

DATA MANAGEMENT

SNCF RESEAU

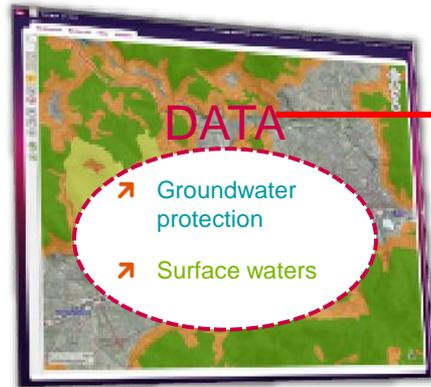


2ND INTERNATIONAL WORKSHOP ON VEGETATION MANAGEMENT

What future for herbicide?



THEORETICAL MANAGEMENT OF VEGETATION CONTROL DATA



Regulations

3G



Upload mapping regulatory data onto on-board vehicle systems



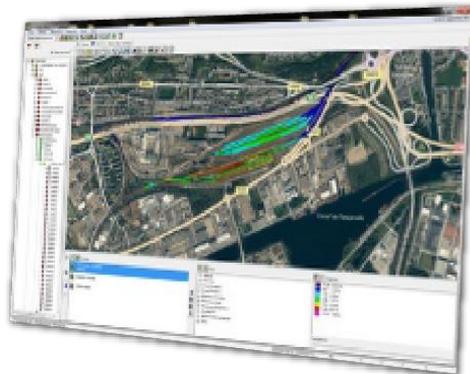
DATA

- X,Y
- Date
- Time
- Product
- Quantity of product
- Speed
- Operator



Record detailed information of different treatments undertaken
Interruption to treatments according to the regulations in force

SIGMA
 VEGETATION CONTROL GIS



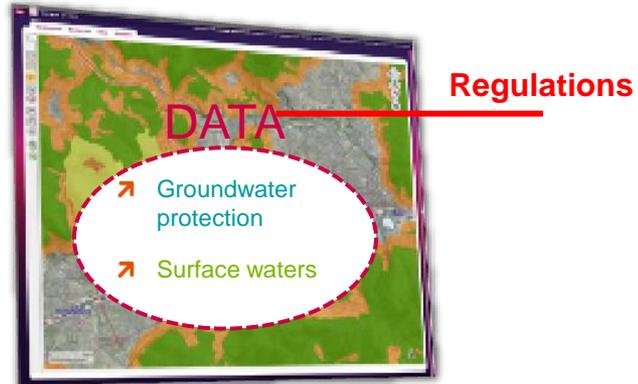
Spatial data analysis and
 integrate into GIS



3G

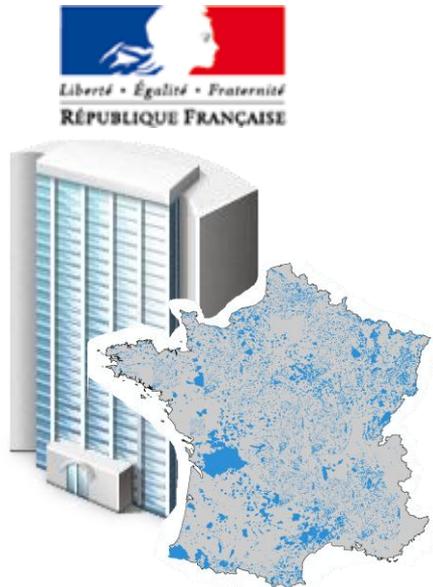
- ↘ Coordination of the actions
- ↘ Communication to third parties

ACTUAL MANAGEMENT OF VEGETATION CONTROL DATA - REGULATIONS

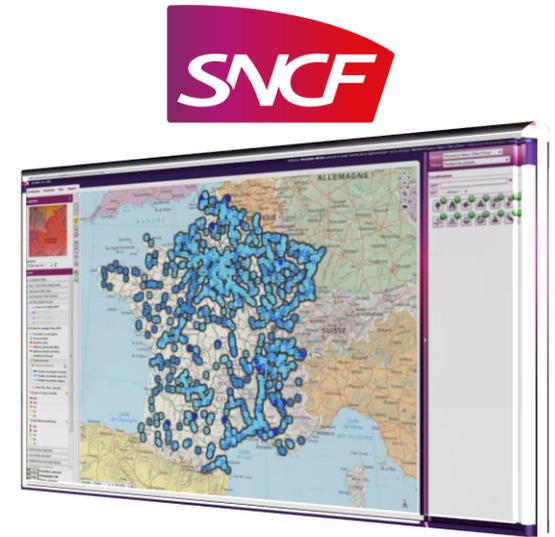
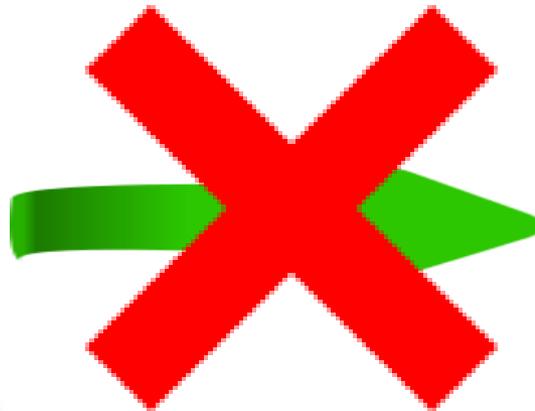


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NATIONAL GROUPING?



Ministry of Health



FINDING DATA ON CATCHMENT AREAS IS VERY SIMPLE!

1. Find competent authority



Does not exist

2. Data originating with various ADMINISTRATIVE AUTHORITIES and REGIONS



2 administrative regions



2 specific territorial authorities for WATER

But currently we have
2 different data sets
for the same sector

COMPLEXITY OF DATA RECEIVED

Due to lack of coordination, the data received is not uniform:

- Differing formats linked to the different software used

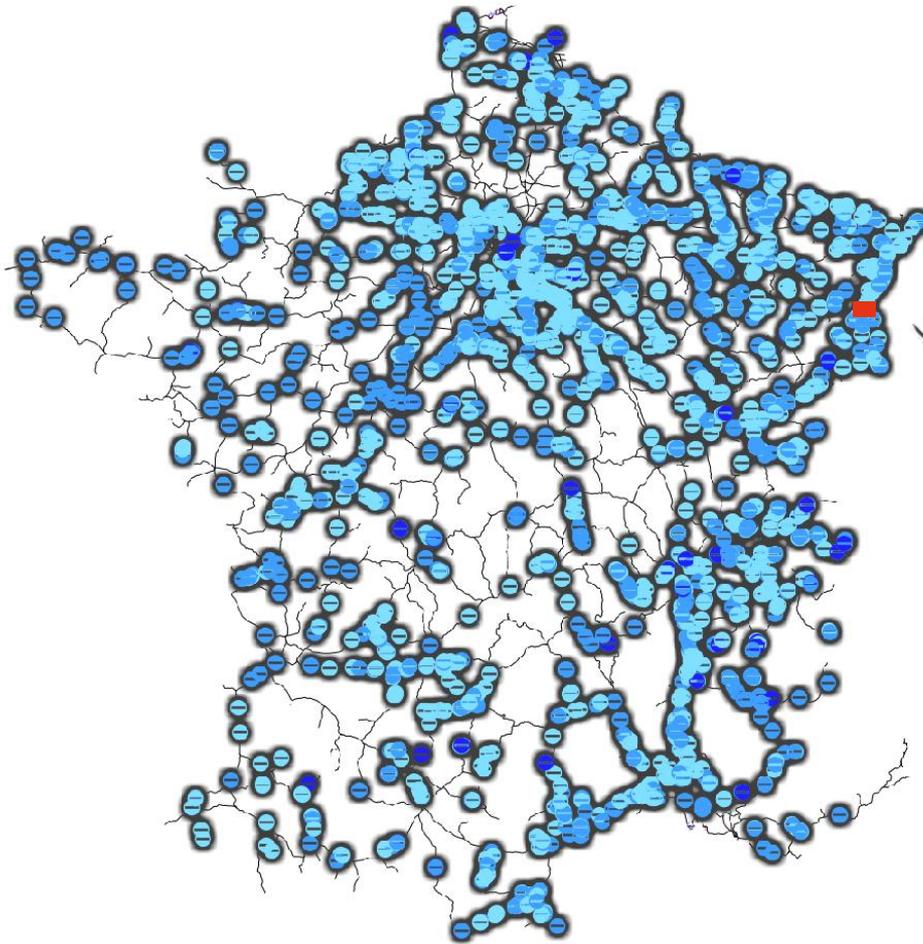


...and unusable formats (not SIG) : .pdf

- Quality not uniform
- Metadata (data about data) not always supplied
- Differing coordinate systems, etc.

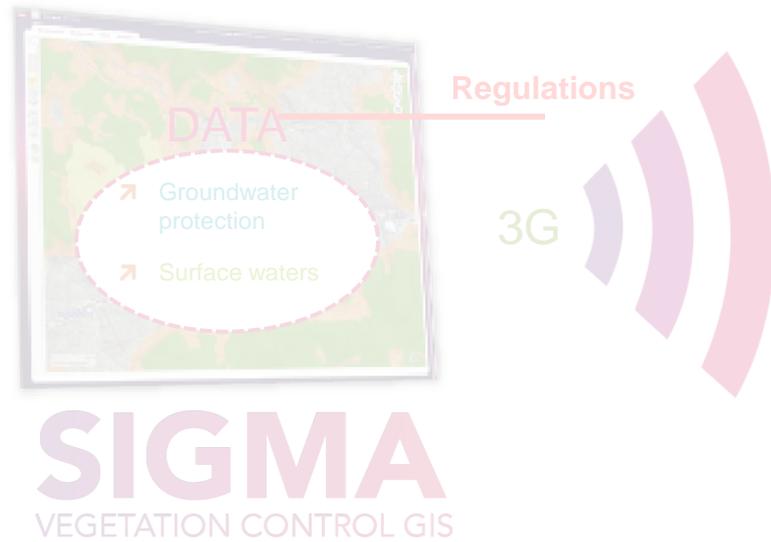
→ NEED TO START AGAIN FROM SCRATCH

COMPLEXITY OF DATA RECEIVED



- Périètre de protection immédiate
- Périètre de protection rapproché
- Périètre de protection éloignée

ACTUAL MANAGEMENT OF VEGETATION CONTROL DATA – TREATMENTS AND RECORD KEEPING



Upload mapping regulatory data to on-board vehicle systems



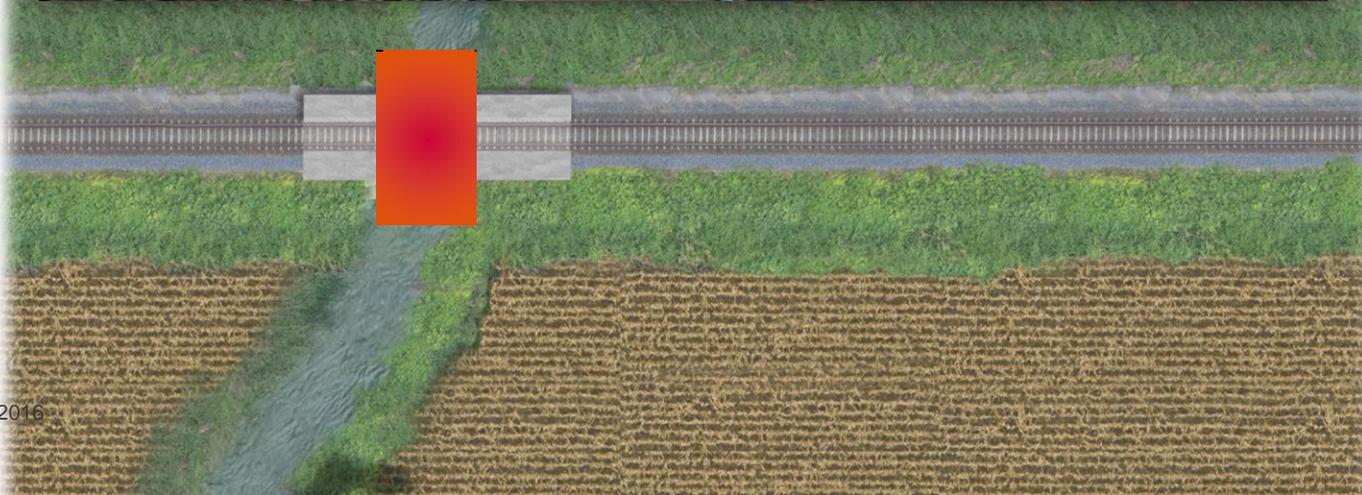
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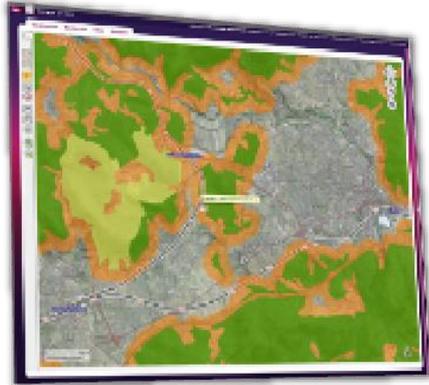


Record detailed information of different treatments undertaken
Interruption to treatments according to the regulations in force

ACTUAL MANAGEMENT OF VEGETATION CONTROL DATA – TREATMENTS AND RECORD KEEPING



ACTUAL MANAGEMENT OF VEGETATION CONTROL DATA – PRESENTATION AND ANALYSIS OF INFORMATION (1/2)



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Spatial data analysis and
integrate into GIS

GPS CHEMICAL TREATMENT

VISUALISATION AT DIFFERENT SCALES

Traditional GPS tracking* (in form of several polygons)

Very large-scale visualisation

Searchable and filterable data

Searchable and filterable data



Zoom

France

Multi-regions

Region

Multi-town

Town

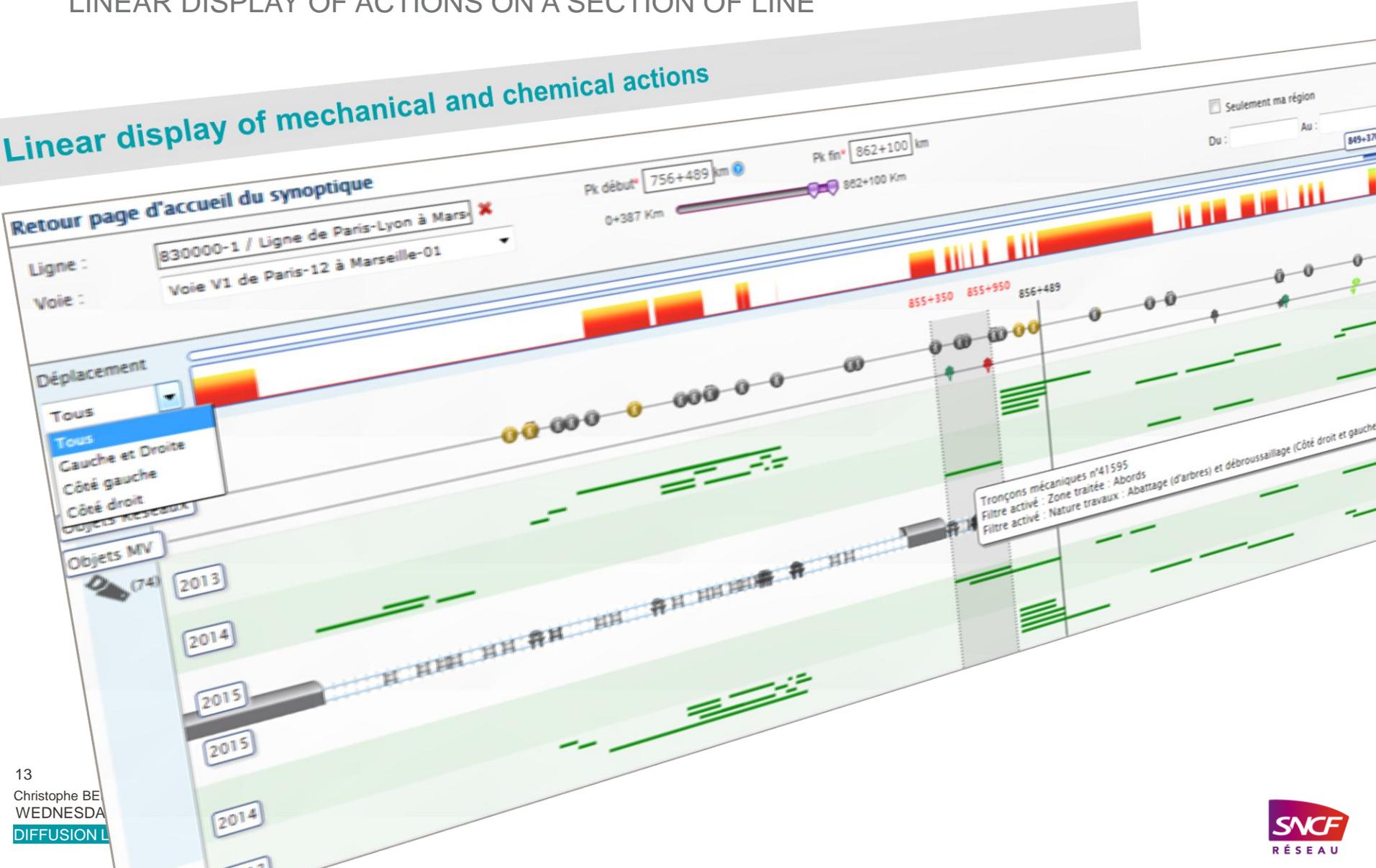


Railway
Right of way
SNCF
RÉSEAU

GPS CHEMICAL TREATMENTS

LINEAR DISPLAY OF ACTIONS ON A SECTION OF LINE

Linear display of mechanical and chemical actions



ACTUAL MANAGEMENT OF VEGETATION CONTROL DATA – TREATMENTS AND RECORD KEEPING (2/2)

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Maîtrise de la végétation
EPICEA
Espace de Pilotage, Cartographie, Evolution et Analyse



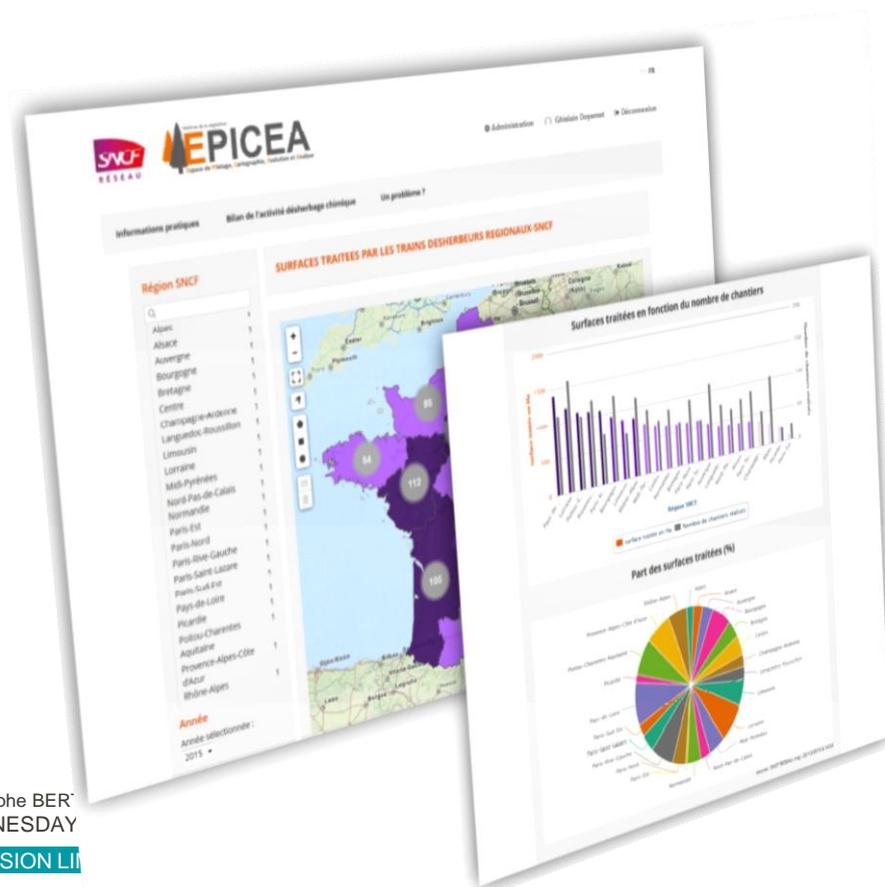
+ Area for monitoring and analysis of Vegetation Control

+ Themes

- Chemical actions (TDR and Trucks, quad, gator fitted with GPS)
- Regulation (Perimeter of protection of catchment area)

+ 4 methods of disseminating information:

- Cartographical and statistical
- Spreadsheet
- Main figures
- Comparative

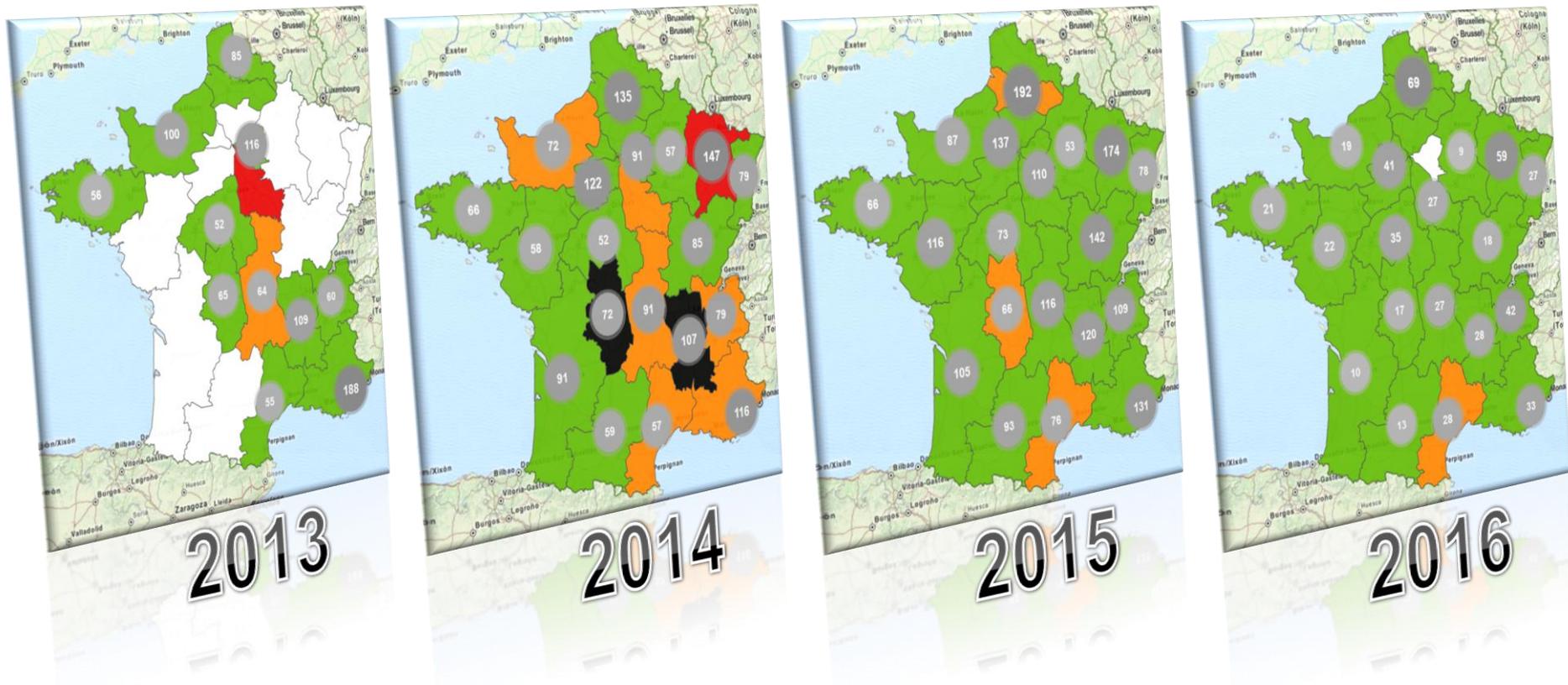


The screenshot shows a detailed data table from the EPICEA web interface. The table has columns for region codes (e.g., 10 PE, 14 CA, 17 LOR) and numerical values. The table is titled "TABLEAU RECAPITULIF DES CHANTIERS REALISES PAR LES TRAINS DESHERBEURS REGIONAUX" (Summary table of sites realized by regional weed trains).

Region Code	Value 1	Value 2	Value 3	Value 4	Value 5	Value 6	Value 7	Value 8	Value 9	Value 10	Year
10 PE											2013
14 CA											2013
17 LOR	70	0	0	0	5	3983594				398	2013
18 AL											2013
20 PN											2013
23 NPC											2013
24 PIC	49									3014856	2013
30 PSL	36	0	0	0	0					4914910	2013
33 NDR											2013
34 PRG	100				5					301	2013
36 BR	56	6								491	2013
37 PDL											2013
43 PCA					39					7602760	2013
44 LM					0					760	2013
46 CEN	65									682	2013
47 MPP	52	0	0	0							2013
56 PSE											2013
58 BFC					10					5788758	2013
58 RA	46				3					6376650	2013
59 AVV		1								579	2013
59 ALP	109		25							638	2013
59 IAR	94	0			0					3743288	2013
59 PAK	60	2								374	2013
59 LR	188	0	2	28						12267097	2013
10 PE	55	0	0	2						3778070	2013
14 CA	17	0	0	32						5680626	2013
17 LON	57	0	0	57						12742701	2013
18 AL	147	0	0	2						2644768	2013
20 PN	79	11	0							1104323	2013
	74	0	51	0						4855638	2013
										11269398	2014
										4270179	2014
					9					4949483	2014
										427	2014
										495	2014

ACTUAL MANAGEMENT OF VEGETATION CONTROL DATA – PRESENTATION AND ANALYSIS OF INFORMATION

Example with sites which have no products entered in the SNCF regional vegetation-control trains



CONTACTS

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The Enterprise Social Network

- + Christophe BERTHAUD



THANK YOU FOR YOUR ATTENTION.