representative for the other days that a person visited IFFR (question 12; appendix 1). Therefore, we multiplied the spending of the last day (including overnight stay), with the number of days that the person visited IFFR. We asked respondents about their expenditures on the last day that they visited IFFR instead of their average daily expenditures to avoid potential mistakes due to calculation errors.

Note: See appendix 3 for a further explanation regarding the scope of our results.

...with each additional visitor spending €413 in total for all days (s)he visited the festival, and mostly on food and drinks

Spending per person for all days = €413



Survey results indicate that ~49% of the IFFR visitors visited Rotterdam solely due to the film festival

We are interested in the visitors that visited Rotterdam solely due to the film festival

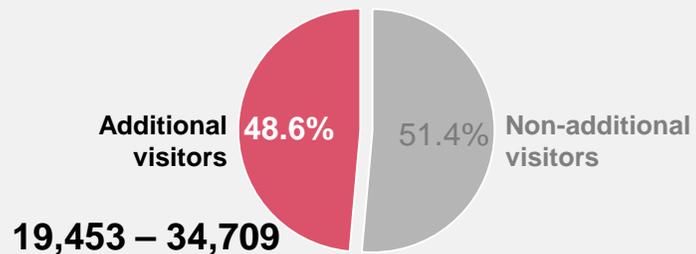
- For analyzing the economic impact of IFFR, we isolated the “additional” visitors that came to Rotterdam only because of the film festival. This was done based on the survey amongst professional and non-professional visitors.

Survey question to determine additionality

If IFFR would not have taken place in Rotterdam, would you have been in Rotterdam (between 22 January and 2 February) anyway?

→ Probably / Probably not

~49% of the respondents visited Rotterdam solely due to the film festival



We applied the share of additional visitors to an estimated number of unique visitors for who the survey is representative, which we calculated in two ways

- The exact number of unique (non-professional) visitors – attending throughout the twelve days of the festival – is unknown, therefore we estimated this number. This estimation comes with a high level of uncertainty, therefore we use two methods to determine a lower and an upper boundary. In both methods we add the number of professional visitors and exclude educational events attendees, free events attendees and volunteers/employees of the festival that did not buy a film ticket.

- To determine the lower boundary of the number of visitors, we divide the number of tickets sold for events during the festival (not to professionals, volunteers/personnel or for education programs) by the average number of films watched per visitor.¹ This results in an estimation of the unique number of visitors that visited films during the festival. The key uncertainty in this method lies within the estimation of the average number of films per visitors.

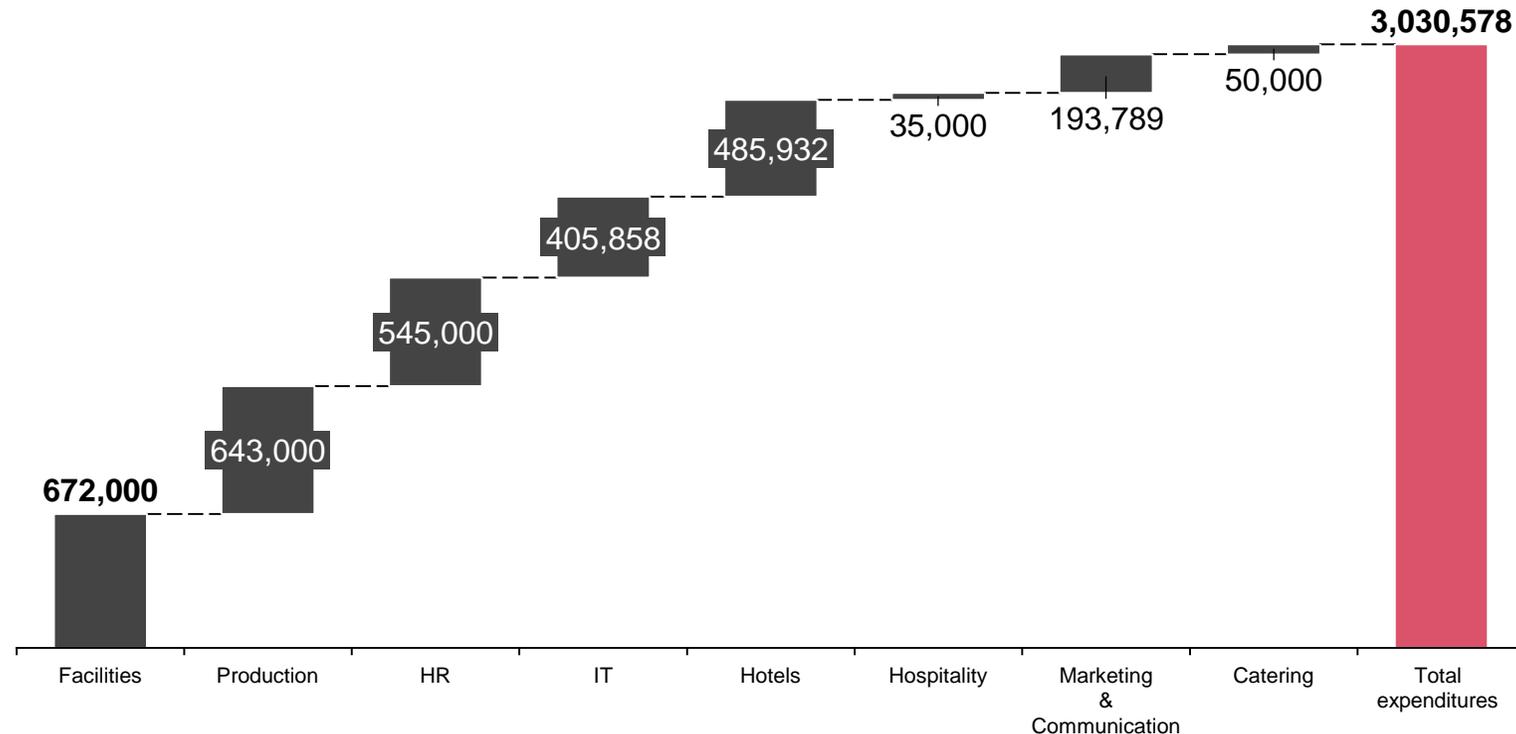
$$(214,221 \text{ tickets} / 5.7 \text{ average number of films per visitor}) + 2,475 \text{ professional visitors} = 40,058$$

- The upper boundary is determined by the unique number of ticket *buyers* (non-professionals) and an estimation of the number of visitors that these ticket buyers brought along. The number of ticket buyers is a sum of the unique accounts in the online webshop and an estimation of offline ticket buyers by taking 70% of all offline transactions to account for people that did several offline transactions. In addition to these ticket buyers, we estimate the number of people that they brought along. 66% buys tickets for someone else.² These people buy tickets for on average 2.8 people, so 1.8 in addition to themselves. This amount is determined based on ticket sales data. The estimation of the number of visitors that the ticket buyers brought along is the key uncertainty in this method.

$$31,534 \text{ unique ticket buyers} + (66\% \text{ of ticket buyers that also bought for someone else} * 31,534 * 1.8 \text{ average number of people a ticket buyer brings along}) + 2,475 \text{ professional visitors} = 71,471$$

The additional expenditures of the festival organization in Rotterdam are €3.0 million in 2020

The IFFR organization spends €3.0 million in Rotterdam contributing to Rotterdam's economy



Comments:

- The festival organization incurs costs for organizing the festival. These costs result in economic activity for other companies
- For the impact on Rotterdam, only the expenditures in Rotterdam are relevant. IFFR determined which expenses were made to companies in the municipality of Rotterdam. These expenditures are illustrated in the graph on the left.
- The HR expenses represent short-term hiring of freelance workers. Salaries of IFFR personnel are not taken into account because a large part of salaries of personnel living in Rotterdam will be spent outside of Rotterdam. For example on national taxes, mortgages or insurances. Therefore, it is difficult to estimate the amount that concerns Rotterdam and this amount is assumed to be low.
- The expenditures only concern the festival in January-February. Expenditures for other year-round activities are not included.

IFFR received €1.2 million in subsidies from the municipality. This results in a total direct economic impact of between €9.8 and €16.1 million

IFFR received €1.2 million on subsidies from the municipality of Rotterdam

€1,217,000

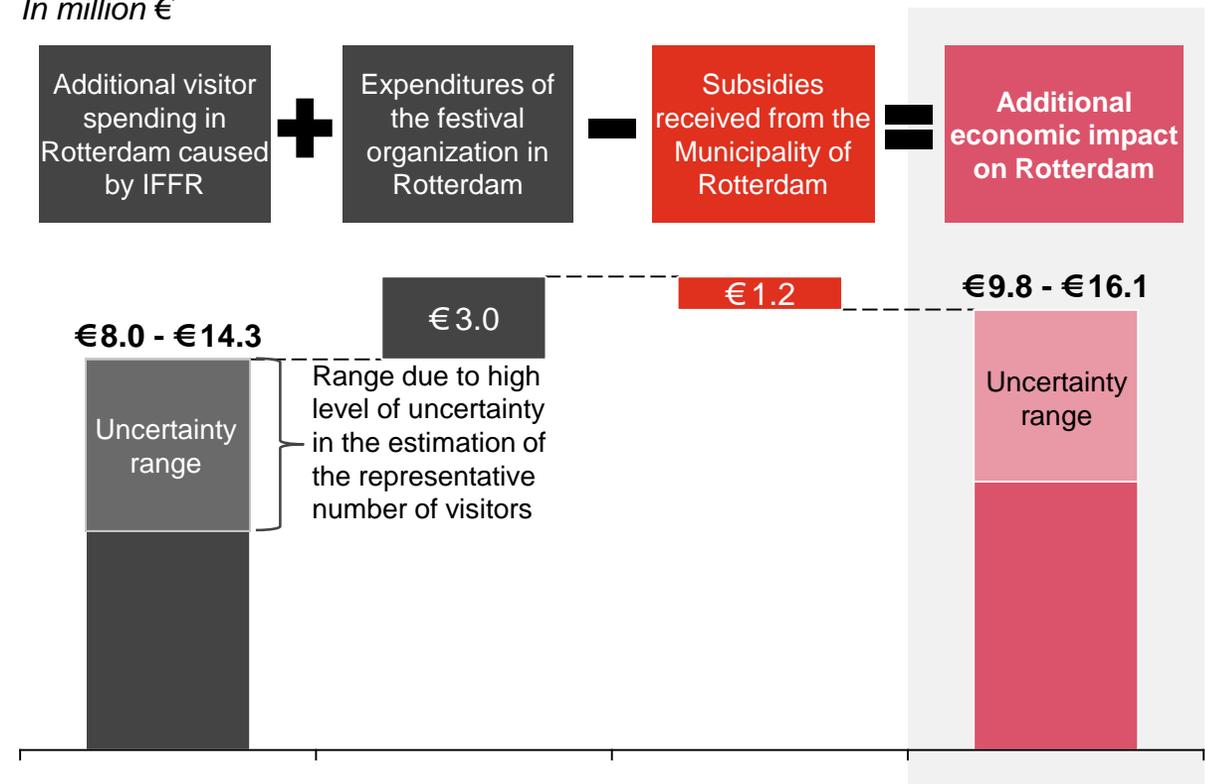
Subsidies received from the municipality of Rotterdam in 2019/2020

Comments:

- The subsidies from the municipality are subtracted from the economic impact that IFFR has on Rotterdam, because the subsidy represents a costs for the municipality.
- Other costs for the municipality such as costs for additional cleaning of public spaces during and after the festival are not researched. We assume that these costs are negligible, because IFFR largely takes place on private premises and the peak of visitors at one moment (requiring enforcement) is relatively low, because the visitors are spread out over fourteen days.
- The subsidies received from the municipality can also be used for other IFFR activities.

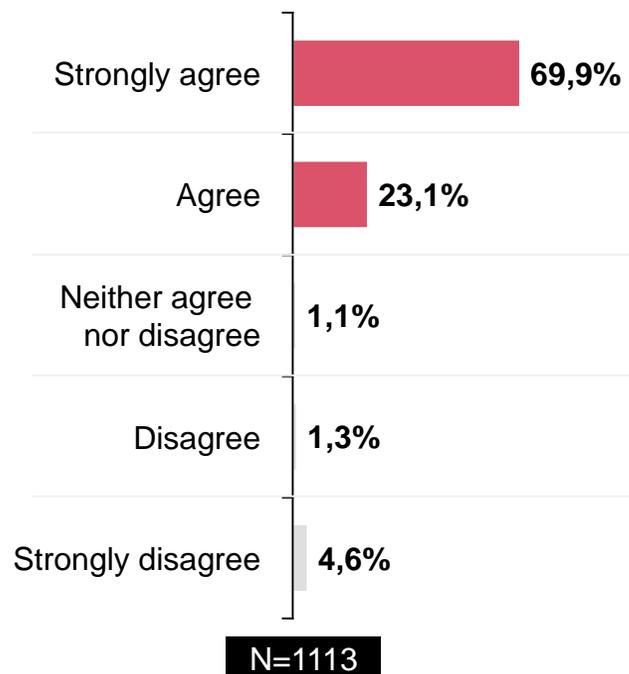
The total direct economic impact of IFFR is between €9.8 and €16.1 million in 2020...

In million €

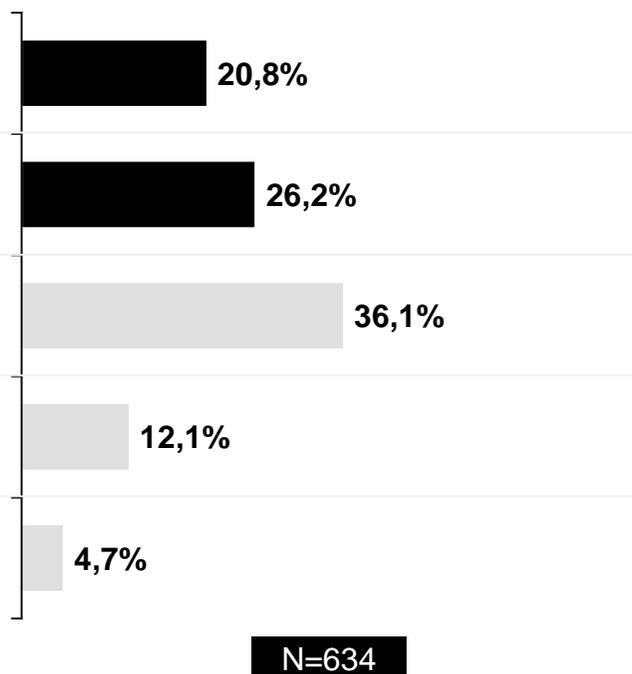


IFFR has a positive impact on the reputation of Rotterdam

93% of the visitors think that IFFR adds to a positive image for Rotterdam



47% of the visitors from outside Rotterdam said they will visit Rotterdam at least once again within the next year¹



Comments

- Based on Blauw's survey, we estimate that almost half of the visitors will visit Rotterdam again because of IFFR
- Returning visitors are bound to make future expenditures in Rotterdam, thus stimulating the economy
- A good reputation can also contribute to an attractive entrepreneurial climate

Disclaimer

On February 11, 2020, IFFR has requested PwC to estimate its economic impact on the city of Rotterdam. PwC prepared this study in February – July 2020.

Some of the information and data used and presented in this study is based on data that were provided by or derived from IFFR and Blauw Research or external (public) data sources (the 'Third Party Information'). The Third Party Information is neither endorsed nor supported by PwC. PwC has carried out its work on this study on the basis that the Third Party Information is accurate, complete and not misleading. PwC is not responsible in any way for the accuracy, completeness and/or reliability of the Third Party Information or the related representations in the study. It is your responsibility to make your own investigations, decisions, enquiries about the Third Party Information.

This study is intended for information purposes only. It is not (intended) for any other use (such as investment decision(s)).

The scope, context and limitations of the work done by PwC are explained in the study. It is your responsibility to make your own investigations, decisions and inquiries about the information contained in the study and you should exercise your own independent (professional) judgment when using such information. You may not rely on this study. No responsibility, duty of care or liability whatsoever (whether in contract, tort (including negligence) or otherwise) is or will be accepted by PwC in connection with (the information contained in) this study.

For purposes of this disclaimer 'you' refers to any reader and/or user of this study.

This study and all matters related to it will be governed by and construed in accordance with the laws of the Netherlands.

© 2020 PwC. All rights reserved. Not for further distribution without the prior written permission of PwC.

"PwC" refers to the network of member firms of PricewaterhouseCoopers International Limited (PwCIL), or, as the context requires, individual member firms of the PwC network.

Please see www.pwc.com/structure for further details.

A

Appendices

Appendix 1: Detailed survey questions

1. Do you live in The Netherlands?

2. Do you live in Rotterdam?

Ask this question only to people that responded 'Yes' to question 1

3. If IFFR would not have taken place in Rotterdam, would you have been in Rotterdam (between 22 January and 2 February) anyway?

Respondents selecting 'probably' are directed to question 11 (skipping 4 to 10)

4. Did you, as a result of IFFR, sleep in Rotterdam? For instance in a hotel or Airbnb

Ask this question only to people that responded 'No' to question 2

5. How many nights did you sleep in Rotterdam?

Ask this question only to people that responded 'Yes' to question 4

6. What was the average price per night?

Ask this question only to people that responded 'Yes' to question 4

7. To how many people did this spending per night apply?

Ask this question only to people that responded 'Yes' to question 4

8. What situation does, during your IFFR visit, apply to you?

My spendings are for myself only; I also pay for other people; I do not pay anything, somebody else pays for me; I do not pay anything and nobody else pays for me

9. How much did you spend on the last day that you visited IFFR on the following matters?

Transportation in Rotterdam (for instance public transport or parking costs); Food and drinks; Shopping; Museums, theatre and attractions (not IFFR); Other costs

Ask this question only to people that responded 'My spendings are for myself only' or 'I also pay for other people' to question 8

10. To how many people did those spendings apply?

Ask this question only to people that responded 'I also pay for other people' to question 8

11. You said that you probably would have been in Rotterdam, even in IFFR would not have taken place there. Can you please indicate what your additional spendings, as a result of IFFR, were for the following matters?

An additional spending is one you would not have done in case there was no IFFR. A dinner in a restaurant in Rotterdam that was already planned, is not an additional spending. A ticket for the subway towards IFFR is.

Ask this question only to people that responded 'probably' to question 3

12. How many days did you visit IFFR?

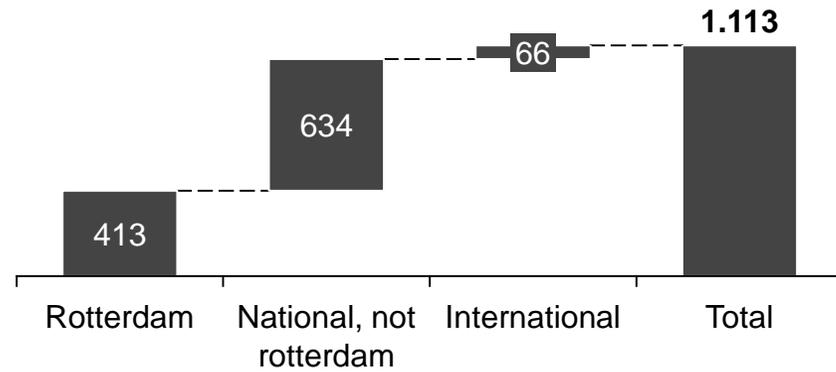
13. IFFR adds to a positive image for Rotterdam?

14. Due to IFFR, I will visit Rotterdam at least once within the next year:

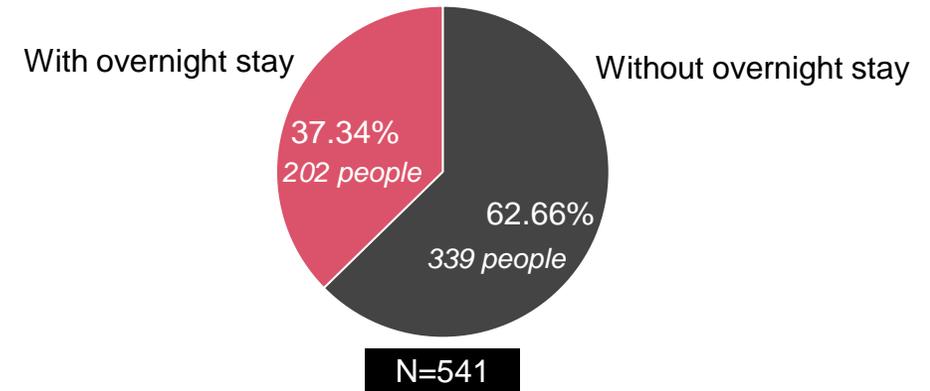
Ask this question only to people that responded 'No' to question 2 (not from Rotterdam)

Appendix 2: Additional summary statistics

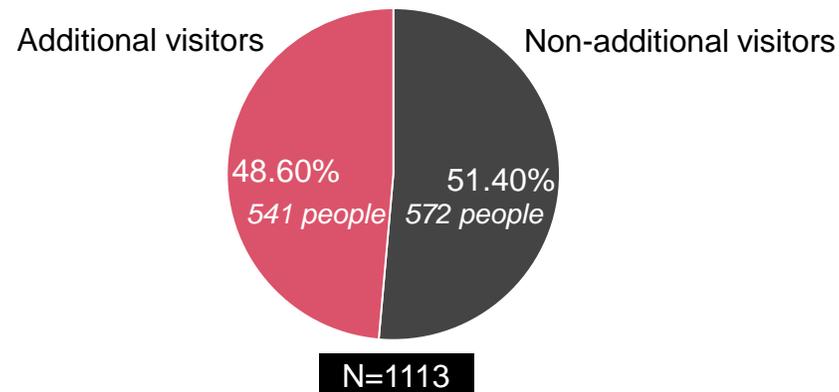
Origin of visitors (all respondents)



Share of additional visitors that stayed overnight (only additional respondents)



Additional and non-additional visitors



3.46 Average number of days at IFFR for additional visitors

Appendix 3: Scope of results

The survey sample is representative for the entire population...

- The survey sample of 1.113 respondents is representative for the entire population of visitors to IFFR, which we estimated to be between 40,058 and 71,471. With a confidence interval of 95% and an error margin of 5%, the sample should be at least 383 respondents to be representative for the upper boundary of our estimated population size.
- The survey was sent to all people that purchased an online ticket, to a very small group of people that left their e-mail address during the festival and to users of the IFFR app in a push notification. Potentially, some app users may not have visited the festival in 2020, but it is unlikely that they responded to the survey. The sample also includes professional visitors. The sample represents a mix of visitors from the Netherlands and abroad, with and without overnight stay.
- PwC could not influence the selection of people that received the survey. We did not verify the correctness and reliability of the received data file with survey responses.

...However, we note two potential biases

- The survey does not make a distinction between professional and non-professional visitors. Potentially professional visitors are more inclined to fill in the survey than non-professional visitors. This might lead to a different estimation of the visitor expenditures, because potentially professionals visit IFFR for a different number of days and make different expenditures.
- We asked for the perceived reputational impact of IFFR on Rotterdam only to IFFR visitors. The visitors of IFFR know what IFFR is and are probably more positive about IFFR than people that did not come to the festival. Therefore, the sample does not answer whether the people from Rotterdam / the Netherlands / international tourists believe that IFFR contributes to the reputation of Rotterdam.

We did not research multiplier effects, opportunity costs and crowding out effects

- We did not include multiplier effects. The expenditures made by IFFR's visitors and the organization can ultimately cause new economic activity in other sectors, apart from the sectors where the expenditures are immediately taking place. These indirect or induced effects are often calculated by using so called 'multipliers'. Multiplier effects in a small and open region such as Rotterdam are likely to be low as the analysis should take into account leakage of economic activity to other regions. Regional multipliers for the city of Rotterdam are not available and national multipliers are not suitable for this analysis, because they do not take into account the leakage to other regions within the country.
- We did not consider opportunity costs. If IFFR would not have taken place, public resources committed to IFFR could have been redirected to other public services or retained by the taxpayer. We found that government investment in IFFR has an economic impact, but we did not consider the impact in comparison to its use for other purposes (Crompton, 2006).
- We did not consider crowding out effects, because these effects are expected to be negligible. Crowding out occurs if the visitors to an event replace the visitors that would otherwise have come, for example when they occupy all hotel capacity (Seaman, 2011). Rotterdam received 1,2 million visitors in 2019, therefore the crowding out effects of the approximately 72.000 visitors of IFFR are assumed to be negligible.

We deleted one outlier

- We deleted one outlier from the sample, this person spent €1250 on transport in Rotterdam on his last day of visiting IFFR, which seems unrealistic. No further unrealistic observations were noticed. The impact of deleting this outlier on our final results is limited¹.

Note 1) If we would ignore the observation, the visitor expenditures would be ~4% higher. If we would have replaced the outlying transport spending by the average transport spending, the visitor expenditures would have been ~1% higher.

Sources: Crompton, J. L. (2006). Economic impact studies: instruments for political shenanigans? *Journal of Travel Research*, 45(1), 67-82; Daniel W.W. (1999). *Biostatistics: A Foundation for Analysis in the Health Sciences*. 7th edition. New York: John Wiley & Sons; Florida, Richard (2002), *The Rise of the Creative Class*, New York: Basic Books; Seaman, B. (2011) *Economic impact of the arts. A Handbook of Cultural Economics*, Second Edition.