



# **CROWDWARE TRANSIT**

**MAKSYM DVIRNYI**



# CONTENT

**01**

PROBLEMS

**02**

SOLUTION

**03**

BUSINESS PLAN

**04**

PROBLEMS & TO-DO

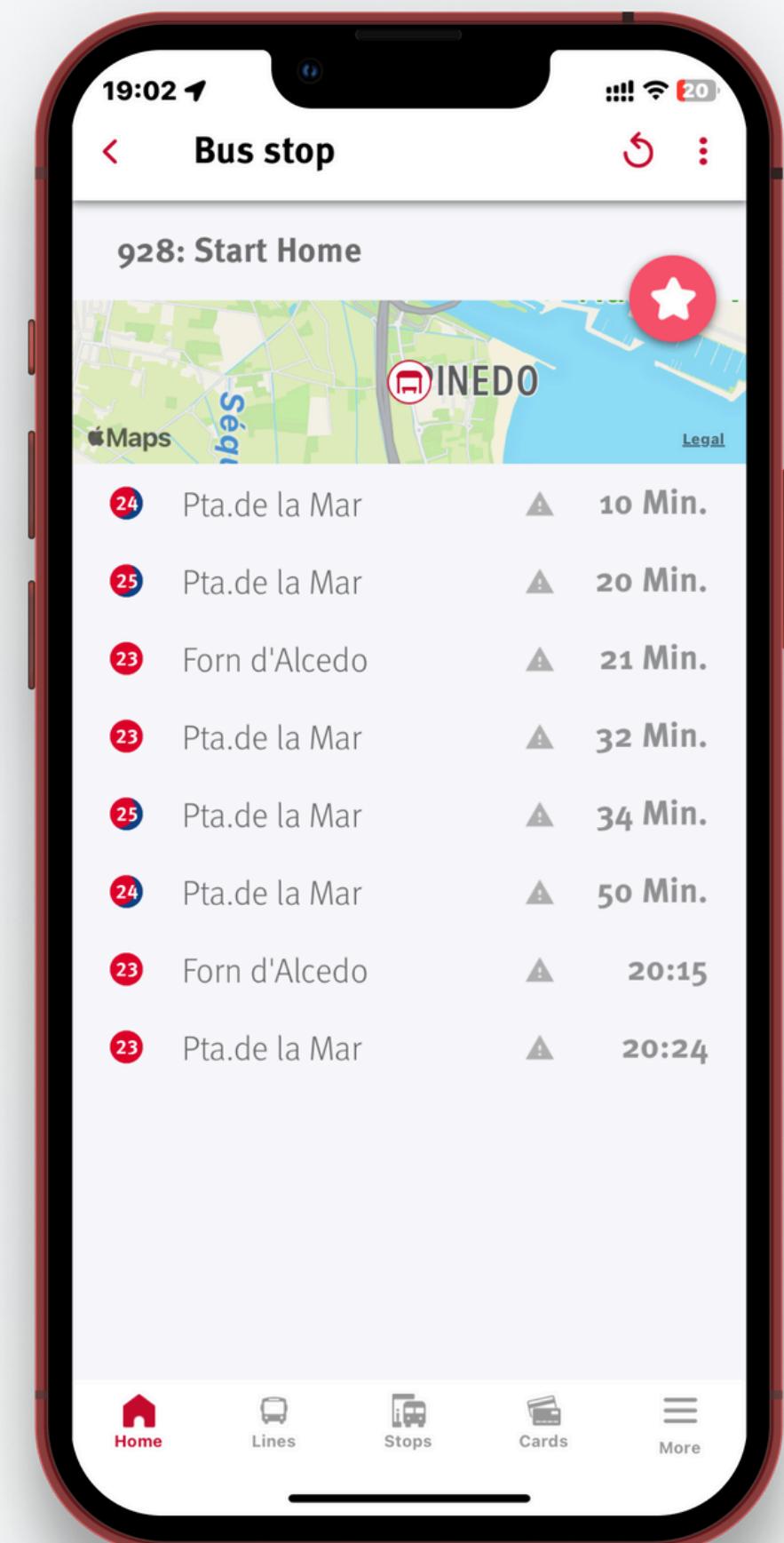
# PROBLEMS

## For passengers

- Uncertainty about bus capacity

## For business

- Inefficient bus frequency and scheduling



Screenshot from EMT App

# SOLUTION

Calculate **estimated fullness** of the transport when it arrives to the bus station



Screenshot from EMT App

19:02 ↗

20

Bus stop



:

928: Start Home



24 Pta.de la Mar 80% ▲ 10 Min.

25 Pta.de la Mar 20% ▲ 20 Min.

23 Forn d'Alcedo 5% ▲ 21 Min.

23 Pta.de la Mar 35% ▲ 32 Min.

# BENEFITS

## For passengers

- Improved comfort
- Reduced wait times
- Enhanced trip planning

## For business

- Improved traffic analysis
- Optimized bus frequency
- Reduced pollution

# BUSINESS PLAN



# INFRASTRUCTURE PREREQUISITES

## Physical infrastructure

- **Track passengers boarding the bus:**
  - bus station, line, time, id of the passenger
- **Track passengers exiting the bus (*optional*)**

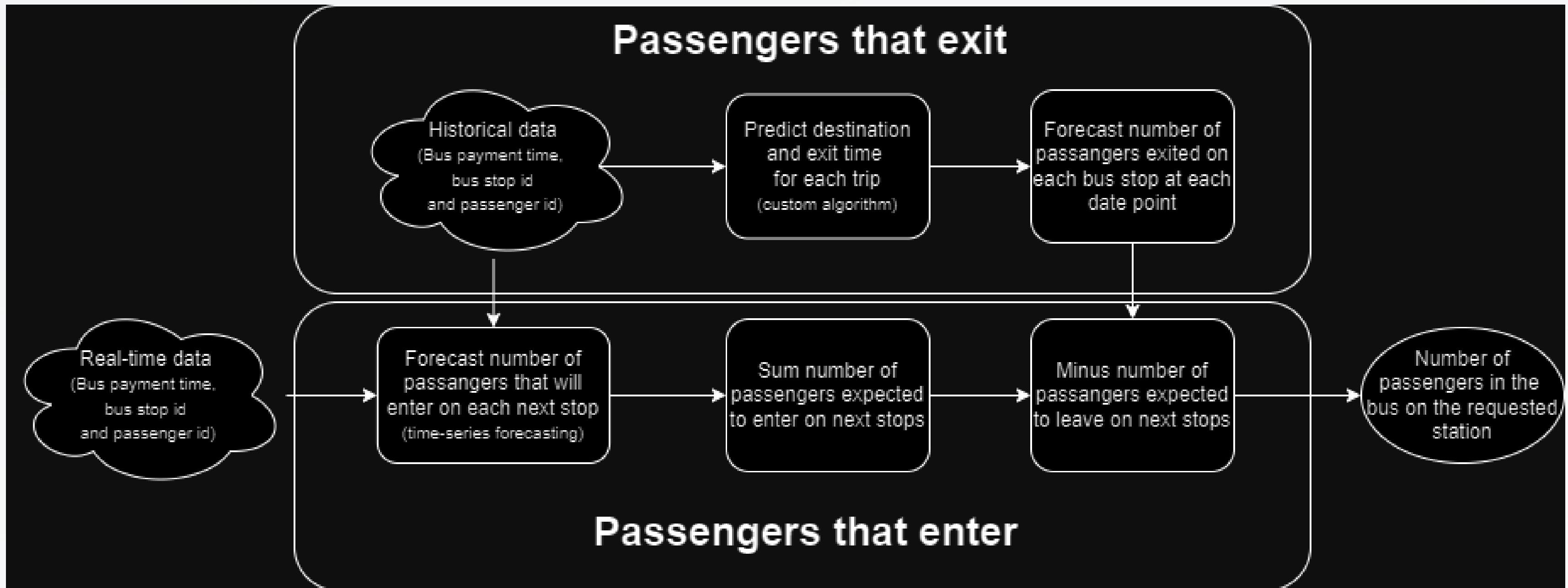
*Supported by all the busses*

## IT infrastructure

- **Historical data (*optional*)**
- Other minor prerequisites

# DEVELOPMENT LOGIC

## (ADDITIONAL TECHNICAL SLIDE)



# VULNERABILITIES

Possibly bad accuracy

(At events like a football match or other **one-time events**)

Impact on traffic of passengers

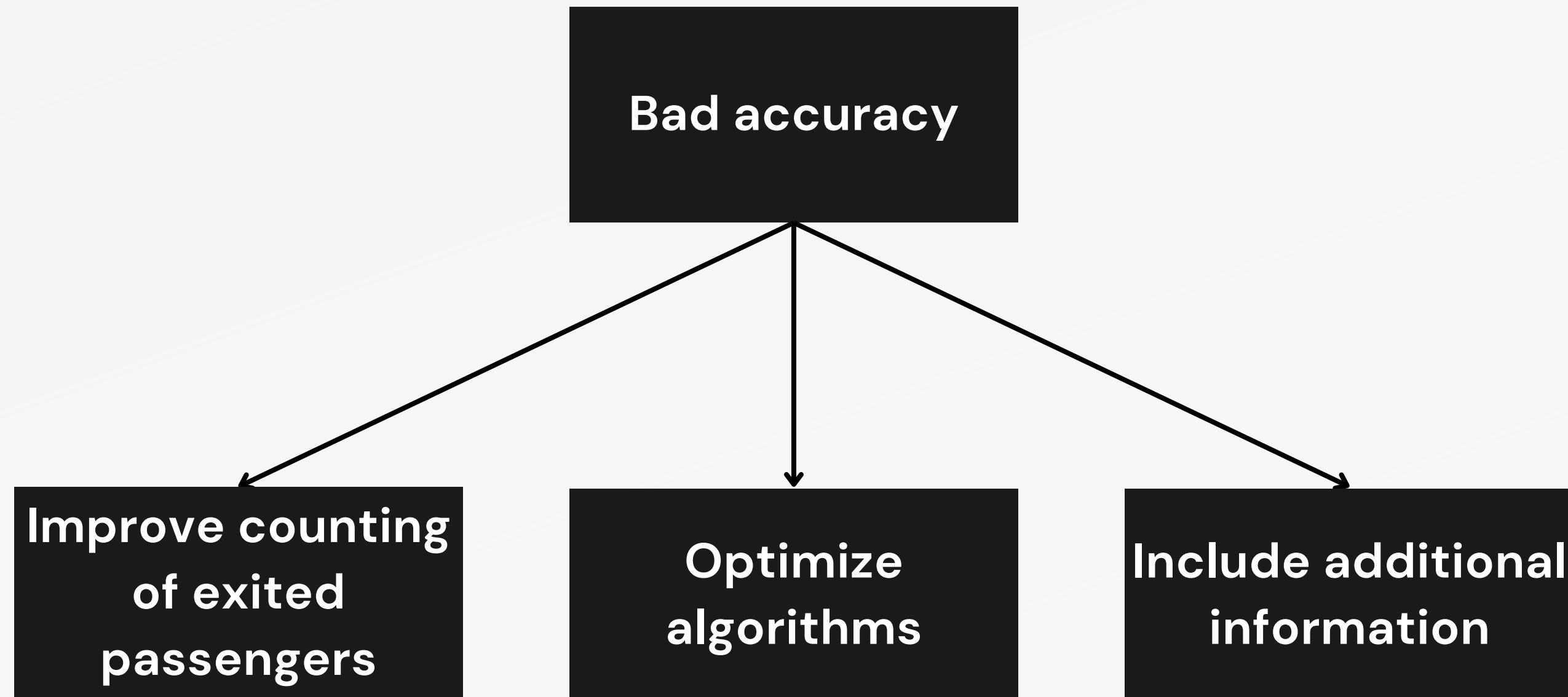
(Not critical for now)

Delayed information

(In case of **not tracking** passengers **exiting** the bus)



# TODO



# Thank you so much!

For **technical info** and all the **code** check  
my **GitHub**:

