

# ***BeSt Address***

***Future authentic source  
for  
Belgian streets and addresses***

***ir Michel Van Acker  
Advisor of the General Administrator  
of the Patrimonial Documentation***

# Agenda

## General Administration of Patrimonial Documentation BeSt Address

- ◆ *Historical context*
  - *Initiators of addresses, sources, users*
  - *National Registry street code*
  - *Patrimonial documentation street code*
- ◆ *Initiatives of the Regions*
  - *Brussels UrbIS, CRAB, PICC*
- ◆ *National initiative*
  - *BeSt Address*
- ◆ *Focus on cadastral streets and addresses*
  - *Mapping tables with other codes*
  - *Address points with 3 codes*
- ◆ *Conclusions*

## *Historical context*

- ◆ *Legal initiators of street names and addresses*
  - *Municipalities*
    - *assign names to the streets and numbers to the houses*
- ◆ *3 main national sources of addresses*
  - *Gen. Admin. of Patrimonial Documentation*
    - *manage addresses linked to the parcels*
  - *National Registry of Population*
    - *manage addresses linked to the natural persons*
  - *Crossroads Bank for Enterprises*
    - *manage addresses linked to the moral persons*
- ◆ *Everybody*
  - *Public and Private*
    - *use addresses in all activities*

## *Context : National Registry street code*

- ◆ *Need for codification for the streets*
  - *For the addresses of the inhabitants*
    - *4 digits corresponding to the postal zip code*
    - *4 digits allotted directly by the Municipality*
- ◆ *Advantages*
  - *Even if it were not the role of the National Registry*
    - *it became a standard de facto*
- ◆ *Difficulties*
  - *This code had to change several times*
    - *according to the evolution of the zip code*
  - *This code depends on the 589 municipalities*
    - *errors, disparities, subdivisions, renumbering*
  - *Fictitious zip codes had to be created*
    - *if several communes have the same zip code*
  - *There is no code for the streets without inhabitants*

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Sample of same street in 2 Municipalities,  
=> use of different zip code

MUNC	PWNC	PWNAF	PWNaN
21001	10700001	Quai d'Aa	Aakaai
21001	10700002	Rue d'Aa	Aastraat
21004	10003001	Boulevard de l'Abattoir	Slachthuislaan
21004	10003002	Rue de l'Abattoir	Slachthuisstraat
21007	11900001	Abbaye	Abdij
21004	10006001	Rue de l'Abbaye	Abdijstraat
21009	10500010	Rue de l'Abbaye	Abdijstraat
21010	10900001	Rue de l'Abbaye de Dieleghem	Abdij van Dieleghemstraat
21009	10500020	Abbaye de la Cambre	Abdij ter Kameren
21004	10006002	Abbaye de la Cambre	Abdij ter Kameren
21018	12000001	Rue Abbé de l'Épée	Priester de l'Épéestraat
21007	11900002	Rue des Abbesses	Abdissenstraat
21004	10005001	Rue de l'Abdication	Troonsafstandsstraat
21008	10831001	Rue Roger Abeels	Roger Abeelsstraat
21004	10006003	Avenue des Abeilles	Bijenlaan
21009	10500030	Avenue des Abeilles	Bijenlaan
21018	12000003	Avenue Guillaume Abelos	Guillaume Abeloslaan
21002	11601010	Avenue des Ablettes	Witvissenlaan
21014	12100001	Rue de l'Abondance	Overvloedstraat
21017	11701001	Rue de l'Abreuvoir	Hondenwetstraat
21004	10001001	Rue de l'abricotier	Abrikozeboomstraat
21005	10401176	Square Jean Ahsil	Jean Ahsilsquare

Enr : 1 sur 5710

10006001  
10500010

# Context : National Registry street code

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Same zip code in the 2 Municipalities,  
 => use of false zip code !!!

MUNC	PWNC	PWNAF	PWNaN
21016	11801027	Rue Baron Roger Vander Noot	Baron Roger Vander Nootstra
21016	11801029	Rue Basse	Diepestraat
21005	10401017	Rue Bâtonnier Braffort	Stafhouder Braffortstraat
21018	12000015	Rue Bâtonnier Braffort	Stafhouder Braffortstraat
21005	10401018	Rue Beckers	Beckersstraat
21016	11801031	Rue Beeckman	Beeckmanstraat
21001	10700037	Rue Beeckman de Crayloo	Beeckman de Crayloostraat
21004	10415009	Rue Belliard	Belliardstraat
21005	10401019	Rue Belliard	Belliardstraat
21007	11900024	Rue Béranger	Bérangerstraat
21013	10601019	Rue Berckmans	Berckmansstraat
21007	11900025	Rue Berkendael	Berkendaelstraat
21009	10500370	Rue Berkendael	Berkendaelstraat
21010	10900012	Rue Berré	Berréstraat
21007	11900026	Rue Berthelot	Berthelotstraat
21001	10700044	Rue Bissé	Bisséstraat
21004	10002010	Rue Blaes	Blaesstraat
21004	11209006	Rue Blaesenberg	Blazenbergstraat
21004	10006018	Rue Blanche	Blanchestraat
21009	10500390	Rue Blanche	Blanchestraat
21013	10601021	Rue Blanche	Blanchestraat
21019	11500019	Rue Blonckmans	Blonckmansstraat

10415009  
10401019



Enr : 2657 sur 5710

Mode Feuille de données

NUM

# Context : National Registry street code

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**Same Municipality but divisions 7, 8, 9  
=> 3 codes for 1 street in 1Municipality !!!**

MUNC	PWNC	PWNAF	PWNAN
21011	10810037	Chaussée de Jette	Jetsesteenweg
21012	10801148	Chaussée de Jette	Steenweg op Jette
21004	10006076	Chaussée de La Hulpe	Terhulpesteenweg
21016	11801197	Chaussée de La Hulpe	Terhulpansesteenweg
21017	11702128	Chaussée de La Hulpe	Terhulpesteenweg
▶ 21004	10005069	Chaussée de Louvain	Leuvensesteenweg
21006	11400067	Chaussée de Louvain	Leuvensesteenweg
21014	12100064	Chaussée de Louvain	Leuvense Steenweg
21015	10307179	Chaussée de Louvain	Leuvensesteenweg
21015	10308179	Chaussée de Louvain	Leuvensesteenweg
21015	10309179	Chaussée de Louvain	Leuvensesteenweg
21018	12000125	Chaussée de Louvain	Steenweg op Leuven
21012	10801192	Chaussée de Merchtem	Steenweg op Merchtem
21001	10700310	Chaussée de Mons	Bergense Steenweg
21007	11900139	Chaussée de Neerstalle	Neerstalse Steenweg
21016	11801244	Chaussée de Neerstalle	Neerstallesteenweg
21001	10700316	Chaussée de Ninove	Ninoofse Steenweg
21012	10801202	Chaussée de Ninove	Ninoofsesteenweg
21018	12000167	Chaussée de Roodebeek	Roodebeeksteenweg
21007	11900159	Chaussée de Ruisbroek	Ruisbroekse Steenweg
21016	11801295	Chaussée de Ruisbroek	Ruisbroeksesteenweg
21016	11801298	Chaussée de Saint-Inh	Sint-Inhsesteenweg

Enr : 1489 sur 5710  
Mode Feuille de données

10307179  
10308179  
10309179

## *Context : Patrim. Documentation street codes*

# **General Administration of Patrimonial Documentation BeSt Address**

- ◆ *Need for codification for the streets*
  - *For the addresses of the owners*
    - *Use of the code of the NR, because the Belgian owners are registered in the NR*
  - *For the addresses of the parcels*
    - *Creation of a specific code for all the streets, even those without inhabitants*
  - *Code in 10 digits*
    - *5 digits for the Municipality standard code*
    - *5 digits for the number of the street in Municipality*
- ◆ *Advantages*
  - *Permanent system since the beginning*
  - *Same concept as Best Address*
- ◆ *Difficulties*
  - *Mapping tables with other codes are essential*

# Street codes in old cadastral registry

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Cadastral Division								Street number		House number	
in	ante	sl1	prc								
		R DU PRETOIRE 11	A 537 X 14								
21001	05022 0008	R MORJAU 28	A 743 S 5					2858	F		28
21001	05025 0004	R VANDE WOESTYNE 88	A 339 W 4					4260	F		88
21001	05027 0003	R TILLMANS 22	A 368 E 4					4070	F		22
21001	05031 0005	R VANDE WOESTYNE 84	A 339 V 3					4260	F		84
21001	05033 0005	R VANDEN BERGHE 15	A 743 V 6					4200	F		15
21001	05049 0007	BD DUPUIS 67	A 743 T 6					1490	F		67
21001	05055 0003	DEMOCRATIESTR 4	A 623 F 7					1240	N		4
21001	05058 0004	R DU BROECK 52A	A 468 L					500	F		52
21001	05065 0003	R DES FRUITS 182	A 339 M 2					1748	F		182
21001	05065 0004	BD DUPUIS 306	A 301 L					1490	F		306
21001	05065 0005	BD DUPUIS 306	A 301 L					1490	F		306
21001	05065 0006	BD DUPUIS 306	A 301 L					1490	F		306
21001	05066 0004	VANDER BRUGGENI 51	A 564 P					4210	N		51
21001	05068 0051	WILLEMYNSSTR 158/166	A 421 F					4630	N		158
21001	05070 0006	R DU SOUVENIR 128	A 508 Y 6					3948	F		128
21001	05072 0002	DOVERSTR 4	A 573 A 2					1430	N		4
21001	05072 0003	RAUTERSTR 3	A 573 B 2					3440	N		3
21001	05074 0004	BD DUPUIS 93	A 685 N					1490	F		93
21001	05079 0005	R DU SOUVENIR 52	A 511 B 6					3940	F		52
21001	05080 0002	BLIJDSCHAPSTR 55	A 595 Y 7					1750	N		55
21001	05083 0003	R KINET 22	A 856 E 8					2280	F		22
21001	05090 0002	R MORJAU 25	A 743 D 4					2850	F		25
21001	05093 0003	DUPUISL 109	A 685 T 2					1490	N		109
21001	05094 0001	R WAYEZ 172	A 602 H 6					4620	F		172

# Street codes in new documentation

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**Municipality +  
street number**

Microsoft Access - [B\_CaAdPt : Table]

Fichier Edition Affichage Insertion Form

Tapez une question

AdMuKey	Sheet	CaPaKey	CaStKey	CaAdNu	CaAdX	CaAdV
11001	11001B010000_20080	11001B0053/00A000	1100100120	957	151372,9115	204310,011420
11001	11001B010000_20080	11001B0066/00B000	1100100280	11	151762,244	204115,27517
11001	11001B010000_20080	11001B0067/00C000	1100100280	11A	151763,7685	204096,834979
11001	11001B010000_20080	11001B0068/00N000	1100100280	7	151801,098	204056,519709
11001	11001B010000_20080	11001B0073/00E000	1100100280	1/5	151737,7575	204032,835189
11001	11001B010000_20080	11001B0075/00E000	1100100520	57/63	151541,9355	204011,708023
11001	11001B010000_20080	11001B0075/00F000	1100100520	65/73	151719,14	203925,622579
11001	11001B010000_20080	11001B0076/00D000	1100100520	62	151838,3285	203850,905245
11001	11001B010000_20080	11001B0077/00F000	1100100980	131	151844,0215	203814,634245
11001	11001B010000_20080	11001B0078/00D000	1100100980	129	151841,7355	203792,981706
11001	11001B010000_20080	11001B0079/00H000	1100100520	60	151750,287	203791,588251
11001	11001B010000_20080	11001B0079/00M000	1100100980	121	151838,807	203710,36276
11001	11001B010000_20080	11001B0079/00S000	1100100980	125	151837,723	203750,685842
11001	11001B010000_20080	11001B0081/00F000	1100100520	52	151532,529	203752,037752
11001	11001B010000_20080	11001B0081/00G000	1100100520	54	151602,747	203763,966251
11001	11001B010000_20080	11001B0082/00H000	1100100520	43	151372,905	203788,240093
11001	11001B010000_20080	11001B0082/00M000	1100100520	45	151399,0315	203790,215624
11001	11001B010000_20080	11001B0082/00N000	1100100520	47	151445,6965	203804,15591
11001	11001B010000_20080	11001B0082/00S000	1100100520	50	151497,5075	203742,44786
11001	11001B010000_20080	11001B0082/00T000	1100100520	48/1	151461,579	203738,958855
11001	11001B010000_20080	11001B0082/00V000	1100100520	48	151476,465	203715,337696
11001	11001B010000_20080	11001B0083/00C000	1100100520	44	151386,093	203694,033314

Options de barre d'outils

Enr : 1 sur 3861753

Mode Feuille de données

NUM

## *Initiatives of the Regions*

### ◆ *Brussels UrbIS, CRAB, PICC*

#### – *3 Regions*

- *carried out large scales projects of cartography with integrated concept of address.*

#### – *Brussels-Capital Region*

- *has been pioneer with Brussels UrbIS ;*
- *about 25 years a great experiment on this topic ;*
- *Brussels UrbIS is the ancestor of BeSt.*

#### – *Flemish Region*

- *developed a specific project CRAB, in margin of regional cartography GRB, and simultaneously with the development of the BeSt project ;*
- *CRAB is really the prototype of BeSt.*

#### – *Walloon Region*

- *treated addresses within the framework of regional cartography PICC and installs now a BeSt system.*

## *National initiative*

### ◆ *BeSt Address*

- *Several work groups*
  - *10 years of genesis and maturation*
- *Federal and Regional partners from the beginning*
  - *Patrimonial Documentation of PFS Finance*
  - *National Geographic Institute*
  - *FEDICT (PFS ICT)*
  - *3 Regions*
- *Many more partners for deployment*
  - *589 Municipalities*
  - *National Registry of FPS Interior*
  - *Statistics General Direction of FPS Economy*
  - *Crossroads Bank for Enterprises of FPS Economy*
  - *“bpost” and future postal competitors*
  - *... others could join them*

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## *BeSt Address scope extract*

◆ *BeSt Address has as finalities :*

- to allow the mapping, by their addresses, of any data,*
- to minimize the efforts of updates of addresses by the partners of the project,*
- to locate with certitude and a univocal way any street and any address.*

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## *BeSt Address scope extract*

- ◆ *BeSt Address has as operational objectives :*
  - *to unify the references used for the addresses, in particular by making recommendations on the data models,*
  - *to maintain the reference of the streets and the house numbers according to a Belgian standard, thanks to a platform of information exchange between the partners.*
- ◆ *BeSt Address does not have as operational objectives :*
  - *to place applications at the disposal of the users,*
  - *to diffuse data coupled with the addresses.*

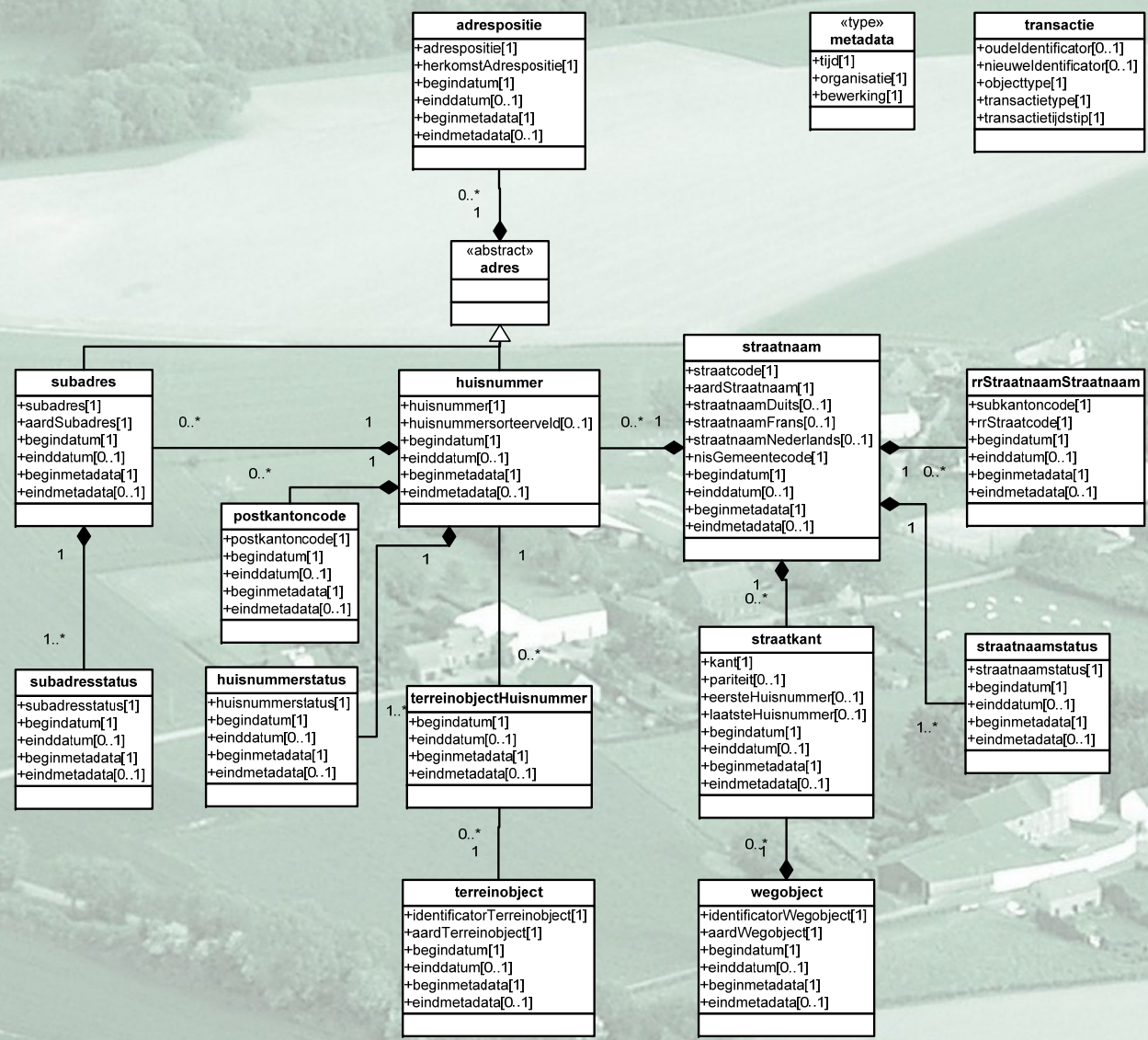
## *BeSt Address scope extract*

### ◆ *Roles*

- *Initiators*
  - *589 Municipalities*
- *Managers of the authentic source*
  - *3 Regions*
- *Integrator*
  - *FEDICT*
- *Partners*
  - *Previous + several administrations or public services susceptibles to contribute to the update of the data relative to the addresses.*
    - *To receive the updates continually*
    - *To communicate « warnings » continually*
- *Users*
  - *Everybody*

# BeSt Address Standard – Conceptual Model

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## *Focus on cadastral streets and addresses*

# General Administration of Patrimonial Documentation BeSt Address

- ◆ *Patrimonial documentation street code*
  - *As mentioned before, it was necessary to create a specific code to manage information in all streets*
- ◆ *Mapping tables with other codes*
  - *Perpetual problem to manage those tables*
    - *A new challenge each year !*
  - *First tables with the National Registry code*
    - *Very complicated relation “one to many”, and “many to many” in some cases*
  - *More recently tables with the new BeSt code*
    - *Based on a collaboration with the CRAB code*
    - *Relation almost “one to one”, some exceptions will progressively be resolved*
  - *Creation of bilateral and multilateral tables*
    - *To clarify the relations between the 3 codes*

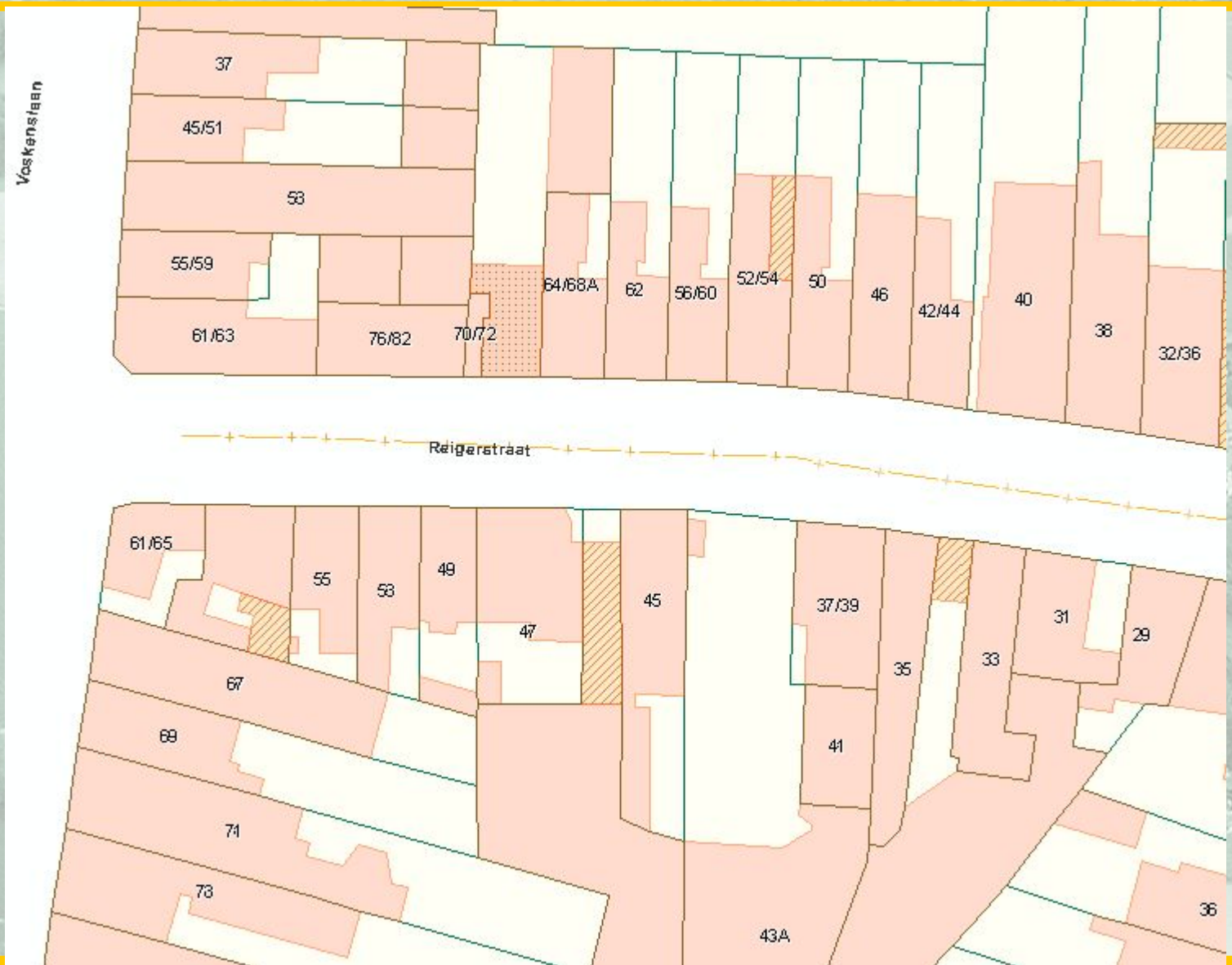
## *Focus on cadastral streets and addresses*

### ◆ *Address points with 3 codes*

- *A new concept has been developed last year.*
- *Creation of a complementary tool to the mapping tables to resolve the “one to many” relations : a map of the areas where all the streets National Registry codes are in the same range.*
- *This map is based on the delimitation of the postal zip areas, with sub-areas in function of the municipality divisions.*
- *The activities realized in cooperation between the Patrimonial Documentation and the Statistics General Direction for the improvement of the statistical districts with the use of all addresses of Belgium permitted to test and optimize this map.*
- *The final result is the 3 codes assigned to each address point in function of the combination of the mapping tables and the position in this new map.*

# Cadastral parcels address points

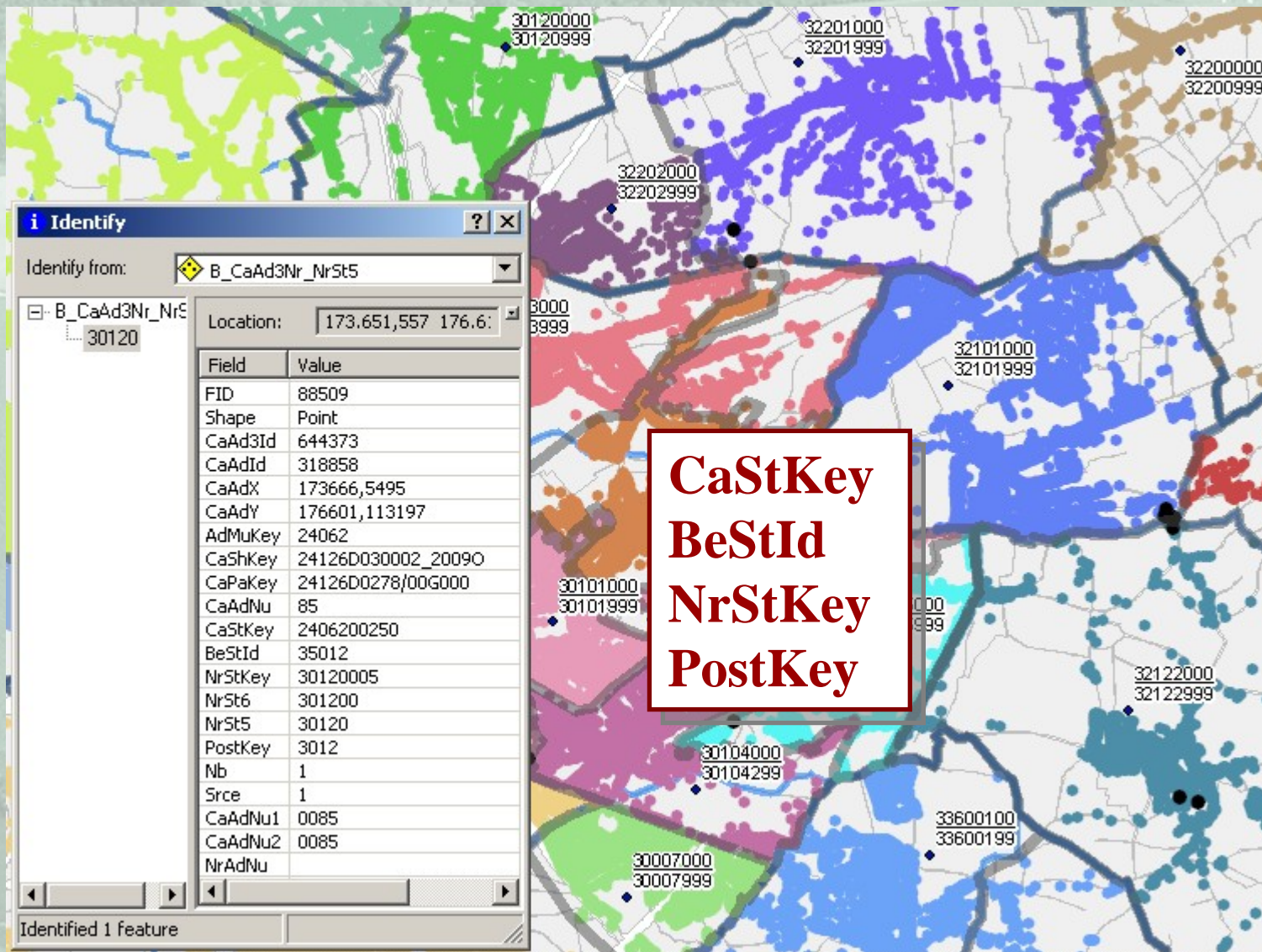
## General Administration of Patrimonial Documentation BeSt Address





# Address points with all codes

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## Conclusions

- ◆ *The problematic of the addresses is much more complicated than some imagine it.*
- ◆ *Collaboration between the federal and regional partners fortunately was profitable.*
  - *Since the beginning, Patrimonial Documentation gave a support for the initiatives of the partners by providing data and by improving its own data to facilitate the initialization of the sets of regional data which are the bases of the future authentic source.*
  - *The cooperation agreement is ready, ... it misses only one new government to sign it.*
  - *It remains to finish the initialization of the sets of regional data and to implement the BeSt platform for the exchanges between partners.*
- ◆ *BeSt Address will be an authentic source to be used obligatorily from 2014 or 2015*

*Thank you for your attention*

**General Administration  
of Patrimonial Documentation  
BeSt Address**

*ir Michel Van Acker*

*Advisor of the General Administrator  
of the Patrimonial Documentation  
from the Public Federal Service Finance of Belgium*

*SPF Finances – AGDP*

*North Galaxy (Tour B, 8e)*

*Boulevard du Roi Albert II, 33 bte 50  
B1030 Bruxelles / Belgium*

*<mailto:michel.vanacker@minfin.fed.be>*