



# DIGITAL ECONOMY IN METROPOLITAN AREAS: NEW APPROACH TO MANAGEMENT

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## 1. Implemented project

# **ADMINISTRATION OF PUBLIC AND PRIVATE FUNDS: CASE STUDY IN JELGAVA, CITY MUNICIPALITY, LATVIA**



# Standard approaches for administration of public funds

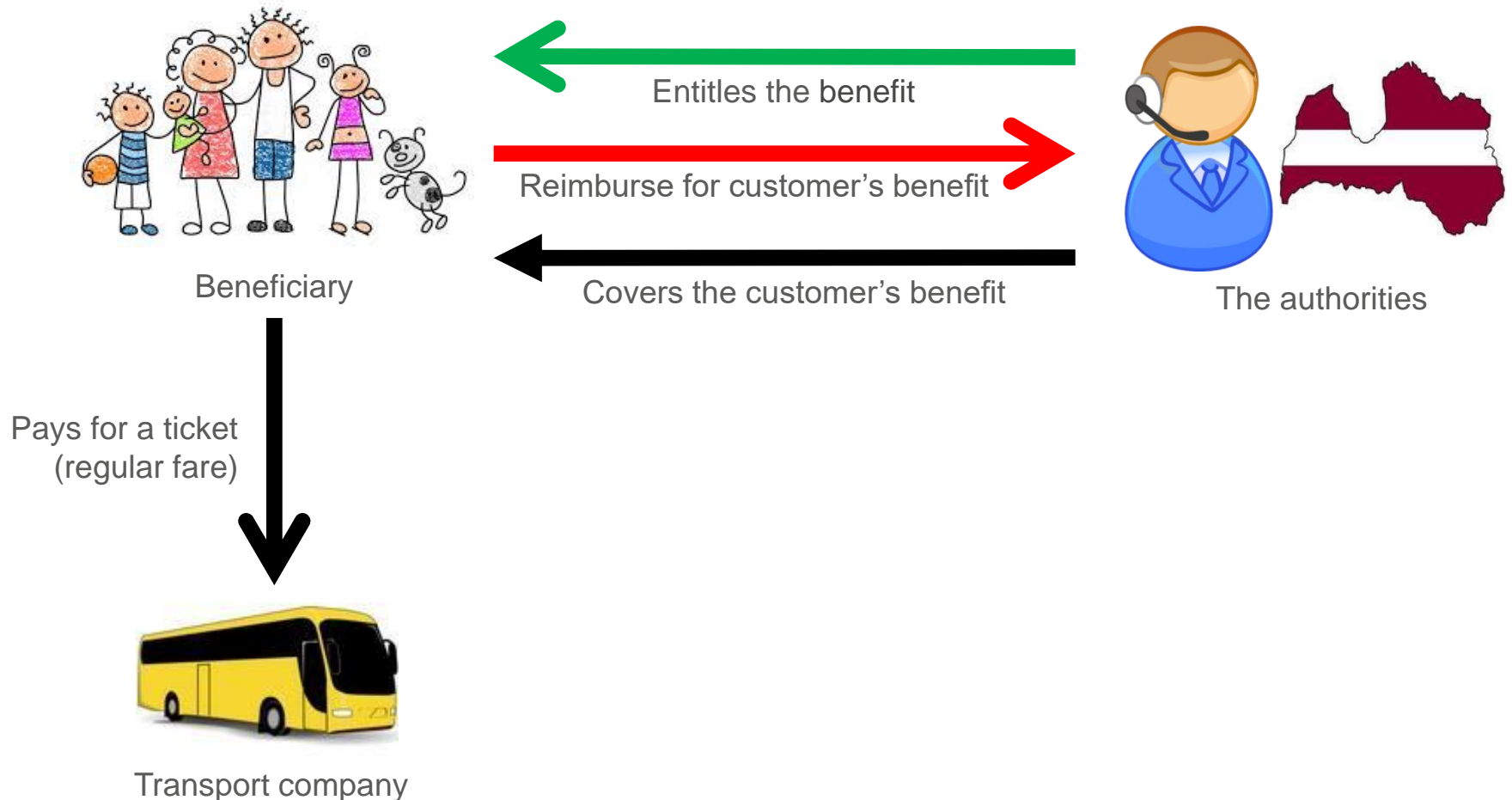
1. Administration of benefits by *governmental authorities*



2. Administration of benefits by *merchants*

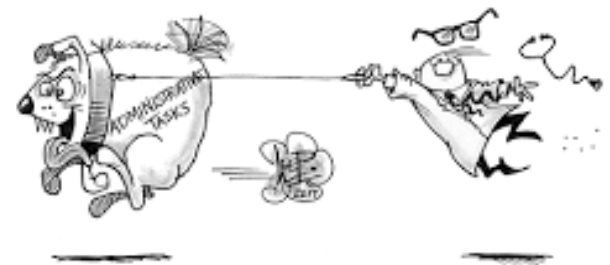


# 1<sup>st</sup> approach: administration of benefits by governmental authorities

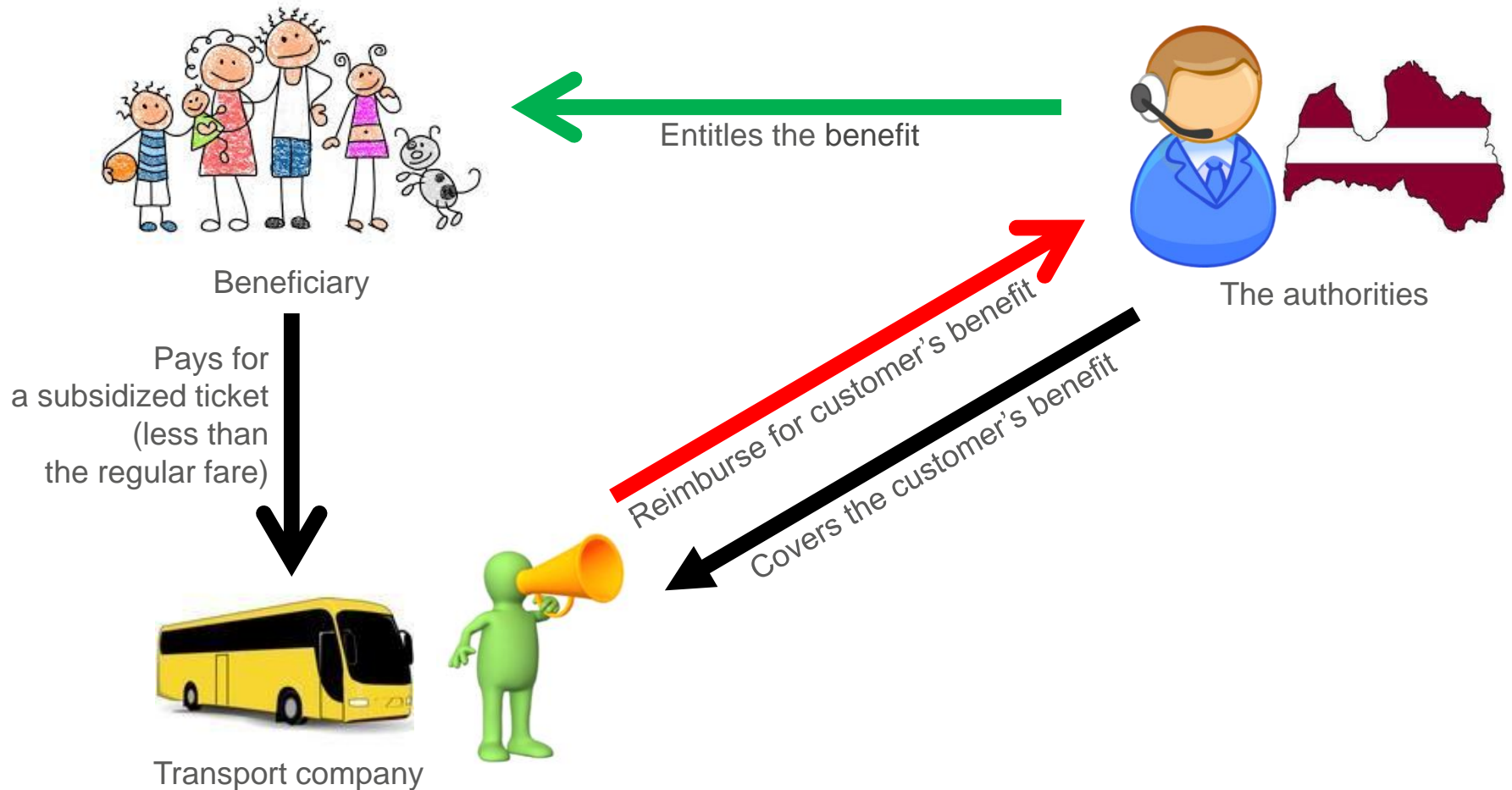


# Issues of the benefit administration by governmental authorities

- Payment delays for beneficiaries.
- The costs of administration.
- The administrative burden for the beneficiaries.



## 2<sup>nd</sup> approach: administration of benefits by merchants





**DELAYED**

## Issues of the benefit administration by merchants

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- Merchants' conflict of interest.
- Possible disclosure of social status of persons.
- Payment delays for merchants.

## 2. Initial objective

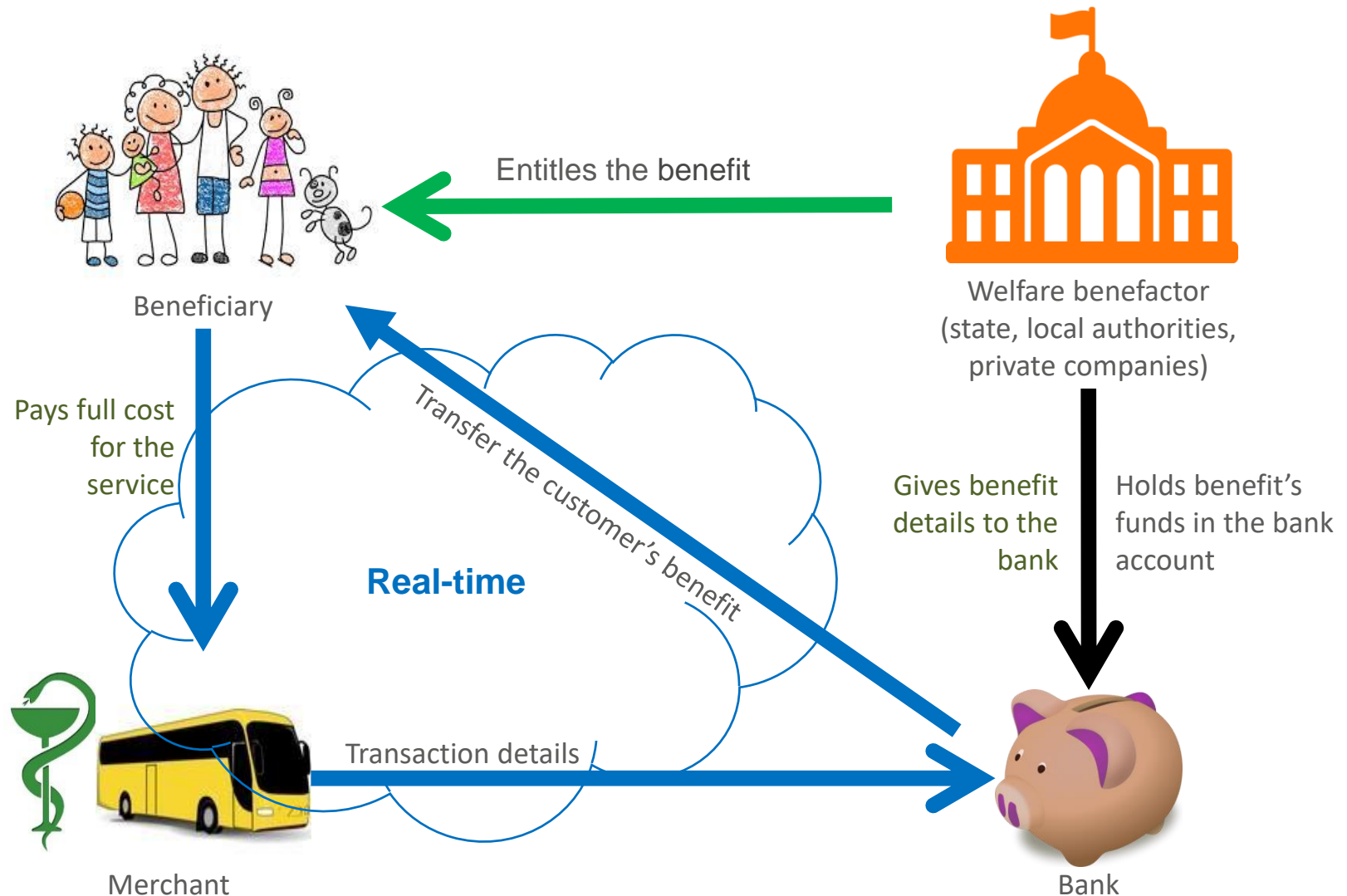
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**NECESSITY OF  
PRECISE, EFFICIENT  
AND FAST  
ELECTRONIC WAY  
OF PAYMENTS**



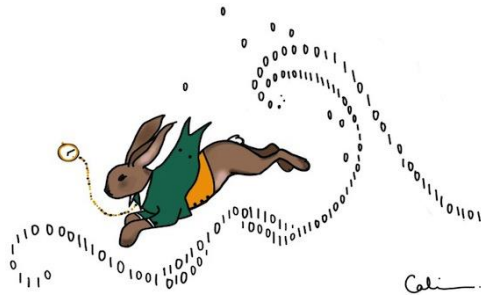


# Change in the approach for public and private funds administration



# Innovation of the new approach

- Real time administration process



- Protection of social status information



- Conflict of interests is excluded



- Universality of the administration process

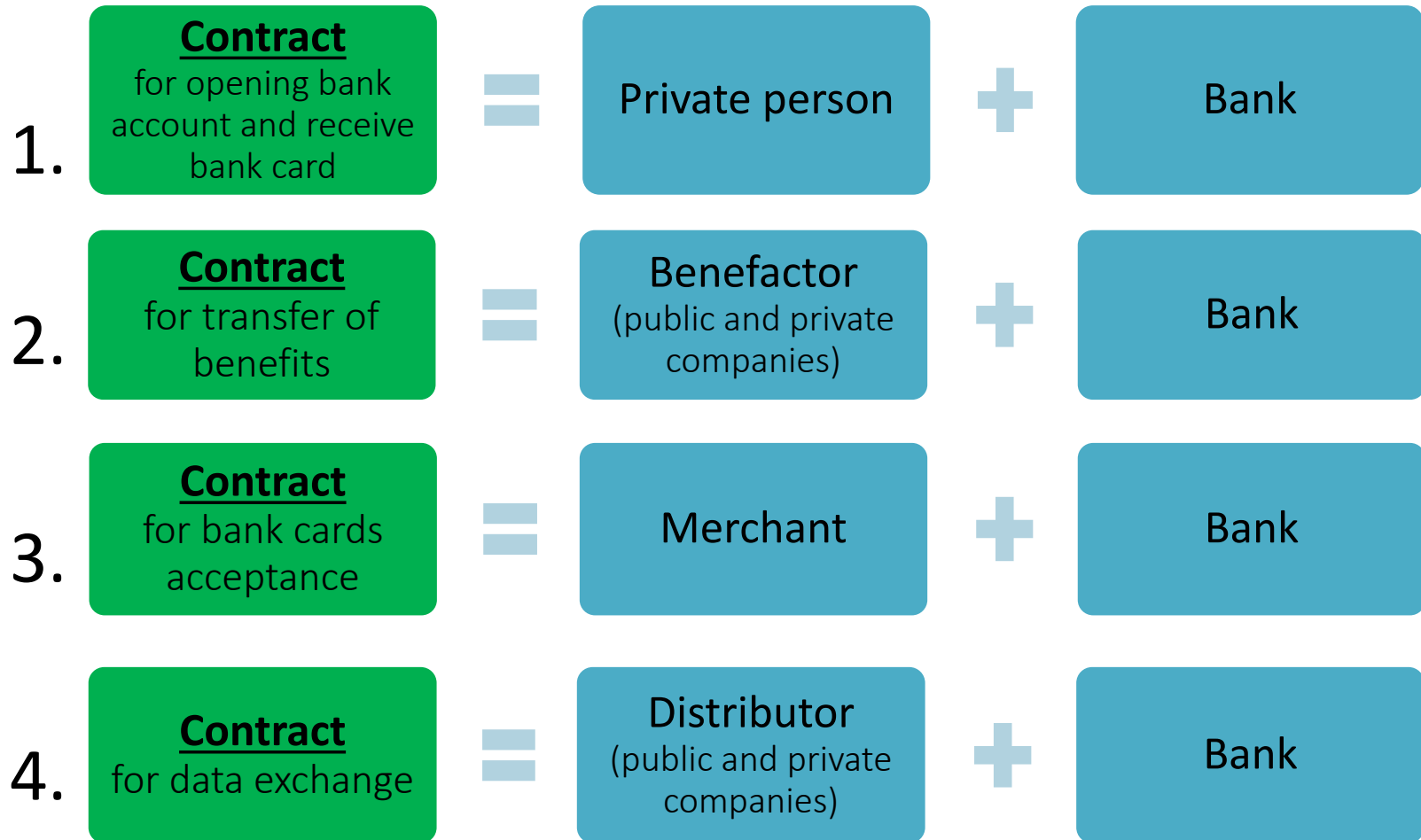




3. Planning, budgeting and implementation

## **ADMINISTRATION OF PUBLIC AND PRIVATE FUNDS**

# Necessary conditions for implementation





# Time schedule (1/3)

- **January 2012 to September 2012:**
  - technical specifications,
  - applications and
  - IS integrations development.
- **September 2012 to October 2012:**
  - SEB bank local cards issued in Jelgava city for pupils:
    - as school ID,
    - for benefit administration and payments.
  - Start of SEB bank local cards acceptance in transport.
- **October 2013:**
  - Start of SEB bank local cards acceptance in canteen.



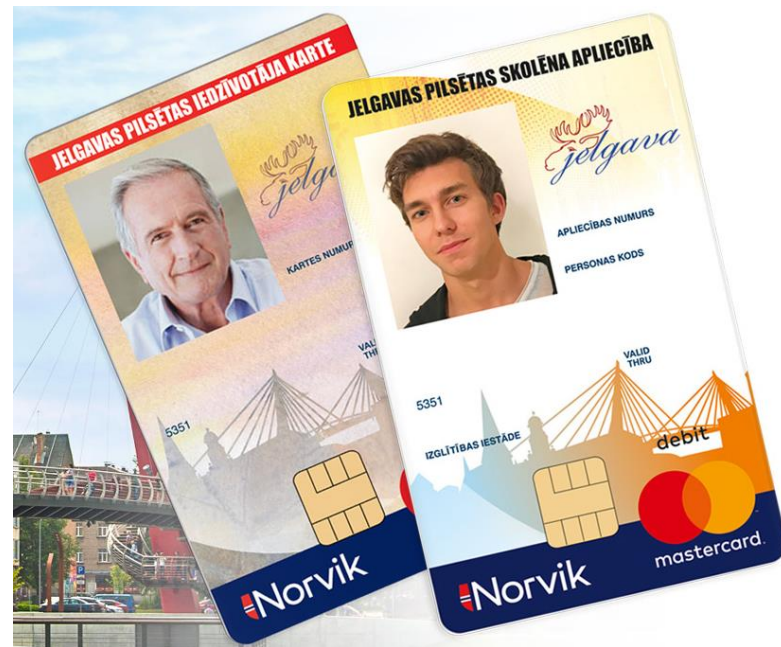
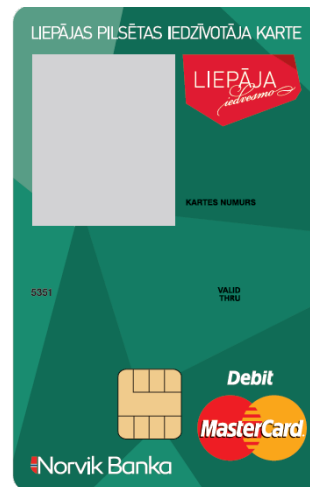
# Time schedule (2/3)

- **March 2013:**
  - Start of SEB bank local cards issuance in Jelgava city for retired persons:
    - as person ID,
    - for benefit administration and payments.
- **July 2014:**
  - Start of SEB bank local card acceptance in transport for all persons.



# Time schedule (3/3)

- September 2015:
  - Norvik (*MasterCard*) bank cards issued for benefit administration and payments in Liepaja city.
- October 2017:
  - Norvik (*MasterCard*) bank cards issued for benefit administration and payments in Jelgava city.



# Summary of the benefit administration process

The buyer pays for the goods/service with the card.

The merchant requests on the bank's terminal full price for the goods/services.

Bank processes the transaction: calculates amount of benefits via the Mtrx system and checks buyers account for funds.

Pays the merchant the full amount withdrawing the funds from the person whom benefits have simultaneously transferred.







# COSTS

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- For municipality
  - free of charge.
- For merchants
  - 5% bank commission for micropayment transaction.
- For persons
  - SEB local card: 1.80 €/year,
  - Norvik MasterCard card: 5 €/year.

#### 4. The results compared with initial objectives

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### **THE RESULTS OF IMPLEMENTATION OF INNOVATIVE PUBLIC AND PRIVATE FUND ADMINISTRATION PROCESS**



# Accurate and real time payments

- **Funds are not advanced and not credited:** benefit calculation and transfers are done in real-time when person pays for goods/service.
- **Excludes intentional errors when providing benefits:**
  - bank identifies the transaction, the merchant and the buyer,
  - automatic calculation and transfer of benefits.



# Real-time turnover

- In order to pay the full price for a goods / service, the person must prior to the transaction on the account have only its co-financing.
- Person's account turnover consists of:
  - Credit payments of subsidies from municipality according actual payment for goods / service.
  - Debit card transaction of actual payment for goods / service.





# Confidentiality and universality

- **Social status of the person is not disclosed:** everyone pays full price while some receive grants on their bank account.
- **Universal way to administer benefits:** the method allows to provide a benefit for any goods and services by any benefactor by setting rules.



# Economics effect

- Increase of tax collection (cashless payments).
- Savings and change of structure of the social budget.
- Promote the use of subsidized services.
- Management of rates.

Mr. Andris Raviņš,  
Mayor of Jelgava city



*“Mtrx platform has been a great help to manage the city’s welfare distribution. **We were able to increase the number of receivers by 35% with the same budget.**”*

# Civil society development

- The person is aware of preferential goods' and service' cost and quality.
- The person is aware of who pays for it.
- Distributed control of benefits between person, benefactor and bank.
- Benefits are given only for the specified products and services.



# Safety

- Cashless payments for children.
- Parental control for spending of children.
- Safer environment and protection of social status.
- Bank knows only rules for benefit payment calculation – not a social status of a person.







5. Change, re-focus or to be aware of situation before

## **LESSONS LEARNED FROM THE IMPLEMENTATION OF THE PROJECT**

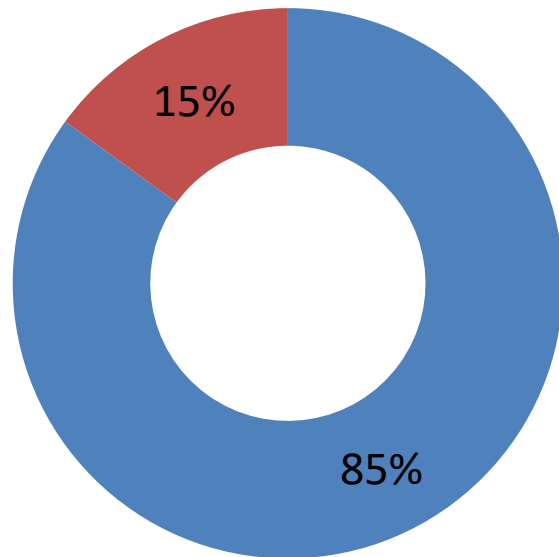
# Project feasibility and sustainability

- Option to flexibly change the conditions for administration of benefits:
  - definition of different categories of persons,
  - different algorithms for calculating the amount of benefits.
- Accessibility of benefits regardless of its frequency of use.
- Reduction of the administrative burdens for beneficiaries, merchants and municipality.



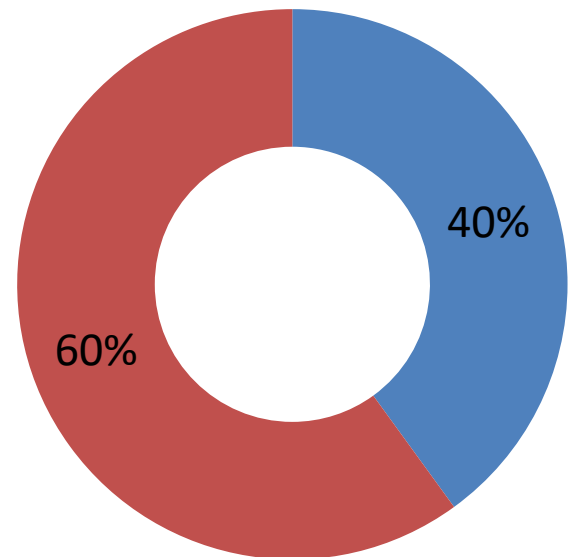
# Proportion and type of transactions

**Transport services**



■ Subsidized payments  
■ Non-subsidized payments

**Canteen services**



■ Subsidized payments  
■ Non-subsidized payments

6. Focus to the future

# NEW PROJECTS



# Interreg project for Latvia – Lithuania

## «Improvement of services available by citizen card in Jelgava and Siauliai»

- Overall objective:  
to improve the functionality of Citizen cards in order to make it more functional and available for persons.
- Main outputs:  
improved public services are linked with allowances and discounts offered by municipality and the access to services is linked to Citizen card.



**Interreg**

**Latvija-Lietuva**

European Regional Development Fund

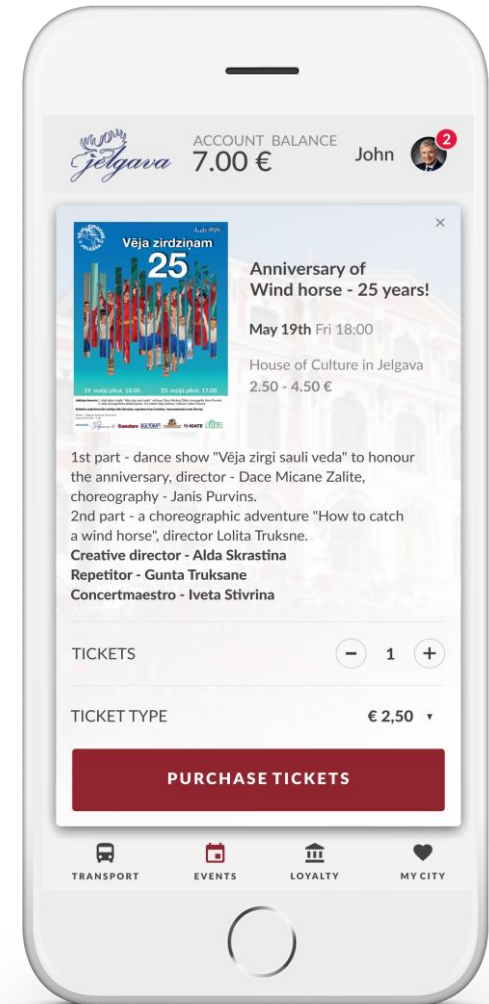


EUROPEAN UNION



# New functionalities planned

- Identification of persons.
- Exchange of interactive documents.
- Payments with subsidies are calculated based on receipt content.
- Management of target audiences using:
  - Mobile Apps,
  - Citizens' Profile,
  - SmartCity Monitor.



## 7. Considering existing budget constraints and EU financial instruments

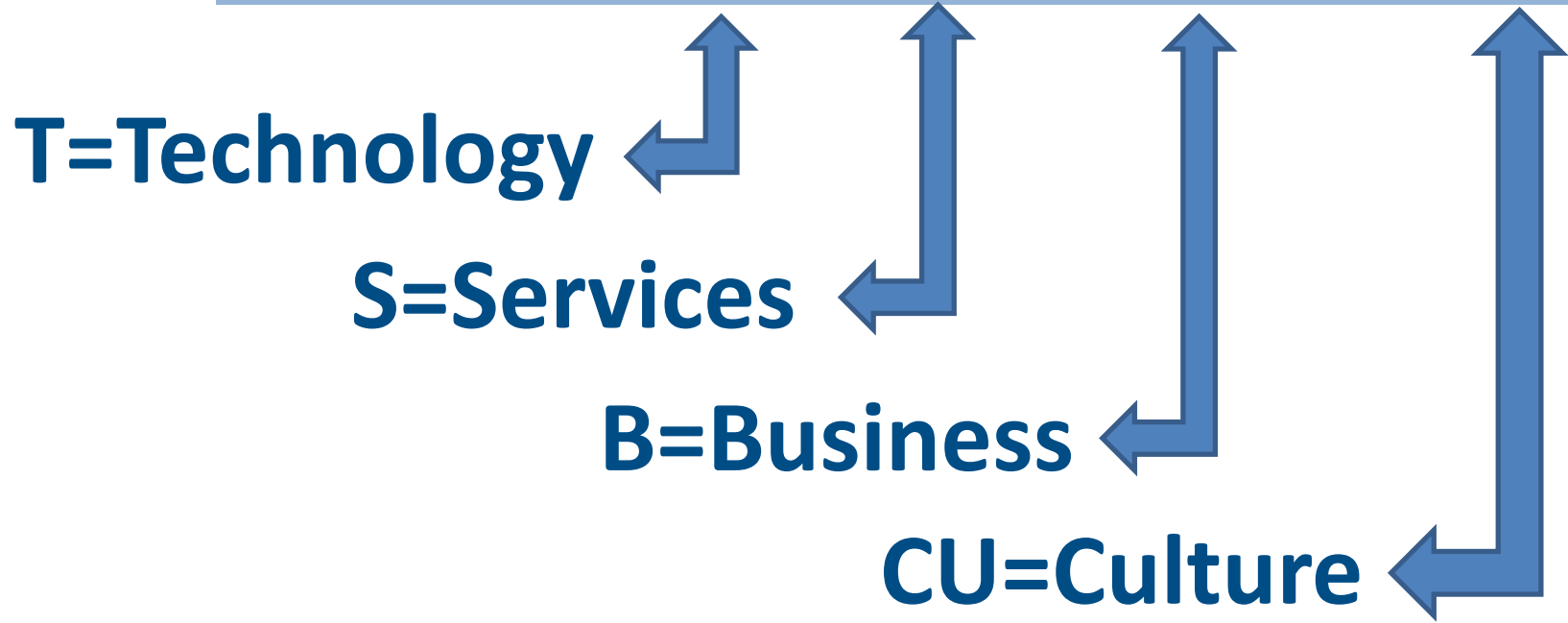
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**PROJECTS COLLABORATION  
OPTIONS USING DIGITAL  
ECONOMY APPROACH IN  
METROPOLITAN AREAS**



# Digital Economy

$$DE = ((T + S) \times B) \wedge CU$$



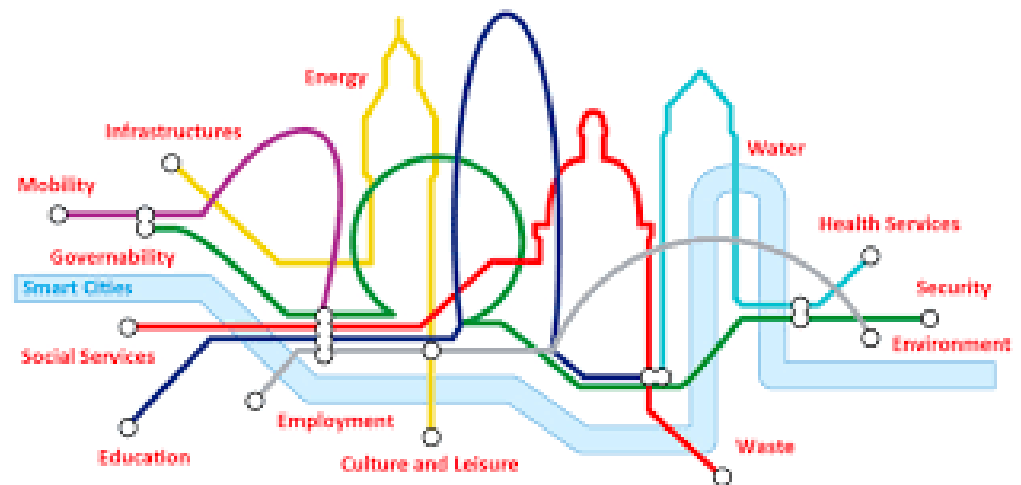
# Development of urban digital economy platform

- Developing an IT platform for communication between the public, private sectors and persons for:
  - market segmentation,
  - anonymous surveys and voting,
  - possibility to send message to person without seeing personal details:
    - person sees why message has received,
    - person can give personal details to the sender and identify himself.
- Development of real-time benefit administration method:
  - used for any type of payments and events,
  - SmartCity integration using events from SmartCity Monitor.



# Applications of urban digital economy platform

- Planning and forecasting the municipal budget.
- Real-time control of benefits distribution, according to ISO 37120, ISO 37151 and using SmartCity Monitor.
- Implementation of a city loyalty program based on cashless payments.
- Management of municipal infrastructure services.





# The vision of a digital economy

*“...technology alone is not enough. It’s technology married with liberal arts, married with humanities, that yields the results that make our hearts sing”*

Steve Jobs (2011)





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