



Tolling is difficult no longer

Amber opens up
the benefits of toll
collection to cities
and municipalities.

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Mobility transition: yes, but how?

Today, we have a widespread consensus that a mobility transition is needed: we need less congestion, fewer emissions, we want to make better use of public spaces and improve the quality of life.

However, the means to implement this are often lacking. An intelligent infrastructure fee that puts a reasonable price tag on private transport could be an ideal way to generate these funds.

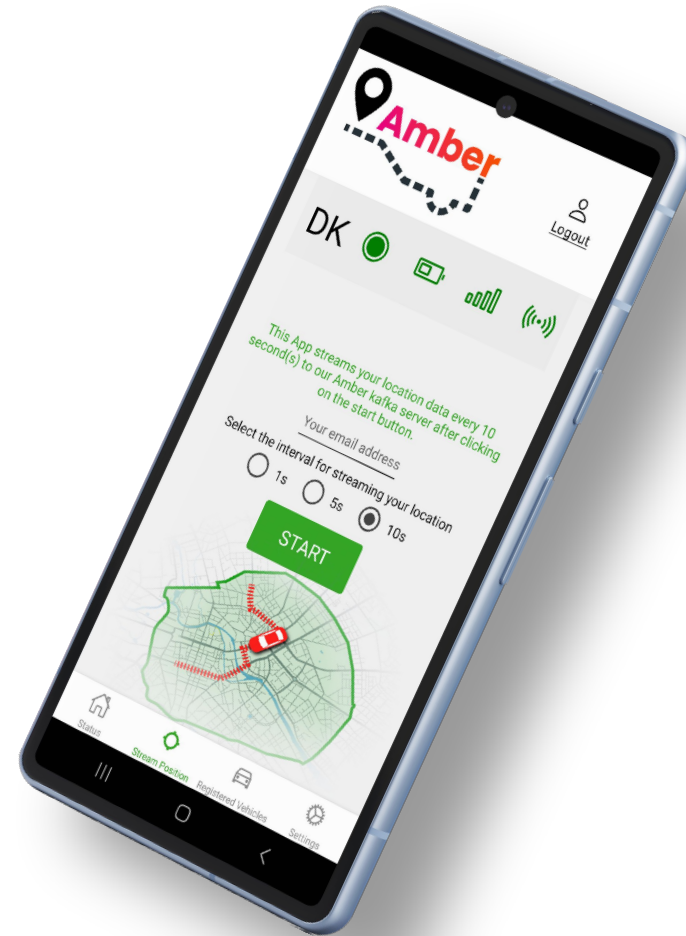
Around €20 million can be collected per 100,000 inhabitants per annum – with socially acceptable tariffs.

However, "city tolls" today have a reputation for being complex, lengthy and expensive – not least because of the experience gained in the early days of the German truck toll. Medium-sized municipalities in particular, which are literally being caught in the wheels of transit traffic, do not yet see it as a realistic option.

We would like to correct this impression and present:

Amber, the white label tolling system for municipalities from 50,000 residents.

Introducing Amber



Amber is a “white label” toll collection system that can easily and cost-efficiently be configured for the needs of any municipality and other regional entity, allowing to develop new sources of income and to manage traffic in a fair way.

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Cost efficient

Amber makes toll collection fully affordable also for local authorities.

Nearly ready for use

Except for final configuration, all development work has already been done.

Fully configurable

All components work in a modular way. The design can be freely customized.

Proven technology

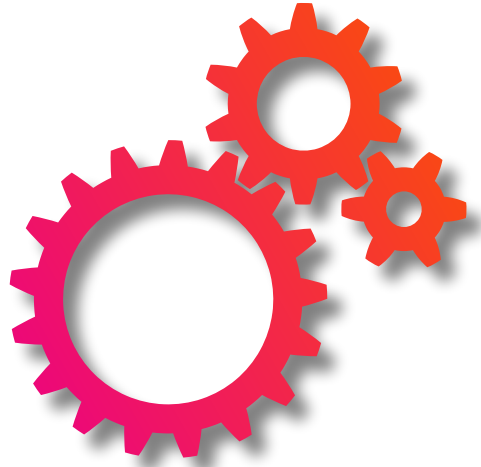
Our solution is tried and tested, comparable to EETS standards.

Intelligent collection

Amber caters for all methods of collection: Flat, by time, by distance, by exact route.

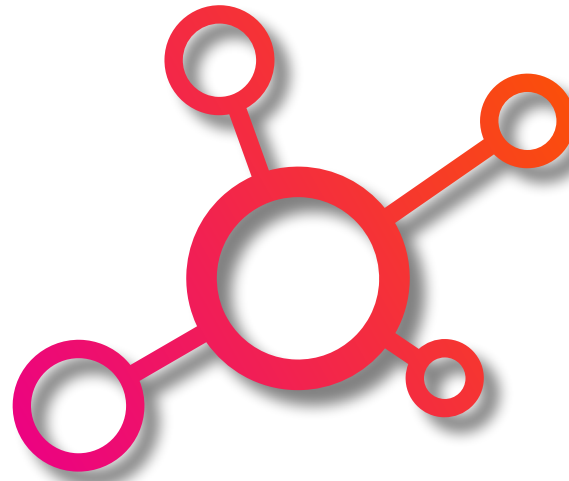
Amber Components

1. Backend



The backend stores and manages all user, vehicle, map and tariff **data**, provides the **intelligence** to match vehicle positions with maps, and calculates the fees.

2. Connectivity



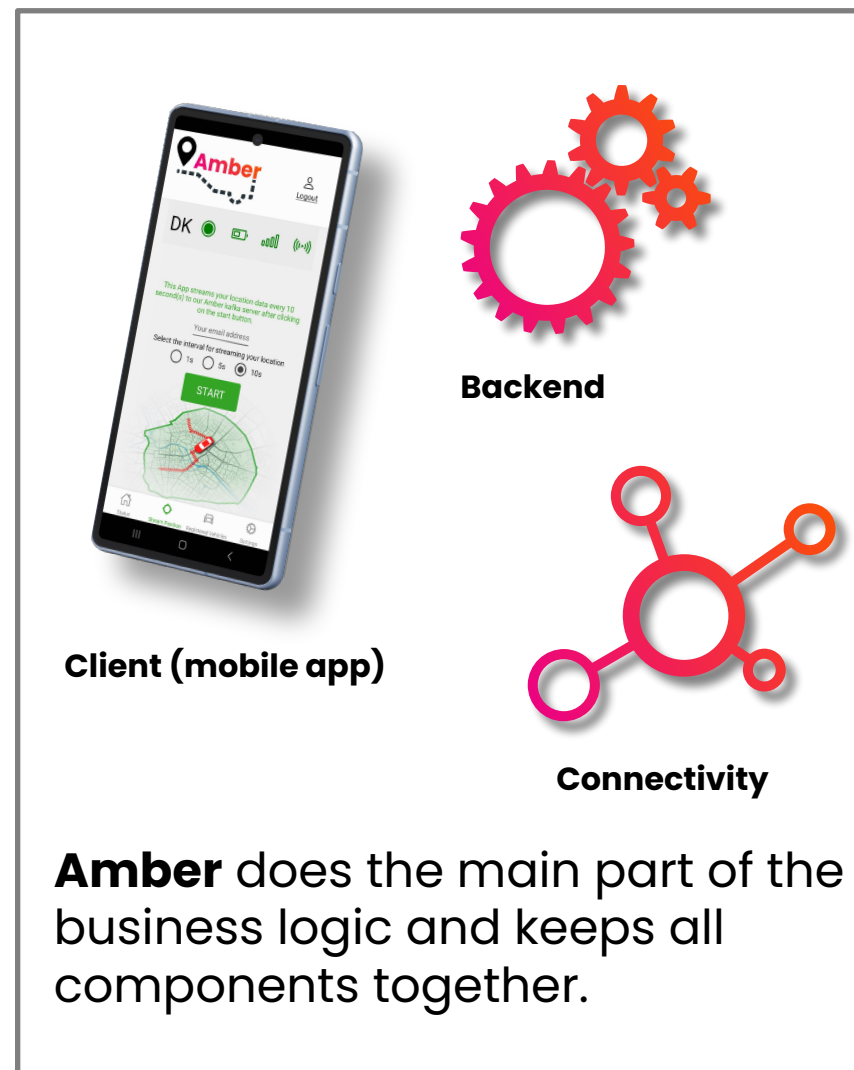
Intelligent interfaces and protocols ensure **data flow** between Amber components and between Amber and administration, invoicing, and enforcement.

3. Client (mobile app)



The mobile app is the convenient **interface to the user** and provides **vehicle position** data during its use to calculate the fees.

What else will be needed beside Amber?



Enforcement

The simplest way to do this is manually by public order office staff.



Customer care

Can ideally be combined with customer care of municipal utilities or transport.



Billing

Amber doesn't include this, but we can help to find the right partner service.



Prosecution of offenses

This is handled the same way as any other traffic offence prosecution.



There's a tariff for every need – all covered by Amber



Flat-rate

1 day / week / month ...



Time-based

Exact length of stay in tariff zone



Distance-based

Actual distance travelled in tariff zone



Distance- and route-based

Actual distance travelled in tariff zone, but specific routes have individual tariffs

Advantages from user perspective:

Very easily understandable.

Short trips are possible at low cost.
Driving and parking is possible with the same mobile app.

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Advantages from operator and policymaker perspective:

Low complexity.
Little need of explanation.

More stringent implementation of the polluter-pays principle than with flat-rate.

Most stringent implementation of the polluter-pays principle.
Real incentive to save kilometers.

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Real incentive to save kilometers.
Allows fine-grained traffic management to relieve especially polluted or sensitive areas.

How it works – e.g. distance-based tariff

Nutzersicht

App-Download,
Registrierung

1

Einfahrt ins
Tarifgebiet

2

Fahren und
Parken

3

Ausfahrt und
Abrechnung

4

Betreibersicht

1

Nutzer wird im System
angelegt

2

Kosten werden fortlaufend
berechnet

3

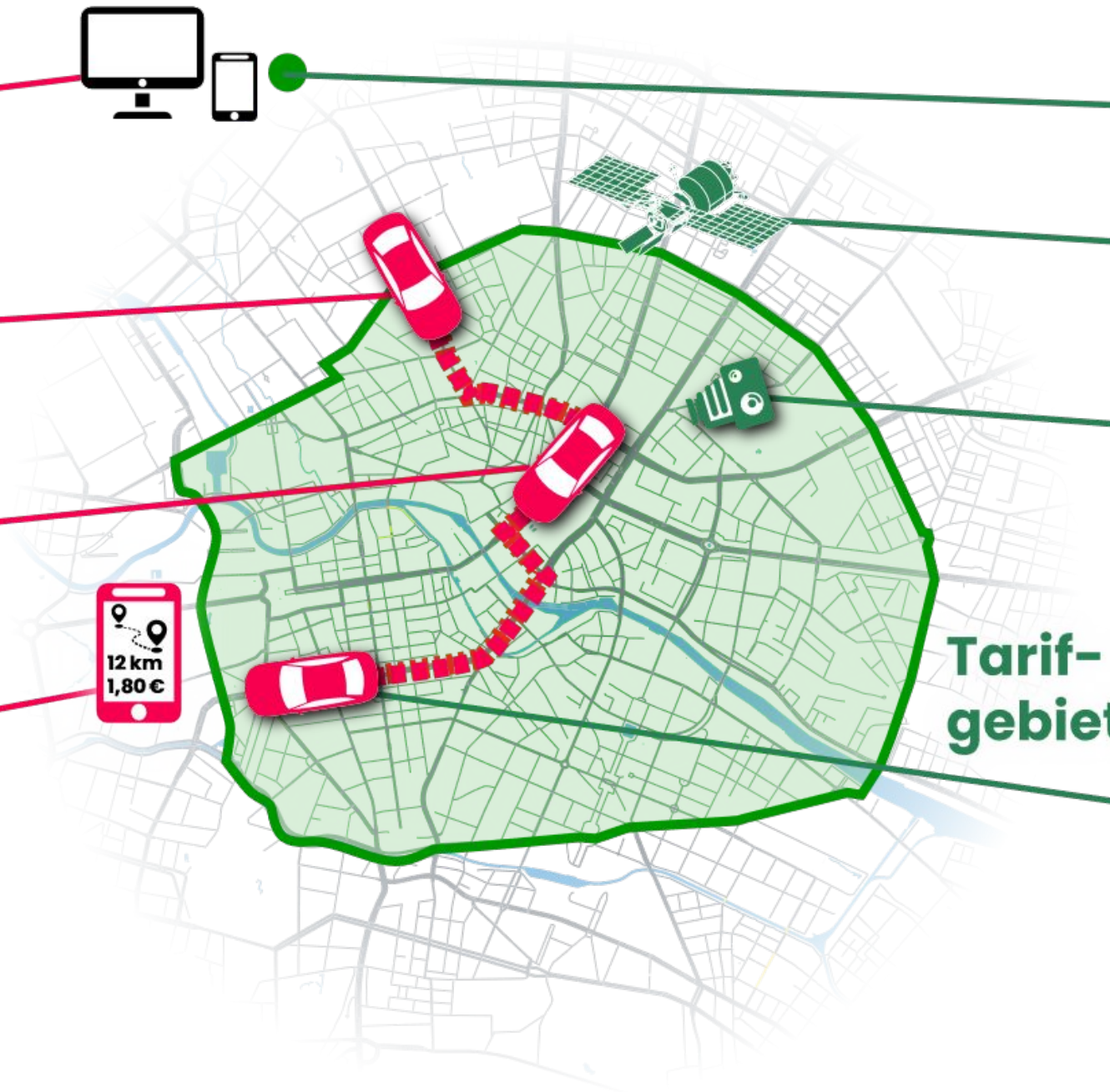
Datengeschützte Kontrolle per
Nummernschilderkennung

4

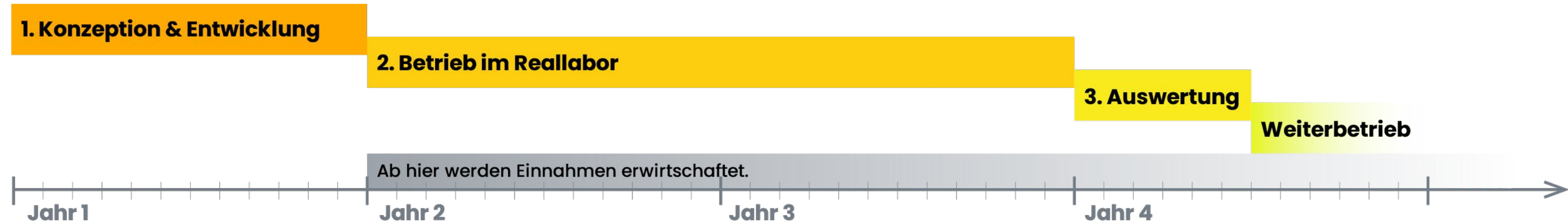
ggf. Information der Behörde
zur Nachverfolgung der Owi

5

Abrechnung und
Gutschrift



Typical implementation process



1. Concept & development

Key parameters (tariff area, type of tariff, tariff level, time of day and social structure) are determined together with stakeholders.

This is also the time for communicative preparation to transparently inform road users and residents.

Towards the end of the phase, a non-public demo operation is carried out in which the functional principle is proven, both economically and technically.

2. Real-life pilot operations

Toll collection typically starts with a two-years pilot phase, which is closely monitored by multidisciplinary scientific research.

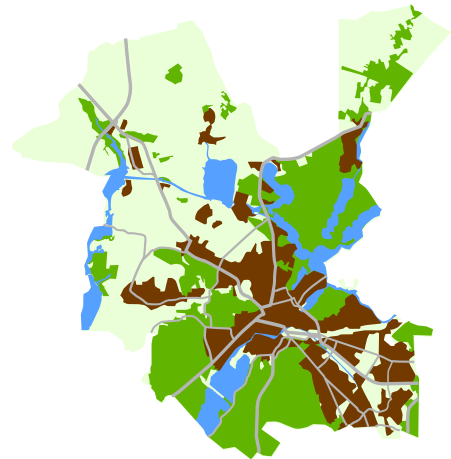
From a technical and user perspective, regular operations are already taking place here. There is an obligation to pay, controls are organized, violations are fined as administrative offences and revenue is generated.

3. Evaluation & ongoing operation

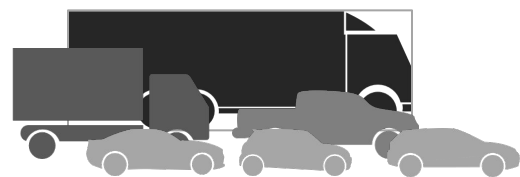
This phase (duration: approx. 6 months) serves to translate the results of the scientific research accompanying the pilot project into a broad political and public discussion on the question of possible permanent operation.

The operation will continue until decision.

Fictitious case study*



185,000 inhabitants—about the size of Potsdam



35,000 vehicles burden the infrastructure on weekdays, which could be subject to tolls. Socially or economically sensible exceptions have already been factored out.

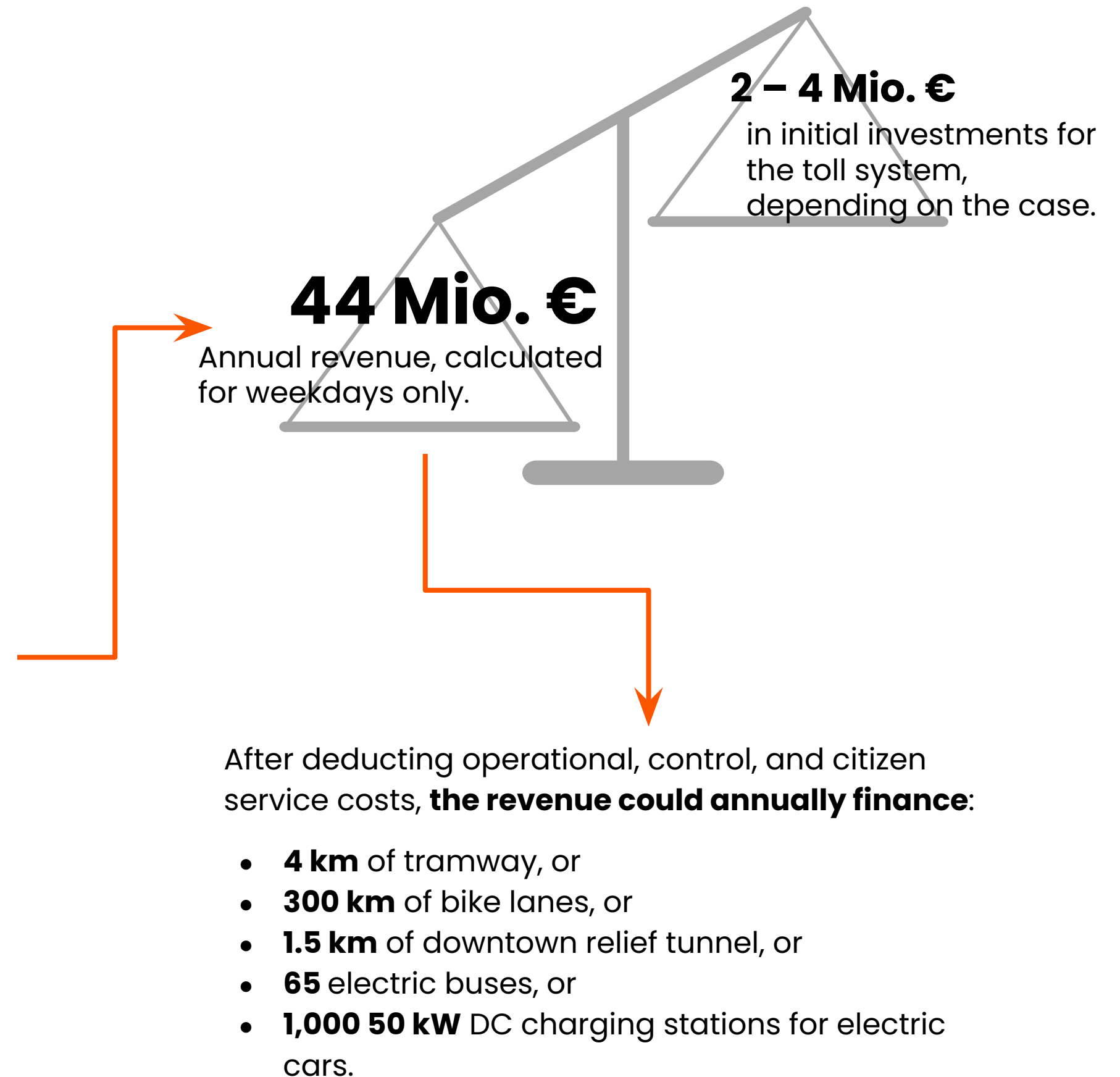


1 year to implement the system before full revenue is generated.

€4.80 for cars and **€9.80** for trucks (which account for about 4% of the total).

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*Based on realistic assumptions, some of which are supported by studies from the city of Potsdam.



Let's talk!

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