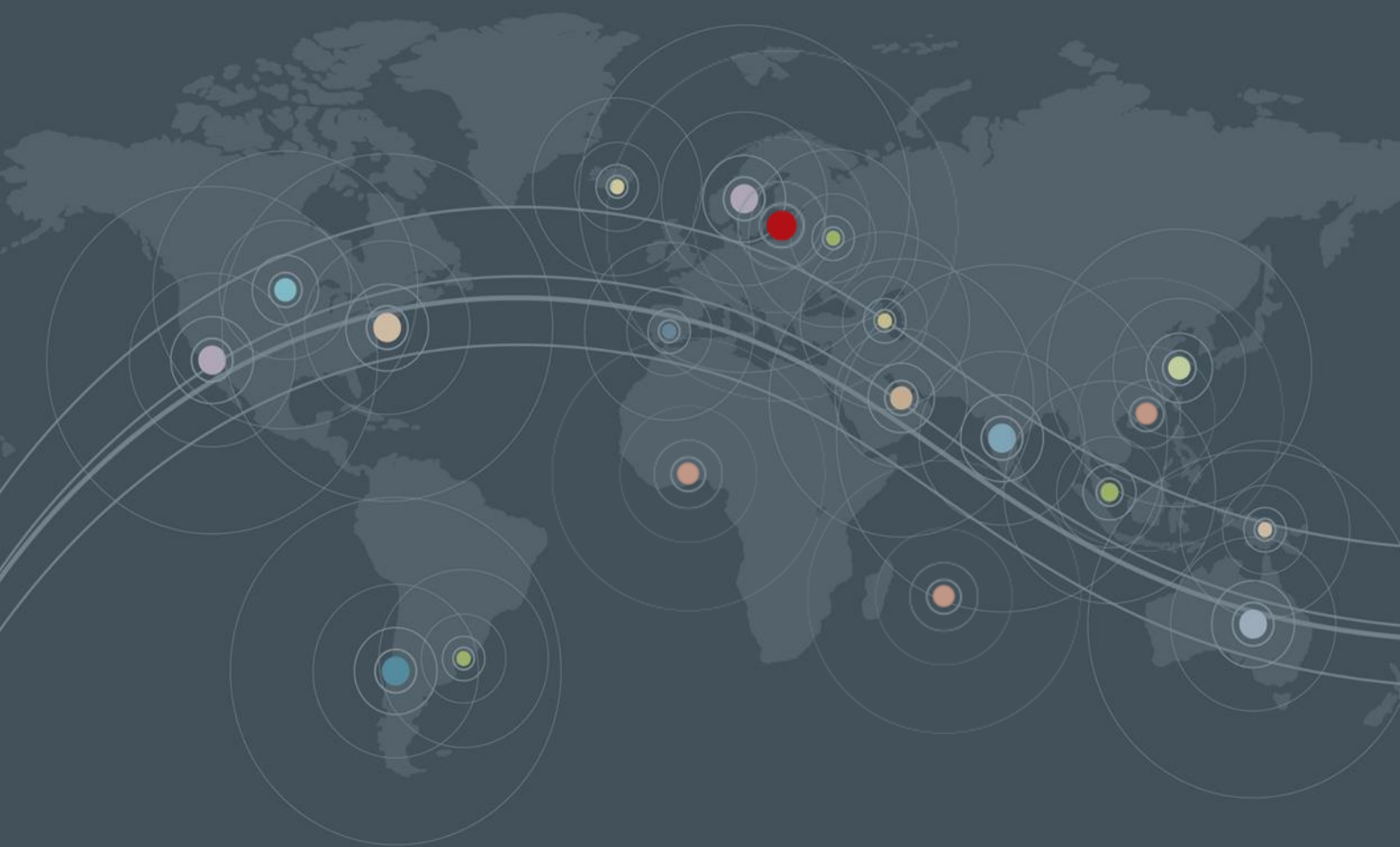


Economic Impact of the Film Estonia Cash Rebate

A Study for the Estonian Film Institute
by Olsberg • SPI



24th August 2022

OLSBERG • SPI

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1. EXECUTIVE SUMMARY

1.1. Introduction

The Estonian Film Institute has commissioned global creative industries consultancy Olsberg•SPI (“SPI”) to undertake a detailed assessment (the “Study”) of the economic impact of Estonia’s screen production incentive. This Study quantifies the economic impacts that productions receiving the incentive generated in 2021 and illustrates how production expenditure impacts other economic sectors and geographies within Estonia. In the global screen sector stable, well-designed and well-funded incentives play a cornerstone role in sectoral development and regular economic analyses of their impacts are critical to ensure that stakeholders can understand their effectiveness.

The Film Estonia production incentive is a cash rebate applicable to feature films, documentaries, animation, television and post-production. It aims to encourage incoming international productions and co-productions by offering a cash rebate of up to 30% on eligible production expenditure within Estonia. For most years since its introduction in 2014, there has been an annual cap of €2 million in cash rebate payments. A temporary uplift was introduced in 2019 to facilitate the production of *Tenet*, a Warner Bros. feature film. Early in 2022, the cap for the cash rebate scheme was lifted again due to the programme being significantly over-subscribed, putting Estonia at risk of losing valuable projects to other countries due to the cap.

1.2. Economic Impact

Feedback from producers indicates how the Estonian **cash rebate has a reputation for efficient and trustworthy administration**, which is a crucial factor for attracting inward international productions. A regular flow of inward productions enables local production companies to **invest in permanent staff members and grow sustainable businesses, and for Estonian production crew to access job and training opportunities**.

The incentive has helped **Estonia is attract significant expenditure from inward productions**. Between 2016 and 2021, €42.9 million was spent in Estonia by incentive-supported productions. The overall pattern for **inward production expenditure in Estonia has been one of strong growth** between 2016 and 2021, growth was an average of 55% a year, reaching €10.5 million in 2021. The high production budget of *Tenet* made 2019 an unusual year.

The **cash rebate is a key consideration for decision-makers in their choice to produce in Estonia**. Over half of the foreign producers surveyed indicated that, without the cash rebate, they would not have produced in the country, while the remaining indicated that their production budgets would be significantly lower without the cash rebate. This underlines that a cap which limits the availability of an incentive is likely to drive productions elsewhere.

This Study finds that the **cash rebate is delivering significant economic impacts**. This impact is directly attributable to the incentive and would not have occurred without the cash rebate.

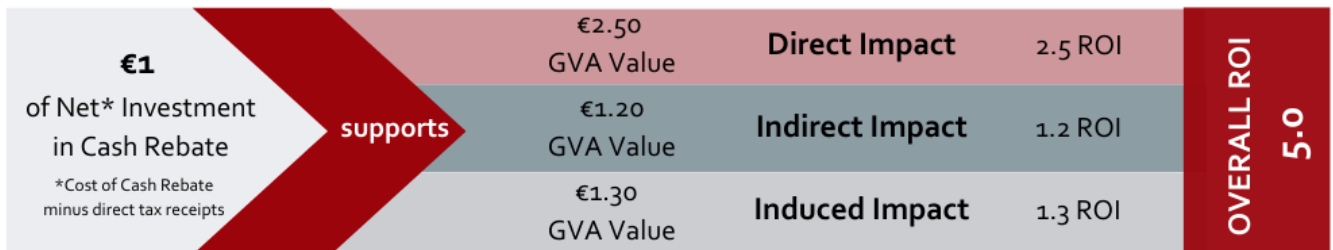
Figure 1 – Summary of the Total Additionality Economic Impact of the Film Estonia Cash Rebate



The total includes direct impacts created as a direct result of firms engaged in production, indirect impacts created by activities in the supply chain and induced impacts resulting from the spending of wages by those employed in the sector and the supply chain. The direct component makes up just over half of the total impact with indirect and induced contributing around a quarter each. For example, the cash rebate generated an addition €4.2 million in direct GVA, €1.9 million in indirect GVA and €2.1 million in induced GVA.

The Estonian incentive provides a strong Return on Investment (ROI). For each euro invested through the cash rebate (net of direct tax receipts) a total of €5.00 of value is created in the economy; this includes €2.50 of value within the industry, €1.20 in the supply chain and €1.30 through wage effects.

Figure 2 – Return on Investment of Estonian Cash Rebate, 2021

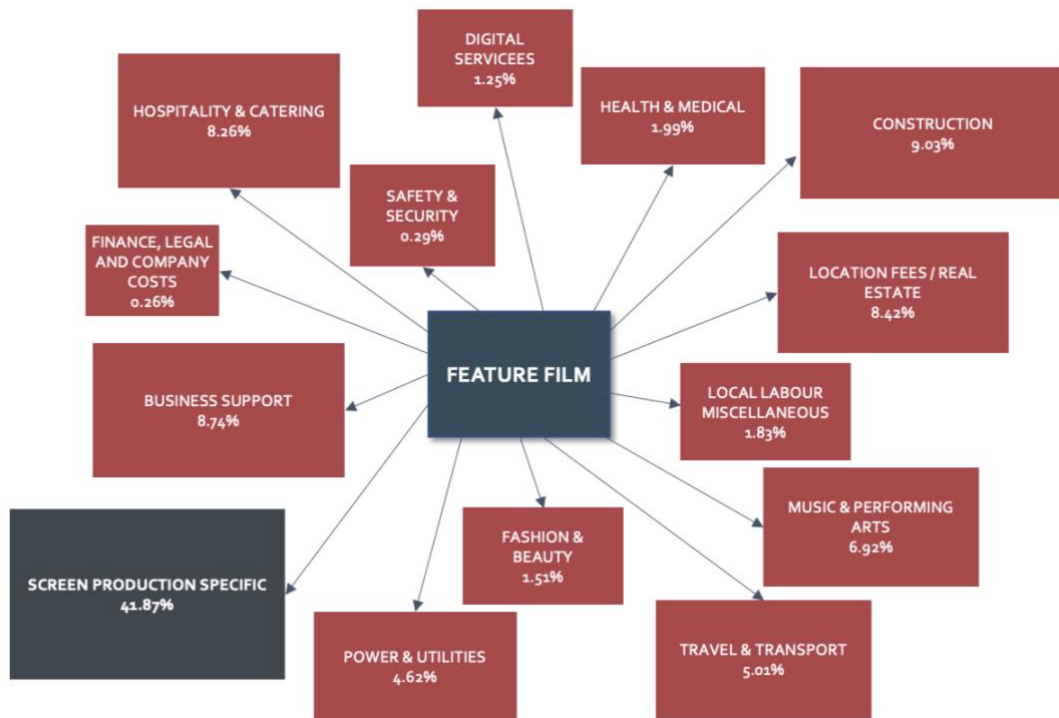


SPI’s policy is to be conservative in our modelling. However **using a less conservative approach, which nets both direct and indirect taxation from the cost of the rebate, the GVA ROI rises to €8.20.** A sensitivity analysis, which illustrates the implications for ROI using different definitions of investment, is outlined in Appendix 3.

1.3. Expenditure Impacts

When incentivised productions come to Estonia, they **spend significant sums in a wide range of businesses in a short period of time.** A ripple analysis of an example production that received Estonia’s cash rebate found that just over 40% of production expenditure took place within screen sector businesses. **The remaining 60% of expenditure was spread across a variety of other sectors.**

Figure 3 – Ripple Analysis for an Incentivised Production in Estonia



The supply chain of vendor businesses has a wide geographical footprint. Figures 4 and 5 are heatmaps of production expenditure for an incentivised production. Red illustrates production expenditure in that postcode, and the darker the red the more the expenditure. Figure 4 shows that while there is a clear concentration of expenditure and vendors in Tallinn, there are significant pockets of expenditure elsewhere. Figure 5 demonstrates how within Tallin, expenditure is widely distributed throughout the city, with many postcodes and areas benefiting from incentivised production expenditure.

Figure 4 – Location of Vendor Expenditure for Example Production: Whole of Estonia (€)

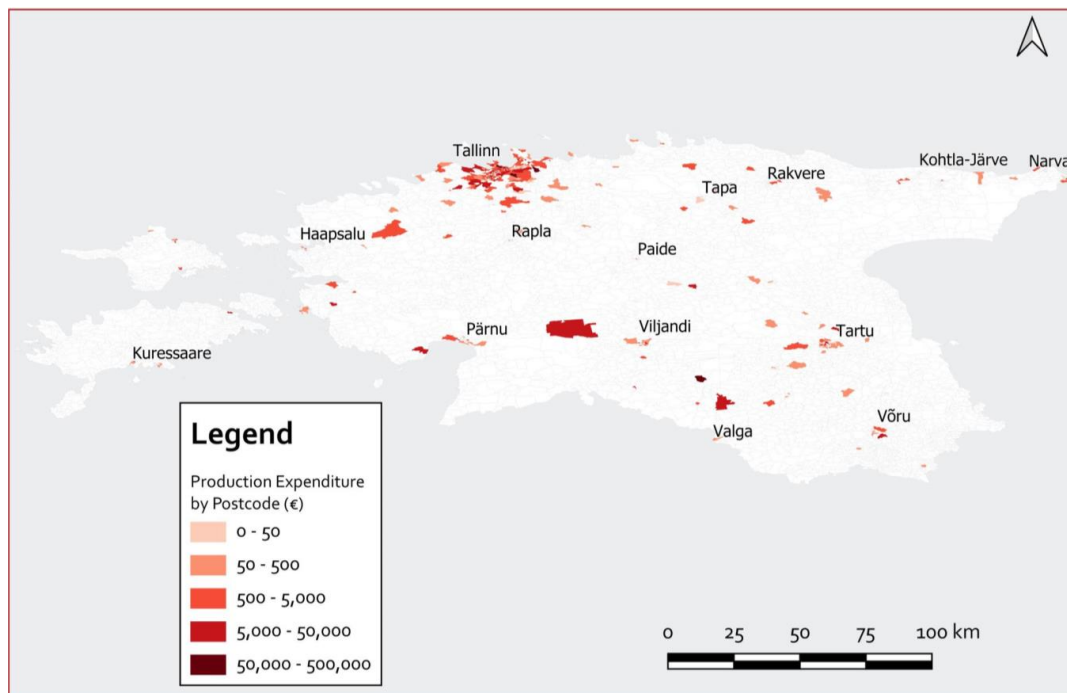
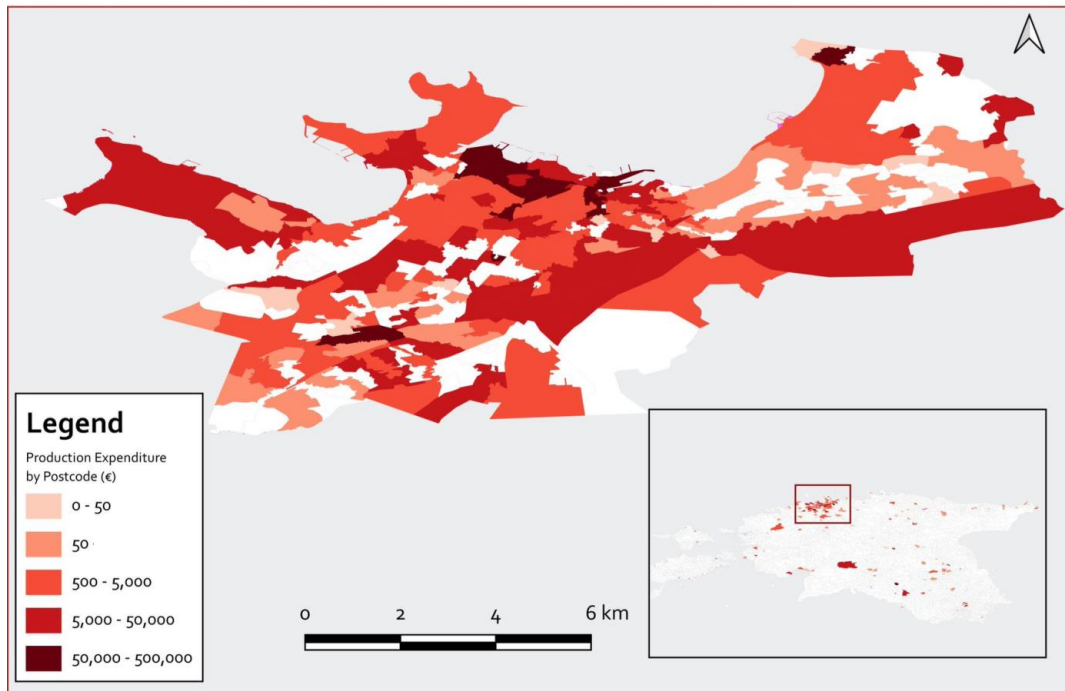


Figure 5 – Location of Vendor Expenditure for Example Production: Tallinn (€)



2. THE GLOBAL SCREEN PRODUCTION DELUGE AND ESTONIA

2.1. The Global Screen Production Deluge

Globally, investment in Screen production has been taking place at unprecedented levels, with a deluge of production happening worldwide. 2019 marked a record level of US\$177 billion¹ in global production spend. While COVID-19-related disruptions did impact Screen content production (especially in 2020), the production sector has already returned to or exceeded pre-pandemic production levels in many jurisdictions. This surge has largely been driven by subscription video-on-demand (SVoD) services and streaming companies.

SVoD services increased investment in content by 20% in 2021 to nearly US\$50 billion. Compared to 2019, this represents a growth of over 50%, a demonstration of the success of the streaming market during lockdown. Within that timeframe, Apple TV+, Disney+, HBO Max, Peacock and Paramount+ have expanded rapidly via their focus on producing original content, contributing over US\$8 billion to production spend in 2021.

At this time, there are signs of a production re-set, which includes a re-prioritisation of production expenditure. Despite this, we expect that the current global deluge of film and television production will continue for many years to come. International studios and streamers are still increasing their budgets and outputs to meet audience demands. In response, jurisdictions of all sizes are strategically investing in their sectors to be competitive and to attract the greatest sustainable volume of production.

Netflix continues to dominate SVoD content investment, contributing 30% of total SVoD content spend and 6% of total global content investment in 2021. Netflix is the third largest investor in professional video content (\$14 billion), behind Disney (\$18.6 billion) and Comcast and its subsidiaries (\$22.7 billion).

SPI forecasts that content investment will substantially exceed US\$200 billion in 2022, primarily driven by subscription streaming services, both in the US as well as in global markets, which are increasingly key for growth. Other new and well-capitalised players have entered the market and investment from established studios and broadcasters has increased. Disney, for example, announced at its 2020 Investor Day that it expected its global direct-to-consumer content expense to be between \$14 billion and \$16 billion across Disney+, Hulu and ESPN+ for fiscal 2024.²

In the US in 2019, according to calculations by UBS reported in *The Economist*, content spending by 16 companies was roughly equal to the sum invested in America's oil industry in the same year.³

Much of the growth has been driven by television series (Figure 6). Note the 2020 dip in series production relates to COVID-19 restrictions, which limited the rate of productions, although

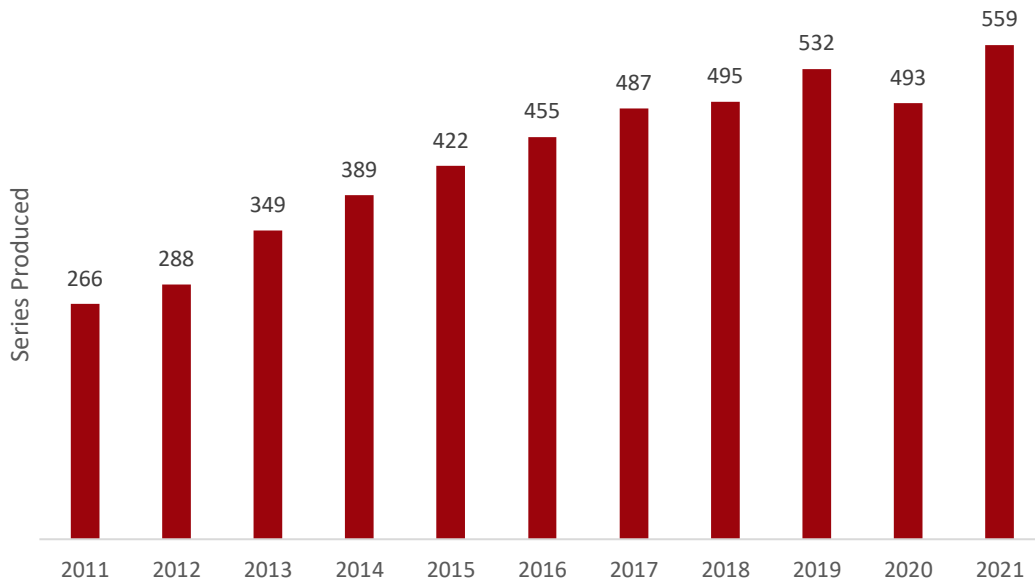
¹ *Global Screen Production – The Impact of Film and Television Production on Economic Recovery from COVID-19*. Olsberg•SPI, 25th June 2021. Accessible at: <https://www.o-spi.com/projects/economic-impact-studies-research-and-evaluation-lyglh>

² The Walt Disney Company investor day Transcript, 10th December 2020. Accessible at: https://thewaltdisneycompany.com/app/uploads/2020/12/Disney_Investor_Day_2020_transcript.pdf

³ *The future of entertainment*. The Economist, 14th November 2019. Accessible at: <https://www.economist.com/briefing/2019/11/14/the-future-of-entertainment>

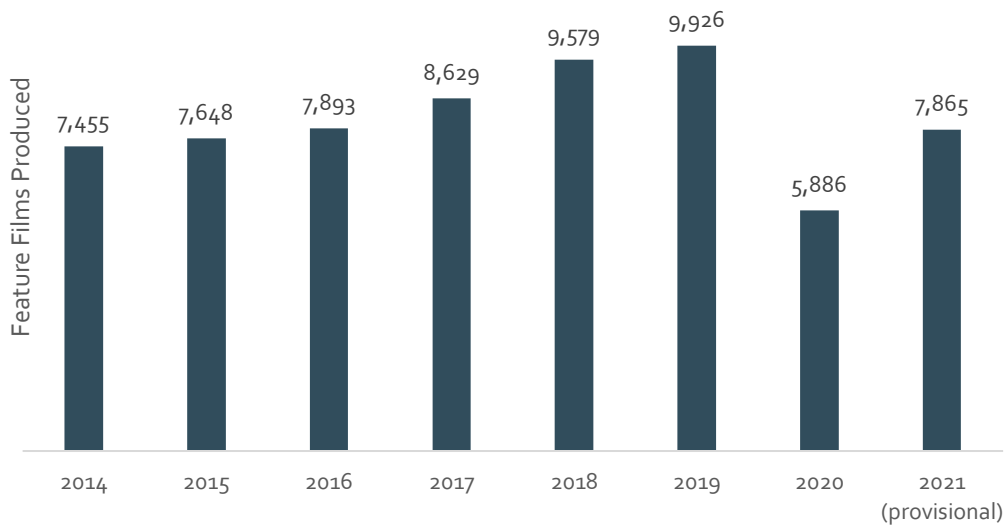
production has recovered to reach an all-time high. Feature film production has also been gradually increasing (Figure 7) to 2019, with the latest data showing a partial recovery in 2021.

Figure 6 – Scripted Original Series Production in the US, 2011-2021



Source: FX Networks Research

Figure 7 – Worldwide Feature Film Production, 2014-2021



Source: European Audiovisual Observatory

3. FILM ESTONIA CASH REBATE

3.1. Background to Production Incentives

In a competitive global market where Screen production spend has reached unprecedented levels, automatic incentives are increasingly recognised by governments as an efficient and strategic policy tool to attract internationally mobile productions. In turn, this strengthens the local production sector and builds skills, employment, and infrastructure in a future-facing global industry, as well as attracts high-value inward investment.

There are currently 101 automatic national, state, or province-level systems operating worldwide-

3.2. The Film Estonia Cash Rebate

The Film Estonia production incentive was introduced in 2016 by the Estonian Film Institute to attract more international productions to Estonia. The incentive takes the form of a cash rebate of up to 30% on eligible production costs of qualifying feature films, feature documentaries, animated films, animated series and high-end TV drama, including post-production. International production companies must partner with Estonian production service companies, who submit the applications on their behalf. Criteria for minimum budgets apply, depending on the type of production: €1 million for feature films; €250,000 for animated shorts; €500,00 for animated series; €200,000 per episode for high-end TV drama; and €200,000 for feature documentaries.

The cap for the cash rebate had been €2 million since its inception, except for a one-off additional incentive pay-out in 2019 of €5 million to support the production of *Tenet* (2020). The scheme has been increasingly over-subscribed and by the end of January 2022 the existing budget was allocated. The Estonian Government has recently agreed to an uplift of €3.4 million to the cap for 2022, meaning a total of €5.4 million is available for the cash rebate in 2022.

Currently, the incentive rate ranges from 20% to 30%. The base rate of 20% can rise to 25% if the Estonian production service company has hired at least one creative employee who is a tax resident of Estonia, and rises further to 30% if the Estonian production service company has hired at least two creative employees who are tax residents of Estonia.

3.3. Comparison with Competitors

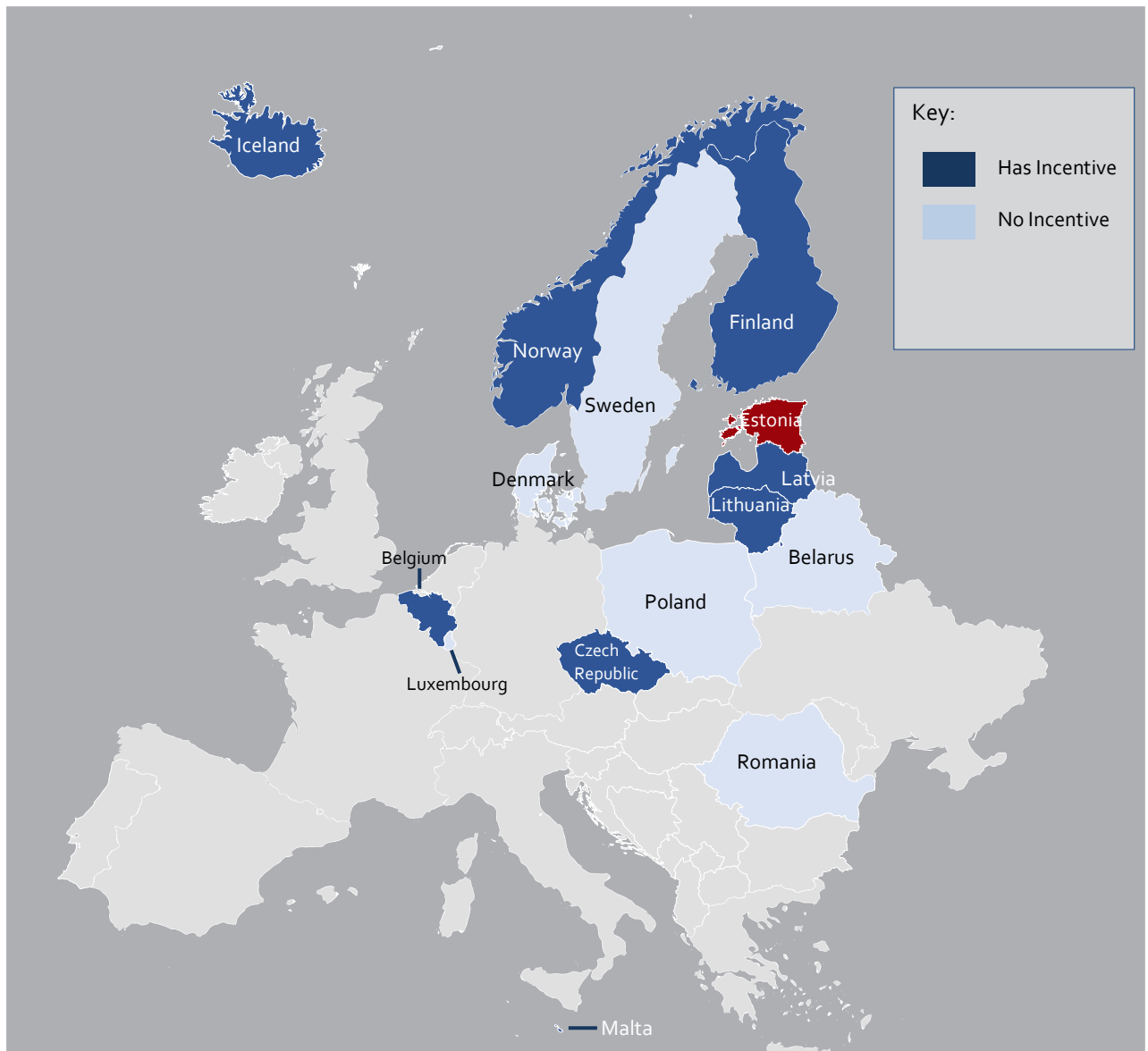
Estonia's main competitors are neighbouring European territories: other Baltic states and Finland. Latvia and Lithuania are often seen as alternative production locations for international producers, while Finland's own productions often consider Estonia as an alternative to shooting domestically; Finland represents the origin country of a large proportion of Estonia's incoming productions.

It should be noted that in its draft 2023 budget the Finnish Government has included proposals to increase the budget allocation for Finland's 25% cash rebate incentive. Finland's Ministry of Economic Affairs and Employment proposes 'an increase of €20.85 million to extend the audiovisual production subsidy in 2023', with the aim of attracting international productions to Finland⁴. As Finland is a key source of in-coming productions, it is important for the Estonian Film Institute to maintain a watching brief on developments in the Finnish incentive.

Proximity is not the only determinant of competition, with countries further afield such as Malta and Belgium being referred to as competitors by consultees, largely due to their similarly competitive incentive rates.

⁴ [Draft budget of the Ministry of Economic Affairs and Employment focuses on promotion of employment, renewal and low-carbon economy](#), Finnish Government

Figure 8 – Map of Competitors to Estonia’s Screen Production Sector



3.3.1. Programme Caps

There is a significant degree of variation in the programme cap in place for Estonia’s competitors, with no cap for Malta, Belgium or Iceland, and as low as €793,773 for Latvia.

Table 1 – Annual Programme Caps

Territory	Annual Programme Cap
Belgium	No Cap
Czech Republic	CZK800m (€32.5m)
Finland	€9.5m
Iceland	No cap
Latvia	€793,773
Lithuania	€50m
Malta	No cap
Norway	NOK100m (€10.3m)

3.3.2. Rate

Estonia’s incentive rate is competitive, both against its main competitors and globally. While Belgium and Malta match or exceed Estonia’s incentive rate offering, these are regarded as competitors largely because of their relatively high incentive offering.

Table 2 – Competitor Rates

Territory	Headline Incentive Rate	Uplifts	Notes
Belgium	Variable		A federal investment-driven incentive, value is dependent on the qualifying expenses made by the producer in Belgium and in the European Economic Area. For an ideal investment, incentive provides up to 42% of the Belgian expenses to the producer
Czech Republic	20%	66% rebate on withholding tax paid in the Czech Republic by international cast and crew.	
Finland	25%		Feature film: minimum total budget \$2.7m (€2.5m) and minimum spend \$162,000 (€150,000). Documentary: minimum total budget \$351,600 (€325,000) and minimum spend \$162,000 (€150,000). TV drama and animation: minimum total budget \$10,300/min (€9,500/min) and minimum spend \$278,000 (€250,000). At least 15% of overall funding must come from outside Finland.
Iceland	25%		Application must be submitted by an Icelandic or Iceland-based EEA producer or production co-ordinator company. Cultural test applies.
Latvia	20% for local spend. 30% for wages		At least 50% of the total budget must be confirmed prior to application. Minimum total budgets of \$769,000 (€711,436) for feature films and animations,

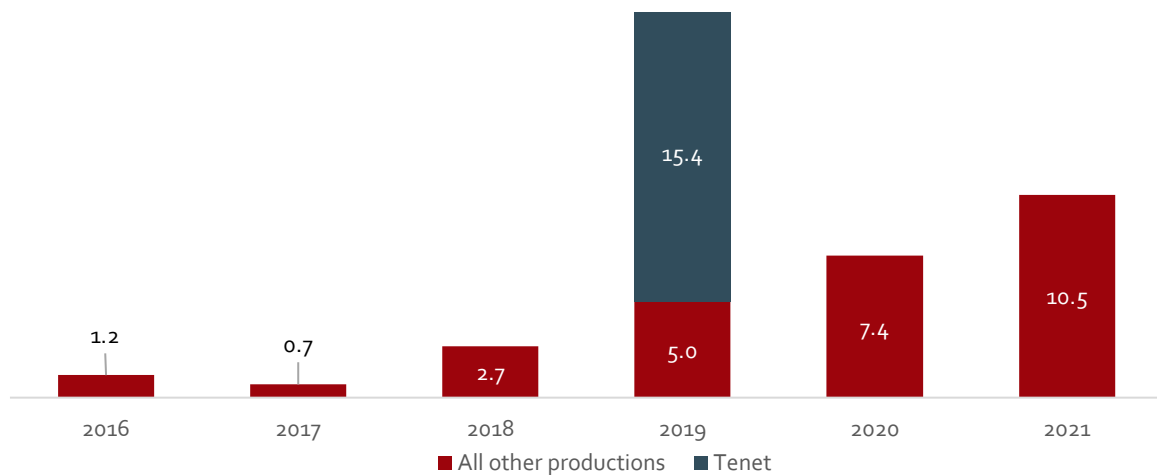
Territory	Headline Incentive Rate	Uplifts	Notes
			\$154,000 (€142,287) for documentaries
Lithuania	30%		Application must be submitted by a Lithuania-registered producer or production services company. Minimum in-country spend of \$46,500 (€43,000) applies. Minimum 80% of Lithuanian production costs have to be spent in Lithuania. A minimum requirement for 51% of crew to be from the EEA applies. Cultural test applies. Criteria of three days of shooting in Lithuania.
Malta	30%. Animation/VFX 25%	Variable	5% when Malta features as Malta or local usage of facilities. 5% when maximising local resources. Animation/VFX: 15% based on cultural elements and on the maximisation of local resources.
Norway	25%		A minimum of 30% of the budget must come from international sources. An international distribution agreement must be in place. Recipient must be a production company registered in Norway. Minimum total budgets apply, including NOK25m for features, NOK10m for documentary films, nok10m per episode for drama series, and NOK5m per episode for documentary series.

4. ESTONIA PRODUCTION AND INCENTIVE USE

4.1. Expenditure

The estimated total Estonian spend for productions that received the cash rebate in the period 2016-2021⁵ is €42.9 million. This includes all eligible spend in Estonia from productions which received the cash rebate. The chart illustrates the significant impact on spend in 2019 by the US-produced feature film *Tenet*. When *Tenet* is removed, there is a clear pattern of strong growth in production expenditure, with production expenditure rising by an average of 55% between 2016 and 2021 (Compound Annual Growth Rate). It is important to note that, while we set out the historical spend here, the subsequent economic analysis is based on 2021 only.

Figure 9 – Overall Production Expenditure in Estonia from Projects Receiving the Cash Rebate, 2016-2021 (€, m)

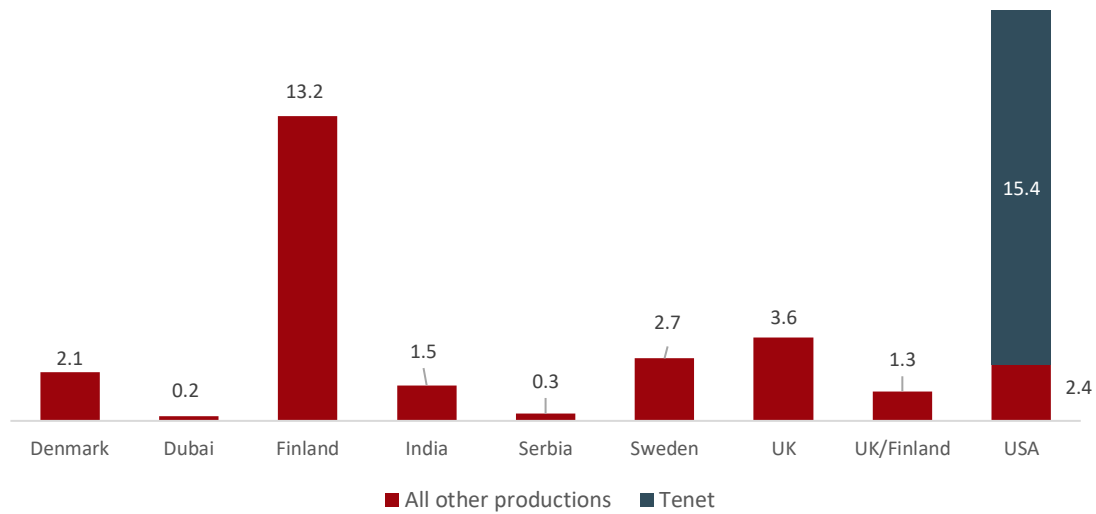


4.2. Country of Origin

The US was the largest source of incoming production expenditure between 2016 and 2021, with a significant proportion of this coming from *Tenet*. Finland was the second largest source of production funding, accounting for 31% of spend between 2016 and 2021.

⁵ Data is reported in calendar year. Where production spans multiplier calendar years, the expenditure has been portioned in line with the timing of the cash rebate claim

Figure 10 – Overall Expenditure in Estonia from Projects Receiving the Estonian Cash Rebate by Country of Origin 2016-2021 (€, m)



4.3. Genre

In terms of genre, most of the eligible production expenditure between 2016 and 2021 has been from feature films. However, in 2020 and 2021, TV series formed a much larger proportion of overall incentivised production expenditure (35% in 2020 and 25% in 2021) than in the earlier period. This reflects a global pattern of growing dominance of TV production.

Figure 11 – Expenditure in Estonia by Project Receiving the Cash Rebate by Genre 2016-2021 (€, m)

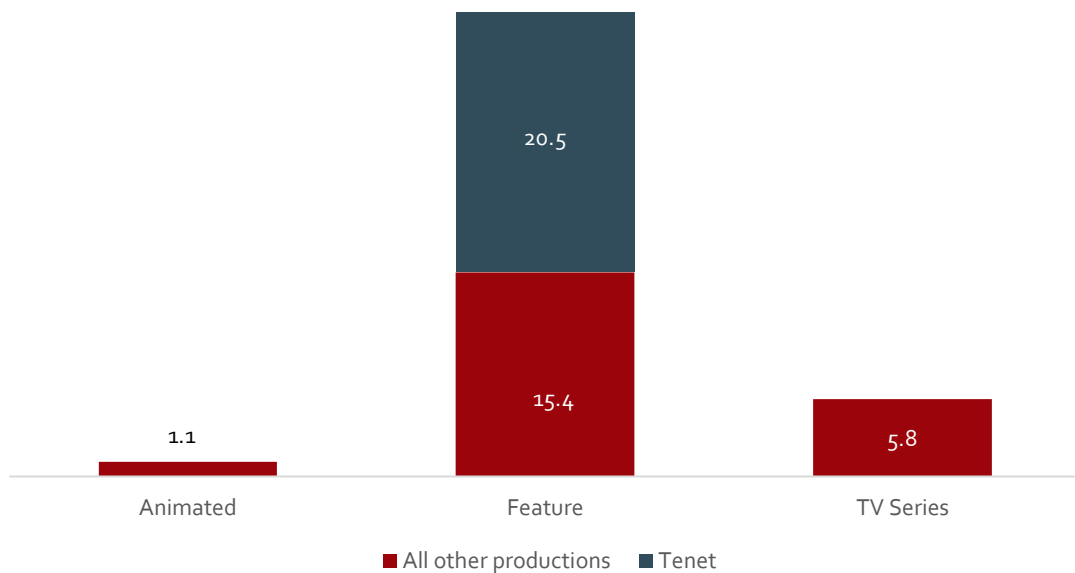
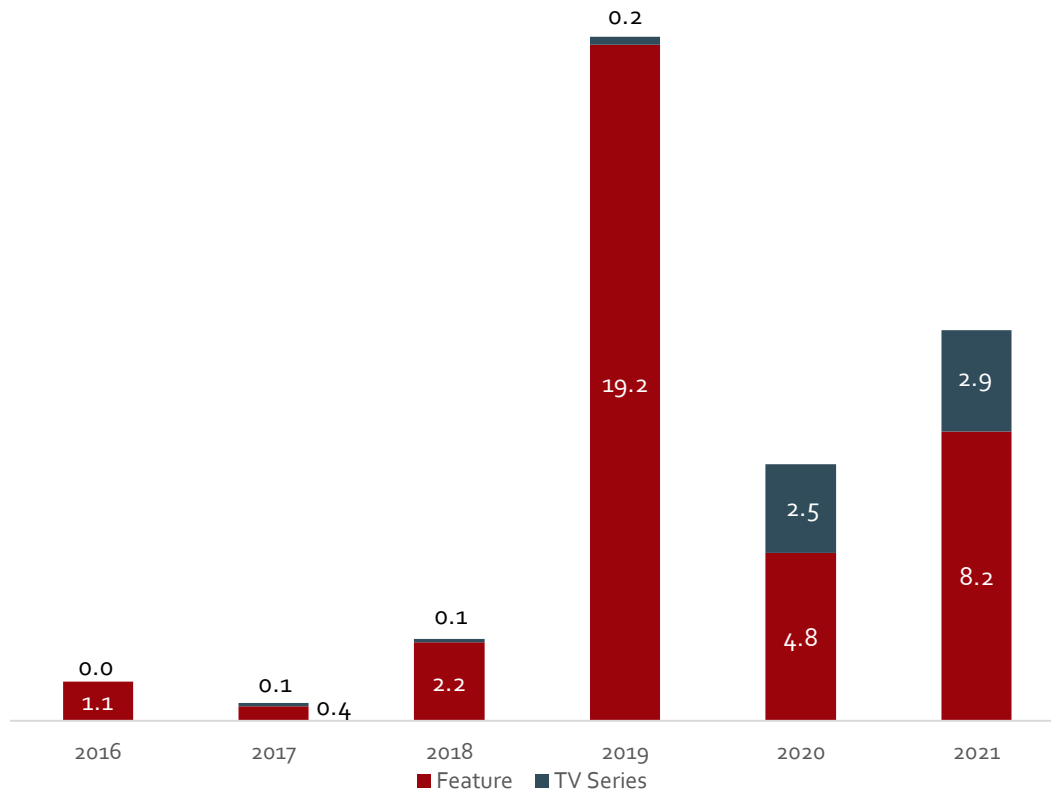


Figure 12 – Expenditure in Estonia Film and TV Series Receiving the Cash Rebate by Year 2016-2021 (€, m)

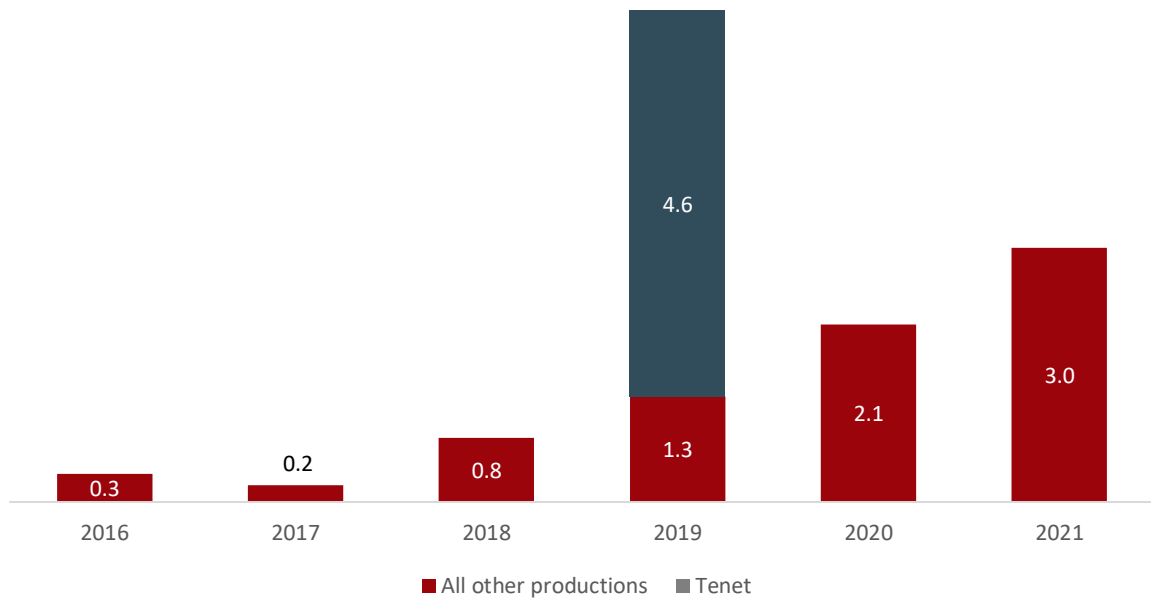


Cash Rebate Payments

The cash rebate is payable on evidence of eligible Estonian expenditure. Overall, between 2016 and 2020, a total of €12.4 million was paid out in cash rebates, relating to €42.9 million in eligible production expenditure during the period. The pattern of incentive payments is similar to the pattern of expenditure in terms of timing, genre and country of origin detailed in Sections 4.1 - 4.3.

There is a legislated annual cap on incentive payments. For much of the period this has been €2 million, although a temporary uplift in the cap was made in 2019 to accommodate *Tenet*. Funds not spent in one year usually roll over to the next, which is why expenditure in 2022 and 2021 was higher than the €2 million cap. In 2022, this cap was lifted to €5.4 million for 2022.

Figure 13 – Rebate Paid Out by Year (€, m)



5. ECONOMIC IMPACT OF INCENTIVISED FILM AND TELEVISION PRODUCTION IN ESTONIA

5.1. Overview of Methodology

The approach uses production expenditure data collected by the Estonian Film Institute from companies as part of the registration and application process for the cash rebate. The economic impact methodology is set out in full detail in the Appendix. The study looks specifically at the economic impact of expenditure in 2021.

The total economic impact of the cash rebate is the sum of the direct, indirect and induced effects:

- **Direct impacts** are the economic uplift in terms of value created (GVA), labour income and employment within the Screen sector resulting from the increase in production and postproduction expenditure.
- **Indirect impacts** are the GVA, labour income and employment effects observed in sectors that supply goods and services into the Screen production sector.
- **Induced impacts** are the GVA, labour income and employment uplift created as a result of the wage effects of those working in the production sector.

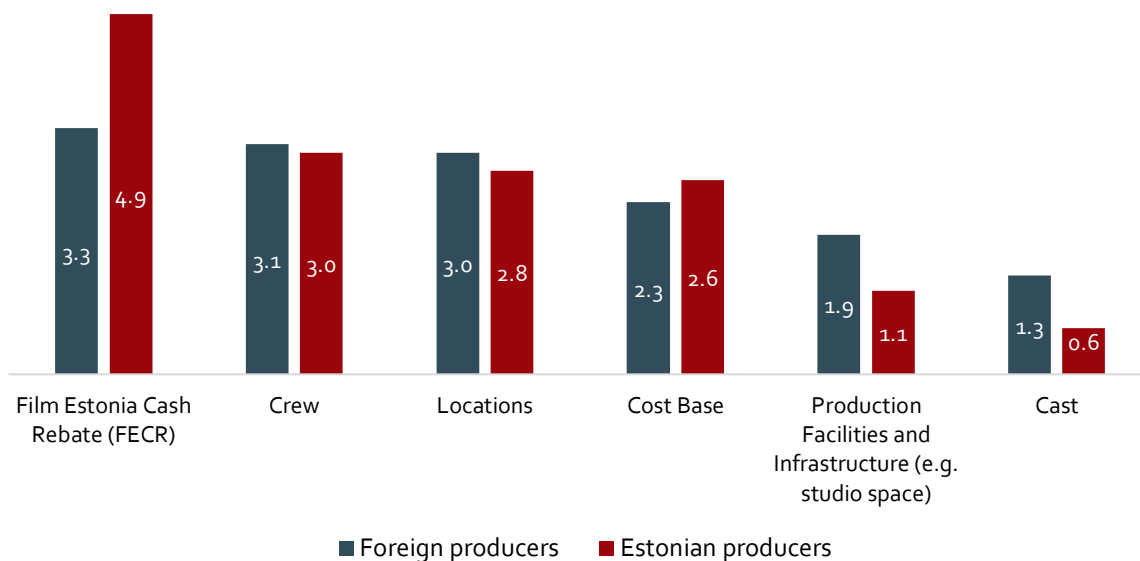
For this project, SPI built a bespoke economic impact model for Estonia utilising data from Statistics Estonia, including national Input-Output tables.

5.2. Additionality

To calculate the impact of the cash rebate, it is important to determine how much production activity would have come to Estonia without the incentive. To understand this, SPI undertook extensive consultations with Estonian and foreign producers who accessed the cash rebate in 2020 and/or 2021, and carried out a short survey to obtain quantitative results. The response rate to the survey was strong – 69% of foreign producers (9 out of 13) and 89% of Estonian producers (8 out of 9) completed the survey.

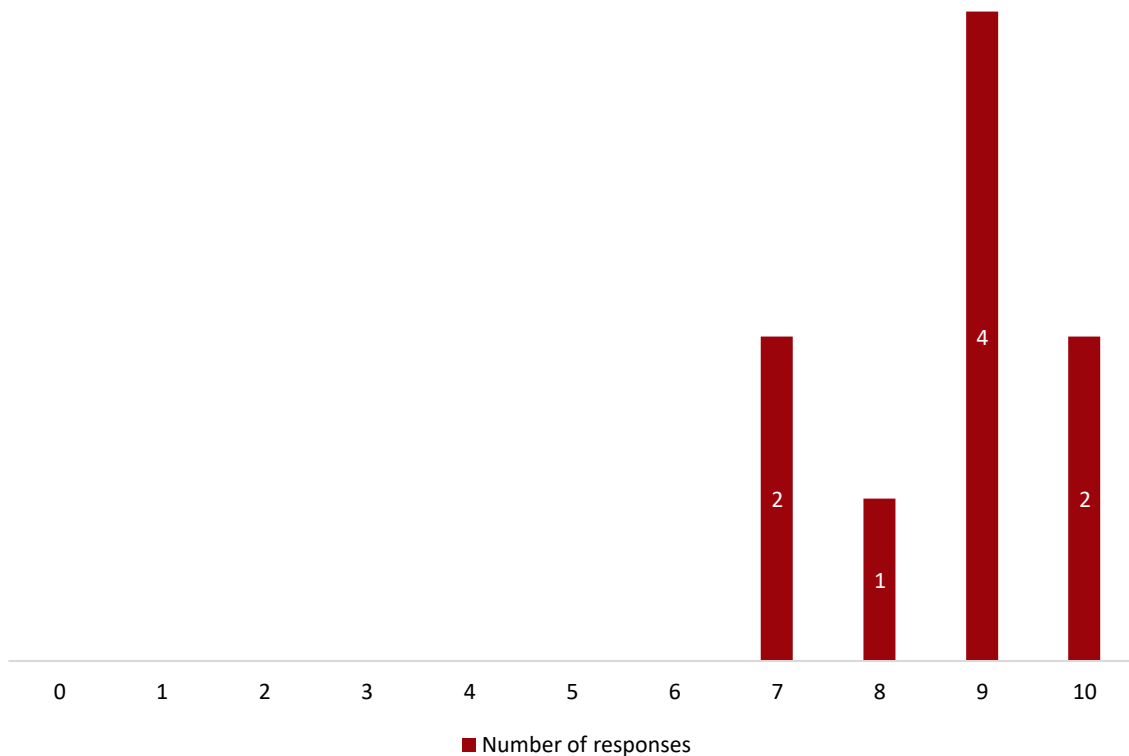
When asked about their decision factors when producing in Estonia, the ability to access the cash rebate was top of the list for both foreign and Estonian producers. Crew and locations were also important influencing factors.

Figure 14 – Decision Factors for Producing in Estonia: Average Rank by Producer Group (1-least important, 6-most important)



Over half of the foreign producers surveyed indicated that without the cash rebate they would not have produced in Estonia, while the remaining four indicated that their production budgets would be a fraction of what they were without the cash rebate.

Figure 15 – Importance of the Estonian Cash Rebate in Decision of Foreign Producers to Produce in Estonia (0 indicates it was not at all a factor, 10 indicates it was the only factor)



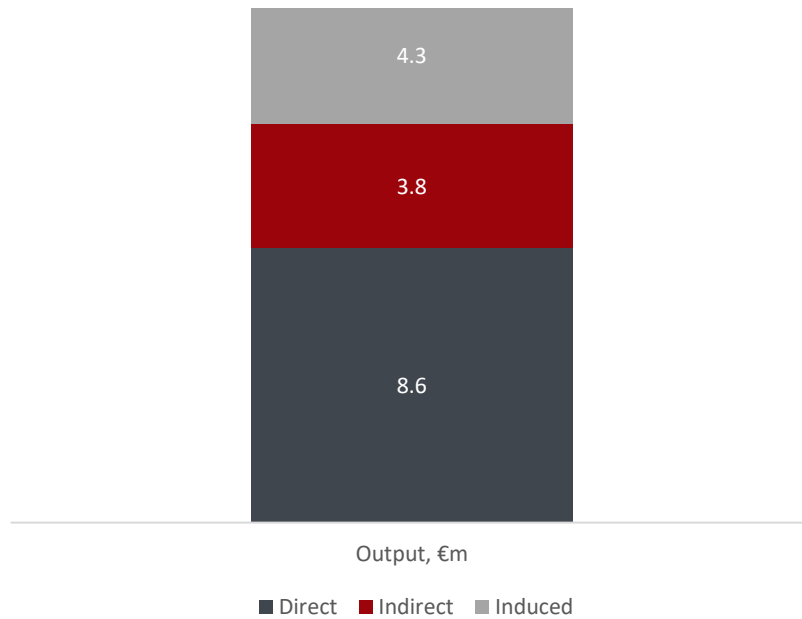
From the survey data, SPI has calculated a quantitative additionality rate. From the perspective of domestic producers, this additionality rate is 87.5%, meaning that 87.5% of production spend can be attributed to the cash rebate. The rate according to foreign producers is slightly lower at 81.1%, although this rate is influenced by one outlier response, which suggests a low rate of additionality compared with the rest of the respondents. SPI’s policy is to be conservative in our estimations, therefore a rate of 81.1% has been used in the subsequent analysis.

5.3. Output

Output is a measure of total production in an industry. It is equivalent to revenue or turnover of a firm but is aggregated across all firms in the industry.

The economic impact of the cash rebate, once additionality is taken into account, was €16.7 million in 2021. This impact is directly attributable to the incentive and would not have occurred without the cash rebate programme. This comprises €8.5 million in direct output associated with companies engaged in production, €3.8 million generated in the supply chain and a further €4.3 million generated through the spending of wages in the economy.

Figure 16 – Additional Output, 2021 (€, m)

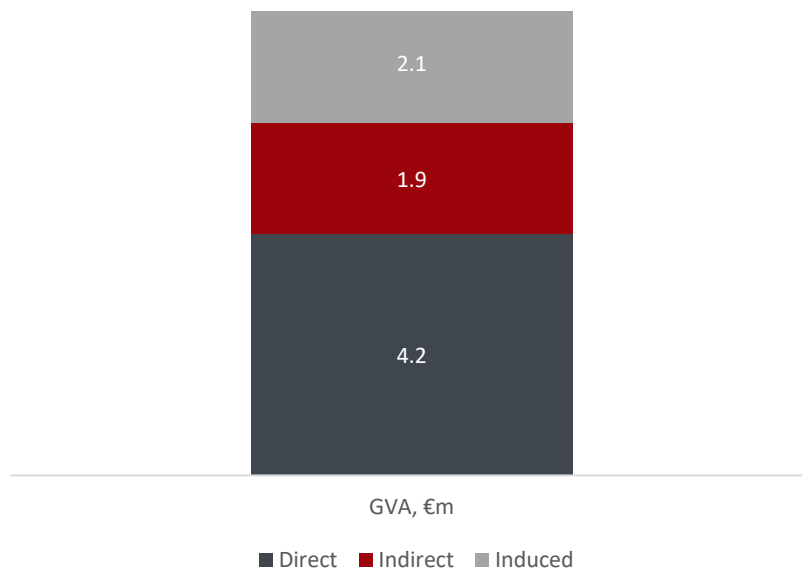


5.4. Gross Value Added

GVA is the main measure of economic value generated by an industry or a region. It is the same measure as Gross Domestic Production (GDP), which is used to measure the strength and growth of a nation’s economy.

Figure 17 shows that the total impact of the rebate in terms of GVA is estimated to be €8.16 million. Over half of this total, €4.2 million, is the direct impact of those engaged directly in production activity, €1.9 million is value created in the supply chain and €2.1 million is value created through the re-spending of wages in the economy.

Figure 17 – Additional Gross Value Added, 2021 (€, m)

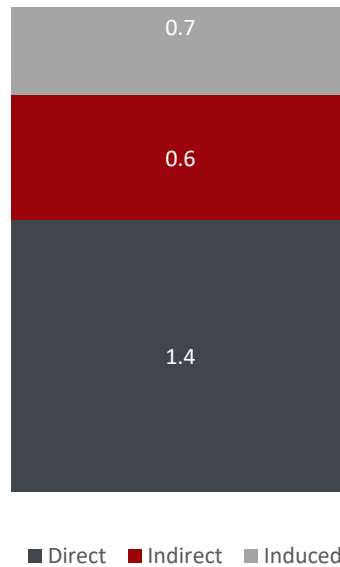


5.5. Tax

In addition to the impacts described above, the production spend within the Estonian economy will be tax-generating, through taxation incurred on the production activity itself, and through tax applied to those in employment e.g., income tax. As set out in the methodology, we have estimated tax impact by drawing on national tax data to inform modelling assumptions.

The additional tax generated by the cash rebate in 2021 is estimated to be €2.7 million. This includes €1.4 million of direct tax and €1.3 million in tax generated from indirect and induced effects.

Figure 18 – Additional Tax Generated, 2021 (€, m)



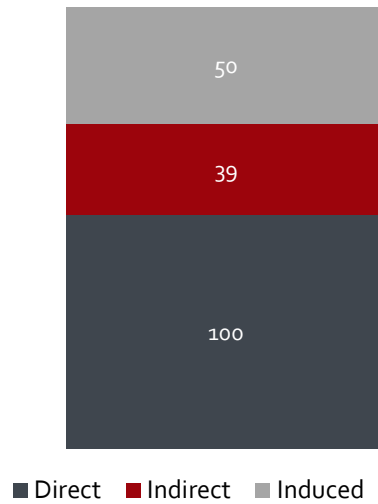
This tax receipt modelling indicates that the real, net cost of the cash rebate system is much less than the headline cash rebate payment amount. In Appendix 1, the pattern and timing of tax receipts is explored in more detail.

5.6. Employment

Incoming productions typically employ a wide range of skilled workers. Many of these are employed on productions as freelancers for a period of months, while others are employees of production service companies.

To enable a comparison between different industries, economic impact studies tend to estimate the impact in terms of jobs by full-time equivalents (FTEs). This adjusts for the contract-based nature of the sector. The estimated job impact of the cash rebate is summarised in Figure 19 below. The full economic footprint of jobs supported by the cash rebate is estimated to be 189 in 2021.

Figure 19 – Additional Full-time Equivalent Employment, 2021

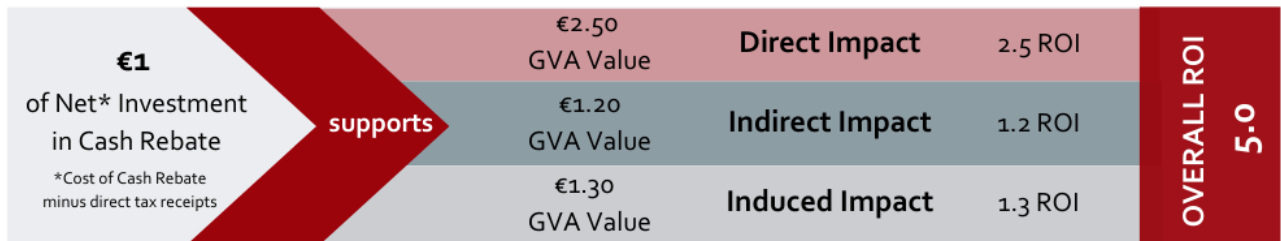


5.7. Return on Investment

ROI is an important measure of effectiveness of a film and production incentive. Economic ROI uses the total value created in the economy as a result of the cash rebate (GVA) and compares this with the net cost of the programme (amount released in cash rebate payments minus the direct additional taxes received).

Overall, the Estonian cash rebate provides a strong return on investment. For each euro (net of tax receipts) invested through the cash rebate, a total of €5.00 of value is created in the economy – this includes €2.50 of value within the industry, €1.20 in the supply chain and €1.30 through wage effects.

Figure 20 – Return on Investment of Estonian Cash Rebate, 2021



SPI’s policy is to be conservative in our economic modelling. Appendix 3 sets out what the GVA ROI number would be if a less conservative method was applied – it finds that GVA ROI could be argued to be as high as 8.20.

6. RIPPLE ANALYSIS – PRODUCTION EXAMPLE

While this study focuses primarily on the macro-economic effects generated by the expenditure of incentivised Screen productions in Estonia, research was also undertaken into an additional and important element of impact created by this activity – the micro-economic effect that delivers value to many business sectors in the jurisdiction where the production expenditure takes place.

Film and TV production are specialist manufacturing processes that require a variety of inputs. These include a large number of workers spanning creative, technical, logistical and support roles, as well as equipment, facilities, infrastructure and services.

While some of these inputs would be sourced directly from the Screen sector – i.e. from individuals or vendors who only work in film and television production – normally a larger proportion of expenditure is made in other areas of the economy. This is referred to as the 'Ripple Effect' – i.e., the micro-economic impacts that each production generates for other business sectors.

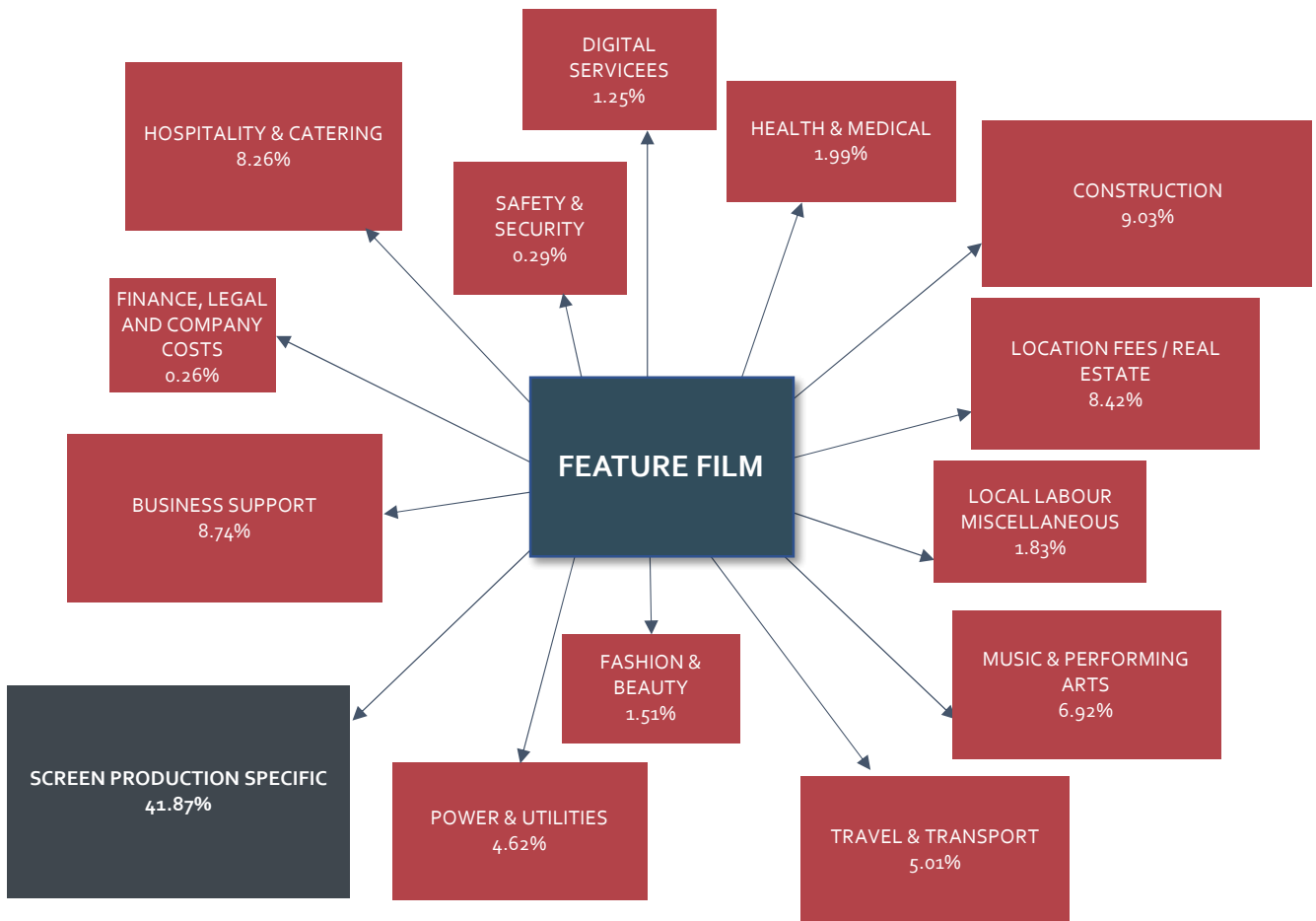
To demonstrate this impact, SPI undertook a forensic analysis of an anonymous production's budget. Here, production spend was assigned to the business sector into which the money was spent.

The Ripple Analysis process involved examining every element of 'below-the-line' expenditure as contained in a production's final budget or cost report; it excluded the effect of payments to major creative talent, which could imbalance the analysis. A significant portion is typically spent with companies and individuals who only supply the Screen production sector; they do not work in any other industry. These amounts are allocated to the Screen production specific sector and normally amount to between 25% and 50% of the costs analysed.

The remaining amounts are spent on services and resources from individuals or companies that supply a variety of sectors, in addition to Screen production.

The analysis found that just over 40% of production expenditure took place within Screen sector businesses. **The remaining 60% of expenditure was spread across a variety of other sectors, in Estonia** including 9% to construction, 9% on business support, 8% on location fees and real estate, and 8% on hospitality and catering, representing a broad and diverse dispersion of impact across the Estonian economy.

Figure 21 – Ripple Analysis for Cash Rebate-Funded Production

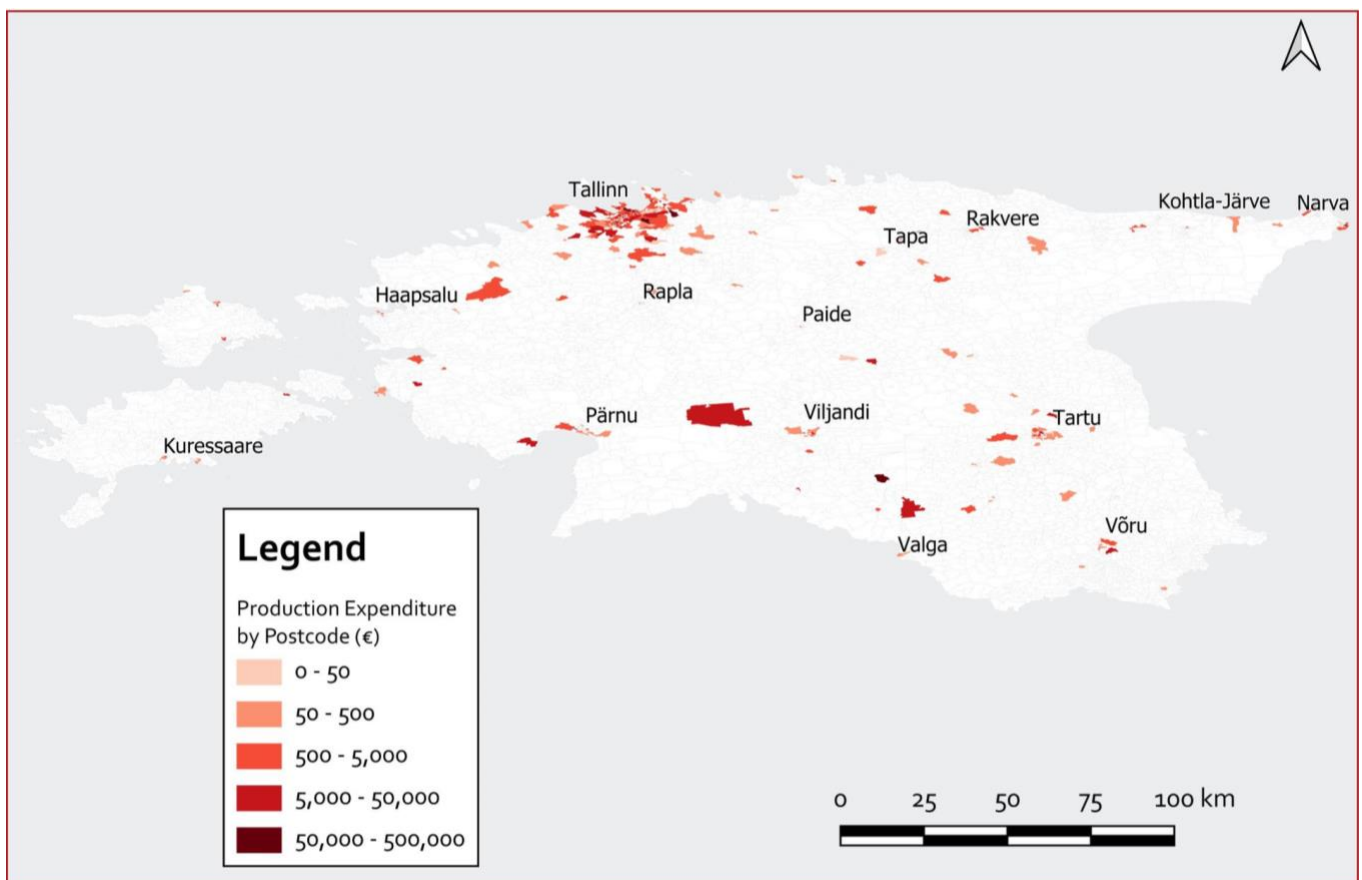


7. GEOGRAPHICAL IMPACT OF EXPENDITURE – PRODUCTION EXAMPLE

The supply chain of vendor businesses has a wide geographical footprint. SPI’s analysis reviewed detailed production expenditure data from one of the productions funded by the cash rebate in 2020 and 2021. Figure 22 and 23 are heatmaps of production expenditure for the example production. Red illustrates production expenditure in that postcode, the darker the red the more the expenditure. Figure 22 shows how this expenditure was spread across the country. While there is a clear concentration of expenditure and vendors in Tallinn, there are significant pockets of expenditure elsewhere. Such pockets of distribution include some in the North-Eastern region, which has the lowest GDP per capita in Estonia, according to 2020 OECD estimates,⁶ and the highest youth unemployment.⁷

Figure 23 demonstrates how within Tallin, the expenditure was widely distributed throughout the cities, with many postcodes and areas benefiting from inward production expenditure.

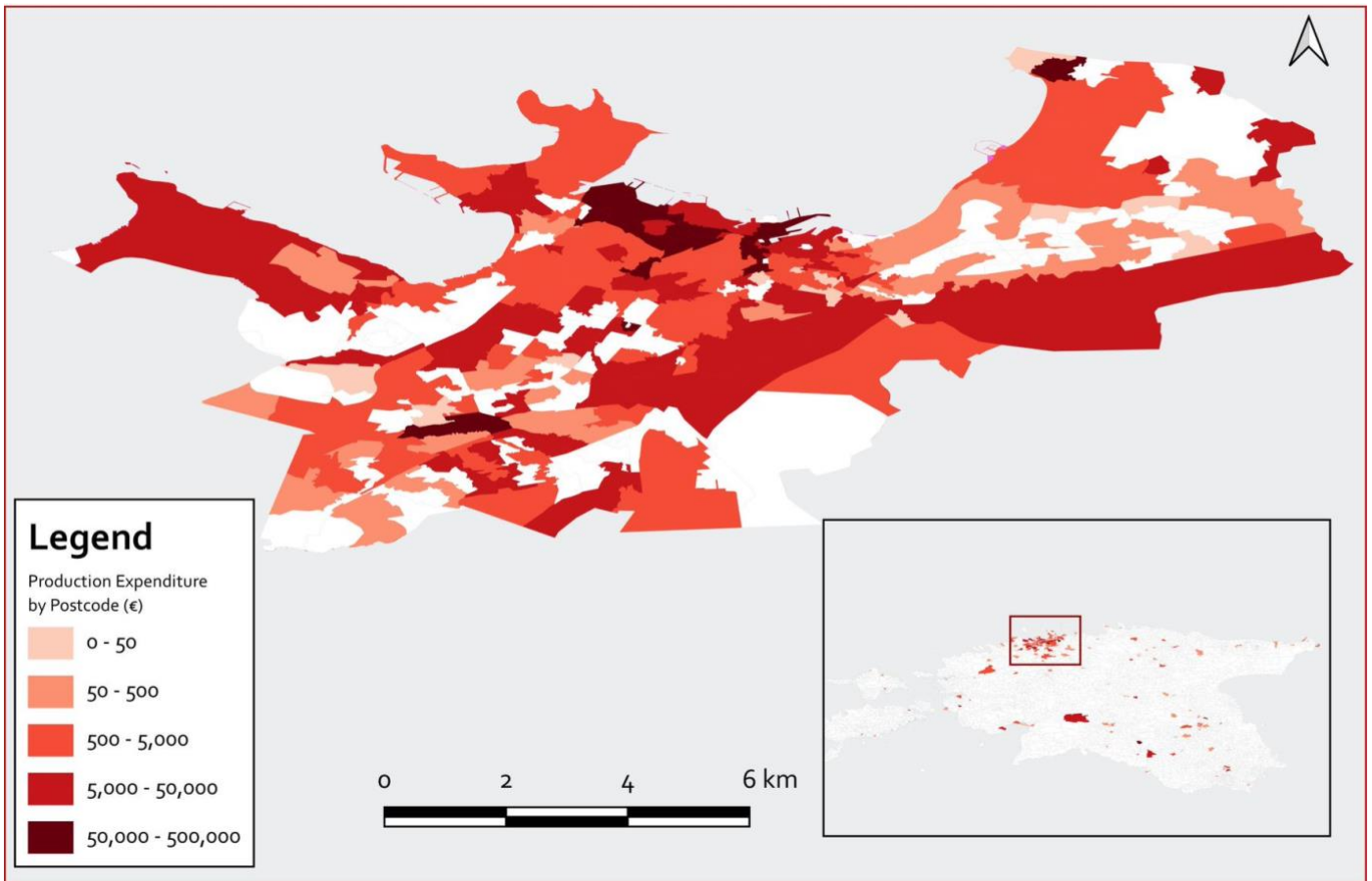
Figure 22 – Location of Vendor Expenditure for Example Production: Whole of Estonia (€)



⁶ OECD Regions and Cities at a glance – Country Note Estonia (2020) <https://www.oecd.org/cfe/Estonia-Regions-and-Cities-2020.pdf>

⁷ OECD Regions and Cities at a glance – Country Note Estonia (2018) <https://www.oecd.org/cfe/ESTONIA-Regions-and-Cities-2018.pdf>

Figure 23 – Location of Vendor Expenditure for Example Production: Tallinn (€)



8. WIDER IMPACTS OF THE CASH REBATE

In addition to the economic impacts generated by Estonia's cash rebate, incentivised film and television production also delivers a range of supplementary benefits. These include impacts on exposure for the sector, crew development, and support for Estonian companies. This section outlines these wider strategic benefits.

8.1. Greater Exposure for the Estonian Production Sector

Producers indicated that the production incentive is usually the initial attraction for international productions to Estonia. However, after having positive production experiences in the country, producers are more willing to return to Estonia for future productions. Consultation feedback has highlighted how impressed producers and directors were with the quality of the crew base in Estonia, both in terms of skill and motivation.

Often, preconceptions about Estonian crew not being as capable as crew from the producers' home countries were dispelled soon after the productions commenced. Given Estonia's relatively small size and the lack of international recognition of its production history or capabilities, any positive experiences are likely to have a significant effect on perceptions of Estonia's suitability as a production location. This leads to Estonia having a high retention rate of international producers and directors, increasing the impact of the cash rebate. Combined with the highly positive experiences producers have had regarding the administration and conditions of the cash rebate, discussed in Section 2.2, production experiences in Estonia have tended to exceed expectations and provide positive exposure.

8.2. Crew Development and Career Progression

Estonia's ability to attract international productions has created significant job and training opportunities for local crew, enabling them to hone their skills through working with experienced producers, directors and heads of department, especially on larger productions. The presence of these productions furthers the careers of Estonian crew, allowing them to assume responsibilities and take up roles that otherwise may not have been possible. Even at the Head of Department level, more and more positions are being filled by Estonians, rather than being brought in from other countries.

Along with accelerating career progression for Estonian crew, a reduction in the need for crew to be brought in from elsewhere will ultimately reduce the cost of production in Estonia, making it an even more desirable production location.

8.3. Supporting Estonian Production Companies

While the Film Estonia production incentive is aimed at inward investment, it has contributed to making Estonian production companies more sustainable. The increased number of international productions have increased revenue streams for Estonian production company partners, as well as created greater certainty for them due to the increased regularity of inward production.

Consultees stated the importance of this regularity of production in allowing them to hire permanent employees. While most production crew work freelance, production companies can benefit from having permanent employees in certain roles. Additionally, consultees noted the extent to which the cash rebate has enabled Estonian co-producers to assume a more balanced share of production partnerships, and production service companies to have more involvement in production and become partners on inward productions, potentially even leading to financial ownership and creative input.

9. OPPORTUNITIES TO DEVELOP ESTONIA'S SCREEN SECTOR

9.1. Feedback on the Film Estonia Cash Rebate

Producers and production companies with experience of shooting in Estonia have a very positive view of the administration of the cash rebate. It was commonly noted that the process is efficient, with quick decision making and a high degree of transparency. Such conditions are important for producers as they offset the uncertainty and rapidly changing nature of film and TV productions. The process was also highlighted as being easy and understandable, with relatively low levels of bureaucracy. Given the number of potential locations that may be considered for any given production, an incentive system where producers can understand what using the incentive would entail and what the consequences of these would be on their productions, positions that incentive system at a clear advantage.

Producers also valued the rebate payment structure. It was noted as flexible in adjusting to changes in production budgeting, as well as allowing for payments in several stages, including at an early stage, thus helping with cashflows. Payments were also prompt and reliable.

According to producers, the quality of Estonia's cash rebate separates it from some of its competitors, which can be less efficient, more bureaucratic, and more disruptive to cashflows. Along with the value of the incentive payment, producers place significant weight on its administration and conditions. The consistently positive experience that producers have had with Estonia's incentives provides an opportunity for Estonia to improve its standing against competitor territories and further establish itself as a location of choice for international productions.

The cap for the cash rebate had been €2 million since its inception, except for a one-off additional incentive pay-out in 2019 of €5 million to support the production of *Tenet* (2020). The scheme has been increasingly over-subscribed and by the end of January 2022 the existing budget was allocated. The Estonian Government has recently agreed to an uplift of €3.4 million to the cap for 2022, meaning a total of €5.4 million is available for the cash rebate in 2022.

One key issue in competing for production however, is the incentive cap. As outlined, the Estonian incentive has been increasingly over-subscribed and by the end of January 2022 the existing budget was allocated. While the Estonian Government has agreed to an uplift of €3.4 million to the cap for 2022, with a total of €5.4 million is available for the cash rebate in 2022, the cap does limit the ability for Estonia to compete. Such limitations do create uncertainty for producers around whether incentive funding will be available.

Previous SPI work on best practice in automatic incentives underlines that, for producers, financial certainty is critical and where systems do have caps that high and multi-year budgets are better for producer planning as they align with multi-year production planning processes.⁸

9.2. Next Steps in Sector Development

Looking to the future, a major challenge is that Estonia suffers from a lack of film and television workforce capacity, at all levels and roles. This is a reflection of the low quantity as opposed to the low quality of available crew. Workforce capacity is an issue globally for the sector; however, in a country as small in population as Estonia, these problems can be more acute as a few productions taking place simultaneously will use up a large share of quality crew available. Without sufficient strategies in place to expand workforce capacity, such as training schemes and re-skilling programmes, these problems will only be exacerbated as the number of productions increase.

⁸ *Best Practice in Screen Sector Development*. SPI for the Association of Film Commissioners International, 13th September 2019. Accessible at: <https://static1.squarespace.com/static/5f7708077cf66e15c7de89ee/t/602a5d97da388b185d66d688/1613389210265/AFCI-Best-Practice-Study-2019-09-13-Final-Cover+%282%29.pdf>

Some consultees also noted that availability of high-quality production space is also a challenge. While not as pressing a challenge as workforce capacity, this can be a limiting factor in some cases. Productions on the higher end of the budget scale will often require sound stages as a necessity, and even smaller productions may see their production location decisions heavily influenced by high quality production space availability.

As outlined in the previous section, the limited budget of Estonia's incentive is also a key consideration for future sectoral development, and offering more certainty and flexibility around this would be helpful.

10. APPENDIX 1 – INCENTIVE OR SUBSIDY

10.1. Introduction

This short paper addresses the cost to the Treasury or Finance Ministry of a cash rebate system similar to that operated in Estonia. It will demonstrate that the real “cost” of the rebate is much less than that normally referred to when rebates of this type are discussed.

The example we include here is not an actual production but is SPI’s assessment of a generic production and how the timing of cash that comes into and leaves the national Treasury is an advantage of this type of support mechanism.

The point made here is that ***the real, net “cost” of a cash rebate system is much less than the headline*** rate when everything is taken into account, which includes taxes received on the production spend. Also, the payment of the rebate is made many weeks after taxes are received on the spend (Figure 24). In our theoretical example shown on the next page, net cost (“investment”) on a cash basis is substantially reduced (Figure 25).

When one takes into account the substantial impacts of the productions attracted to Estonia by the rebate it can be seen what an ***effective investment*** this is and, therefore, cannot be considered as a “subsidy”.

Furthermore, a particular advantage of the rebate system is that the timing of the payment of the cash rebate is usually many weeks, often months, after the tax receipts have been received. Accordingly, we refer to the rebate as being partially ***“self-funded”***.

10.2. The Elements of Cash Received and Paid Out

Cash Receipts

From the moment the production starts expenditure in the country, the national Treasury begins receiving taxes on such expenditure. Generally speaking, there are three types of taxes received:

1. Payroll taxes on individuals who are paid directly by the production
2. Payroll taxes on individuals paid through Loan-out Companies¹
3. Corporation or dividend taxes eventually paid (on net earnings) by vendors who are supplying the production.

Payroll taxes

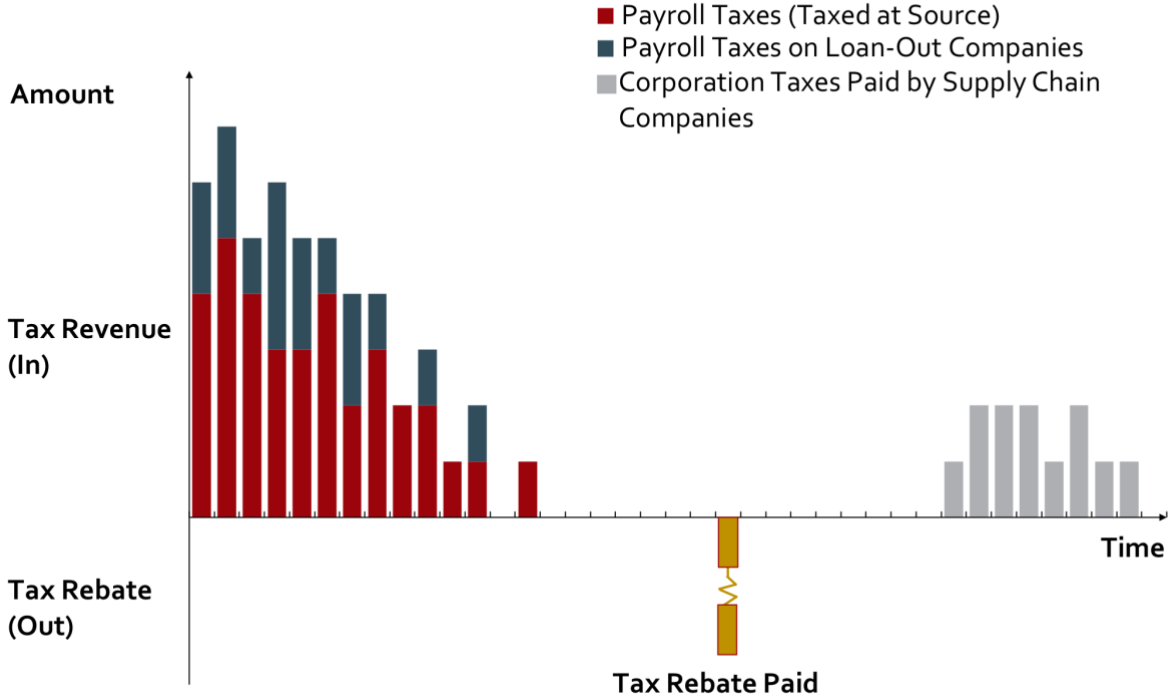
These are taxes deducted at source and are immediately received by the Treasury as payments are made to individuals or their Loan-out Companies. They are calculated with reference to the prevailing payroll tax rates and in some countries include social security deductions.

Corporation or dividend taxes

Identifying the amounts of such taxes is more complicated. Companies/vendors who are paid by the production only pay taxes (if any) if they are profitable in the year concerned. The calculation of whether taxes are due is made once the company’s annual tax return is calculated and this can be many months after the production makes the payments. And the amount of tax paid (if any) can vary. Therefore, in our calculation we have estimated a very low tax yield to the Treasury from this source.

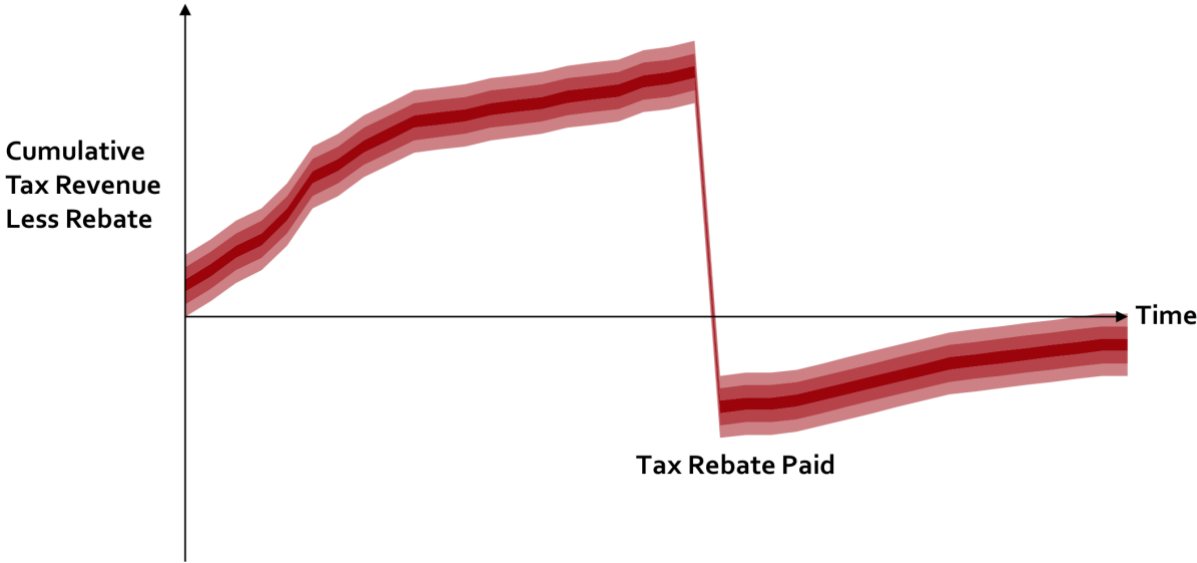
The following chart identifies the taxes received from the weekly production expenditure on our hypothetical project. These accumulate from payroll taxes during production and are held by the Treasury until the rebate is eventually paid out. Afterwards, modest amounts of corporation or dividend taxes could be received, reducing even further the net cost of the rebate.

Figure 24 – Cash Rebate: Weekly Cash Flow (Treasury Perspective)



The second chart, below, identifies the Treasury’s net cash position during this same time period. It shows a positive position as production takes place, becoming negative when the rebate is paid out. This negative balance can be reduced if further taxes are received from suppliers/vendors when that pay any corporate or dividend taxes.

Figure 25 – Cash Rebate: Cash Balance (Treasury Perspective)



11. APPENDIX 2 – DETAILED ECONOMIC IMPACT METHODOLOGY

Expenditure and Cash Rebate Data

This study uses a well-established expenditure-driven economic impact modelling approach, consistent with Olsberg•SPI's work undertaken elsewhere around the world. The key model input is the production expenditure data for 2021 and associated cash rebate payments provided by the Estonian Film Institute.

The data was provided for each individual production that has taken place over a period that included activity in 2021 – i.e., for some, production activity may also have taken place in prior years and we have accounted for that. The estimated Estonian expenditure has been estimated on a pro rata basis based on the profile of paid out/audited rebates.

The data provided by the Estonian Film Institute included profiles of paid out/audited rebates. Estonian spend was not broken down by year; therefore, we have assumed that the paid out/rebate profile broadly reflected the annual expenditure activity and have estimated a pro rata breakdown. As agreed by the Client, this paper only reflects the production spend for 2021.

Leakage

Leakage is the economic activity that occurs outside the target geography – in this case, outside Estonia. Production expenditure recorded by the Estonian Film Institute is expenditure within Estonia. Expenditure outside of the country is not eligible for the production incentive and is therefore not included.

Displacement

Displacement is the proportion of impacts offset by a reduction in activity elsewhere within the state. This is assumed to be small as Screen production is a truly global sector and firms are unlikely to be competing with other Estonian-based firms.

Substitution

Substitution is the effect where a firm substitutes one activity for a similar one to make the most of the subsidies. We assume this is minimised by the production incentive only covering a proportion of production costs.

Deadweight/additionality

To assess additionality and calculate 'net' impact from 'gross' impact, we removed the deadweight – the production and post-production expenditure that would have happened without the cash rebate. This was explored during consultations and a quantitative additionality survey was sent to all Estonian and foreign producers working on an incentive-supported production in 2021.

The survey contained three key additionality questions, addressing:

- The factors drawing a project to Estonia; the cash rebate was one of the factors listed along with elements such as locations and talent, and the respondents were asked to rate the importance of each factor
- The specific importance of the cash rebate in drawing the project as an individual rating
- How much lower Estonian project spend would have been without the availability of the cash rebate.

For more information on the results, see Section 5.2.

Economic Impact Modelling

This study uses Input Output approach to economic modelling. The production expenditure data is combined with economic data from Estonian I-O tables⁹ to estimate the overall footprint of the production activity. The analysis primarily focuses on the 'motion picture, video and television programme production' sector. The following economic metrics have been estimated:

- Direct impacts – Output, GVA and FTE employment created as a direct result of the production expenditure
- Indirect impacts – Output, GVA and FTE jobs created within sectors that supply goods and services to the motion picture, video and television programme industry within the wider Estonian economy
- Induced impacts – Output, GVA and FTE jobs created as a result of the re-spending of wages by those employed in the direct and indirect phases.

In terms of the multipliers assumed in the model, these have been taken from the 2015 Estonian I-O tables (the latest available data). These are available on a product-by-product basis, and we have extracted the Type I (indirect impact only) and calculated the Type II (direct, indirect and induced impacts) for the 'movie, video and TV programme production; sound recording and music publishing; broadcasting' sector. These have been derived for output and GVA. We have also accessed employment data by industry and, using that information, also derived an employment multiplier.

The GVA: output ratio used has also been taken from the 2015 I-O tables. However, we have also extracted separate data from Statistics Estonia (Table RAA0043) for most recent years (up to 2021), which corresponds to this level. This GVA ratio is applied as a proportion of the direct output, with the subsequent indirect and induced impacts derived through the GVA multiplier.

Employment is expressed as full-time equivalent (FTE) jobs and has been estimated using assumptions around the typical level of FTE employment within the 'motion picture, video and television programme production' sector. FTE employment is used here to reflect that many jobs that would have been supported by production expenditure are typically part-time or temporary, reflecting the flexible nature of employment associated with this activity.

The level of employment per €1 million of output has been derived from the I-O tables. This has then been converted to an FTE equivalent using industry-specific data taken from Statistics Estonia (Table EM001). This provides an employment: FTE adjustment of 85.7%. This is then used to estimate the number of direct FTE jobs, with the subsequent indirect and induced impacts derived through the employment multiplier.

The estimates of tax receipts are based on evidence drawn from the OECD, which shows tax revenue as a percentage of GDP. This includes taxes on corporations, individual incomes, social security contributions, taxes on consumption, etc. This has been applied to the estimates of GVA (direct, indirect, induced) to estimate the potential tax take based on the level of production spend.

The estimated direct tax receipts are then set against the paid rebate to derive a net subsidy. This net subsidy is then used within the ROI estimate, set against net additional GVA.

The rate of additionality, which enables the calculation of the impact of the cash rebate, is calculated from survey data. The additionality rate of 81% was applied to the overall expenditure figures to calculate the net impact.

As with all economic modelling, the Input Output approach is based on a number of assumptions and caveats; the most important being that it is a partial equilibrium model that focuses only on the demand side and assumes no constraints on the supply side.

⁹ <https://andmed.stat.ee/en/stat>

12. APPENDIX 3 – RETURN ON INVESTMENT SENSITIVITY ANALYSIS

ROI is a measure of the economic outcome that is received from a certain policy investment. For this study, we calculate the economic ROI as the GVA uplift from the incentive investment.

The headline figures in this report define the cost of the investment as the total amount of cash rebate paid out in a given year, minus the modelled direct tax receipts. This approach is conservatively applying the best practice guidelines set out in Ernst & Young's *Evaluating the effectiveness of state film tax credit programmes: Issues that need to be considered*.

We have undertaken some sensitivity analysis that illustrates the implications for the ROI figure of different definitions of investment.

Table 3: Sensitivity Analysis of GVA ROI

Definition of investment	Direct GVA ROI	Indirect GVA ROI	Induced GVA ROI	Total GVA ROI
Cost of cash rebate payments	1.37	0.63	0.68	2.68
Cost of cash rebate payments minus (net of) direct tax receipts	2.54	1.17	1.27	4.98
Cost of cash rebate payments minus (net of) direct and indirect tax receipts	4.19	1.93	2.09	8.20

13. APPENDIX 4 – ABOUT OLSBERG•SPI

SPI provides a range of expert consultancy and strategic advisory services to public and private sector clients, specialising in the worlds of film, television, video games and digital media. Formed in 1992, it has become one of the leading international consultancies in these dynamic creative Screen industries. With its trusted insight and track record the firm has a diverse client base that includes:

- Multi-national public authorities
- National governments, including culture and economics ministries
- National film institutes and Screen agencies
- Regional and city development agencies and local authorities
- National and regional tourism agencies
- Studios and facilities companies
- Independent companies at all points of the Screen business value chain
- National and international broadcasters
- Trade associations and guilds
- Training and skills development organisations
- Publishers and conference organisers.

Olsberg•SPI has expertise in all areas of the fast-moving global creative sectors, and the firm's services span:

- Strategy and policy development for the creation and management of healthy and sustainable national and regional Screen sectors
- Advising on the creation and implementation of fiscal incentives for the Screen industries
- Research projects on all aspects of the value chain – including mapping and economic impact studies
- Business development for content companies
- Strategic development of studios, including business planning and feasibility studies
- Acquisition and divestment advice for owners of SMEs
- Evaluations of publicly funded investment schemes
- Creating prospectus-style funding proposals
- International cost comparisons for film and television productions
- Advising on inward investment and exports for national and regional public bodies
- Identifying and measuring the cultural value of a productive Screen sector
- Analysing workforce skills, diversity and related best practice strategies
- Assessing the value of tourism generated by a nation or region's film and television output and developing strategies to maximise future impacts
- Providing strategic advice for Screen commissions, including business and marketing plans