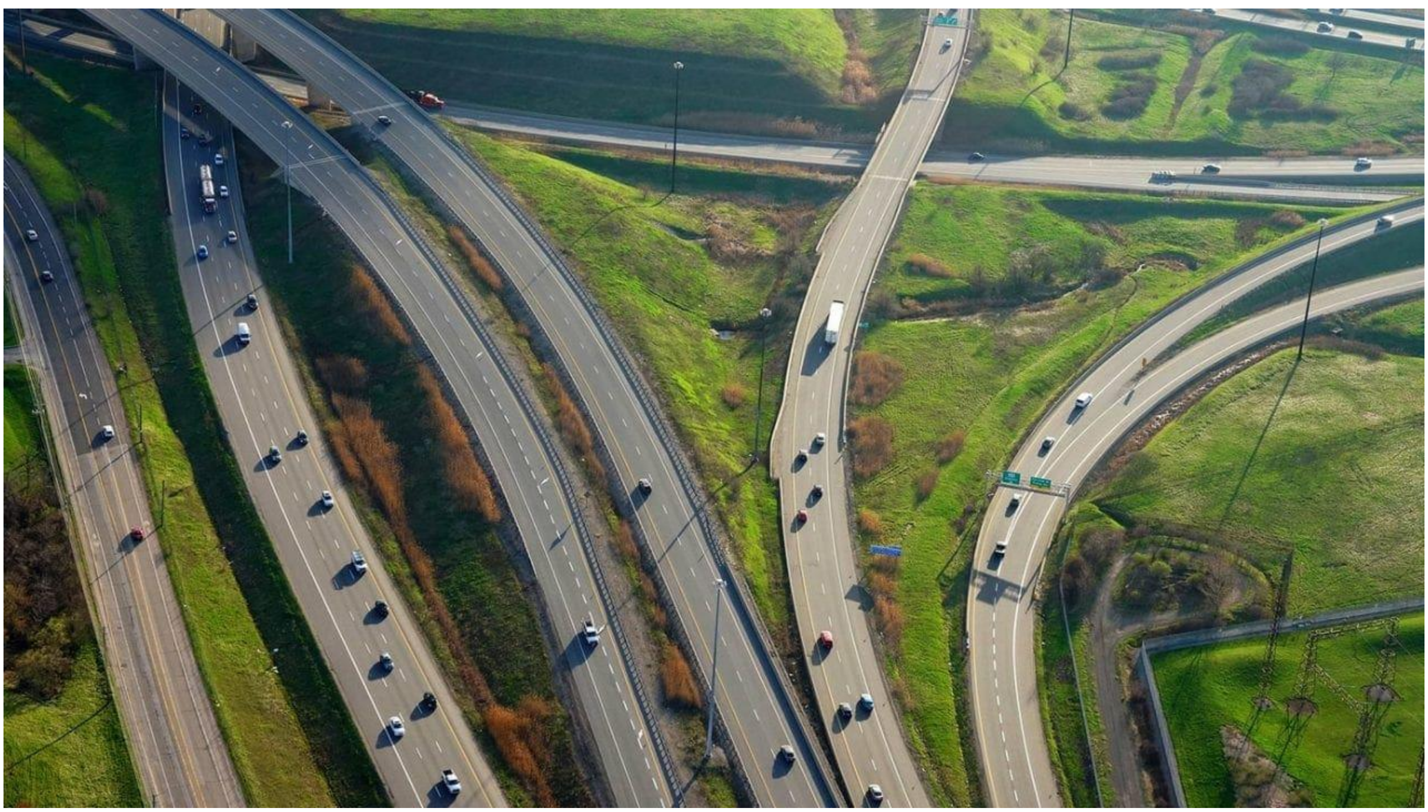
Final Report
October 2022

Economic Impact of Cintra Assets



Cintra Servicios de Infraestructuras, SA

Final Report
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Economic Impact of Cintra Assets

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Prepared by:

Steer
45 Main St, Suite 1036
Brooklyn, NY 11201
USA

+1 (617) 391 2323
www.steergroup.com

Prepared for:

Cintra Servicios de Infraestructuras, SA
Calle Principe de Vergara, 135
28002, Madrid
Spain

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Appendices

Executive Summary

Overview

Steer has conducted an economic analysis of Cintra's portfolio of highway and managed lanes assets with a focus on:

- **Socio-economic performance –** understanding how each project generates socio-economic value to travelers, regions, and economies through the application of standardized transportation benefit-cost analysis
- **Expenditure impacts –** understanding how expenditure on these assets generates impacts to employment and gross domestic product (GDP).

Assets Included in Analysis

This study conducted an analysis of 21 assets spanning across nine countries, with a total investment value of $23.5 billion USD.[1] This portfolio includes all road infrastructure projects (excluding parking assets) owned – either as a minority or a majority shareholder – by Cintra as of December 31st, 2021.

Methodology

Each asset was analyzed with a consistent methodology to determine its socio-economic benefits and impacts (changes to regional and traveler welfare due to investment in the transportation network) and expenditure impacts (outcomes associated with spending on infrastructure).

Expenditure impacts were estimated using an industry standard Input Output (IO) model calibrated on two data sources:

- **For US assets -** U.S Bureau of Economic Analysis. RIMS II (2019)
- **For other assets -** OECD, Input-Output tables (1995 – 2018)

Socio-economic impacts were estimated using a blend of asset specific data (such as travel volumes, speeds, and travel time reliability before and after asset delivery) and socio-economic factors and assumptions (such as an assumed value of time or a social value of GHG emissions). Results were estimated in line with peer practice applied by infrastructure investors, regulators, and public sector agencies.

This analysis does not substitute project-specific economic evaluations, which are expected to use more in-depth analyses for more detailed economic benefit estimations.

[1] The total investment values are drawn from published information on Cintra's project profiles. These values are an initial investment estimation.

Overarching Findings

Across the 21-asset portfolio, the following overall impacts were observed:

- **Socio-Economic –** $29.1 billion in value realized to date, including nearly $23.2 billion of direct user benefits (from faster and more reliable travel times), $1.9 billion in external benefits (changes in collisions and emissions), and $4.0 billion in wider economic benefits (reflecting improved productivity due to decreased travel times).
- **Expenditure –** $60.8 billion in GDP (spread across all regions included in the study) and $14.8 billion in direct salary earnings. Combined, over the lifecycle of all 21 assets to date, there have been an estimated 334,500 Full Time Equivalent (FTE) job-years of labor generated to construct, maintain and operate the assets.

1 Introduction

Overview

1.1 Steer conducted an economic analysis of Cintra's portfolio of highway and managed lanes assets in North America, Latin America, and Europe with a focus on:

- **Socio-economic performance –** understanding how each project generates socio-economic value to travelers, regions, and economies through the application of standardized transportation benefit-cost analysis
- **Expenditure impacts –** understanding how expenditure on these assets generates impacts to employment and gross domestic product (GDP).

1.2 This document is the final report for this study and has been prepared to summarize the methodology and main findings.

Study Purpose

1.3 This study assessed the global economic impact of 21 highway and managed lane assets using a comprehensive approach that applied three principles:

- **Consistent –** the same methods and overall approach to analysis are applied to all assets in the world. Some assets may use specific methods or data sets, but efforts have been made to standardize the analysis.
- **Robust –** the methods draw upon relevant practice from peer studies and public agencies who conduct economic appraisal of transportation investment. Methods are directly traceable to accepted practice for both socio-economic and expenditure impacts.
- **Scalable and repeatable –** the methods can be applied to other assets and used for future year analysis.

1.4 A methodology was developed that balances these principles against available data and asset specific context across a wide range of assets in North America, Europe, and Latin America.

Study usage and Limitations

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1.6 This Study, as well as information and statements contained herein, are all based on data provided to us, or sourced by us, from other parties including the Client. In particular, this Study draws upon available data and information on historic asset performance alongside regional and national data to estimate economic impacts. Steer has not sought to establish the reliability of the data, or sought to determine the accuracy, completeness, sufficiency for any purpose or feasibility for any particular outcome including financial. Steer accepts no responsibility for any error or omission in the Study which is due to an error or omission in data, information or statements.

1.7 This study is not intended for use as a future-looking forecast of continued asset performance and does not provide insight as to how COVID-19 will impact future performance.

Report Structure

1.8 The remainder of this report is structured as follows:

- **Chapter 2 – Asset Portfolio –** an overview of the assets included in this analysis
- **Chapter 3 – Impact Estimation Methodology –** a summary of the methodology used to analyze each asset
- **Chapter 4 – Results –** the detailed results for each asset included in the analysis
- **Chapter 5 – Conclusions –** a summary of the study

2 Asset portfolio

2.1 The asset portfolio selected for the economic impacts evaluation consists of 21 assets spanning across nine countries, with a total investment value of $23.5 billion USD.[2] This portfolio includes all Cintra's road infrastructure projects that have had a financial closure and are either in operation or in construction up to December 31st, 2021. Table 2.1 summarizes the key aspects of each asset considered in the analysis.

2.2 Serranopark was excluded from the study scope as it would require a dedicated methodology to evaluate benefits from parking infrastructure, which would not be consistent with the rest of the portfolio evaluation approach.

2.3 A more detailed summary and profile of each asset can be found in the one-pager sheets in Appendix A.

[2] The total investment values are drawn from published information on Cintra's project profiles. These values are an initial investment estimation and are different from the operating and capital expenditure included in Chapter 4.

Table 2.1: Summary of Cintra asset portfolio analyzed for economic impacts

	Asset	Location	Length (Miles)	Beginning of Concession	Opening Year	Years since beginning of concession (until 2021)
1	NTE	TX, U.S.	13	2009	2014	12
2	LBJ	TX, U.S.	13	2009	2015	12
3	NTE 35W	TX, U.S.	17	2013	2018	8
4	I-77	NC, U.S.	26	2014	2019	7
5	407 ETR	Canada	67	1999	1999	22
6	407 Ext 1	Canada	20	2012	2016	9
7	407 Ext 2	Canada	20	2015	2019	6
8	Autema	Spain	30	1986	1989	35
9	Ausol	Spain	65	1996	1999	25
10	A66	Spain	30	2012	2015	9
11	Algarve	Portugal	81	2000	2003	21
12	Azores	Portugal	58	2006	2011	15
13	M4-M6	Ireland	23	2003	2005	18
14	M3	Ireland	31	2007	2010	14
15	M8	UK	18	2014	2019	7
16	Toowoomba	Australia	25	2015	2019	6
17	I-66	VA, U.S.	22	2016	2022	5
18	Silvertown	UK	0.9	2019	2025	2
19	D4-R7	Slovakia	37	2016	2021	5
20	Western Roads Upgrade	Australia	149	2018	2020	3
21	Ruta del Cacao	Colombia	94	2015	2021	6

3 Impact estimation methodology

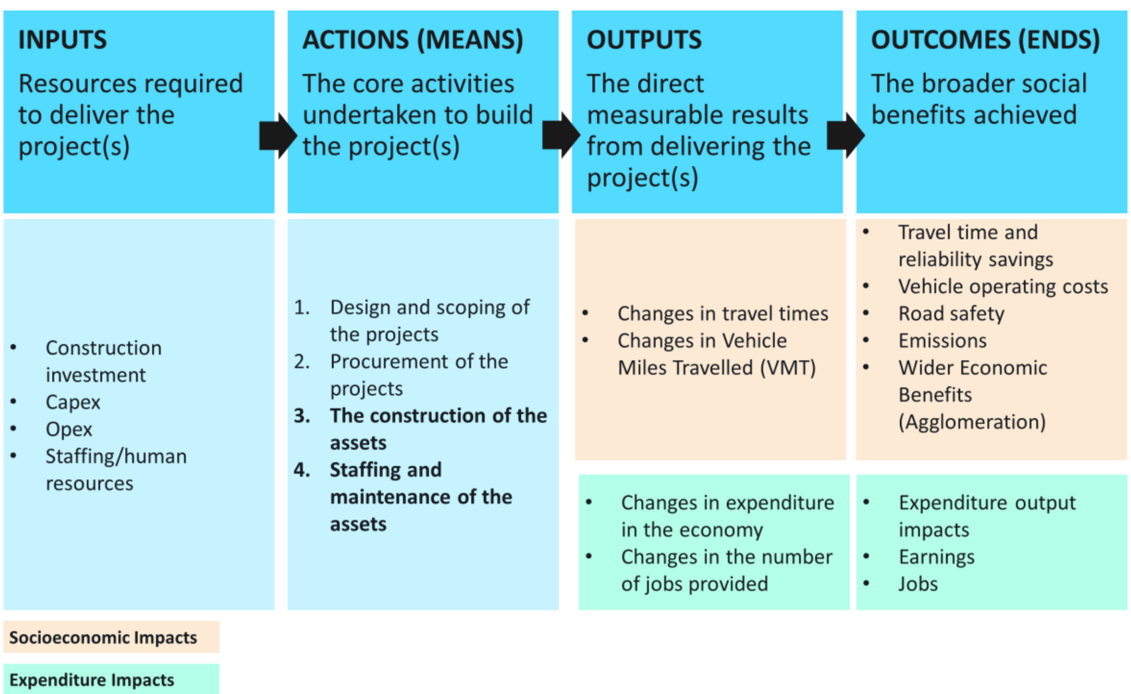
Logic framework

3.1 The evaluation of the economic impact of Cintra assets is based on the logic framework presented in Figure 3.1. This framework describes the process where the investment of resources to build and operate the road assets in the portfolio transforms into outcomes for the society and the economy.

3.2 For example, for the economy, investing in a new road leads to additional expenditure in the local/regional economy. This effect results in additional economic output, earnings and jobs for workers.

3.3 For society, investing in financial resources in designing, building and operating a road will lead to changes in travel times and distance travelled for its users. These variations will lead to changes in travel time, costs, road safety, emissions and agglomeration (productivity).

Figure 3.1: Logic framework to evaluate the economic impact of Cintra assets



Source: Steer

Methodology overview

3.4 The methodology to estimate the economic impact of Cintra assets was designed to achieve the following goals:

- Provide an overarching, consistent, standardized, and comparable evaluation framework for all of Cintra's road assets across different countries.
  - The framework is designed to make use of available national, regional, and project data to understand impacts across assets and regions.
  - This analysis does not substitute project-specific economic evaluations, which are expected to use more in-depth analyses for more detailed economic benefit estimations.
- Quantify the outcomes identified in the logical framework on a year-by-year basis, from the beginning of the concession, up to 2021.

3.5 The proposed methodology presented in Table 3.1 quantifies the expenditure and socioeconomic impacts produced by the investment in road infrastructure across the portfolio.

Table 3.1: Methodology summary for the economic impact estimation of Cintra assets

Type of impact	Definition	Overarching methodology	Impacts/benefits quantified
Expenditure Impacts	**Direct, secondary and induced impacts of project expenditures** on the economy of the region of influence.	Apply **Input | Output models** to convert each asset capital and operational expenditures into economic outputs through economic multipliers.	• Economic output • Earnings • FTE Jobs
Socioeconomic Impacts	**Improved welfare in the region as a result of the project,** compared to a scenario without the investment.	Use a hypothetical no-project scenario and compare the incremental impacts between this and the project situation for each asset.	**User benefits** • Travel time and reliability • Vehicle operating costs **External benefits** • Safety • Emissions **Wider Economic Benefits** • Agglomeration (productivity)

Source: Steer

3.10 The expenditure impacts are estimated for all assets in the portfolio (including costs to deliver and operate the assets across the entire asset lifecycle to date) whereas the socioeconomic impacts are only quantified for projects that have at least one full year of operations of the entire Project (e.g. D4R7 and Western Roads Upgrade are excluded since they have been fully opened to traffic after January 1st 2021). This is summarized in Table 3.2.

Table 3.2: Impact quantification by asset

	Asset	Location	Expenditure Impacts	Socioeconomic Impacts
1	NTE	TX, U.S.	●	●
2	LBJ	TX, U.S.	●	●
3	NTE 35W	TX, U.S.	●	●
4	I-77	NC, U.S.	●	●
5	407 ETR	Canada	●	●
6	407 Ext 1	Canada	●	●
7	407 Ext 2	Canada	●	●
8	Autema	Spain	●	●
9	Ausol	Spain	●	●
10	A66	Spain	●	●
11	Algarve	Portugal	●	●
12	Azores	Portugal	●	●
13	M4-M6	Ireland	●	●
14	M3	Ireland	●	●
15	M8	UK	●	●
16	Toowoomba	Australia	●	●
17	I-66	VA, U.S.	●	
18	Silvertown	UK	●	
19	D4-R7	Slovakia	●	
20	Western Roads Upgrade	Australia	●	
21	Ruta del Cacao	Colombia	●	

Source: Steer

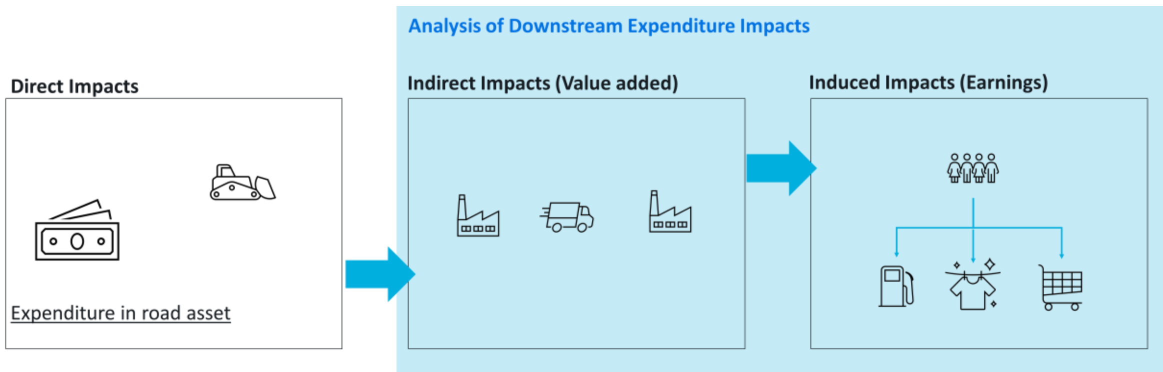
3.11 The sections below describe the impacts and their assumptions for each impact type.

Expenditure impacts

3.12 Expenditure impacts describe the direct, secondary, and induced impacts of spending on the economy. These are estimated with input-output (IO) models which use region-specific multipliers for precise expenditure impacts.

3.13 The IO analysis is a very standard approach to quantify expenditure impacts. These models provide an estimate of the total economic output generated by the initial investment (**Direct Impacts**) that includes the production of intermediate goods and services in the supply chain (**Indirect Impacts**), as well as economic activity generated from the spending of workers (**Induced Impacts)** represented in Figure 3.2. The impacts also include an estimate of the jobs supported by the economic activity above, and the earnings that accrue to workers in the project region.

Figure 3.2: Economic impacts effect process



3.14 The methodology to estimate expenditure impacts relies on a dual approach that uses region-specific expenditure multipliers for assets located in the United States, and country-level multipliers for the rest of the countries. This approach supports the use of specific data when available and allows for comparability among the impacts estimated in the portfolio.

3.15 Table 3.3 summarizes the multiplier sources for each state and country in the asset portfolio: these are RIMS II model for the United States and OECD input-output tables for the other countries. Both are widely accepted tools in the industry and their application follows economic impact analysis approaches aligned with government agencies – for example the **Federal Highway Administration in the USA**.

Table 3.3: Input-Output models used by country

No.	Input-Output model, multiplier source	Sate/Country
1	U.S Bureau of Economic Analysis. RIMS II (2019)	• United States – North Carolina – Texas – Virginia
2	OECD, Input-Output tables (1995 – 2018)	• Australia • Canada • Colombia • Ireland • Portugal • Slovakia • Spain • United Kingdom

3.16 The estimation of expenditure impacts required the following inputs on an annual basis, which have been provided by Cintra:

- Construction investment
- Capital expenditures
- Operating expenses

Estimation process

3.17 The general approach for estimation of the expenditure impacts is outlined below:

- Steer created baseline input output models (industry transaction matrices and multipliers) in an Excel spreadsheet tool for each country based on 2015 data.
- All dollar amounts were converted to standard U.S. dollars based on exchange rates from the OECD, and adjusted for inflation based on OECD deflators.
- All of the inputs (construction investment, capital expenditures, operating expenses) were converted to 2015 US dollars to align with the model.
  - To reflect the varying timeline for specific projects, Steer adjusted the baseline estimates to reflect changes from the 2015 baseline in the IO multipliers and other factors.
- The developed tool estimates the year-by-year economic output, earnings and jobs impacts for each asset.

3.18 US projects were analyzed with state-level RIMS II multipliers from the U.S. Bureau of Economic Analysis. The RIMS II multipliers are only available for the U.S., so they cannot be used for non-U.S. jurisdictions. The 2019 data for RIMS II provides multipliers based on the 2012 Benchmark Input-Output Table for the U.S, which was used for this analysis.

3.19 The final impacts for the U.S. and Non-U.S. projects were all adjusted and standardized to 2021 US Dollars.

Socioeconomic Impacts

3.20 The socioeconomic impacts estimations measure the value to society of the existence of a transportation project. It is standard international practice to classify transportation socioeconomic impacts as follows:

- **User benefits**
  - Travel time and reliability savings
  - Vehicle operating costs
- **External benefits**
  - Road safety
  - Emissions
- **Wider Economic Benefits**
  - Agglomeration (productivity)

3.21 These methods are comparable to those used by government agencies and departments in the jurisdictions included in this study, such as: **Metrolinx** (Greater Toronto and Hamilton Area), **Federal Highway Administration** (USA), and **Transport** (UK).

User benefits

3.22 User benefits measure the economic value of improved welfare experienced by users of a transportation investment – in this case, the new or improved road. Transportation investments may provide travel time and reliability savings to users who switch to using the investment instead of alternative routes or modes.

3.23 Now that the assets are in operation, estimating these benefits requires establishing a counterfactual (no-project) scenario, that reflects what would have happened if the project would have not been built. The user benefits are then the differential between the counterfactual and the project situation.

3.24 The Cintra road assets portfolio covers projects with different operating characteristics that require different assumptions for their counterfactual scenarios. Table 3.3 summarizes the classification of the road projects in the portfolio and their no-project situation assumptions.

Table 3.4: Summary of counterfactual assumptions per type of road asset

No.	Type of asset	Counterfactual assumption	Assets
1	**Managed lanes** Projects that implement tolled lanes (ML) along the same corridor. The counterfactual alternative is the toll-free project corridor without the MLs.	Estimated 2021 no-project travel times scenario in the project corridor by: simulating speed and flow in a situation where traffic evolves over time, and capacity is not increased. This approach uses traffic data from before the asset was delivered to simulate what could have happened in the corridor if the project (ML) was not built. The simulations explore how traffic could have changed without the asset and the corresponding impacts on travel time and reliability on the corridor.	• NTE • LBJ • NTE35W • I-77
2	**Urban toll road** Projects that span within the metropolitan area and have a non-tolled alternative in a separate route.	Estimated 2021 no-project travel times scenario in the non-tolled alternative by: simulating speed and flow in a situation where traffic evolves over time and capacity is not increased. This approach simulates what could have happened in the alternative if the project (Urban toll road) would have not existed. The assumption uses available traffic and speed data and simulate how traffic and travel times would have evolved on the alternative road if the Urban toll road was never built.	• 407 ETR • 407 Ext 1 • 407 Ext 2
3	**Interurban toll road** Projects that span across regions and have a non-tolled alternative in a separate route.	Employs 2021 observed travel times in the alternative route and compares them against the current project travel times. This approach addresses the challenge of historic traffic data availability in the alternative route, across assets and countries.	• Autema • Ausol • A66 • Algarve • M4-M6 • M3 • M8 • Toowoomba
4	**Network of roads** Projects that consist of a network of new or improved road infrastructure. The alternative is a non-tolled option for each section of the new or improved road network.	Employs 2021 distance-weighted observed travel times in the alternative routes and compares them against the current project travel times. This approach addresses the challenge of multiple road section changes, and provides consistency in the evaluation period for the assets.	• Azores

Source: Steer

3.25 User benefits for toll road investments primarily cover three effects:

- **Travel time –** The average time to use the whole asset, compared with the counterfactual situation, by time period.
- **Trip reliability –** The difference between the maximum and the average travel time to use the whole asset, compared with the counterfactual situation, by time period.
- **Vehicle operating costs –** Observed fuel and maintenance costs to use the project, compared to a no-project situation, based on distance travelled in miles.[3]

3.26 These benefits are quantified for the following users:

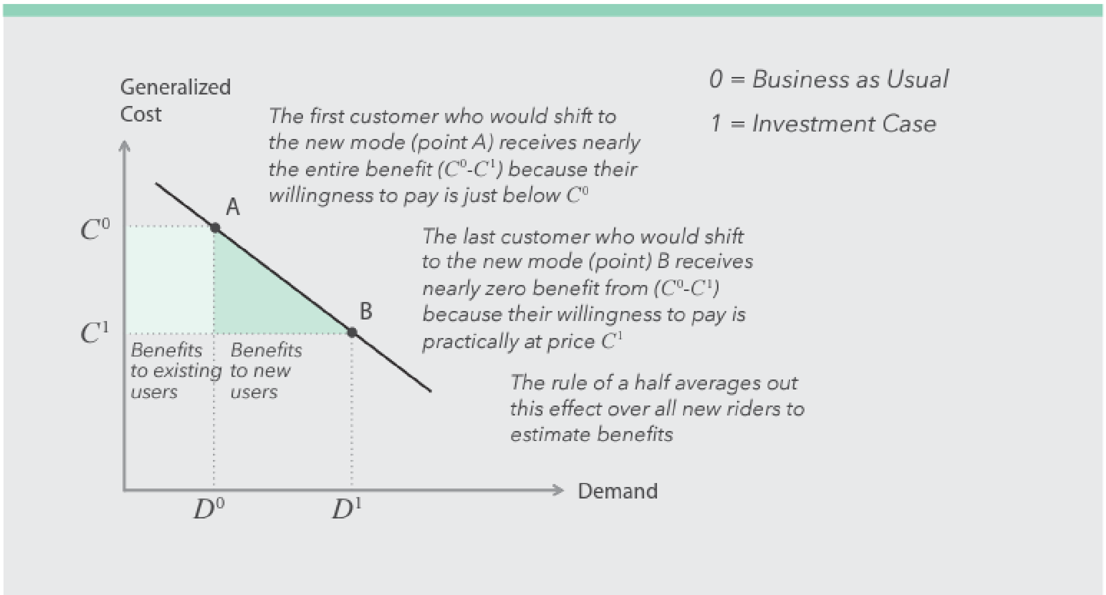
- **Users of the asset –** traffic data from each asset was used alongside historic data to estimate benefits.
- **Users of the best alternative to the asset** – project data for highways and managed lanes was used to estimate potential benefits to travelers who do not use the asset but make use of alternative roadways. Travelers on these 'alternative roadways' may benefit from reduced congestion when other travelers (users of the asset) switch to the roadway asset.

3.27 Table 3.5 summarizes the approach used to collect the data to estimate user benefits.

3.28 Demand included in this analysis is split into pre-existing demand and new demand. Pre-existing demand includes all trips that were made on the highway network before the asset was delivered. Some pre-existing trips switch to the asset and realize a direct benefit, while other pre-existing trips that do not use the asset could benefit from reduced congestion.

3.29 New demand, or induced demand represents trips that were not made before the asset was delivered. New demand includes two types of trips: those who used to use a non-auto mode and net new trips that were not made previously. Investment in infrastructure can generate net new trips that would not have otherwise occurred by reducing travel time or improving traveler experience. The estimation of induced demand used an elasticity-based methodology that estimates the effect of changes in travel time to additional VMT in a road asset, based in Barr (2000). The socio-economic impacts generated from this induced demand are applied the rule of a half approach as per standard Benefit-Cost Analysis practice (benefits are multiplied by 0.5). The rule of a half is used when a traveler changes mode or when new trips are generated. The analytic framework used in this study compares existing travel times to a 'counter factual' where the investment does not exist to estimate the benefit to existing travelers (those who made trips by highway in the counter factual). However, it is unknown at what 'change in generalized cost of travel' a traveler will change behavior. The rule of a half applies a simplifying assumption that the cost-demand curve for transportation is linear. Under this assumption (a linear cost-demand curve) the rule asserts that the benefit each new traveler receives is half that of an existing traveler. This allows benefits to be estimated for new users without having complete information on their willingness to pay and the cost at which they will change mode. This is visualized below:

[3] Other operating costs such as tolls have been excluded from analysis. In standard Benefit-Cost Analysis these payments are considered a transfer (an example is the Australian Transport Assessment and Planning Guidance).



Source: **Metrolinx Business Case Manual Volume 2: Guidance**

Table 3.5: User benefits estimation approach

Step	Description	Data Source
1. Identify alternative segments	For each asset, the analysis identified the most appropriate alternative. The evaluation focused on a complete trip across the project and its substitute alternative.	Geospatial process using Google maps
2. Collect 2021 travel times, reliability times and distances for the project and its alternative	Using coordinates from Step 1 and a web-based mapping platform, Step 2 consisted in collecting travel times, reliability times and distances for the project and the alternative. Travel time and reliability data were collected for peak and off-peak periods.	Travel times: Bing and Waze maps. Reliability times: Google maps
3. Process travel and reliability times to build the counterfactual scenarios	Data collected in Step 2 were processed and combined with historical speed and traffic data provided by Cintra to build the counterfactual scenarios described in Table 3.4	Cintra, with analysis from Steer
4. Estimate travel, reliability time savings and vehicle operating cost savings	Built an Excel tool to calculate the yearly benefits in travel time and reliability. The tool also calculated vehicle operating costs changes, by estimating differences in total Vehicle Miles Travelled (VMT) between the project and counterfactual scenario. The benefits were estimated by asset, on a yearly basis, for peak and off-peak periods.	Steer analysis
5. Monetize benefits using country specific values of time and automobile operating costs parameters.	The Excel tool monetized the travel time, reliability savings[4] using a country-level value of time for light and heavy vehicles.[5] The tool also calculated the change in vehicle operating costs as a function of change in VMT. Monetized benefits (in 2021 USD) were estimated by the following combination of categories: • Asset • Year-by-year, for every full year of operation of the asset • Peak and off-peak periods • Light and heavy vehicles • Pre-existing and new demand	Country-level socioeconomic analysis guidance documentation

[4] Reliability savings are valued based on **Metrolinx Business Case Manual Volume 2: Guidance**.

[5] The analysis also accounted for the proportion of commuting and business travellers to estimate the average value of times for light vehicles.

External Benefits

3.30 The external benefit category consists of the quantification of changes in road safety and emissions associated with the asset.

Road Safety

3.31 Collisions resulting in death or injury are typically measured on a per VMT basis. Standard Benefit-Cost Analysis practice uses a change in VMT to estimate the overall impact in these externalities that results from changes in preferred route distance, and the project accident rates, given an improved infrastructure design.

3.32 The road safety impacts are calculated using the following approach:

- Estimation of the project and no-project situation VMTs by the following categories:
  - Asset
  - Year-by-year
  - Peak and off-peak periods
- Calculation of accident rates for a no-project situation multiplying VMTs by a no-project accident rate.
  - The no-project accident rates were drawn from state (US) and country-level accident rates per VMT statistics available at the moment of the analysis.
- Calculation of accident rates for a project situation, multiplying VMTs by a project accident rate.
  - The project accident rates were drawn from observed historical VMT accident rates on each Cintra asset.
- Estimation of the differential of number of accidents between the no-project and project situation, using an Excel tool.
- Quantification of the road safety benefits in 2021 USD, using country-level parameters.

Emissions

3.33 The estimation of emissions externalities follows the U.S. Department of Transportation 2021 Benefit-Cost Analysis Guidance direction to consider greenhouse gases (GHGs), specifically carbon dioxide (CO_2), and local air pollutants generated by road traffic (nitrogen oxides (NO_x) and fine particle matter ($PM_{2.5}$). The analysis excluded sulfur dioxide emissions (SO_2) as there was no fully wide available statistical information on SO_2 emissions per type of vehicle at a country/regional level.

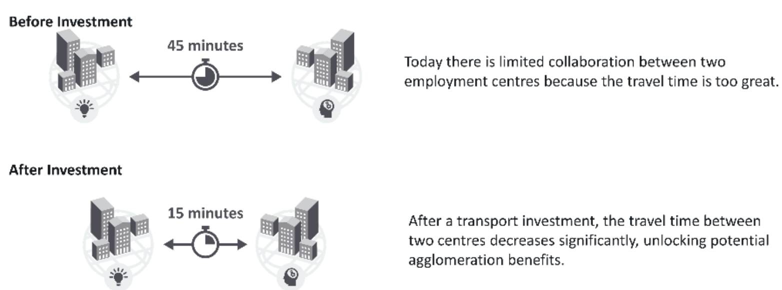
3.34 The emission impacts are calculated using the following approach:

- Estimation of the project and no-project situation VMTs, by the following categories:
  - Asset
  - Year-by-year
  - Light and heavy vehicles
  - Peak and off-peak periods
- Calculation of emission rates per type of pollutant for a no-project and project situation multiplying VMTs by a per mile emission rate for each pollutant.
  - The polluting rates were drawn from available sources for the U.S. (MOVES 3), Canada (ICCT), Europe (ACEA) and Australia (Australia National Transport Commission).
- Estimation of the differential emissions per pollutant between the no-project and project situation, using an Excel tool.
- Quantification of the differential emissions in 2021 USD, using a monetary value per pollutant, based in the U.S. DOT guidance.

Wider Economic Benefits

Agglomeration (productivity)

3.35 In addition to user and external benefits, transportation projects can realize wider economic benefits when they enable faster and more seamless travel between centers of economic activity. Specifically, agglomeration benefits refer to the gains in productivity from clustering by firms/education centers/other economic agents that is possible when travel times reduce between these centers.



3.36 Approaches to estimate agglomeration based on empirical evidence have been set out in academic literature, including Graham et al. (2010). The typical assessment approach (applied by UK Department for Transportation, and other agencies) involves:

- Estimating the existing 'effective density' of a given activity center – effective density is estimated as the number of jobs accessible from that center divided by the travel time to access them, a decay parameter is used to reflect that productivity gains are not linear (job centers that are twice as far apart are likely to have less than half the productivity gains)
- Estimating a change in travel time from a proposed investment and its impact on effective density
- Using the change in effective density to estimate an impact on productivity based on an agglomeration elasticity (which related effective density to GDP per worker)

3.37 These benefits are accrued when transportation projects increase the spatial concentration or effective density of regions. These benefits will vary by the industry composition within the localities of the transportation project.

3.38 The range of data required to estimate agglomeration for the portfolio are not available. An exploratory methodology was developed instead based on available information and peer examples. The methodology estimated agglomeration benefits by applying a 'percent uplift' to the monetized user benefits of each asset on a year-by-year basis. The agglomeration value employed is an average value between the highest and lowest agglomeration parameters from Graham (2008), or 16.5%

Table 3.6: Appraisal of agglomeration benefits from transport investments

Mode	Scheme	Agglomeration
Road	Leeds to Bradford Improved Highway	21%
Road	Leeds Urban Area Improved Highway	22%
Road	Leeds to Sheffield Improved Highway	19%
Road	M6 shoulder	12%

Source: Graham (2008)

4 Results

The sections below present the overall results of the expenditure and socioeconomic analyses on the Cintra portfolio. A more detailed asset-by-asset summary is presented in Appendix A.

Expenditure impacts

4.1 The total expenditure impact results are presented in Table 4.1 and Figure 4.1. Up to 31st December 2021, Cintra's road portfolio investment has produced a total economic output of $60.8 billion 2021 USD. This investment has also led to $14.8 billion 2021 USD of workers earnings and have meant 334 thousand Full Time Equivalent (FTE) job-years.

4.2 Table 4.2 presents these results as an average annual expenditure impacts per asset, considering the years since the concession started as base.

Table 4.1: Summary of total expenditure impacts of Cintra assets

	Asset	Location	Years since beginning of Concession	Cumulative outputs		
				Economic output (Million 2021 USD)	Earnings (Million 2021 USD)	FTE Jobs (job-years)
1	NTE	TX, U.S	12	$ 5,700	$ 1,600	29,400
2	LBJ	TX, U.S	12	$ 6,800	$ 1,900	35,100
3	NTE 35W	TX, U.S	8	$ 4,700	$ 1,400	24,600
4	I-77	NC, U.S	7	$ 1,600	$ 500	9,500
5	407 ETR	Canada	22	$ 12,100	$ 3,100	66,600
6	407 Ext 1	Canada	9	$ 1,800	$ 500	9,600
7	407 Ext 2	Canada	6	$ 1,400	$ 400	7,000
8	Autema	Spain	35	$ 1,800	$ 400	16,800
9	Ausol	Spain	25	$ 3,100	$ 700	27,300
10	A66	Spain	9	$ 500	$ 100	3,200
11	Algarve	Portugal	21	$ 1,100	$ 200	10,400
12	Azores	Portugal	15	$ 1,400	$ 200	13,100
13	M4-M6	Ireland	18	$ 1,600	$ 400	4,100
14	M3	Ireland	14	$ 2,200	$ 600	5,900
15	M8	UK	7	$ 700	$ 200	2,700
16	Toowoomba	Australia	6	$ 3,100	$ 400	6,600
17	I-66	VA, U.S.	5	$ 3,800	$ 1,000	20,400
18	Silvertown	UK	2	$ 1,200	$ 300	4,500
19	D4-R7	Slovakia	5	$ 2,600	$ 400	18,900
20	Western Roads Upgrade	Australia	3	$ 1,900	$ 300	4,200
21	Ruta del Cacao	Colombia	6	$ 1,700	$ 200	14,600
	Average		**12**	**$ 2,900**	**$ 700**	**15,900**
	Total			**$ 60,800**	**$ 14,800**	**334,500**

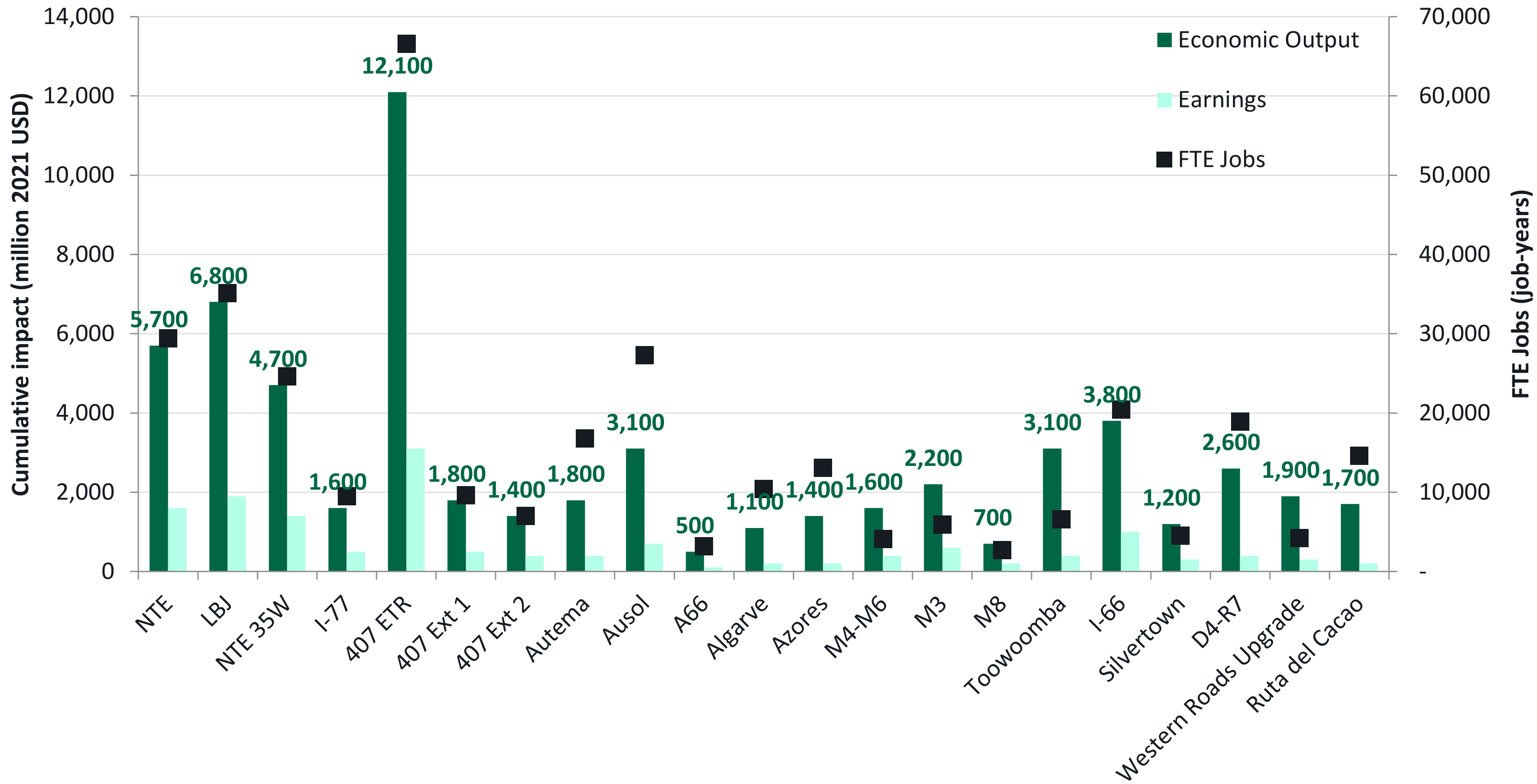
Source: Steer analysis

Table 4.2: Summary of average yearly expenditure impacts of Cintra assets

	Asset	Location	Years since beginning of Concession	Average annual outputs		
				Economic output (Million 2021 USD)	Earnings (Million 2021 USD)	FTE Jobs (job-years)
1	NTE	TX, U.S.	12	$ 480	$ 130	2,450
2	LBJ	TX, U.S.	12	$ 570	$ 160	2,930
3	NTE 35W	TX, U.S.	8	$ 590	$ 180	3,080
4	I-77	NC, U.S.	7	$ 230	$ 70	1,360
5	407 ETR	Canada	22	$ 550	$ 140	3,030
6	407 Ext 1	Canada	9	$ 200	$ 60	1,070
7	407 Ext 2	Canada	6	$ 230	$ 70	1,170
8	Autema	Spain	35	$ 50	$ 10	480
9	Ausol	Spain	25	$ 120	$ 30	1,090
10	A66	Spain	9	$ 60	$ 10	360
11	Algarve	Portugal	21	$ 50	$ 10	500
12	Azores	Portugal	15	$ 90	$ 10	870
13	M4-M6	Ireland	18	$ 90	$ 20	230
14	M3	Ireland	14	$ 160	$ 40	420
15	M8	UK	7	$ 100	$ 30	390
16	Toowoomba	Australia	6	$ 520	$ 70	1,100
17	I-66	VA, U.S.	5	$ 760	$ 200	4,080
18	Silvertown	UK	2	$ 600	$ 150	2,250
19	D4-R7	Slovakia	5	$ 520	$ 80	3,780
20	Western Roads Upgrade	Australia	3	$ 630	$ 100	1,400
21	Ruta del Cacao	Colombia	6	$ 280	$ 30	2,430
	Average		**12**	**$ 250**	**$ 60**	**1,350**
	Total			**$ 6,880**	**$ 1,600**	**34,470**

Source: Steer analysis

Figure 4.1: Summary of total expenditure impacts of Cintra assets



Source: Steer analysis

Socioeconomic impacts

4.2 Table 4.3 and Figure 4.2 summarize the total socioeconomic impacts estimated by category and type of asset.[6] As a total, the assets that are currently in operation have generated a total of $29.1 billion 2021 USD of benefits, where almost 80% are user benefits.

4.3 It is worth mention that COVID-19 has a negative effect on the socio-economic impacts that have been estimated for 2020 and 2021. The reason is that the lower is traffic using an asset, the lower is the population which benefits from it and therefore the socio-economic impact of the asset in the region.

4.4 Moreover, Table 4.4 presents the socioeconomic analysis results as a yearly average per asset.

[6] At the time of completion of this report, there was no safety information available for UK and Australia assets, these results are currently presented as N/A and will be updated in future iterations of this evaluation.

Table 4.3: Summary of total socioeconomic impacts of Cintra assets

	Asset	Location	Years since first year of full operation of the Concession	Cumulative impacts			
				User benefits (Million 2021 USD)	External benefits (Million 2021 USD)	Wider Econ. Impacts (Million 2021 USD)	Total (Million 2021 USD)
1	NTE	TX, U.S	7	$ 2,270	$ 370	$ 390	$ 3,030
2	LBJ	TX, U.S	6	$ 1,090	$ 120	$ 180	$ 1,390
3	NTE 35W	TX, U.S	4	$ 740	$ 100	$ 130	$ 970
4	I-77	NC, U.S	2	$ 170	$ 1	$ 30	$ 201
5	407 ETR	Canada	20	$ 13,730	$ 590	$ 2,330	$ 16,650
6	407 Ext 1	Canada	5	$ 200	$ 10	$ 30	$ 240
7	407 Ext 2	Canada	2	$ 16	$ 2	$ 3	$ 21
8	Autema	Spain	33	$ 1,520	$ 160	$ 260	$ 1,940
9	Ausol	Spain	22	$ 580	$ 120	$ 100	$ 800
10	A66	Spain	7	$ 90	$ 10	$ 20	$ 120
11	Algarve	Portugal	19	$ 550	$ 10	$ 90	$ 650
12	Azores	Portugal	11	$ 520	$ 100	$ 90	$ 710
13	M4-M6	Ireland	16	$ 580	$ 170	$ 100	$ 850
14	M3	Ireland	12	$ 990	$ 130	$ 170	$ 1,290
15	M8	UK	3	$ 190	N/A	$ 30	$ 220
16	Toowoomba	Australia	2	$ 13	N/A	$ 2	$ 15
	Average		**11**	**$ 1,450**	**$ 140**	**$ 250**	**$ 1,840**
	Total			**$ 23,250**	**$ 1,890**	**$ 3,950**	**$ 29,090**

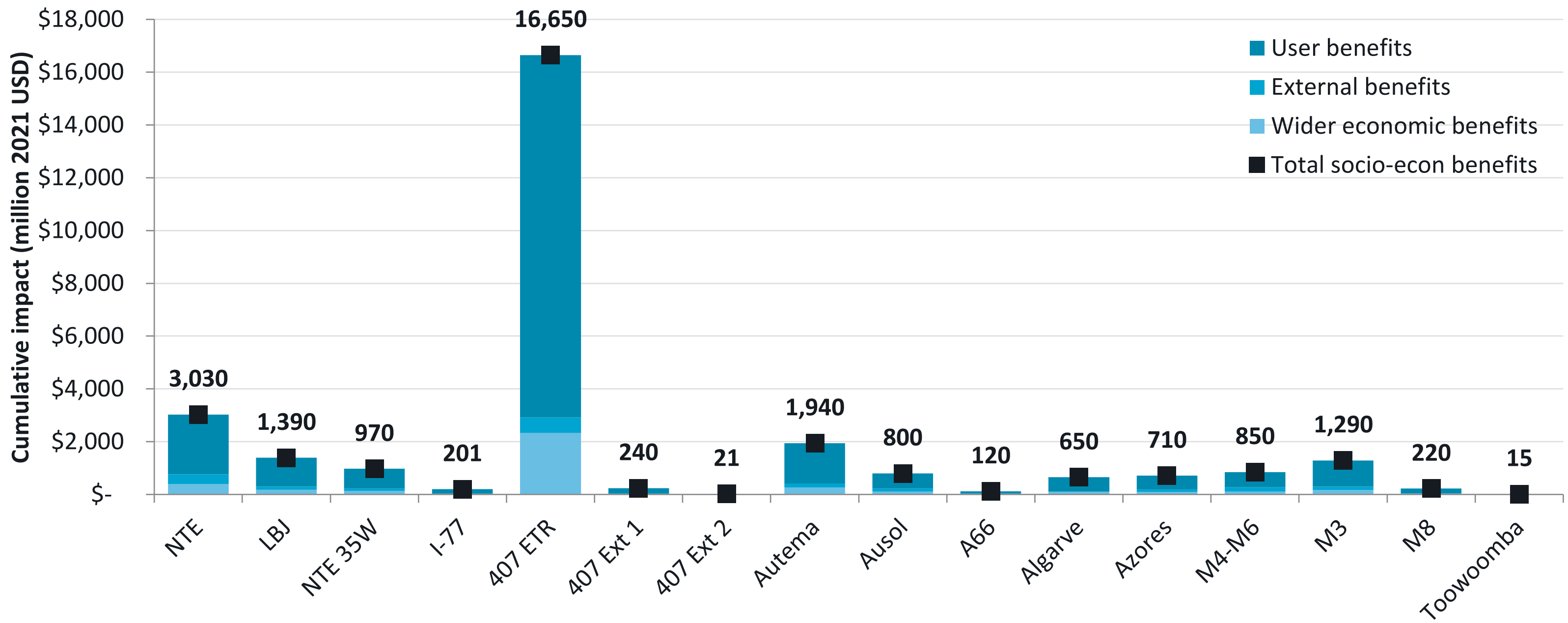
Source: Steer analysis

Table 4.4: Summary of average yearly socioeconomic impacts of Cintra assets

	Asset	Location	Years since first year of full operation of the Concession	Average annual impacts			
				User benefits (Million 2021 USD)	External benefits (Million 2021 USD)	Wider Econ. Impacts (Million 2021 USD)	Total (Million 2021 USD)
1	NTE	TX, U.S	7	$ 324	$ 53	$ 56	$ 433
2	LBJ	TX, U.S	6	$ 182	$ 20	$ 30	$ 232
3	NTE 35W	TX, U.S	4	$ 185	$ 25	$ 33	$ 243
4	I-77	NC, U.S	2	$ 85	$ 0.5	$ 15	$ 101
5	407 ETR	Canada	20	$ 687	$ 30	$ 117	$ 834
6	407 Ext 1	Canada	5	$ 40	$ 2	$ 6	$ 48
7	407 Ext 2	Canada	2	$ 8	$ 1	$ 1	$ 10
8	Autema	Spain	33	$ 46	$ 5	$ 8	$ 59
9	Ausol	Spain	22	$ 26	$ 5	$ 5	$ 36
10	A66	Spain	7	$ 13	$ 1	$ 3	$ 17
11	Algarve	Portugal	19	$ 29	$ 1	$ 5	$ 35
12	Azores	Portugal	11	$ 47	$ 9	$ 8	$ 64
13	M4-M6	Ireland	16	$ 36	$ 11	$ 6	$ 53
14	M3	Ireland	12	$ 83	$ 11	$ 14	$ 108
15	M8	UK	3	$ 63		$ 10	$ 73
16	Toowoomba	Australia	2	$ 7		$ 1	$ 8
	Average		**11**	**$ 140**	**$ 10**	**$ 20**	**$ 170**
	Total			**$ 1,860**	**$ 170**	**$ 320**	**$ 2,350**

Source: Steer analysis

Figure 4.2: Summary of total socioeconomic impacts of Cintra assets



Source: Steer analysis

5 Conclusions

Overall Impact

5.1 This study conducted an analysis of 21 assets spanning across nine countries, with a total investment value of $23.5 billion USD. Each asset was analyzed with a consistent methodology to determine its socio-economic benefits and impacts (changes to regional and traveler welfare due to investment in the transportation network) and expenditure impacts (outcomes associated with spending on infrastructure).

5.2 Across the 21-asset portfolio, the following overall impacts were observed:

- **Socio-Economic –** $29.1 billion in value realized to date, including nearly $23.2 billion of direct user benefits (from faster and more reliable travel times), $1.9 billion in external benefits (changes in collisions and emissions), and $4 billion in wider economic benefits (reflecting improved productivity due to decreased travel times).
- **Expenditure –** $60.8 billion in GDP (spread across all countries included in the study) and $14.8 billion in direct salary earnings. Combined, over the lifecycle of all 21 assets to date, there have been an estimated 334,500 Full Time Equivalent (FTE) job-years of labor generated to construct and maintain/operate the assets.

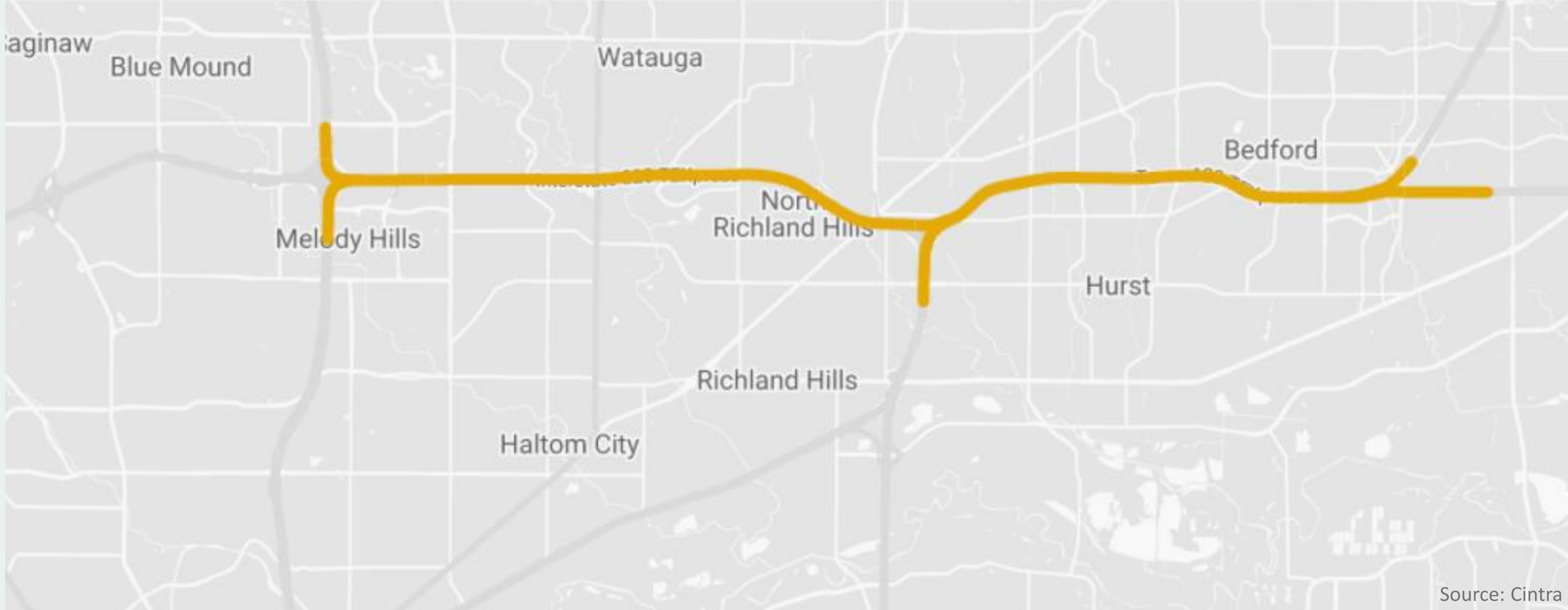
Appendices

A Detailed Asset Results

North Tarrant Express (NTE)

The NTE is dedicated to improving mobility along a series of highways vital to the Fort Worth region, using dynamic pricing to always ensure traffic flow.

The NTE corridor had historically been one of the most congested in the United States. Drivers have been choosing the new managed lanes since the facility opened in 2014 because it offers faster, safer and more reliable travel.



Source: Cintra

Dallas - Fort Worth, Texas, US

13 miles

Concession: 2009 – 2061
Opening year: 2014

$3 billion USD
Socioeconomic impacts to date

$2.3 billion
User benefits
Travel time, reliability, vehicle operating costs

$370 million
External benefits
Safety, emissions

$390 million
Wider economic benefits
Agglomeration (productivity)

$5.7 billion USD
Expenditure impacts to date

$5.7 billion
Economic output

$1.6 billion
Earnings

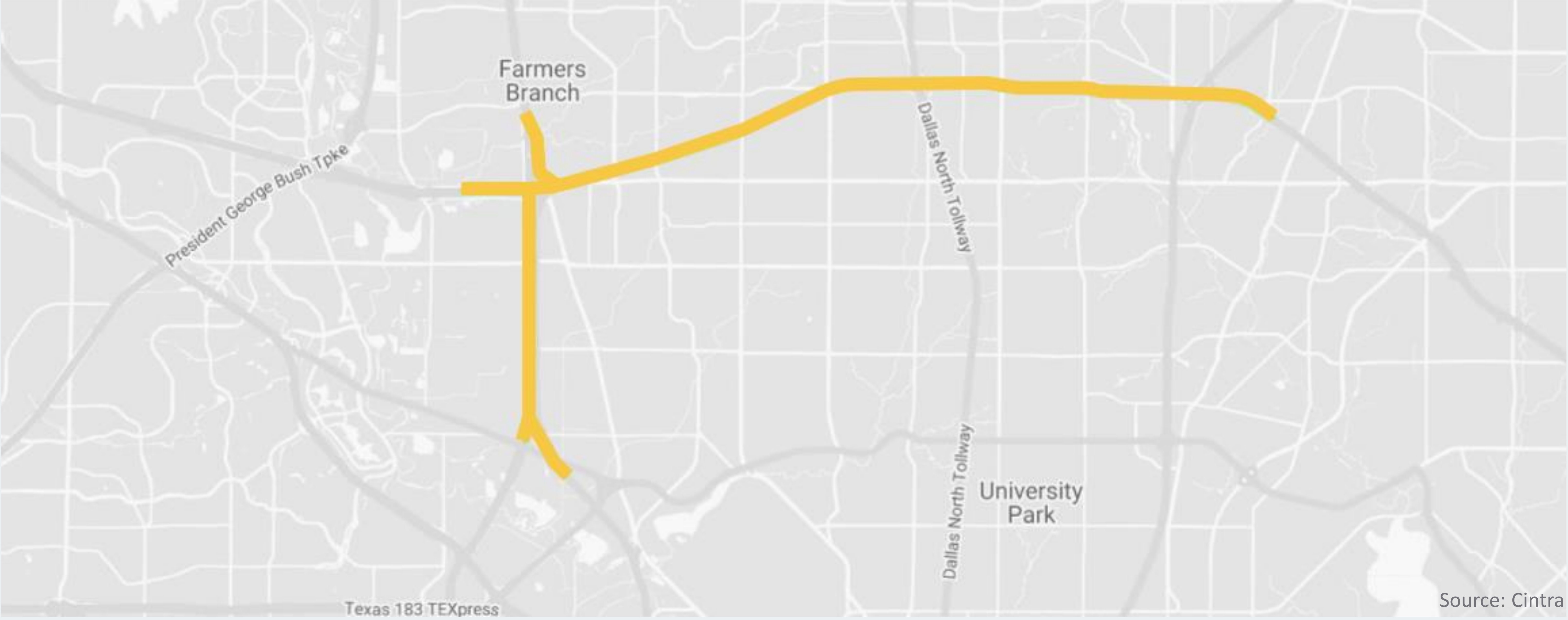
29,400
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

LBJ

The new LBJ Express increases the driving capacity of the old LBJ. Up to six new toll lanes have been added in the I-635 section, and four on the I-35 section. This extension aims to cover the needs arising through population growth over the next 30 years.

This new infrastructure allows drivers to opt for more reliable driving times on the toll sections.



Dallas – Fort Worth, Texas, US

13 miles

Concession: 2009 - 2061
Opening year: 2015

$1.4 billion USD
Socioeconomic benefits to date

$1.1 billion
User benefits
Travel time, reliability, vehicle operating costs

$120 million
External benefits
Safety and emissions

$180 million
Wider economic benefits
Agglomeration (productivity)

$6.8 billion USD
Expenditure impacts to date

$6.8 billion
Economic output

$1.9 billion
Earnings

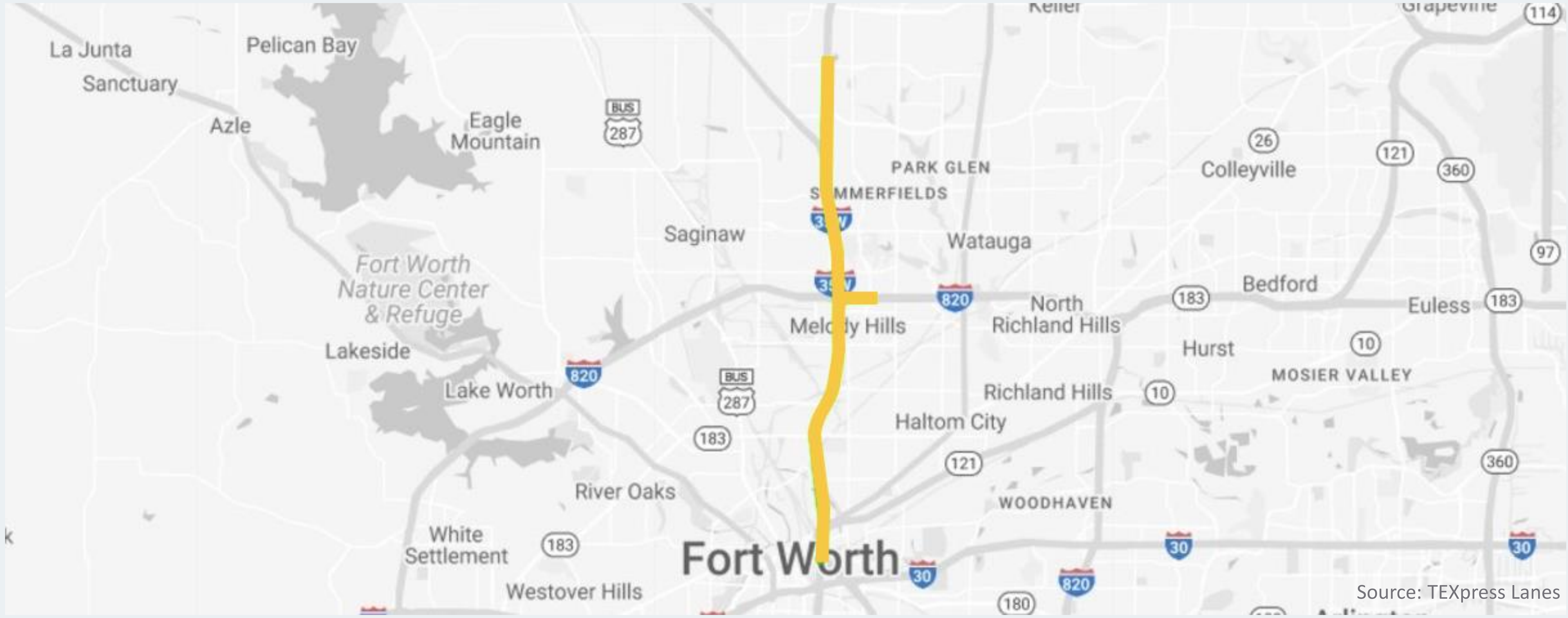
35,100
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

NTE 35W

The project spans along I-35 W, crossing through the heart of Fort Worth. The project was built in two segments.

It has improved mobility by adding additional road capacity, along with dynamic toll lanes to keep traffic moving. It also provides north Tarrant County residents with direct access to employment opportunities in Fort Worth's central shopping district.



Source: TEXpress Lanes

Dallas - Fort Worth, Texas, US

17 miles

Concession: 2013 – 2061
Opening year: 2018

$970 million USD
Socioeconomic benefits to date

$740 million
User benefits
Travel time, reliability, vehicle operating costs

$100 million
External benefits
Safety and emissions

$130 million
Wider economic benefits
Agglomeration (productivity)

$4.7 billion USD
Expenditure impacts to date

4.7 billion
Economic output

1.4 billion
Earnings

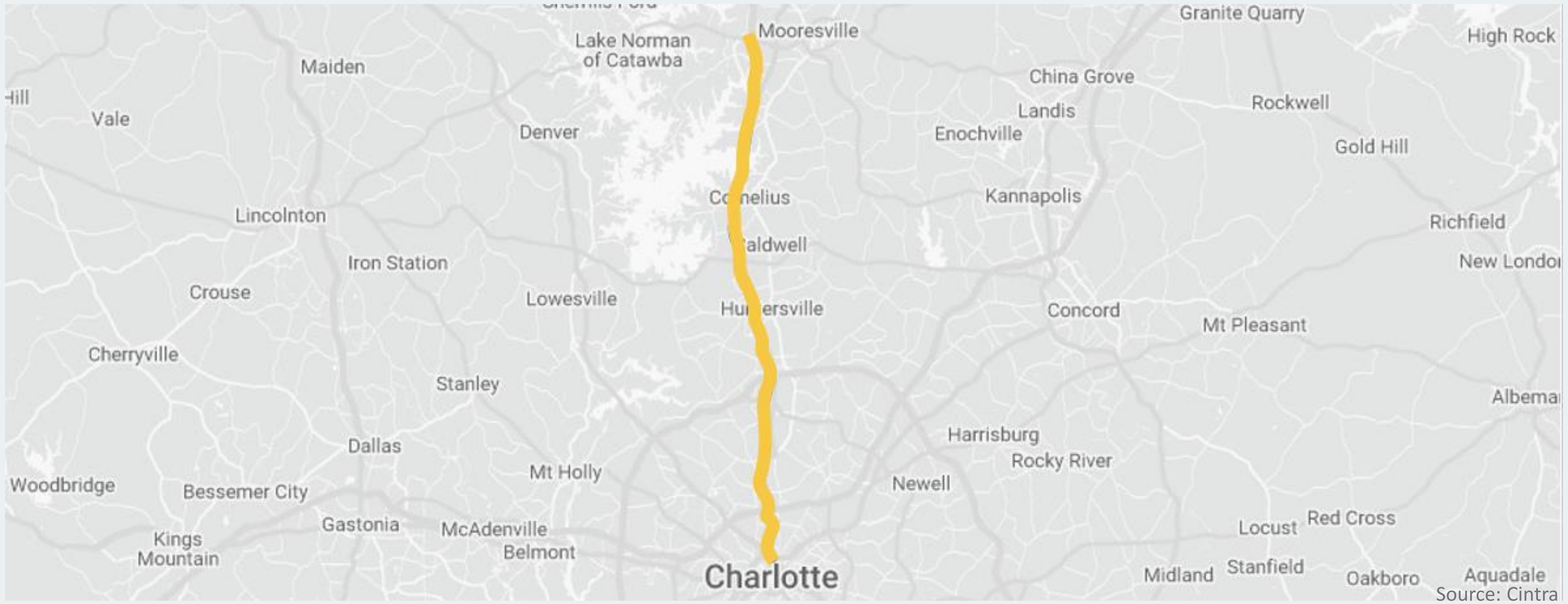
24,600
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

I-77

The new I-77 Express Lanes provide drivers with a choice of how to travel on I-77 between Uptown Charlotte and Exit 36 in Mooresville.

The express lanes are dedicated travel lanes that will run adjacent to the existing general-purpose lanes.



Source: Cintra

Charlotte, North Carolina, US

26 miles

Concession: 2014 - 2069
Opening year: 2019

$201 million USD
Socioeconomic benefits to date*

$170 million
User benefits
Travel time, reliability, vehicle operating costs

$1 million
External benefits
Safety and emissions

$30 million
Wider economic benefits
Agglomeration (productivity)

$1.6 billion USD
Expenditure impacts to date*

$1.6 billion
Economic output

$500 million
Earnings

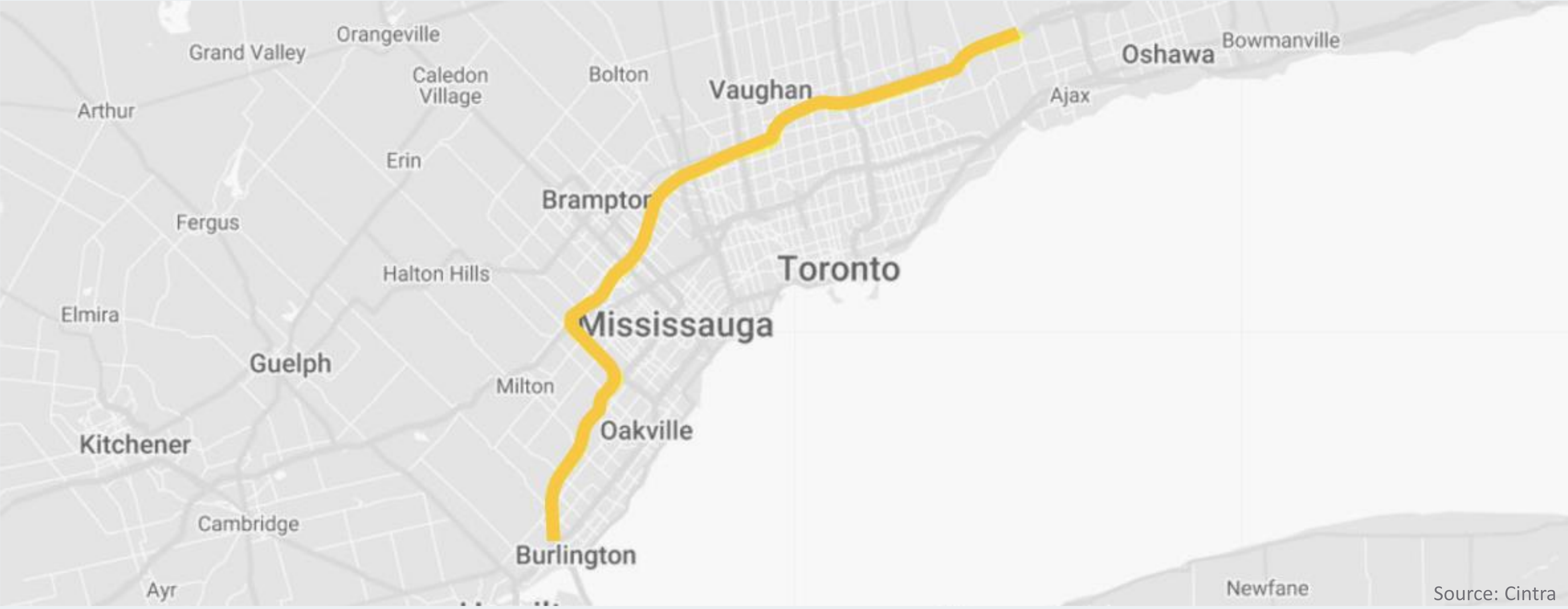
9,500
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

407 ETR

Highway 407 ETR was the world's first all-electronic, open-access toll highway. It's located in Toronto, Ontario, Canada, runs parallel to the 401, one of North America's most congested highways, and helps drivers reach their destinations quickly and safely.

The "free flow" tolling system detects the vehicle, calculates the route and manages billing automatically. Drivers never have to stop at a toll booth.



Ontario, Canada

67 miles

Concession: 1999 - 2098
Opening year: 1999

$16.7 billion USD
($20.6 billion CAD)
Socioeconomic benefits to date

$13.7 billion USD
($17.0 billion CAD)
User benefits
Travel time, reliability, vehicle operating costs

$590 million USD
($730 million CAD)
External benefits
Safety and emissions

$2.3 billion USD
($2.9 billion CAD)
Wider economic benefits
Agglomeration (productivity)

$12.1 billion USD
($15.0 billion CAD)
Expenditure impacts to date

$12.1 billion USD
($15.0 billion CAD)
Economic output

$3.1 billion USD
($3.8 billion CAD)
Earnings

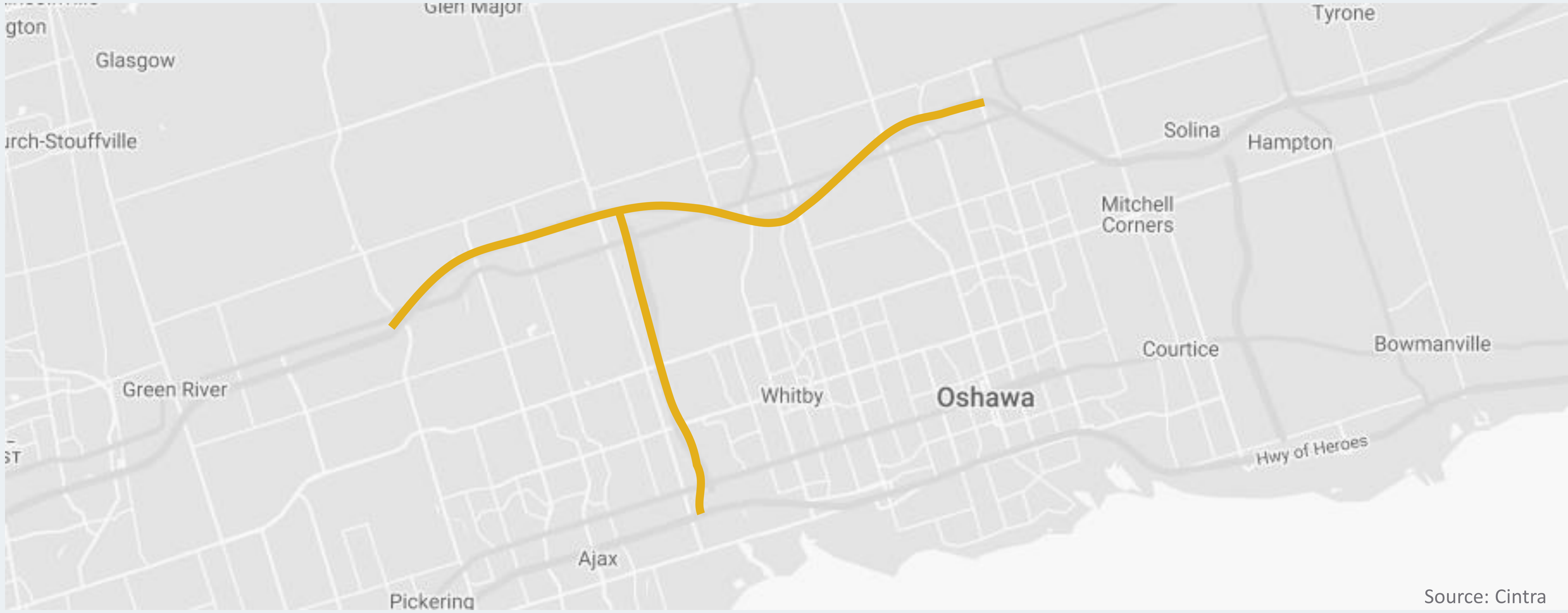
66,600
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

407 Ext 1

The first phase of the 407 East Extension is comprised of an extension of approximately 14 miles toward the east from Brock Road in Pickering to Harmony Road in Oshawa, in the province of Ontario.

It also includes the connection with Highway 401 road through a new 6.2 miles link located east of Lake Ridge road.



Source: Cintra

Ontario, Canada

20 miles

Concession: 2012 - 2045
Opening year: 2016

$240 million USD
($300 million CAD)
Socioeconomic benefits to date

$200 million USD
($250 million CAD)
User benefits
Travel time, reliability, vehicle operating costs

$10 million USD
($12 million CAD)
External benefits
Safety and emissions

$30 million USD
($37 million CAD)
Wider economic benefits
Agglomeration (productivity)

$1.8 billion USD
($2.2 billion CAD)
Expenditure impacts to date

$1.8 billion USD
($2.2 billion CAD)
Economic output

$500 million USD
($620 million CAD)
Earnings

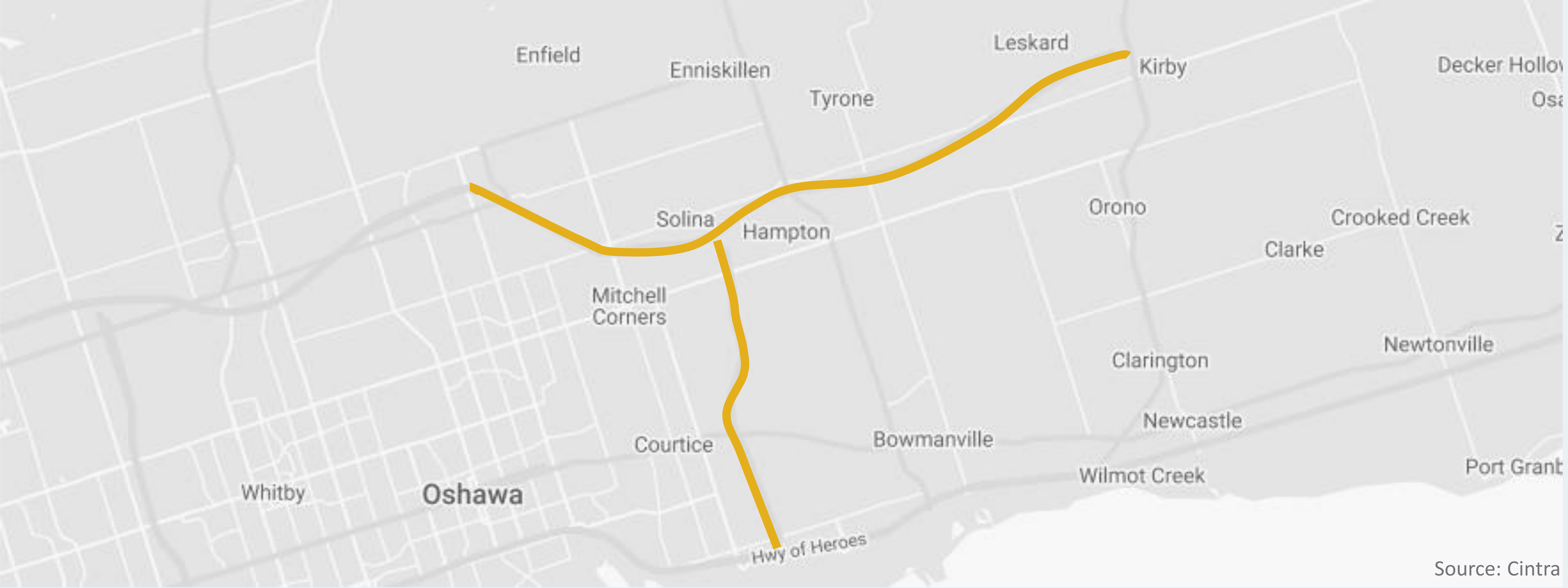
9,600
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

407 Ext 2

The Highway 407 East Phase 2 project now extends Highway 407 from Oshawa to the Highway 35/115 in Clarington, ON.

It connects Highways 401 and 407 East with Highway 418. The Highway 407 East Phase 2 is a toll road and owned by the Ontario government that it is opened today.



Source: Cintra

Ontario, Canada

20 miles

Concession: 2015 - 2047
Opening year: 2019

$21 million USD
($26 million CAD)
Socioeconomic benefits to date

$16 million USD
($20 million CAD)
User benefits
Travel time, reliability, vehicle operating costs

$2 million USD
($2.5 million CAD)
External benefits
Safety and emissions

$3 million USD
($3.7 million CAD)
Wider economic benefits
Agglomeration (productivity)

$1.4 billion USD
($1.7 billion CAD)
Expenditure impacts to date

$1.4 billion USD
($1.7 billion CAD)
Economic output

$400 million USD
($490 million CAD)
Earnings

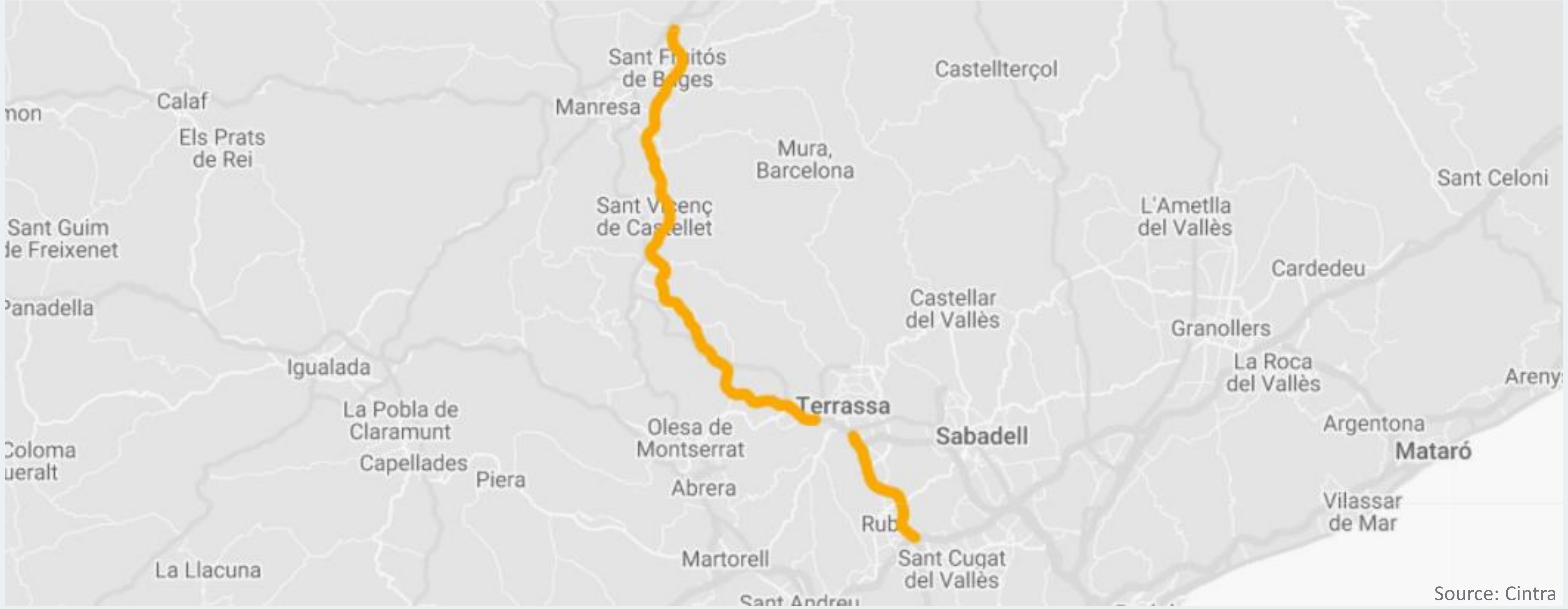
7,000
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

Autema

The highway connects San Cugat del Vallés with Manresa, via Terrassa and Sant Vicenç de Castellet.

It interconnects various high-capacity sectors such as the AP 7 motorway, the trans-Catalonia highway C-25, the C-58 and the C-55 roadways.



Source: Cintra

Barcelona, Spain

30 miles

Concession: 1986 - 2036
Opening year: 1989

$1.9 billion USD
Socioeconomic benefits to date

$1.5 million
User benefits
Travel time, reliability, vehicle operating costs

$160 million
External benefits
Safety and emissions

$260 million
Wider economic benefits
Agglomeration (productivity)

$1.8 billion USD
Expenditure impacts to date

$1.8 billion
Economic output

$400 million
Earnings

16,800
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

Ausol

The highway consists of two segments: Málaga-Estepona and Estepona-Guadiaro. Both are a part of the European route E15. They unite the flow of short- and medium-range traffic from Málaga and its airport, as well as long-range traffic originating and ending in the Bay of Gibraltar.

The highway notably contributes to the flow of traffic along the Costa del Sol.

Source: Cintra

Málaga, Spain

65 miles

Concession: 1996 - 2046
Opening year: 1999

$800 million USD
Socioeconomic benefits to date

$580 million
User benefits
Travel time, reliability, vehicle operating costs

$120 million
External benefits
Safety and emissions

$100 million
Wider economic benefits
Agglomeration (productivity)

$3.1 billion USD
Expenditure impacts to date

3.1 billion
Economic output

700 million
Earnings

27,300
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

A66

The Benavente to Zamora project was the last segment constructed of the A66 corridor, the westernmost North to South high-capacity corridor in Spain that connects the cities of Gijón and Seville.

This segment provides safer driving conditions and shorter journey times compare to its alternative.

Zamora, Spain

30 miles

Concession: 2012 - 2042
Opening year: 2015

$120 million
USD
Socioeconomic benefits to date

$90 million
User benefits
Travel time, reliability, vehicle operating costs

$10 million
External benefits
Safety and emissions

$20 million
Wider economic benefits
Agglomeration (productivity)

$500 million
USD
Expenditure impacts to date

$500 million
Economic output

$100 million
Earnings

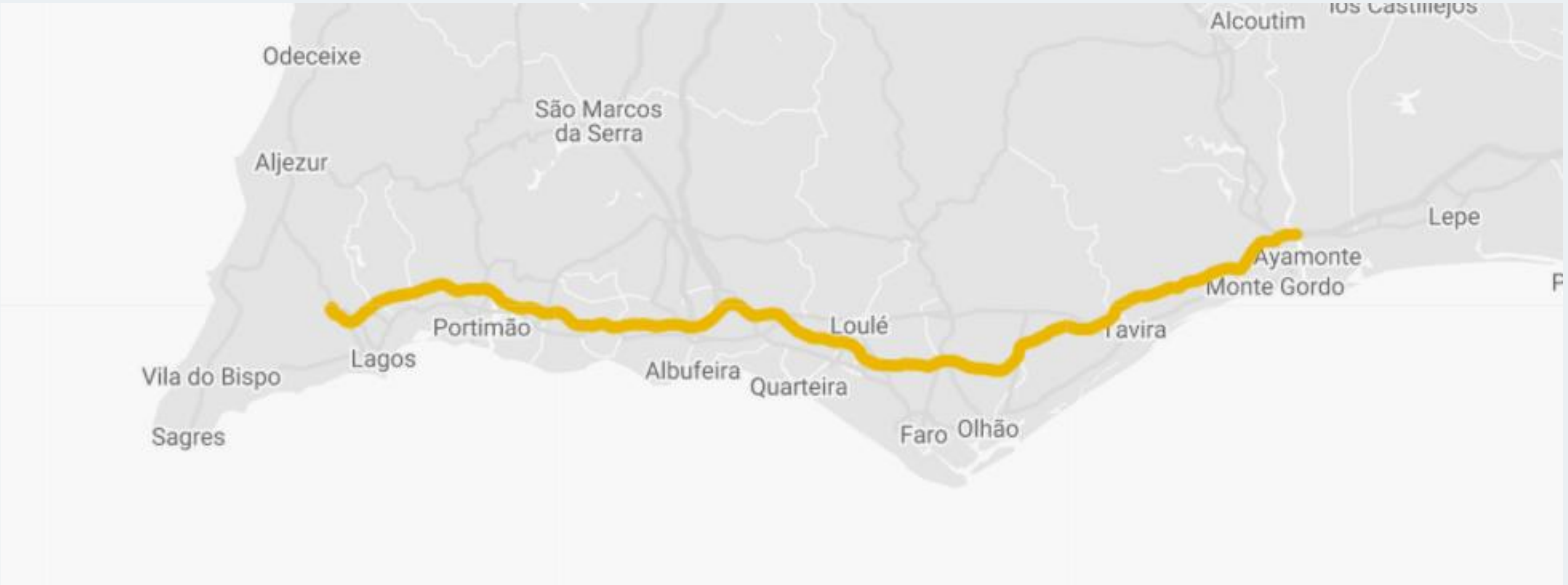
3,200
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

Algarve

The Via do Infante highway is 81 miles in length, of which 57 miles are refurbished and 24 miles of new construction. The highway connects Lagos with Vila Real de Santo Antonio, via the Portuguese towns of Portimâo, Loulé, Faro and Tavira.

Refurbishing and extending the highway facilitated the transport of goods, services and people.



Source: Cintra

Algarve, Portugal

81 miles

Concession: 2000 - 2030
Opening year: 2003

$650 million USD
Socioeconomic benefits to date

$550 million
User benefits
Travel time, reliability, vehicle operating costs

$10 million
External benefits
Safety and emissions

$90 million
Wider economic benefits
Agglomeration (productivity)

1.1 billion USD
Expenditure impacts to date

1.1 billion
Economic output

200 million
Earnings

10,400
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

Azores

The Euroscut Açores highway is 58 miles long and designed on three main axes.

The southern axis connects the airport with the south of the Island. The northern axis improves the connection between the Island's two biggest towns. The north-eastern axis improves the connection among São Miguel's Northestearn towns.

Source: Cintra

Azores, Portugal

58 miles

Concession: 2006 - 2036
Opening year: 2011

$710 million USD
Socioeconomic benefits to date

$520 million
User benefits
Travel time, reliability, vehicle operating costs

$100 million
External benefits
Safety and emissions

$90 million
Wider economic benefits
Agglomeration (productivity)

$1.4 billion USD
Expenditure impacts to date

$1.4 billion
Economic output

$200 million
Earnings

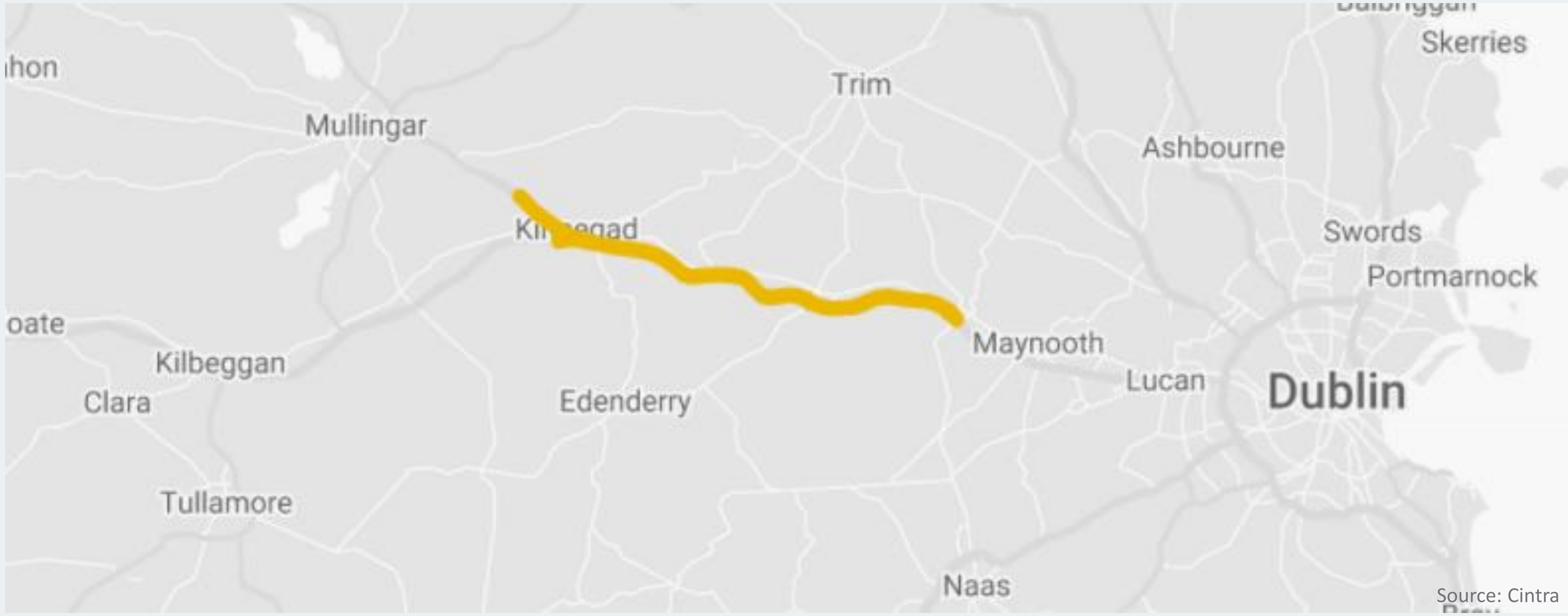
13,100
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

M4-M6

The M4-M6 Kilcock-Kinnegad highway forms part of the east-west corridor, one of the busiest and most economically important roadways in Ireland.

The M4-M6 connects the cities of Dublin and Galway, and absorbs a high volume of the daily traffic between the capital and the surrounding areas.



Source: Cintra

Ireland

23 miles

Concession: 2003 - 2033
Opening year: 2005

$850 million USD
Socioeconomic benefits to date

$580 million
User benefits
Travel time, reliability, vehicle operating costs

$170 million
External benefits
Safety and emissions

$100 million
Wider economic benefits
Agglomeration (productivity)

$1.6 billion USD
Expenditure impacts to date

$1.6 billion
Economic output

$400 million
Earnings

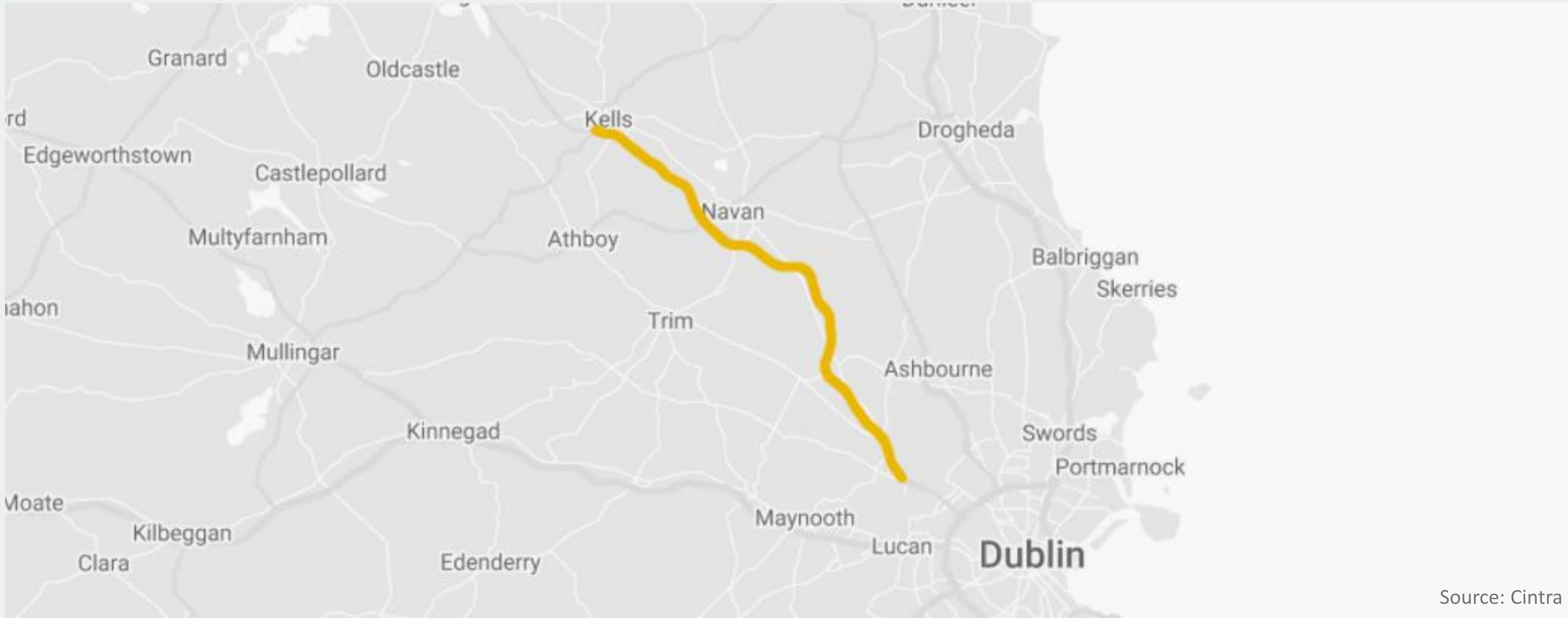
4,100
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

M3

The M3 provides a strategic link between Dublin and the Northwest of Ireland. It runs from Clonee to the North of Kells, northwest of Dublin.

The M3 entails significant travel time savings as well a reduction of accident rate in comparison to the old N3 road.



Source: Cintra

Ireland

31 miles

Concession: 2007 - 2052
Opening year: 2010

$1.3 billion USD
Socioeconomic benefits to date

$1 billion
User benefits
Travel time, reliability, vehicle operating costs

$130 million
External benefits
Safety and emissions

$170 million
Wider economic benefits
Agglomeration (productivity)

$2.2 billion USD
Expenditure impacts to date

$2.2 billion
Economic output

$600 million
Earnings

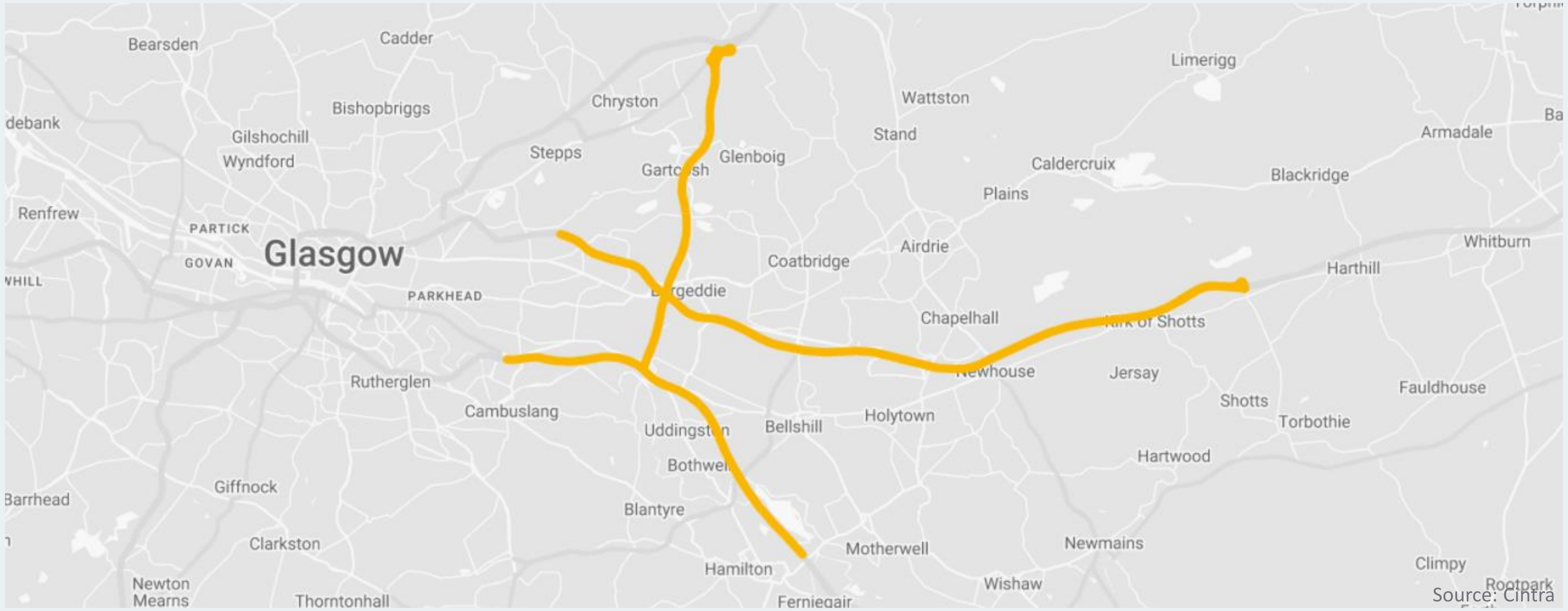
5,900
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

M8

The Baillieston-Newhouse section of the A8 motorway – between Glasgow and Edinburgh – was converted into a multi-lane highway.

The project involved constructing almost 8 miles of new highway and upgrading 10 miles of existing roadways.



Source: Cintra

Scotland, UK

18 miles

Concession: 2014 - 2047
Opening year: 2019

$220 million
USD
Socioeconomic benefits to date

$190 million
User benefits
Travel time, reliability, vehicle operating costs

$30 million
Wider economic benefits
Agglomeration (productivity)

$700 million
USD
Expenditure impacts to date

$700 million
Economic output

$200 million
Earnings

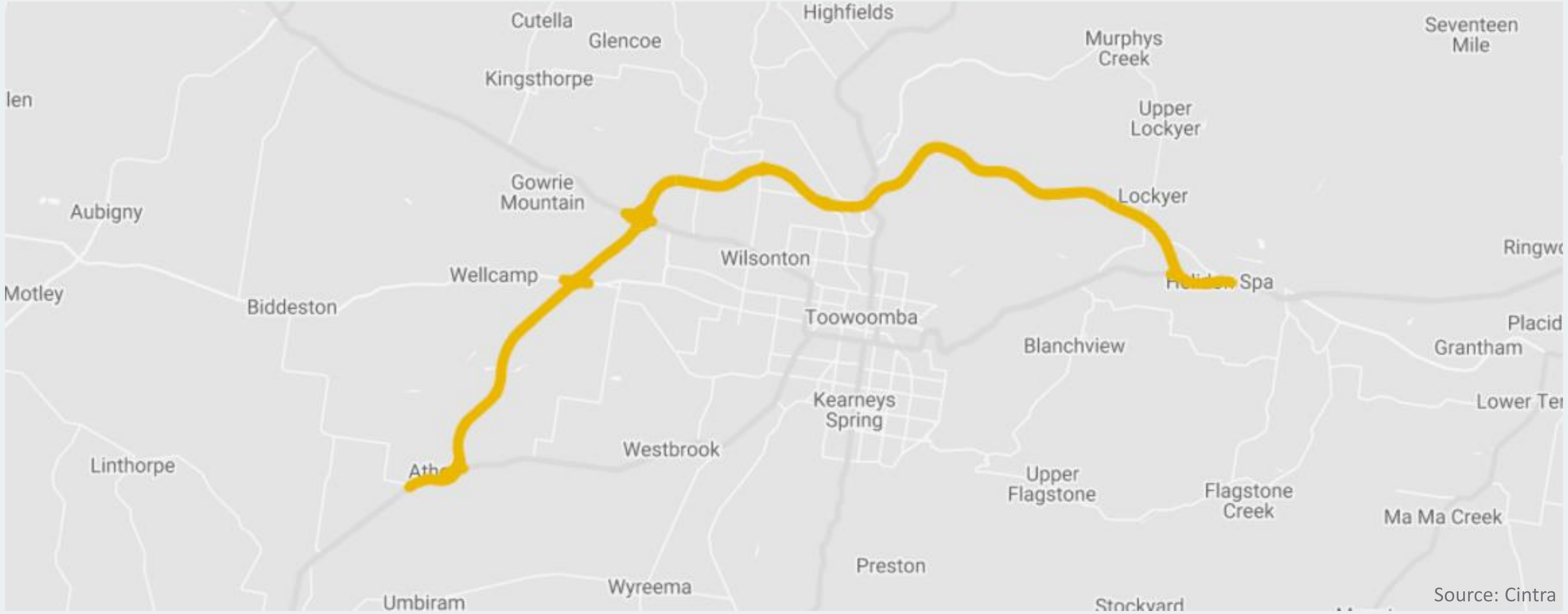
2,700
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

Toowoomba

The project consists of a 25 miles bypass route to the north of Toowoomba, significantly improving driver safety and journey time reliability by removing heavy vehicles from the central business district of Australia's second largest inland city.

The project has delivered long-term benefits to Queensland and provided a safer, faster link southeast to Brisbane.



Toowoomba, Australia

25 miles

Concession: 25 years
Opening year: 2019

$15 million USD
Socioeconomic benefits to date

$13 million
User benefits
Travel time, reliability, vehicle operating costs

$2 million
Wider economic benefits
Agglomeration (productivity)

$3.1 billion USD
Expenditure impacts to date

$3.1 billion
Economic output

$400 million
Earnings

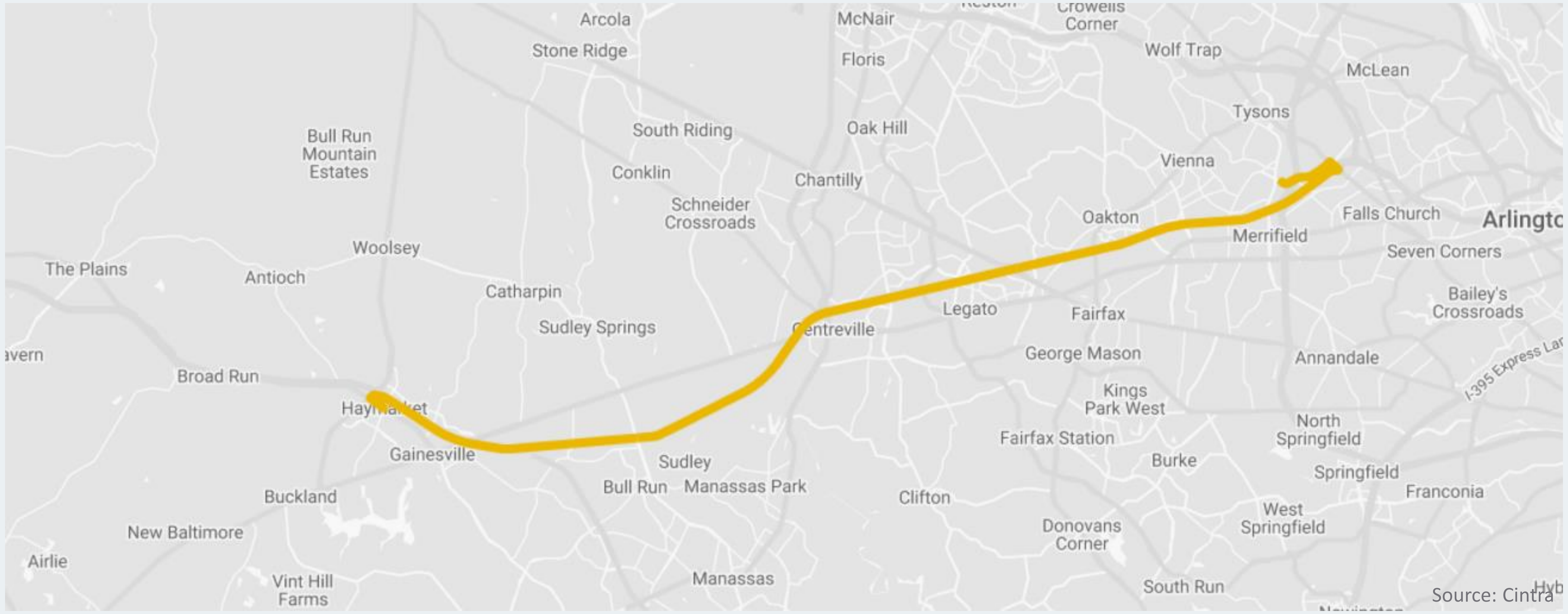
6,600
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

I-66

I-66 will be expanded – from the Capital Beltway (I-495) to Gainesville (US Route 29) – to include three toll-free general purpose lanes and two Express Lanes in each direction with a state-of-the-art open-road electronic toll collection system.

Expanded transit service, park-and-ride lots, and interchange enhancements will further improve travel along I-66.



Source: Cintra

Fairfax, Virginia

22 miles

Concession: 2016 - 2066
Opening year: 2022

$3.8 billion USD
Expenditure impacts to date

$3.8 billion
Economic output

$1 billion
Earnings

20,400
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

Silvertown Tunnel

The design includes a 0.9-mile twin-bore road tunnel under the River Thames as well as 0.4 miles of access ramps.

It will connect south of the River Thames with the access to the existing Blackwall Tunnel and north of the River Thames with the Tidal Basin Roundabout, in Silvertown, easing traffic congestion in this key London location.

Source: Building

London, UK

0.9 miles

Concession: 2019 - 2050
Opening year: 2025

$1.2 billion USD **Expenditure impacts to date**

$1.2 billion **Economic output**

$300 million **Earnings**

4,500 **FTE jobs**

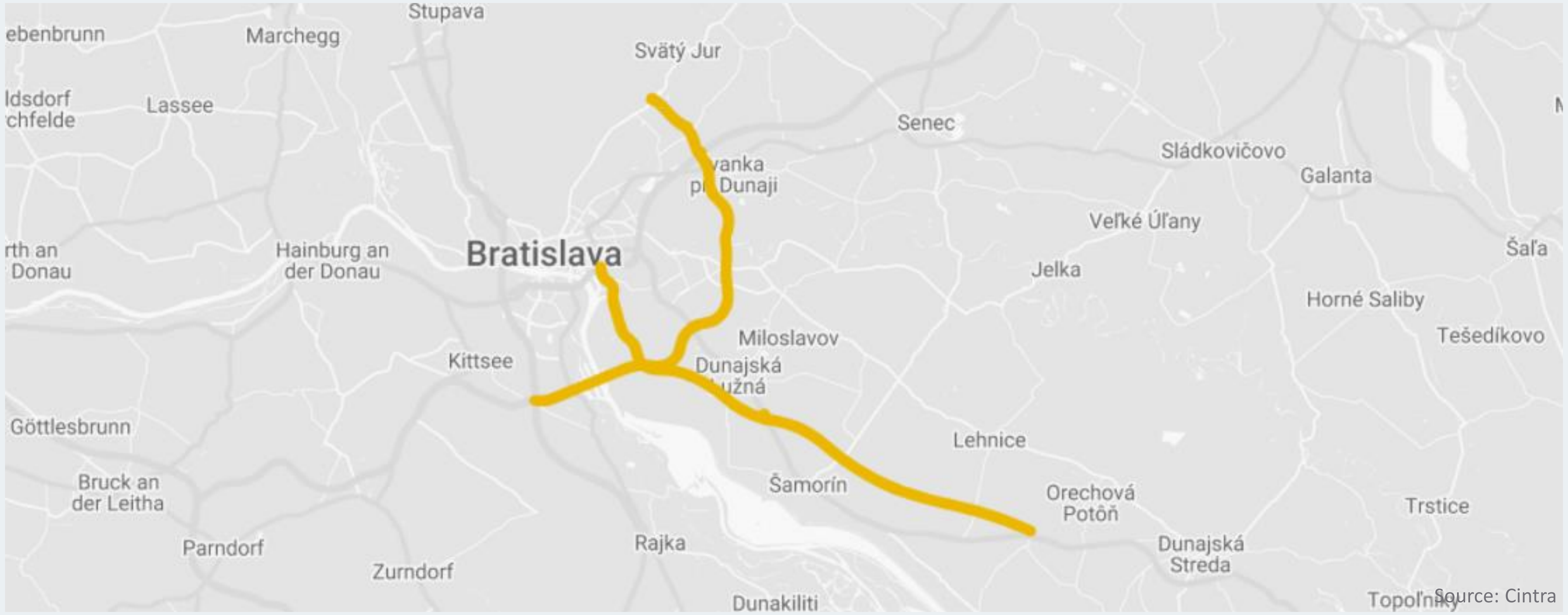
All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

D4-R7

The design includes construction of a new highway, the 17-mile D4 with two lanes each way.

It also includes construction of a new radial highway, the 20-mile R7 which has two to three lanes each way.

The D4-R7 highway will provide relief for the daily urban traffic in the city of Bratislava.



Source: Cintra

Bratislava, Slovakia

37 miles

Concession: 2016 - 2050
Opening year: 2021

$2.6 billion USD
Expenditure impacts to date

$2.6 billion
Economic output

$400 million
Earnings

18,900
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

Western Roads Upgrade

The Western Roads Upgrade project includes 8 high-priority road upgrades, road widenings, intersection upgrades, almost 19 miles of duplicated road and over 149 miles of road rehabilitation and maintenance.

The project will help to support the rapid population growth in Melbourne's west, create jobs for local workers, and provide less congestion on the roads.

Melbourne, Australia

149 miles

Concession: 2018 - 2040
Opening year: 2020

$1.9 billion USD
Expenditure impacts to date

$1.9 billion
Economic output

$300 million
Earnings

4,200
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

Ruta del Cacao

Ruta del Cacao connects the cities of Bcaramanga, capital of the region, and Barrancabermeja, on the banks of the Magdalena River.

This infrastructure shortens the distance between these two cities, overcoming geological problems and becoming a strategic corridor for transportation in the east of the country.

Source: Cintra

Barrancabermeja, Colombia

94 miles

Concession: 2015 - 2040
Opening year: 2021

$1.7 billion USD
Expenditure impacts to date

$1.7 billion
Economic output

$200 million
Earnings

14,600
FTE jobs

All monetary values refer to cumulated benefits until December 31st 2021 and are expressed in 2021 USD. Full Time Equivalent (FTE) jobs are measured in job-years.

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