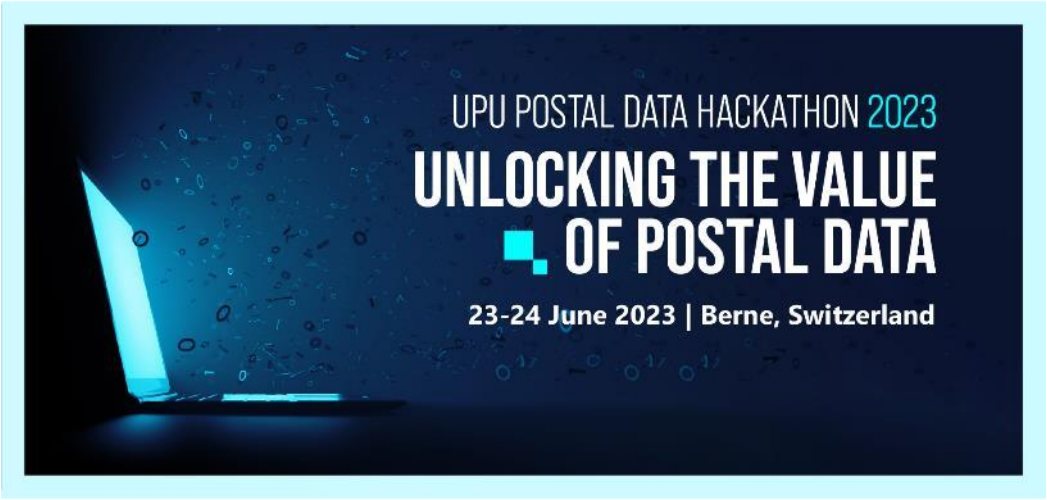
Proposition of a Challenge:
Solving Last-Mile Delivery with Shared Lockers



Dominique Colin - La Poste (France)
Dominique.Colin@labanquepostale.fr

C1 - Interne

The Challenge of Last-Mile Delivery in e-Commerce

More and more customers are asking the **delivery to their home** for a convenient reason. In addition, cross-border eCommerce has to deal with **import customs clearance** issues.

But last-mile delivery generates **various problems**: heavy traffic in cities, leading to congestion and pollution, uncertainty as to whether the recipient will be present, necessitating redelivery or delivery on standby, payment of tax and duties for clearance, and therefore the high cost of home delivery.



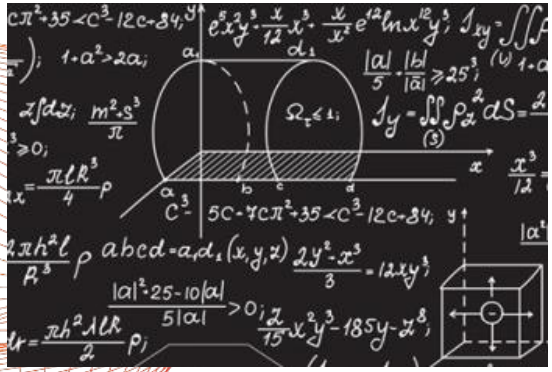
Parcel lockers are a possible solution, but there are too many competing lockers on the market.

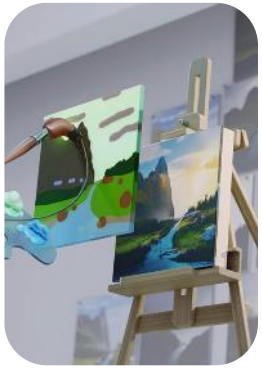
On the streets, in station lobbies and shopping malls, **lockers are multiplying in the colors of each operator**, from worldwide integrators to local independent carriers, as well as those of the stores and e-tailers themselves.



The solution for the government and the regulation authority is **to organize this activity and optimize streets** use around a single operator capable of managing all parcel lockers for carriers and online sellers.

The shared locker solution for sustainable, optimized use of public space, and contributing to the postal operator's central position in e-commerce.





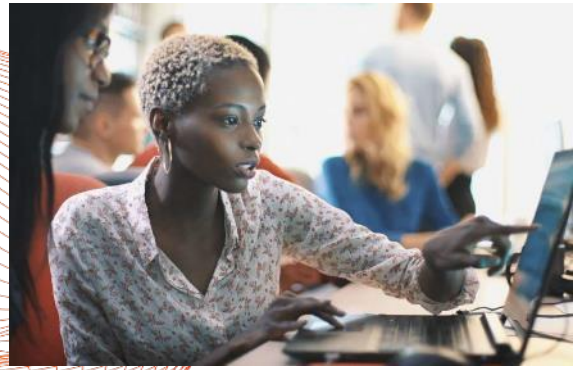
Stage #1: Design the Value Proposition

- Define the **ideal benefits and features** of shared lockers for carriers and consignees.
- Create a **profitable business model** (BUILD and RUN) for shared lockers, including fixed and variable costs and revenues for the various stakeholders.
- Consider the **volume of parcels delivered and returned** using shared lockers.

Required skills:

- ***Problem identification and analysis***
- ***Market research***
- ***Value Proposition design***
- ***Rapid prototyping***
- ***Teamwork and collaboration***
- ***Flexibility and adaptability***

This is a **marketing and business development challenge** focused on digital solutions, that posts may use to discuss with the supervising ministry and regulation authority.





Stage #2: Design the App to manage shared lockers

- Design an **application enabling carriers** to obtain available spaces in shared lockers and use them for pickup and delivery*, as well as for payment of customs clearance tax and duties (use of ITMATT data).
- Design an **application enabling the postal operator** to manage/supervise different lockers, optimize spaces and invoice carriers.
- Design an **application enabling buyers (recipients)** to pay duties and taxes in lockers, to pick up and drop off their parcels in the lockers whatever the carrier is.

** Pickup issue can be studied later.*

Required skills:

- ***Problem solving***
- ***Rapid prototyping (time management)***
- ***Programming capabilities (various languages)***
- ***Mobile and/or Web development***
- ***User interface (UI) and User experience (UX)***
- ***Debugging and troubleshooting***
- ***Teamwork and collaboration***

This is a **program design and implementation challenge.** The software bricks could be the starting point for an operational solution to present and convince stakeholders in our countries.

C1 - Interne



Thank you. Please feel free to ask any questions. 😄

C1 - Interne