

Return on Investment in Bike Sharing Schemes

Final report


October 2025

Credits: Donkey Republic

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Confederation of the European Bicycle Industry
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Since 1960 Representing the European Bicycle Industry

For decades, bike-sharing was seen as a niche experiment. Today, it stands as one of Europe's most underrated urban innovations—a tool that does far more than cut carbon emissions. By bridging the first and last mile, extending the reach of public transport, bike sharing makes urban mobility more seamless, efficient, and attractive.

A groundbreaking study by EY, the first of its kind globally, reveals bike-sharing's transformative power: **€305 million in annual benefits**, from cleaner air and healthier citizens to reduced congestion and job creation.

A multidimensional impact

Bike-sharing schemes save 46,000 tons of CO₂e yearly, but their real value lies in broader societal gains. By replacing car trips, they slash air pollution, preventing 968 chronic diseases and saving €40 million in healthcare costs. They also ease traffic, reclaiming 760,000 hours lost to congestion—worth €30 million in productivity gains. And with 6,000 direct jobs supported, they foster local economies while making mobility affordable, cutting transport costs by up to 90% compared to cars.

A smart public investment

For cities, the numbers speak for themselves: every euro invested yields a 10% annual return, generating €1.10 in positive externalities. By 2030, these benefits could triple to €1 billion if bike-sharing is prioritized.

The report projects 224,000 tons of CO₂e avoided, 4,205 fewer chronic diseases, and 12,900 jobs—delivering a 75% annual return on investment for public spending.

How to unlock the potential

The study identifies four levers for growth:

- Demand increase (due to urban concentration and rising awareness)
- Supply increase (due to climate regulation and peripheral expansion)
- Fleet electrification (strong interest from users in these bikes)
- Territorial expansion (to address the gaps in major cities)

These successes rely on 3 conditions for success :

- Strengthen policy support (long-term funding, cycling infrastructure) and foster stakeholders' cooperation
- Enable flexible bike-sharing by adapting supply, improving reliability, and using data-driven decision making
- Promote a strong cycling culture (through integration with public transport and continuous improvements in cycling infrastructure)

A call to act

The message to mayors and governments is clear: bike-sharing is not just sustainable—it's strategic. With the right policies, it can reshape urban mobility, making cities healthier, fairer, and more efficient. The time to act is now. Success is within reach.



"For the first time, we will have robust evidence of the return on investment in bike-sharing. Bike-sharing plays a unique role in making cycling affordable and accessible for everyone while driving the shift to zero-carbon mobility. This study can transform the way cities see cycling as part of their transport and clean air strategies - showing how bike-sharing is not just a service, but a powerful tool for delivering greener, cleaner, and more liveable cities, and healthier, happier Europeans." - Lauha Fried, Policy director at Cycling Industry"

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3 | Why is bike-sharing a game-changer for European urban mobility?

4 | How significant is the impact of bike-sharing today?

5 | How much impact could bike-sharing scheme deliver by 2030?

6 | What does it take to unlock the full potential of bike-sharing?

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Executive summary



Bike-sharing schemes are a crucial component of cities' transport networks and sustainable development, as they strengthen connectivity and accessibility, and foster social inclusion through reduced transport costs



Bike-sharing schemes make cities more livable, ensuring local authorities' spendings deliver real value for citizens



There remains significant potential to be unlocked in bike-sharing by 2030

- Up to 55% of shared bike users combine their trips with other public transport modes
- Public bike-sharing schemes cut individual mobility costs by up to 90%
- Bike-sharing produces more than six times fewer greenhouse gas emissions than private cars, saving the equivalent of 4,300 Europeans' annual emissions each year
- With around 2/3 of trips replacing sedentary travel, bike-sharing schemes promote a more active population, averting ~900 chronic disease cases annually across Europe
- By substituting car journeys, bike-sharing schemes help ease congestion, saving up to 760K hours annually and generating significant productivity gains across Europe
- Bike-sharing schemes support around 6,000 direct local jobs in Europe, most of which deliver high social value
- With €305M in positive impacts annually, each euro of public spending on bike-sharing generates a 10% annual return
- Bike-sharing's positive impacts could triple by 2030, reaching €1billion annually, driven by rising demand and supply, fleet electrification, and territorial expansion
- By 2030, each euro invested in bike-sharing could yield a 75% annual return in positive impact, compared with a 10% return today
- This report identifies nine key conditions for success, essential for unlocking the full potential of bike-sharing

Executive summary

Bike-sharing is an active, eco-friendly mode that delivers health, social, and economic benefits



46k tCO₂e

Greenhouse gases emissions avoided

Yearly emissions from a city of 4,300 residents



200 T NO_x

Air pollutants avoided

51,000 people avoiding car commutes for one year



1,000

Chronic diseases prevented

Daily new cancer diagnoses in France



758,000 h

Productivity gains from reduced congestion

Annual working time of ~1,000 Europeans



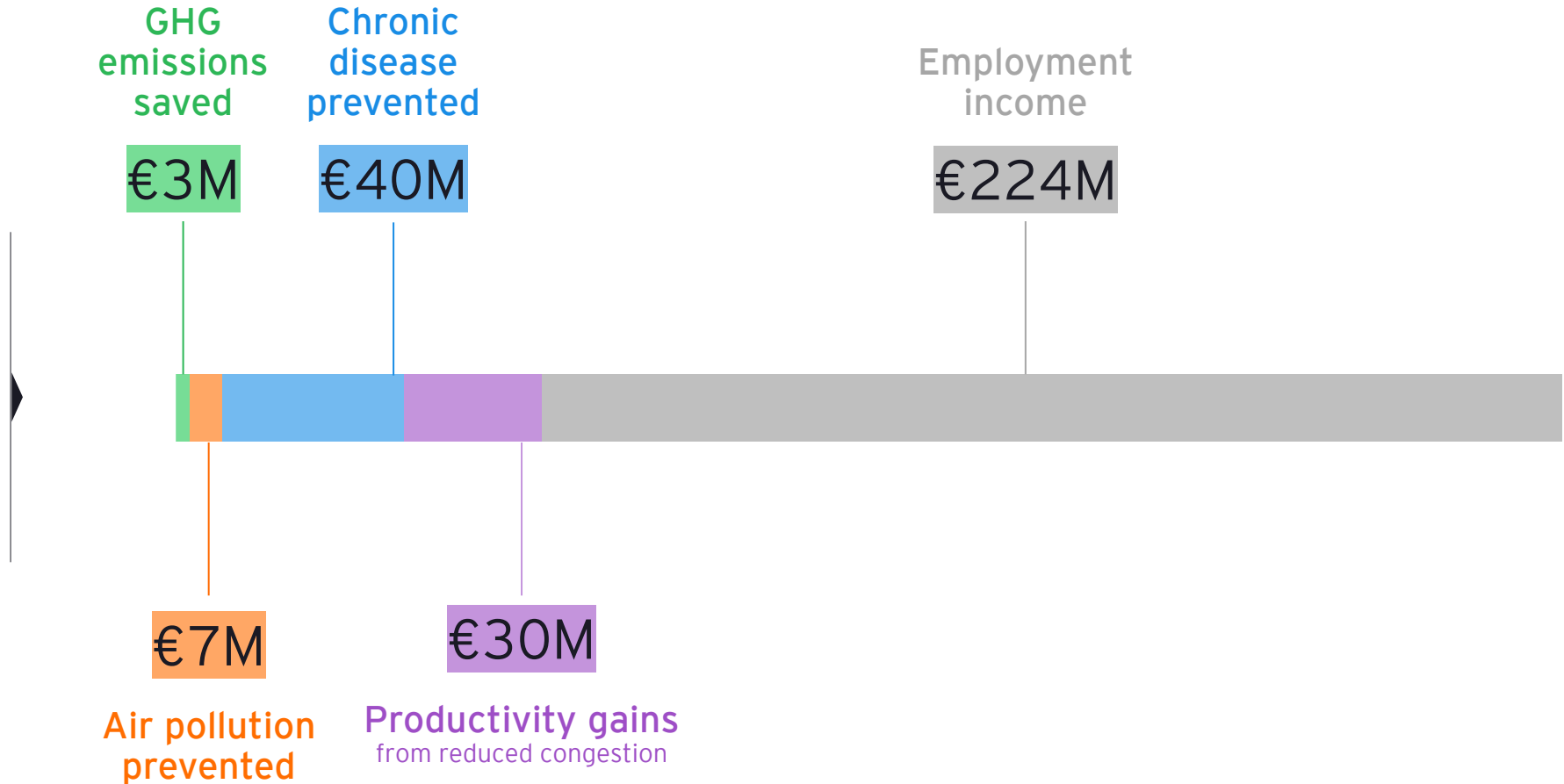
6,000

Full-time equivalent jobs created

Executive summary

€305M

in positive externalities generated each year by bike-sharing usage in Europe

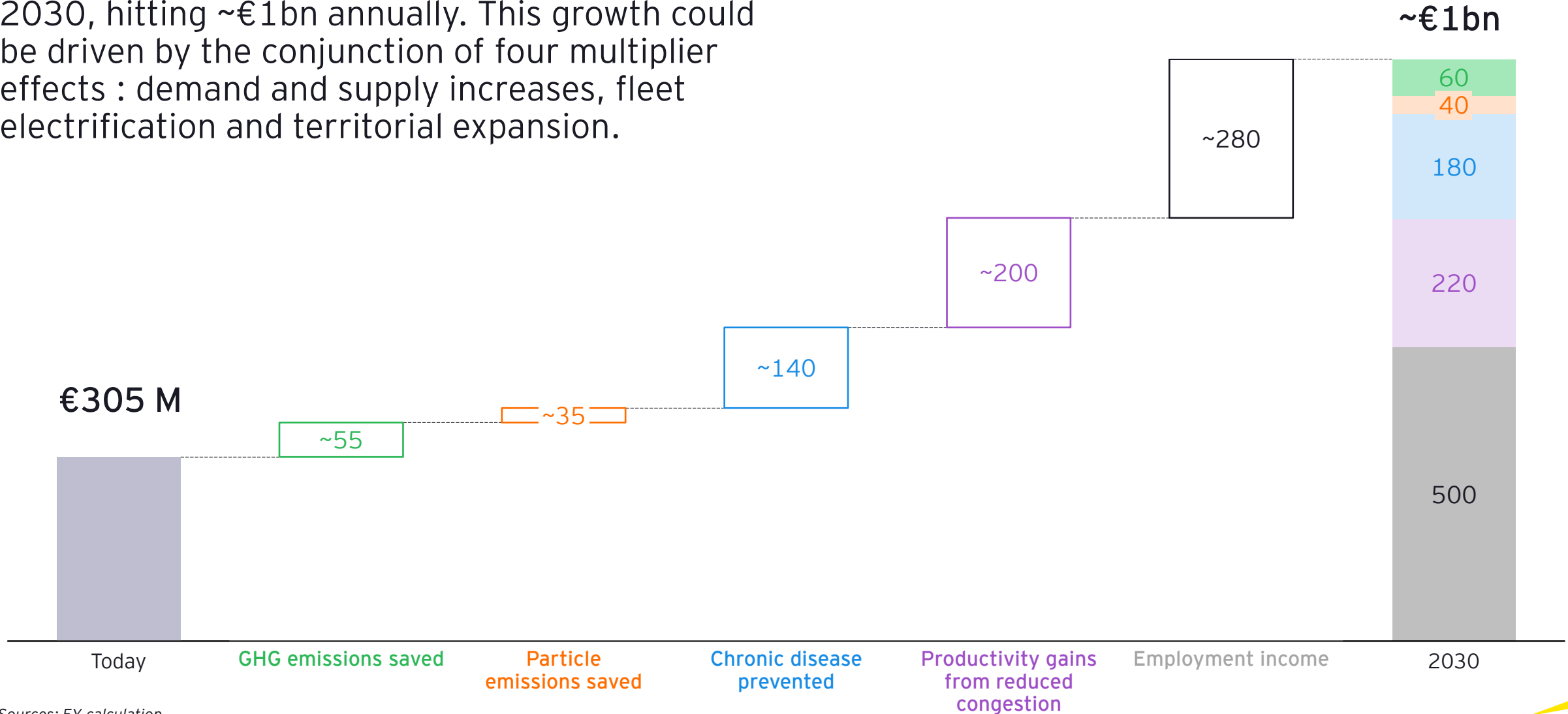


Note: the total differs from the sum of the rounded amounts

Sources: EY calculation

Executive summary

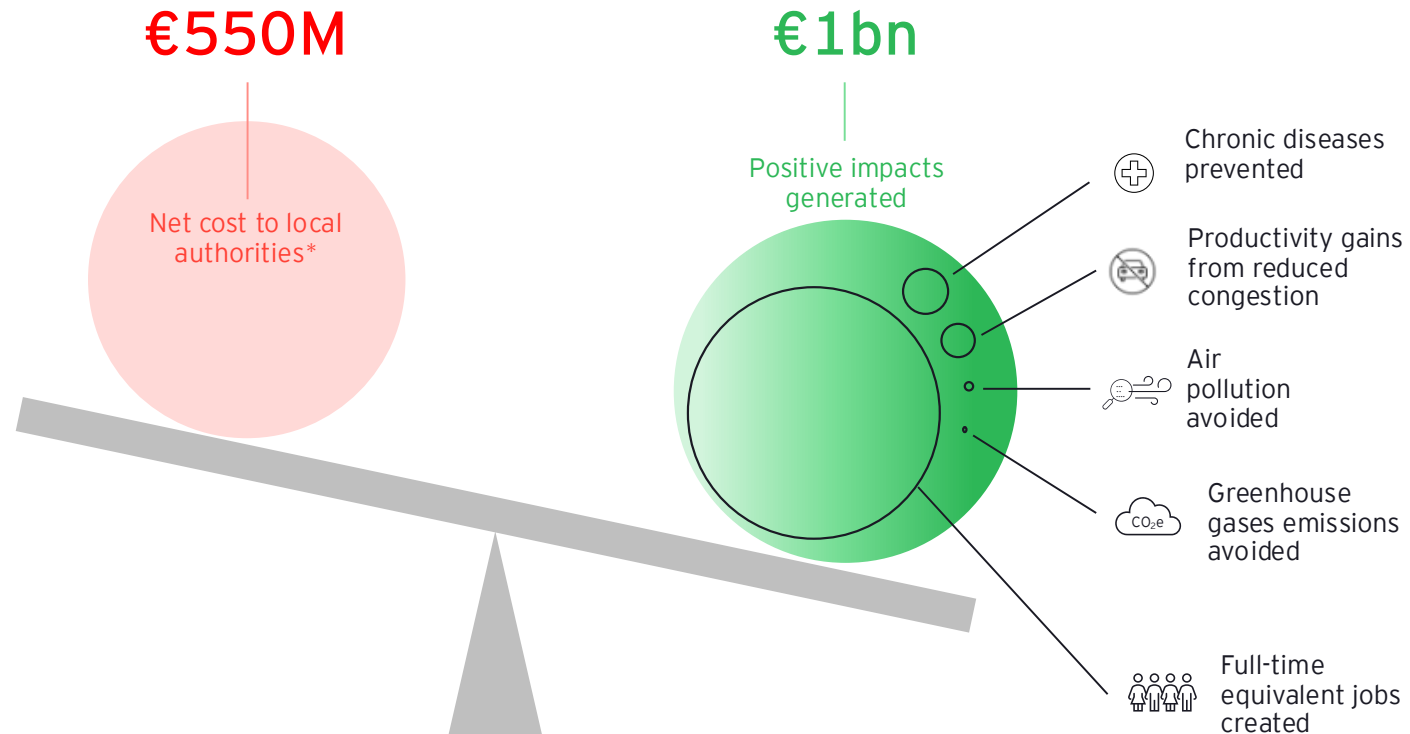
Bike-sharing's positive impacts could triple by 2030, hitting ~€1bn annually. This growth could be driven by the conjunction of four multiplier effects : demand and supply increases, fleet electrification and territorial expansion.



Sources: EY calculation

Executive summary

By 2030, each euro invested in bike-sharing could yield a 75% annual return on public investment, compared with 10% today



*The net cost to local authorities has been estimated using public data, including ADEME's data. It corresponds to the annual net expense per public shared bike, after deducting revenues generated by private shared bikes for the benefit of the local authority.

Sources: EY calculation

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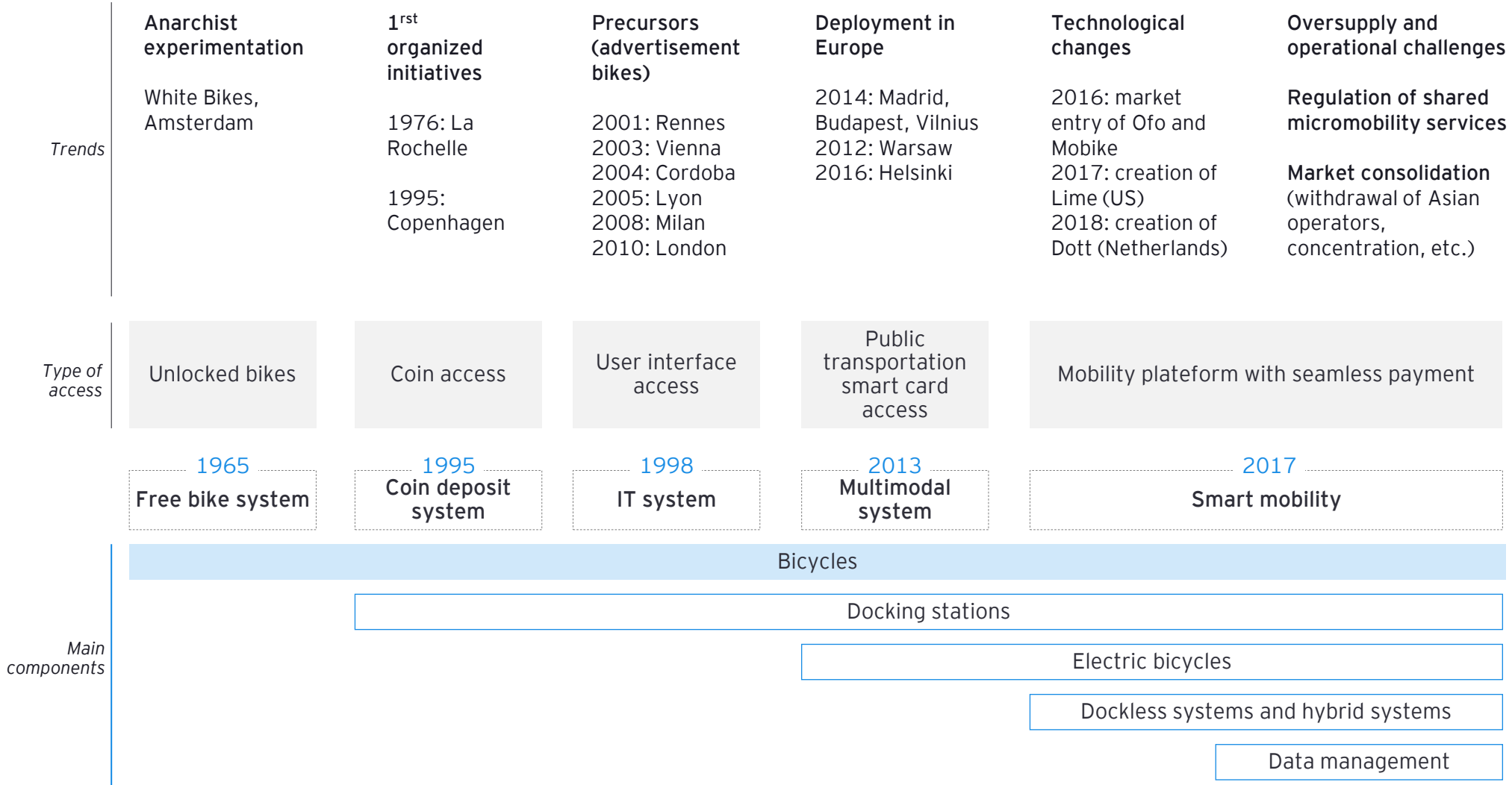
4 | How significant is the impact of bike-sharing today?

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Bike-sharing was a utopia in the 60's... it became a mainstream reality and a stepping stone toward the sharing economy



Dock-based bikes

rely on specific pick-up stations where bikes must be rented and returned



Free-floating bikes

can be picked up and dropped off at any intersection, not pick-up station needed



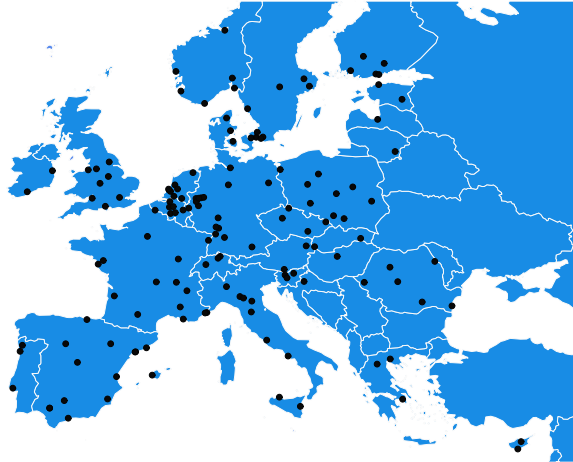
Hybrid bikes

can be collected from pick-up points and returned anywhere in the city

Sources: ITF, *Measuring New Mobility: Definitions, Indicators, Data Collection*, (2023), Chen et al., *Fifth generation of bike sharing systems - examples of Poland and China* (2018), Médard de Chardon, *The contradictions of bike-share benefits, purposes and outcomes* (2019), Certu, *Fiche vélo n°25* (2012)

Nowadays, ~150 European cities across 30 countries operate bike-sharing schemes, with a fleet of +430,000 bicycles

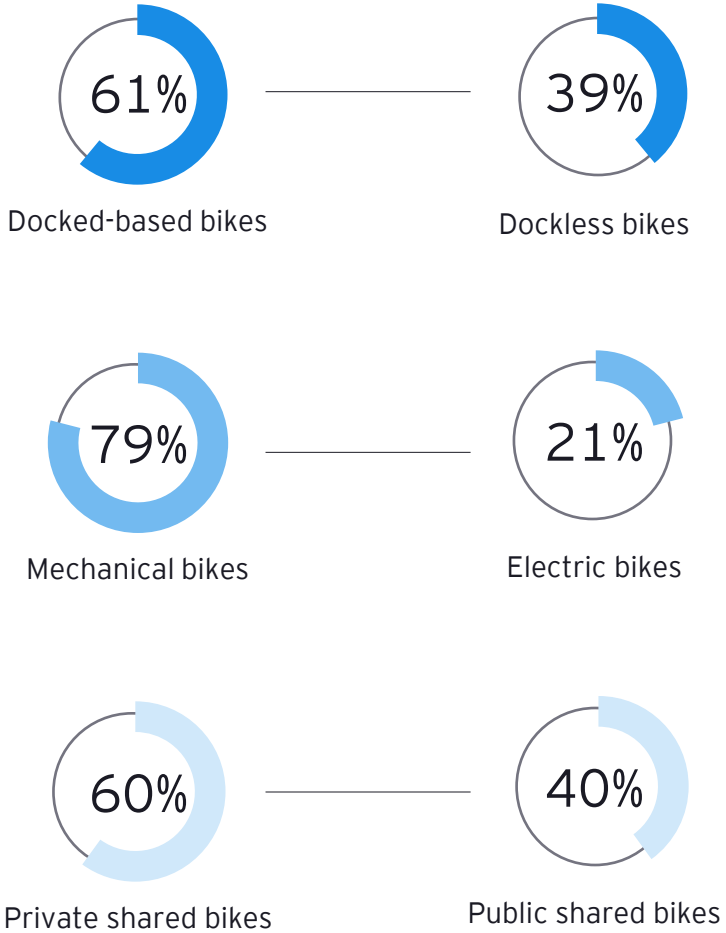
Key metrics on bike-sharing fleet



30 countries
(EU-27 + UK + Switzerland + Norway)

146 cities
(Mainly capital and major regional cities)

438,400
shared bikes

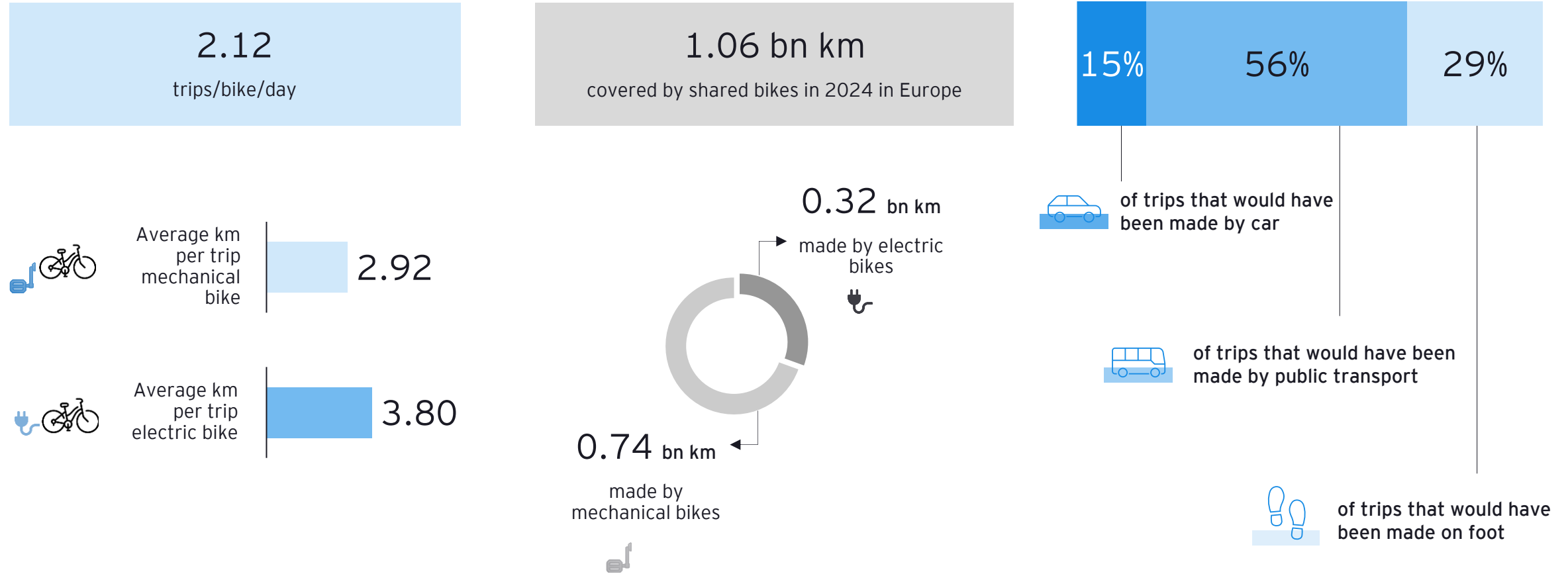


Sources: CIE benchmark (2023,2024), Fluctuo (2023,2024), Otero et al., Health impacts of bike-sharing systems in Europe (2018), Brussels Mobility, Public Bicycles (PB) & Long-Term Rental (LTR) International Benchmark (2024)



In 2024, bike-sharing users rode over 1 billion kilometres - representing nonetheless <1% of all cycling distance in Europe

Key metrics on bike-sharing usage



• Sources: CIE (2023, 2024), Fluctuo (2023, 2024), Donkey Republic, (2024), Brussels Mobility (2024), Otero et al., (2018), Ma et al., (2020), Association des acteurs du vélo public (2023), Fifteen (2024), ADEME (2021), EY interviews, EY calculation

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Bike-sharing schemes are a crucial component of cities' transport networks, as they strengthen connectivity, improve accessibility, and foster social inclusion

Less expensive, often used to complement other public transport modes, and more easily deployed in underserved areas, **bike-sharing schemes directly address European citizens' concerns**. According to the latest Eurobarometer on mobility and transport, 39% of them consider cost as the main barrier to daily mobility, ahead of the availability and connectivity of different transport systems (32%).

Connectivity

Bike-sharing schemes bridge the first and last mile, extending the reach of metro, tram, and rail networks. They enable seamless multimodal journeys, improve urban transport efficiency, and make public transit more attractive, accessible, and convenient.

Illustrated by case studies:

- Glasgow (United Kingdom)
- London (United Kingdom)

Accessibility

Bike-sharing schemes - especially in underserved areas - boost mobility, bridge gaps, and expand access to jobs, education, and essential services.

Illustrated by case study:

- Lyon (France)

Social inclusion

Public bike-sharing schemes cut transport costs by up to 90% versus cars, breaking financial barriers, reducing inequalities, and fostering social inclusion in vulnerable communities.

Illustrated by case study:

- Lyon (France)

Detailed illustrations can be found in the following slides

Up to 55% of shared bike users combine their trips with other public transport modes, confirming that bike-sharing makes the network more resilient and efficient

% of shared bike users combining their trips with public transport in selected locations

| Location | % of users combining bike sharing and public transport | Shared bikes |
|------------------------------|--|--------------|
| Antwerp (Belgium) | 25% | 4,300 |
| Brussels (Belgium) | 47% | 7,650 |
| Helsinki (Finland) | 55% | 3,480 |
| London (UK, Lime users only) | 34% | 42,200 |
| Rudersdal (Denmark) | 30% | 200 |
| France | 43% | 45,500 |



Bike-sharing schemes help close spatial gaps within urban public transport networks



In Oslo (Norway), bike sharing complements metro and rail networks by serving perpendicular commute routes and extending reach to areas less accessible by transit.



Bike sharing help increase public transport usage

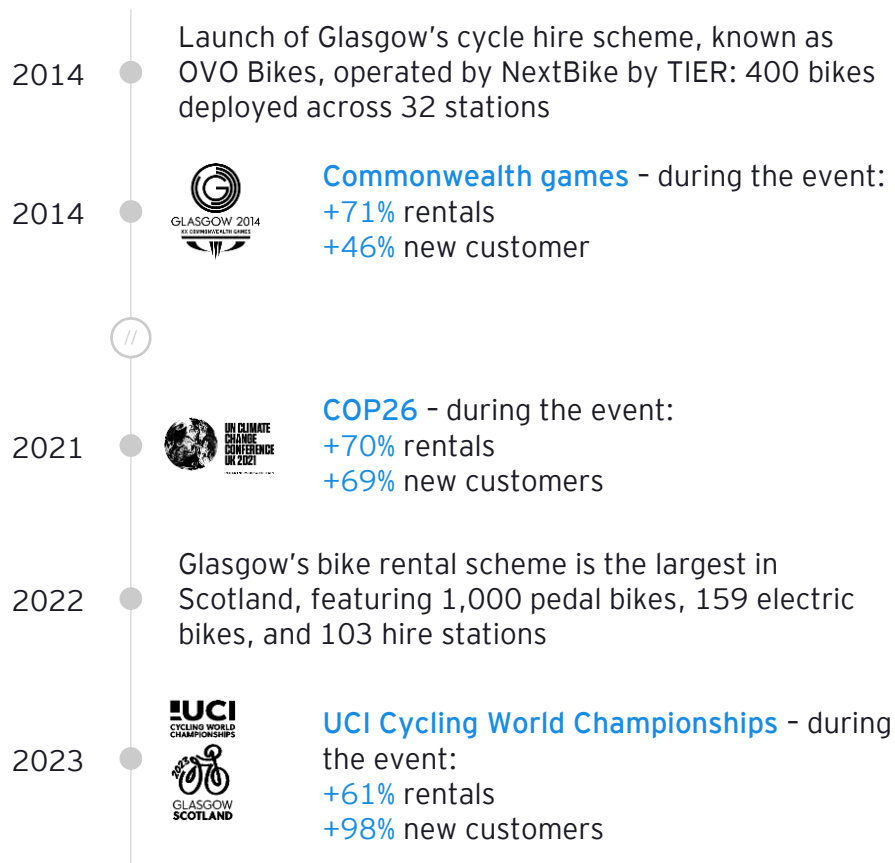


In France, 7% of users report making more frequent trips since adopting bike sharing.

Sources : Böcker et al., *Bike sharing use in conjunction to public transport: Exploring spatiotemporal, age and gender dimensions in Oslo (2020)*, Brussels Mobility, *Public Bicycles (PB) & Long-Term Rental (LTR) International Benchmark (2024)*, Association des acteurs du vélo public, *Rapport du vélo public (2023)*, Fifteen, *Livre blanc - l'impact du vélo en libre service dans les villes moyennes (2024)*

Bike-sharing complements conventional transport, boosting capacity and handling demand spikes, like during major events in Glasgow

Bike-sharing usage during global events hosted in Glasgow



Launched in June 2014 to coincide with the Commonwealth Games, Glasgow's bikeshare scheme formed a key part of a wider strategy to promote active travel and public transport access to event venues.

The OVO bike scheme has played a pivotal role in easing traffic congestion, facilitating seamless travel for attendees between venues and enabling residents to adapt their journeys amid event-related road closures. Its impact is underscored by a surge in usage during major events, with trip numbers rising by over 70%.

Key success factors in the adoption of shared bikes during major events include:

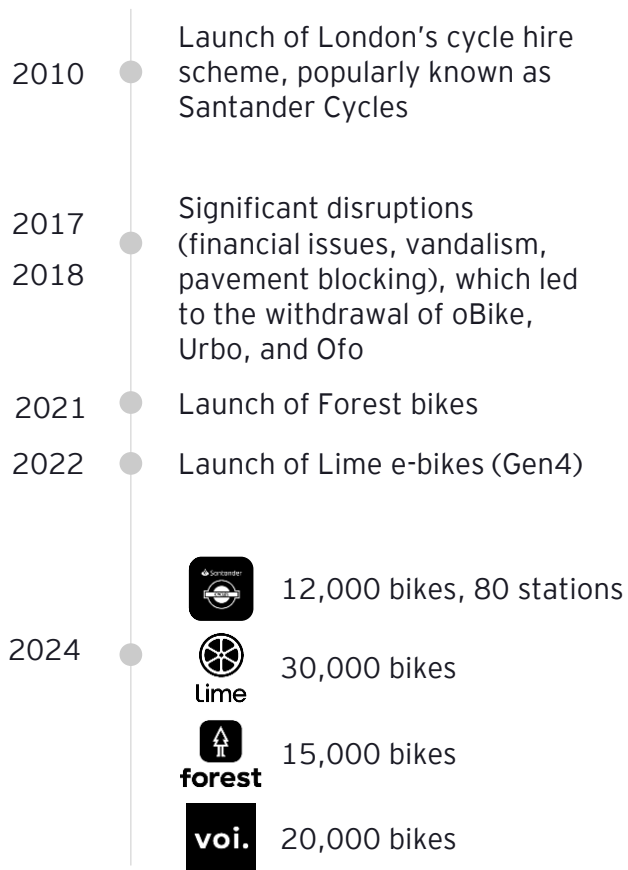
- **Promotional offers:** to encourage uptake during the event, participants were offered a complimentary 40-minute ride.
- **Coordination and communication among stakeholders:** close collaboration between event organizers, public authorities, and bike-share operators facilitated the alignment of shared objectives, the establishment of secure zones, and the deployment of temporary docking stations.
- **Flexible operations, staff mobilization, and efficient bicycle redistribution:** due to access restrictions, van drivers transitioned to cargo bikes for bicycle redistribution, while the operations team extended working hours to ensure effective relocation of bikes across stations.

During major events, the bike share service has proven essential in facilitating travel and providing a convenient alternative for participants and residents.

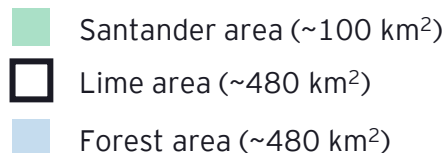
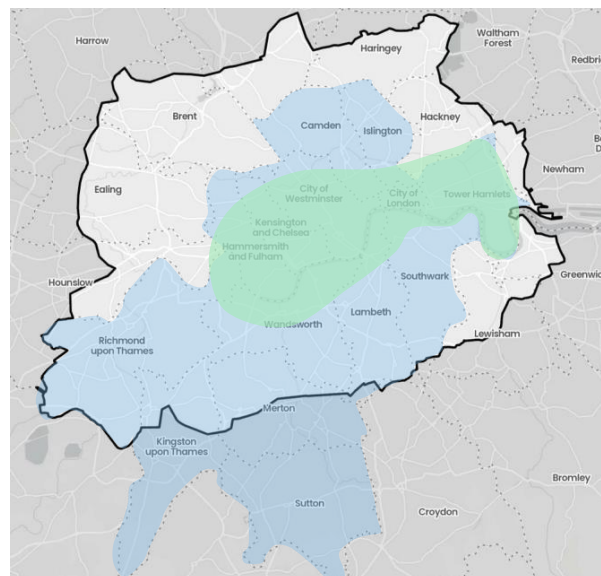
Matthew Chapman, Hub manager at Glasgow for Vélogik

Expanding bike-sharing coverage and fleet density can reshape usage patterns, enhancing transport integration and accessibility, as demonstrated in London

Bike-sharing system chronology



Shared bicycle coverage per operator in 2024



Bike sharing usage

Democratizing cycling in London :



- Since 2022, cycling levels in London have doubled, with 40% of the growth driven by bike-sharing schemes.
- Usage of shared bikes has quadrupled from 2022 to 2024, largely due to the expansion of dockless services. Lime and Forest now represent one in six bikes on the streets. London is Europe's leading city for dockless bike ridership, with 28 million trips recorded in 2024



Accessibility:

- 40% of Lime e-bikes are deployed in areas with limited access to public transport.
- 23% of Lime users say the availability of e-bikes has improved their access to jobs



Transport integration: 34% of Lime riders combine their e-bike trip with public transport.



Everyday use: 35% of Lime users hold a "Weekday Commuter Pass" which streamlines home-to-work travel, a proportion higher than anywhere else in the world.



Bike-sharing can tackle transport poverty, improving availability, accessibility, and affordability for underserved communities, as demonstrated in Lyon

Improving availability

- Vélo'v operates 5,000 bikes at 428 stations across 24 municipalities in 2025, with 33 more stations planned for 2026. ~50% of them will serve disadvantaged neighborhoods (~71 000 inhabitants).
- Recent station deployments have steadily increased coverage in disadvantaged areas – from 17% in 2005, to 22% in 2018, and 45% today. By 2026, 20% of stations will be in the poorest neighborhoods.

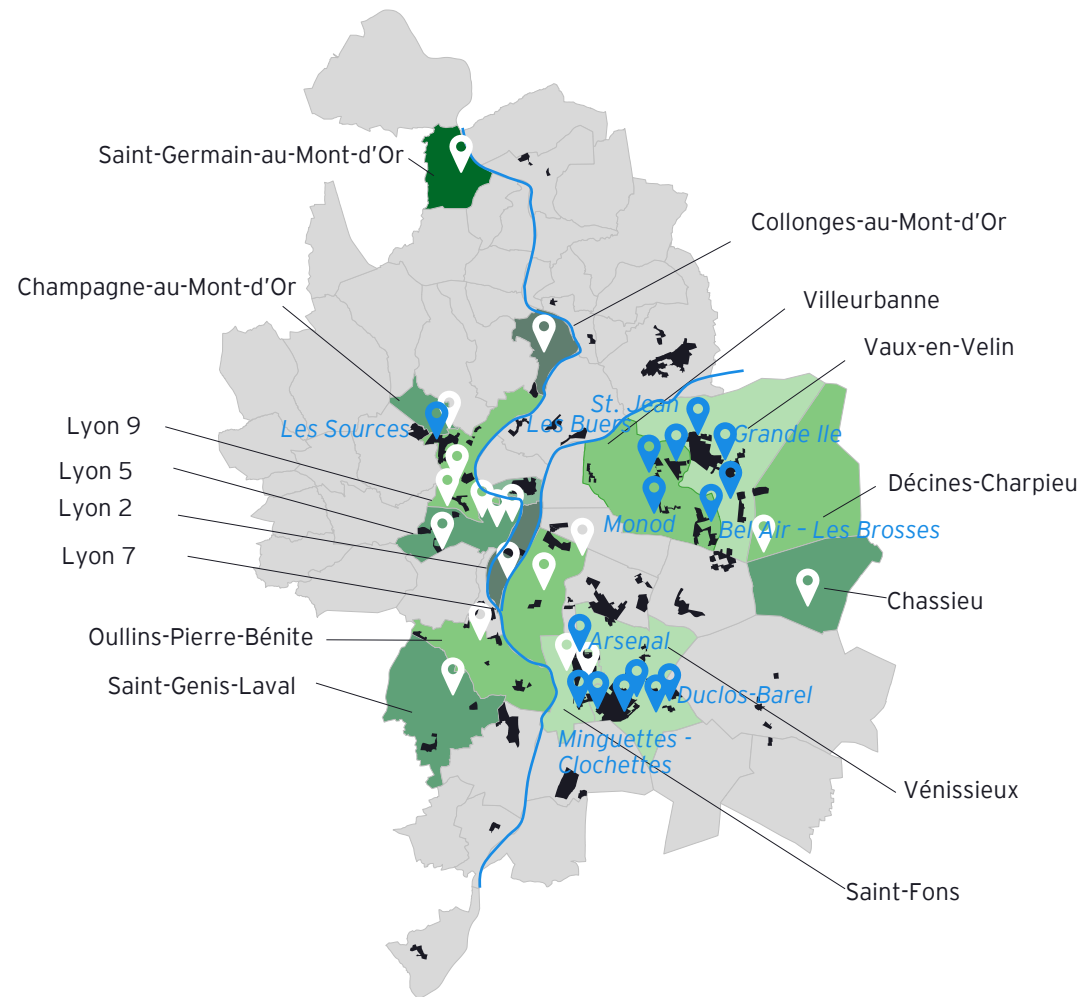
Improving accessibility

- By the end of 2025, Vélo'v will add 2,500 e-bikes to attract underrepresented users and serve hilly or low-density areas, making cycling more practical.
- Recently deployed stations in the poorest neighborhoods record twice as many trips as those outside these areas, showing the effect of better accessibility.

Improving affordability

- Vélo'v uses social pricing: half-price annual subscriptions for youth (14-25) and 62% off for unemployment benefit recipients, removing cost barriers to mobility.

New Vélo'v stations planned for 2026 based on residents' income levels



Map legend

Median income per household

- Less than 10k€
- 10-15k€
- 20-25k€
- 25-30k€
- More than 30K€

33 expected Vélo'v stations by 2026

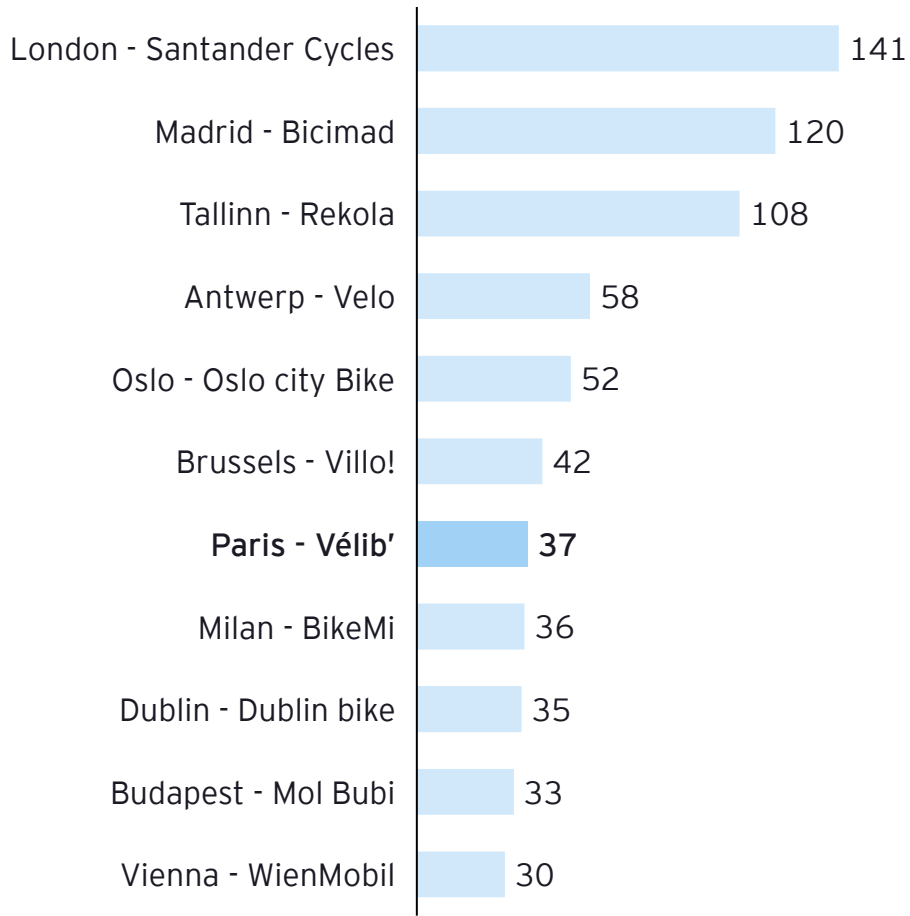
- 📍 New stations of Vélo'v (19)
- 📍 New stations of Vélo'v located near the low-income neighbourhoods (14)

Sources: Greater Lyon, Le réseau Vélo'v s'agrandit avec 33 nouvelles stations Vélo'v (2025), Urbalyon, La géographie prioritaire dans la métropole de Lyon (2025), SIG ville, Vélo'v



Public bike-sharing schemes cut individual mobility costs by up to 90%, reducing transport inequalities and boosting social inclusion

Annual subscription cost (€) for bike-sharing schemes (publicly funded schemes only) across a selection of European cities



According to the French Environmental Agency (ADEME), owning and driving a car 10 km per day is estimated to cost around €1,000 annually

€963

Annual savings for a Parisian using a bike-sharing subscription with comparable usage to car ownership

Sources: ADEME Changeons d'air, changeons de mobilités, (2024), EY analysis

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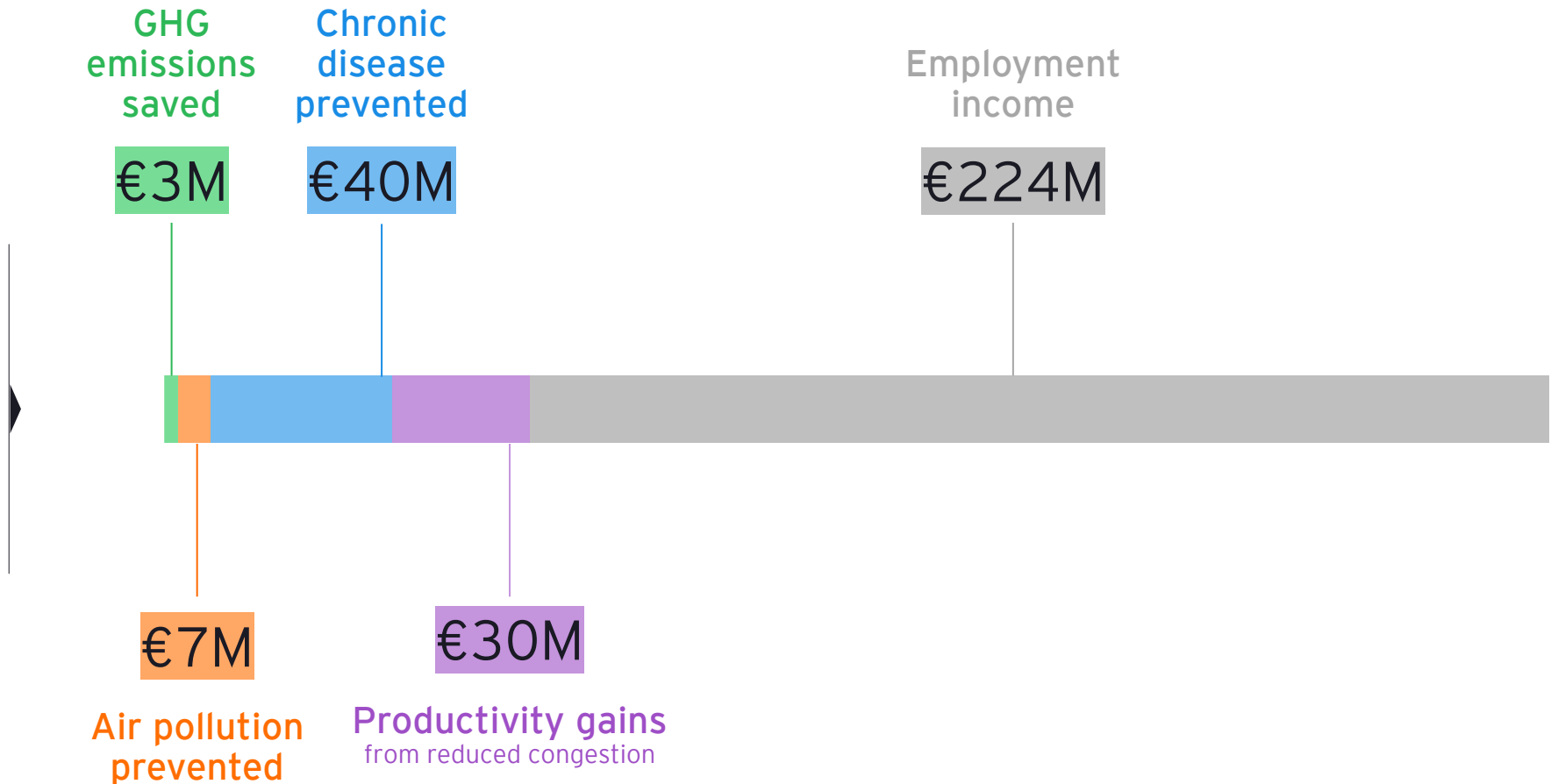
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Estimates based on 2024 usage suggest that bike-sharing generates €305 million in positive externalities annually

€305M

in positive externalities generated each year by bike-sharing usage



Note: the total differs from the sum of the rounded amounts

Sources: EY calculation



Bike-sharing's positive externalities respond to citizens' concerns, mayors' priorities and align with European Commission plans (1/2)

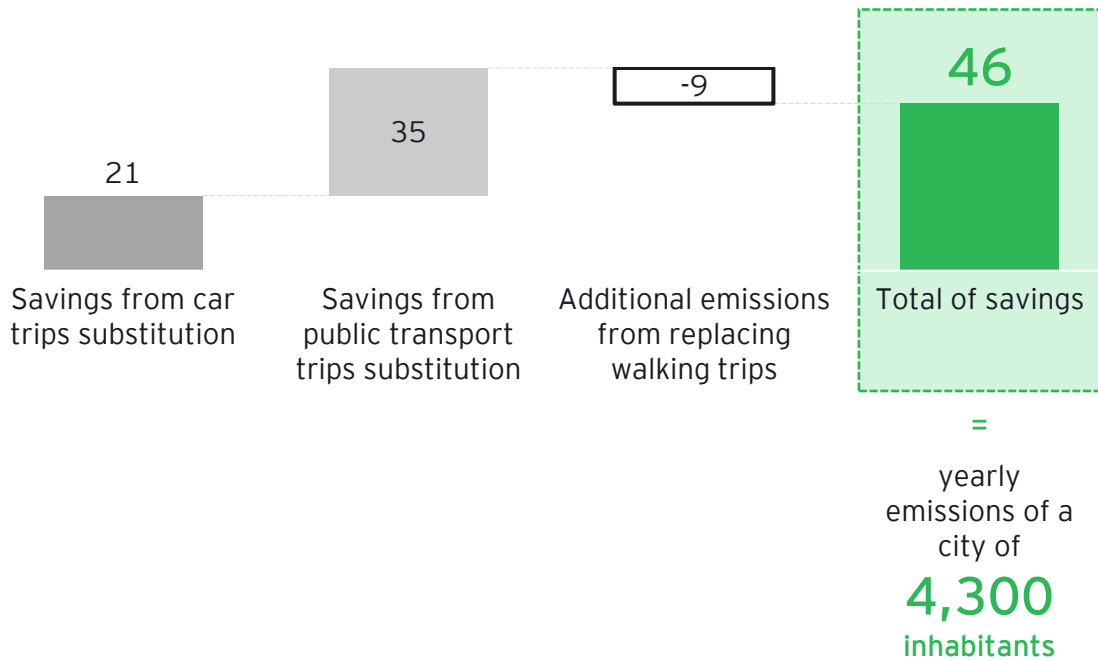
| Issues | Why are these issues a concern for citizens or a focus for the European Commission? | How can bike-sharing help? |
|-----------------------|--|---|
| GHG emissions | <ul style="list-style-type: none"> In 2020, transport was responsible for nearly a quarter of Europe's greenhouse gas emissions and still exceeded 1990 levels. Urban passenger transport alone made up 24 % of total EU transport emissions. Current policies are projected to reduce emissions by only 22% by 2050, far below the 90% needed to achieve climate neutrality. | <ul style="list-style-type: none"> Achieving net zero will require overhauling urban transport systems through cleaner vehicles, expanded shared mobility, and a shift toward low-carbon modes such as walking, cycling, and bike-sharing – which emits six times less CO₂e over its life cycle than cars. |
| Air pollution | <ul style="list-style-type: none"> In 2022, 96% of urban residents in Europe were exposed to PM_{2.5} concentrations exceeding WHO guidelines, with road transport, especially non-exhaust sources (brake wear and tyre abrasion) being a major contributor. In some European cities, such as Milan, Barcelona, and London, studies show that road transport is responsible for around 40 % of PM_{2.5} and PM₁₀ emissions. Air pollution is Europe's top environmental health risk, causing diseases like asthma, strokes, and lung cancer. Still, 83 % of urban Europeans think authorities aren't doing enough. | <ul style="list-style-type: none"> About 15% of bike-sharing trips replace car journeys, cutting vehicles on the road and reducing urban fine particle pollution. |
| Chronic disease cases | <ul style="list-style-type: none"> One-third of Europeans do not meet WHO guidelines of 150 minutes (2h30) of moderate-intensity activity per week, putting them at higher risk of non-communicable diseases (cardiovascular diseases, colon cancers, dementia...). Aligning with WHO guidelines could prevent 11.5 million new cases of NCDs by 2050, including 3.8 million cardiovascular diseases, nearly 1 million type 2 diabetes cases, and over 400,000 cancers. | <ul style="list-style-type: none"> With ~2/3 of trips replacing sedentary travel, bike-sharing schemes boost population activity levels. Bike-sharing schemes are not only for regular athletes: in the UK, 50% of users had not cycling in over a year, and 89% of them use the service for exercise. |

Bike-sharing's positive externalities respond to citizens' concerns, mayors' priorities and align with European Commission plans (2/2)

| Issues | Why are these issues a concern for citizens or a focus for the European Commission? | How can bike-sharing help? |
|---|---|---|
| Congestion | <ul style="list-style-type: none"> Findings from the latest Eurobarometer on mobility and transport show that congestion is perceived as the most significant barrier to daily mobility across Europe, cited by 39% of Europeans surveyed. In cities such as Dublin, Bucharest, Brussels, and Vilnius, residents lose over 100 hours annually to rush-hour congestion, highlighting the significant strain on urban transport infrastructure. According to the European Court of Auditors, traffic congestion across EU cities could cost up to €270 billion per year. | <ul style="list-style-type: none"> 15% of bike-sharing trips replace car journeys, cutting traffic and easing peak-hour congestion. Bernardo (2022) found that introducing bike-sharing reduced congestion by 4.14 %, with stronger effects in cities under one million inhabitants, where reliance on private cars is high, and in lower-income cities, where cost-saving alternatives are more valued. |
| Employment challenges for low-educated groups | <ul style="list-style-type: none"> Unemployment in the EU varies sharply by education: in 2023, 11.8% for low-educated vs. 3.7% for highly educated (overall rate 6%). | <ul style="list-style-type: none"> On average, every 75 shared bicycles give rise to one new job, making bike-sharing a source of opportunities for local communities. Bike-sharing jobs deliver high social value, often targeting those who need opportunities the most. |

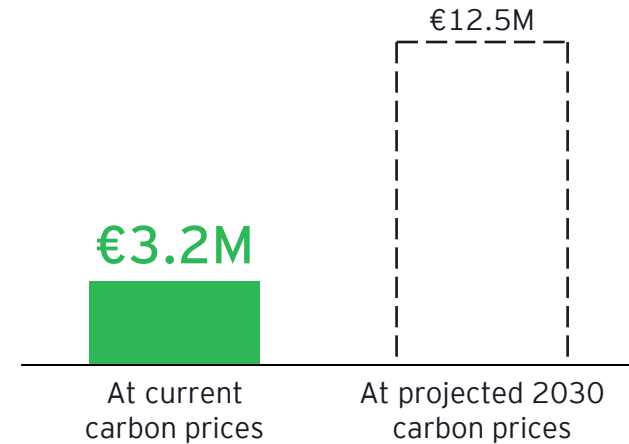
Bike-sharing avoids ~46k tCO₂e emissions per year, generating €3M in benefits - set to grow as carbon prices rise

Annual GHG emissions saved by bike sharing usage, k tCO₂e (EU 27 + UK, Switzerland, Norway, based on 2024 usage)



Note: the total differs from the sum of the rounded amounts




Annual economic benefits from bike-sharing (EU 27 + UK, Switzerland, Norway, based on 2024 usage)



EU carbon prices have surged to ~€70/t by mid-2025 and could reach €270/t by 2030 under the EU scenario.

Literature review helped identify non-European city initiatives that monetize shared-bike usage through emission credits, generating cost savings

In 2018, the UNFCCC (United Nations Framework Convention on Climate Change) introduced guidelines enabling shared-bike usage to generate carbon credits under the UN's Clean Development Mechanism (CDM). Although implementation remains unreported, several related initiatives have been identified.

| Cities | Operator | Scheme size | Description of the initiative |
|---|-------------------------------|---|--|
|  Seoul (South Korea) | T-Money operator of Ttareungi | <ul style="list-style-type: none"> 41M trips | <ul style="list-style-type: none"> Under South Korea's emissions trading scheme, the Seoul Metropolitan Government and T-Money sold certified emissions credits in 2023. That year, bike-sharing usage cut 962t CO₂e, generating €7,100 in revenue, reinvested to enhance the system. |
|  Rio de Janeiro (Brazil) | Tembici | <ul style="list-style-type: none"> 3,100 shared bikes 300 stations | <ul style="list-style-type: none"> Tembici's bike-sharing scheme saved 750t CO₂e in 2022. Emission credits, sold on AirCarbon Exchange following UNFCCC methodology, generated €5,500, reinvested in technology and shared bikes. |
|  Wuhan (China) | <i>n.a.</i> | <ul style="list-style-type: none"> 80,000 shared bikes 3,160 stations | <ul style="list-style-type: none"> In Wuhan, individuals earn carbon credits that can be spent on small goods or services, like movie tickets, or to offset other emissions. Each kilometer on a shared bike saves 93.3 gCO₂e; 5,000 gCO₂e can be exchanged for half a dozen eggs. |

Sources : UNFCC, Carbon Pulse, Seoul becomes first Korean city to earn carbon credits from bike-sharing scheme (2024), Solution Seoul (2023), C40 Cities, Wuhan, carbon credit scheme bolster massive bike share program (2016), ClimateSeed, ACX, AirCarbon Exchange Hosts World's First Auction of Micromobility Carbon Credits (2022)

Fine particle emission reductions from bike-sharing generate €7M in positive externalities each year

Annual nitrogen oxides (NO_x) and coarse particles (PM₁₀) emissions saved by bike sharing usage (EU 27 + UK, Switzerland, Norway, based on 2024 usage)

200 t NO_x
emissions avoided each year

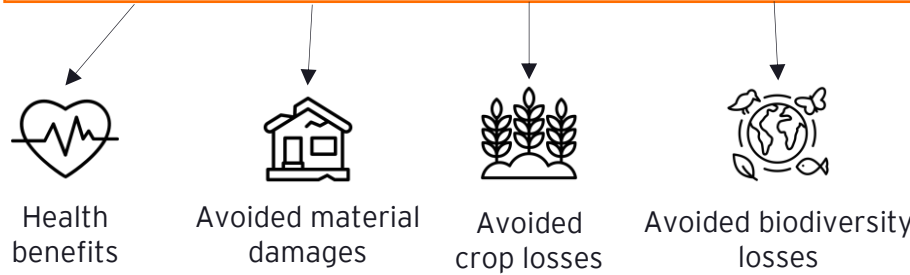
11 t PM₁₀ and PM_{2.5}
emissions avoided each year

=

51,000 people avoiding car commute annually

Annual economic benefits from bike-sharing (EU 27 + UK, Switzerland, Norway, based on 2024 usage)

€7M
in positive externalities generated each year from avoided air pollution (NO₂, PM₁₀, PM_{2.5}, and SOMO35)

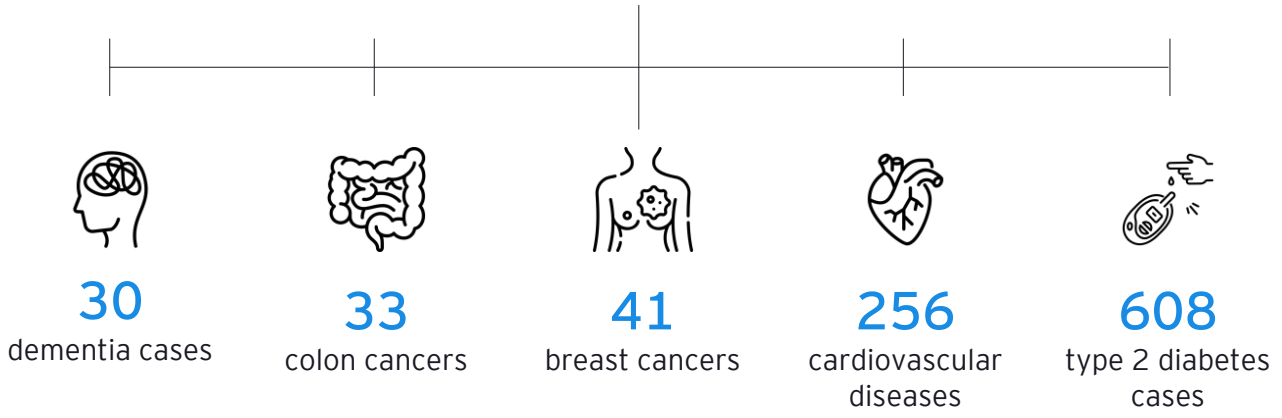


The European Commission estimates the average air pollution-related costs per passenger-kilometer at €0.0091 for car travel, €0.0098 for buses, and €0 for bike-sharing schemes.

Sources : Airparif, Peitzmeier et al., Real-world vehicle emissions as measured by in situ analysis of exhaust plumes (2017), Institut Terram, mobilités : la santé mentale à l'épreuve des transports (2025), Ministère de la transition écologique, Comment les Français se déplacent-ils pour aller travailler ? (2024), European Commission, The Handbook on the external costs of transport (2019), ADEME, contribution du développement de la marche et du vélo à la décarbonation et l'amélioration de la qualité de l'air (2025)

Bike-sharing prevents nearly 1,000 chronic disease cases per year, saving €40M in public health costs

Annual diseases prevented by bike sharing usage (EU 27 + UK + Switzerland + Norway, based on 2024 usage)



Sources: Emilie et al. The untapped health and climate potential of cycling in France: a national assessment from individual travel data, The Lancet Regional Health - Europe, Volume 39 (2024)

Bike-sharing saves ~760,000 hours annually, turning lost car travel time into €30M in productivity gains

Annual total time saved by all bike-sharing users (EU 27 + UK + Switzerland + Norway, based on 2024 usage)

758k
hours saved each year

The analysis is based on ADEME data, assuming an average cycling speed of 15 km/h and an average car speed of 14 km/h.



€30M
in productivity gains derived from substituting car journeys with bike-sharing trips

EU-27 average productivity assumed: €40/hour.

Across Europe, bike-sharing supports 6,000 direct local jobs and generates more than €200M in wages

Direct FTEs supported by bike-sharing (EU 27 + UK, Switzerland, Norway)



Locally anchored roles

Mechanics and Logistics /
Transportation



HQ-based roles

Accounting, Marketing,
Human Resources,
Business development,
Engineering, Customer
service



In the absence of sector-specific salary data, EU-27 average income has been used to model the impact.

Local bike-sharing jobs deliver strong social value, as illustrated by the Genèveroule-Donkey Republic partnership in Geneva

Local context

- VéloPartage, the official public bike-sharing network of the Canton of Geneva, was launched in 2020 and is jointly operated by Donkey Republic and the non-profit Genèveroule.
- The system comprises 1,440 shared bikes, including 520 e-bikes, across 620 stations in 22 municipalities.
- Donkey Republic provides the bikes and app-based user access, while Genèveroule manages maintenance, logistics, and the recruitment and training of the operational team.
- In 2023, the VéloPartage team included 27 staff members, 10 on permanent contracts and the remainder mostly temporary positions filled by students.

In what ways is VéloPartage successful in delivering social value?

- **VéloPartage’s teams mainly consist of individuals initially distant from the job market.** Hiring occurs through Geneva’s “employment solidarity” program, which offers subsidized contracts to those unemployed for at least two years. Contracts for employees under 55 last three years with dedicated time for training and job searching, while over-55s have open-ended contracts supporting the transition to retirement. Other groups facing employment barriers, such as migrants or students, are hired on temporary contracts.
- **VéloPartage provides job stability and opportunities for career progression:** out of 25 employees, 10 have secured permanent positions. Some have progressed internally, for example moving from bike mechanic to service manager, showing the program’s potential for career development.
- **Employees at VéloPartage gain valuable technical and vocational skills:** they gain bike repair, driving, and digital skills in a bilingual environment, boosting urban logistics employability.
- **Beyond technical skills, the collaborative and supportive environment helps individuals regain confidence,** rebuild self-esteem, and develop long-term career paths by feeling valued and contributing to a team.



Groups supported through VéloPartage



People in vulnerable economic situations
(in collaboration with the Hospice Général)



Unemployed individuals
(in partnership with the Cantonal Employment Office)



Interns and apprentices

Number of Genèveroule staff assigned to VéloPartage

27

People dedicated to VéloPartage

10

of long-term contracts due to VéloPartage

Sources: Genèveroule, Rapport d'activité (2024), Donkey Republic, ESG report 2024 (2025), Geneva region, EY Interview

Bike-sharing schemes also create strong social value by opening career opportunities for low-skilled populations, as illustrated by Ryan's experience at Vélogik Leeds

The bicycle maintenance sector is accessible to individuals with limited formal qualifications, as recruitment often targets candidates distant from the labor market, thereby supporting social inclusion.

The career of Ryan Whyte, now hub manager at Vélogik in Leeds, exemplifies this trajectory. Without a diploma and following initial roles as a kitchen assistant and warehouse packager, Ryan entered the cycling industry with no prior experience. After spending 18 months working in electric bike repair and advancing to store leader, he joined Vélogik in October 2024 as a bicycle mechanic.

Upon joining Vélogik, Ryan benefited from a comprehensive training program. He progressively acquired technical skills in bicycle mechanics, stock inventory management, safety protocols, financial trainings, and digital tools such as Microsoft 365. His training also included three management courses. Over a period of 22 months, he advanced from mechanic to workshop supervisor (6 months) and ultimately to hub manager, overseeing up to twelve team members.

Building on the experience gained, Ryan now leads the expansion of the Leeds hub, increasing its fleet from 441 to 500 bicycles. He manages a team of seven employees, including four who had no prior bike work experience. His responsibilities encompass a wide range of operational and managerial tasks: reception of bicycles, inventory and flow management, monitoring of contract KPIs, workforce, equipment oversight, employee training, team management and support, and recruitment. In addition to overseeing maintenance activities, Ryan continues to service bicycles himself, adapting to reduced staffing and increasing operational demands.

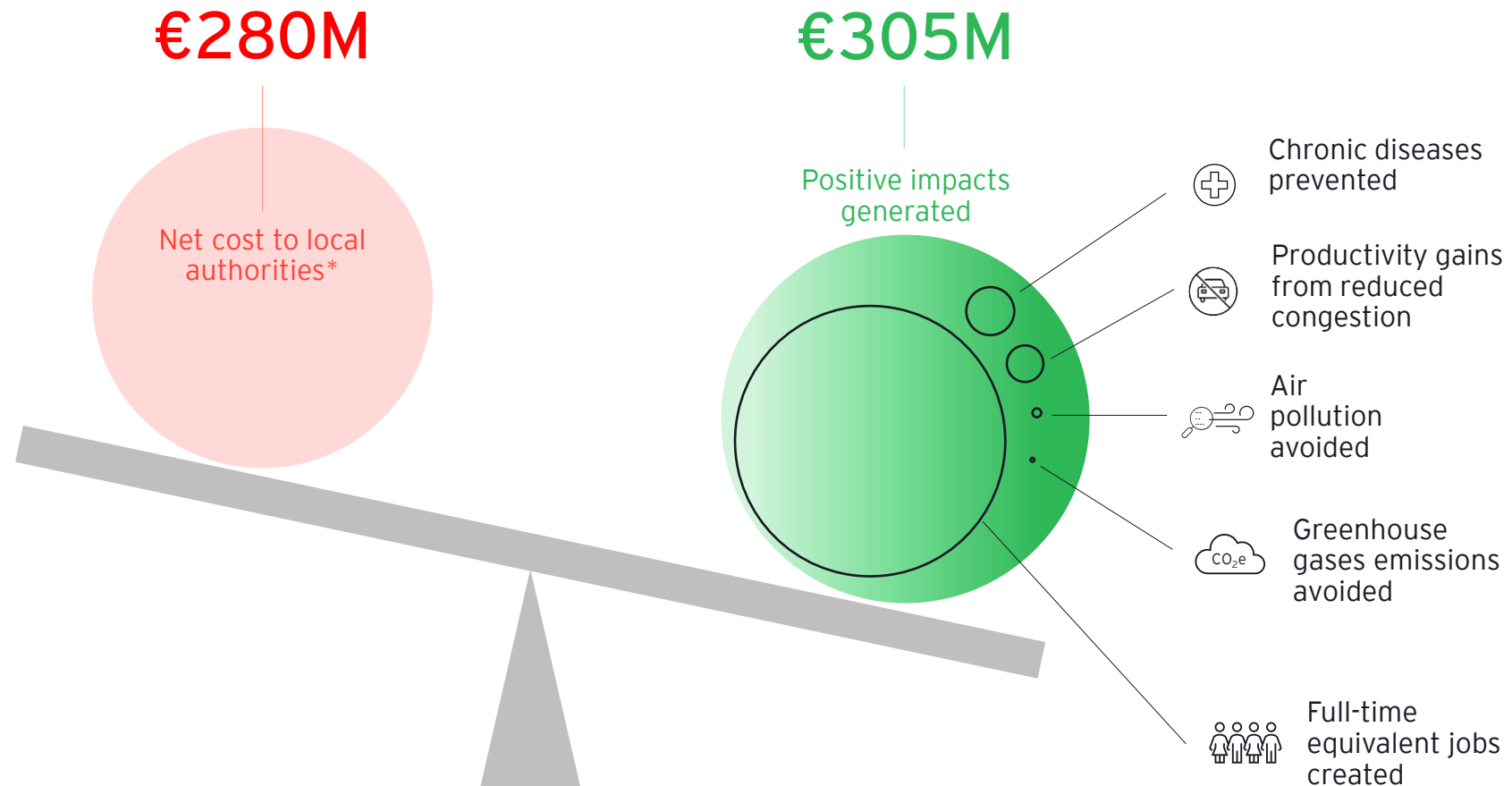
His story is not unique: four out of seven members of his current team also had no prior qualifications and have benefited from similar support and training.



Everything I'm able to do today, I learned at Vélogik.

Ryan Whyte, Hub manager at Leeds for Vélogik

Estimates suggest that every euro spent by local authorities on bike-sharing generates €1.1 in positive externalities, equivalent to a 10% annual return



*The net cost to local authorities has been estimated using public data, including ADEME's data. It corresponds to the annual net expense per public shared bike, after deducting revenues generated by private shared bikes for the benefit of the local authority.

Sources: Brussels Mobility, Public Bicycles (PB) & Long-Term Rental (LTR) International Benchmark (2024), Association des acteurs du vélo public, Rapport du vélo public (2023), ADEME, Actualisation de l'étude d'évaluation des services vélos (2021), EY interview; EY calculation

This ratio is conservative since several positive impacts of bike-sharing have not been monetized

Positive impact (non-exhaustive)

Illustration

Bike-sharing schemes can foster stronger social ties and greater community interaction by connecting neighbourhoods and bringing people together.

See our case study on Glasgow.

Bike-sharing schemes can enhance urban resilience by offering flexible transport options during emergencies such as natural disasters or terrorist attacks.

London Cycle Hire (LCH) recorded its busiest usage since launch on two days marked by London Tube strikes, underscoring how, when public transport is disrupted or unavailable, LCH serves as a vital alternative that keeps the city moving (*Lessons from thirteen years of the London cycle hire scheme: a review of evidence, 2024*).

Bike-sharing schemes can help limit land artificialization, as they require significantly less ground space than other urban transport modes.

A single shared bicycle requires approximately 1.5 square meters of space, compared to around 17 square meters for a standard car parking spot (*European Cyclists' Federation*).

Bike-sharing schemes can enhance students' cognitive focus at school.

Four hours into the school day, students who cycle to school exhibit concentration levels 8% higher than those driven by car (*European Cyclists' Federation, The benefits of cycling*).

Bike-sharing schemes can contribute to lower rates of workplace absenteeism.

Employees that cycle to work regularly have on average 1.3 days less sickness absence per year (*ECF, The benefits of cycling*).

Bike-sharing schemes can contribute to lower injury rates among cyclists by increasing safety.

In cities with bike-sharing schemes, annual cyclist injuries declined by an average of 27% following their introduction (*2018 US study, The safety of bike-share systems*).

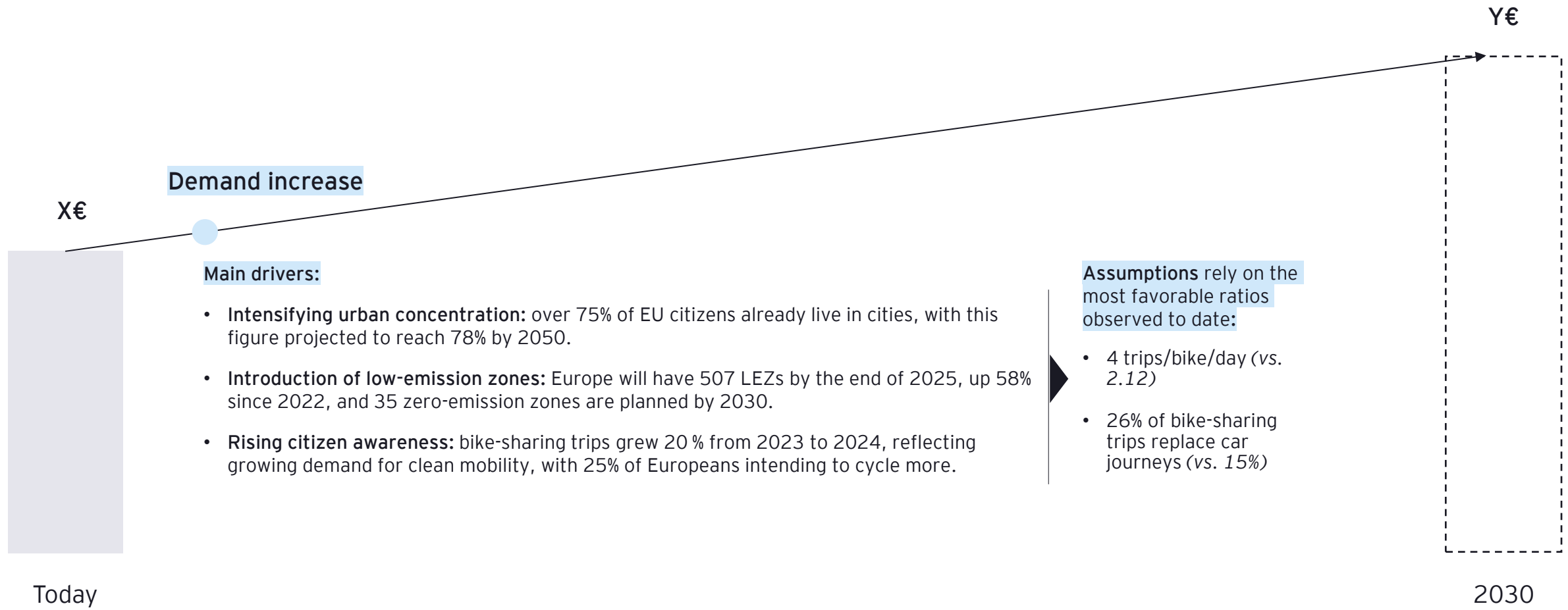
Bike-sharing schemes can drive increased spending in local shops.

Per square meter, cycle parking delivers 5 times higher retail spend than the same area of car parking (*ECF, The benefits of cycling*).

Agenda

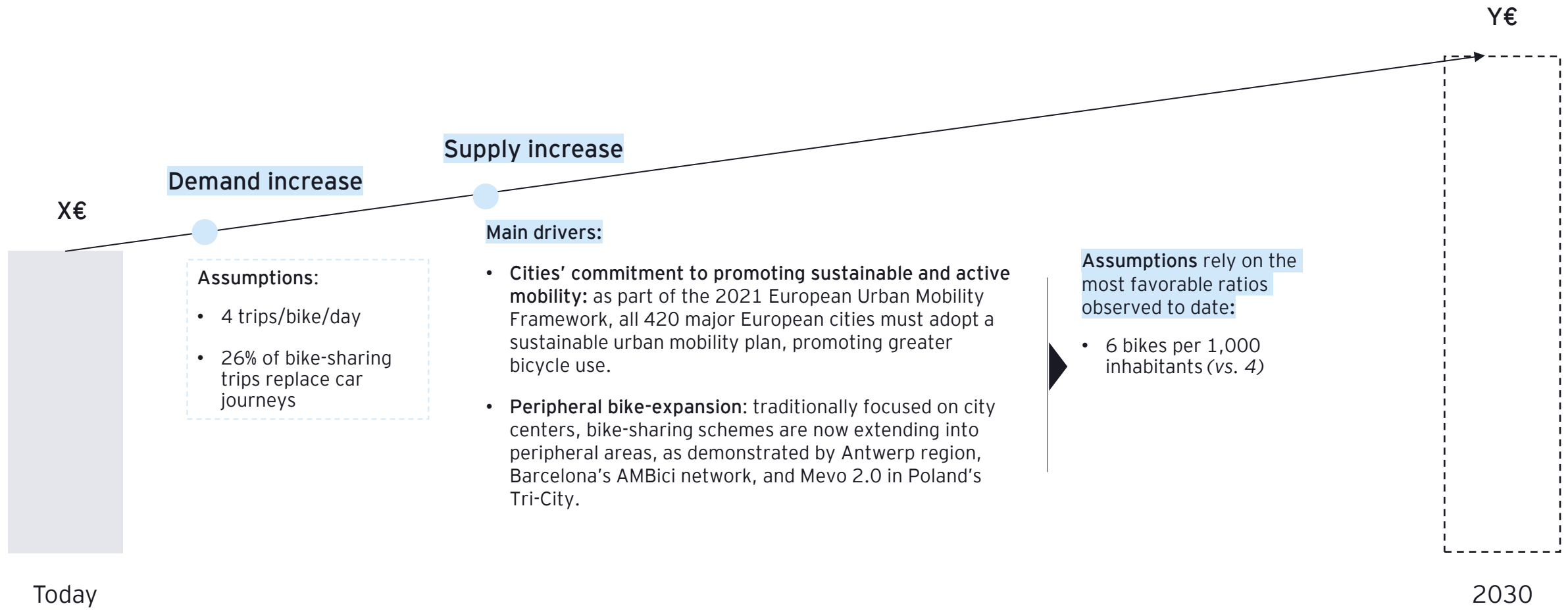
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Four multiplier effects could significantly boost bike-sharing use and its positive impacts by 2030 (1/5)



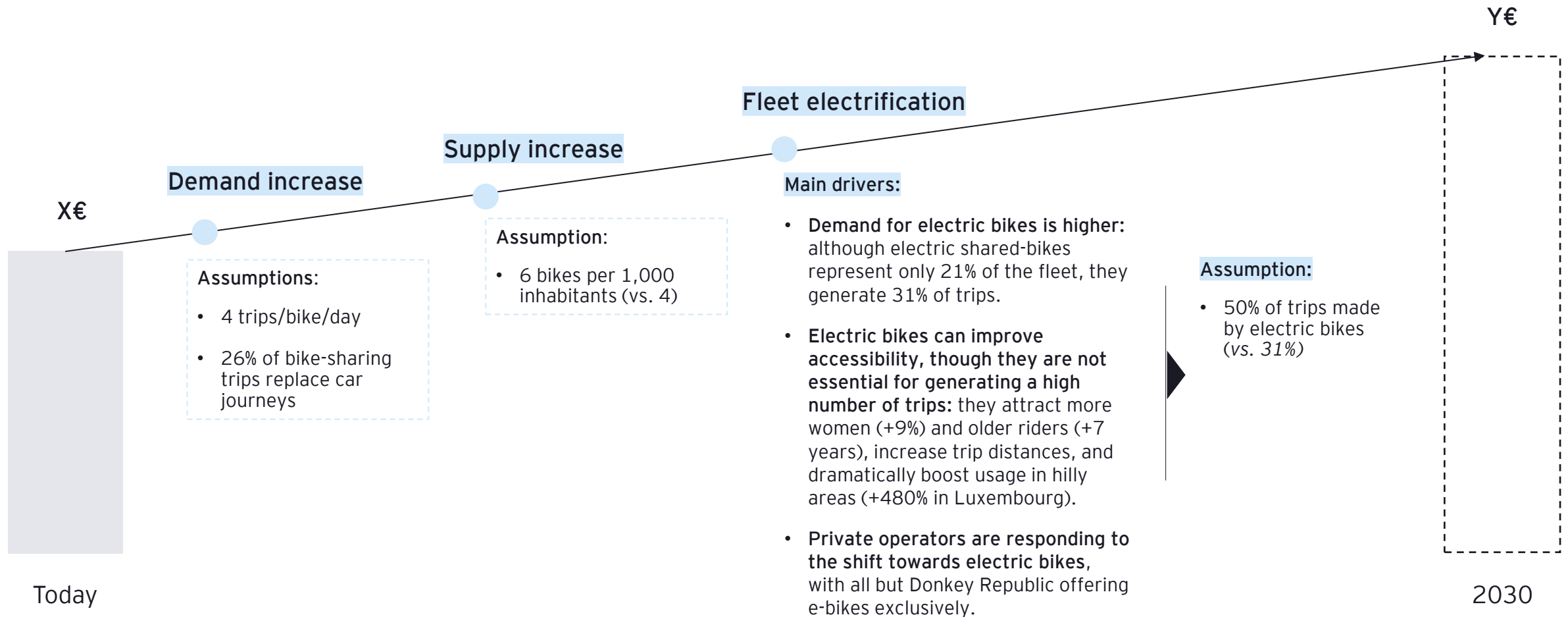
Sources : European Environment Agency, Urban adaptation in Europe (2020), Clean cities, The development trends of low and zero-emission zones in Europe (2022), Ipsos, Mobility barometer (2024)

Four multiplier effects could significantly boost bike-sharing use and its positive impacts by 2030 (2/5)



Sources : European Commission, New European Urban Mobility Framework (2021), EY research

Four multiplier effects could significantly boost bike-sharing use and its positive impacts by 2030 (3/5)

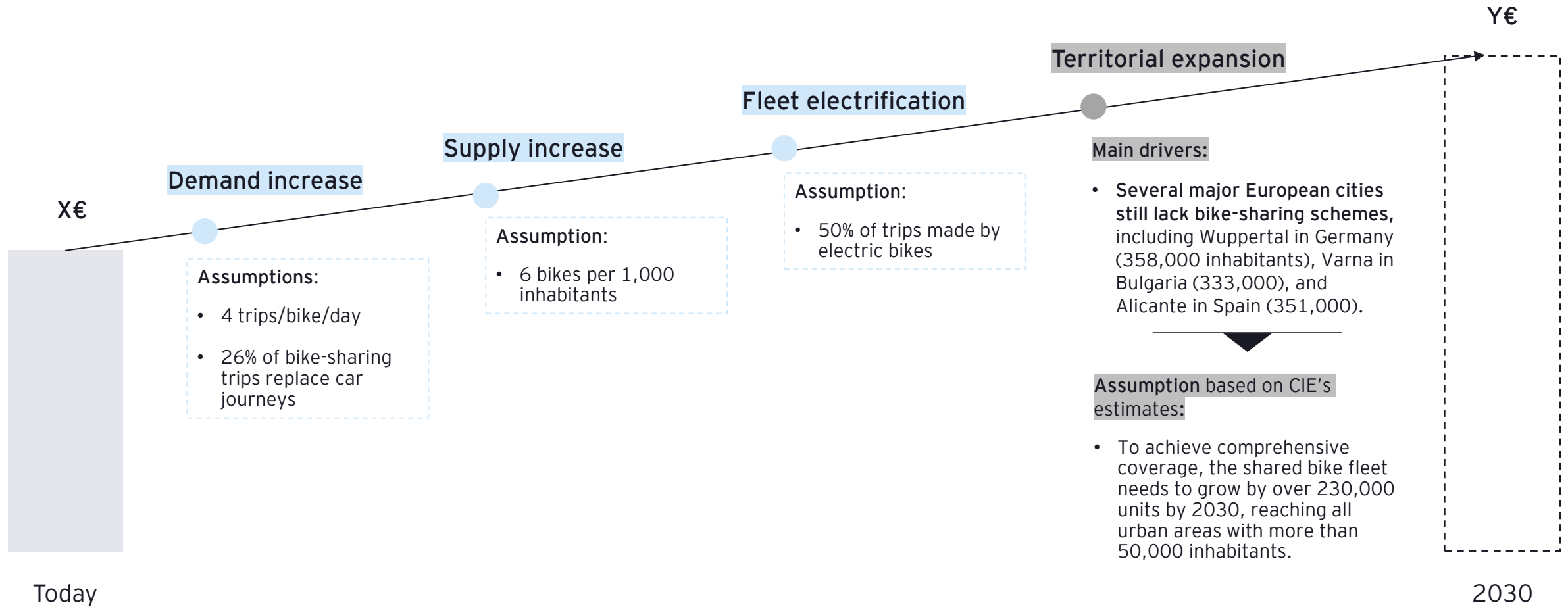


Sources : Brussels Mobility, Public Bicycles (PB) & Long-Term Rental (LTR) International Benchmark (2024), CIE, Shared Ambition (2023, 2024), Fluctuo (2024)

Four multiplier effects could significantly boost bike-sharing use and its positive impacts by 2030 (4/5)

Optimization in current cities

Expansion in new cities

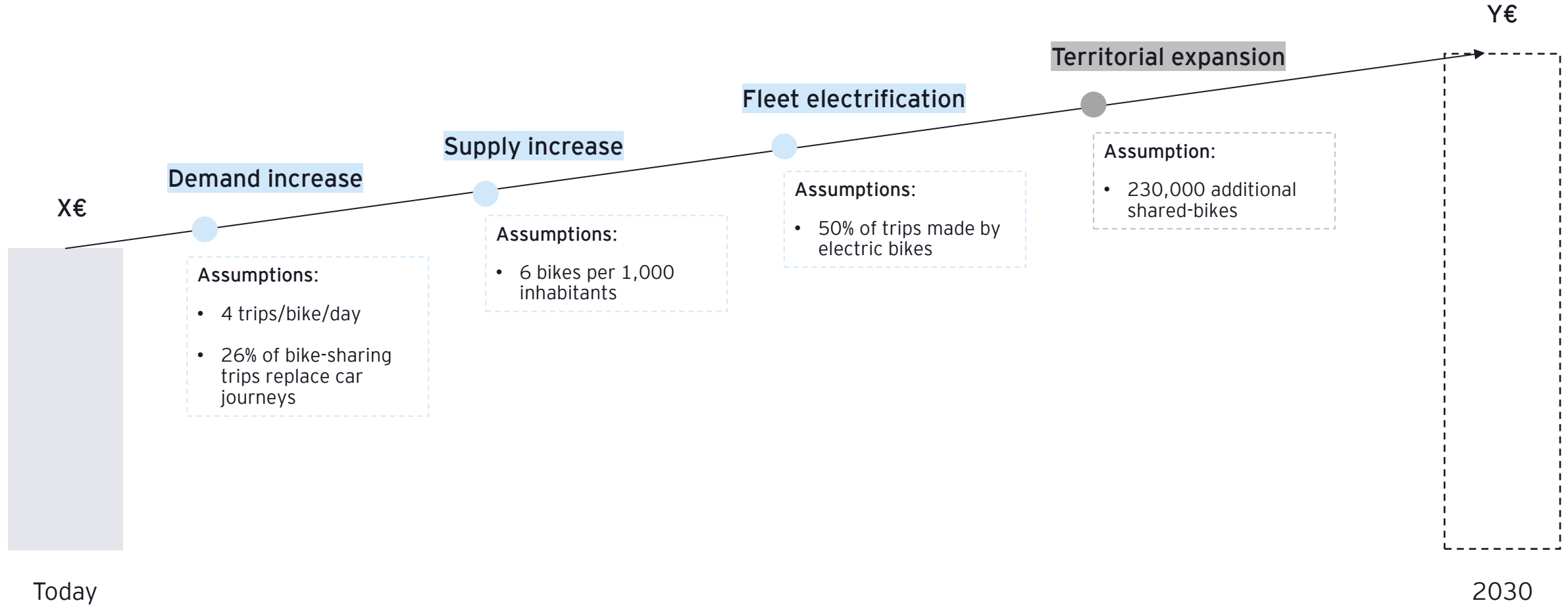


Sources : CIE, Bike Sharing to accomplish EU's Social Climate Fund goals (2025)

Four multiplier effects could significantly boost bike-sharing use and its positive impacts by 2030 (5/5)

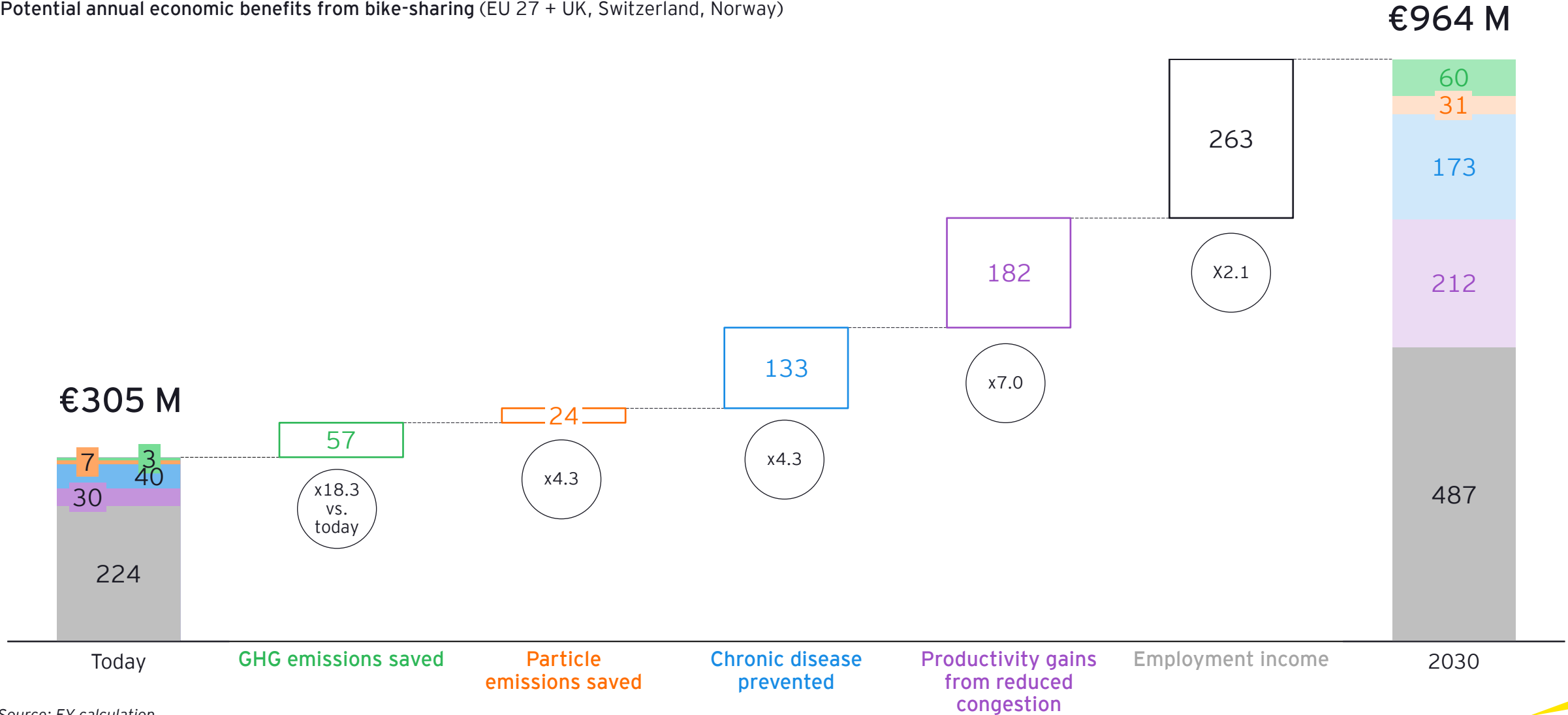
Optimization in current cities

Expansion in new cities



Bike-sharing's positive impacts could triple by 2030, hitting ~€1 billion annually

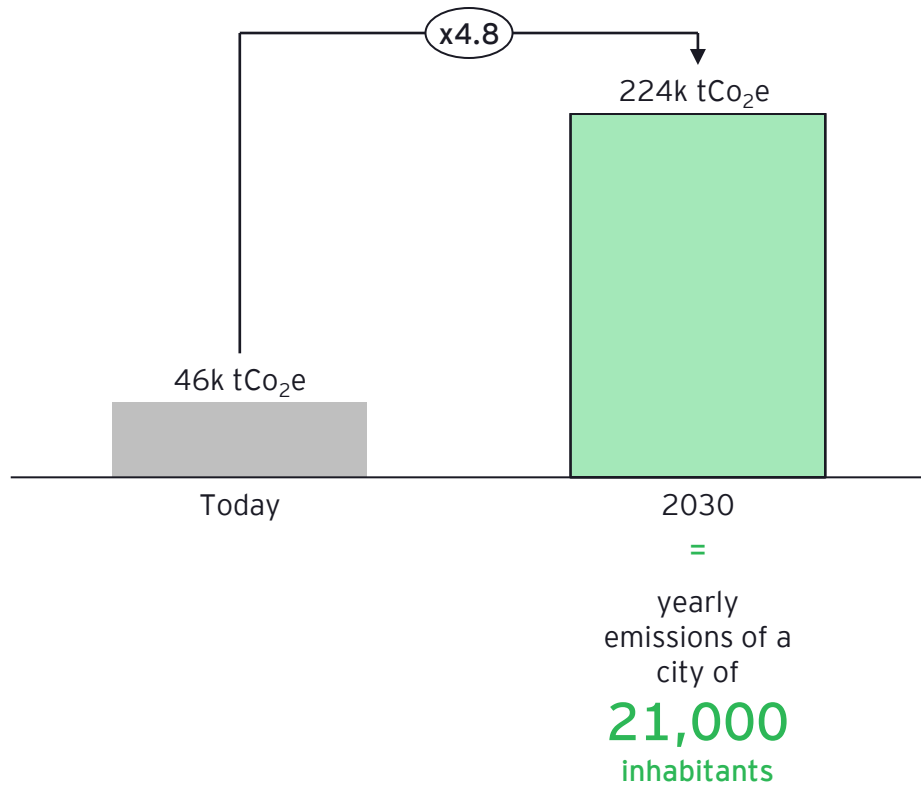
Potential annual economic benefits from bike-sharing (EU 27 + UK, Switzerland, Norway)



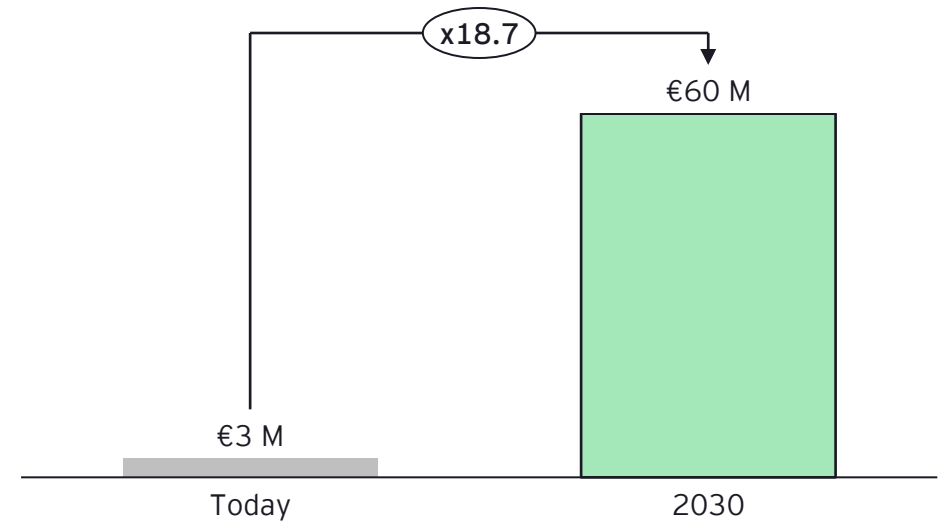
Source: EY calculation

Bike-sharing could cut **224,000 t CO₂e** per year by 2030 - x5 today's levels - with savings estimated at **€60M** - x19 current benefits

Annual GHG emissions saved by bike sharing usage, k tCO₂e (EU 27 + UK, Switzerland, Norway)



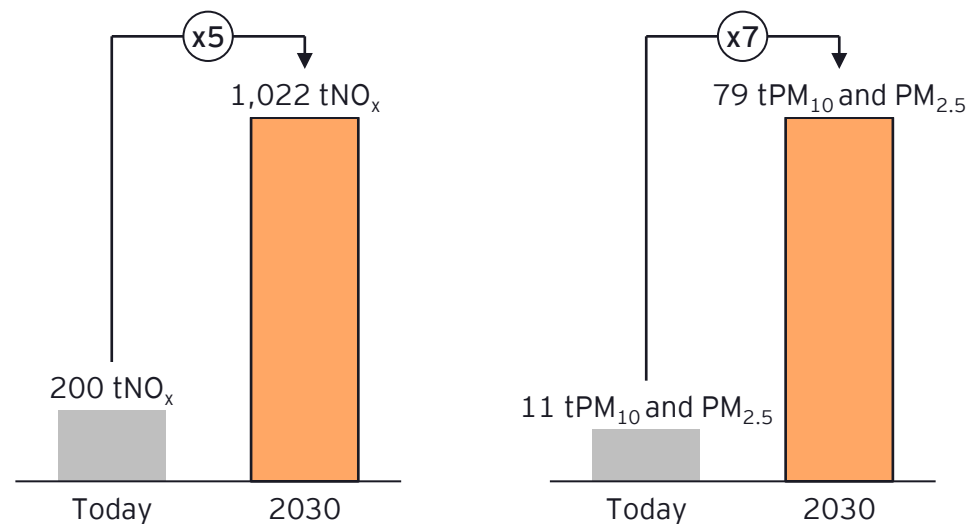
Annual economic benefits from bike-sharing (EU 27 + UK, Switzerland, Norway)



EU carbon prices could climb to €270/t by 2030 under the EU scenario.

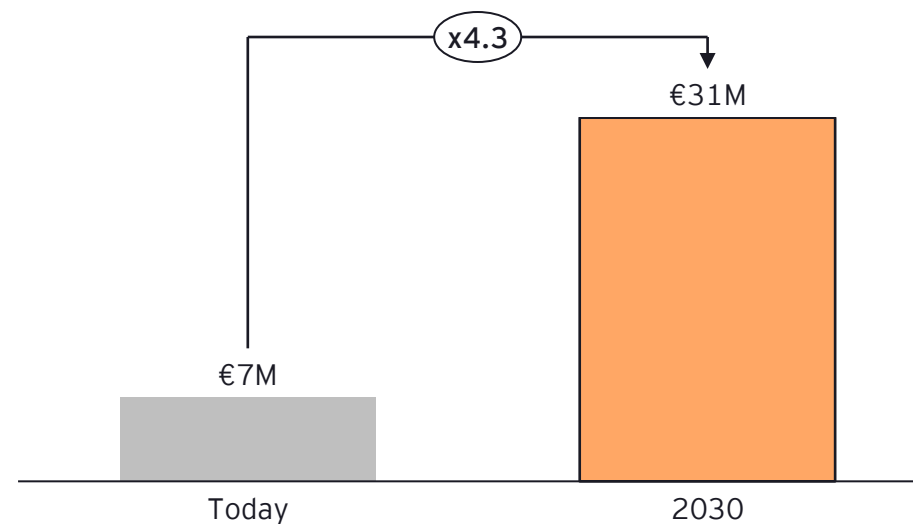
By 2030, the use of bike-sharing could slash fine particle emissions sevenfold, creating €31M in annual positive externalities, up from €7M today

Annual nitrogen oxides (NO_x) and coarse particles (PM₁₀) emissions saved by bike sharing usage (EU 27 + UK, Switzerland, Norway)



=
+260,000 people avoiding car commute annually

Annual economic benefits from bike-sharing (EU 27 + UK, Switzerland, Norway)

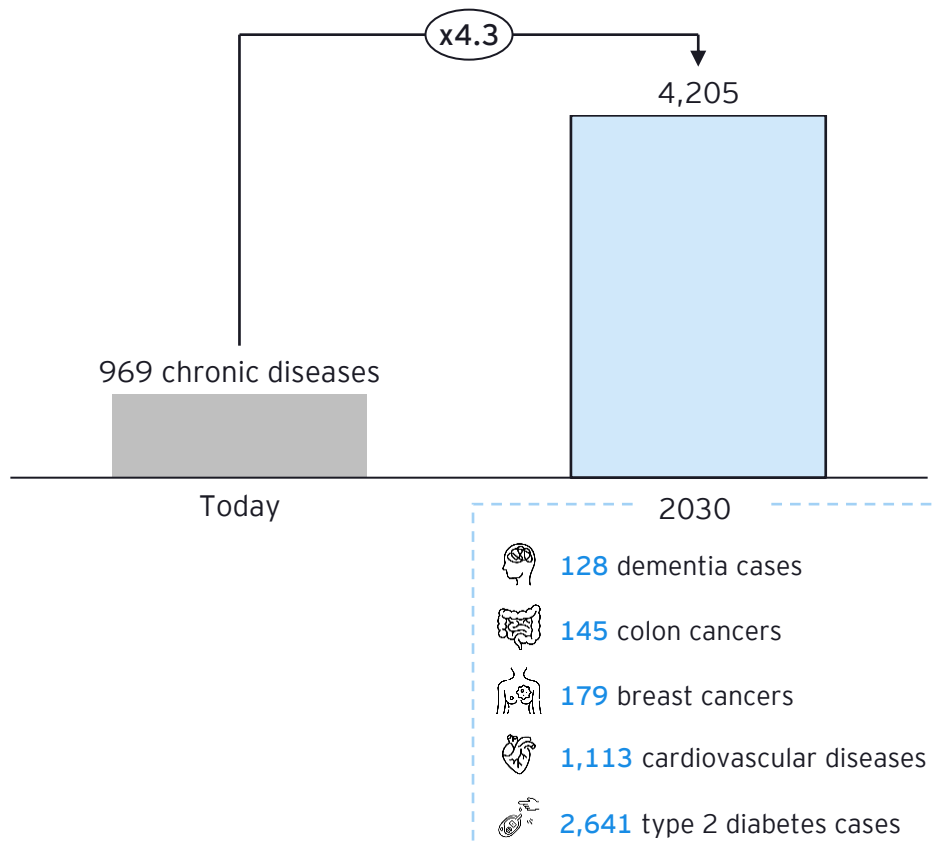


€31 M in positive externalities generated each year from avoided air pollution (NO₂, PM₁₀, PM_{2.5}, and SOMO35)

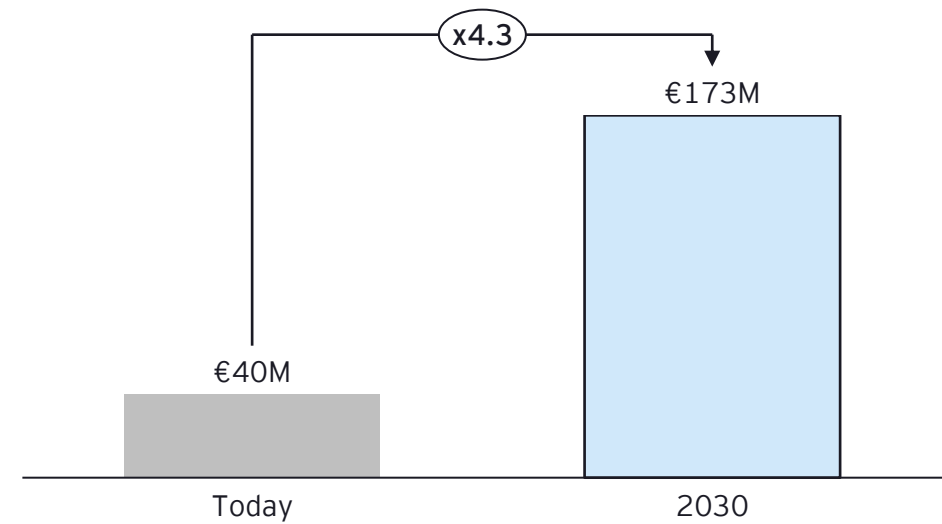
Sources : Airparif, Peitzmeier et al., Real-world vehicle emissions as measured by in situ analysis of exhaust plumes (2017), Institut Terram, mobilités : la santé mentale à l'épreuve des transport (2025), Ministère de la transition écologique, Comment les Français se déplacent-ils pour aller travailler ? (2024), European Commission, The Handbook on the external costs of transport (2019), ADEME, contribution du développement de la marche et du vélo à la décarbonation et l'amélioration de la qualité de l'air (2025)

By 2030, bike-sharing could prevent around **4,000 cases of chronic disease** annually and generate **€173M** in healthcare savings – x4 more than today

Annual diseases prevented by bike sharing usage (EU 27 + UK + Switzerland + Norway)



Annual economic benefits from bike-sharing (EU 27 + UK, Switzerland, Norway)

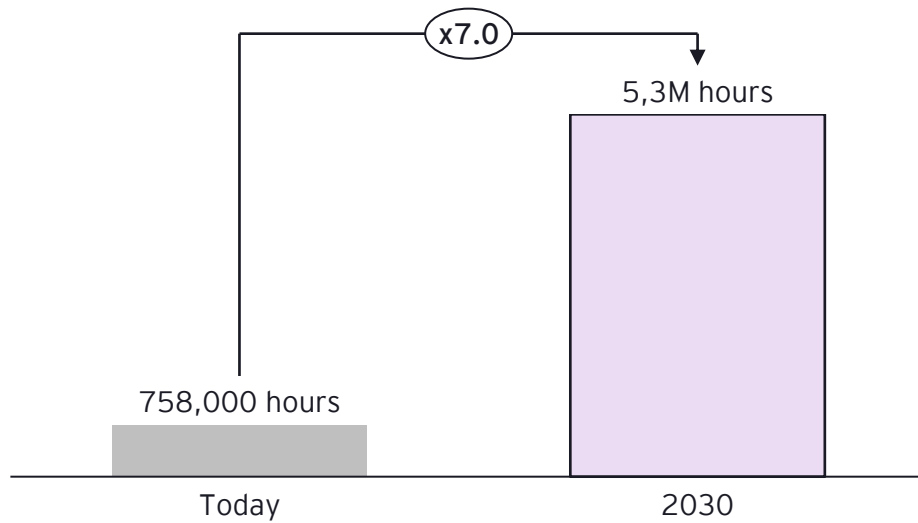


Annual savings in public health expenditures

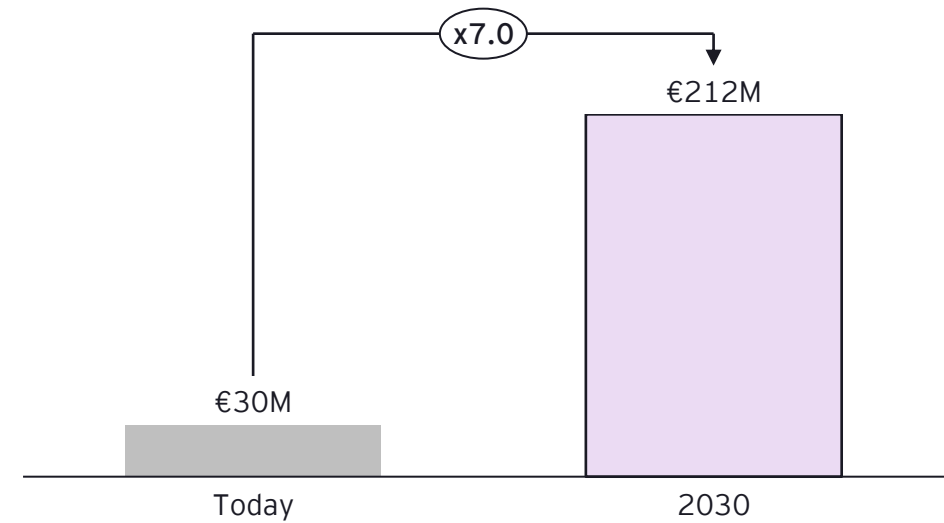
Sources: Emilie et al. *The untapped health and climate potential of cycling in France: a national assessment from individual travel data*, *The Lancet Regional Health - Europe*, Volume 39 (2024)

By 2030, each year, bike-sharing could reclaim ~5M hours lost to car travel, generating €212M in productivity gains – x7 times today's figure

Annual total time saved by all bike-sharing users (EU 27 + UK + Switzerland + Norway)



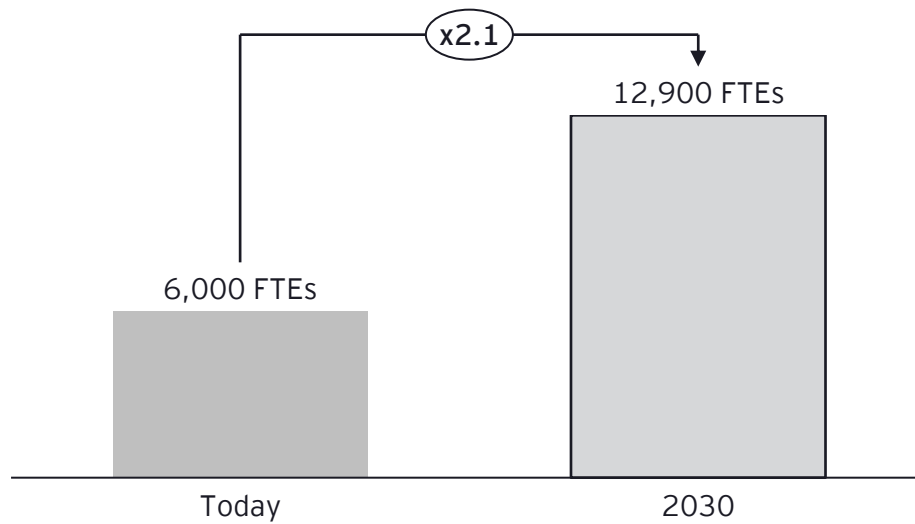
Annual economic benefits from bike-sharing (EU 27 + UK, Switzerland, Norway)



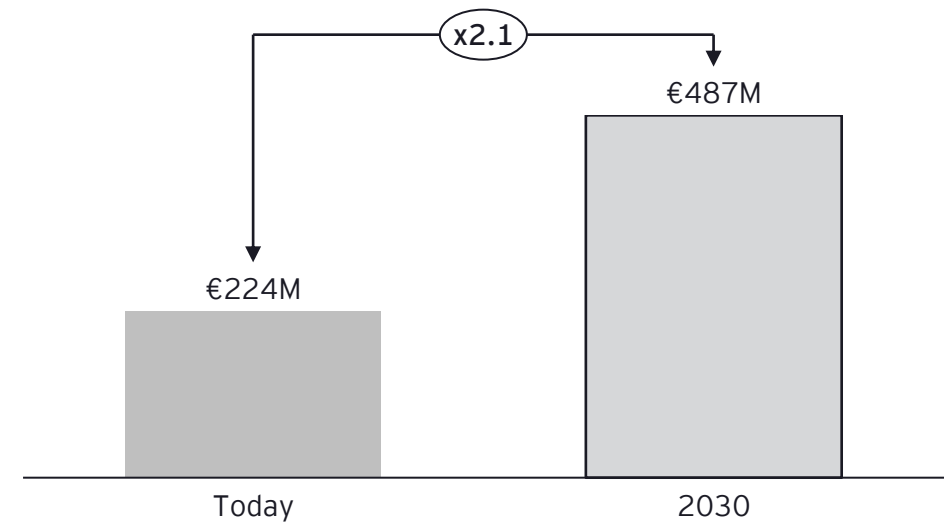
Annuals productivity gains derived from substituting car journeys with bike-sharing trips

Bike-sharing could support ~13,000 direct local jobs by 2030, generating €487M in annual wages and enhancing social value

Direct FTEs supported by bike-sharing (EU 27 + UK, Switzerland, Norway)

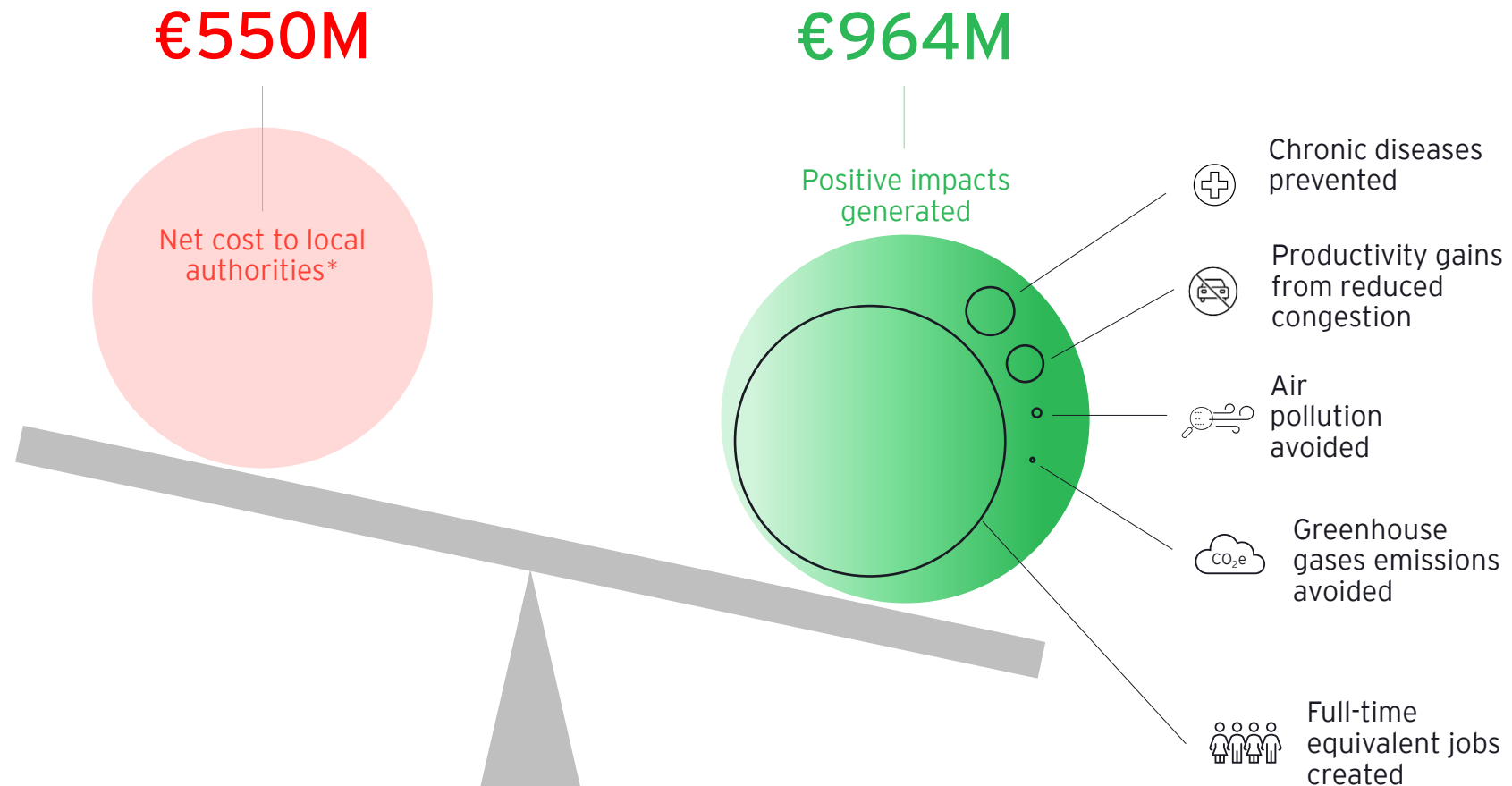


Annual economic benefits from bike-sharing (EU 27 + UK, Switzerland, Norway)



Annually generated in wages

By 2030, each euro invested in bike-sharing could generate €1.75 in positive impacts, delivering a 75% annual return



*The net cost to local authorities has been estimated using public data, including ADEME's data. It corresponds to the annual net expense per public shared bike, after deducting revenues generated by private shared bikes for the benefit of the local authority.

Sources: Brussels Mobility, Public Bicycles (PB) & Long-Term Rental (LTR) International Benchmark (2024), Association des acteurs du vélo public, Rapport du vélo public (2023), ADEME, Actualisation de l'étude d'évaluation des services vélos (2021), EY interview; EY calculation

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Workshops and in-depth interviews have provided valuable insights from both cities and operators, shedding light on the main barriers to the effective roll-out of bike-sharing schemes



Workshop held in Gdansk (Poland) during the Velo-city event on 11 June, bringing together approximately 30 participants, including city representatives and bike-share operators



~20 interviews conducted via videoconference between May and July 2025. Participants included operators, city officials, and academic experts.

In your view, what are the main barriers to the expansion of bike-sharing systems for cities?



Word cloud generated based on responses provided by city representatives



Word cloud generated based on responses provided by operators

Analysis and responses from cities and operators helped identify nine key conditions for success, essential for unlocking the full potential of bike-sharing

Drive innovation and performance

Build leadership and partnerships

Create conditions for flexible and efficient bike-sharing deployment to give operators the opportunity to adapt supply to demand, implement dynamic pricing, and optimize fleet usage

Ensure long-term commitment by securing political support and dedicated fundings and resources

Improve experience and service reliability to effectively meet demand and user expectations

Foster strong partnerships with bike-sharing operators by creating conditions that guarantee long-term operational stability

Establish a data-centric approach that builds staff expertise, maximizes their capacity, and drives informed, evidence-based decision making

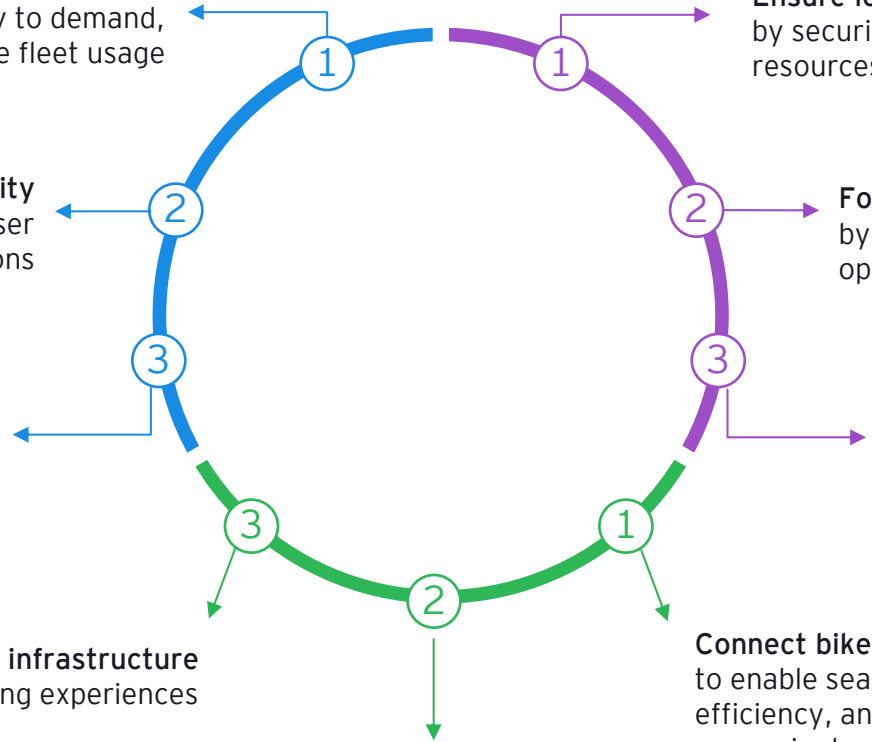
Strengthen multilevel governance to foster coherence across a broader territorial scale

Improve cycling infrastructure to provide safe and seamless cycling experiences

Connect bike-sharing schemes with existing public transport networks to enable seamless multimodal journeys, improve urban transport efficiency, and make public transit more attractive, accessible, and convenient

Promote a strong cycling culture positioning bike-sharing as the go-to option for everyone

Empower people and places



Build leadership and partnerships | Recommendations to help policymakers ensure the conditions for success are met

1

Ensure long-term commitment

by securing political support and dedicated fundings and resources

- Integrate bike-sharing into city master plans and policies to embed it within urban mobility strategies and foster sustainable, long-term transport solutions
- Allocate long-term dedicated budget for maintenance and expansion
- Monitor performance and report impact to decision-makers

2

Foster strong partnerships with bike-sharing operators

by creating conditions that guarantee long-term operational stability

- Establish communication channels and share data with operators
- Lengthen contracts to ensure ROI and stable operations
- Streamline regulations and procurement to encourage investment
- Refine agreements with e-bike fleet investors to reward public objectives and offset the high costs of e-bike assets
- Incentivize operator expansion into peripheral areas
- Prioritize holistic ecosystem management over fragmented approaches

3

Strengthen multilevel governance

to foster coherence across a broader territorial scale

- Organise multi-jurisdiction governance, particularly within the same functional urban area (FUA)
- Align fleet sizes and station locations within FUAs
- Share data and best practices between municipalities
- Develop regional pricing and subscription models
- Coordinate infrastructure standards (bike lanes, signage, docking...)
- Plan joint communication/marketing campaigns to encourage cross-city cycling

Empower people and places | Recommendations to help policymakers ensure the conditions for success are met

1

Connect bike-sharing schemes with existing public transport networks

to enable seamless multimodal journeys

- Develop additional bike-share stations around transit nodes
- Implement unified payment systems, allowing single-ticket or app-based payments across all modes
- Planning routes connecting key residential, commercial, and educational areas, maximizing usability and convenience

2

Promote a strong cycling culture

positioning bike-sharing as the go-to option for everyone

- Launch public awareness campaigns promoting cycling benefits
- Organize community events, bike-to-work days, and competitions
- Offer cycling education programs in school and workplaces
- Enhance social incentives to bike-sharing accessibility

3

Improve cycling infrastructure

to provide safe and seamless cycling experiences

- Build protected bike lanes separated from traffic
- Improve intersection design to reduce conflicts with cars
- Install clear and consistent signage and road markings
- Maintain smooth road surfaces and remove hazards regularly
- Limit vehicle speeds where protected cycling infrastructure is absent

Drive innovation and performance | Recommendations to help policymakers ensure the conditions for success are met

1

Create conditions for flexible and efficient bike-sharing deployment

to give operators the opportunity to adapt supply to demand, implement dynamic pricing, and optimize fleet usage

- Provide bike-sharing operators with flexible operational frameworks that support real-time adaptation of supply to meet fluctuating demand
- Implement flexible pricing models (pay-as-you-go, daily passes, subscriptions, bundles for public transport users...)
- Allow incentives during high-demand periods or in busy zones to encourage balanced usage

2

Improve user experience and service reliability

to effectively meet demand and user expectations

- Offer intuitive, app-enabled rental and payment systems
- Include e-bikes or assistive options, especially for longer trips or hilly terrain
- Provide multilingual instructions and customer support, inclusive and easy to use for all demographics
- Implement incident reporting and real-time alerts to accelerate maintenance and problem resolution

3

Establish a data-centric approach

that builds staff expertise, maximizes their capacity, and drives informed, evidence-based decision making

- Collect and analyse real-time usage data to identify hotspots
- Monitor usage across docked systems and implement predictive redistribution to ensure availability
- Use predictive analytics to plan station locations and fleet size to future demand

The literature review helped identify cases where conditions for success were met, giving bike-sharing schemes a significant boost (1/2)

| City | Ambition | Implementation | Success factors met |
|--------------------|---|--|--|
| Gijon (Spain) | Update the system created in 2004 to provide an attractive and modern service | <ul style="list-style-type: none"> • Introduction of 250 electric bicycles to encourage adoption in a context of challenging topography • Introduction of lighter bicycles with redesigned and safer braking technology • Integration of sensors and connectivity features to streamline maintenance and generate real-time data • Expansion of the network to reach 47 stations | <ul style="list-style-type: none"> 2 Improve user experience and service reliability 3 Establish a data-centric approach 3 Improve cycling infrastructure |
| Marseille (France) | Update the system created in 2007 to provide an attractive and modern service | <ul style="list-style-type: none"> • Introduction of 200 electric bicycles, effectively doubling the fleet • Creation of 70 stations to reach a total of 200 <p><i>Results: Trips doubled within six months despite a launch during the off-peak season (December)</i></p> | <ul style="list-style-type: none"> 2 Improve user experience and service reliability 3 Improve cycling infrastructure |
| Cardiff (UK) | Combat vandalism and theft | <ul style="list-style-type: none"> • Cooperation with multiple stakeholders: led by Nextbike, in partnership with OVO Energy, the city council, the police, and local charities. • Key measures included community awareness campaigns, joint patrols, police training, improved incident reporting, strategic reallocation of stations, and increased enforcement. | <ul style="list-style-type: none"> 2 Foster strong partnerships with bike-sharing operators 3 Strengthen multilevel governance 2 Promote a strong cycling culture |
| Barcelona (Spain) | Continuous improvement of the bike-sharing service | <ul style="list-style-type: none"> • The launch of the Bicing system in 2007 was accompanied by a plan to build over 200 kilometers of new cycling lanes. • Barcelona's regional AMBici system was gradually deployed across 15 municipalities, with 236 stations and 2,600 electric bicycles to support longer trips. • Barcelona stands out as the first city to use 100% of net revenue from on-street parking fees to finance its public bike-sharing system. | <ul style="list-style-type: none"> 1 Ensure long-term commitment 3 Improve cycling infrastructure |

Sources: Fifteen, *Bicicleta compartida en Espana: oportunidades y retos para una movilidad urbana mas sostenible* (2023), CoMoUK, *Bike share guidance for local authorities* (2022), ITDP, *the Bikeshare planning guide* (2018)

The literature review helped identify cases where conditions for success were met, giving bike-sharing schemes a significant boost (2/2)

| City | Ambition | Implementation | Success factors met |
|--|--|---|---|
| The Capital Region of Denmark, Hovedstaden (Denmark) | Increasing the share of bike commuting from 22% to 32% of total commuting distance by 2035 and developing mobility hubs to enhance intermodal connectivity | <ul style="list-style-type: none"> • Deployment of 1,800 bicycles in areas underserved by public transport to serve as a first- and last-mile solution and enhance connectivity with the existing network • Launch of a pilot of 200 bicycles to test the model and gather critical insights • Coordination of 47 municipalities through a regional governance framework • Integration of shared bikes with the regional mobility authority to align transport modes • Monitoring of performance via a monthly data-driven steering committee using key indicators • Targeted hub placement using local stakeholder input, demographic analysis, and public transport data • Inclusion of shared bikes in the regional mobility app to streamline access and encourage multimodal use <p><i>Results : since the launch of the 200 bikes, over 8,700 unique users have used the service, with 30% of trips connected to other public transport modes.</i></p> | <ul style="list-style-type: none"> ③ Strengthen multilevel governance ① Connect bike-sharing schemes with existing public transport networks ③ Establish a data-centric approach |
| Antwerp Region (Belgium) | Extend shared bikes availability beyond the city limits to cover a broader metropolitan area | <ul style="list-style-type: none"> • Deployment strategy featuring a low station density of 0.3 stations per km², well below typical European urban averages of 2.4 to 5.2 stations per km² • Allocation of 86% of the fleet as electric bicycles to facilitate longer-distance trips to the city and inter-suburban travel, particularly for daily commutes integrated with public transport • Coordination of regional governance under Lantis, uniting two transport regions and 32 municipalities around a shared strategy • Enhancement of multimodal accessibility by deploying virtual stations near mobility hubs to streamline connections with public transport | <ul style="list-style-type: none"> ③ Strengthen multilevel governance ③ Improve cycling infrastructure ② Improve user experience and service reliability |

Sources: UE Gemini project, Dott, Rudersdal Kommune, Hovedstaden, Traffic and mobility plan for the capital region of Denmark, City of Copenhagen, The bicycle account 2022 (2022), EY interviews, Donkey Republic, Brussels Mobility, Public Bicycles (PB) & Long-Term Rental (LTR) International Benchmark (2024)

Interviews suggested that both municipalities and operators are grappling with which procurement approaches are most suitable to implement

Interviews and the literature review helped identify issues and examples related to procurement. The following provides a non-exhaustive overview.

| What are the issues ? | What is at stake ? | Examples |
|--|---|--|
| Public-private partnership or permitted system? | <ul style="list-style-type: none"> Publicly procured bikeshare systems are generally used for docked bikes. This structure is defined by the establishment of one or more contracts between the organizing public authority and each of the various system components, including bikes and stations, software, operations, advertising, and marketing. The permitted system framework is designed for privately operated systems, potentially involving multiple operators. In addition to the permit itself, several cities require private bikeshare operators to agree to comply with additional rules to obtain approval. | <ul style="list-style-type: none"> In London, the model chosen is a public-private partnership between Transport for London and Serco for Santander Cycles. In Rome, the permitted system allows multiple private operators to obtain authorization for a three-year concession, paying a fee per vehicle and complying with rules on speed, vehicle identification, and prior operational experience. |
| Bundling of contracts or separate contracts? | <ul style="list-style-type: none"> Combining infrastructure and operations incentivizes the contractor to provide high-quality infrastructure thus reducing maintenance costs and easing system transition from infrastructure implementation to service operation. a distinct contract for operations and infrastructure due to varying depreciation times of hardware such as stations, terminals, and control centers. | <ul style="list-style-type: none"> In Antwerp, Paris, and Brussels, cities issued tenders combining both the provision of bikes and stations and the service operations. In Budapest, the city issued a tender only for operations. |
| Short or long contracts? | <ul style="list-style-type: none"> Long-term contracts are generally used when significant infrastructure investment is required, allowing for asset depreciation and enabling the operator to earn a return on investment. Short-term contracts are often aligned with the lifespan bicycles (three to five years), offering the city flexibility to adapt to new technologies and operating models. To ensure uninterrupted service, the city must retain control over the software and data, since hardware and software do not have the same lifespan. | <ul style="list-style-type: none"> Contracts generally last more than 10 years (Brussels, Antwerp Region). Budapest has a five-year contract corresponding to bicycle depreciation. Vienna has a five-year contract with the possibility of a four-year extension. |
| Which operation and impact objectives ? | <ul style="list-style-type: none"> The primary objectives are to effectively manage public space, promote equity and accessibility, enhance planning and enforcement, and protect users. Bikeshare can also be a key component in achieving accessibility, sustainability, health, and other goals cities are already working toward. Unrealistic quality targets can lead operators to inflate bids or face financial failure. | <ul style="list-style-type: none"> The Belfast tender incorporated a 20% scale value scoring in the selection process. Brussels required that the operator use renewable electricity for both operation and maintenance. Antwerp's Velo sets non-punitive targets. |

Sources : ITDP, *The Bikeshare planning guide (2018)*, EY interviews

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7 | Appendix

25 city representatives, operators, and experts participated in the workshop organized in Gdansk during Velocity on June 11, 2025

| Name | Entity | Country | |
|-------------|----------------|----------------------|-----------------|
| Alejandro | Martín Barraza | INURBA mobility | Spain |
| Alessia | Di Maio | Lyft Urban Solutions | |
| Bram | de Pooters | City of Antwerp | The Netherlands |
| Camille | Loth | Cooltra | Spain |
| Christophe | de Voghel | City of Brusells | Belgium |
| Emma | Edvardsson | City of Goteborg | Sweden |
| Hanna | Helsing | City of Stockholm | Sweden |
| Henrik | Söderström | City of Stockholm | Sweden |
| Jean-Michel | Boëz | Fifteen | France |
| Jennifer | McGrath | Dublin city council | Ireland |
| Julien | Renggli | Mobilidée | Switzerland |
| Karen | Vancluysen | Polis | Bruxelles |
| Keroum | Slimani | Metropolis of Lyon | France |

| Name | Entity | Country | |
|------------|--------------|--|-----------------|
| Kristian | Brink | Urban Sharing | Norway |
| Małgorzata | Jedynak | Krakow | Poland |
| Mark | Sexton | Its Global | UK |
| Nicolas | Boutaud | Smovengo | France |
| Piotr | Kaczmarek | Next Bike | Poland |
| Piotr | Borawski | Gdansk | Poland |
| Sebastian | Schlebusch | Dott | Germany |
| Sheila | Ferrer | Spanish Ministry of Transport and Sustainable Mobility | Spain |
| Sven | Huysmans | City of Antwerp | The Netherlands |
| Thomas | Mourey | Eurocities | Belgium |
| Tom | Nutley | Urban Sharing | Norway |
| Victor | van der Have | Fondation Rotterdamse Stadsfiets | The Netherlands |

Around 20 interviews with city representatives, operators, and experts have been conducted throughout the project timeline

| Name | Position | Entity | Date |
|-----------------------|--|---|------------|
| Rikesh Shah | Independent consultant | - | 12/06/2025 |
| Søren Kofoed Bom | Project Manager for Mobility | Capital Region of Denmark (Hovedstaden) | 21/05/2025 |
| Romeo Arianna | Mobility Officer | | |
| Damien Cottereau | Cycling Policy Project Manager | Grenoble Metropolitan Mobility Entity | 13/06/2025 |
| Marine Francon | | | |
| Lara Assouline | Mobility director | | |
| Anouk Exertier | Development of Mobility Services | | |
| David Leicher Auchapt | Project Manager for Bike and Station-Based Carsharing Services | Lyon Metropolis | 04/07/2025 |
| Anne-Sophie Petitprez | Head of the Mobility Management Unit | | |
| Fabien Tshiteya | Head of the Data, Monitoring, and Mobility Modeling Unit | | |
| Mathieu Meylan | | | |
| Céline Magry | Head of the land and real estate strategy coordination unit | | 04/08/2025 |
| Laurence Castellon | Head of the public space transformation department | | |
| Sylvain Raifaud | President of Agemob (the entity in charge of Vélib'). Paris city councillor | City of Paris | 14/07/2025 |
| Sebastian Schlebush | Head of Market Development | Dott | 21/07/2025 |
| Bram Seeuws | Project and policy coordinator | Way to go | 24/07/2025 |
| Matthew Chapman | Hub manager at Glasgow | Velogik | 29/07/2025 |

More than 50 sources, including academic research, industry reports, and press articles, were drawn upon to underpin the study (1/3)

| Theme | Title | Author | Date |
|------------|--|--|------------|
| Fleet | Shared ambition benchmark, 1 st and 2 nd edition | CIE | 2023,2024 |
| | European shared mobility, 2023 and 2024 edition | Fluctuo | 2023, 2024 |
| | Health impacts of bike-sharing systems in Europe | Otero et al. | 2018 |
| | Public Bicycles (PB) & Long-Term Rental (LTR) International Benchmark | Brussels Mobility | 2024 |
| | City statistics - demography | Eurostat | 2024 |
| | ESG report | Donkey republic | 2024 |
| | Bike-sharing Systems' Impact on Modal Shift: A Case Study in Delft, the Netherlands | Ma et al., | 2020 |
| | Rapport du vélo public | Association des acteurs du vélo public | 2023 |
| | Livre blanc : l'impact du vélo en libre-service électrique dans les villes moyennes | Fifteen | 2024 |
| | Actualisation de l'étude d'évaluation des services vélos | ADEME | 2021 |
| | Measuring New Mobility: Definitions, Indicators, Data Collection | ITF | 2023 |
| | Fifth generation of bike sharing systems - examples of Poland and China | Chen et al. | 2018 |
| | The contradictions of bike-share benefits, purposes and outcomes | Médard de Chardo | 2019 |
| Fiche vélo | Certu | 2012 | |
| Congestion | Special Eurobarometer 495 - Mobility and transport | European Commission | 2020 |
| | TomTom Traffic Index 2025 | TomTom | 2025 |
| | Sustainable Urban Mobility in the EU: No substantial improvement is possible without Member States' commitment | European Court of Auditors | 2020 |
| | The Impact of Bike-Sharing Systems on Congestion. Evidence from European Urban Areas | Bernardo, Valeria | 2022 |
| | The benefits of cycling: unlocking their potential for Europe | ECF and CIE | 2018 |

More than 50 sources, including academic research, industry reports, and press articles, were drawn upon to underpin the study (2/3)

| Theme | Title | Author | Date |
|---------------|---|--|------|
| Health | Step up! Tackling the burden of insufficient physical activity in Europe | WHO, OCDE | 2024 |
| | Health-enhancing physical activity in the European Union | WHO | 2024 |
| | European Declaration on Cycling | European Commission | 2024 |
| | Annual Shared Micromobility Report | CoMoUK | |
| | Rapport du vélo public | Association des Acteurs du Vélo Public | 2023 |
| | Annual activity report (Rapport d'activité) | Agemob | 2023 |
| | The untapped health and climate potential of cycling in France: a national assessment from individual travel data | Emilie et al. | 2024 |
| GHG emissions | Decarbonizing transport in Europe - the way forward | International Transport Forum | 2020 |
| | The ITF Urban Passenger model - Insights and example outputs | International Transport Forum | 2020 |
| | Good to go? Assessing the Environmental Performance of New Mobility | International Transport Forum | 2020 |
| | Greener Micromobility | International Transport Forum | 2024 |
| | Nouveaux scénarios NGFS (Phase 4) : impacts économiques pour la France | Banque de France | 2024 |
| Air pollution | Air pollution in the EU: facts and figures | Council of the European Union | 2022 |
| | Air quality status report 2025 | European Environment Agency | 2025 |
| | Flash Eurobarometer 561 - Public opinion on urban challenges and investment in cities | European Commission | 2025 |
| | Premature deaths due to exposure to fine particulate matter in Europe | European Environmental Agency | 2024 |
| | Contribution du développement de la marche et du vélo à la décarbonation et l'amélioration de la qualité de l'air | ADEME | 2025 |
| Jobs | ESG report 2024 | Donkey republic | 2025 |
| | Rapport d'activité | Genèveroule | 2024 |

More than 50 sources, including academic research, industry reports, and press articles, were drawn upon to underpin the study (3/3)

| Theme | Title | Author | Date |
|---------------|---|--------------------------------------|------|
| Accessibility | Changeons d'air, changeons de mobilités | ADEME | 2024 |
| | Transport poverty: definitions, indicators, determinants, and mitigation strategies | European Commission | 2024 |
| | Le réseau Vélo'v s'agrandit avec 33 nouvelles stations Vélo'v | Métropole Grand Lyon | 2025 |
| | Nouveau Vélo'v électrique : la mobilité active en toute simplicité | Métropole Grand Lyon | 2023 |
| | La géographie prioritaire dans la métropole de Lyon (contrat de ville 2024-2030) | Urbalyon | 2024 |
| | Lessons from thirteen years of the London cycle hire scheme: A review of evidence | Zhang et al | 2024 |
| | Effect of dockless bike-sharing scheme on the demand for London Cycle Hire at the disaggregate level using a deep learning approach | Ding et al | 2022 |
| | Glasgow's bikeshare scheme: trends in use | Glasgow Centre for Population Health | 2023 |
| 2030 scenario | Urban adaptation in Europe | European Environment Agency | 2020 |
| | The development trends of lowand zero-emission zones in Europe | Clean cities | 2022 |
| | Mobility barometer | Ipsos | 2024 |
| | European Urban Mobility Framework | European Commission | 2021 |
| | Bike Sharing to accomplish EU's Social Climate Fund goals | CIE | 2025 |
| Barriers | Optimising Bike Sharing in European Cities | OBIS | 2011 |
| | Bicicleta compartida en Espana: oportunidades y retos para una movilidad urbana mas sostenible | Fifteen | 2023 |
| | Bike share guidance for local authorities | CoMoUK | 2022 |
| | The Bikeshare planning guide | ITDP | 2018 |
| | Traffic and mobility plan for the capital region of Denmark | Copenhagen Hovedstaden | - |
| | The bicycle account 2022 | City of Copenhagen | 2023 |

Focus | The untapped health and climate potential of cycling in France: a national assessment from individual travel data



Emilie et al. The untapped health and climate potential of cycling in France: a national assessment from individual travel data, The Lancet Regional Health - Europe, Volume 39, 2024

Relevance

- Recognized by the scientific community (published in The Lancet, promoted by the Institut Pasteur).
- Details the diseases studied : make the study more pedagogical to understand.

Limitation

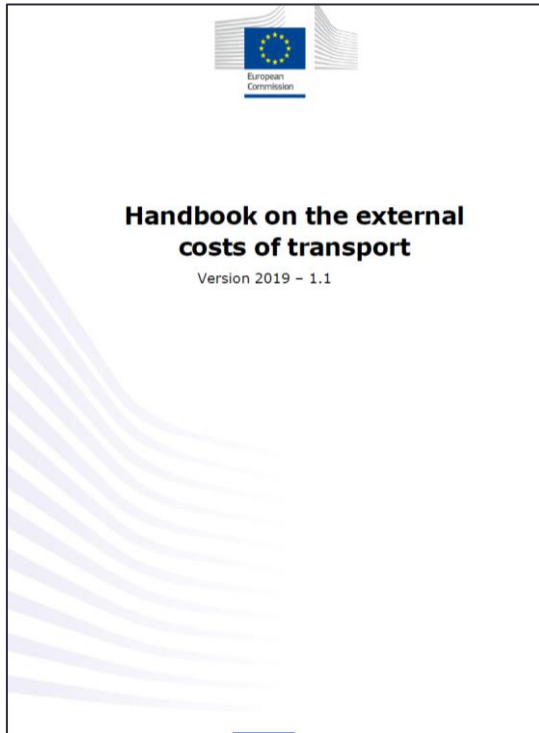
- Exclusively focused on the French population. We assumed that travel patterns observed in the French population are considered representative of those of the broader European population.
- Not specific to bike-sharing, but applicable to all forms of bicycle use.
- No differentiation between mechanical bikes and e-bikes.
- Healthcare cost figures for the diseases: originally in 2018 euros and updated to 2025 terms.
- Counterfactual scenario used: cycling trips are replaced by modes of transport involving no physical activity, such as cars or public transport.

Data

- Diseases studied :
 - breast cancers
 - colon cancers
 - cardiovascular diseases
 - dementia cases
 - type 2 diabetes cases
- Health care costs are based on expenses reimbursed by all health insurance schemes : (1) outpatient care, (2) hospitalization in public or private healthcare facilities (3) daily allowances. Total disease-specific medical costs were estimated from annual costs assuming an average duration of disease. The average duration is estimated as : if the disease is stable within the population (neither increasing nor decreasing), then the average duration can be estimated by dividing the total number of individuals currently affected (prevalent cases) by the number of new individuals who develop the disease (incident cases).

Focus | Handbook on the external costs of transport

Noise and air pollution

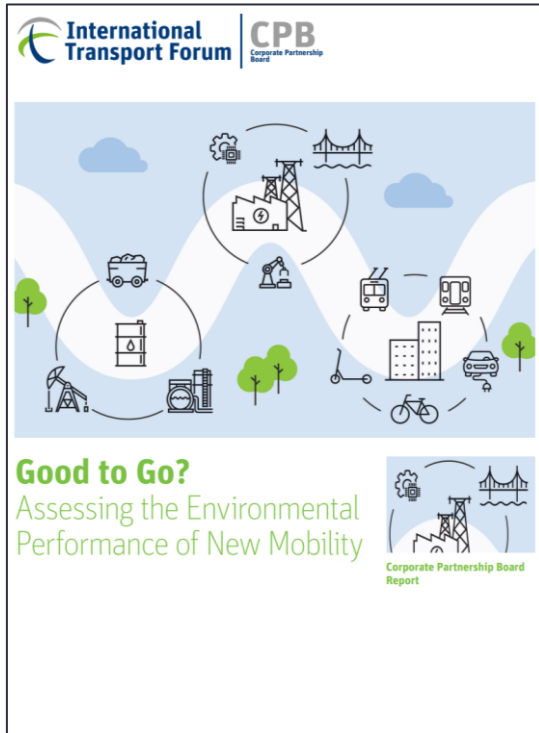


European Commission DG
MOVE, Handbook on the external costs
of transport, 2019

| | |
|-------------------------------------|---|
| Relevance | <ul style="list-style-type: none">• Data representativeness: ratios calculated at the European level• Reference document: used in numerous studies on transportation in Europe |
| Limitation | <ul style="list-style-type: none">• No details on physical quantity avoided or emitted |
| Data Noise pollution costs | <ul style="list-style-type: none">• Annoyance represents the disturbance individuals experience when they are exposed to traffic noise. It can hinder people in performing certain activities, which may lead to a variety of negative responses, including irritation, disappointment, anxiety, exhaustion and sleep disturbance.• Health costs include the burden associated with conditions such as ischemic heart disease, stroke, dementia, and hypertension. |
| Data Air pollution costs | <ul style="list-style-type: none">• Health effects: Inhalation of air pollutants increases the risk of respiratory and cardiovascular diseases. These adverse health impacts result in higher medical costs, reduced productivity due to lost workdays, and, in severe cases, premature death.• Material damage: Air pollution causes corrosion through acidification, as well as the degradation of paintwork and plastics.• Crop losses: Ozone and other acidic pollutants damage agricultural crops, leading to reduced yields as pollutant concentrations rise.• Biodiversity loss: Air pollutants contribute to ecosystem damage—such as soil and water acidification and eutrophication—resulting in decreased biodiversity. |

Focus | Good to Go? Assessing the Environmental Performance of New Mobility

GHG emissions



ITF,
Good to Go? Assessing the Environmental Performance of New Mobility, 2020 and Greener Micromobility, 2024

Relevance

- The ITF data are based on a full life-cycle assessment.
- ITF is a non-partisan source and emissions from shared bikes are calculated based on Dott, Bolt, Lime, Tier, Voi, Swapfiet, Veligo data completed by data from scientific papers.
- ITF has a consistent and standardised methodology. The same calculation method and methodological choices are applied across all vehicle types, enabling reliable comparisons.
- ITF uses a harmonized European approach. The methodology is based on European-level data rather than being limited to national or local scopes, providing a broader and more representative perspective.
- ITF updated its calculation in 2024.

Limitation

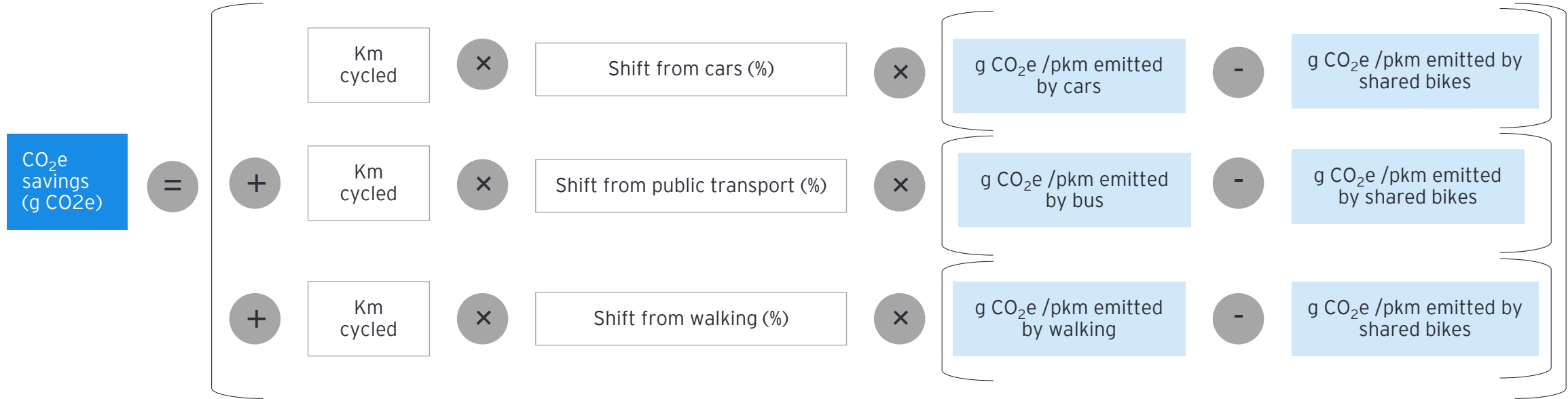
- None

The lifecycle analysis evaluates energy use and environmental impacts during design, production, use and operation, maintenance and repair and end-of-life treatments. The ITF underlines 4 mains components of the life cycle :

Data

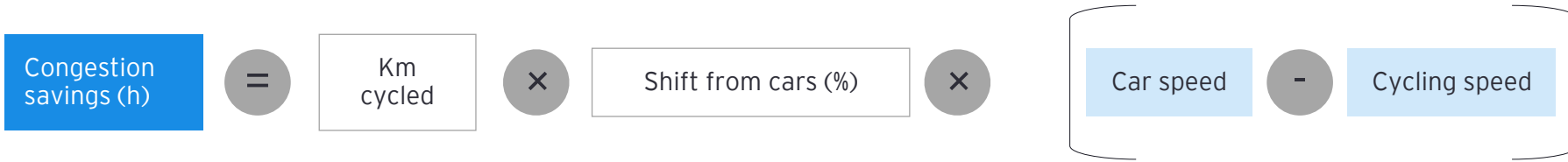
1. Vehicle components which includes the emission of:
 - Primary and secondary material extraction and processing
 - Vehicle component fabrication
 - Vehicle assembly, transport to point of use
 - End-of-life treatment
2. Fuel component which includes the emission of:
 - Primary energy extraction and production of the fuel/energy vector
 - Final use of the fuel/energy vector by the vehicle
3. Infrastructure component which includes the emission of:
 - Construction, maintenance and end-of-life management of the transport infrastructure
4. Operational services which includes the emission of :
 - (For shared bikes only) travel needed for charging and repositioning

Approach adopted for impact quantification (1/4)

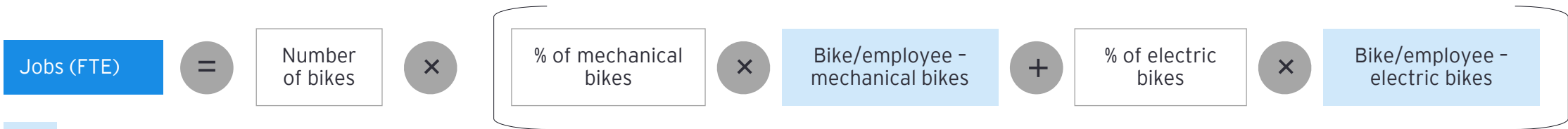


Source: IFT, *Good to Go? Assessing the Environmental Performance of New Mobility (2022)* and *Greener Micromobility (2024)*

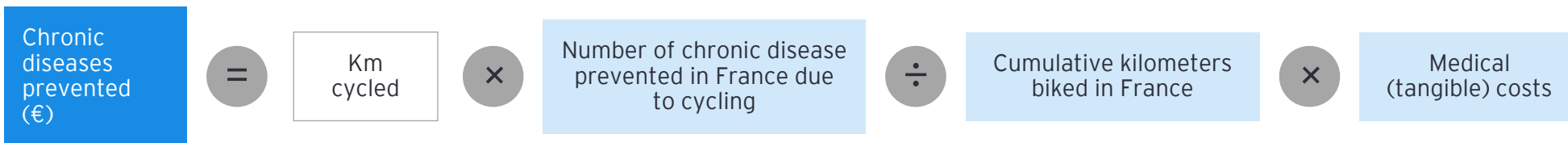
Approach adopted for impact quantification (2/4)



Source: ADEME

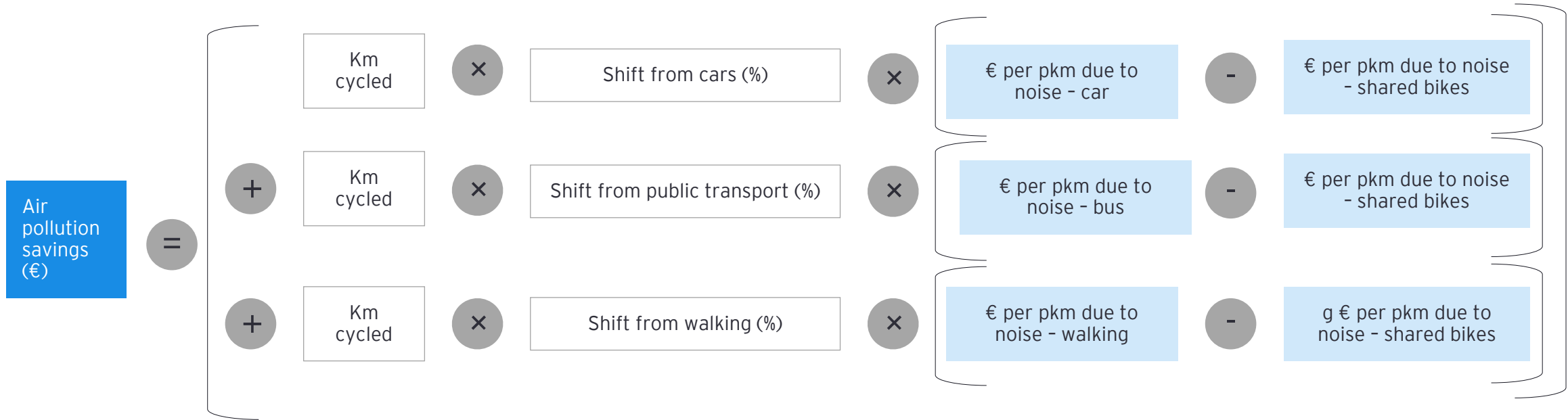


Source: Donkey Republic



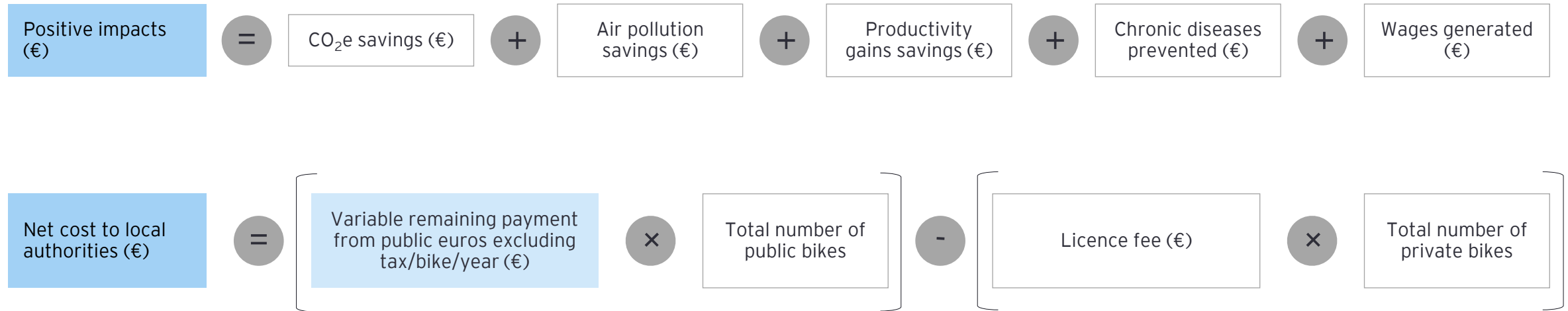
Source: Emilie et al. *The untapped health and climate potential of cycling in France: a national assessment from individual travel data (2024)*

Approach adopted for impact quantification (3/4)



Source: UE Commission, Handbook on the external costs of transport (2019)

Approach adopted for impact quantification (4/4)



Source: Brussels Mobility, Public Bicycles (PB) & Long-Term Rental (LTR) International Benchmark (2024), Association des acteurs du vélo public, Rapport du vélo public (2023), ADEME, Actualisation de l'étude d'évaluation des services vélos (2021), EY interview

$$\text{ROI (€)} = \frac{\text{Positive impacts (€)}}{\text{Net cost to local authorities (€)}}$$

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