



**CiViTAS**  
Cleaner and better transport in cities



THE CIVITAS INITIATIVE  
IS CO-FINANCED BY THE  
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## The need of a new demand management tool based on permissions and not on restrictions

Several European cities seek to improve efficiency and sustainability of their mobility systems through **mobility reduction** or **modal shift measures** like parking tariffs or cordon pricing.

However these currently applied solutions pose some major problems, particularly:

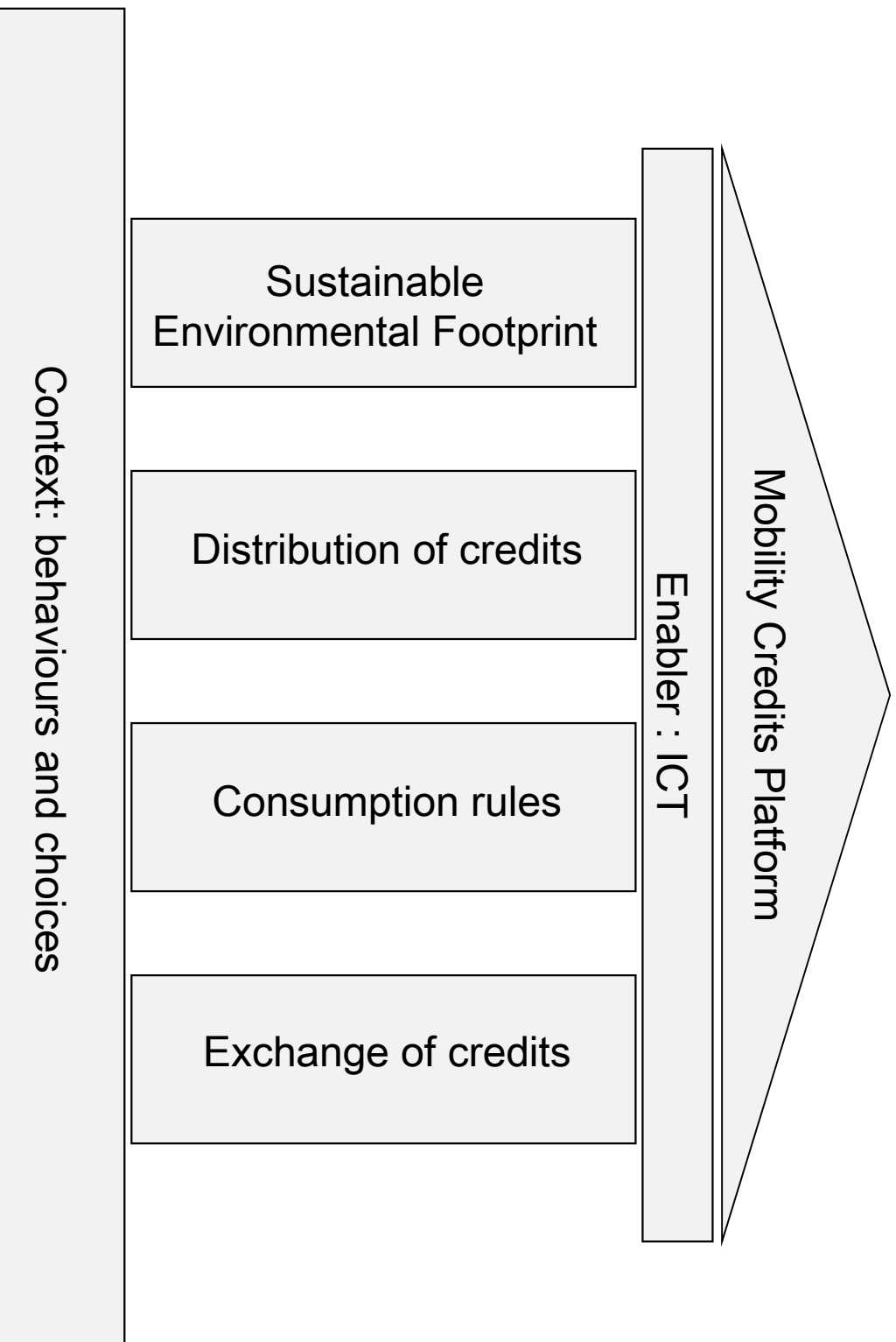
- the **inequality** driven by flat rate paying schemes,
- the **imperfection** of the payment schemes in relation to its targeted externalities reductions,
- the **implementation and operational costs** involved in the application of the schemes (very high indeed as they need a ground infrastructure) and
- their **reliability**.

It could be helpful to mention one of the key findings of CURACAO - coordination of urban road-user charging organisational issues ([www.curacaoproject.eu](http://www.curacaoproject.eu)): “...**There is increasing evidence that distance-based pricing is the most efficient**, and the technology on which it relies is rapidly becoming available. However, it appears that many cities will wish to rely on cordon and area-based schemes....”

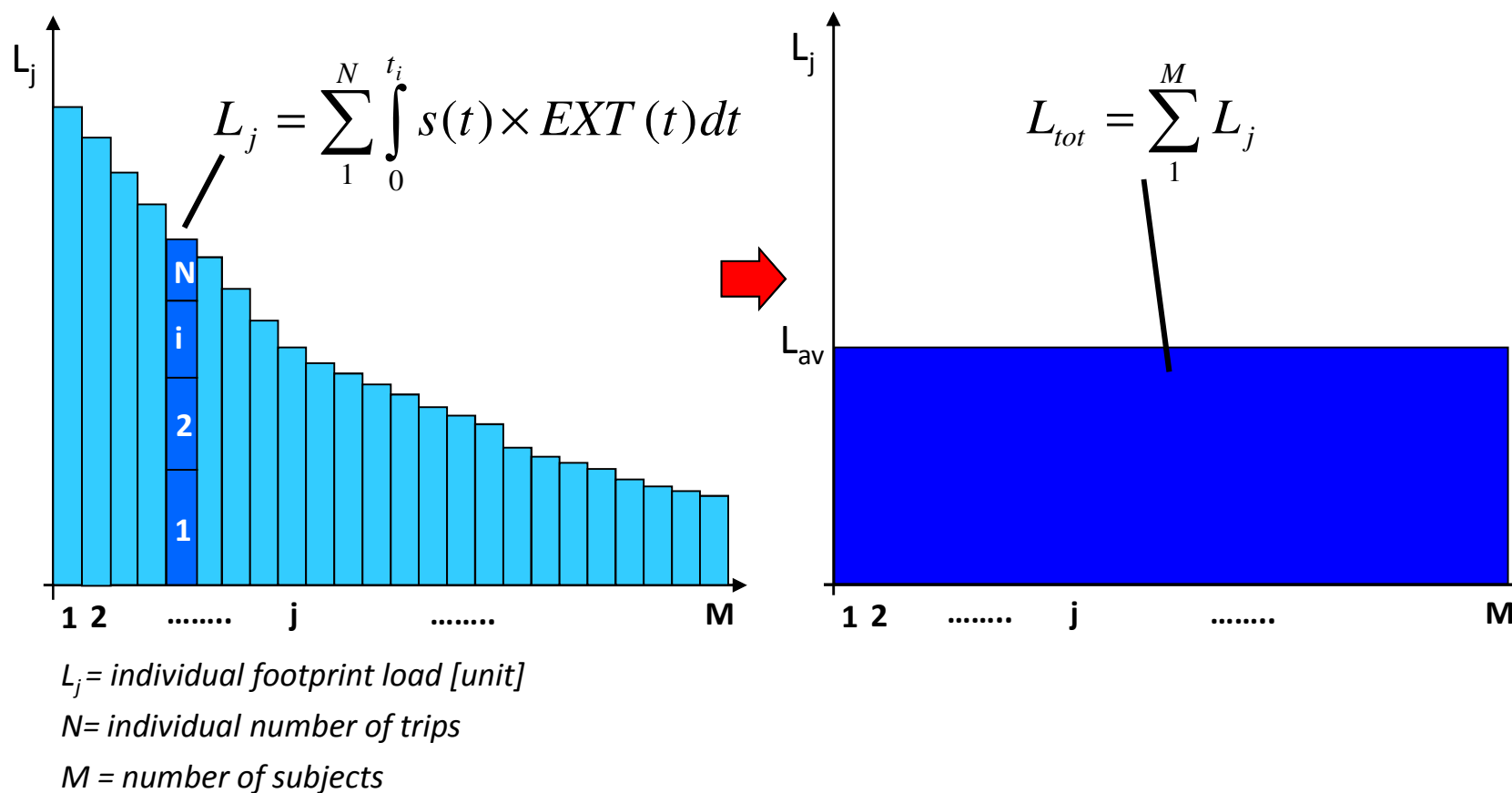
## A possible answer: the Mobility Credits concept and the case study in Genova

- The application of the Mobility Credits model has been studied for the first time in 2005, thanks to a grant of Fondazione Italiana Accenture, with the purpose to find new concepts on mobility management with **active participation of citizens** and **not based on restrictions**;
- Then in 2006 a co-operation started with the Municipality of Genova aiming at understanding the possibility to adopt the concept;
- The concept and the results of the feasibility study are illustrated in the following slides.
- Afterwards, within CIVITAS CARAVEL, the model has been applied to goods distribution in the city centre (12 months experimental period):
  - the target area covers the medieval part of the city;
  - 11 ANPR gates are used;
  - about 3.000 economic activities potentially involved

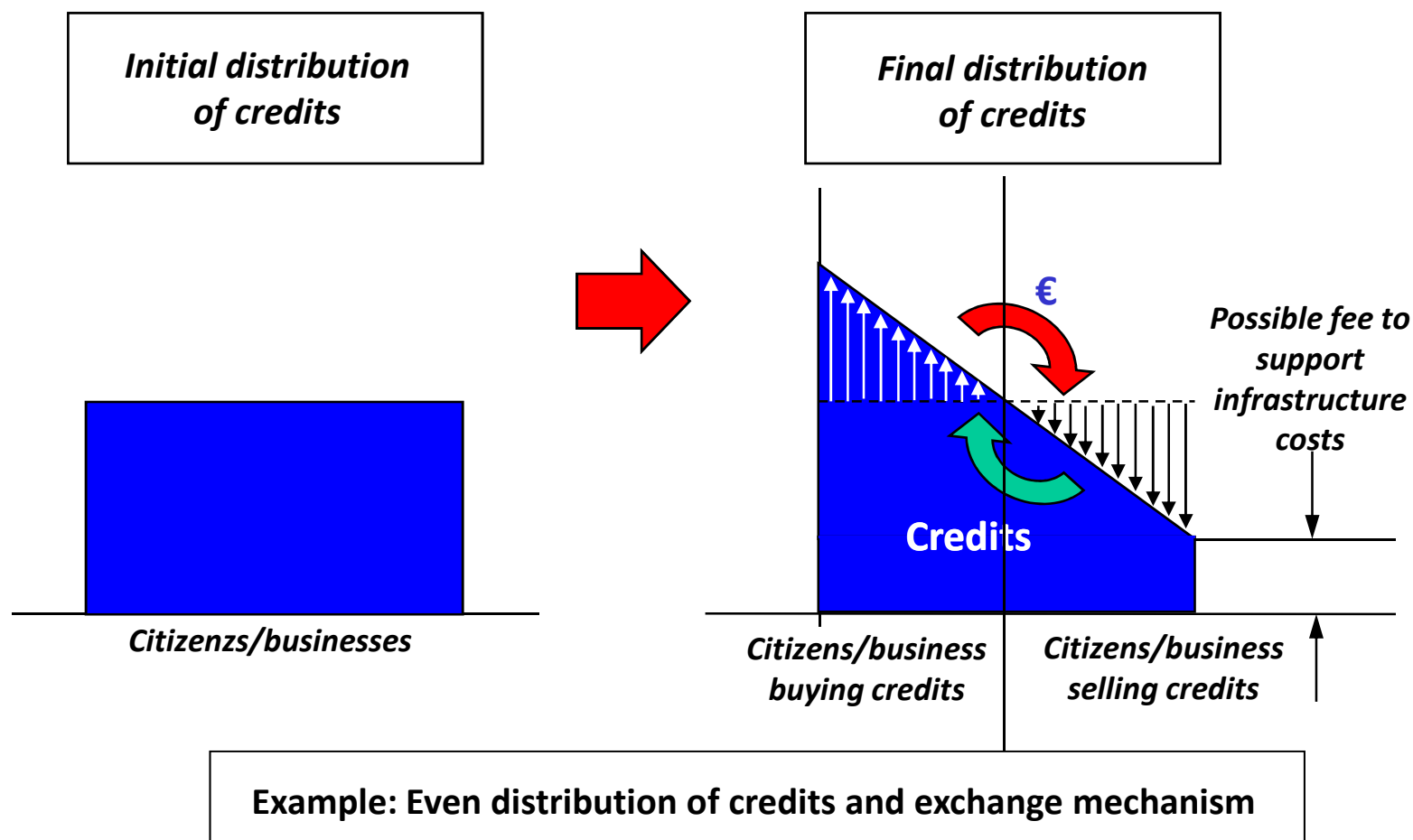
## The Mobility Credits Concept is enabled by ICT, is supported by four pillars with a foundation on the behaviours and choices of travellers



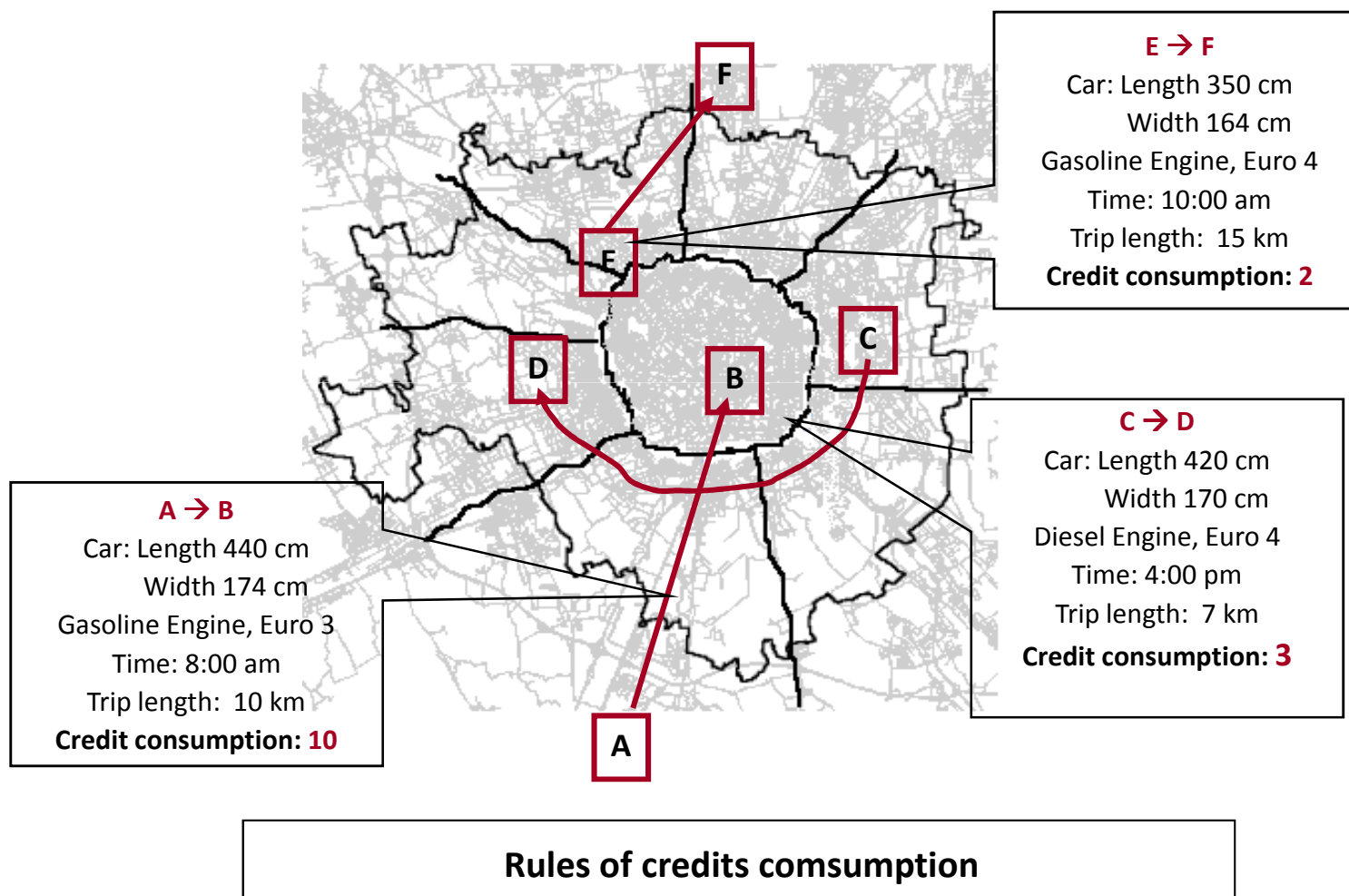
## The Mobility Credit Concept: Environmental Footprint (EF) in an urban area (FIRST pillar)



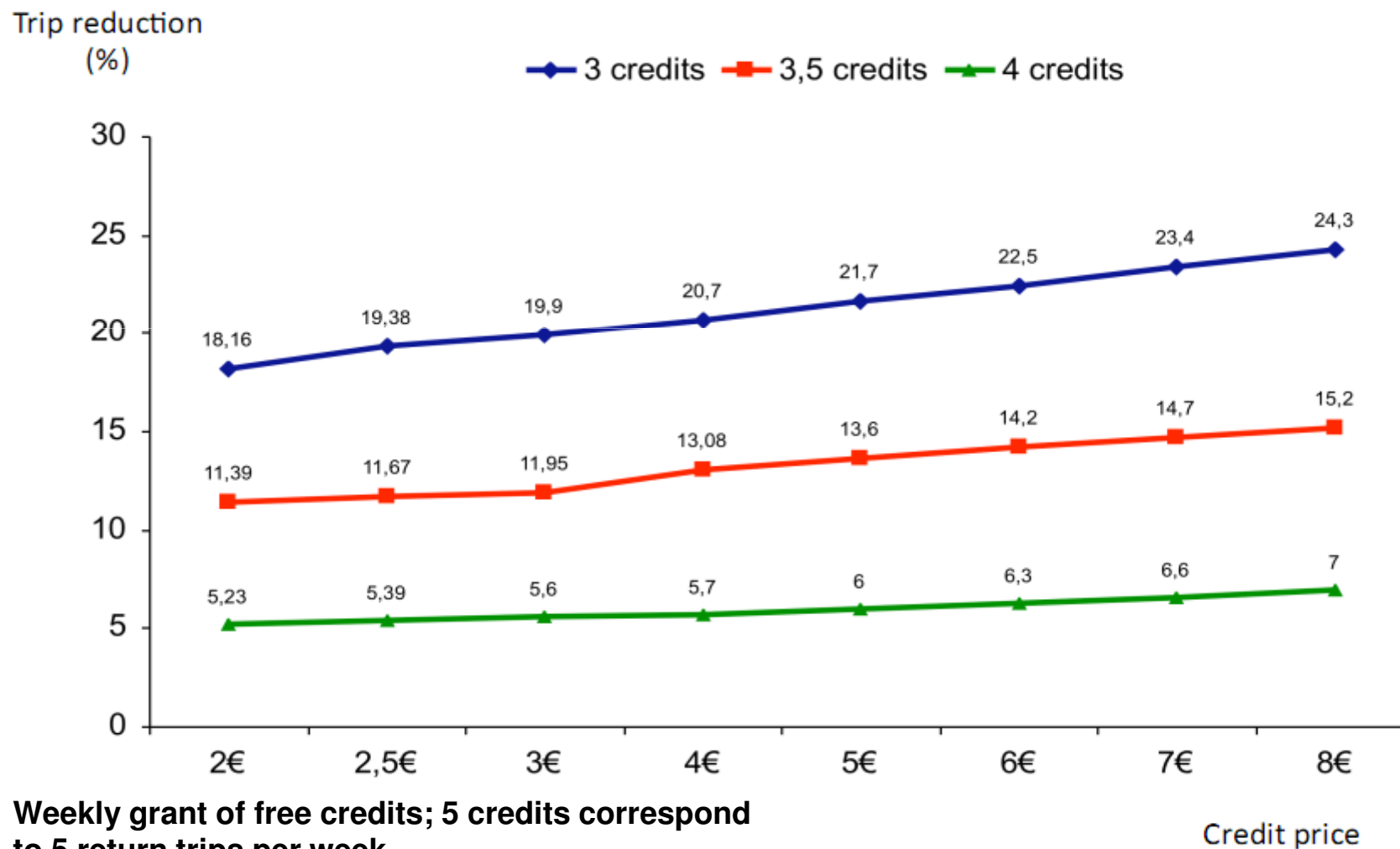
## The Mobility Credit Concept: Translation of EF into mobility credits and distribution (SECOND and FOURTH pillars)



## The Mobility Credit Concept: Rules of consumptions (THIRD pillar)

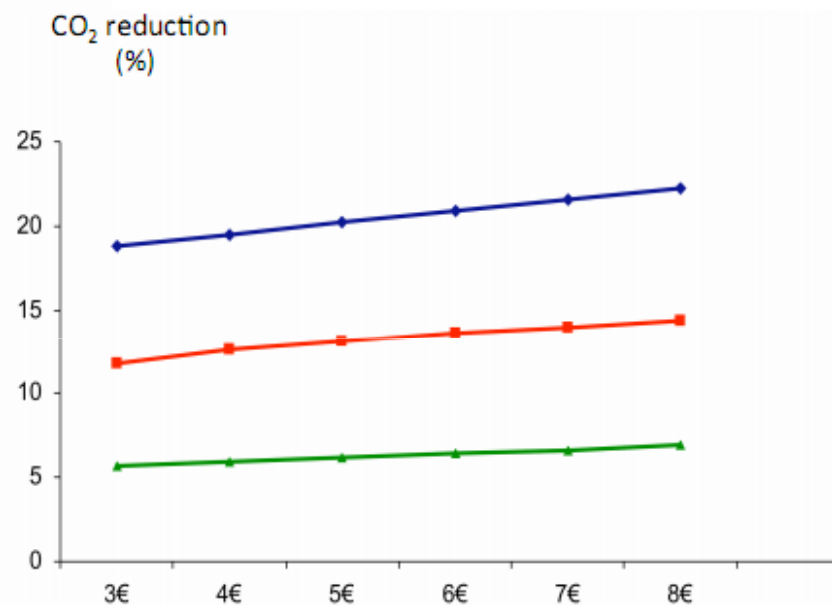
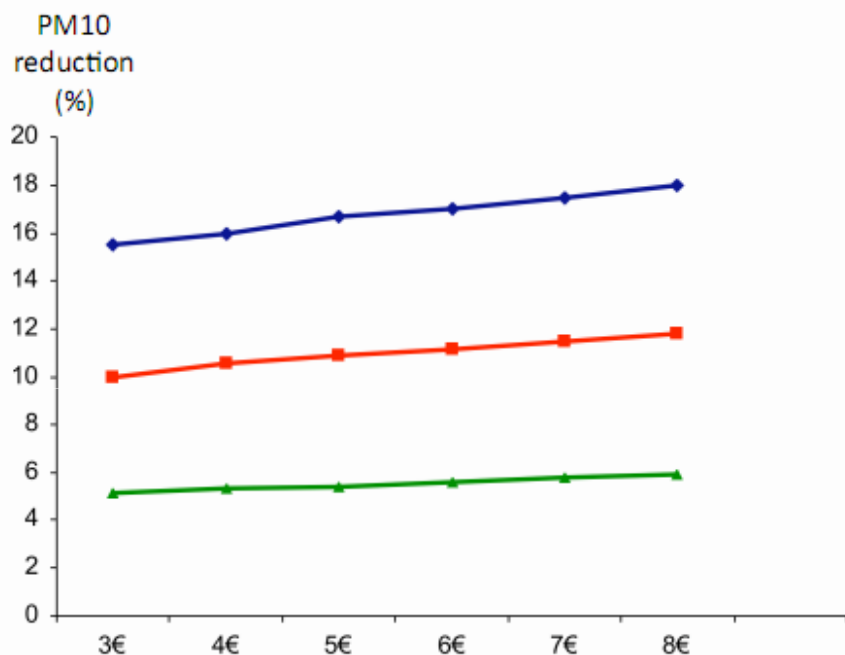


## The Mobility Credit Concept: Trips reduction in the Genova case





## The Mobility Credit Concept: PM10 and CO<sub>2</sub> reduction in the Genova case



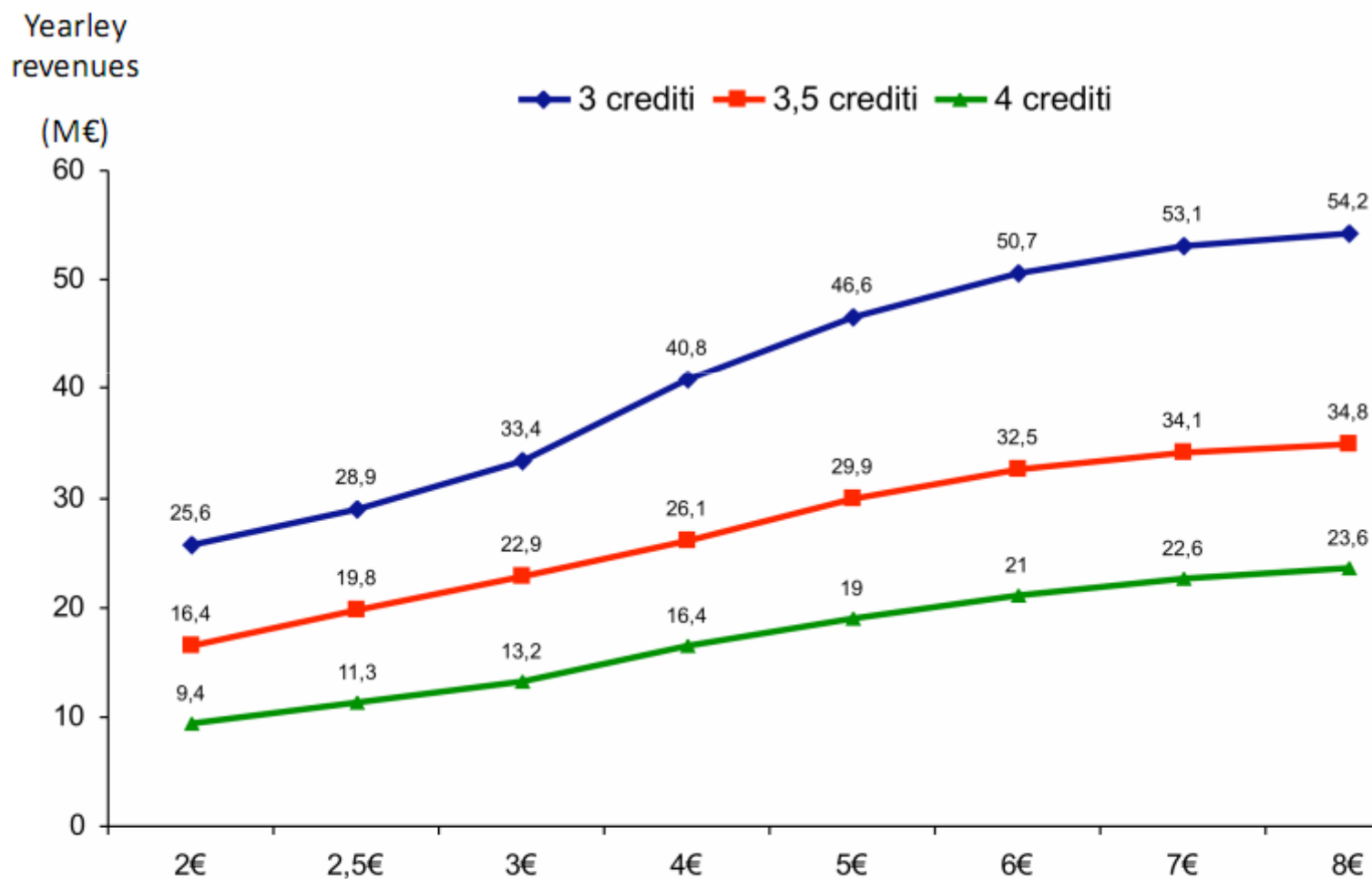
Credit price

Weekly grant of free credits

(5 credits correspond to 5 return trips per week)

- ◆ 3 credits
- 3,5 credits
- ▲ 4 credits

## The Mobility Credit Concept: expected revenues per year in the Genova case



**Weekly grant of free credits; 5 credits correspond to 5 return trips per week**

Credit price

## The Mobility Credit Concept: innovative approaches

- Demand management based on permissions and not on restrictions
- Active participation of citizens
- Individual Behaviour Change approach
- effective “crowdsourcing ” co-operation among travelers and demand managers, in particular “crowd-tracking” applications.

## Current actions

- Introduction of the concept into Genova mobility planning
- Application of the tool to the freight distribution in the historic city center
- Design of a pilot project involving several hundreds vehicles already equipped with OBUs
- Concept accepted by EU that financed the FP7 project DEMOCRITOS (<http://www.democritos.ipacv.ro/>)
- Private Public Partnerships with telematic operators and insurances

## Conclusions: added value for the cities

Advantages for the city which implements the model:

- to have a new demand management system, in addition to conventional road pricing or restrictions;
- the possibility to check in real time the energy consumption and externalities generated by urban transport;
- a potential source of revenues;
- a huge number of data coming from the travelers, that can be used for planning purposes.

## Conclusions: lessons learnt

Key factors for the application of the mobility credits concept:

- a strong political support cannot be set aside;
- a high level of “mobility culture” in the involved actors is a necessary background;
- communication towards citizens plays a fundamental role;
- the MC concept must be implemented in a clear and simple way;
- citizens and other stakeholders have to participate to the planning process.

## Thank you

**Claudia Podestà**

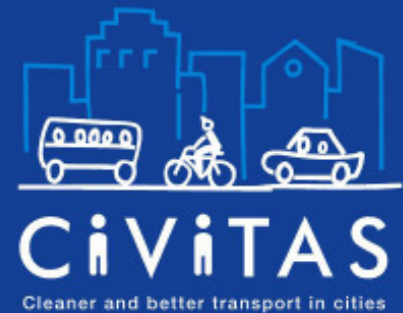
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