



AJUNTAMENT DE
SANT BOI DE LLOBREGAT



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Horizon 2020 under Grant Agreement No. LC-01349961

IDIT4EU

ereuse.org



Empoderant en la reutilització i el reciclatge dels dispositius digitals



Agenda de 1a Formació DLT4EU

- 16 - 16.15 Introducció al projecte DLT4EU
- 16.15 a 16.45 Retirada o reutilització segura d'equips
- 17 a 18.15 Formació en esborrat i inventariat
- 18.15 a 19 Introducció al reacondicionat per a la reutilització

Introducció al projecte DLT4EU

Sant Boi, amb la
**VAGA MUNDIAL
PEL CLIMA**
27 SETEMBRE



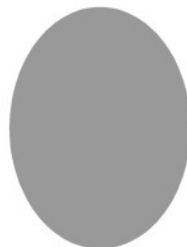
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Increase reuse and reduce premature recycling



Public
administrations

NEEDS

The City Council needs support on the reuse of its out-of-use computing devices for families with dependent children. In addition, the impact of reuse must be accounted for in order to justify the allocation of resources

CURRENTLY

Today, most computing devices from the City Council are recycled instead of being reused

CHALLENGE

A collaborative and trusted e-waste platform that reduces premature recycling and increases second-hand usage of good quality and affordable computing devices

City of Sant Boi Proof-of-Concept



FEATURES

- F1** (IT Team) End of life compliance
- Data erasure and disposal for reuse
 - Functioning tests
- F2** (SD Team) Device management system
- Transfers between IT Team and DS Team
 - Assignment of devices to the End User

- F3** (SD Team & Families) Account impact of reuse
- Send/Receive acknowledge of reuse and reused hours by End User
 - Send/Receive acknowledge of recycling and location
 - Impact reports

Intended impact



15 reused devices



15 families



1 refurbisher



200€ in cost savings per device



Compliance and impact accounting



Boost device reuse of the City Council
from small% to 50%

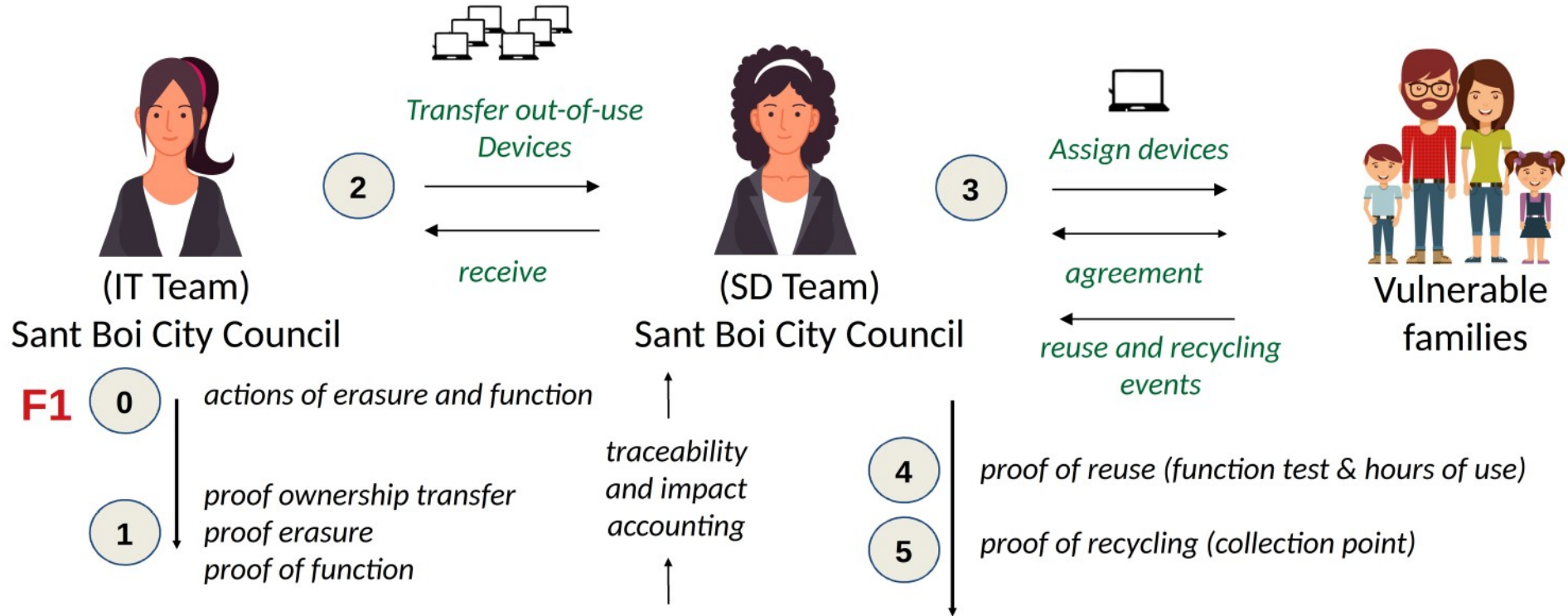


Boost recycling
from 30%? to 50%



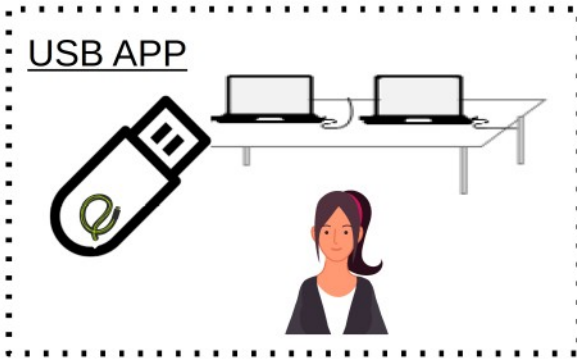
250 Kg CO₂ avoided per device (+3 years)

City of Sant Boi Pilot



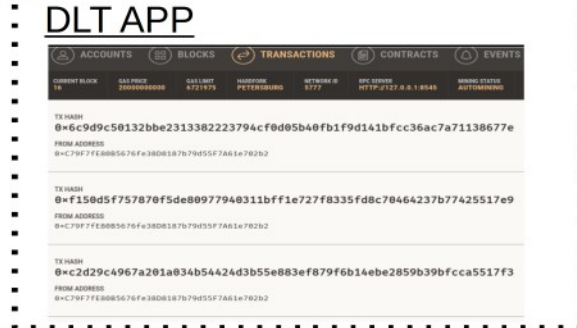
A privacy-preserving DLT for traceability and impact accounting

Step 1: Data erasure and function testing



The City Council IT Team does a secure erasure of data and function test of devices. Uses a USB stick with the app. For each device a certificate is generated in the Web app, and from there stores the proof in the DLT APP.

Avui no farem aquesta part.



JSON file

Web APP

Laptop latitude e6440
(dell inc.) S/N FJBQVZ1

- model: latitude e6440
- manufacturer: dell inc.
- serial_number: fjbqvz1
- chassis: Laptop
- layout: None

Total rate	High (3.91)
Algorithm price	117.30 €
Actual price	117.30 €

App example: <https://api.app.usody.com/db1/devices/168>

actions of erasure and function

proof ownership
proof erasure
proof of function

Step 1: Check proofs (erasure, ownership, function)

Web APP

All devices

+ New snapshot

Selected devices — 3 [Deselect all](#)

Write a model, serial number...

Filters

Type: Computer

Title	Tags	Rate	Status	Price	Updated
Desktop Dell Inc. Optiplex Gx520	TAG3	2/8	Sold / Repaired		3/11/20
Desktop Hewlett-Packard Hp Compaq 8000 Elite Sff		3/8			3/11/20
Desktop Lenovo 3493bag		2/8	Sold		3/11/20
Desktop Hewlett-Packard Hp Compaq 8100 Elite Sff	DT-BBBBB	2/8	Sold / To be repaired		3/11/20
Desktop Hewlett-Packard Hp Compaq 8100 Elite Sff		2/8			3/11/20
Desktop D1mr D1ml	TAG1	1/8			3/11/20
Desktop Hewlett-Packard Hp Compaq 8100 Elite Sff	DT-AAAAA	3/8	Sold / Ready		3/11/20
Desktop Hewlett-Packard Hp Compaq Dc7900 Small Form Factor	DT-BRRAB, TAGA	2/8	Sold / Ready		3/11/20
Laptop Emachines E627		1/8			3/11/20
Laptop Toshiba Nb200		1/8	Sold / Prepared		3/11/20
Desktop Nec Computers Sas Powermate Mlxxx		2/8			3/11/20
Desktop	DT-CCCCC	4/8			3/11/20

Type, manufacturer & model
Desktop Various manufacturers

Status
Sold / Repaired

Issues
Test data storage — e.severity.error: Unspecified error. self-test not started. (3)

Rate
2/8 (2), 3/8 (1)

Disk erasure
Erase basic: e.severity.info — Shred Non-standard (2)

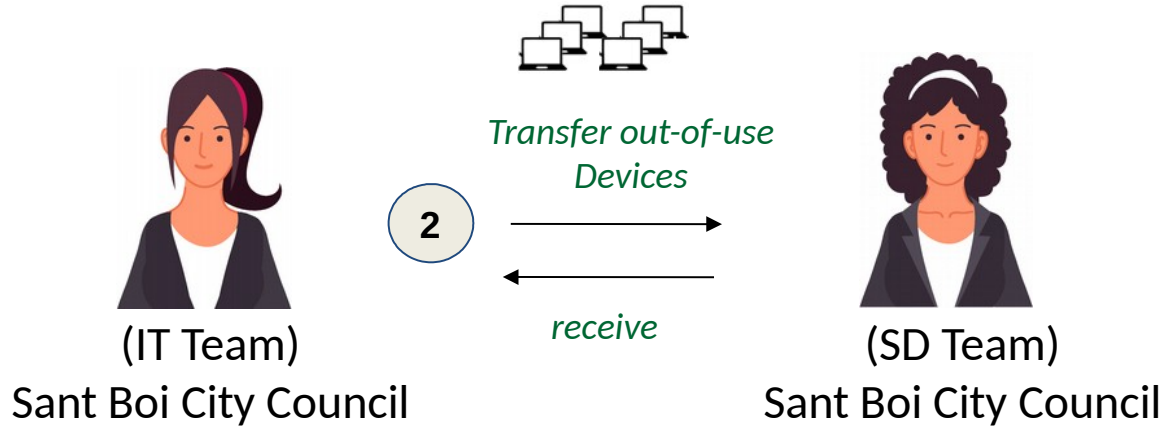
Traceability log

Proofs
3 proofs

Components

F1

Step 2: Ownership transfer



WEB APP

All devices

Filters

Type: Computer

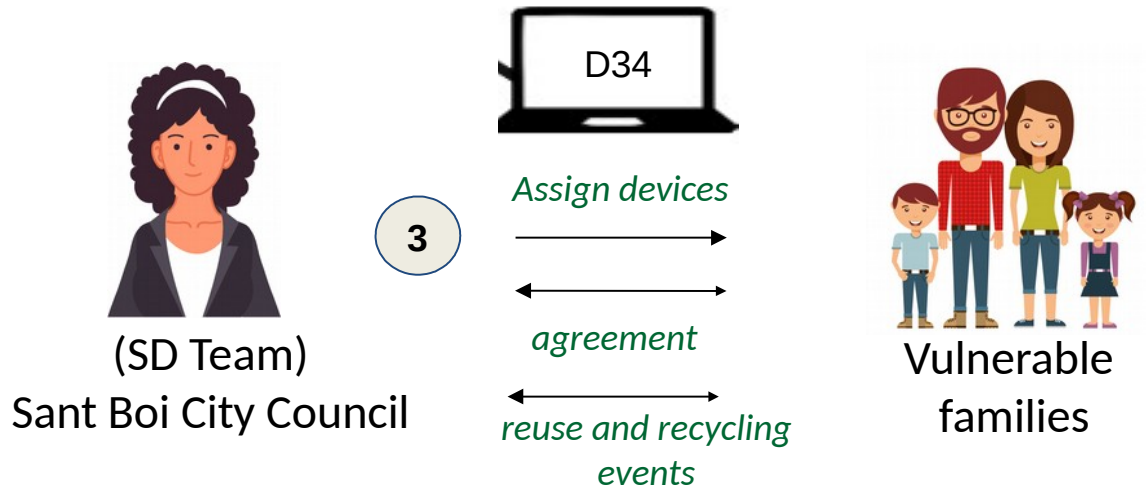
Deselect all devices (1)

Title	Tags	Rate	Status	Price	Updated
Desktop Dell Inc. Optiplex Gx520	TAG3	2/8	Sold / Repaired		3/11/20
Desktop Hewlett-Packard Hp Compaq 8000 Elite Sff		3/8			3/11/20
Desktop Lenovo 3493bag		2/8	Sold		3/11/20
Desktop Hewlett-Packard Hp Compaq 8100 Elite Sff	DT-BBBBB	2/8	Sold / To be repaired		3/11/20

Proofs

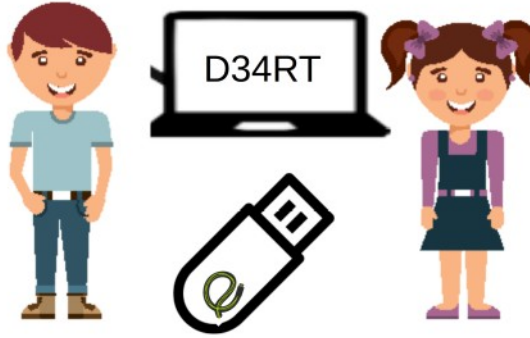
Proof Transfer	0x34ABCD956696aB7e56Cb7bc87d9848E921C4ABCD
Proof Data Wipe	0x44ABCD956696aB7e56Cb7bc87d9848E921C4ABCD

Step 3: Assign to families



The app allows the DS Team to assign a devices as the status of “assigned to a user” . Internally, the DS team must have a record of which device (D34) the family has and other sensitive information. The app will not know who is using the devices.

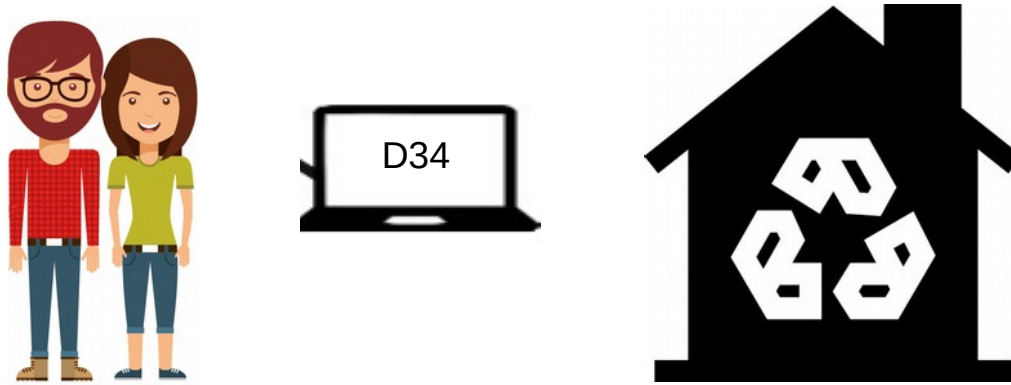
Step 4: Proof of reuse



(DS Team)
Sant Boi City Council

The family uses the device. Using the app (USB) the family automatically notifies a new proof of reuse to the SD Team. In the app (web), the SD team can register this proof into the DLT. The app or SD Team should not be allowed to know the hours a device has been used by a family. Whether it should be possible to know the total number of hours that SD Team devices have been in reuse.

Step 5: Proof of recycling



(DS Team)
Sant Boi City Council

The family physically brings the device to an authorised recycling point. The family, using the app (code: D34) or the url provided, can set the collection point. In the app (web), the SD checks this transfer and registers the transfer of ownership in the DLT

Open-Source apps (AGPL-3.0) and data commons

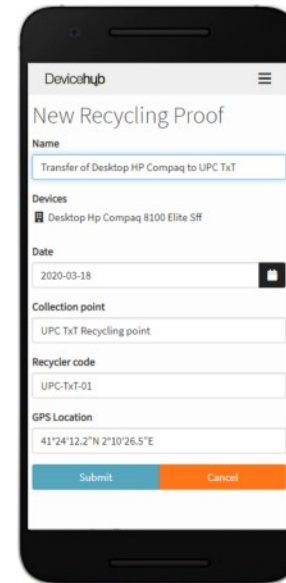
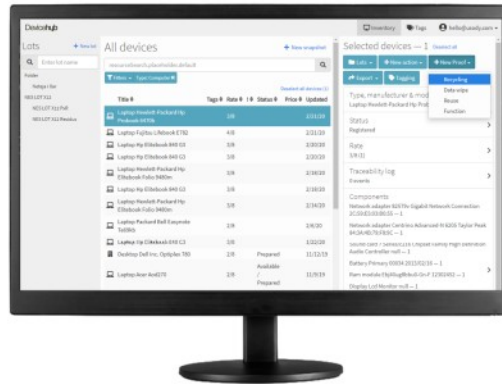
USB APP

Data erasure and hardware discovery/testing



WEB APP

An IT Device Management and Disposal system (ITAM/ITAD) with impact accounting



Explorer DLT APP

A privacy-preserving DLT for traceability of compliance and impact





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Retirada o reutilització segura d'equips

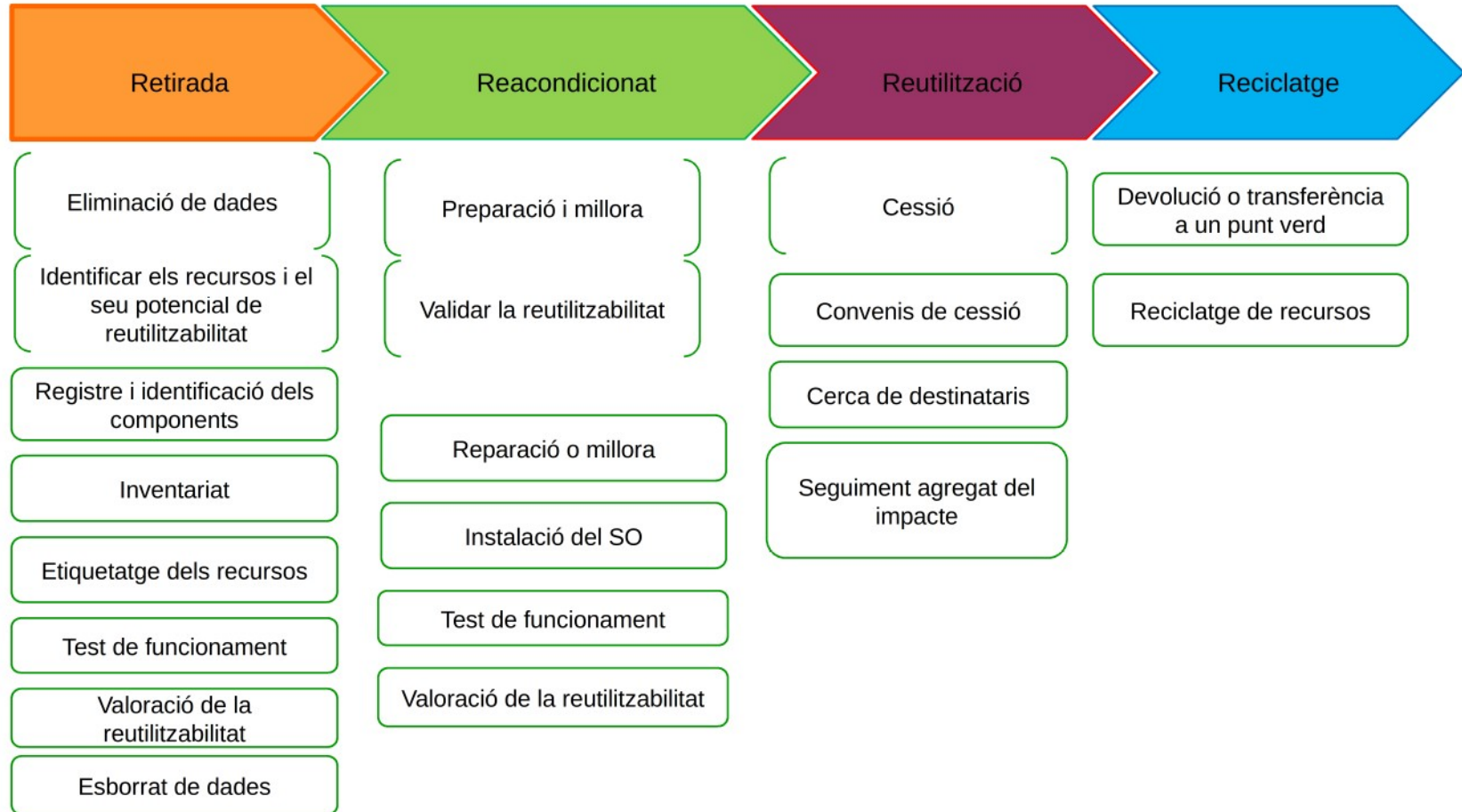


Inventari

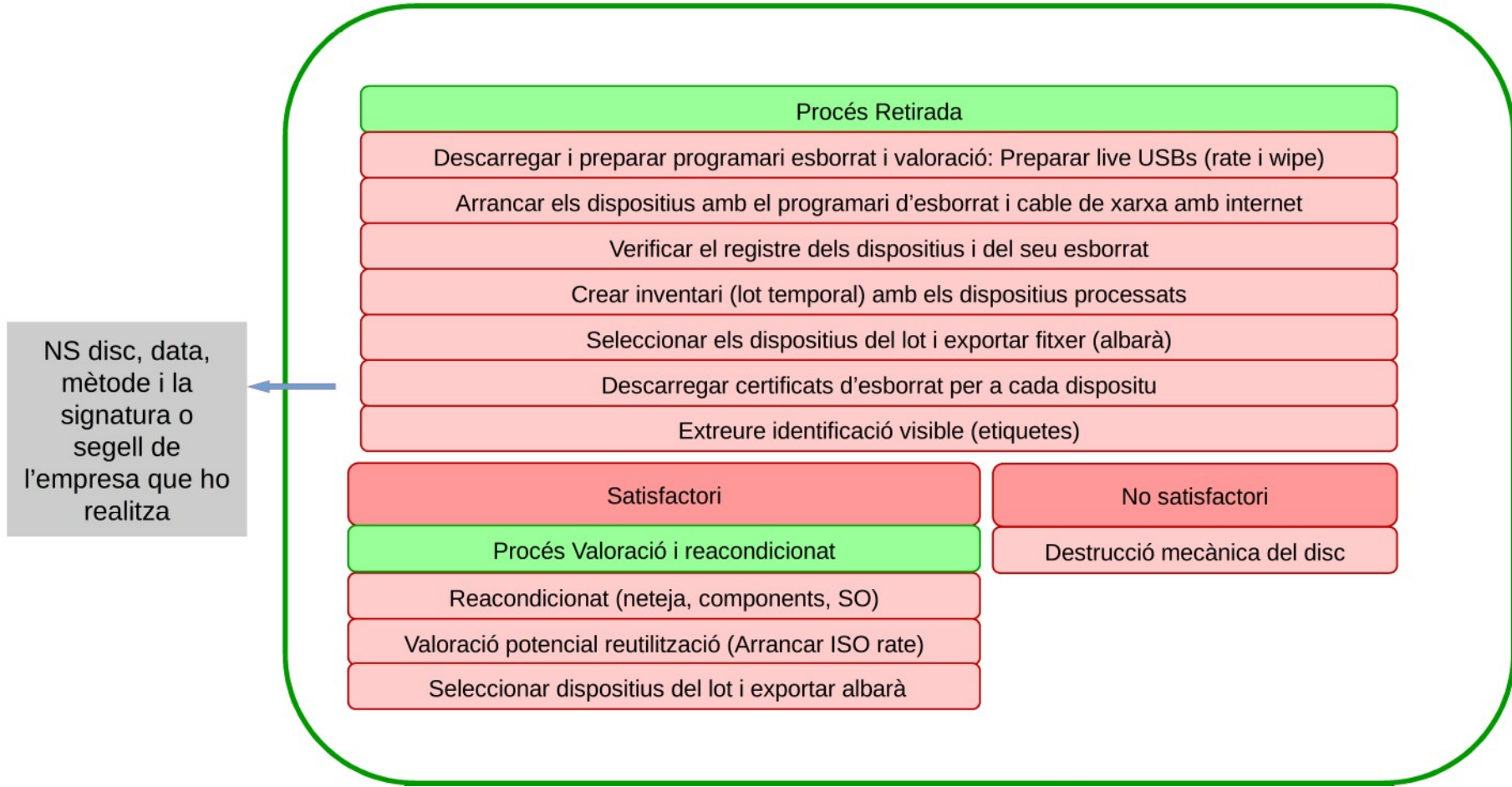


Esborrat

Etapes de la Retirada, Reutilització i el Reciclatge

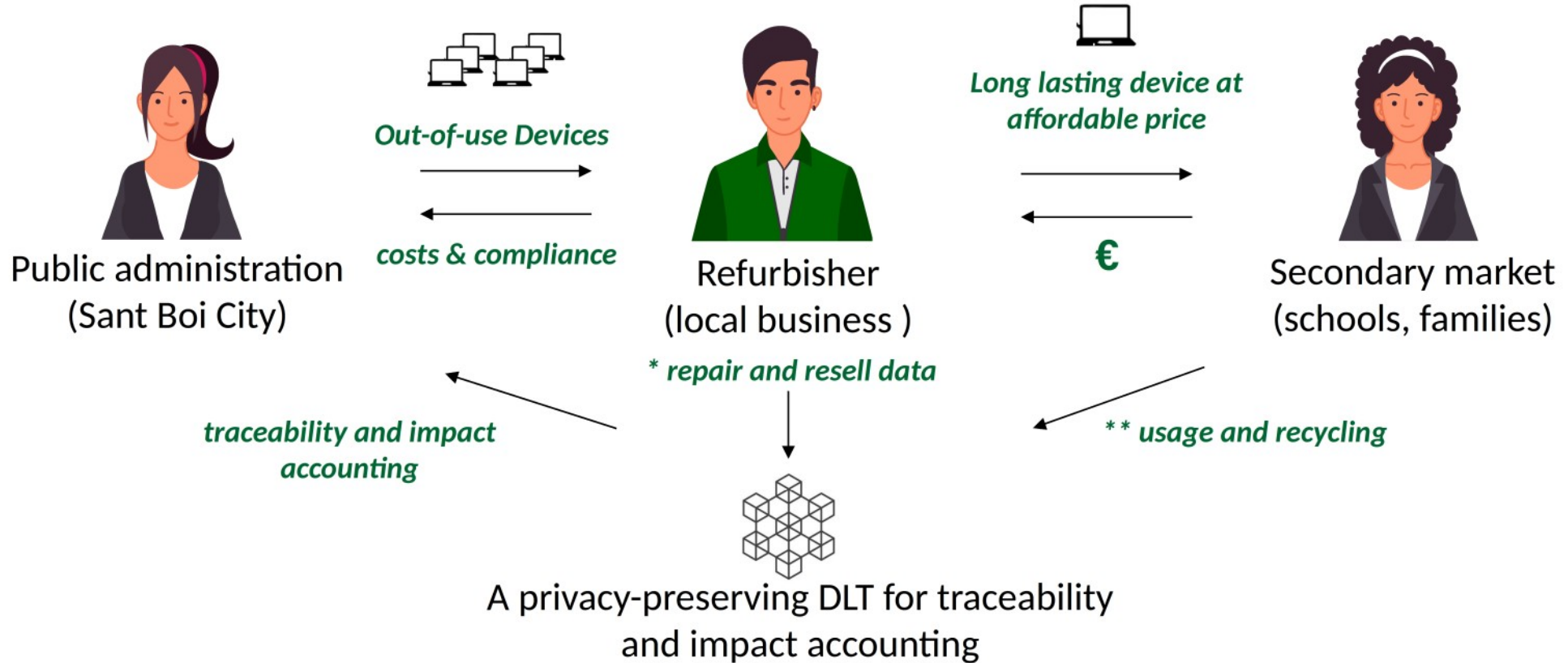


Activitat en el IT TEAM



BACKUP

Model amb reacondicionadora



* quality, data wipe, transfer, resell amount (no customer or personal data)

** hours of use, collection point (non personal data)