Rationalising the cadastral applicative landscape

The challenge of locally-initiated softwares

5 May 2025

SUMMARY

Commune — de — la — Canau

Commune — de — Sommes

TA   TA

Tableau d'Assemblage
du Plan Cadastral parcellaire de la Commune du
PORGE
Canton de Castelnau
Arrond.t de Bordeaux Départ.t de la Gironde
Terminé sur le terrein le   mars 1827 sous l'Administration
de Mr. le Baron d'Haussez Préfet
Mr. Laville S.t B.te   Maire
et sous la Direction de
Mr. Dostes Directeur des Contributions
Mr. Billd Géomètre en chef
Par Lebrun les frères Géomètres

Echelle $\frac{1}{20.000}$

NORD

S

Porge

Dunes — du

Dunes

Section   A

Section   B

Section   D

Section   C

Maisonneuve
Lescaran
l'Archevêque
le Barail
les Vignes
LE PORGE
Laruau
Lauros
Ola de l'Îlotte

Dune de la Tressade
Manoir de Lesquerin
Dune de Chancre
Etang de Chancre
Dune de la hourbière
Etang de Vilette
Dune de Vin
1re Feuille
Dune de Bourgnat
Dune de l'Aigle
Etang de Leide Bosse
la Grêle
Leide Bosse
Dune de Janon
Etang de Janon
Dune de l'Église Vieille
Dune de Perre Guillon
Etang de Perre Guillon
3me Feuille
Etang ou Ola de Langrade
Dune de Chaguinette
3me Feuille
2me Feuille
2me Feuille
1re Feuille
3eme Feuille
2me Feuille
Feuille
le Maye

ARES

Commune — du — Temple

Commune — de — Leige

LE PORGE

Echelle de 5 millimètres pour 100 mètres ou de 1 à 20.000

TA

Commune — de — la — Canau

-33-

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PORGE
Canton de Castelnau
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Mr Pillot Géometre en chef
Par Lebrau les frères Géometres

Echelle $\frac{1}{20.000}$

Commune — de — Lanau

Dunes de la Tressade
Manoir de Lesquevin
Lagune de la Rabeage

Bine de Chancet
Etang de Chancer
Bine de la hourbière
Etang de Vilette
Bine en Vin

Porge

Feuille

1re Feuille

la Grêle
Leide Bosse

Dune de Bougmat

Dune de l'Aigle

Etang de Leide Bosse

Ms   Section   A

Maisonneuve

le Baxail

Bine de Janon   Etang de Venem

Section   B

Bine de l'Eglise Vielle

l'Archeveque

Lescaran

5e Feuille

le Vignes

Prise de Perre Guillon

Etang de Perre Guillon   aux Moulins

LE PORGE

Chemin de Porge

1re Feuille

Section

NORD

Moulin de la Lande

Etang au Ola de Langlade

Ms   D

1re Feuille

Dunes de Chaguinolle

Section

Laruau

Ares

Section   C

5e Feuille   Bine des Grignoux

3eme Feuille

en Prats

Ola de l'Ilette

Lanros   3eme Feuille   2eme Feuille

le Maye

Dunes   Lague du fau au Roux

2eme Feuille   Commune du Temple

Commune

de   Leige

LE PORGE

TA

Echelle   Echelle 6.1 millimètres pour 20 mètres ou $\frac{1}{20.000}$

TA

INTRODUCTION

ORGANISATION & MISSIONS OF THE CADASTRE
IN FRANCE

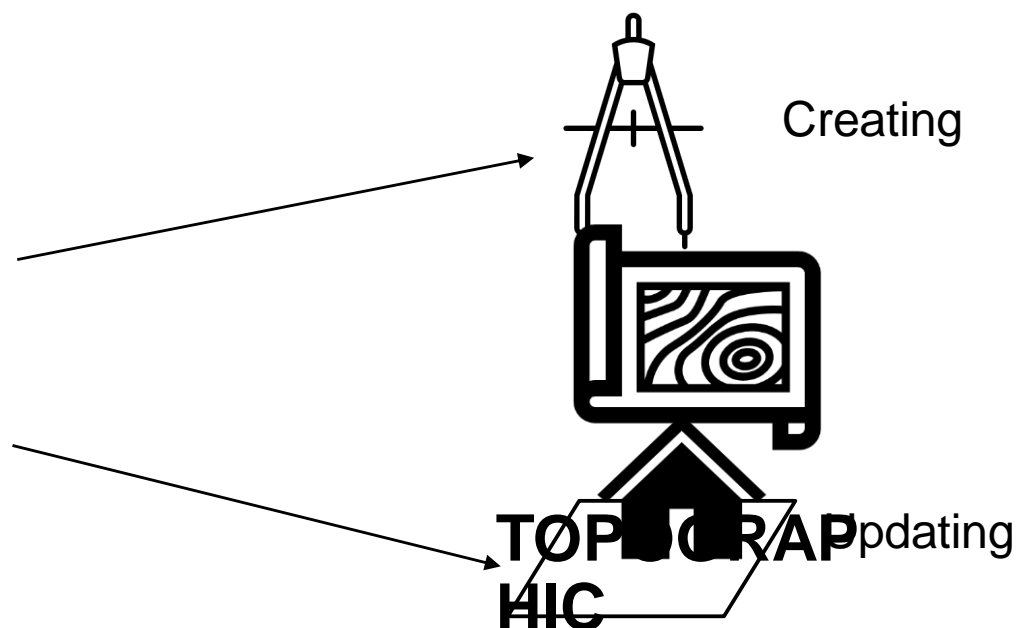Instituted in 1807, the cadastre serves multiples functions :
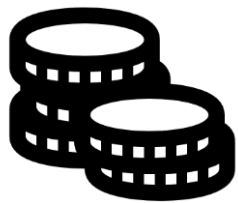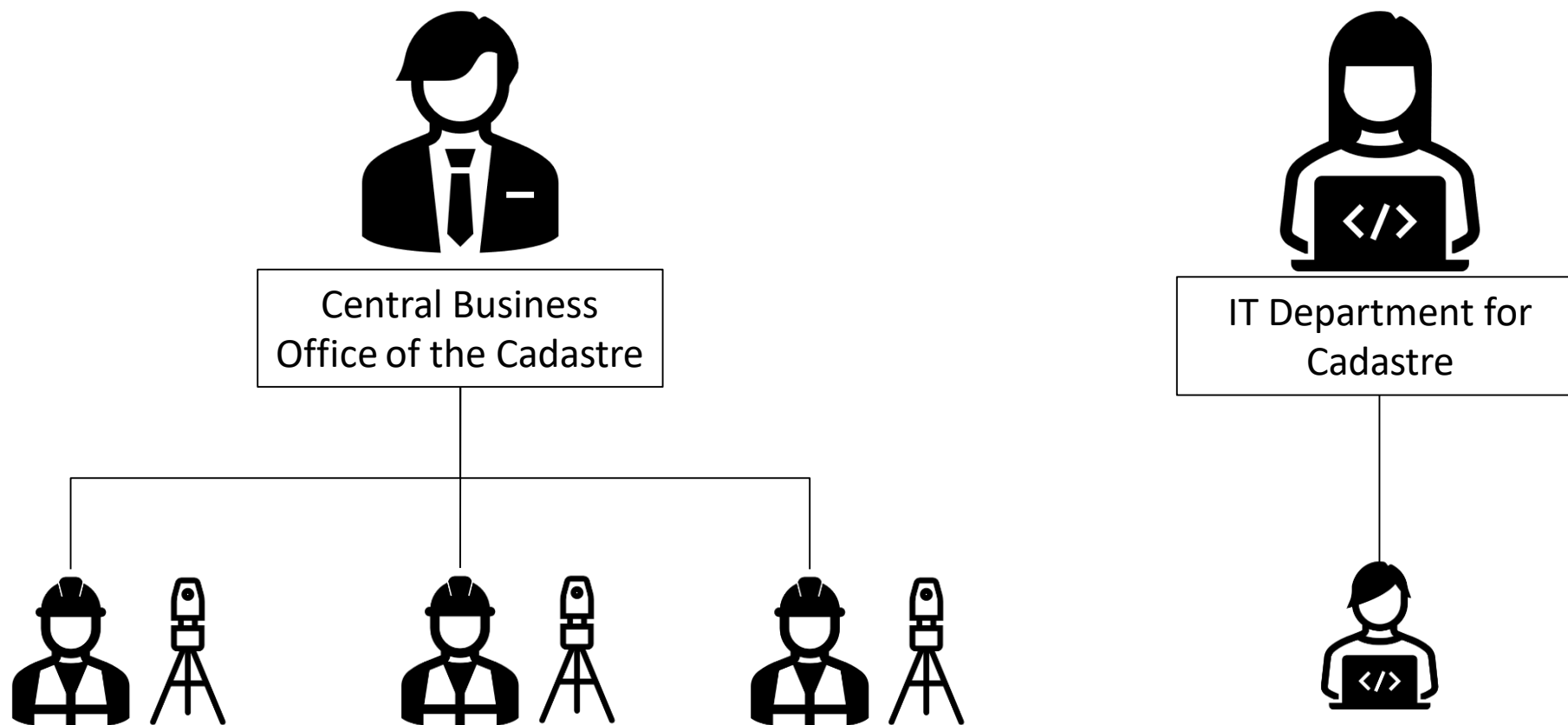
TAXATION

TOPOGRAPHIC

LAND REGISTRY

INTRODUCTION

ORGANISATION & MISSIONS OF THE CADASTRE
IN FRANCE

Creating

TOPOGRAPHIC   Updating

Central Business
Office of the Cadastre

IT Department for
Cadastre

2
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Cadastral map information technology system

CADASTRAL MAP IT SYSTEM

FOR TOPOGRAPHIC PURPOSES

1993 : PCI

Digital Cadastral Map

Updating the cadastral map

CADASTRAL MAP IT SYSTEM

FOR TOPOGRAPHIC PURPOSES

1993   PCI

:
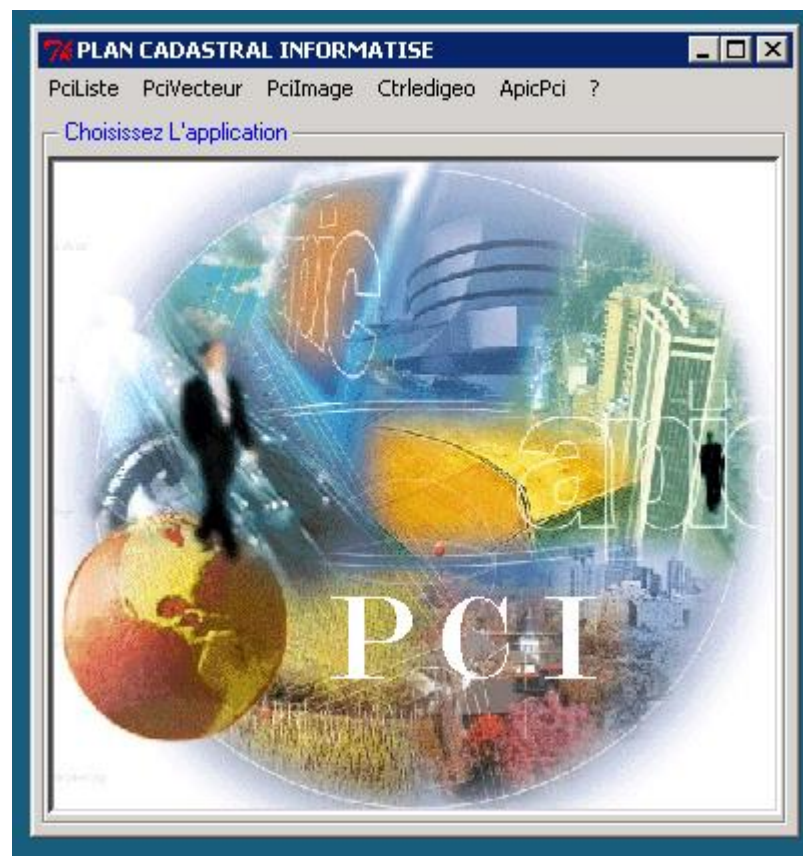
Digital Cadastral Map

- Up-to-date vectorial database comprising all national territory

- Thick-client application deployed on a Windows Server environment

CADASTRAL MAP IT SYSTEM

FOR TOPOGRAPHIC PURPOSES

1993 PCI

:
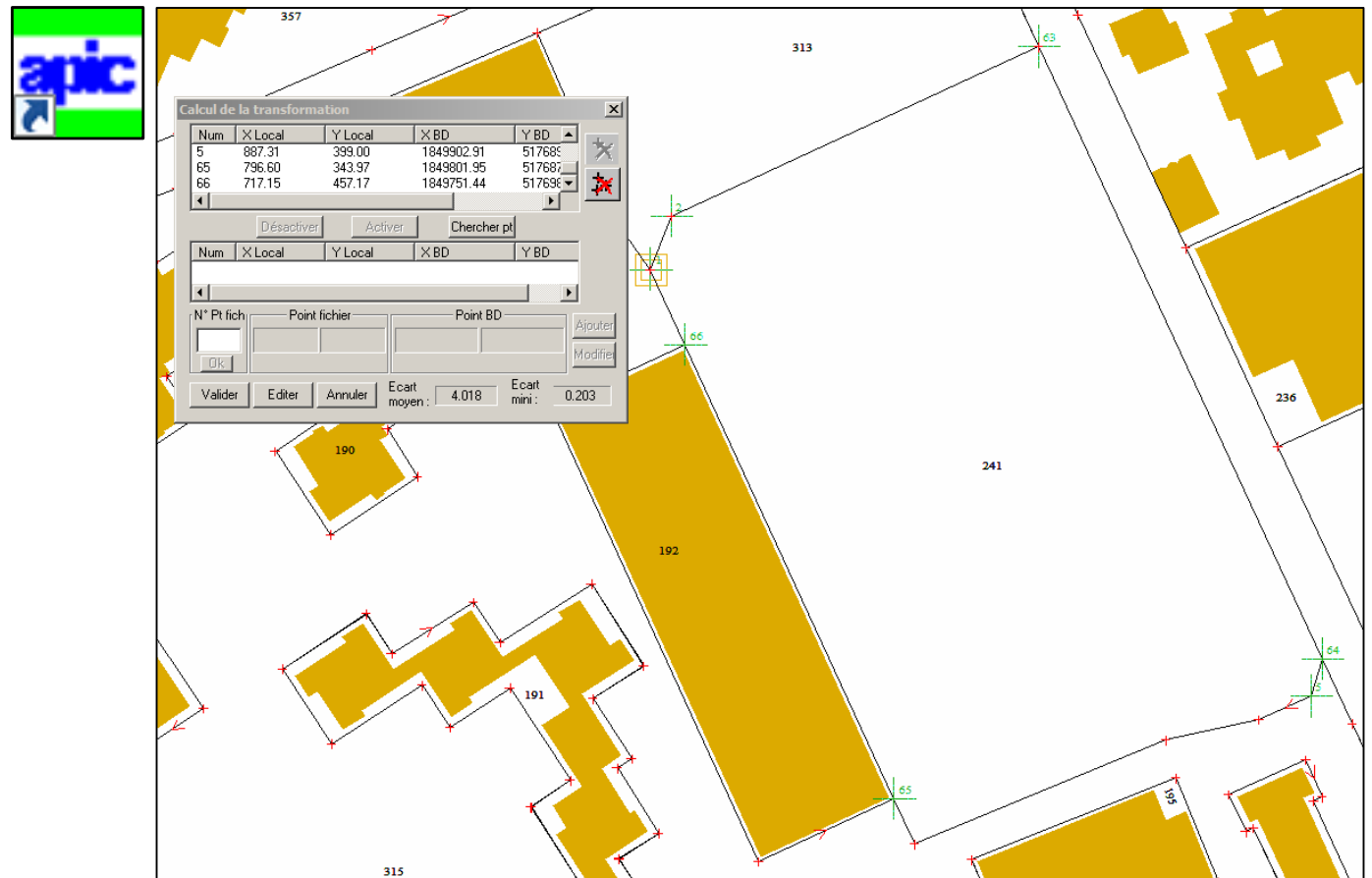
Digital Cadastral Map

- Performs data validation during import to ensure topographic consistency

- Allows for edition of digital cadastral map extracts and export of geographic data in specific formats such as DXF and EDIGEO
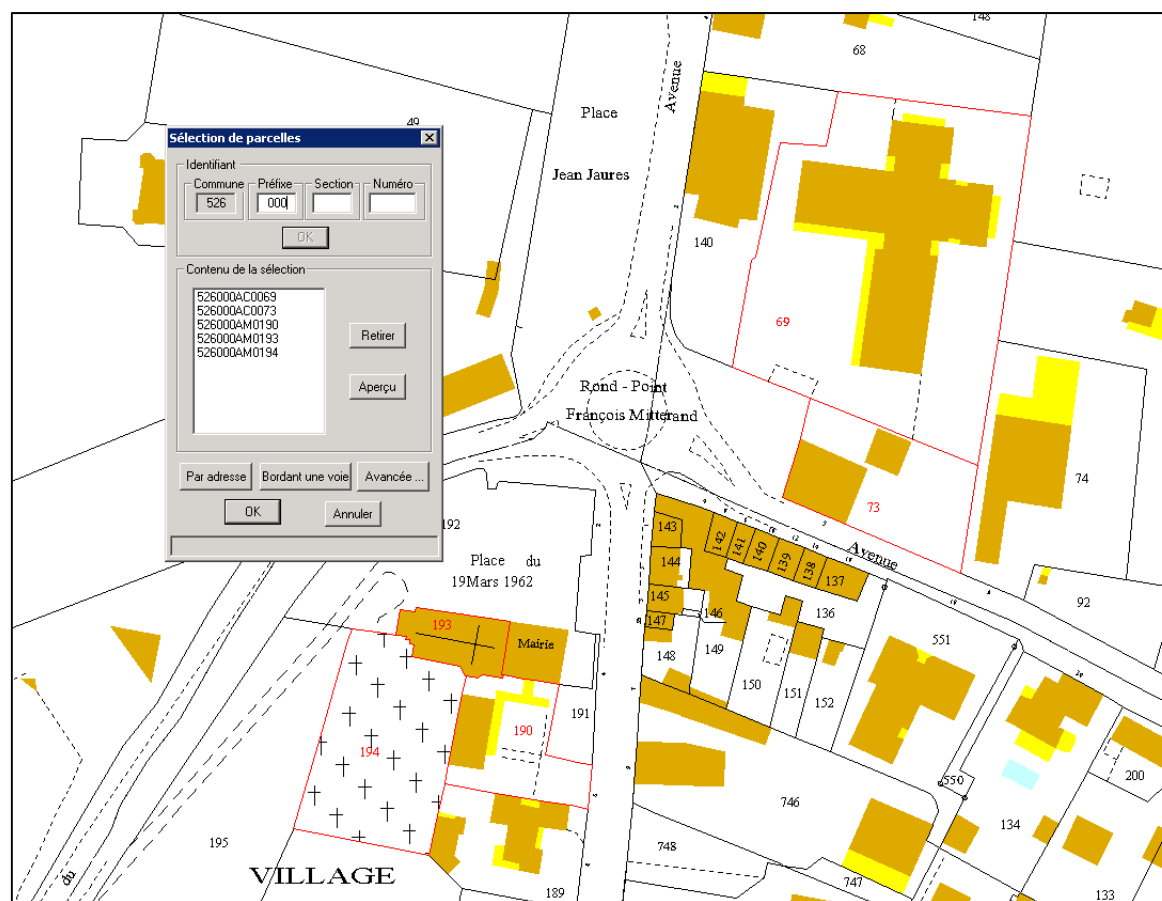
CADASTRAL MAP IT SYSTEM

FOR TOPOGRAPHIC PURPOSES

2008 SCPC
:
Cadastral Map Consultation
Service
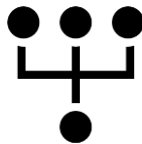
Distributing the cadastral
data

CADASTRAL MAP IT

SYSTEM

FOR TOPOGRAPHIC PURPOSES

2008 SCPC

Cadastral Map Consultation
Service

- Connected to the PCI

- External users access through
cadastre.gouv.fr

- Internal users access through
authentication-based portal
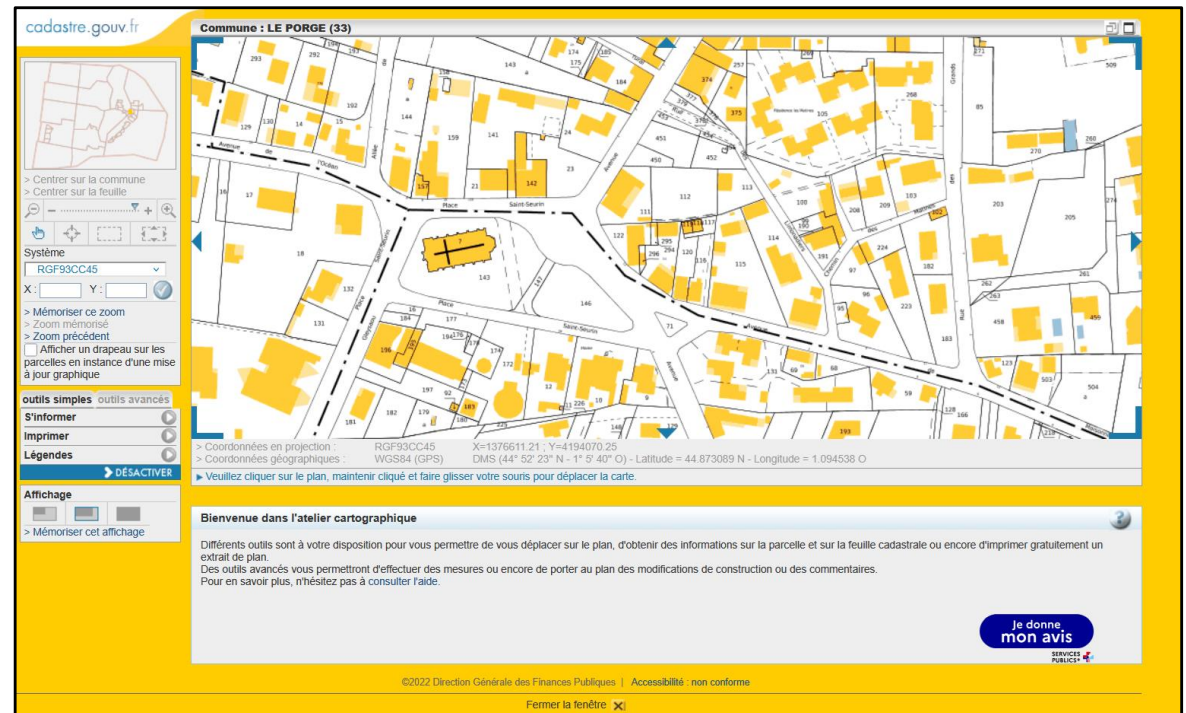
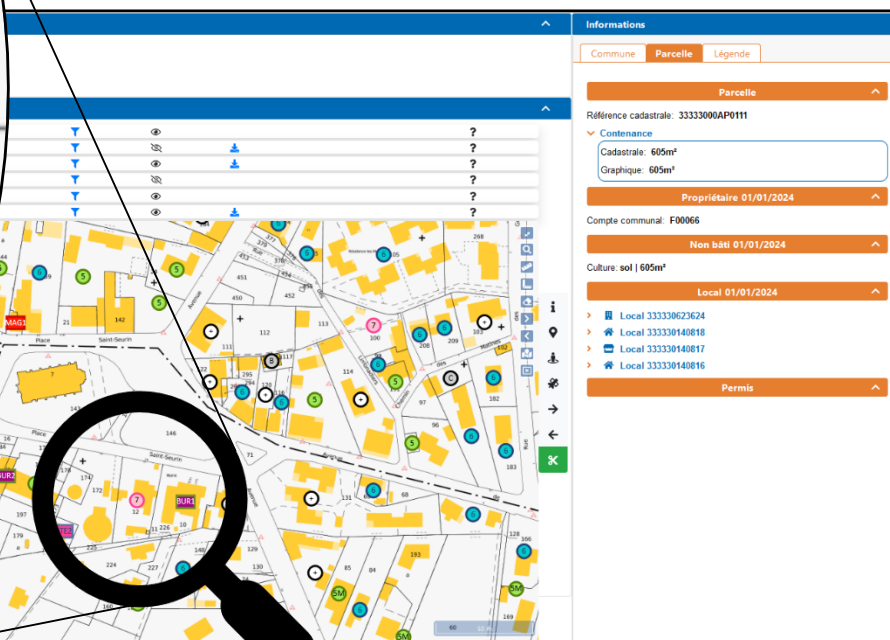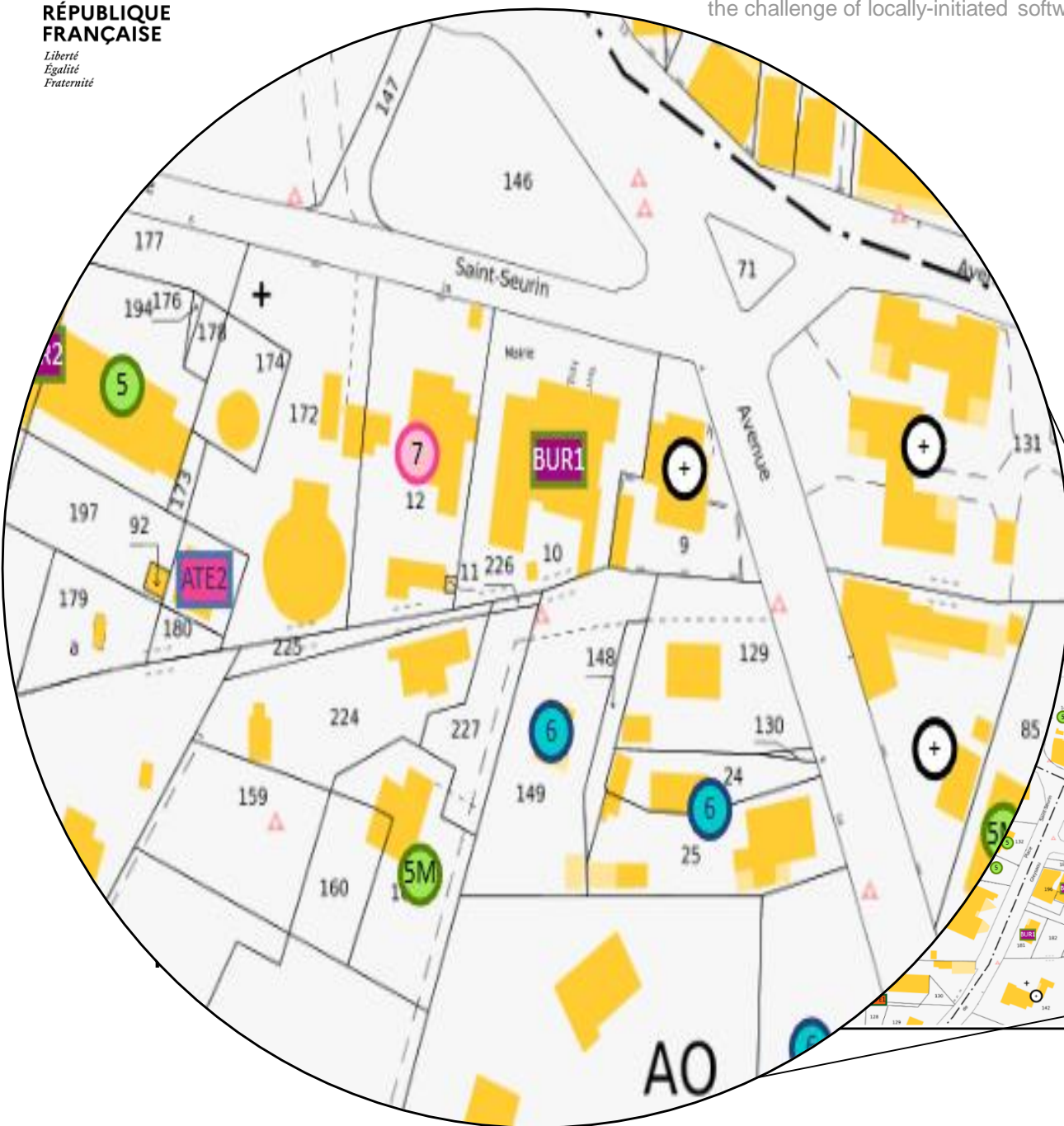# CADASTRAL MAP IT

SYSTEM

FOR TOPOGRAPHIC PURPOSES

2008   SCPC

Cadastral Map Consultation
Service

- Free consultation of the entire national territory

- Possibility to order, pay and receive official digital cadastral map extracts in a secured personal account

RÉPUBLIQUE
FRANÇAISE
Liberté
Égalité
Fraternité

Légende
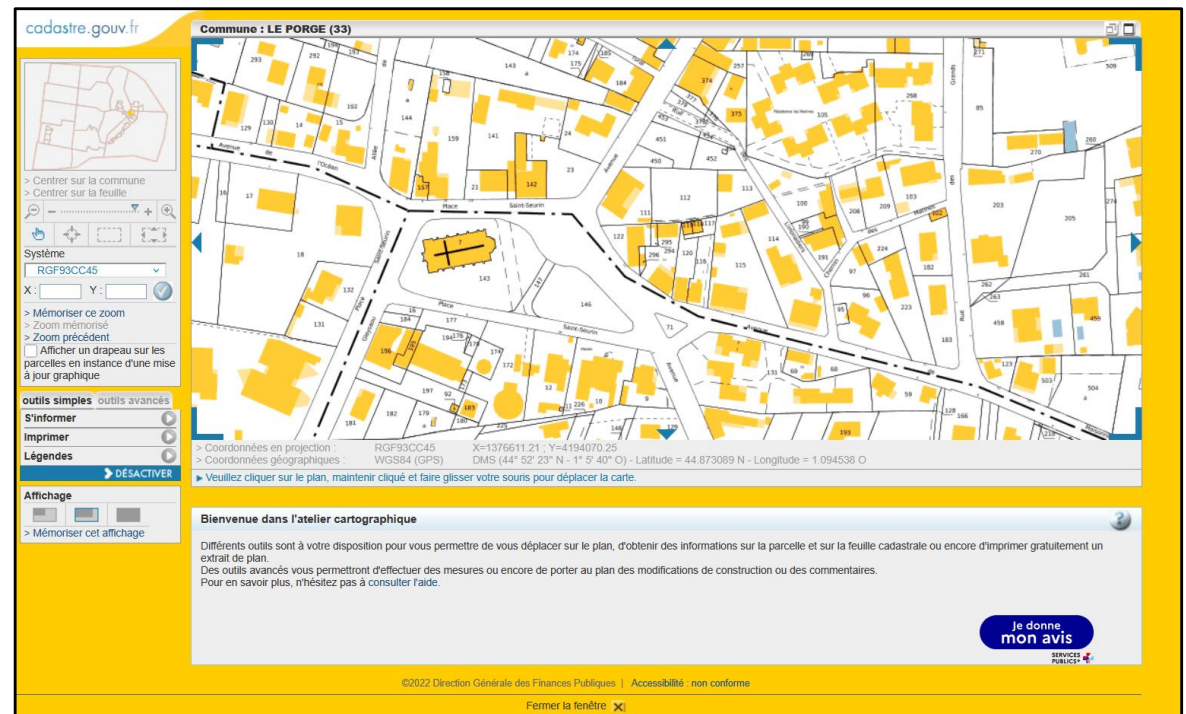
1	Catégorie 1
2	Catégorie 2
3	Catégorie 3
4	Catégorie 4
5	Catégorie 5
6	Catégorie 6
7	Catégorie 7
8	Catégorie 8
BA	Piscine
4 **BA**	Piscine associée à sa catégorie
B	Dépendance
+	Multiples catégories

Informations

Commune | **Parcelle** | Légende

Parcelle

Référence cadastrale: 33333000AP0111

Contenance

Cadastrale: 605m²
Graphique: 605m²

Propriétaire 01/01/2024

Compte communal: F00066

Non bâti 01/01/2024

Culture: sol | 605m²

Local 01/01/2024

Local 333330623624
Local 333330140818
Local 333330140817
Local 333330140816

Permis

CADASTRAL MAP IT

SYSTEM

FOR TOPOGRAPHIC PURPOSES

2022   VSL

-
-

Checking and Monitoring Premises

- For internal use only

- Harness AI and data cross-referencing to further enhance data reliability
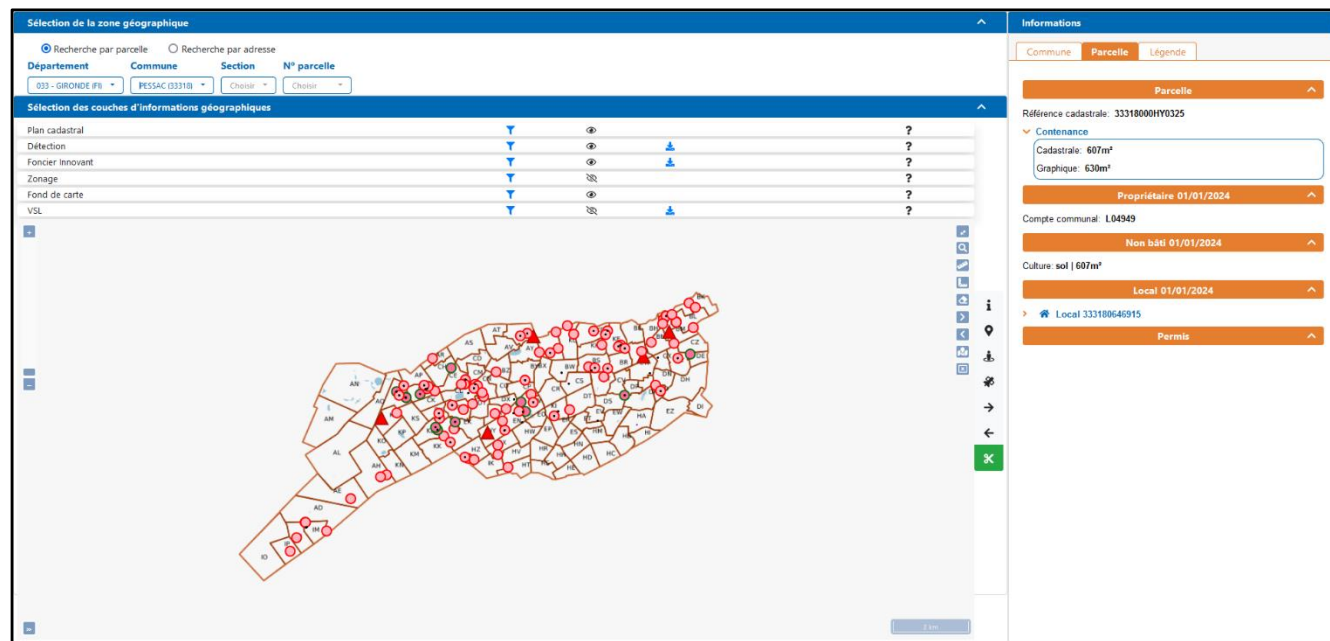
AI for cadastral map

« FONCIER INNOVANT » PROCESS :

1.
Orthophotography

AI for cadastral map

« FONCIER INNOVANT » PROCESS :

2.

Artificial Intelligence
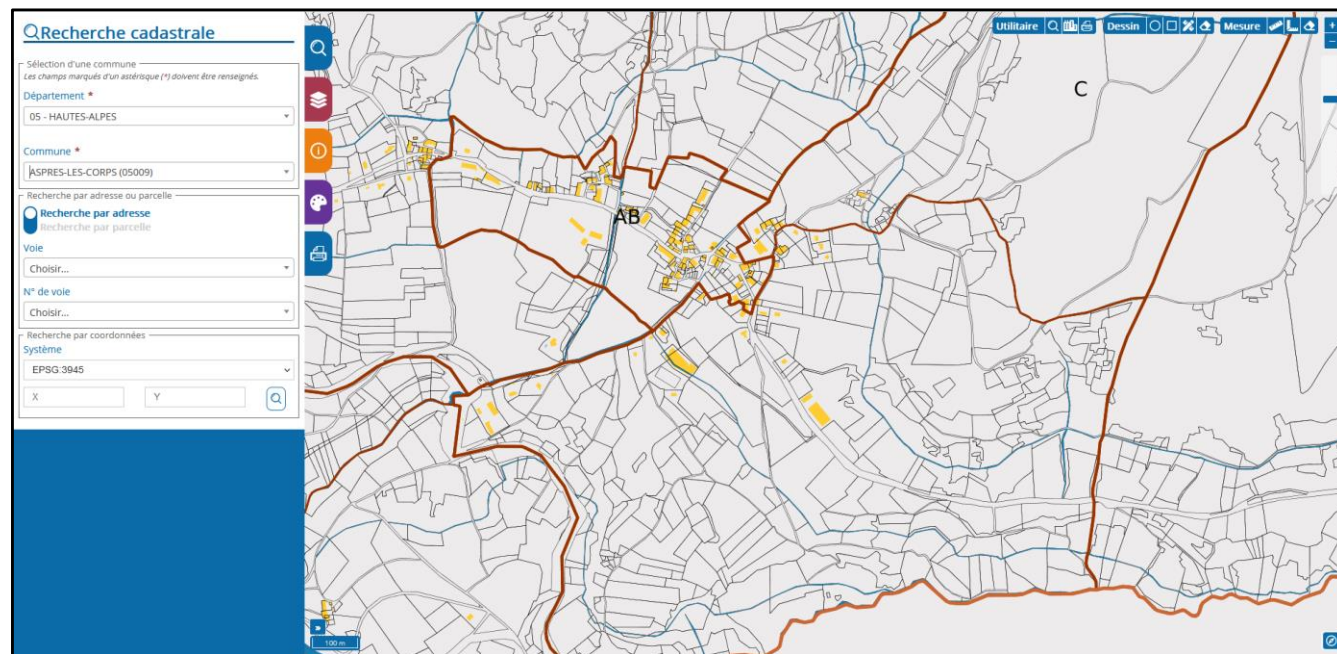
AI for cadastral map

« FONCIER INNOVANT » PROCESS :

3.
Human
analysis

CADASTRAL MAP IT SYSTEM

FOR TOPOGRAPHIC PURPOSES

2023 Mapping client :

- Internal use only

- Revamp the 2008 graphical user interface

CADASTRAL MAP IT
SYSTEM

FOR TOPOGRAPHIC PURPOSES

IT Department :

- 4750 staff members
- Managing 700 applications

apic

✔ GPDR conformity

Technical debt reduction

Etc.

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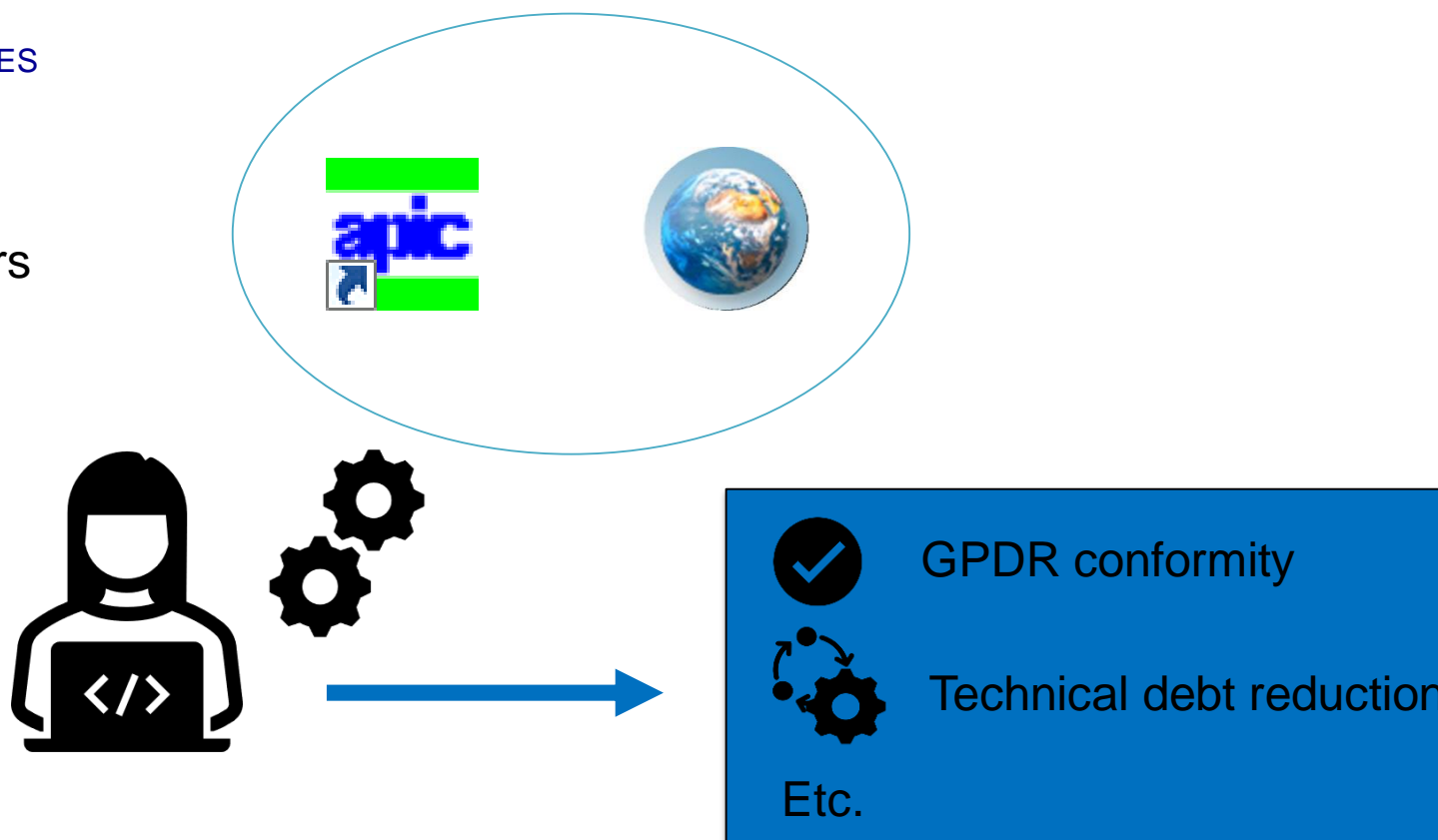
3

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Cadastral map locally-initiated softwares

</div>

CADASTRAL MAP LOCALLY-INITIATED SOFTWARE

A CHALLENGE FOR THE RATIONALISATION

Locally initiated software (**LIS**) :

Any software or IT application produced outside the standardised and institutional framework of the IT department
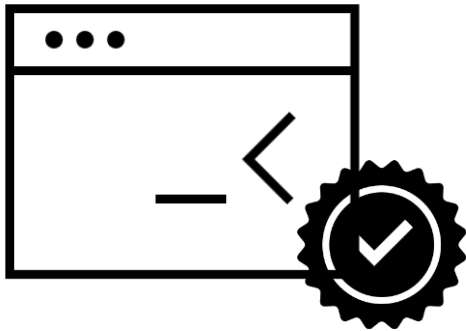
25 approved by the central cadastral administration for topographical purposes

CADASTRAL MAP LOCALLY-INITIATED SOFTWARE

A CHALLENGE FOR THE RATIONALISATION

Conditions of emergence :

1) Uncovered need

2) IT skills outside of the IT department

3) Institutional will to harness these softwares in order to meet the aforementioned need

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CADASTRAL MAP LOCALLY-INITIATED SOFTWARE

A CHALLENGE FOR THE RATIONALISATION

Pros :

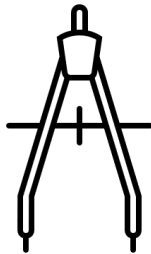- Excellent cadastral knowledge

- Fast development

- Ideal for prototyping

Cons :

- Deviates from IT standards

- High vulnerability

- Virtually no documentation

CADASTRAL MAP LOCALLY-INITIATED SOFTWARE
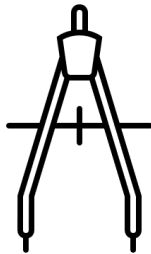
A CHALLENGE FOR THE RATIONALISATION

1993

Creation of the cadastral map

CADASTRAL MAP LOCALLY-INITIATED SOFTWARE

A CHALLENGE FOR THE RATIONALISATION
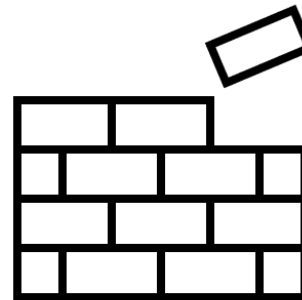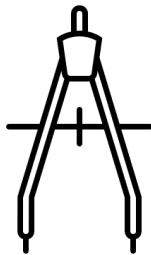

Creation of the cadastral map

1998 - 2019

AutoCAD   BricsCAD®

Locally-initiated software layer

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CADASTRAL MAP LOCALLY-INITIATED SOFTWARE

A CHALLENGE FOR THE RATIONALISATION
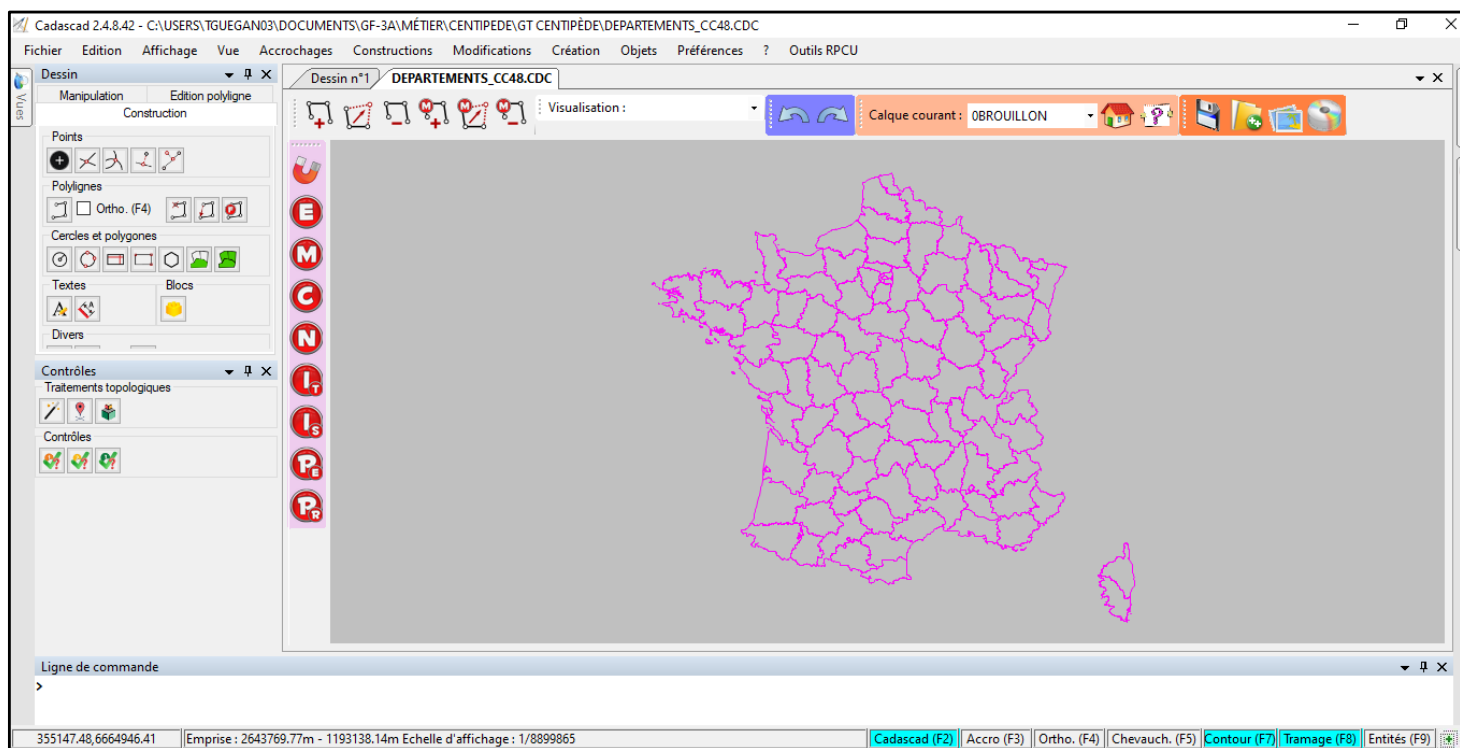
2019 -

Creation of the cadastral map
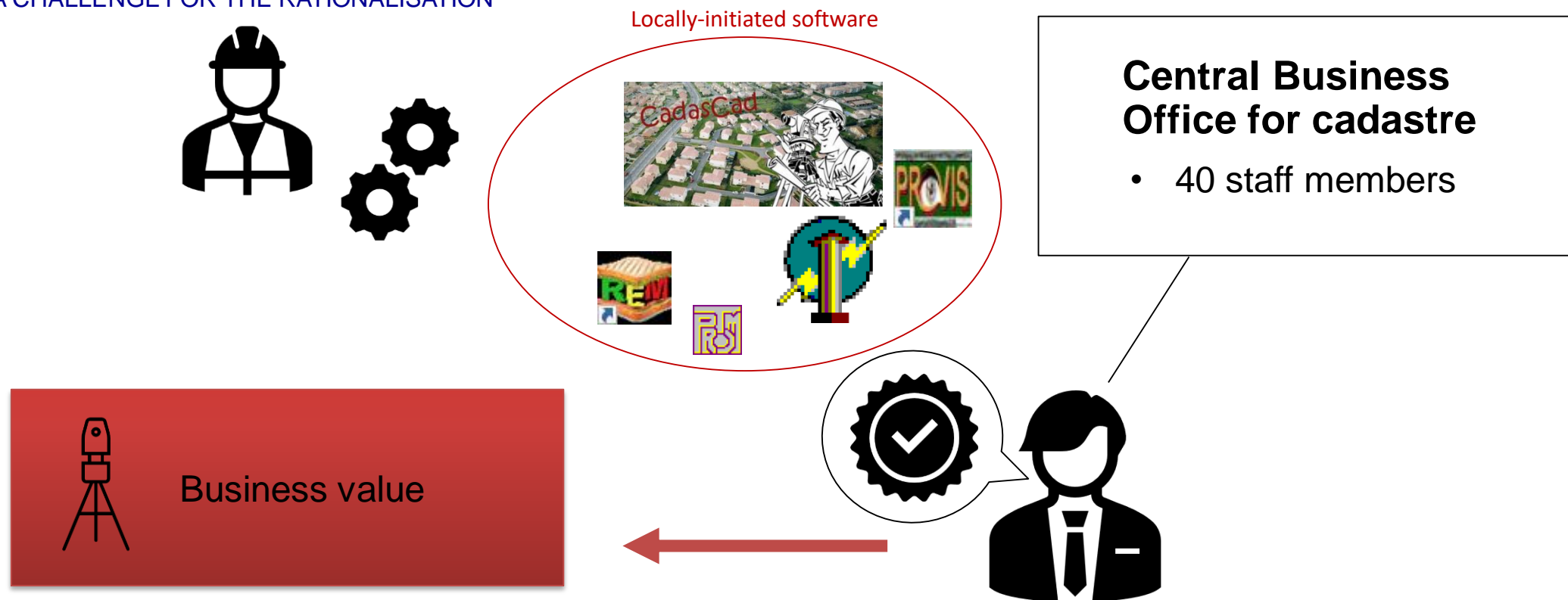
CadasCad

Fully in-house developed LIS

CADASTRAL MAP LOCALLY-INITIATED SOFTWARE

A CHALLENGE FOR THE RATIONALISATION
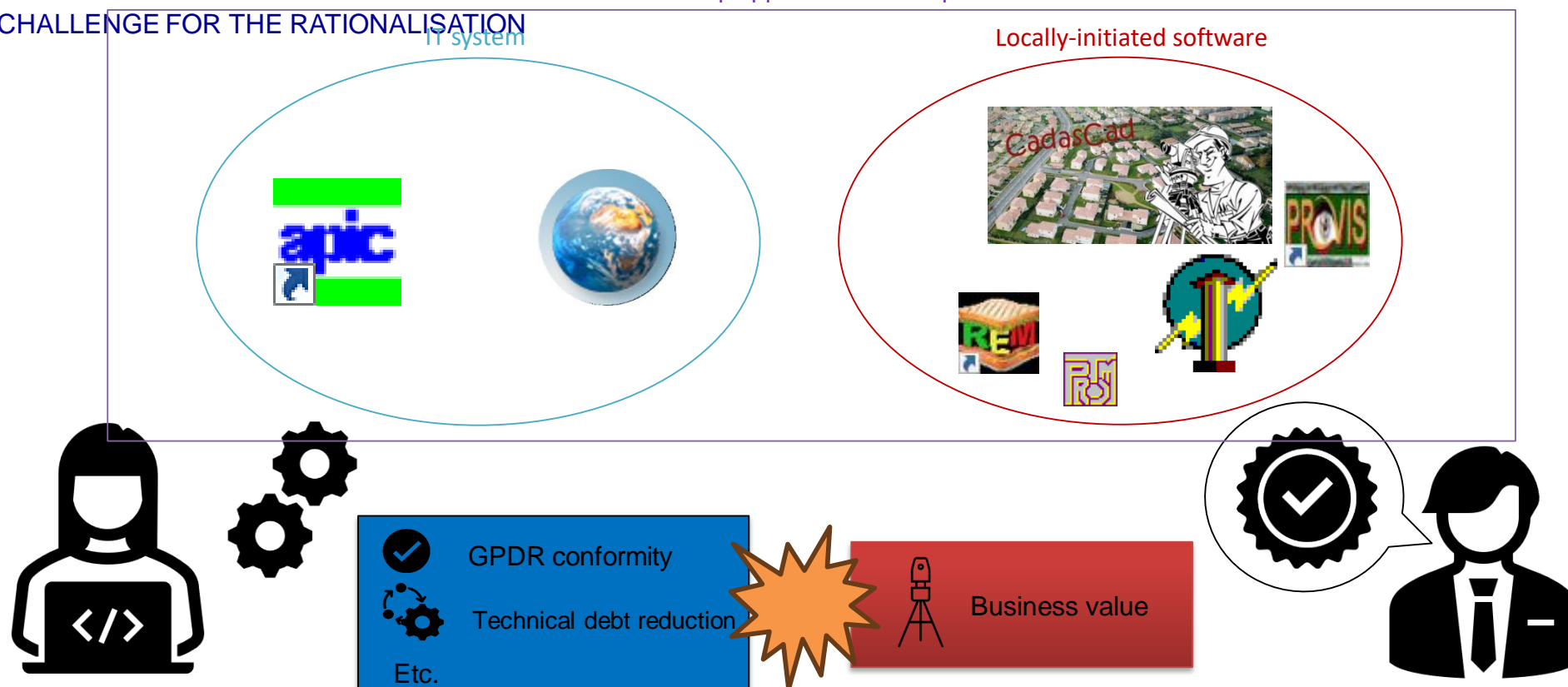
CADASTRAL MAP LOCALLY-INITIATED SOFTWARE

A CHALLENGE FOR THE RATIONALISATION

Locally-initiated software

Central Business Office for cadastre

- 40 staff members

Business value

CADASTRAL MAP LOCALLY-INITIATED SOFTWARE

A CHALLENGE FOR THE RATIONALISATION

Cadastral map applicative landscape

IT system

Locally-initiated software

GPDR conformity

Technical debt reduction
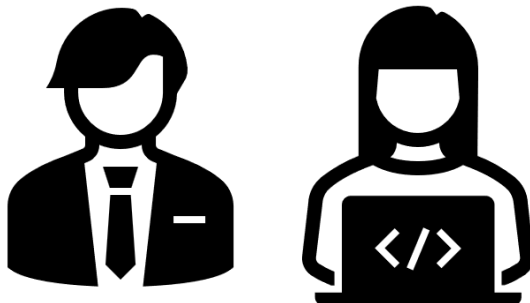
Etc.

Business value

CADASTRAL MAP LOCALLY-INITIATED SOFTWARE

A CHALLENGE FOR THE RATIONALISATION

The rationalisation of the applicative landscape :

- Started in 2024
- Aims to develop a single software for the cadastral map

Integrated solution

CADASTRAL MAP LOCALLY-INITIATED

SOFTWARE

A CHALLENGE FOR THE RATIONALISATION

Take home message :

IT and business need to be as close as possible and speak as
one.

Dziękuję
!
Thank you
!