



# BSM, HL and Ecoliane Pilot Investment



# Presentation Outline

- What is Ecoliane
- Ecoliane in a few numbers
- What we have been working on: Extension
- Q/R



## Creation of ECOLIANE

### BSM City Council reflexion (2008)

- reduce carbon emissions
- provide inhabitants the most virtuous energy
- more competitive price



**Public Call Offer on  
PSD model**  
(Public Delegation Scheme)

### Creation of Ecoliane in 2011

The only legally authorized company to work on the DHC project in a dedicated area of 2 geographical part (Chemin Vert and Liane) for 25 years (2026).



**Studies and  
Construction** 

**2014:** Inauguration of Liane Heatnet

**2016:** Inauguration of Chemin Vert Heatnet

# Interreg

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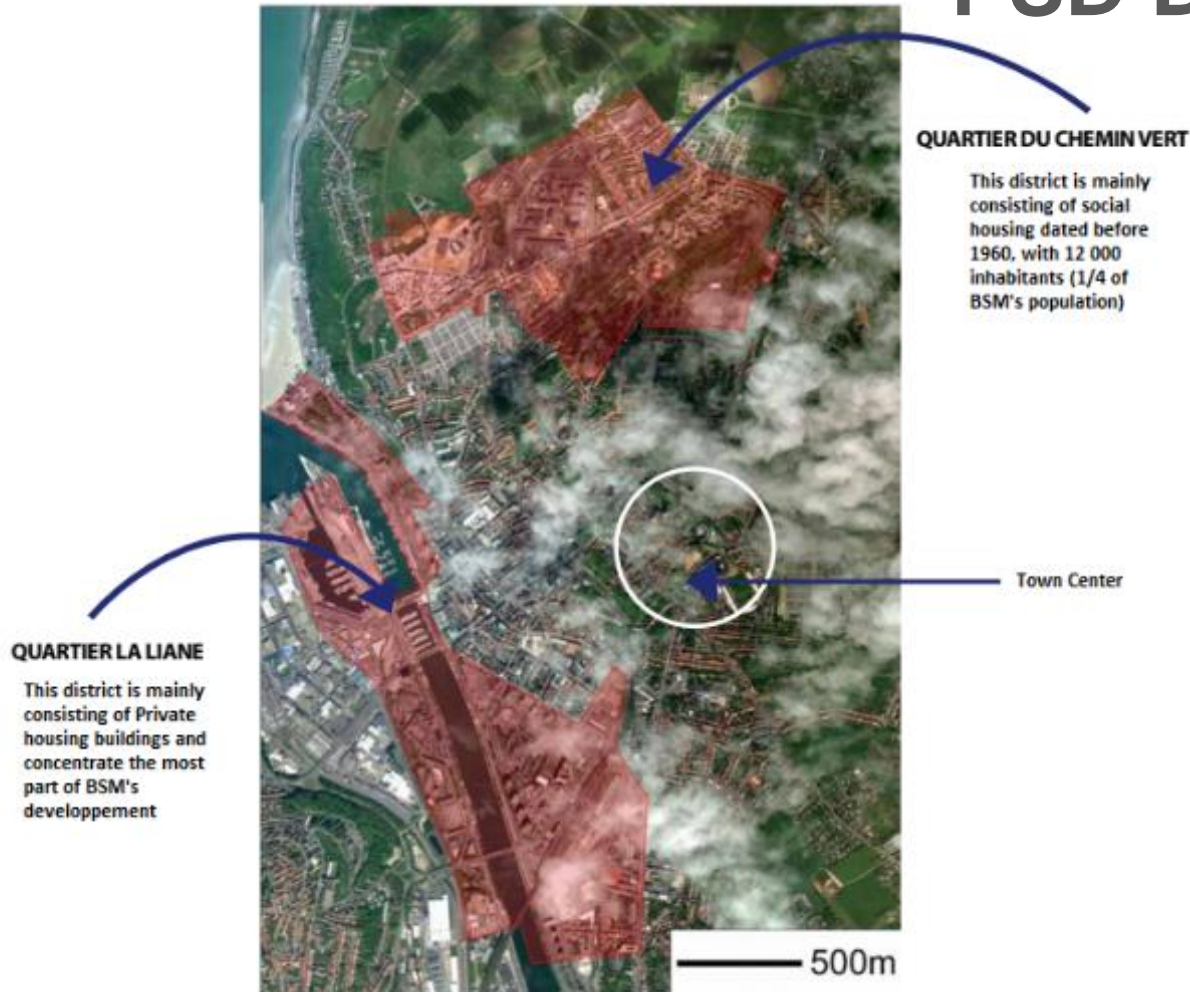
## North-West Europe

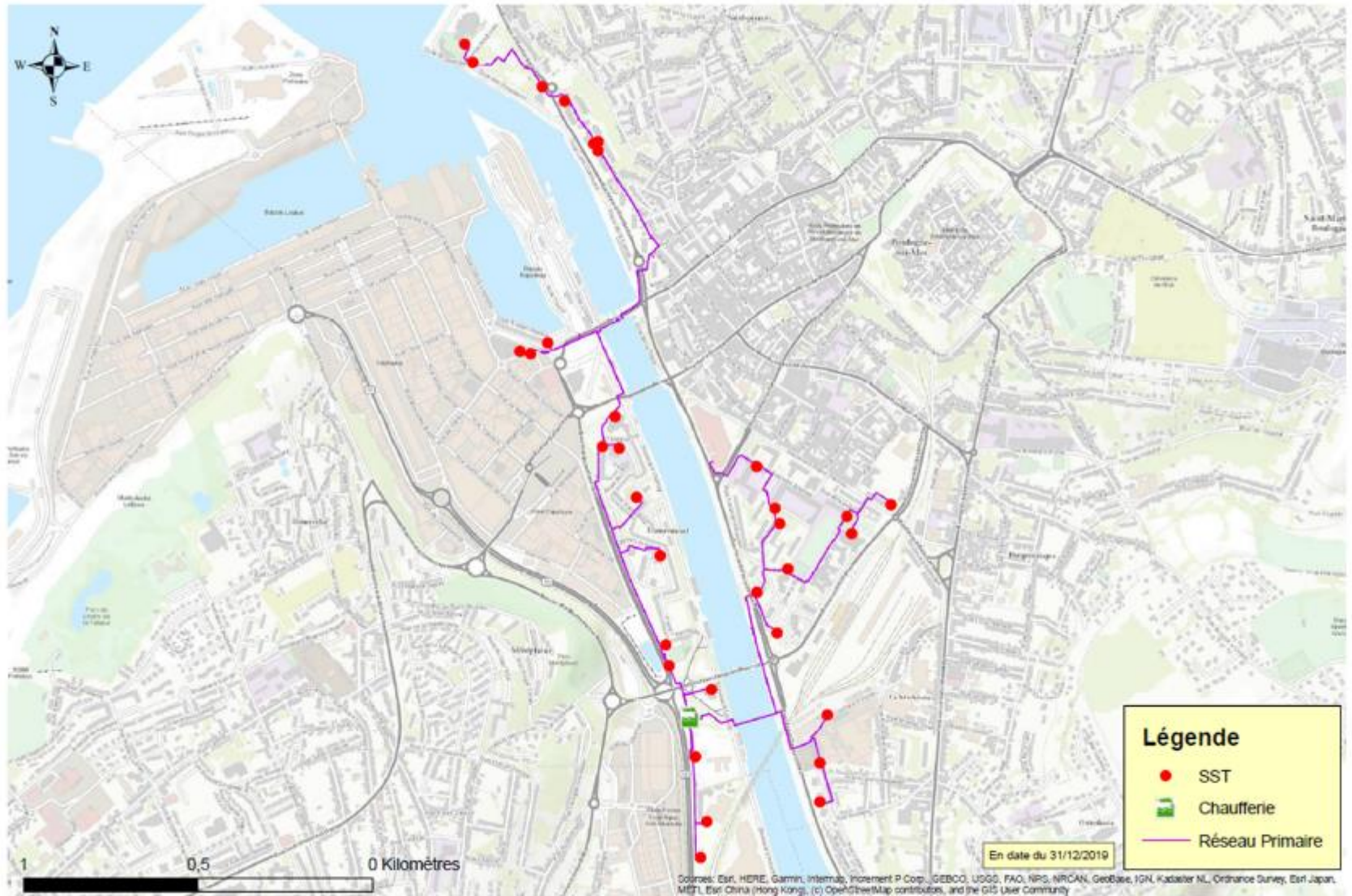
### HeatNet NWE

European Regional Development Fund



## PSD Dedicated Area

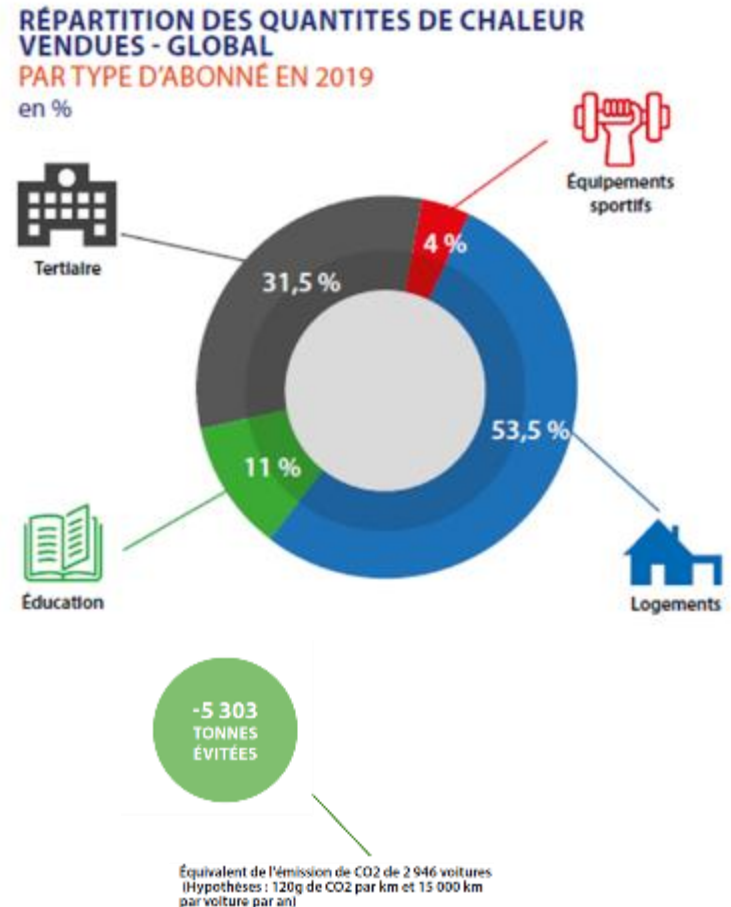






# ECOLIANE in a few numbers

- 17,3 M€ of works initial investment
- 2 gaz boilers (10MW + 12 MW)
- 1 Cogeneration (1 MW)
- Wood Boiler (4 MW)
- 3 Heat Pumps (3\*750KW)
- 12 Km of pipes
- 75 subscribers (Equivalent of 3816 housing)



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## North-West Europe

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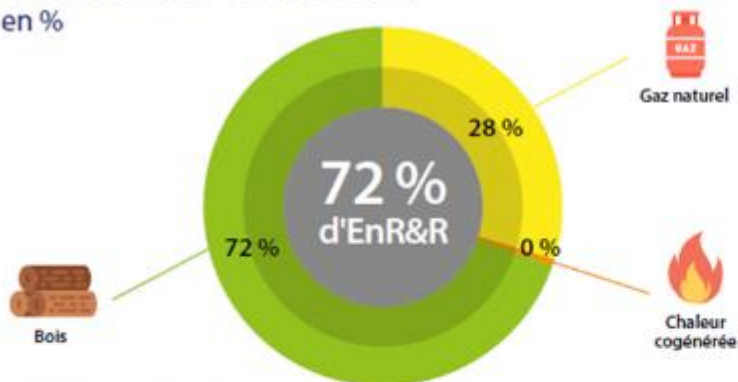
European Regional Development Fund



QUANTITÉ DE CHALEUR DISTRIBUÉE AUX ABONNÉS  
EN 2019  
en MWh

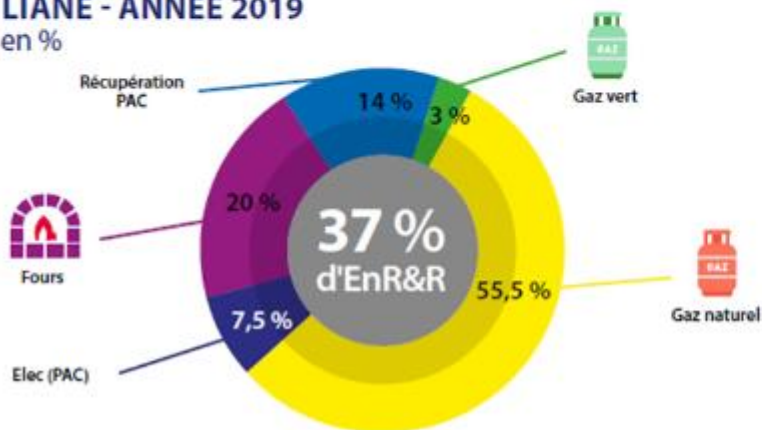
#### CHEMIN VERT - ANNÉE 2019

en %



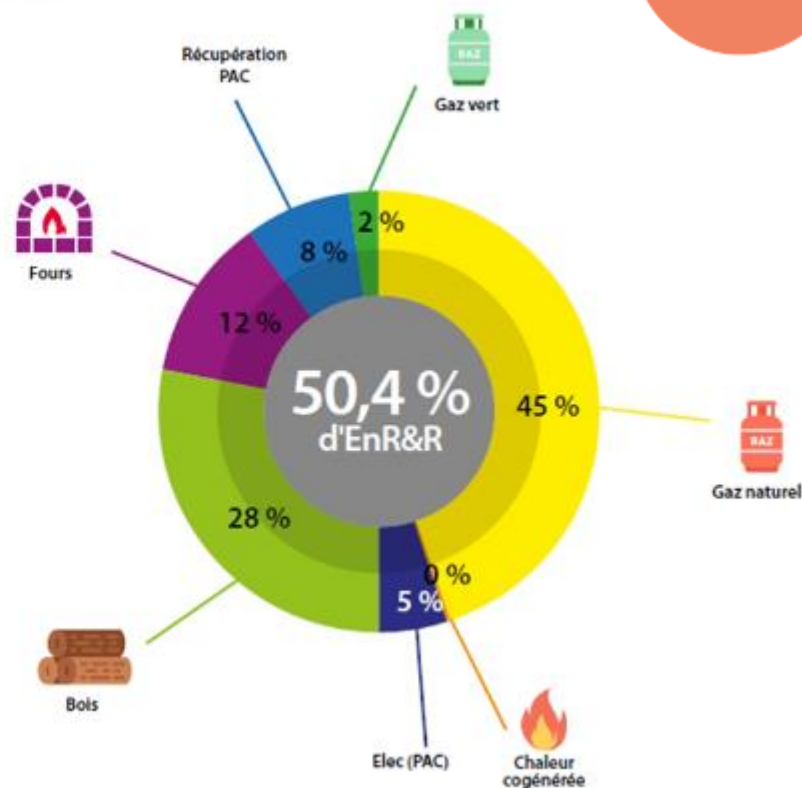
#### LIANE - ANNÉE 2019

en %



#### MIXITÉ ÉNERGÉTIQUE GLOBALE

en %



CUMUL GÉNÉRAL  
**40 068**  
MWh

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## North-West Europe

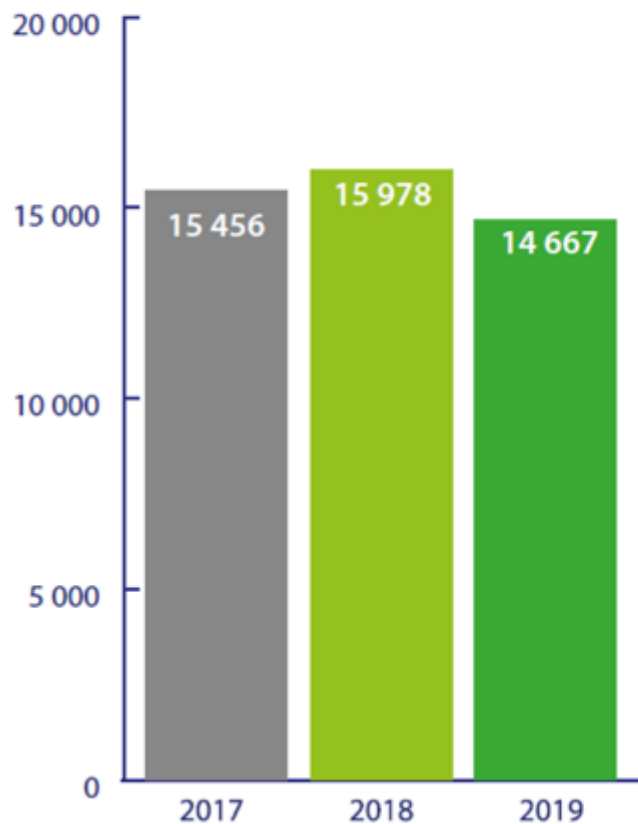
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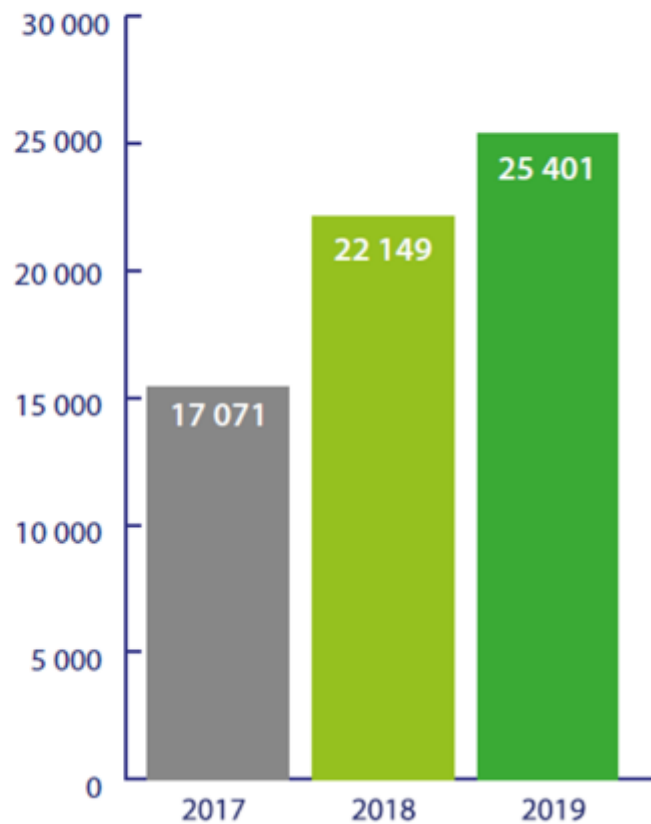
#### CHALEUR DISTRIBUÉE - CHEMIN VERT

EN 2019  
en MWhut



#### CHALEUR DISTRIBUÉE - LIANE

EN 2019  
en MWhut

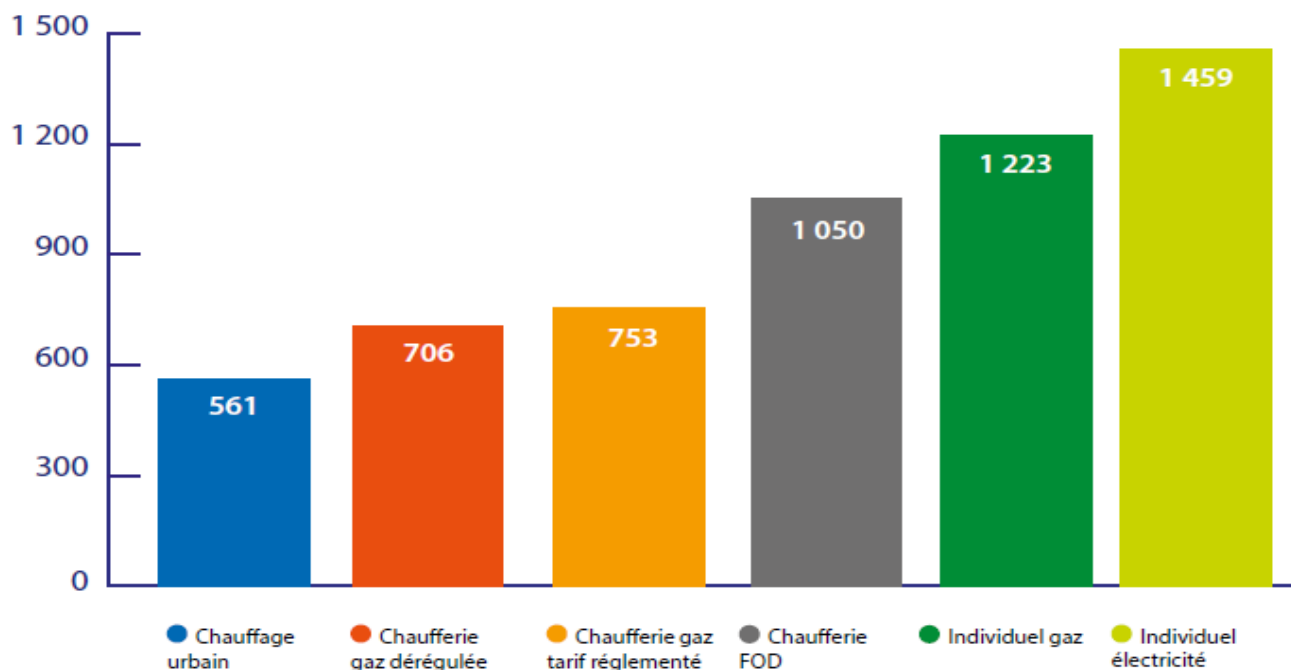






## Heating Costs comparaison for a 65m<sup>2</sup> housing

**COÛT DE REVIENT DU CHAUFFAGE POUR UN LOGEMENT SELON LES ÉNERGIES UTILISÉES**  
**PAR LOGEMENT**  
en € T.T.C.

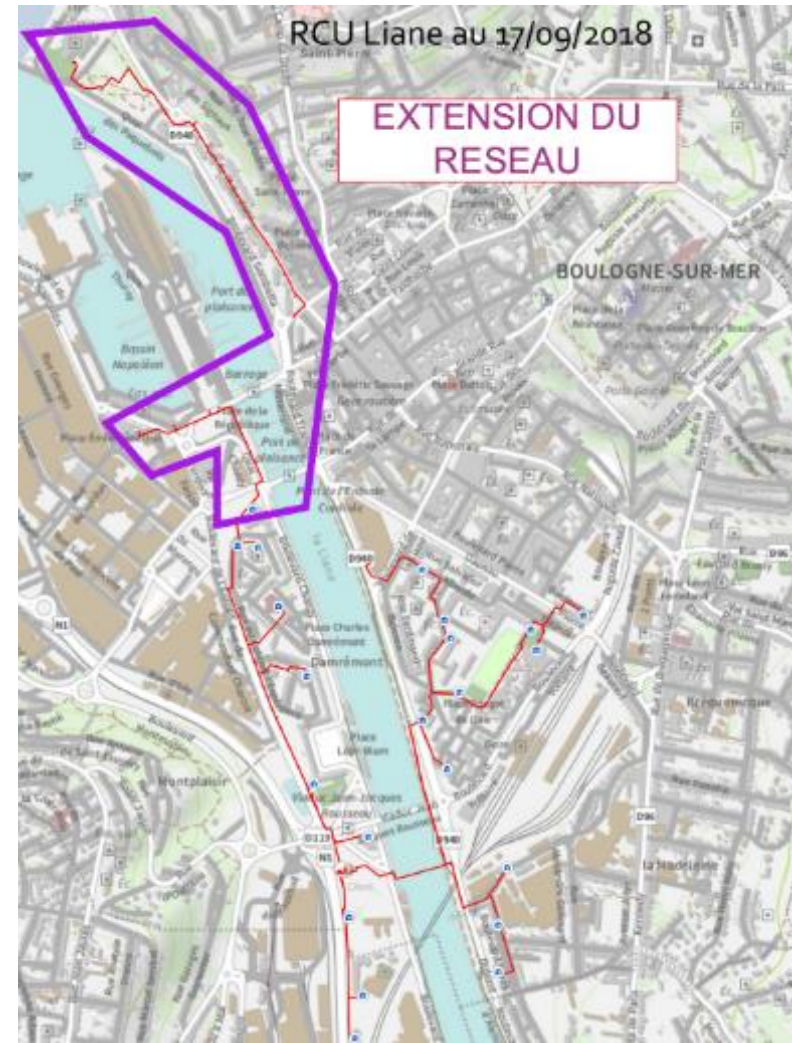




# Part of BSM's HeatNet subvention research

In order to develop the existing Heatnet, BSM and Ecoliane decided in 2016 to extend this one:

- To increase the densification to reach more customers
- To follow the evolution of the city (Creation of new buildings areas, ...)
- To move the heatnet production to a greener and more virtuous energy (Fatal Energy, Biomass rate ...)
- To compensate for the diminution of the current subscribers who are leading energy renovation on their equipments





## Providing solutions

The interest of this extension is that :

- We don't need to create other fossile providing solution,
- We 're going to install a heatpump in Nausicàa to recover a large part of fatal energy by the evaporation of aquariums
- We're going to increase the existing production rate of wood boiler which is not fully exploited (Terrao)
- We ameliorate the density of the network by using a large part of the existing pipes to join the new area



**An objectif of at least 67% of green energy at the end**



## Extension in a few numbers

- Approximately 30 potential subscribers identified,
- Only 2500 ml of pipes
- Augmentation of 30% of the power subscription
- Investment of 3 M€

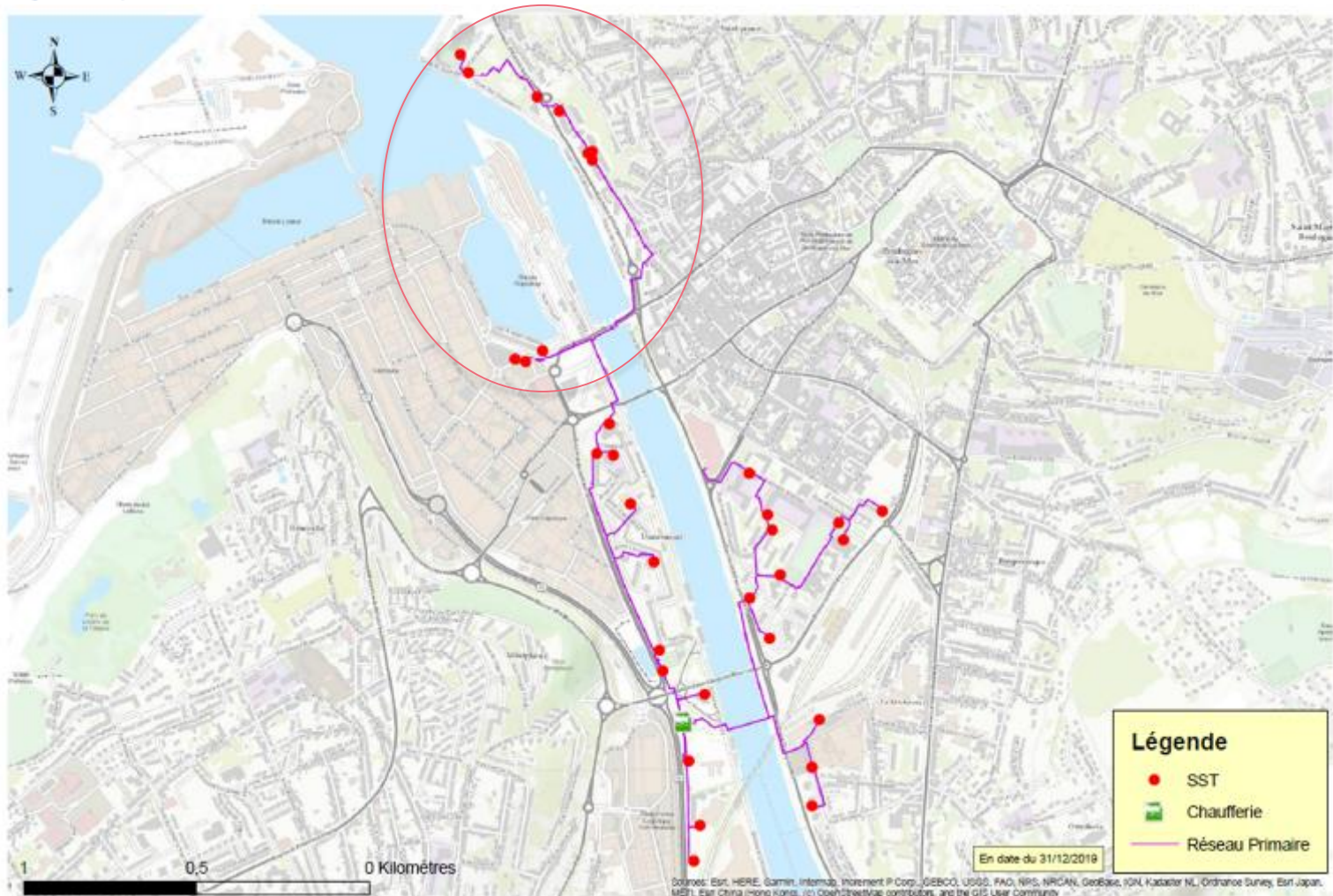
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## North-West Europe

### HeatNet NWE

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## North-West Europe

### HeatNet NWE

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Thank You for your attention





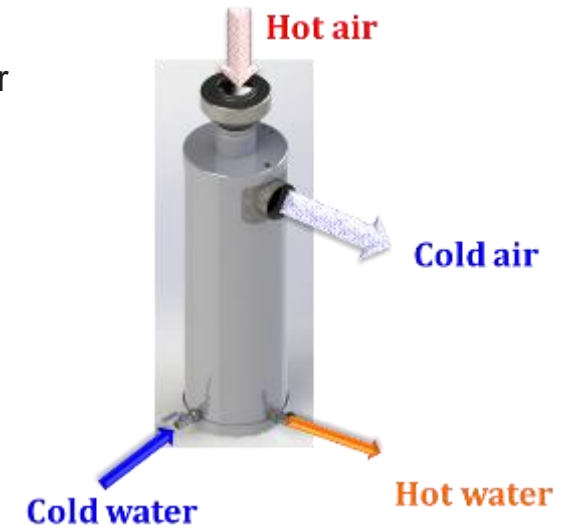
## Next Step *TERRAOTHERM*

- Direct air / water heat exchanger :

- The air mixes with the water circulating in the heat exchanger
- it "bubbles",
- Causing an instantaneous transfer of energy,
- Reach 100% of exchange.

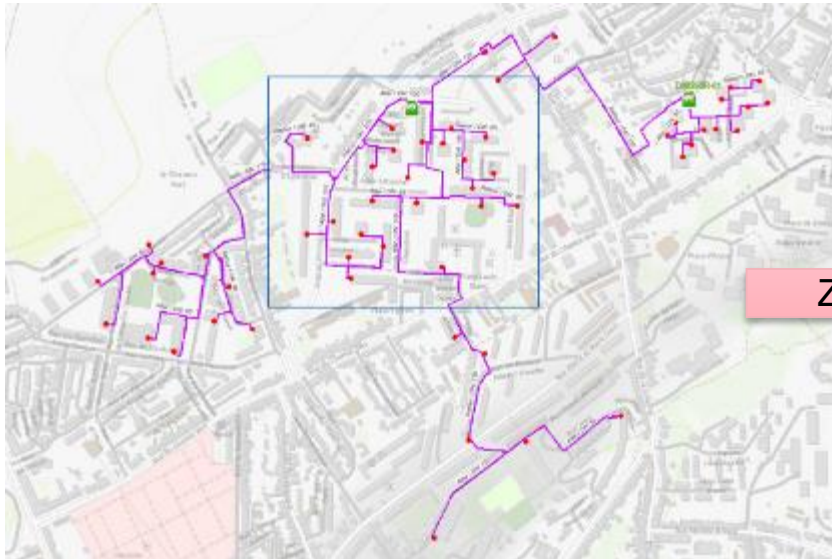
- Purpose :

- Use the fumes of biomass boiler in order to heat up water.
- This water is used in heating floors (low temperature network).
- In recovery on the fumes of biomass boilers, it boosts yields up to 88%.

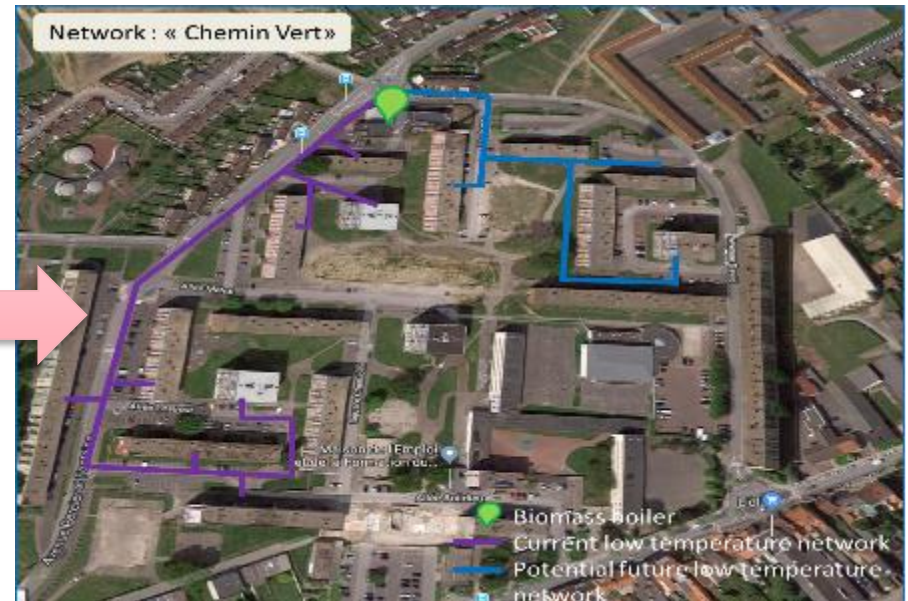




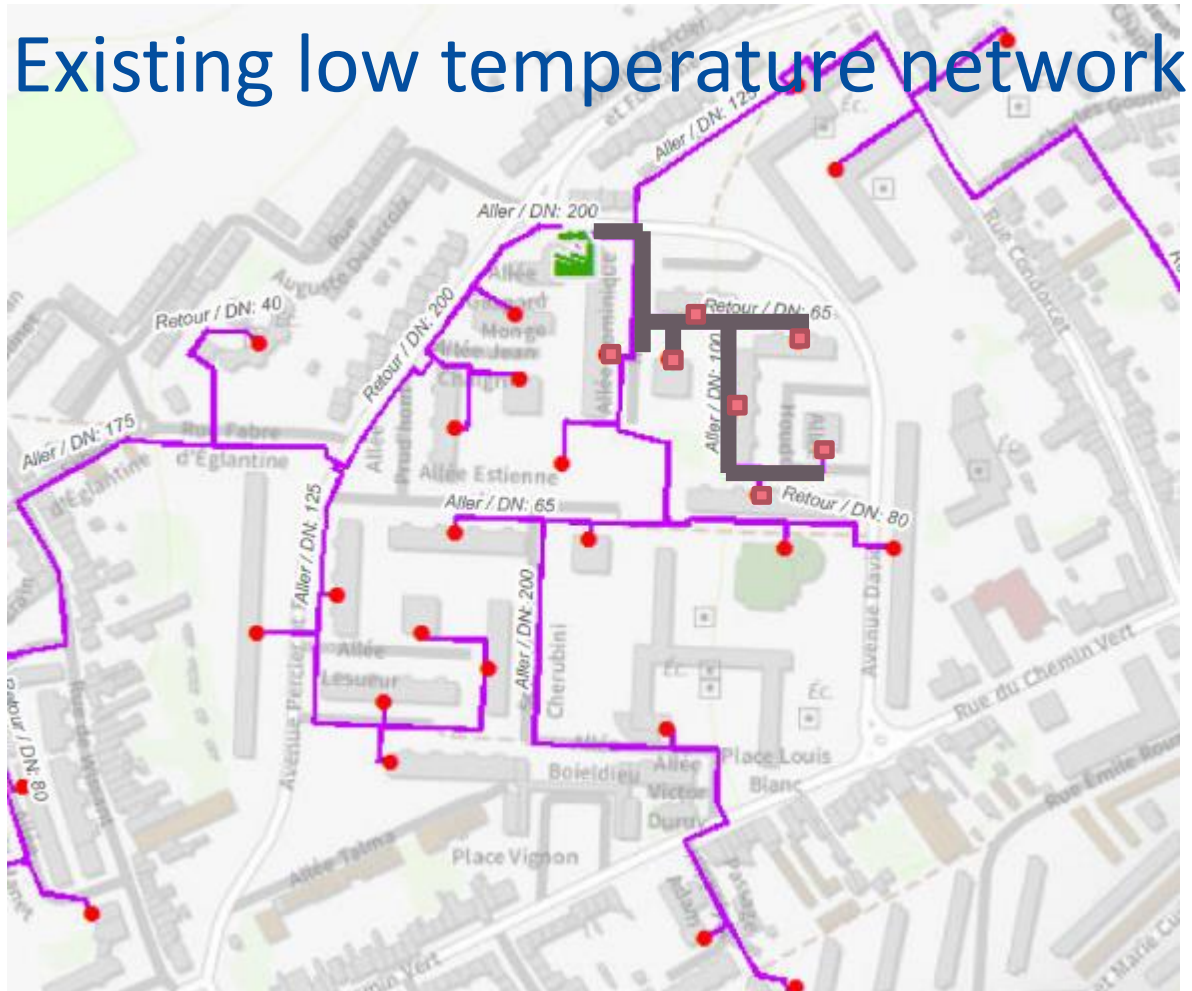
# Next Step *TERRAOTHERM*



Zoom







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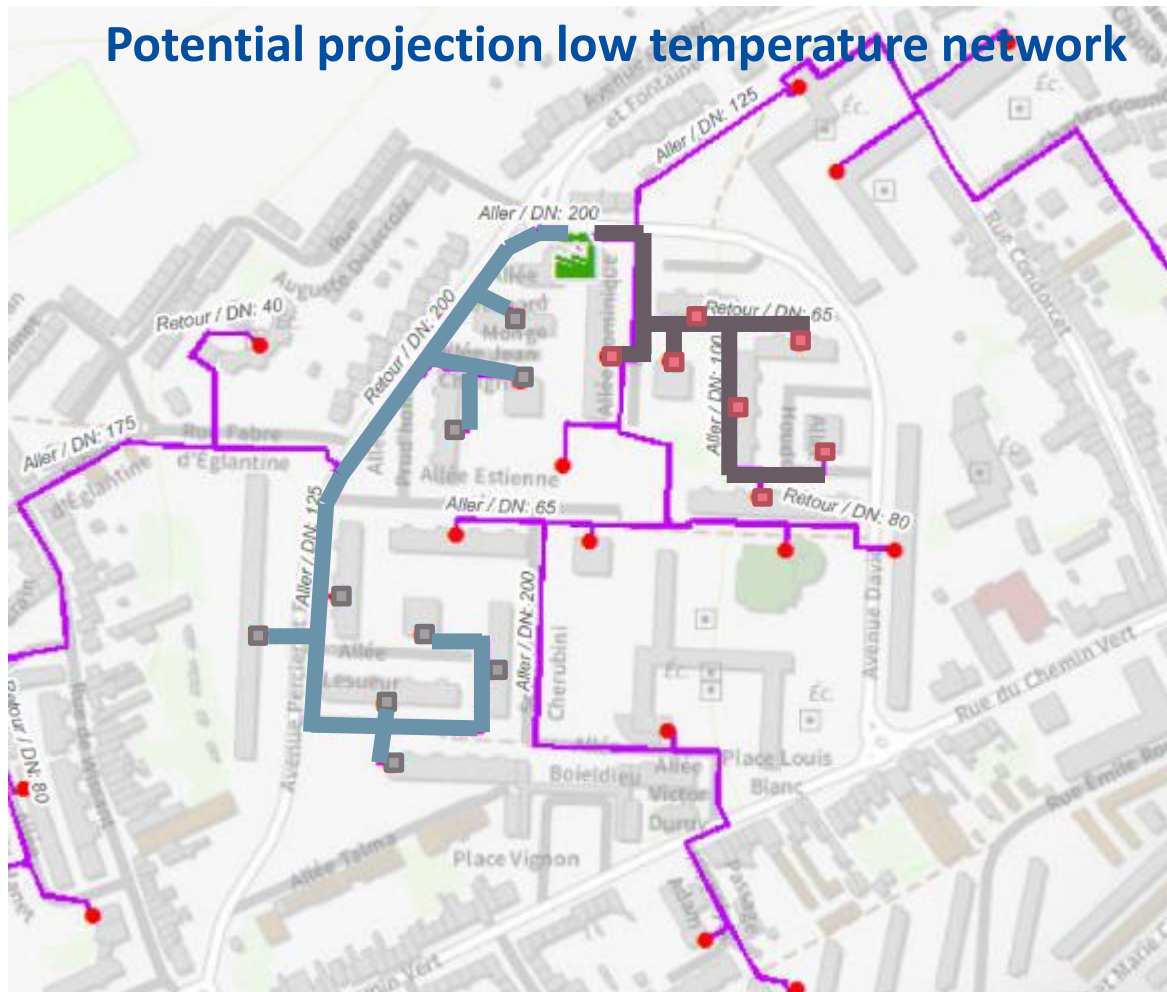
## North-West Europe

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### Potential projection low temperature network



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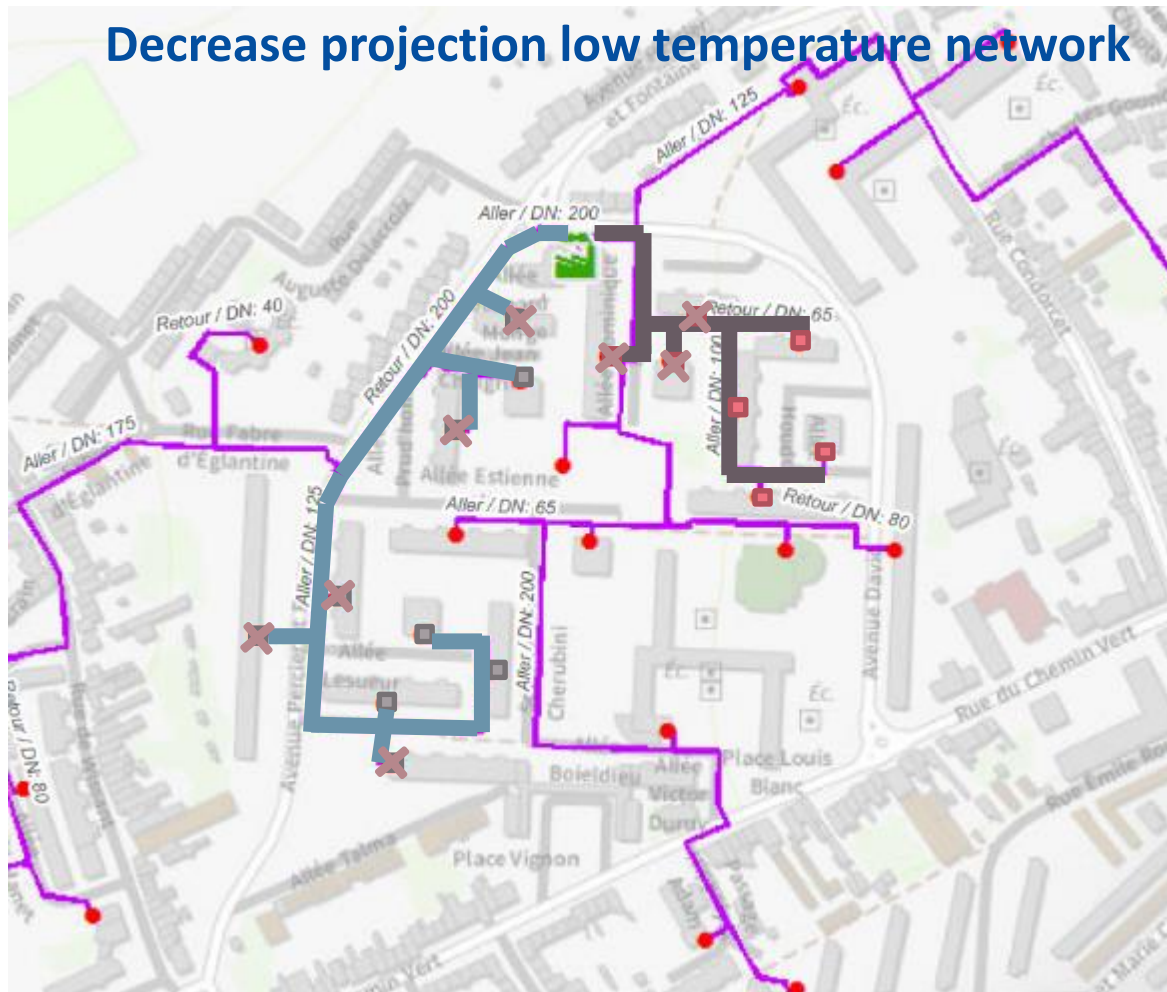
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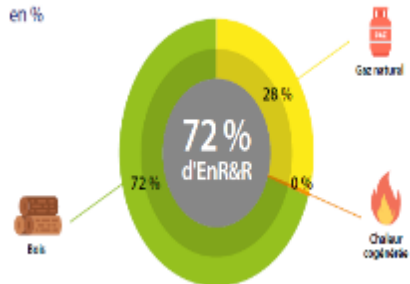
## Decrease projection low temperature network



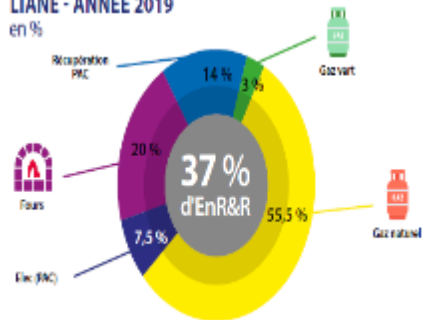


# Future vision

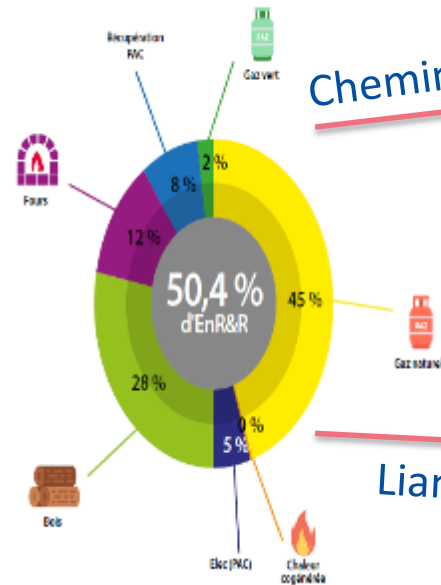
CHEMIN VERT - ANNÉE 2019  
en %



LIANE - ANNÉE 2019  
en %



MIXITÉ ÉNERGÉTIQUE GLOBALE  
en %



Chemin Vert Branch : 72%

Liane Branch : 37%





# Future vision

Decrease of Heat needs in CV:

	MWh	KW
Chemin vert Actuel	17439	10929
ANRU	-4328	-2286
Ext C .V ( St Pierre et Jean Macé)	1247	792
Chemin vert futur	14358	9435

Green Energy: 72%

Increase of Heat needs in Liane:

	MWh	KW
Liane Actuel	17 380,4	11 083,8
C.C Liane	1200	710
Ext Nausicaa	9263	5160
Ext République	1588	1205
Liane futur	29 431,4	18 158,8

Green Energy: 37%



# Future vision

*Interconnection between Lower and Upper Heatnet*

Enable Boulogne-sur-Mer to use the surplus heat of the biomass boiler to have a better energy mix on the extension of the “Liane” network.

