ECONOMIC IMPACT 2018
- DRAFT - 27 February

This memorandum evaluates the economic impact of LF2018. It sets out how the economic impact can be estimated on the basis of a welfare-economic approach. Concrete estimates have also been made based on a number of assumptions and key figures. The estimates are indicative; they are not based on detailed research and/or extensive measurements. The results of the KPI measurement of the economic effects are also assessed.

KPI

The final assessment of LF2018 includes a number of KPIs related to economic effects.[1] This includes the expenditure of visitors to main events and the *Mienskip* programme (KPI 5). Expenditure according to the KPI measurement amounts to 119 million euro.[2] The calculated value of the KPI gives the expenditure of visitors, every time they visited a programme item. This is based on the total number of approximately 5.3 million visits to programme components in Friesland.[3] This is excluding a visit to the 11Fountains; there is no (hard) data about this.

From a welfare-economic theoretical point of view, the KPI calculated in this way does not reflect the actual economic impact. The economic impact of LF2018 must be sought in the spending of extra visitors (not all visitors), who have spent in the region. Visitors who would have spent in the region even without LF2018 are not relevant in terms of economic impact: there would then be a substitution effect at regional level, and on balance no additional effect.[4] The economic impact is also mainly to be expected from tourists from outside Friesland who came to the region and/or stayed there longer because of LF2018. That type of visitor usually spends more. These considerations must be taken into account when determining the economic impact.
In addition, the expenditure of visitors to the programme is one but not all of the economic effects. Besides the expenditure of additional visitors and tourists, it is also about the impact of the programme expenditure itself, and the investments elicited.

[1] LF2018 (2019), Final assessment of LF2018. Initial results. Leeuwarden.
[2] A key indicator of an average spending per visit of 36 euros was used for each visit to 11 major events, 18 euros for visits to other parts of the main programme and 10 euros for visits to the *Mienskip* programme. These amounts were arrived at on the basis of research (surveys) among visitors to a number of major events. The key indicator does not generally include a ticket price because a large portion of the events where the study was conducted were free of charge.
[3] In addition, there are 0.8 million visits to international programme components abroad.
[4] There is no hard data on the magnitude of the displacement effect. This explicitly concerns expenditure that would otherwise also have been made in the region. If, for example, a visitor would otherwise have gone to a performance in the Harmony, this is regarded as displacement. Conversely, if a visitor would have gone to a large event or a performance outside Friesland, there is an extra effect. The impression given by visitors is that this was certainly the case as well.

The total short-term economic impact of LF2018 concerns, in summary:[5]
- spending by additional visitors to activities/events and by additional tourists attracted by the European City of Culture;
- extra turnover in the cultural/creative sector due to expenditure (budget) of LF2018;
- private and public investments elicited by LF2018;
- derived spending effects.

Spending by extra visitors and tourists

In order to determine the expenditure of the extra visitors and tourists, we first need to know the number of visitors and tourists. There are a number of sources available:
- total number of visits to programme components LF2018;
- CBS/NIPO data on overnight stays.

Visits
The LF2018 organisation gives a total number of visits to programme components of 5.4 million. The number of visitors is further substantiated by information on the number of visitors to festivals and museums in Friesland where an increase is usually observed.[6]

- Visitors to programme components of 'major events'

In part of the programme - eleven of the larger events - the origin of the visitors was studied. This concerns some of the measured visits (over 1.6 million). This also covers a large number of large events that have attracted relatively large numbers of visitors.[7] In the study into these programme components - the origin was also asked. The origin of the visitors is relevant to the extent to which the visitors have spent money. After all, visitors from close by will generally spend less than visitors from far away.[8]

It may also be assumed that visitors from close by do not choose to stay overnight, while visitors from far away may. It may also be assumed that foreign visitors in particular stay overnight, and that visitors from the rest of the Netherlands may stay overnight partly. It is precisely the type of multi-day visitor that is relevant in terms of extra spending in the region. Multi-day visitors often spend more money on restaurants and bars, shopping, etc. and also on their accommodation. Regarding expenditure by day tourists usually a lower expenditure ratio is anticipated than by tourists staying several days. Of the visitors who were surveyed, it is not known whether their visit was a day visit or a multi-day visit with overnight stays. Estimates will therefore have to suffice in this respect.

Finally, the extent to which the visit was 'extra' must be established. In other words: would they have come to the region otherwise (and would they have spent any money there otherwise) or not.

[5] See BBO (2019), Economic impact 2018. Policy document January 2019. Leeuwarden.
[6] Source: LF2018 based on reports from Fries Museum, Oerol, Welcome to the village, etc.
[7] Source: LF2018.
[8] The (weighted) origin of the programme components studied was 51% province of Friesland, 43% the Netherlands and 6% abroad.

Especially from the visitors from afar it can be assumed that they came to the region specifically for the programme component concerned, and that their visit was therefore additional. This is more difficult to indicate for the regional visitors, and it can be assumed that they would have largely spent in the region anyway (known in economic terms as substitution effects).

If it is assumed that only visitors from outside the region are additional, then the expenditure of the visitors of the programme components included in the survey can be estimated at about €90 million.[9] Not the total amount of extra spending spent in Friesland goes to the region. Some of it is eliminated because regional suppliers outsource or purchase part of their work from outside the region (known in economic terms as regional leakage effects). No direct information about this is available. An estimate of 25-50% of leakage effects appears fairly realistic. This means that the extra expenditure that ultimately goes to the region is in the order of €45 to 70 million.[10]

- Visits to other programme components

The number of visits to the other programme components, for which no direct origin data is available, was 3.7 million.[11] Since no further information is available about origin and duration of stay, assumptions will have to be made on this point. Here it is assumed that the origin figures found for the other programme components are the same as those for the programme components where this was studied.
If it is also assumed here that about half of these visitors come from outside the region and that only the visitors from outside the region are additional (the rest being substitution), and if it is assumed that these visitors - because on average this concerns smaller parts of the programme - spent the same amount as day visitors, then the economic impact of the other visitors can be estimated at about €30 million.[12] It should also be borne in mind that not all of this amount ends up in the region. An estimate of 15-20 million seems realistic.

Overnight stays
CBS/NIPO data shows additional overnight stays. Compared to the average in the years 2010-2016, this concerns additional overnight stays of approximately 0.8 million in 2017 and 2.1 million in 2018. The CBS/NIPO figures show fluctuations over the years due to an unreliability margin in the survey. Other, more 'stable' CBS figures on overnight stays show a lower increase: from 0.3 million in 2017 to 0.7 million in 2018 compared to the long term average in the previous period. The figures also include overnight stays in holiday homes (such as the Wadden Islands). However, it is questionable whether an increase in these overnight stays can be attributed to LF2018; there will certainly also be an autonomous effect. It is therefore useful to consider only the increase in overnight accommodations (and nights spent in holiday homes are not counted).

9 Approx. 800.000 visitors from outside the region (49% of 1.6 million) times an average key indicator of €75 for a multi-day visit per person per day and €36 for a one-day visit; it is assumed that the ratio day to multi-day is 50/50 and that an average multi-day visit is 2.5 days (see also under 'Overnight stays').
10 50-75% times €90 million.
11 5.3 minus 1.6 million.7
12 Approx. 1.9 million visitors from outside the region (49% of 3.7 million) times an average key indicator of 18 ('other programme components') and €10 (*Mienskip* programme euro (taken over from the KPI).

The increase compared to the multiannual average of the previous period would then be 0.2 million in 2017 and 0.4 million in 2018. The increase in overnight stays is supported by information from hotels in Friesland where an increase has also been observed.[13]
Data on overnight stays can also be used to determine the economic impact in terms of expenditure by additional visitors. Based on key indicators, an economic impact can be estimated in terms of the spending effects of the extra visitors who stayed in overnight accommodations.

The figures on overnight stays are, as indicated above, not unequivocal.[14] If a bandwidth in the overnight rates is used, varying from the average of the two lower estimates and the average of the two higher estimates, the result is 0.5-1.5 million extra overnight stays. Expenditure can then be estimated at approximately €100-250 million in 2018.[15]
It should be borne in mind that not all expenditure ends up in the region. A large part concerns the costs of transport and accommodation that only partially go to the region. If that is in the same order of magnitude as calculated above, then the extra expenditure that goes to the region through tourists/visitors staying overnight amounts to approximately €75-125 million.[16]

Evaluation
The figures are based on various sources of visitor numbers. Based on the figures on visits to programme components, an economic impact in terms of extra expenditure going to the region can be estimated at €60-90 million. The figures do not include other visitors (e.g. to the 11Fountains) or tourists and therefore underestimate the total effect. The figures based on overnight stays (€75-125 million) also underestimate the number of overnight stays, because it is precisely the day visitors who are not included in these figures.
The figures cannot be added '1-on-1' because there is some overlap. An overall estimate of the total impact in terms of extra spending that goes to the region as a result of visitor spending amounts roughly to €125-200 million.

On this basis, an employment effect can also be estimated. This mainly concerns employment in the hospitality industry, retail trade and services. Not every euro spent leads directly to additional employment, because in the short term the unused capacity will first be deployed or the capacity utilisation will be increased, without hiring additional staff. There is no data about unused capacity and occupancy.

13 Source: LF2018 hospitality consultation.
14 See also the Annex.
15 Total amount rounded off. Extra visitors: 0.5-1.5 million; number of days: 2-3 (the average number of overnight stays of visitors staying in overnight accommodation is known: 1.9; only overnight accommodation; based on this it may be assumed that the visitors stayed in the province for a minimum of 2 and a maximum of 3 days); expenditure p.p.p.d. (per person per day): approx. €75. The average expenditure per person per day has been determined as the average expenditure for hotel accommodation (€87) and bed and breakfast (€65). For day trippers this is assumed to be €15 per person per day. Source: Stenden/ETFI, Tourism monitor 2012, Leeuwarden, 2013. There is an indication that hotel rates in 2018 were higher than before. (For comparison Liverpool - CcoE in 2008 - in addition to an increase in the number of overnight stays, an increase in hospitality rates of 5% was found, which disappeared again after the event) The calculation is based on the assumption that this rate increase is included in the spending indicator.
16 In order to limit the bandwidth somewhat, account has been taken of: 50% times €250 million and 75% times €100 million.

. If it is assumed that about half of the extra expenditure has been absorbed by existing capacity, an overall estimate of the extra temporary employment is 1,000-1,500 employment years.[17]

Extra turnover in the cultural/creative sector

The extra turnover for the cultural and creative sector in the region is an economic effect of the LF2018. This concerns the expenditure as expressed in the budget (project expenditure) of LF2018. The total project expenditure is €102 million.

The total budget cannot be fully regarded as an additional economic impact for the region. An initial demarcation is that it must be extra expenditures, or expenditure that would not have taken place without LF2018. It can be argued that at least the contribution from the national government and the EU would not have flowed to the region if LF2018 had not existed (together €9 million). The extra contribution of the province of Friesland and the municipality of Leeuwarden would not have been made without LF2018 (together €3.25 million). Finally, it can be argued that LF2018 has to a large extent generated extra sponsor and ticket revenues, which otherwise would not have been the case (together about €50 million).[18] The other expenditure probably (to a large extent) concerns expenditure which, without LF2018, would also have taken place in the form of subsidies and investments, including in the cultural or creative sector. The relevant additional expenditure can thus be estimated at approximately €62 million.[19]

A second demarcation is that this concerns expenditure that is relevant for the region - province of Friesland. In other words, it must be expenditure in the region or with regional providers. The expenditure of the organisation LF2018 itself is known. This shows that 72% of the expenditure of the LF2018 foundation is spent by regional providers in Friesland, 24% by providers from the rest of the Netherlands and 4% by providers abroad.[20] If this data also applies to the total extra expenditure (i.e. for all parties involved in the overall LF2018 programme), then the extra expenditure going to suppliers in Friesland can be estimated at approximately €45 million.[21]

Not all of the amount of extra spending in Friesland also ends up in the region. After all (here too) the regional suppliers outsource part of their work and purchase from suppliers outside the region. It is assumed that the vast majority of suppliers still come from the region.[22]

17 Assuming a turnover per year of work of approximately €65,000 in the hospitality and leisure sector (source: CBS).
18 Sponsorship, Fundraising, Merchandising/Ticket Sales, 'external: funds as acquired by projects', 'external: sponsors as acquired by projects', and 'external ticket revenue, hospitality and merchandise by projects'. There will also have been a degree of substitution here.
19 €9 + €3.25 + €50 million.
20 For a total amount of €51 million.
21 74% times €62.25 million. Incidentally, the figures here are not entirely clear.
22 It was also the case that suppliers from outside Friesland still obtained their own suppliers/purchases from Friesland.

If the same proportions were applied in the case of 'visitors', then the extra expenditure that ultimately goes to the region would be in the order of €35 million.[23]

An overall estimate of the additional temporary effect on employment comes to 700 years of work.[24]

Capital expenditure elicited

The impact of investments refers to those that are extra, and that would not have been made or would have been made much later in the absence of LF2018.
Investments in infrastructure, the Leeuwarden Campus Sites, and energy projects for housing are not in principle covered by additional investments under LF2018, as it can be assumed that they would have been made anyway (possibly later).

Investments are highly substitutable: in particular public investments displace other investments that would otherwise have been made elsewhere by regional authorities. In the case of one public investment, it can be argued that it would not have been made, or would have been much less (or in a much more austere execution), if LF2018 had not existed: this concerns investments in the Leeuwarden station area in Leeuwarden. The total public investment was €23 million, of which a large part (such as the underground bicycle parking facility) is regarded as extra.[25]

Other relevant factors are the private investments that have been elicited. The private investments in the Blokhuispoort and in hospitality facilities (expansion/ establishment of hotels, restaurants/café's, etc.) are particularly relevant. It can be argued that these investments would not have been made without the public investments or without LF2018. This is set at a minimum of €24 million.[26] In addition, figures on the number of establishments of companies show that in the years 2017 and 2018 there are clearly more establishments in Friesland than in previous years.[27] If part of this can be attributed to LF2018, which is plausible, the amount of private investment is slightly higher: in this case an estimated additional €10 million.

There is an economic effect for the region to the extent that the extra public and elicited private investments have also resulted in work (turnover) for regional companies. This will certainly not relate to the entire investment amount, as part of the turnover is eliminated in the form of subcontracting from outside the region, or wages of employees living outside the region. No figures on this are available. The impression is, however, that regional construction companies, fitters, etc. have been used to a large extent.[28]

23 75% times €45 million.
24 Assuming an added value per year of work of around €50,000 (national average for the culture, sport and other services sectors). The added value is here approached as the extra spending that ultimately goes to the region.
25 Source: LF2018.
26 Hotel facilities Blokhuispoort and Plaza. This amount does not include investments from other hospitality establishments.
27 See the annexes.
28 Source: LF2018.

Assuming that the total amount of investments generated is around €40-50 million and that 50% of the investment amount is for regional suppliers, the investment boost in the form of spending in the region can be estimated at €20-25 million.[29]

An overall estimate of the additional temporary effect on employment comes to more than 200-250 years of work.[30]

Derivative spending effects

Derived economic effects can also be determined on the basis of the above. These are the effects of regional consumer expenditure by households of employees living in the region, insofar as they go to the region. This concerns in particular consumer expenditure on food, clothing, personal care, home maintenance, etc., which is usually incurred in the region.[31] To give an impression: estimates are used with a regional impact of about 30%.
If this percentage is applied to the impact of expenditure and investments as estimated above, the derived spending effects can be estimated at €40-50 million.[32]

An overall estimate of the additional temporary effect on employment comes to more than 600-850 years of work.[33]

Evaluation

The estimates are summarised in the table.

Estimate of temporary economic effects LF2018

Type of effect	Impact estimate (euros)	Estimate (years of work)
Spending by extra visitors and tourists	125-200 million	1,000-1,500
Extra turnover in the cultural/creative sector	45 million	700
Capital expenditure elicited	20-20 million	200-250
Derivative spending effects	40-50 million	600-850
Total	230-320 million	2,500-3,300

A number of comments can be made about the estimates.

(1) The data presented here provides an estimate of the economic impact based on a welfare-economic approach.

29 25 million investments in hotel capacity, plus a part of the public investment of 23 million in the station area, plus ten million in connection with other establishments in the hospitality industry.
30 Assuming a turnover per year of work of more than €100,000 (national average for construction; source: CBS).
31 Based on data on household expenditure by category of expenditure (source: CBS).
32 The assumption about the occupancy rate (for overnight stays) has been corrected. After all, only the hiring of additional staff leads to the intended derived spending effects. In the hospitality industry, it has therefore been assumed that part of the extra spending in that sector does not lead to jobs '1-on-1'. 33 For the jobs resulting from the derived spending effects, the average for the sectors concerned (most services and retail) is calculated as €60,000 in turnover per year of work (source: CBS).

That is a different approach from those where - as with the KPI - the total number of visits multiplied by an average spending per visit is used.

(2) The data presented here takes the form of indicative estimates. In the absence of 'hard' data, a large number of assumptions were used.

(3) The data presented here is a minimum estimate. A number of economic effects, such as the expenditure of visitors to 11Fountains, were not included due to lack of data.

(4) The data presented here can be interpreted as the economic impact of the initial economic stimulus provided by LF2018. This is a total stimulus of €102 million, which according to the estimate has generated an impact of at least €230-330 million. The 'multiplier' that can be calculated is 2.26 to 3.1 which can be considered a reasonably good ratio for a public investment. In any event, the impact estimated here shows that the LF2018 project can be considered a socially profitable project, in the sense that the revenues (impact) are greater than the costs (stimulus).

(5) This concerns the economic impact at regional level (province of Friesland). The impact cannot be considered '1-on-1' as a national impact, as it has to take into account other leakage and substitution effects.

(6) The figures refer to the temporary short-term effects. The effects are therefore not structural, and will have no effect anymore after 2018.

(7) Long-term effects are also to be expected, but which are not yet clear. In the long term there could be the following effects:[34]

- increasing the attractiveness of the region for tourists;
- a structural increase in turnover in the cultural sector;
- strengthening the creative sector, dynamism and contribution to innovation;
- strengthening cooperation, networking and crossovers;
- enhance the image and attractiveness of the living and working environment:
- effects on participation/health/welfare.

[34] See BBO (2019), Economic impact 2018. Policy document January 2019. Leeuwarden.

Annex I: Source data number of tourists/visitors

A central indicator for the impact of LF2018 is the expenditure of tourists and visitors who have come to the province for the programme offered. A number of sources are available for the number of tourists and visitors.

1. Overnight stays: national tourism statistics from CBS and NBTC/NIPO (Continuous Holiday Survey).
2. Visits to programme components: counts LF2018.

Re 1. Overnight stays

The CBS measures overnight stays and guests in various overnight accommodations. This is a continuous survey of the number of guests and their overnight stays in hotels, motels, guest houses, apartments with hotel services, youth accommodations and bed & breakfasts, and in 'recreational accommodations' (campsites, holiday homes, group accommodations).
In addition, there is Continuous Holiday Survey under a panel regarding holidays of Dutch people.

Combined, both sources give the following overview of overnight stays.

Table: Number of overnight stays*

x 1,000	2010	2011	2012	2013	2014	2015	2016	2017	2018
Domestic	7,754	6,794	7,366	7,010	6,618	5,989	7,309	7,574	8,655
Foreign	886	1,064	906	1,137	1,272	1,247	1,241	1,321	1,521
Total	8,640	7,858	8,272	8,147	7,890	7,236	8,550	8,895	10,176

* The CBS statistics also give domestic overnight stays, which are lower. Cause: TBD (make enquiries with provincial authority)

Source: Province of Friesland, based on Continuous Holiday Survey (*Continu Vakantie Onderzoek, CVO*) and Statistics Netherlands: Overnight Accommodation

The figures for domestic overnight stays from the *CVO* study are notably higher than the CBS figures for domestic overnight stays. In the CBS statistics, this figure is around 5-6,000 overnight stays. The increase in 2018 compared to 2017 is 1.3 million based on the CVO study and 0.4 million based on the CBS statistics. The difference is found mainly in the domestic overnight stays (1.1 million based on the CVO survey versus less than 0.2 million at the CBS). Part of the difference may be due to the fact that CBS statistics do not include some of the overnight accommodations, such as the smaller B&Bs (smaller than 5 beds).

A more fundamental question is whether all overnight stays can be counted. A distinction is usually made between overnight stays in overnight accommodations (hotels, guest houses, B&B, etc.) and recreational accommodations (holiday homes, group accommodation, etc.). It is questionable whether the increase, especially for holiday homes, can (fully) be attributed to LF2018, because there is also an increasing demand in itself. According to the CBS figures (up to and including 2017), the increase in recreational accommodations (holiday homes) is the largest.

In the figures from the table, two things stand out: 2018 is clearly a peak year, and there a break in the trend compared to the previous period 2010-2016. The number of overnight stays is relatively high in 2018. There was already an increase in 2017 and 2016. The higher number in 2016 and 2017 is partly due to activities that already took place in the context of LF2018, such as the Alma Tadema and Mata Hari exhibitions in the Fries Museum. (The Alma Tadema exhibition was from 1/10/2016 to 7/2/2017; the Mata Hari exhibition was from 14/10/2017 to 4/2/2018.)

A number of further conclusions can be drawn on the basis of a further analysis of the underlying figures:

- in 2018, the number of overnight stays of foreign visitors increases relatively sharply, especially from Germany and Belgium. The figures on visitors in terms of guests of overnight accommodations show that Friesland had a low proportion of foreign visitors compared to other provinces over the period 2012-2015. This share rose in 2018.
- The total growth over the period 2012-2018 is no greater than the national average or the growth in other provinces. LF2018 therefore seems to have mainly caused a 'catch-up' after a period of moderate growth in the number of visitors, but no above-average growth.

Re 2: Visits to programme components

Events

The number of visits to the 12 major events was registered and the origin of these visits is also known based on surveys (among other things). This concerns a total of more than 1.6 million visits, most of them in 2018. All these activities took place under LF2018. [NB Possibly except for Tall Ships?] An estimate of the origin of the visits is available. About half came from Leeuwarden and Friesland, about 43% from the rest of the Netherlands and about 6% from abroad.

Table 1: Visits to events

	City/Friesland	Rest of the Netherlands	Abroad
Number	847,834	704,416	97,550
Share	51%	43%	6%

Source: LF2018

Other programme components

Due to the organisation of LF2018, the total number of visits to an event from the main programme and the *Mienskip* programme is estimated at over 6.1 million. That is excluding visits to the 11Fountains. Visitors to other programme components - outside the major events - will therefore be approximately 4.5 million (6.1 million minus 1.6 million). A 'rough' assumption would be that these are mainly 'day trippers' who - even more so than at the events - also come from the region itself.

Annex II: Information about establishments and jobs in the hospitality industry

Hospitality establishments and jobs province Friesland

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Locations									
Total locations	2,229	2,264	2,248	2,295	2,295	2,322	2,374	2,427	2,493
Provision of overnight accommodation	648	665	652	663	669	675	684	695	728
Food and beverage outlets	1,581	1,599	1,596	1,632	1,626	1,647	1,690	1,732	1,765
Jobs									
Total jobs	12592	12477	12540	12459	12633	13167	13731	14010	14456
jobs 15 hours a week or more:	7016	7044	6855	6765	6924	7373	7645	7947	8317
jobs less than 15 hours a week	5576	5433	5685	5694	5709	5794	6086	6063	6139

Source: Employment register of the province of Friesland