

# Smart Ticketing System



Smart Ticketing Systems allow for the improved, more efficient and integrated use of public transport by travellers. They also enable transport operators to better collect a large amount of data (big data) which may play an important role in developing and innovating new ways of management and operation.

Contactless cards allow:

- Faster, more comfortable access,
- Different kinds of tickets charged electronically within a single physical card, which associated with the various fares is highly relevant for intermodality.
- Better storage of individual data in an electronic database: more secure and integrated.

A good example of new possibilities is the return of tickets in case of loss or theft.

Another possibility is to take 30-day tickets starting on any date in a month. This allows travellers to plan their ticket purchases better based on their personal needs.

- Innovative studies for improving management, marketing and transport planning thanks to a new database and its potential (big data, more accurate management and problem-solving).

## Good practice

Madrid: CRTM – Tarjeta Transporte Público.

London: Oyster card.

Paris: CarteNavigo.

Toulouse (Tisséo): Pastel

### **Application in NODES sites:**

This tool has been evaluated by the NODES sites in Toulouse and Budapest.

The Toulouse team considers this tool as a keystone for intermodality and states that “while simplifying the experience of passengers, smart ticketing also reduces fraud and ensures security of public transport”, despite the initial investment in its application. This opinion is shared by the Budapest team: “Smart tickets can be loaded with other functions, a very useful tool, but its introduction requires plenty of resources”.

## **Potential interchange performance improvement**

The whole system is moderately expensive, especially in terms of maintenance.

This tool provides a quicker, more secure, attractive travel experience, which may have an impact on travel demand.

Commercial speed improves, which also has an impact on the usefulness and attractiveness of the system. Each validation with this tool reduces the time taken from 1.5 to 0.2 seconds.

## **Resources**

- Initial investment is considerably high, since all stakeholders must adapt all their “back office” to the new system. All levels of the data chain, from the database to each very particular turnstile, must be adapted.
- This does not only affect databases and organisational processes, but also affects all stations and/or vehicles in a very physical/technical way.
- Distribution of costs between stakeholders must be agreed in each case. For instance, in the specific case of Madrid, each stakeholder has taken responsibility for its adaptation to the new system.

## References

[tarjetatransportepublico@crtm.es](mailto:tarjetatransportepublico@crtm.es)

<http://www.tfl.gov.uk/fares-and-payments/oyster>

<http://www.navigo.fr/>

<http://www.tisseo.fr/les-tarifs/obtenir-une-carte-pastel>

<b>NODES strategic objective</b>	<b>Contribution</b>
Enhance accessibility and integration	++
Enhance intermodality	++
Enhance liveability	++
Increase safety and security conditions	++
Increase economic viability and costs efficiency	++
Stimulate local economy	++
Increase environmental efficiency	0
Increase energy efficiency	0