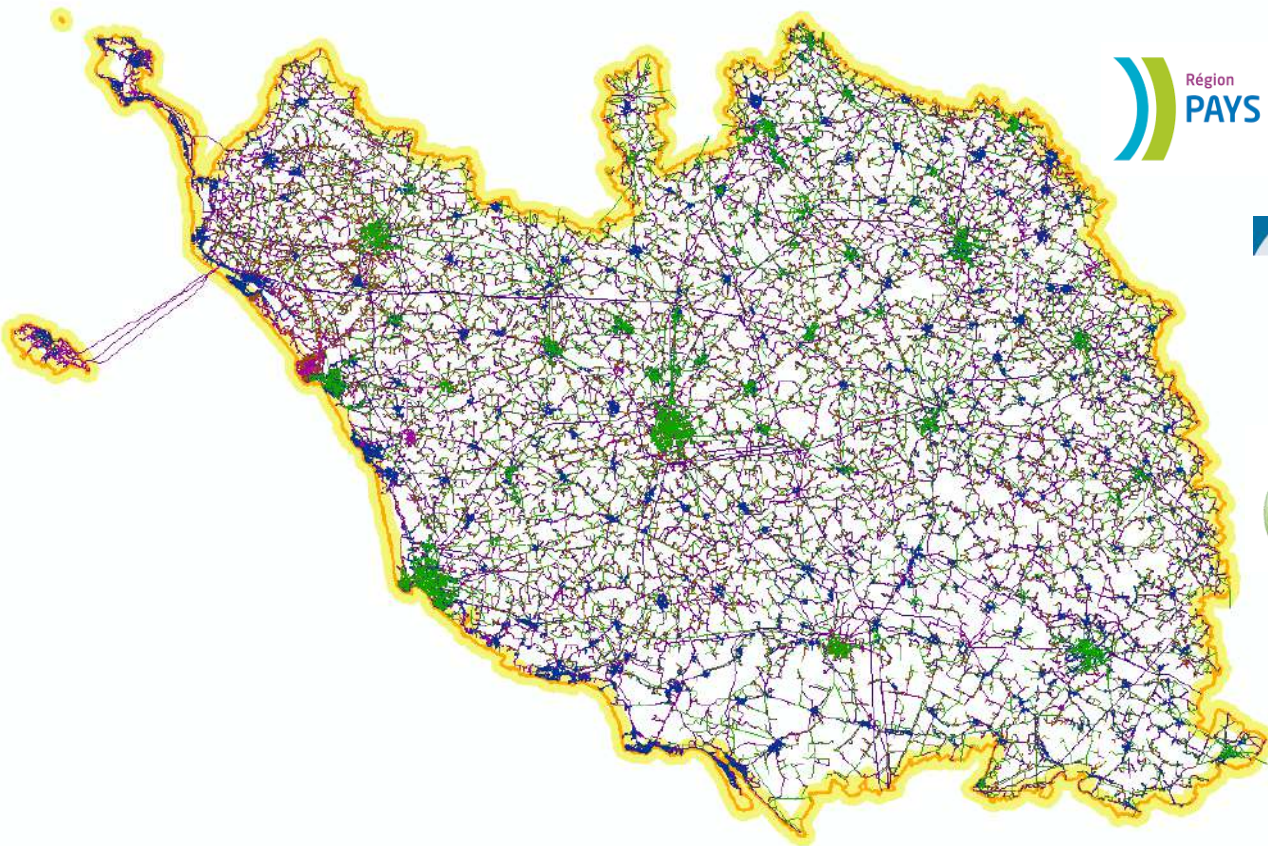


PCRS (Large scale core street map) Expérimentation Vendéenne



Cédric SEIGNEURET – Directeur de GÉO VENDÉE

Reform of the anti damages rules

Reform of the déclaration of the works and
the intended start date of those works

The other name for the reform is the :

ANTI DAMAGES RULES

law for this reform was granted 2012

Anti damages rules



To improve the overall safety and security of the public and local area



Anti damages rules



Who does this reform concern ?

Primarily the local authorities are concerned as well as:



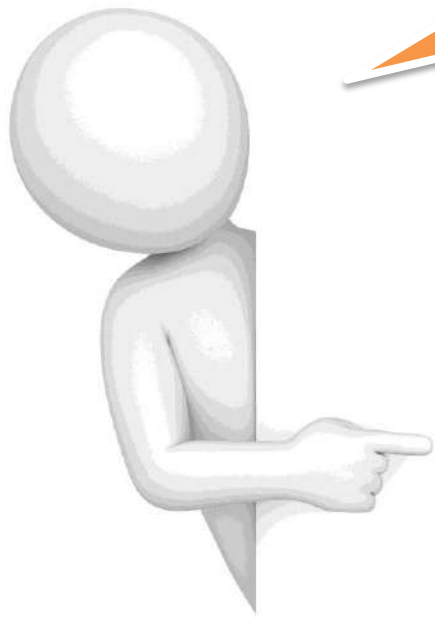
Network operators



Management companies



Excavation companies




Anti damages rules



Why is this reform
being imposed ?

This reform is being
imposed principally :



**To produce a map to identify the
buried utilities networks with a
accuracy of less than 10 centimeters**




**This map engages the
responsibility of local authorities!**

Anti damages rules



Why is this reform
being imposed ?

This reform is being
imposed principally :



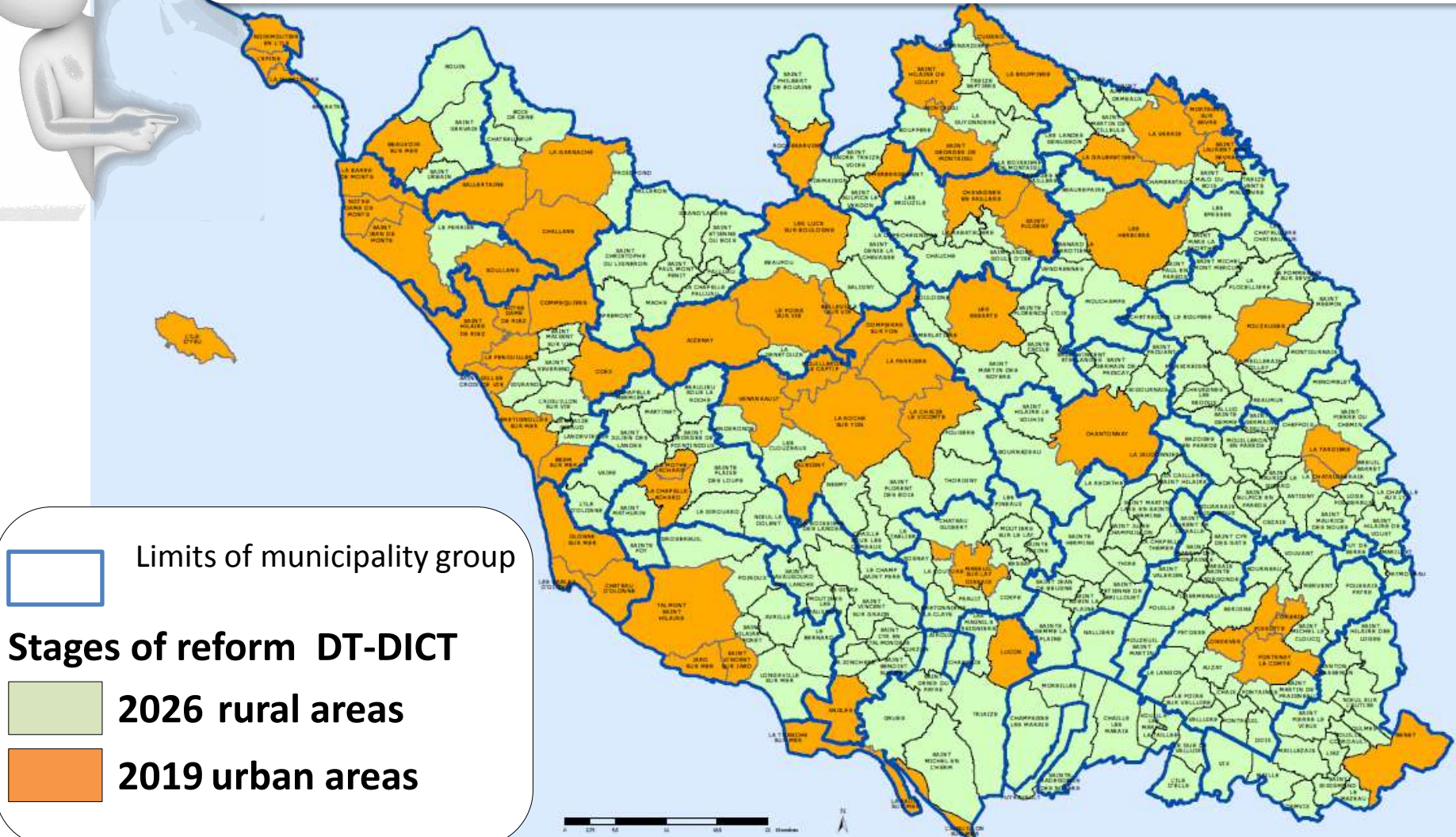
**To produce a map to identify the
buried utilities networks with a
accuracy of less than 10 centimeters**

There are 2 stages :

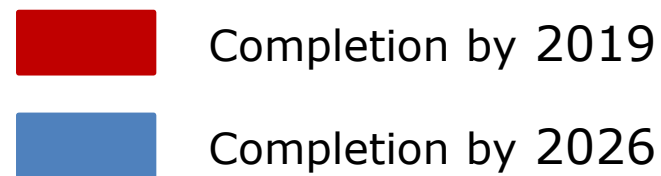
- 
- **2019** for the urban areas
 - **2026** for the rural areas

The reform in Vendée

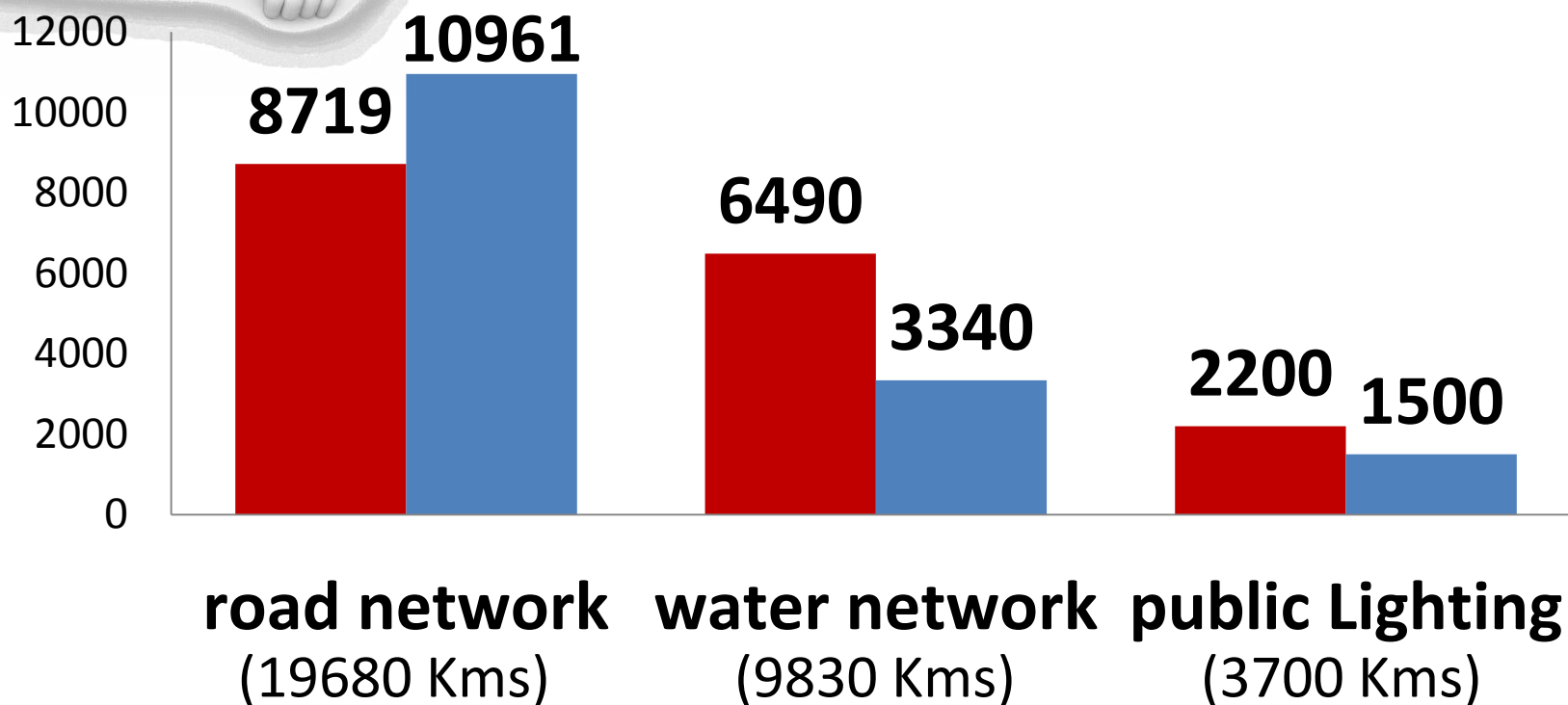
municipality « urban » or « rural » defined by the reform.



The reform in the Vendée



**Kms of road network and
buried network !**



PCRS

Large scale core street map

Do these local authorities have this street reference map? The answer is NO



And the timing?
We must work quickly !!!



<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

This reference map will be called **PCRS**,
Le Plan de Corps de Rue Simplifié
(Large scale core street map)

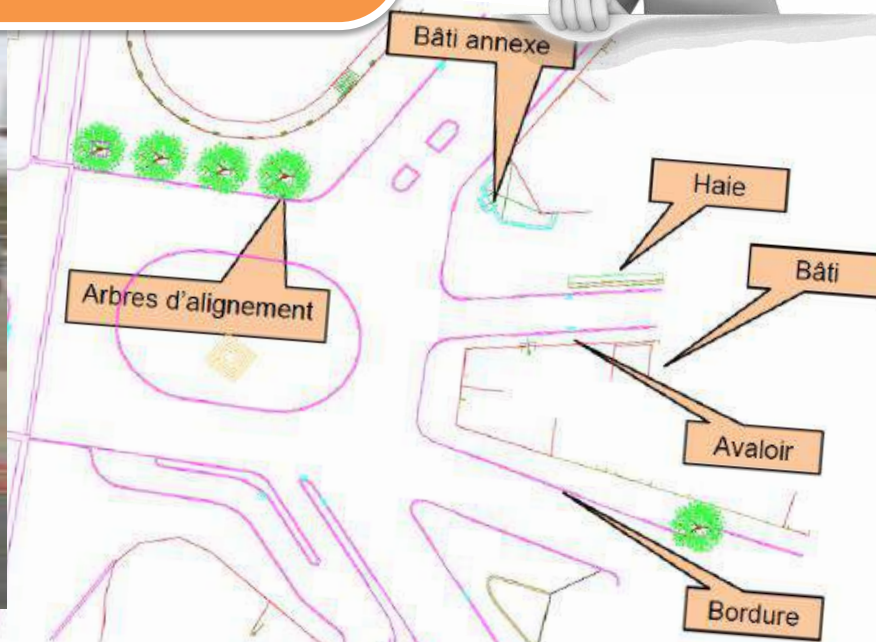
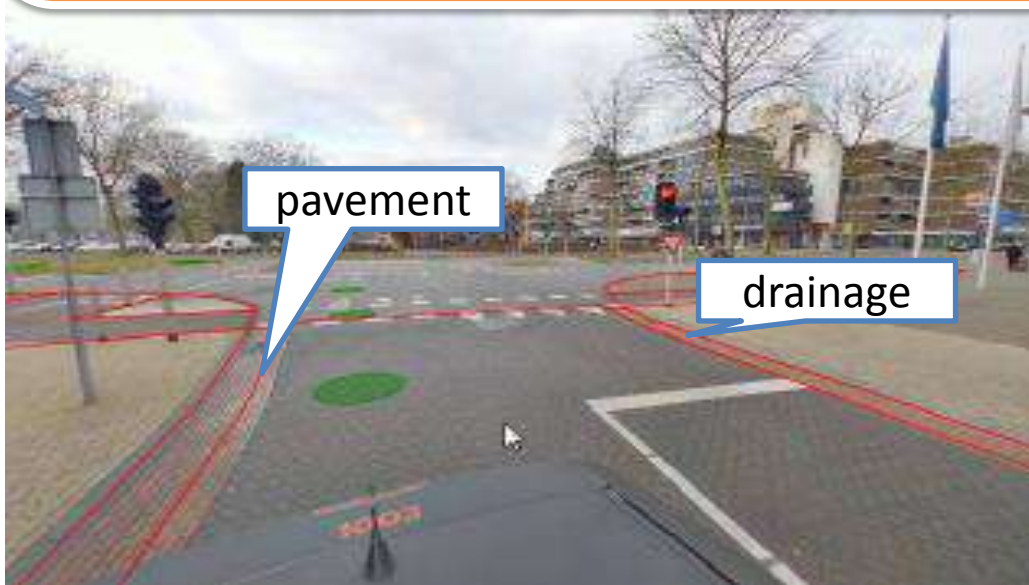
Le **C**onseil **N**ational de l'**I**nformation **G**éographique
was defined by a géo-standard PCRS

PCRS

Large scale core street map

**What's the PCRS
or large scale core street map?**

**It's a co-ordinated reference
map of all the elements in the
street with a accuracy of less
than < 10 cm.**



More about PCRS...



Which large scale core street map do we need to use ?



One for the networks operator to answer only the need for reform



One for the local authorities for the management of the road

CORE DATA

LEVÉ ET TRAITEMENT DE L'IMAGE

Vol

Orthophotogrammétrie

Roulage
LIDAR

Calage image

Ortho Voirie (2d,3d)

Roulage
Vues
immersives

Calage image

Traditionnel

PCRS

PRODUCTION DU PCRS

PCRS

TRADE DATA

CALAGE DONNÉES METIERS

Calage
vecteurs

Eau

Assainissement

Eclairage

ENEDIS

GRDF, etc...

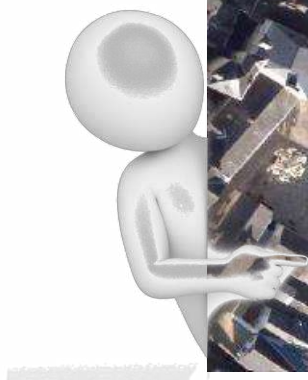
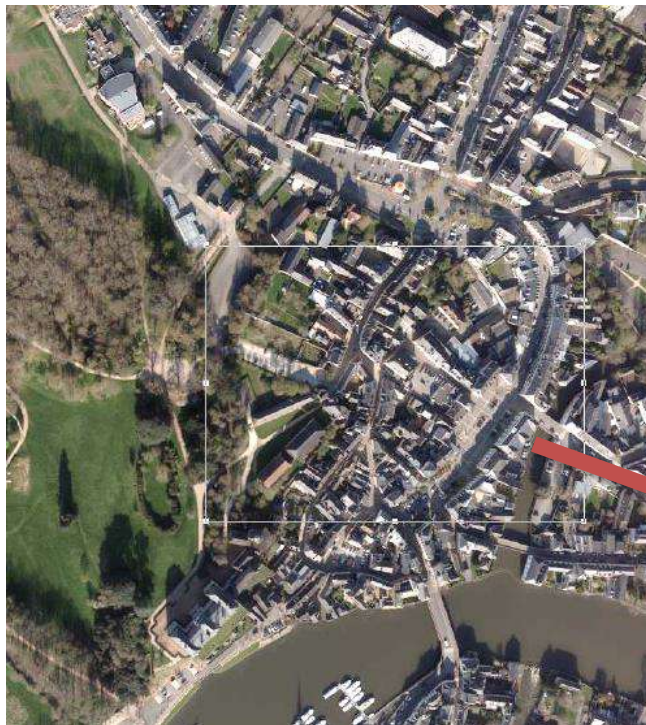
Core Data

Aerial photogrammetry



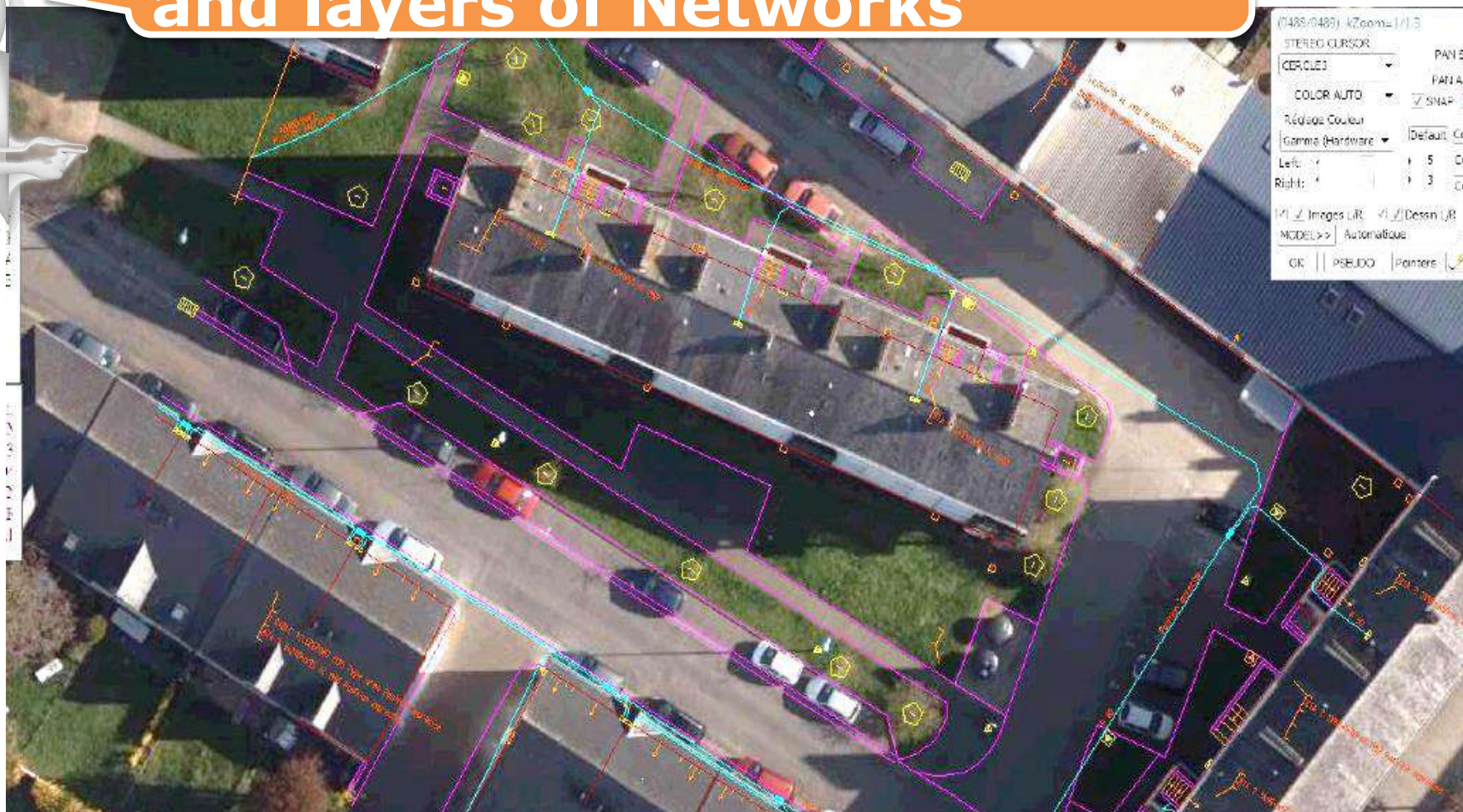
Aerial photogrammetry

Data processing

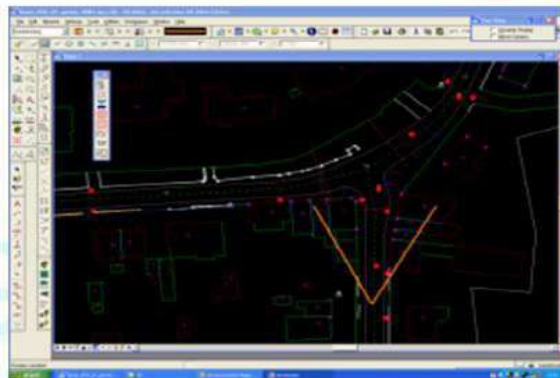
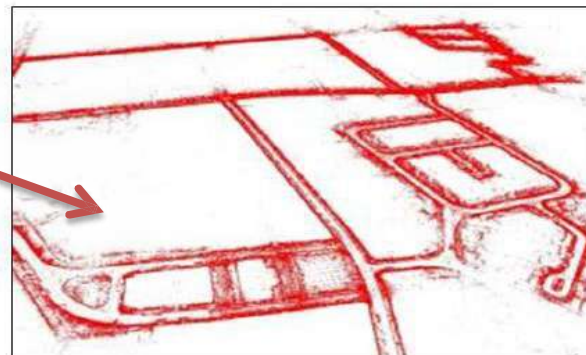
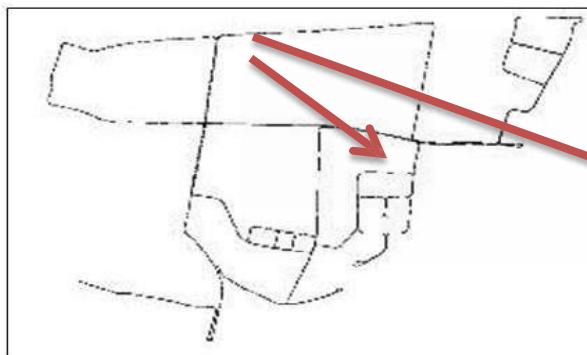
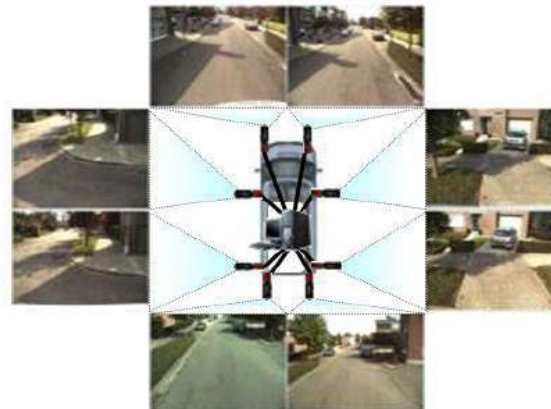


Aerial photogrammetry and layers « network »

Large scale core street map
and layers of Networks



Core Data Mobile mapping



Core Data Mobile mapping

Various technologies have been tested



With or without Lidar



With or without Laser



Inertial system



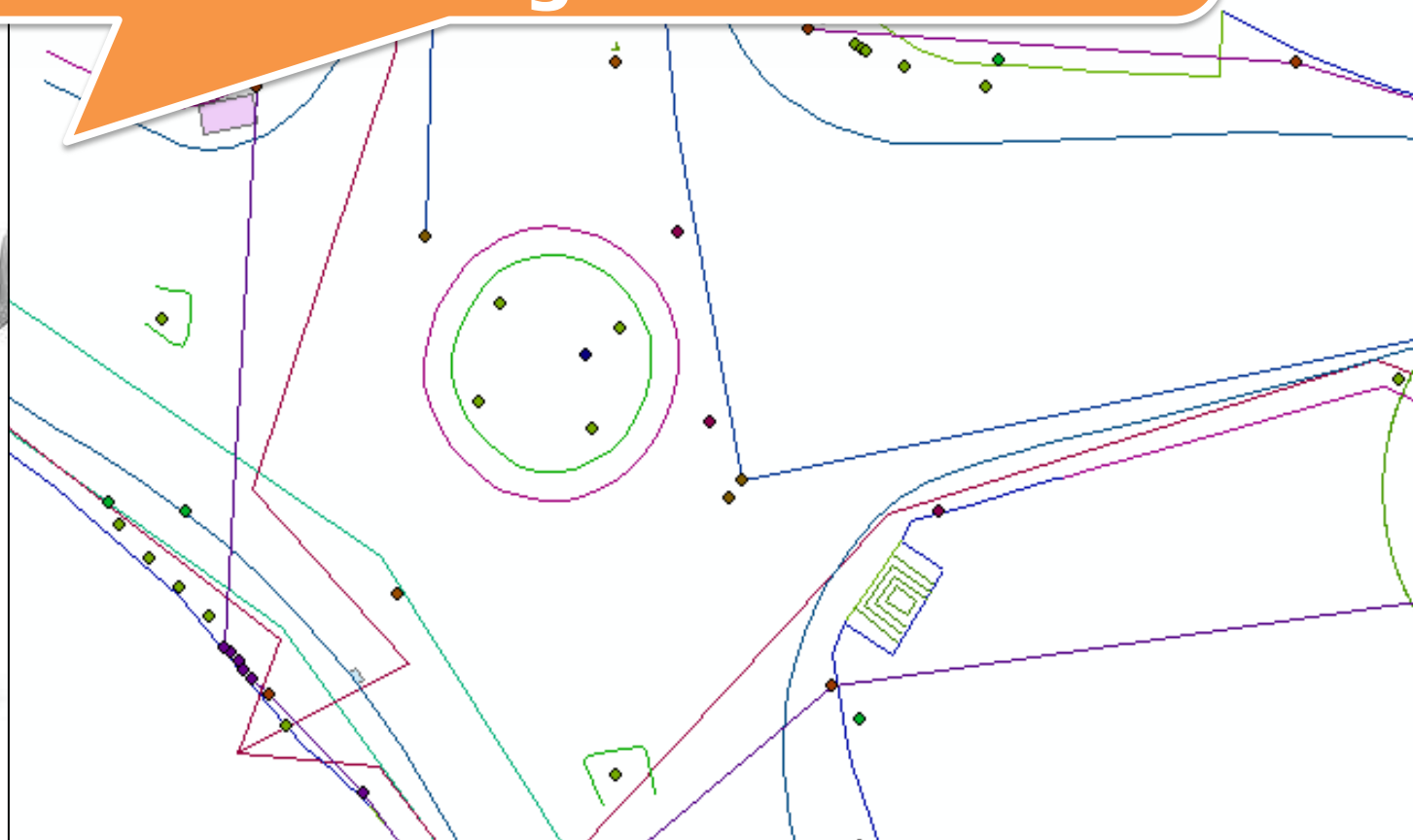
Camera (multi-lens) fixed and calibrated to take pictures



PCRS

Large scale core street map

After the data acquisition phase, the production phase begins



PCRS Large scale core street map

Comparative techniques

Advantages and disadvantages



speed

high
accuracy

costs
(advantage)

valuation
potential

Traditional GPS TOPO;

+++

**Mobile mapping
LIDAR or immersives views;**

+

++

+

++

**Aerial shots
(great précision pixel 5 cm);**

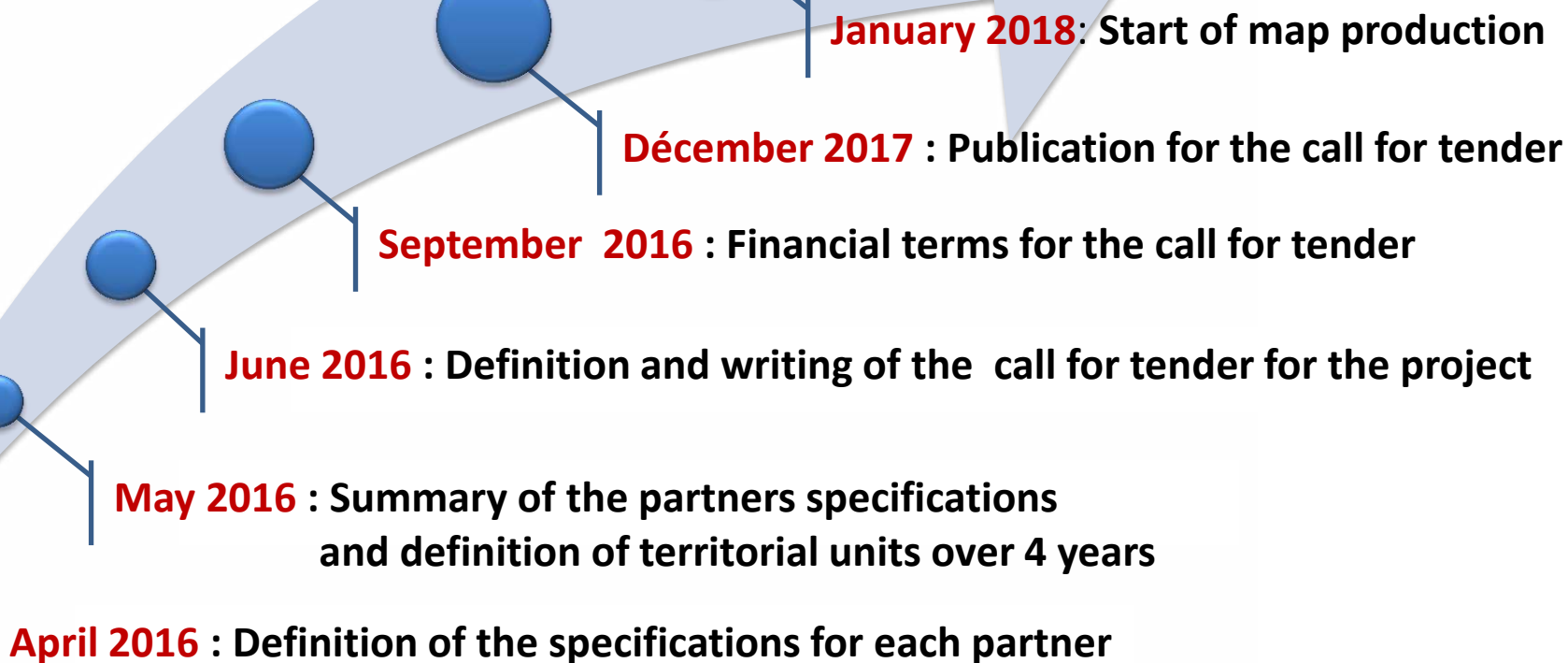
++

Limits

++

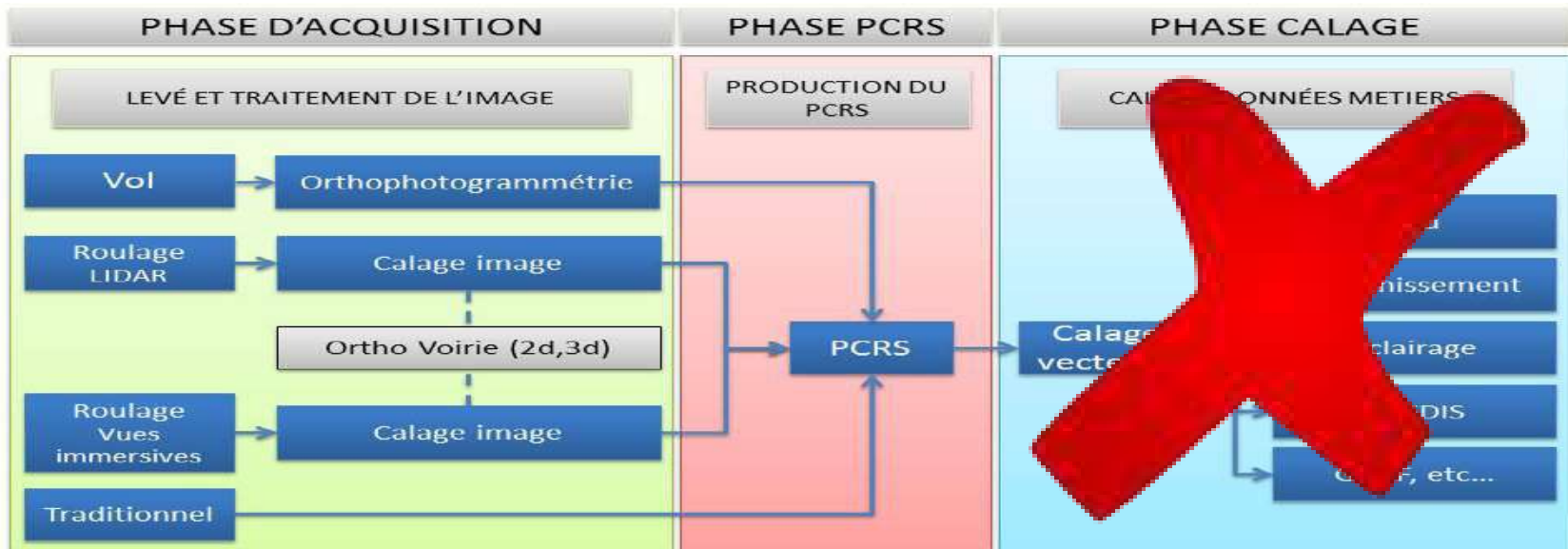
+

PCRS Large scale core street map Planning





A call for tender concerning :



Call for tender

Large scale core street map

Appel d'offres



A vectors street map for the urban areas followed by an aerial photo with an accuracy of 5 cm for the rural areas



Obligation of result without imposing techniques



A departmental answer split into 4 or 5 stages

Call for tender

Large scale core street map

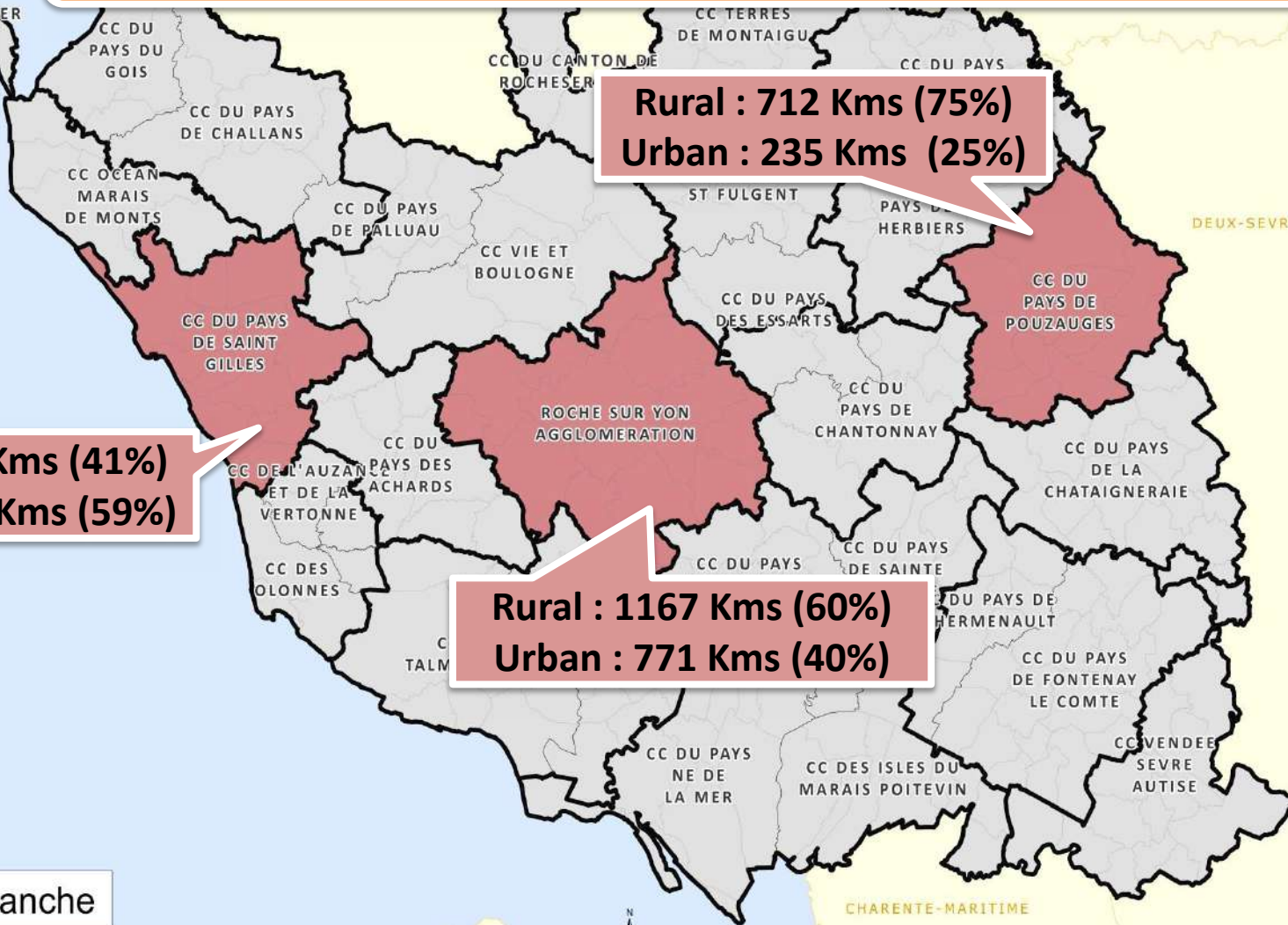
3 Municipality groups >> 37 local authorities

Rural : 712 Kms (75%)
Urban : 235 Kms (25%)

Rural : 597 Kms (41%)
Urban : 847 Kms (59%)

Rural : 1167 Kms (60%)
Urban : 771 Kms (40%)

1 ère tranche





Rural : 712 Kms (75%)
Urban : 235 Kms (25%)

Rural : 597 Kms (41%)
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Rural : 1167 Kms (60%)
Urban : 771 Kms (40%)

 1 ère tranche

Call for tender

Large scale core street map

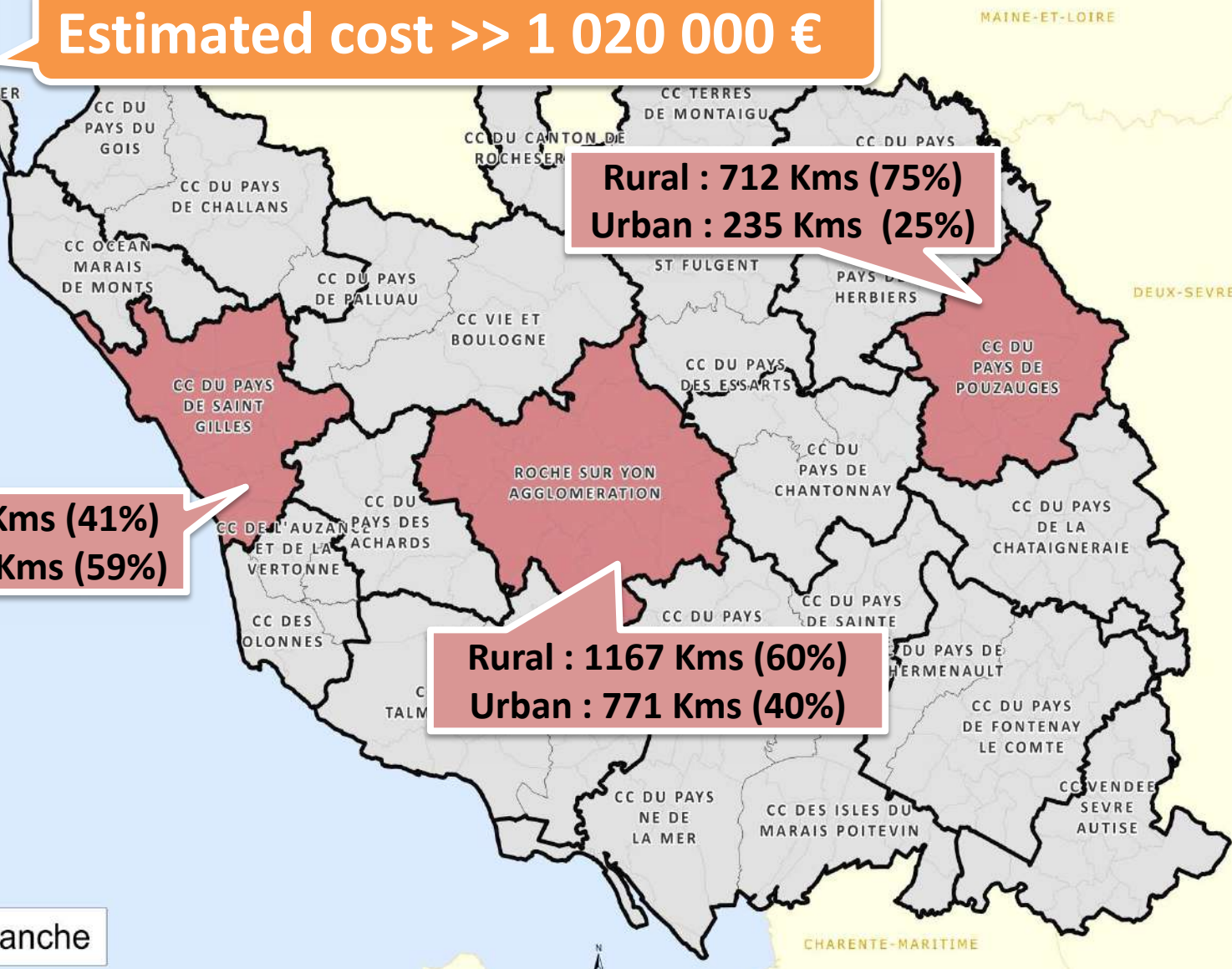
Estimated cost >> 1 020 000 €

Rural : 712 Kms (75%)
Urban : 235 Kms (25%)

Rural : 597 Kms (41%)
Urban : 847 Kms (59%)

Rural : 1167 Kms (60%)
Urban : 771 Kms (40%)

1 ère tranche



Call for tender Large scale core street map

A first estimated stage of 1853 Kms
completion by January 2019

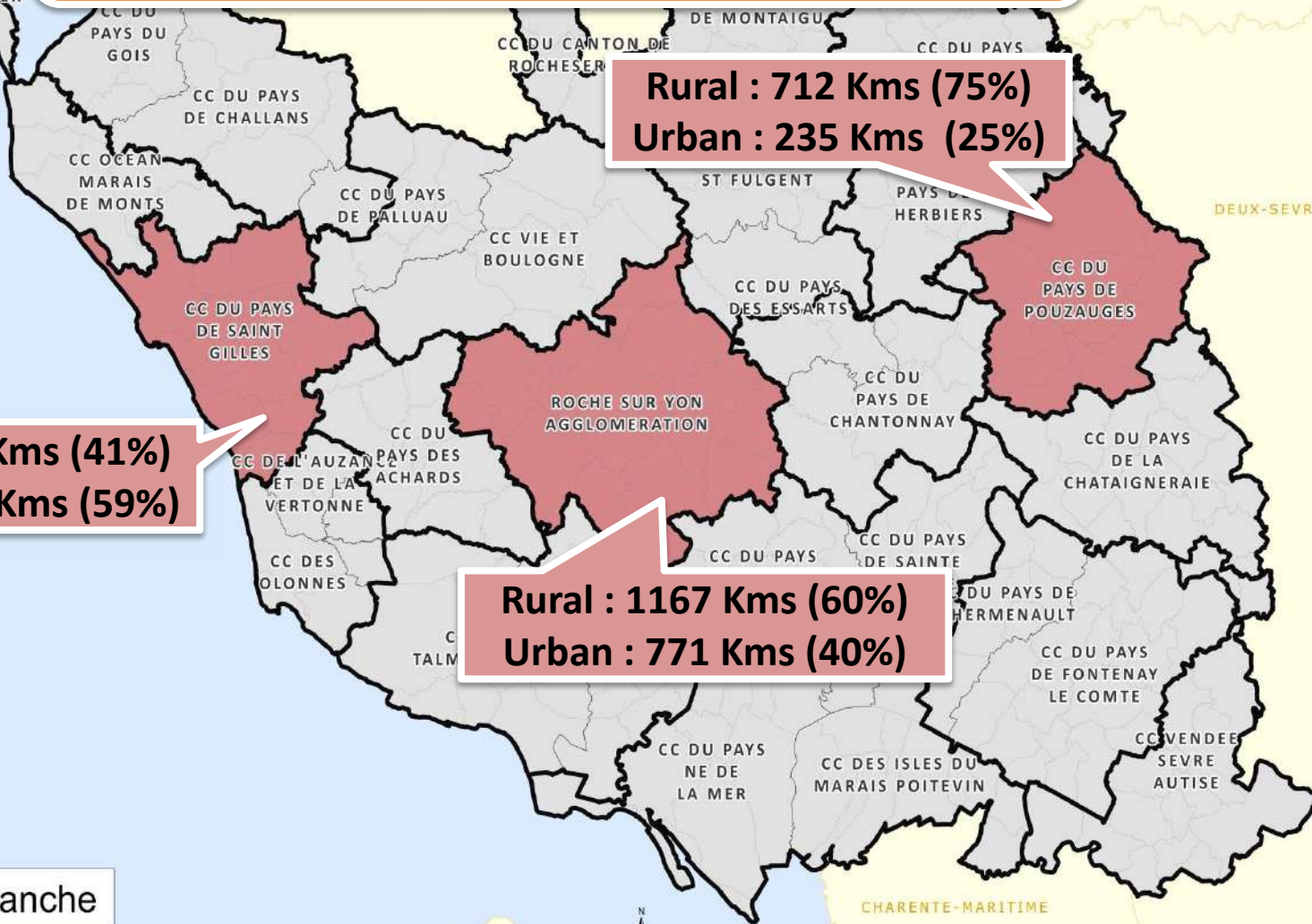


Rural : 712 Kms (75%)
Urban : 235 Kms (25%)

Rural : 597 Kms (41%)
Urban : 847 Kms (59%)

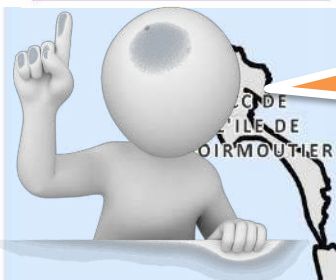
Rural : 1167 Kms (60%)
Urban : 771 Kms (40%)

1 ère tranche



Call for tender Large scale core street map

1794 (estimated) kms during the second stage



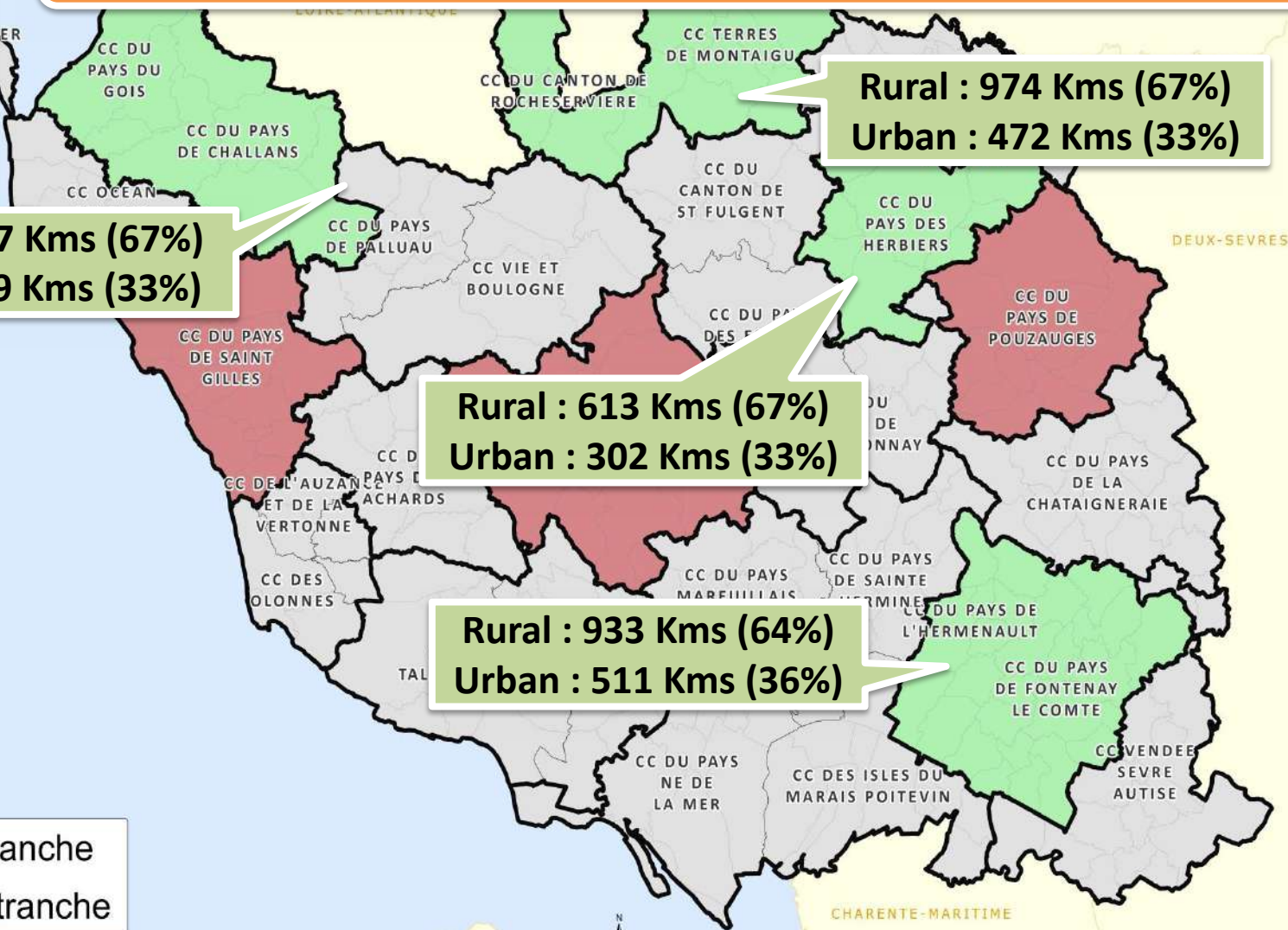
Rural : 1037 Kms (67%)
Urban : 509 Kms (33%)

Rural : 974 Kms (67%)
Urban : 472 Kms (33%)

Rural : 613 Kms (67%)
Urban : 302 Kms (33%)

Rural : 933 Kms (64%)
Urban : 511 Kms (36%)

1 ère tranche
2 ème tranche



Call for tender

Large scale core street map

Estimated cost >> 987 000€

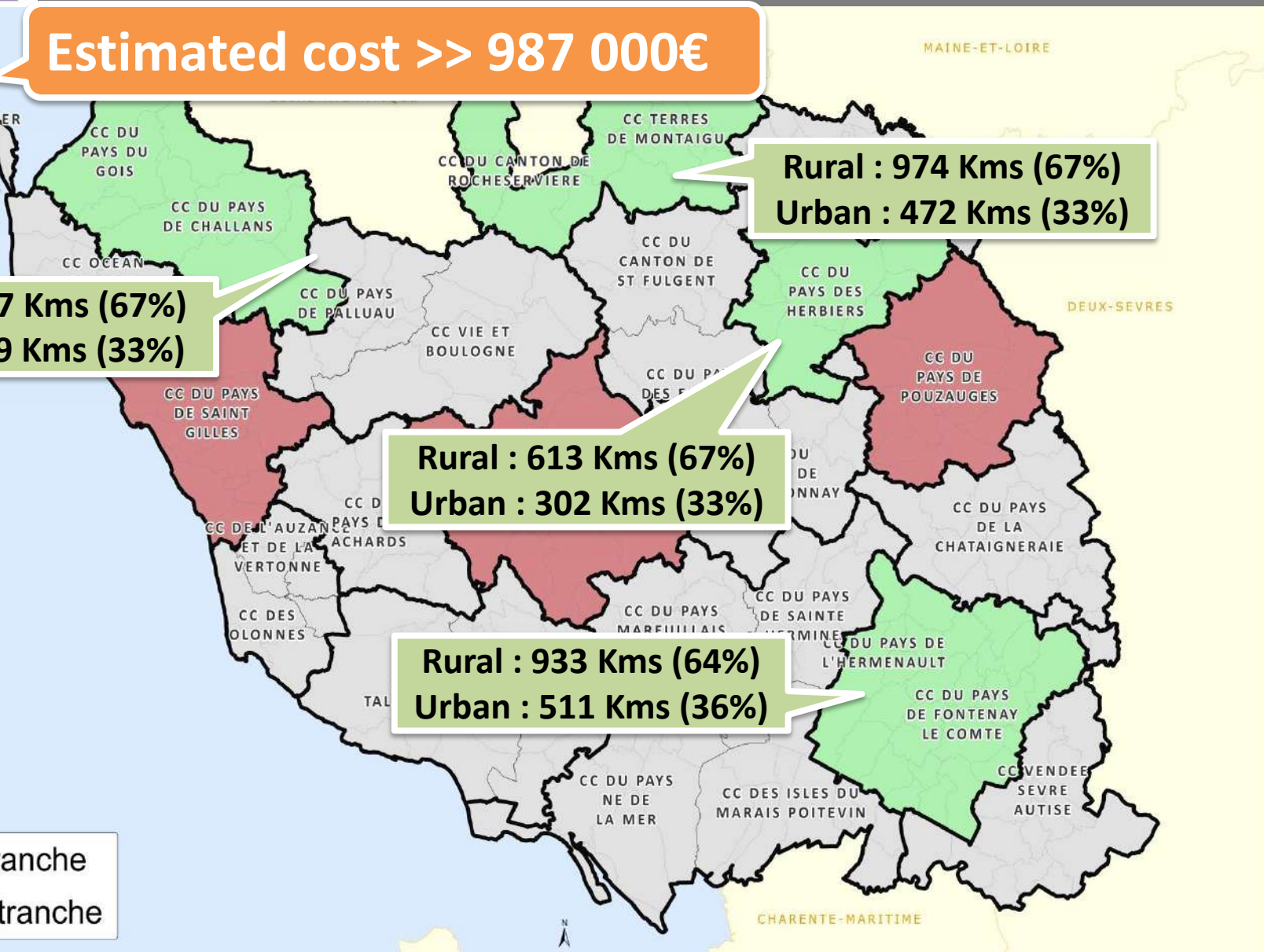
Rural : 1037 Kms (67%)
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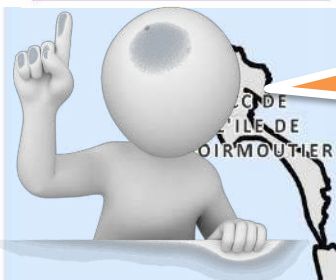
Rural : 933 Kms (64%)
Urban : 511 Kms (36%)

1 ère tranche
2 ème tranche



Call for tender Large scale core street map

1339 (estimated) kms during the third stage

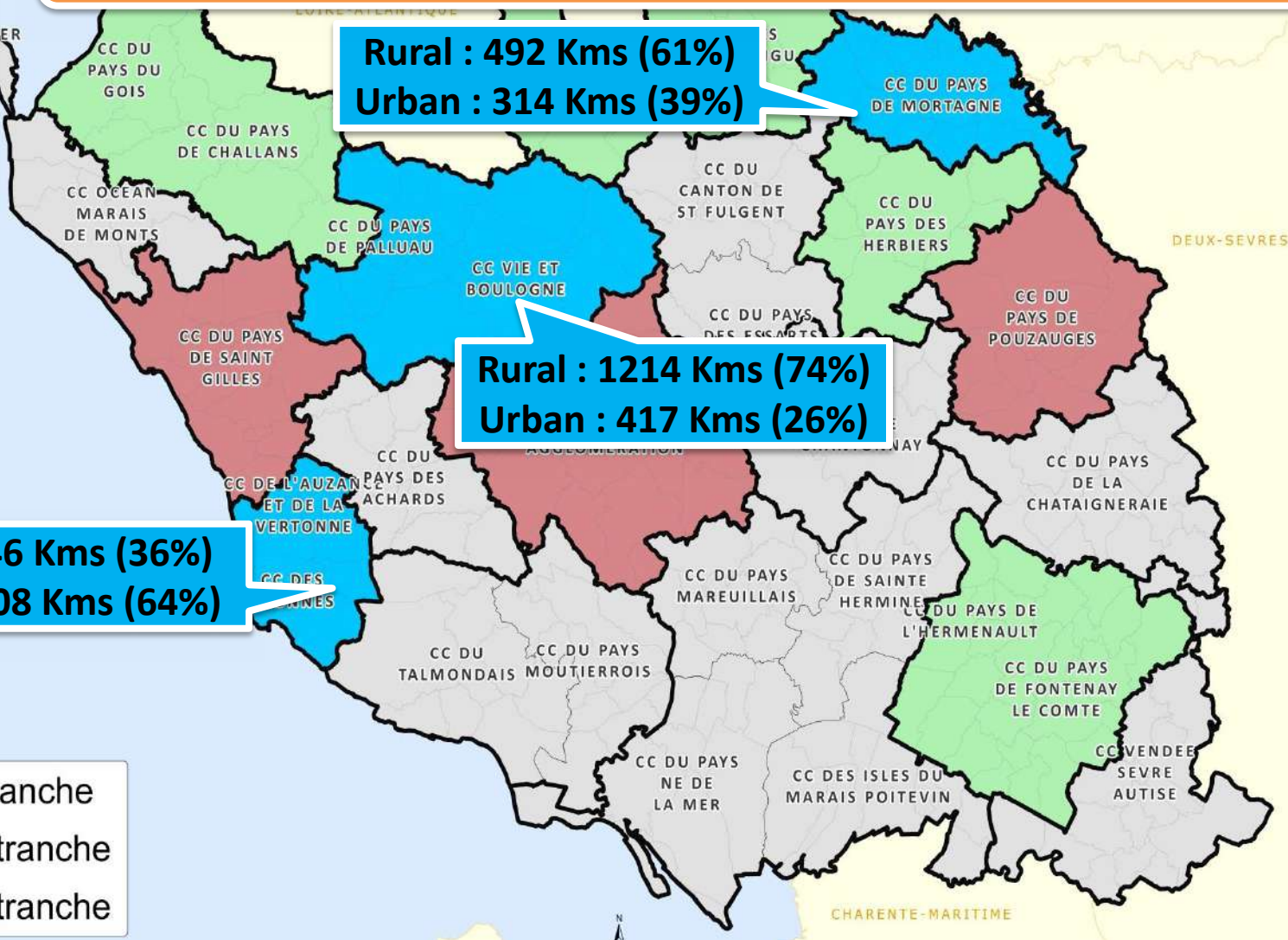


Rural : 492 Kms (61%)
Urban : 314 Kms (39%)

Rural : 1214 Kms (74%)
Urban : 417 Kms (26%)

Rural : 346 Kms (36%)
Urban : 608 Kms (64%)

- 1 ère tranche
- 2 ème tranche
- 3 ème tranche



Call for tender

Large scale core street map

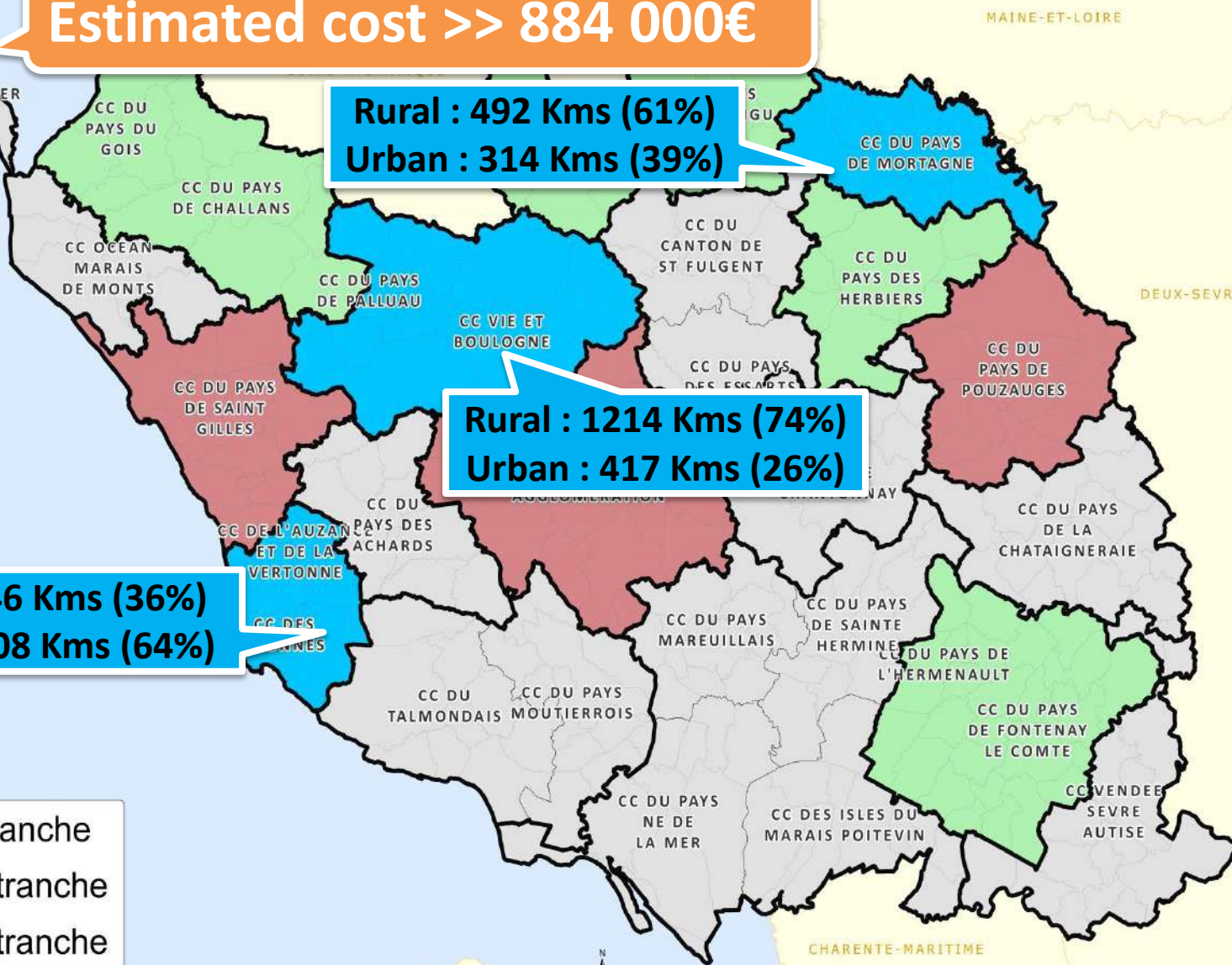
Estimated cost >> 884 000€

Rural : 492 Kms (61%)
Urban : 314 Kms (39%)

Rural : 1214 Kms (74%)
Urban : 417 Kms (26%)

Rural : 346 Kms (36%)
Urban : 608 Kms (64%)

- 1 ère tranche
- 2 ème tranche
- 3 ème tranche



Departmental management



**Pool and share to
save money**



Pool and share the experiments



Pool and share the cost for call for tender writing



Pool and share the production costs of the street map



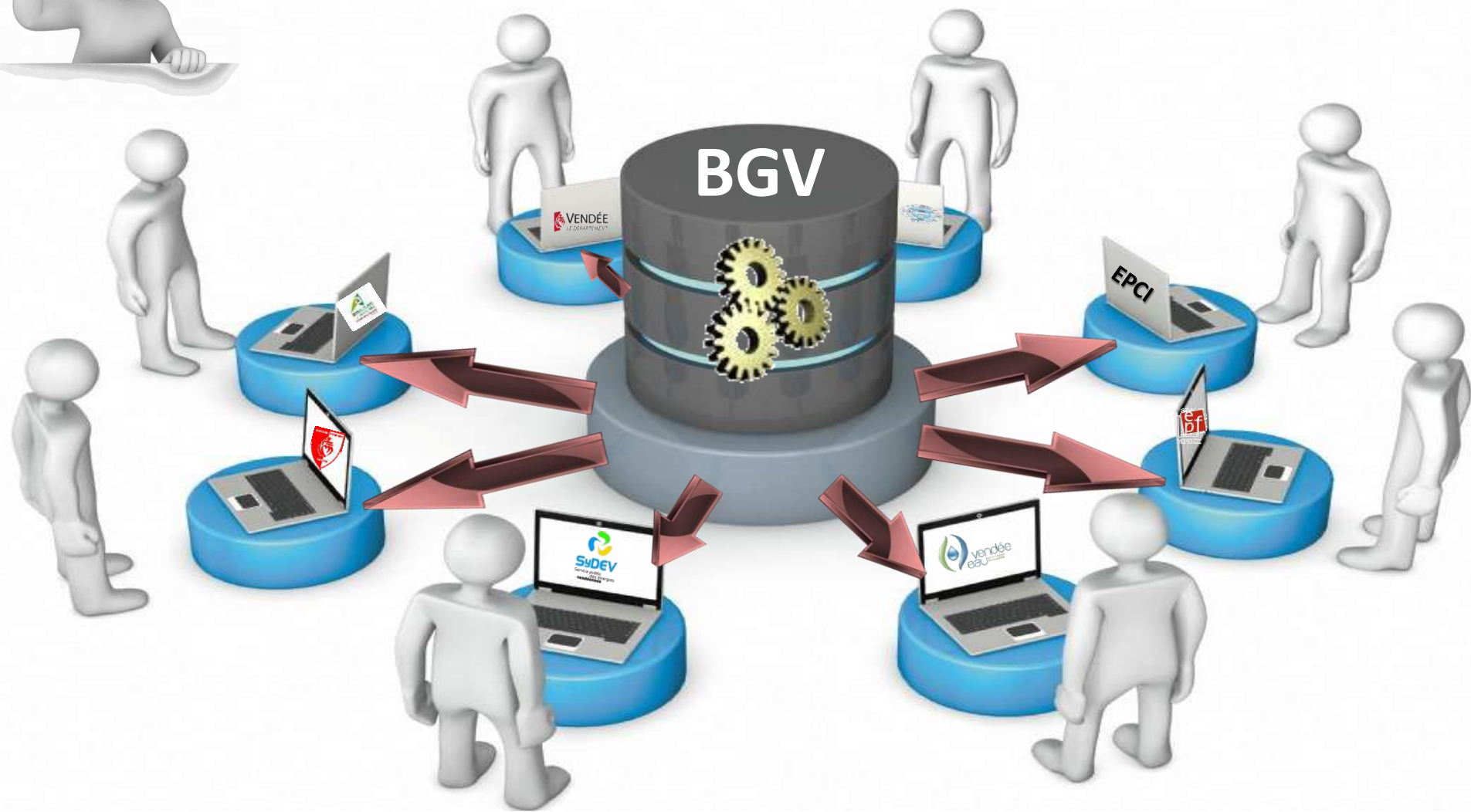
Pool and share the costs of quality checks



Pool and share a dissemination platform and update the street map

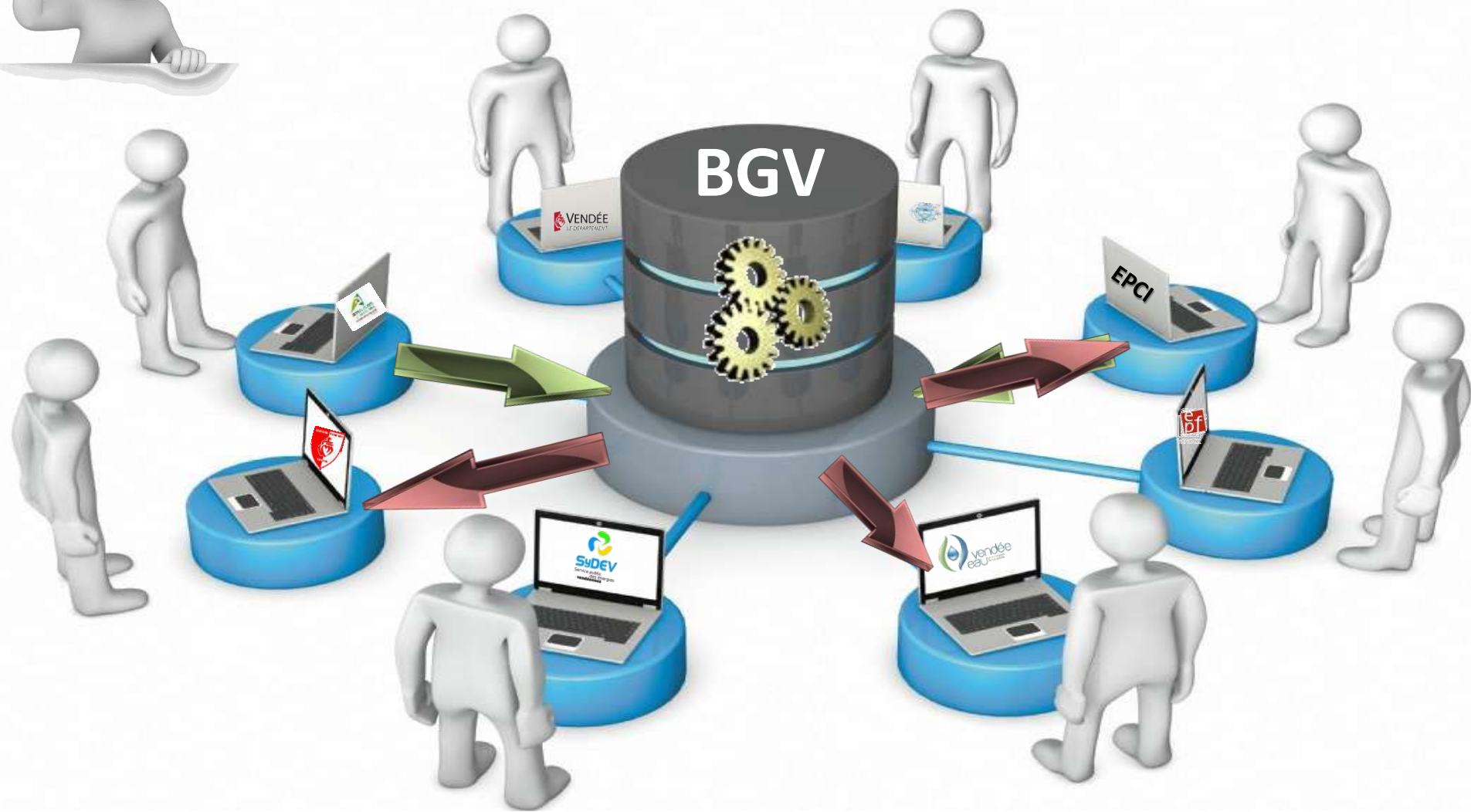
Dissemination plateforme PCRS Géo Vendée LIVE

Update in real time



Dissemination platform PCRS Géo Vendée LIVE

Géo Vendée  Partners
Data exchange in both direction



Q & A session

**Thank you for your attention
Do you have any questions?**

