

www.intradel.be

Si tu tries,
t'as tout compris!

Sorting is smart

INTRADEL :

Public utility company

- 100% publicly owned inter-municipality company
- 72 municipalities in the Province of Liège
- 1,020,579 inhabitants



INTRADEL

Our values

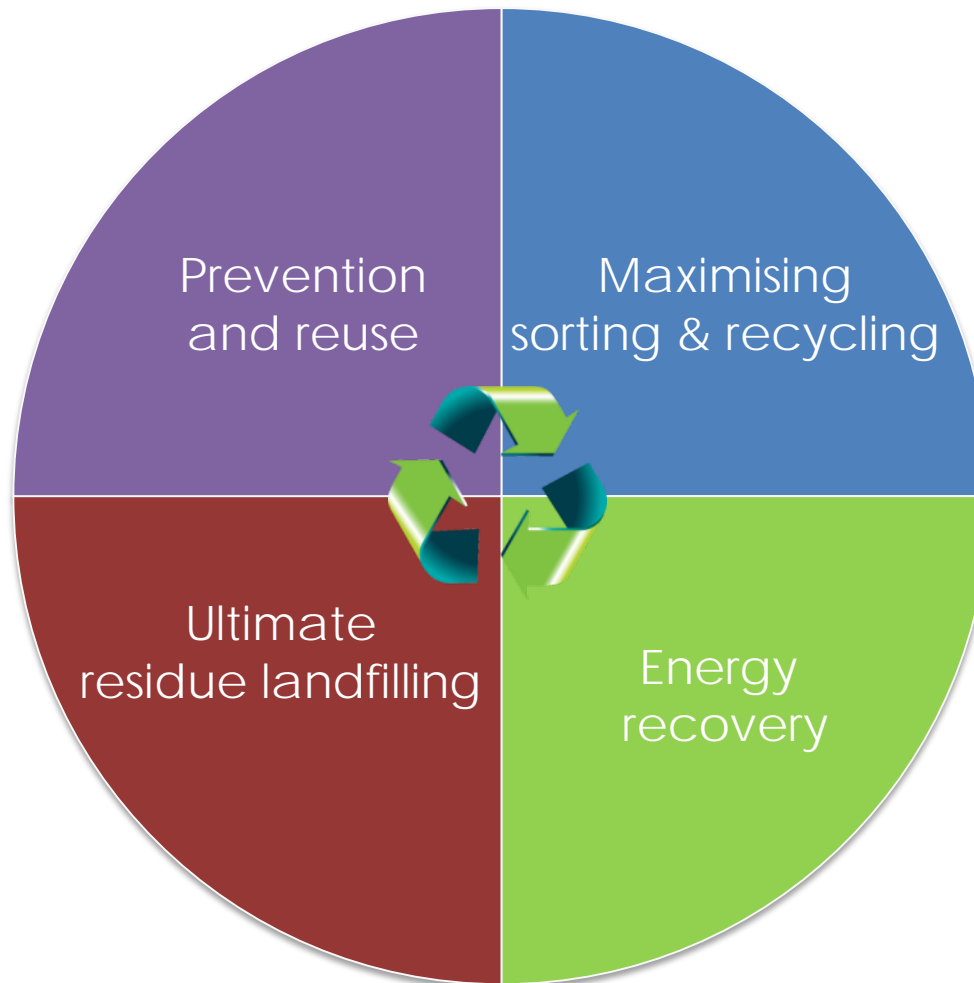


- **Sustainable development**
 - Environmentally responsible management
 - Economically responsible management
 - Corporate social responsibility
- **Quality and constant improvement – EMAS regulation**



INTRADEL

Working for the public interest



INTRADEL, environmentally responsible management

...



Household waste trends

	2009	2010	2011	2012	2013	2014	Δ%
Tonnes	503,600	483,400	517,800	512,500	510,400	525,200	2.9%
Kg/inhab./Y	508	484	514	506	502	515	2.52%

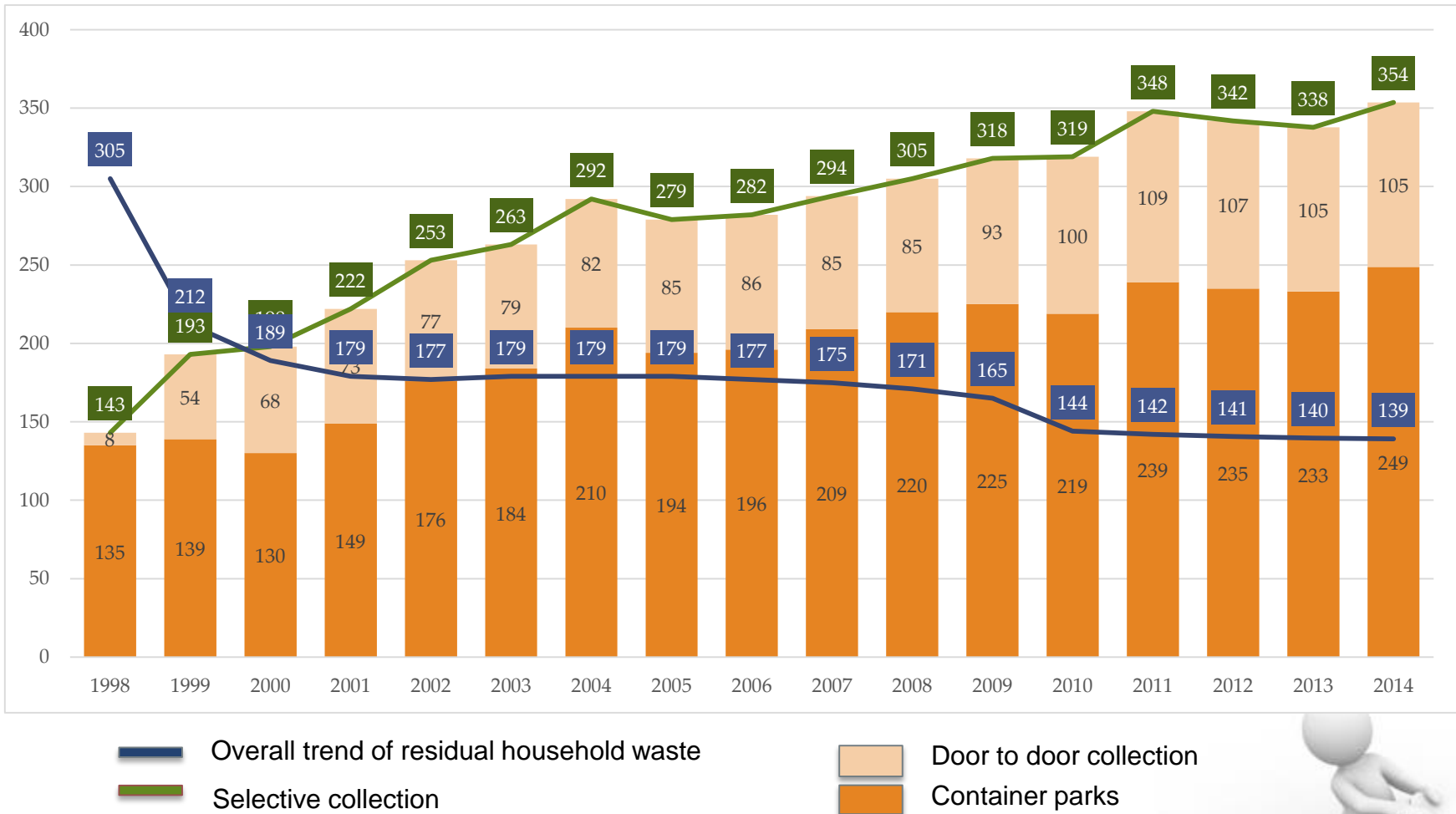
Inhabitants 2014 : 1,020,579 (+0.4%)

Target for 2015 : MAX 500 kg/Y/inhab.

Weather :
« no winter » 2014
+ 18%
green waste
in container parks
(+9,211T)



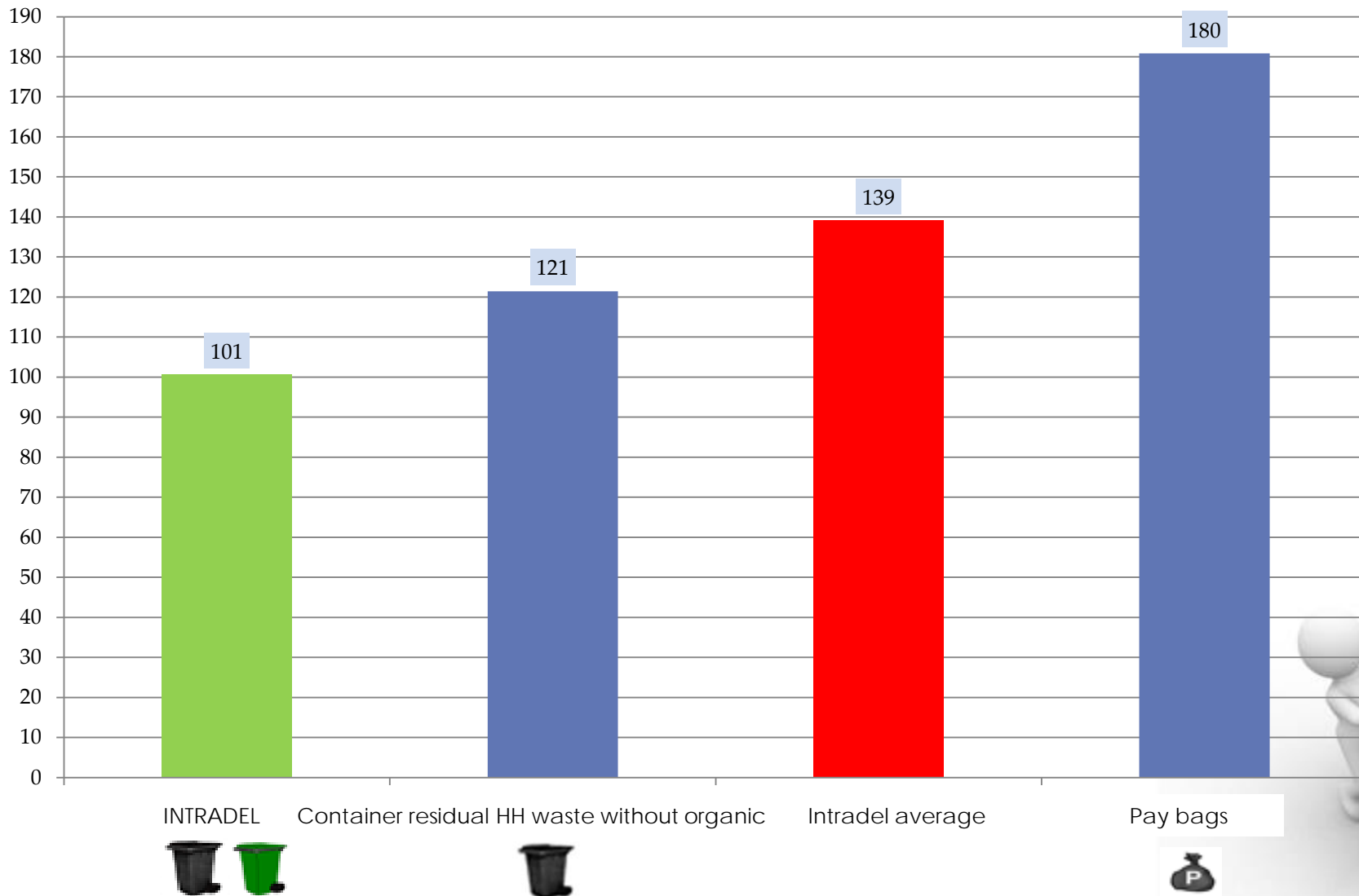
Household waste trends






































































(Organic waste, PMD, paper-cardboard, glass collection and civic amenity sites/container parks)

Average residual household waste *by collection system*

kg/inhab./Y










































































Residual household waste trends

Communes		OM 2014	Δ%	Communes		OM 2014	Δ%
HERVE		69	3%	HANNUT		106	6%
OUFFET		70	-43%	HERSTAL		107	6%
FERRIERES		74	-46%	FLEMALLE		108	2%
ANTHISNES		76	6%	WAREMME		109	2%
NANDRIN		78	2%	ENGIS		109	0%
CLAVIER		78	1%	HAMOIR		110	7%
MODAVE		79	-3%	CRISNEE		110	3%
SPRIMONT		81	1%	SPA		110	5%
FEXHE HT CLOCHER		83	0%	OLNE		114	2%
BLEGNY		84	-49%	THIMISTER-CLERMONT		118	1%
REMICOURT		84	-3%	OUPEYE		118	-1%
FAIMES		85	3%	SERAING		120	-1%
AWANS		86	1%	WISE		120	-1%
GEER		86	-2%	JALHAY		121	0%
BRAIVES		89	4%	BAELEN		123	3%
LINCENT		90	5%	PEPINSTER		131	3%
MARCHIN		92	4%	RAEREN		131	-1%
FLERON		92	-5%	HUY		132	2%
TROOZ		93	4%	THEUX		132	1%
VILLERS		94	3%	CHAUDFONTAINE		133	7%
LONTZEN		94	0%	DALHEM		137	4%
VERLAINE		94	-6%	AUBEL		138	0%
AMAY		94	0%	WELKENRAEDT		141	3%
BERLOZ		94	4%	PLOMBIERES		141	3%
GRACE		95	5%	LIMBOURG		149	1%
BURDINNE		96	0%	EUPEN		152	-2%
OREYE		97	6%	NEUPRE		153	9%
COMBLAIN		98	4%	BASSENGE		155	0%
WANZE		98	2%	SOUMAGNE		156	1%
SAINT-GEORGES		100	8%	JUPRELLE		160	-8%
WASSEIGES		102	4%	KELMIS		165	1%
DONCEEL		103	4%	BEYNE-HEUSAY		174	2%
TINLOT		104	0%	DISON		176	-1%
SAINT-NICOLAS		104	-1%	ANS	EP	180	-5%
AYWAILLE		105	9%	VERVIERS		196	1%
ESNEUX		106	0%	LIEGE		208	0%
				TOTAL		139	0%



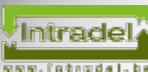
Recycling rate development

(by town and except civic amenity sites)

Communes		2014 %	Δ%		Communes		2014 %	Δ%
HERVE		67%	-1%		SAINT-NICOLAS		52%	-1%
FEXHE HT CLOCHER		62%	0%		VILLERS		52%	0%
AWANS		62%	0%		TROOZ		52%	-1%
OUFFET		61%	18%		OUPEYE		51%	1%
SPRIMONT		60%	-1%		ENGIS		51%	1%
REMICOURT		60%	1%		WISE		50%	1%
ANTHISNES		60%	-1%		SERAING		50%	1%
OREYE		60%	-1%		DONCEEL		49%	-1%
FERRIERES		60%	22%		LONTZEN		48%	2%
LINCENT		59%	-2%		TINLOT		47%	0%
NANDRIN		59%	-1%		CRISNEE		46%	0%
MODAVE		59%	1%		CHAUDFONTAINE		45%	-2%
BERLOZ		59%	-1%		OLNE		44%	1%
FAIMES		59%	-1%		AUBEL		43%	0%
CLAVIER		58%	1%		THIMISTER-CLERMONT		42%	0%
BRAIVES		58%	-1%		HUY		41%	-1%
FLERON		58%	1%		DALHEM		41%	-1%
GEER		58%	0%		JALHAY		40%	1%
GRACE		57%	-2%		NEUPRE		39%	-3%
AYWAILLE		57%	-3%		PEPINSTER		39%	-1%
SAINT-GEORGES		57%	-1%		THEUX		38%	0%
HANNUT		57%	-1%		BAELEN		35%	0%
WAREMME		56%	-1%		SOUMAGNE		34%	-2%
BLEGNY		56%	23%		RAEREN		34%	0%
BURDINNE		56%	0%		WELKENRAEDT		34%	-1%
MARCHIN		56%	-2%		BASSENGE		34%	2%
WANZE		55%	0%		JUPRELLE		34%	2%
ESNEUX		55%	0%		PLOMBIERES		34%	-1%
COMBLAIN		55%	0%		LIEGE		32%	0%
SPA		55%	-1%		ANS	EP	32%	1%
WASSEIGES		55%	-1%		LIMBOURG		32%	-1%
AMAY		54%	-1%		BEYNE-HEUSAY		32%	-1%
VERLAINE		54%	2%		KELMIS		30%	0%
FLEMALLE		54%	-1%		EUPEN		29%	1%
HERSTAL		53%	-2%		VERVIERS		28%	0%
HAMOIR		53%	-2%		DISON		24%	-1%
					TOTAL		43%	0%



MEANS



PREVENTION and REUSE



RAISING AWARENESS IN THE COMMUNITY



Prevention, awareness and waste sorting stand **on markets, at general public events and information sessions**

We reached out to 19,705 people



Presentations in schools and kids' summer programmes

We reached out to 11,436 children

Events where we were represented : Solidaris day, tempo Color, Jardin' expo, Babydays, music festivals ...



Preventive actions for municipalities

- Anti-food waste cooking workshops:

- 61 municipalities
- 1,530 people



- Delivering fruit boxes to schools :

- 70 municipalities / 439 schools
- 104,000 boxes



PREVENT – REUSE



Toys and bikes
collection
in container parks

2015 bike collection :
Saturday 25th April

	2014	2013	D 2014-2013	D%
Toys /pce	9,430	10,436	-1,006	-10%
Bikes /pce	917	1,039	-122	-12%





SOFIE S.C.R.L.

Co-operative company for social inclusion

Number of repaired machines for people with low purchasing power in 2014



	2013	2014	
Number of machines	2,290	2,695	+18%



ABOUT 135 TONNES

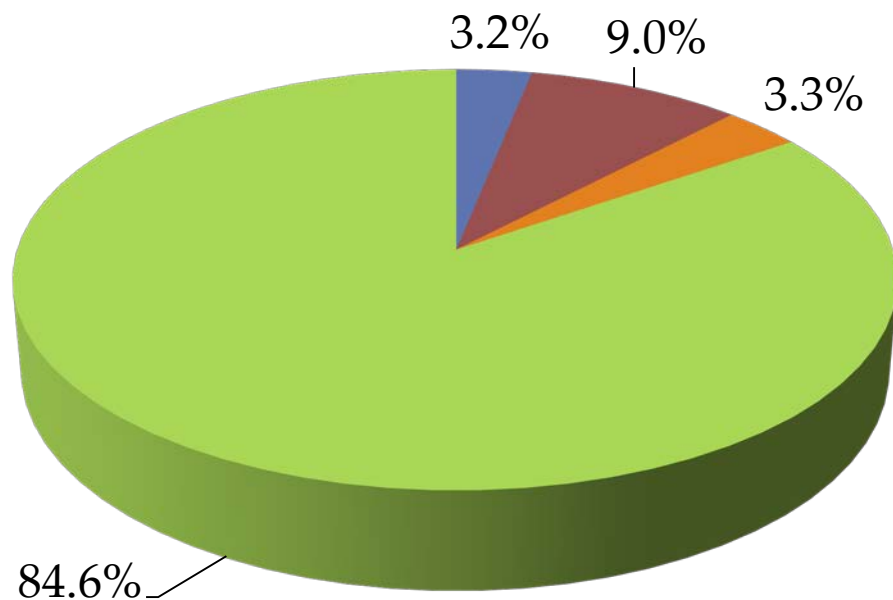
42 employees; 39 of them had trouble finding a job before they found this one





Ressourcerie
du Pays de Liège

Collection of bulky waste from homes



1,369 T. in 2013
1,894 T. in 2014
12,438 visits

- Reuse
- Energy recovery
- Landfilling
- Recycling

36 employees including 32 in socio-professional integration

+5

7 municipalities in 2013
17 municipalities in 2014



COLLECTION



49 civic amenity sites: number one tool

48% of total tonnage

	2013	2014	Δ%
Visits	1,911,179	2,081,069	9%
Tonnes	237,018	253,906	7%
Users per day (average)	7,351	8,193	11%
Cards used	248,833	255,215	3%
Kg/inhab./Y (INTRADEL)	233	249	7%

Access with
barcode cards

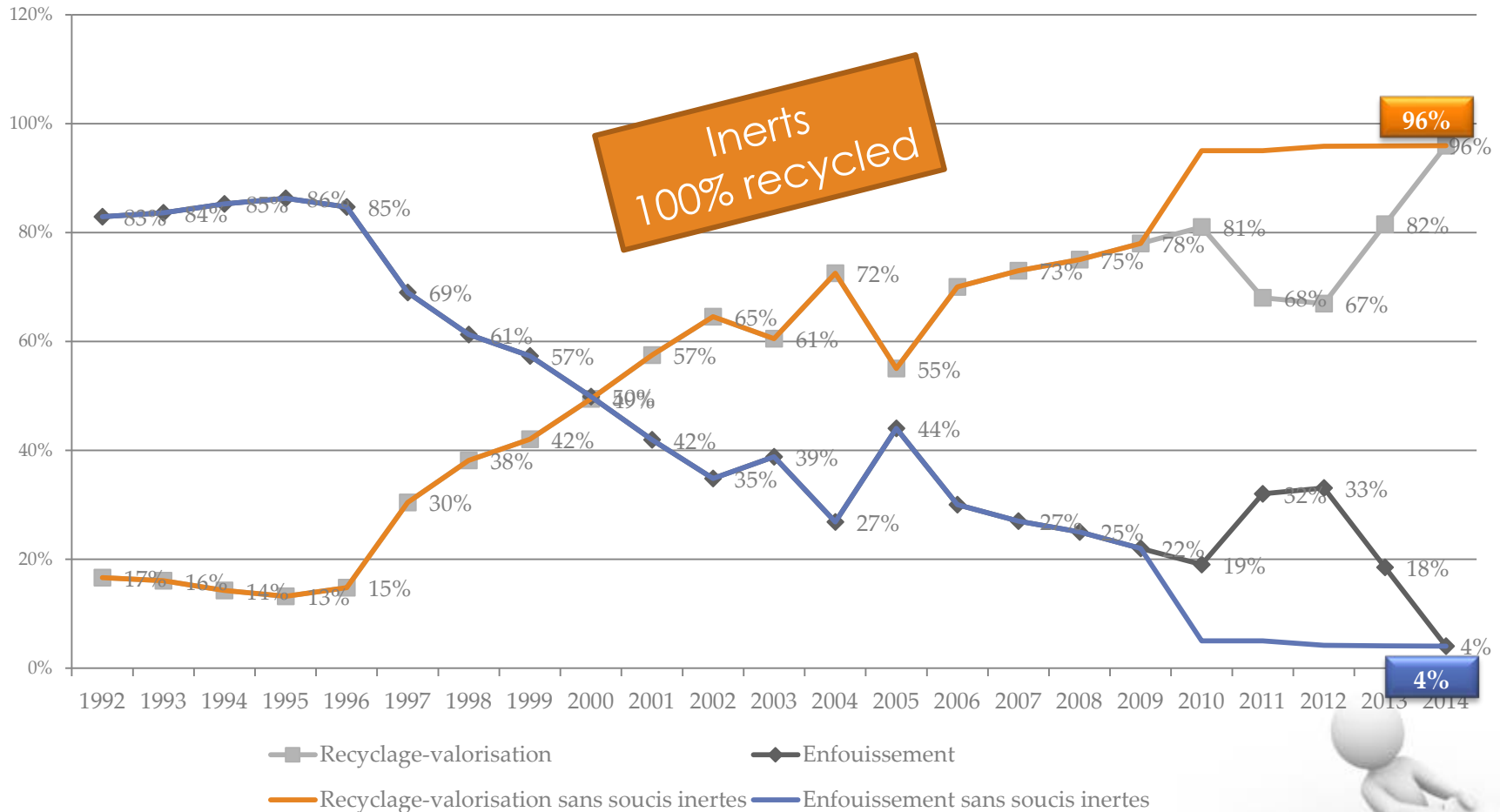


30 flows
including 3 seasonal

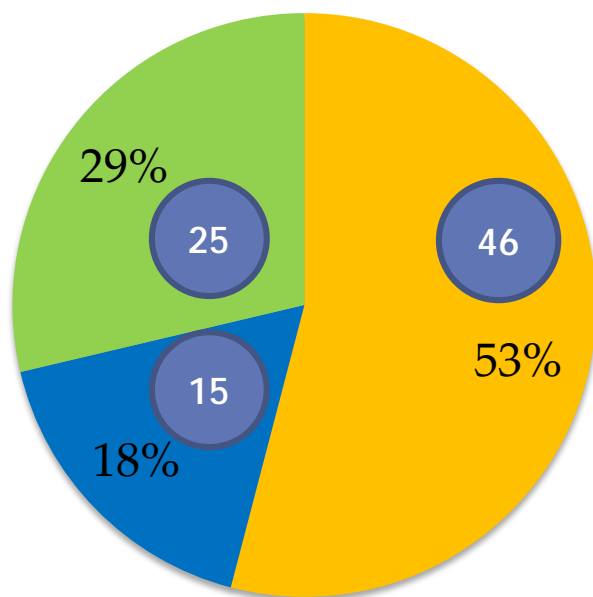


Civic amenity sites

Recycling-recovery rate development



Selective collection of packagings



■ PAPER-CARDBOARD

■ PMD

■ GLASS

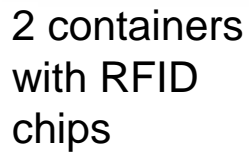
● Kg/Y/inhab.



Tonnes	2014	2013	Δ	Δ%
Paper-cardboard	46,857	47,171	-314	-1%
PMD	15,391	15,586	-195	-1%
Glass	25,435	25,715	-280	-1%
	87,683	88,472	-789	-1%



46 towns in 2015, i.e. over 516,000 people



Intrade!
www.intrade.com

COLLECTION RESULTS FOR THE 40 TOWNS

163 kg/inhab./Y residual waste (2008)



138 KG/INHAB./Y



37 kg organic waste



101 kg/inhab./Y residual waste



COLLECTING RESIDUAL WASTE FROM SHARED CONTAINERS IN URBAN AREAS

- Solution for densely populated areas and blocks of flats
- Electronic badge
- All citizens can sort
- Easy to access, 24h./day
- 168 shared containers in 5 towns
- Around 16,000 inhabitants



SORTING/PROCESSING/ RECYCLING



Our tools...

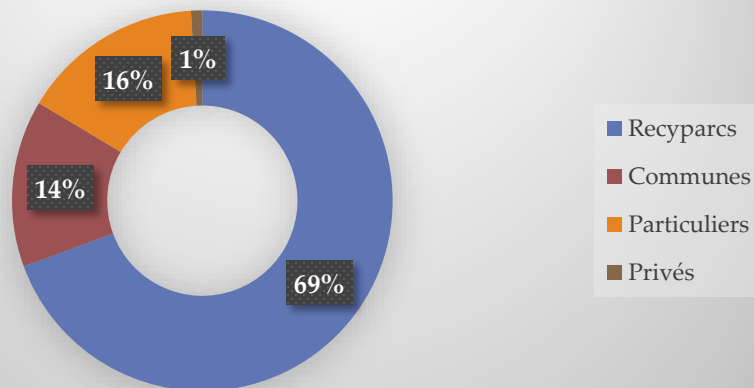


Green waste processing

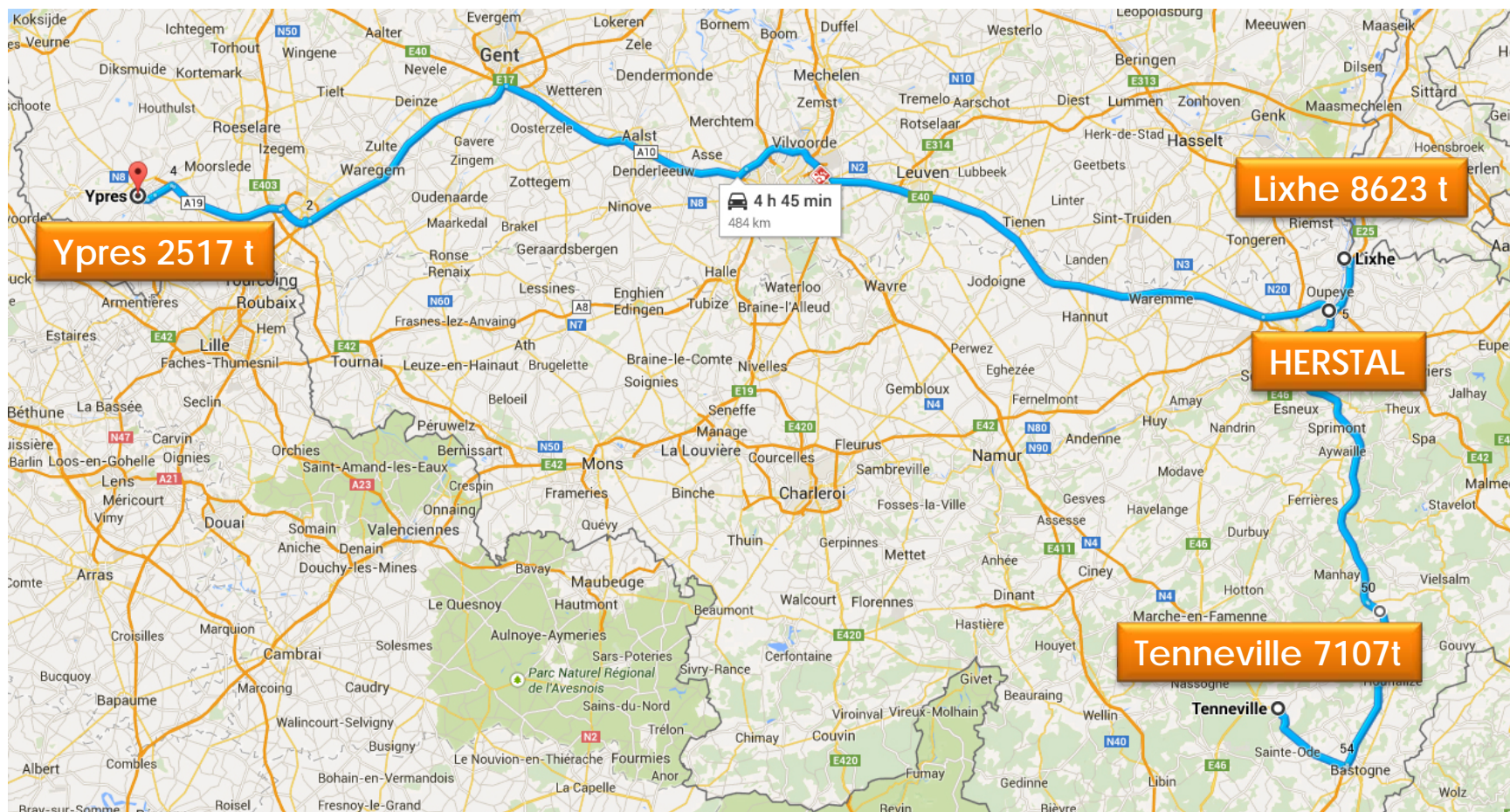
Tonnes	2013	2014
Jeneffe	34,164	37,511
Soumagne	7,068	8,410
Lixhe	16,720	24,063
Dison	8,104	9,486
	61,127	69,666

Produced materials :
compost for
agriculture and
biomass for wood
boilers

Green waste processing



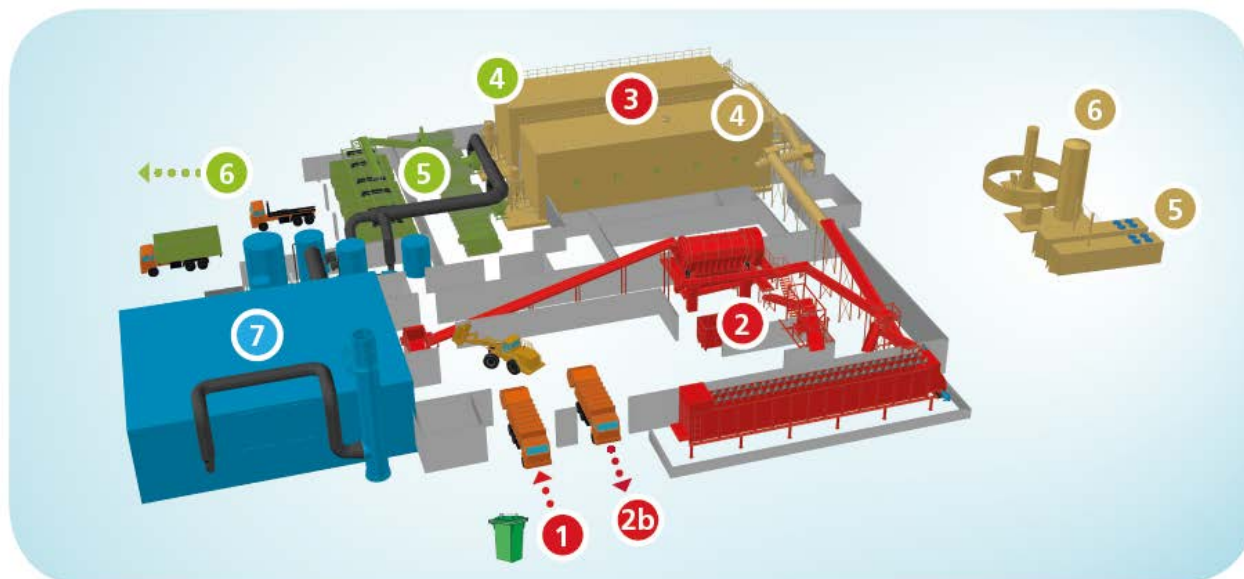
Organic waste processing



2017 target : Construction of a bio-methanisation unit in Herstal



Le process de la nouvelle unité de biométhanisation à Herstal



MATIERE

- 4 Digestat
- 5 Séchage du digestat (avec utilisation de la chaleur de la cogénération et de la chaleur en complément d'Uvelia)
- 6 Amendement agricole (compost) (créé en dehors d'Herstal en zone agricole)

- 1 Tri sélectif
- 2 Préparation
- 2b Refus vers Uvelia
- 3 Digestion

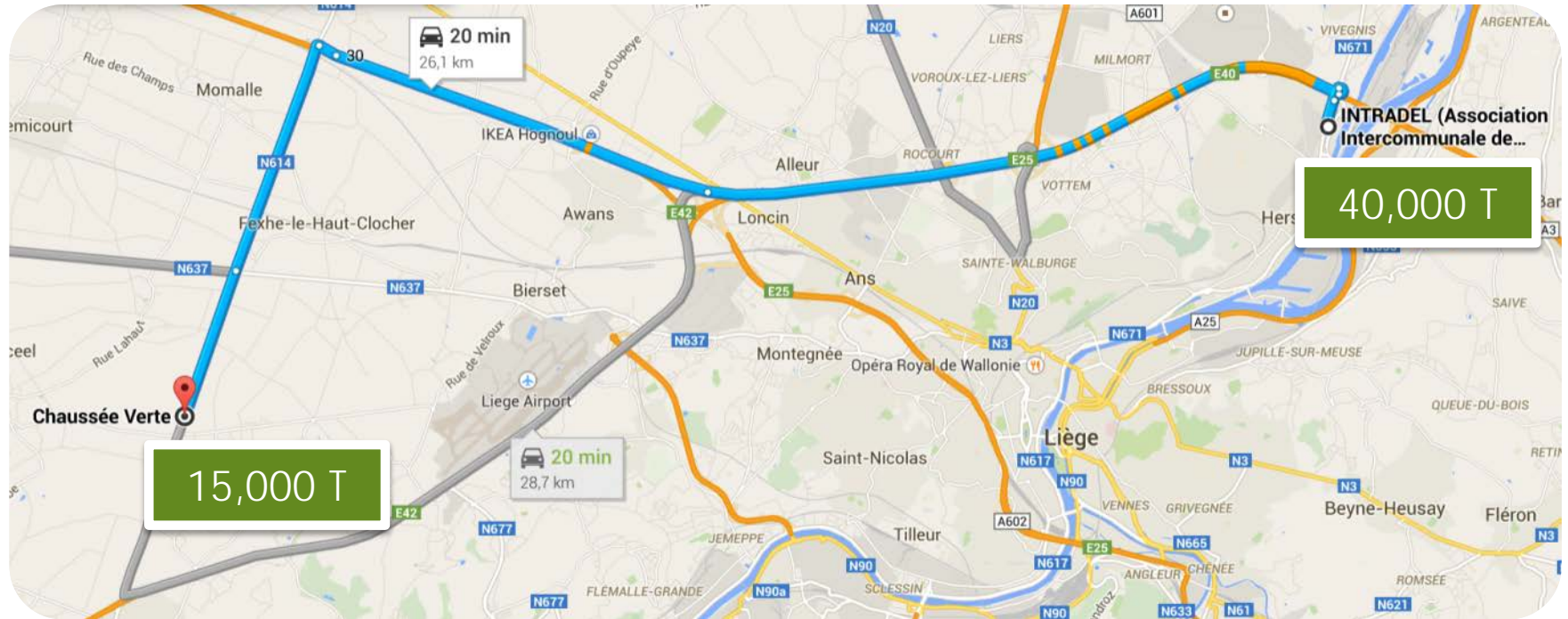
7 Nez électronique
Traitement de l'air vicié
et désodorisation

ENERGIE

- 4 Biogaz
- 5 Moteur à gaz
- 6 Production d'électricité
et de chaleur



Compost and green energy



7.2 Mio kWh
electricity/Y
7.5 Mio kWh
heat/Y

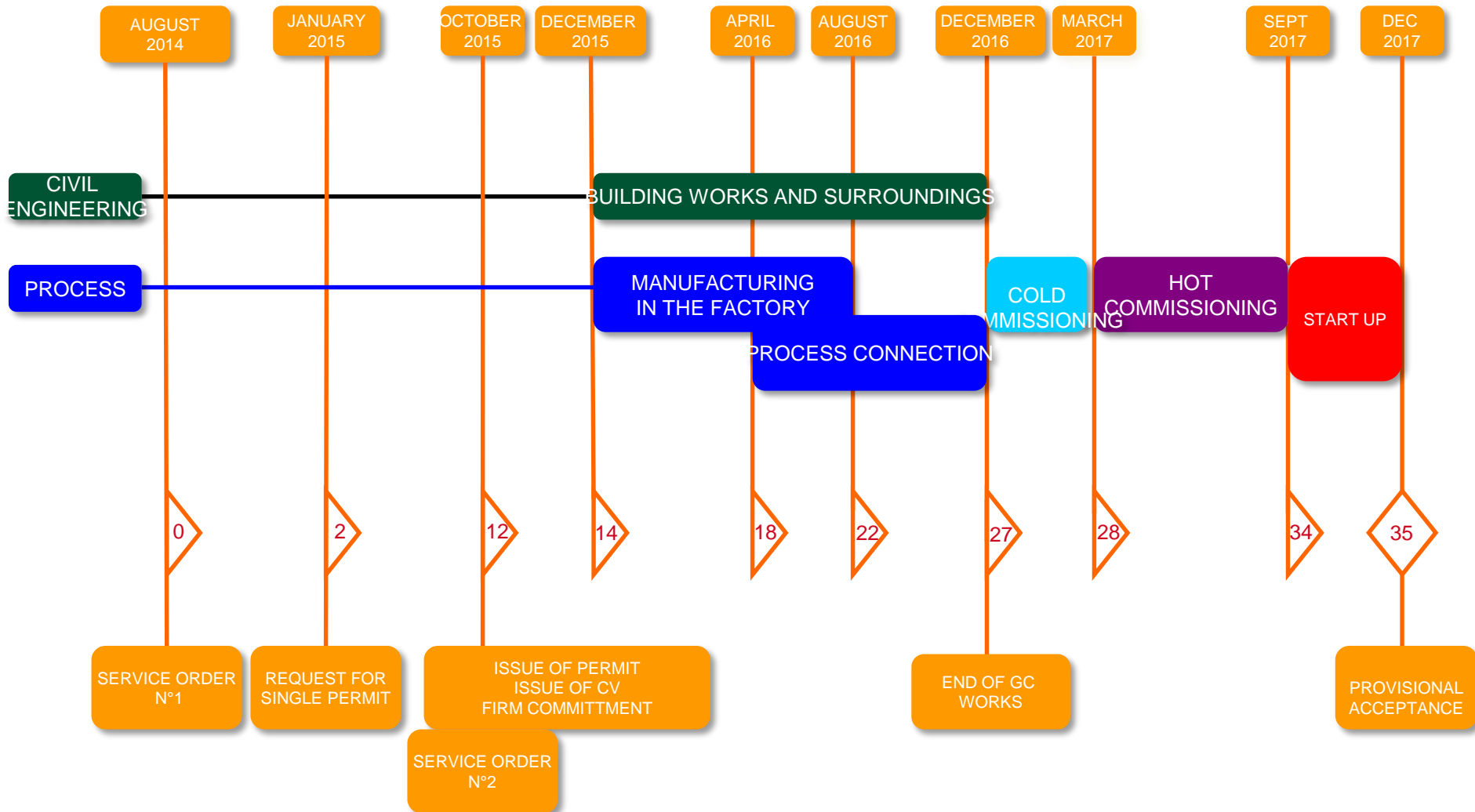
OR

20 Mio kWh
in the natural gas
network
Dry biogaz
production: 3.6 Mio
Nm³/Y

40 Mio km with a
natural gas car



PROJECTED SCHEDULE



Energy recovery



development of amounts of processed materials

378,284 T
in 2014

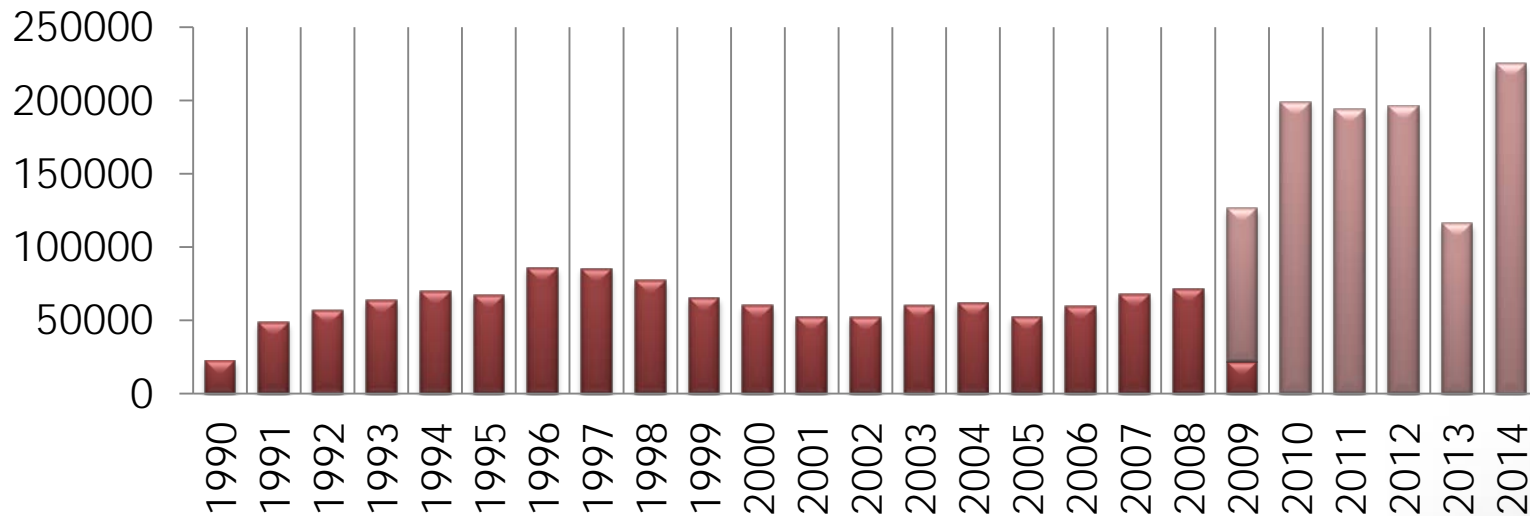
2,600 trucks
less on the roads
(thanks to barges transport)

Energy recovery

	2014	2013	D	D%
MWh	225,468	116,127	109,341	94%
Power consumption equivalent (number of households)	51,010	26,273	24,737	94%

Electricity sold

■ Electricité vendue AVE ■ Electricité vendue UVELIA



An aerial photograph of an industrial area, likely a power plant or refinery, situated along a river. The image shows various industrial buildings, storage tanks, and infrastructure. A large, stylized red logo, consisting of three concentric curved segments and a central oval, is overlaid on the image. The text 'Urban heating' is written in white, sans-serif font across the top of the image.

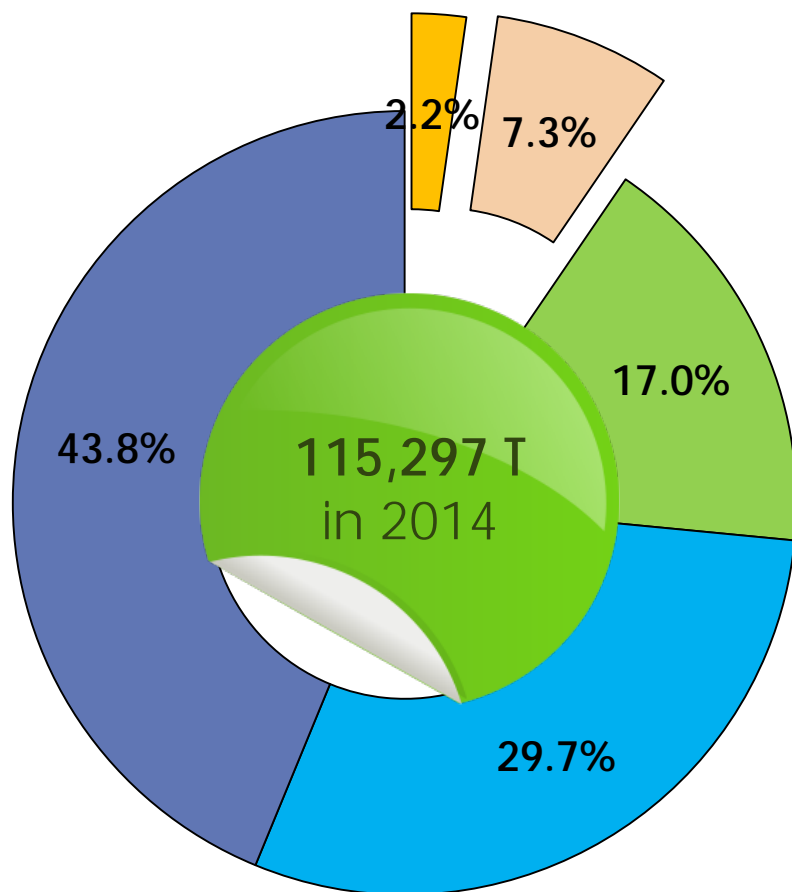
Urban heating

- Intradel / Herstal agreement to start the project
- Project submitted to the ERDF
- Verdir project (Intradel participation) at ACEC for power supply

Landfilling



Hallembaye (class 2 landfill)



Asbestos-cement

Non-recoverable bulky waste

RPIFW UVELIA

OIW

Inert waste

90.5% industrial waste

Biogaz recovery : 3,960 MWh

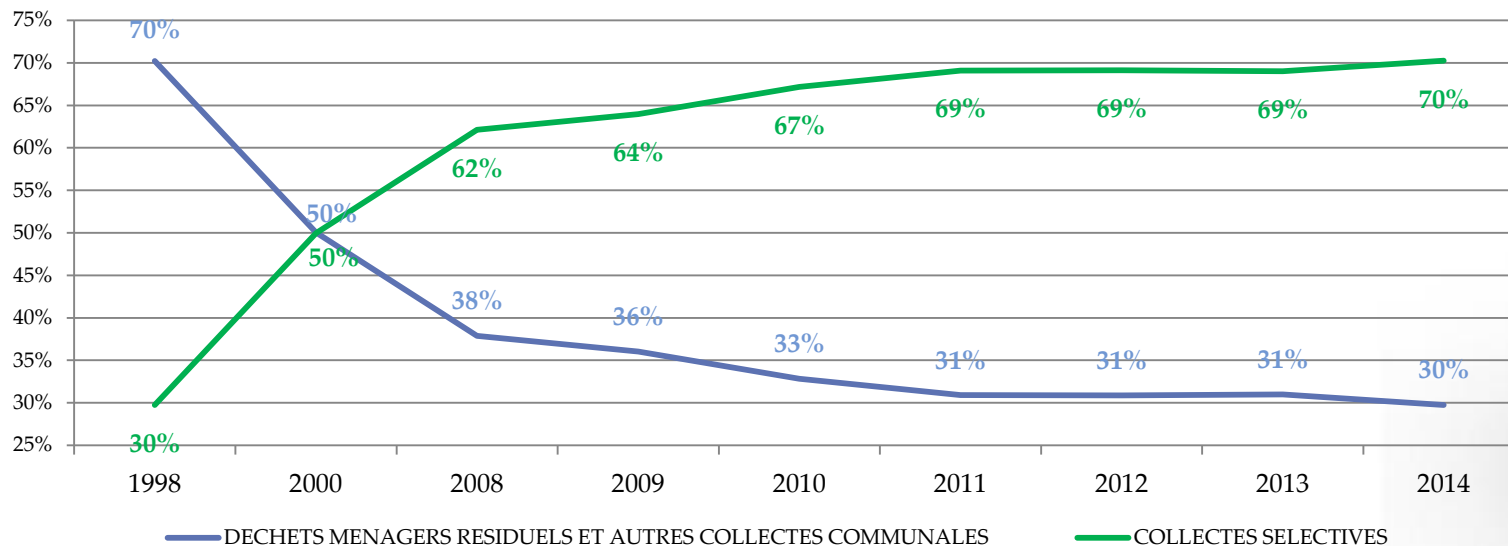
Synthesis



Synthesis

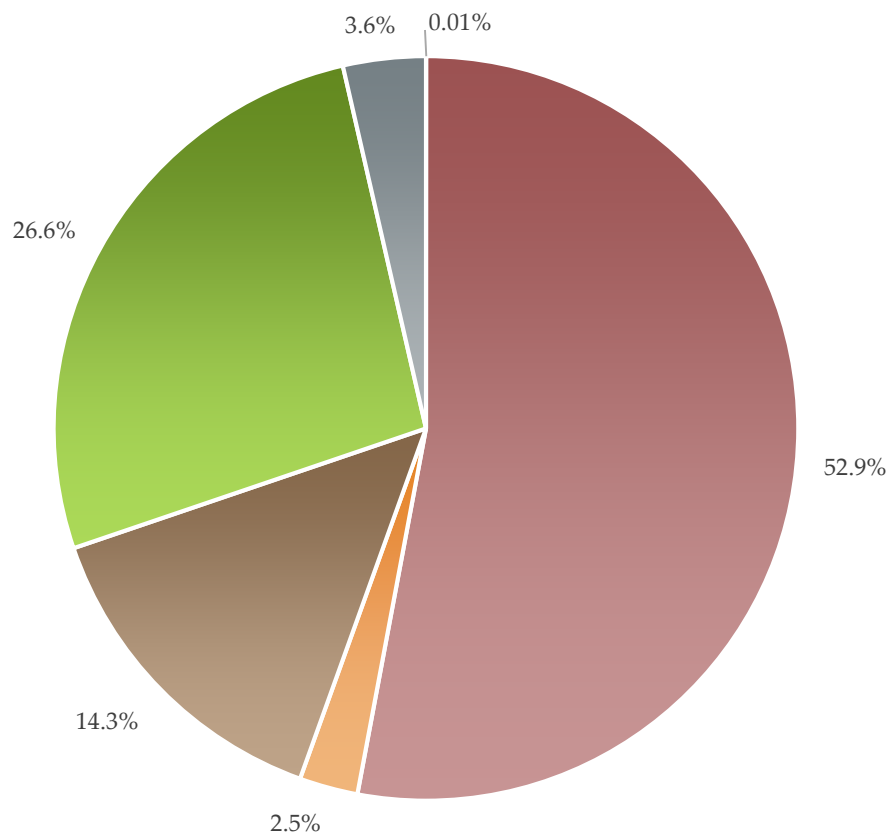
Collection development in tonnes

	2000	2009	2013	2014	D 2014-2013	D 2014-2013 %
RESIDUAL HOUSEHOLD WASTE	180,500	163,000	141,900	142,000	100	0%
OTHER TOWN COLLECTION	17,500	18,400	16,300	14,300	-2,000	-12%
SELECTIVE COLLECTION	197,700	322,200	352,200	368,900	16,700	5%
Civic amenity sites	124,300	222,900	237,000	253,900	16,900	7%
PMD, paper-cardboard and glass	68,400	89,100	88,500	87,700	-800	-1%
Organic waste	0	3,000	18,000	19,300	1,300	7%
Town's green waste	5,000	7,200	8,700	8,000	-700	-8%
TOTAL	395,700	503,600	510,400	525,200	14,800	3%



Synthesis

Intradel 2014

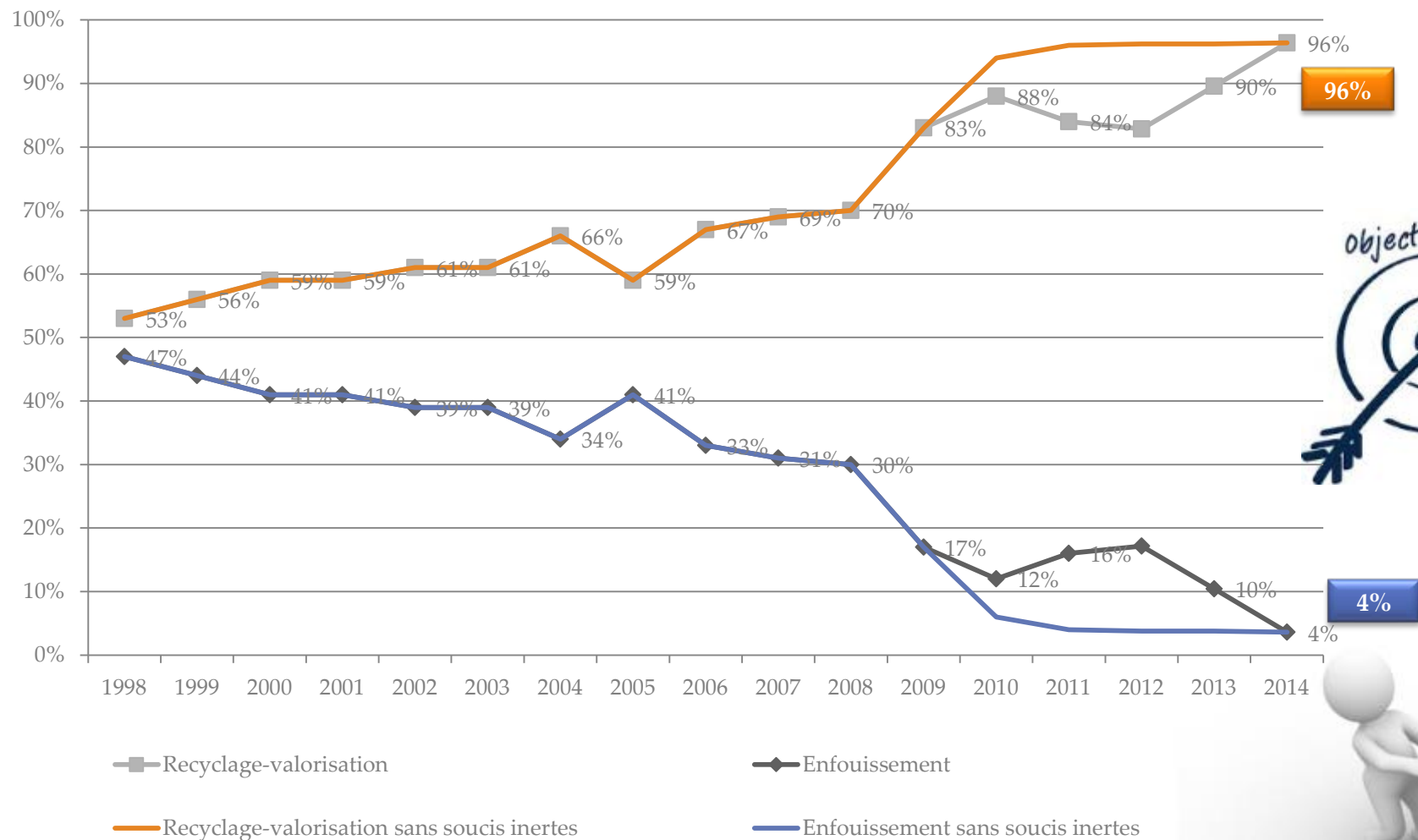


RECYCLING RATE : 70%

- Reuse
- Recycling
- Biomass production
- Composting
- Energy Recovery
- Landfilling

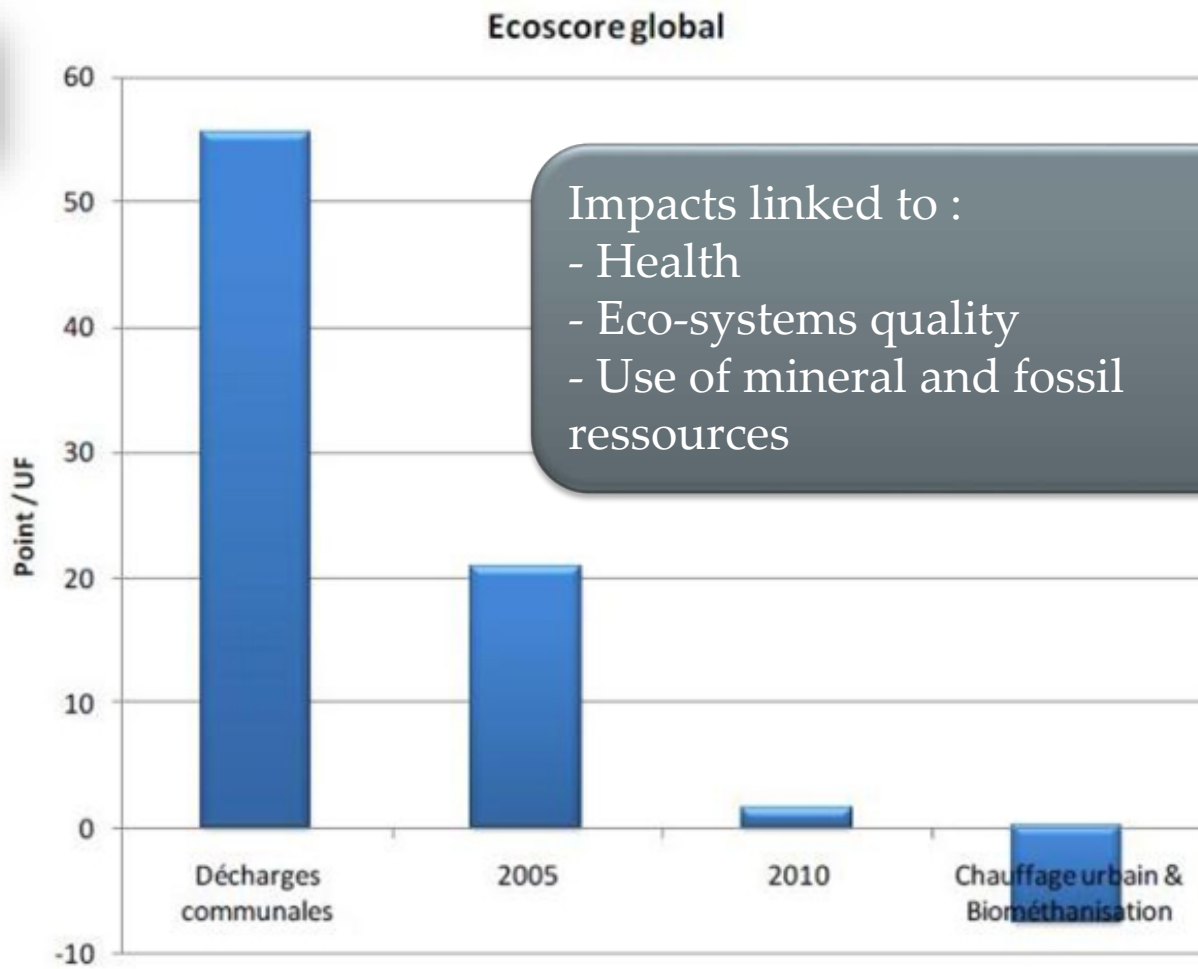


Recycling-recovery rates



ENVIRONMENTAL IMPACT

« LIFE CYCLE ANALYSIS »



« True cost »

	P.R.	Subsidies	Take-back obligation	To be funded
Prevention and communication	1.18 €	0.82 €	- €	0.36 €
Recyparcs	20.26 €	3.99 €	0.88 €	15.39 €
Collection	30.75 €	1.08 €	8.51 €	21.16 €
Residual and organic household waste	21.69 €	1.06 €	- €	20.63 €
PMD	3.39 €	- €	3.39 €	- €
Paper/cardboard	3.24 €	0.02 €	3.22 €	- €
Glass	1.90 €	- €	1.90 €	- €
Bulky waste, Christmas trees,...	0.53 €	- €	- €	0.53 €
Processing	16.60 €	3.38 €	- €	13.22 €
Energy recovery	13.05 €	3.18 €	- €	9.88 €
Biomethanisation	3.19 €	0.20 €	- €	2.99 €
Composting	0.36 €	- €	- €	0.36 €
Structure costs	4.30 €	0.05 €	- €	4.25 €
TOTAL	73.08 €	9.32 €	9.39 €	54.37 €





For 1€
per
inhabitant
per week





Around 500 direct jobs in the region



ENERGYWALL



recyliège s.a.





Des femmes et des hommes
à votre service pour notre environnement !