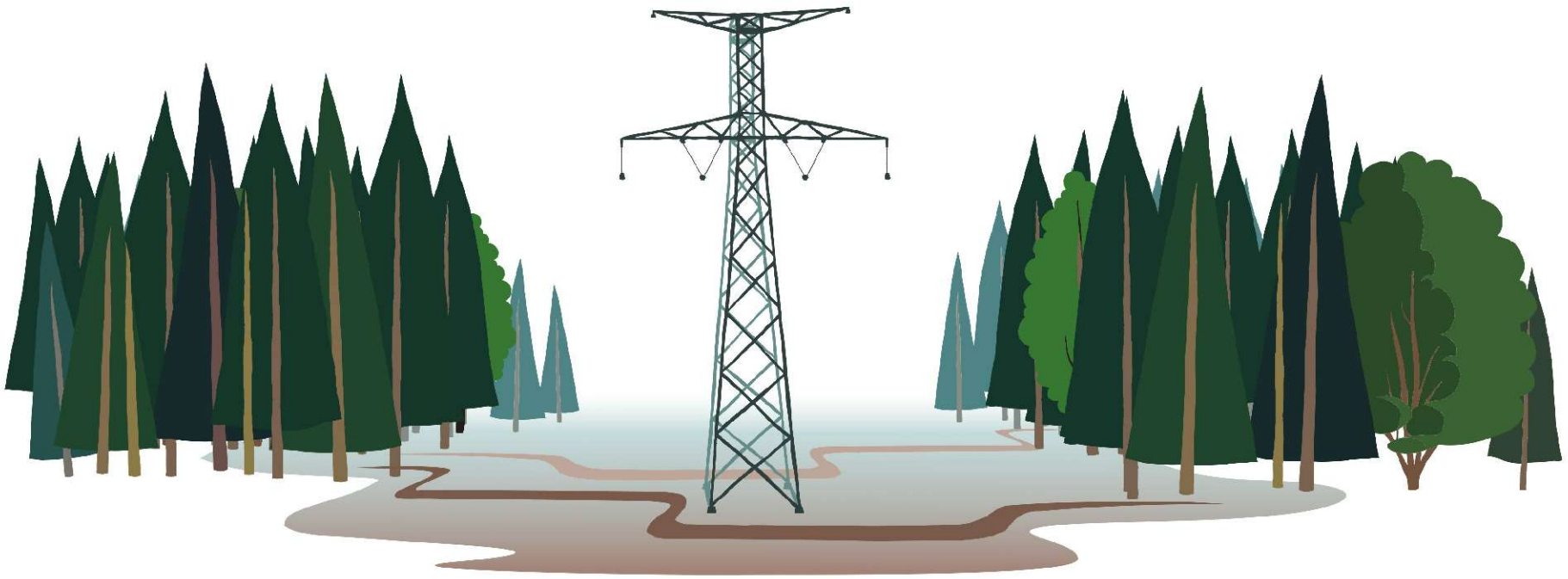
Session 1.11 - Side event

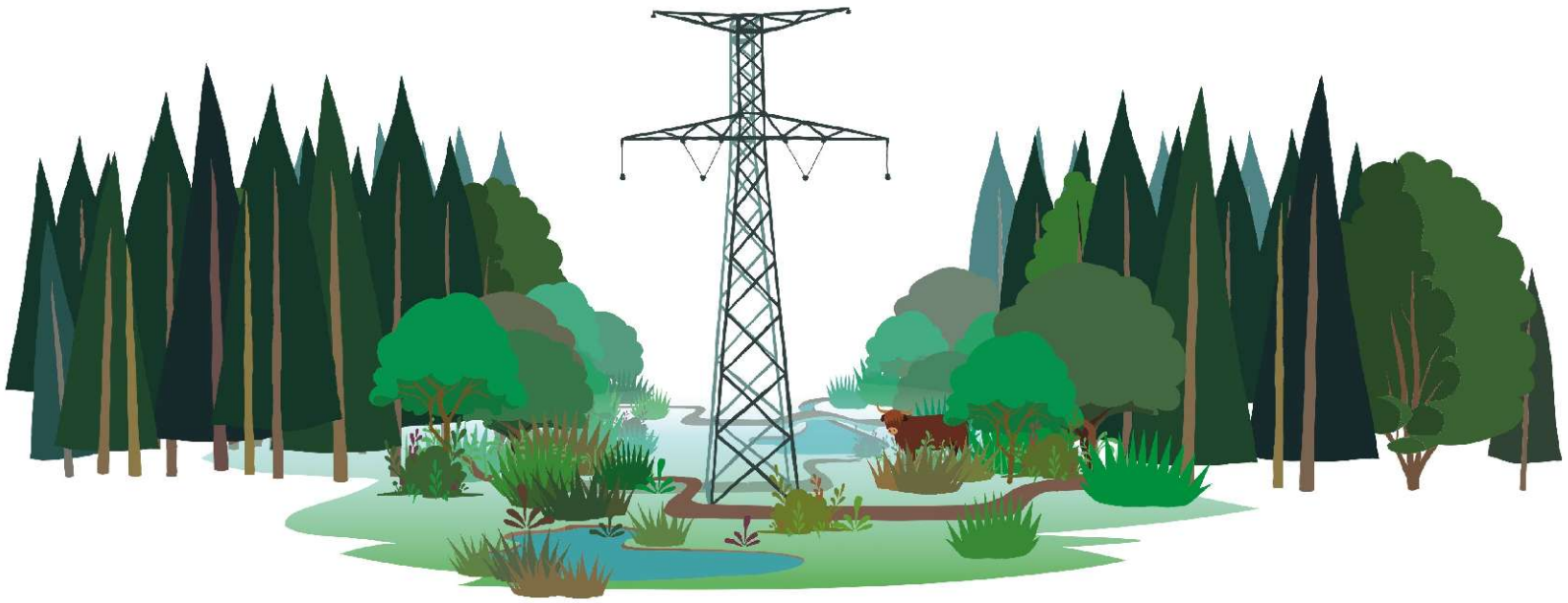
Renaturation under High voltage line

Jean-François Godeau and Simon de Voghel,
LIFE Elia-RTE (Belgium-France)

The context



The LIFE Elia-RTE project



7 different actions
local environment
socio-economic opportunities

The LIFE Elia-RTE project

LIFE +: EU program for biodiversity/nature

* funding innovative projects
* European dimension
* in and out Natura 2000

3.000.000 €

* EU - *38 %*
* Walloon Region - *27 %*
* Elia - *22 %*
* RTE - *13 %*

Avec le soutien de la Wallonie

life elia

team : 7 (5,5 FTE)

duration : 6,5 years (->dec 2017)

28 sites in **Belgium** (155 km)

7 sites in **France**

7 actions on site for biodiversity

7 actions on site for biodiversity

7 actions on site for biodiversity

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Tale I :

Restoring Natura 2000 habitats under overhead high-tension lines : example of peatlands, heathlands and calcareous grasslands restoration in Belgium and France

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One action out of the 7 implemented in LIFE Elia-RTE

Characteristics:

- High biological diversity but disappearing habitats (changes in agropastoral practices)
- Grasses-dominated habitats with low-heigth vegetation (= goal of the TSO)
- Restore these habitats inside and outside of NATURA2000

4010: Northern Atlantic wet heaths with *Erica tetralix* (↔ *7100)*
4030: European dry heaths
6210: Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*)
7100: Sphagnum acid bogs

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Heathlands – EUR-15 : 4030

\+ : good accessibility, visually attractive

\- : not a lot of species but highly specialized

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Soil scraping to allow a new heathland to developp

Good regrowth from the seed bank and preserved patches

Threat : grasses & fern colonization, “easily” controled with repeated mowing

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Peatbogs – EUR-15 : 7100

+ : slow vegetation dynamics, high biological diversity

- : wet and unstable terrain, VERY sensitive !

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Result of classical “management”

Calcareous grasslands – EUR-15 : 6210

\+ : high biological diversity when free of tree/shrubs

\- : sometimes on (heavy) slopes or rocky ground; fast growing vegetation => grazing is a good solution

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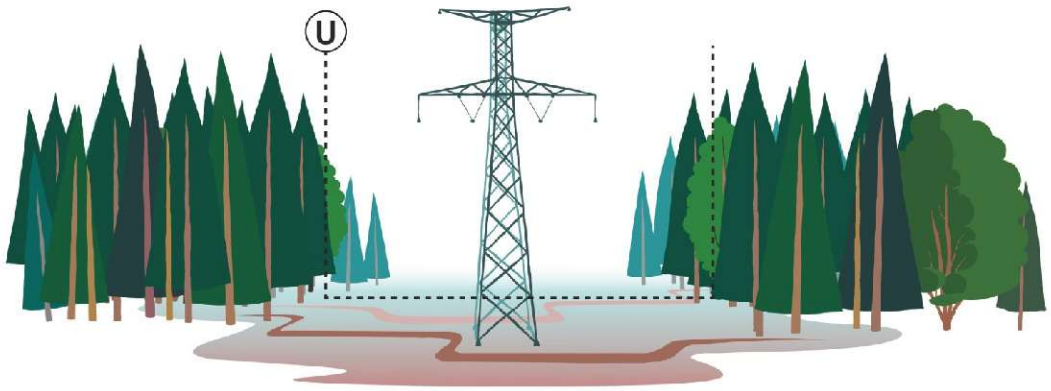
Tale II :

Developing natural forest edges in electrical corridors to ensure electrical safety and to enhance biodiversity in wooded areas

"U" versus "V" shape of the corridors



LIFE Elia-RTE - Renaturation under High voltage line

"U" versus "V" shape of the corridors

Goal: restore/plant 210 ha of structurated forest edges in Belgium

U

V

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Restoration of egde

Favourable conditions already present

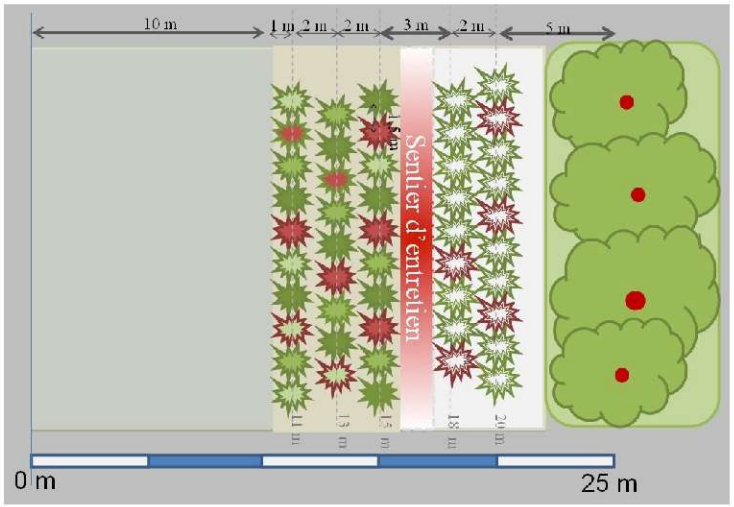
Avant
Après

LIFE Elia-RTE - Renaturation under High voltage line

Planting forest edges from a naked soil

Dense lines

Management plan on a mid/long time scale



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Tale III :

Using electrical grid to increase the connectivity of protected natural areas

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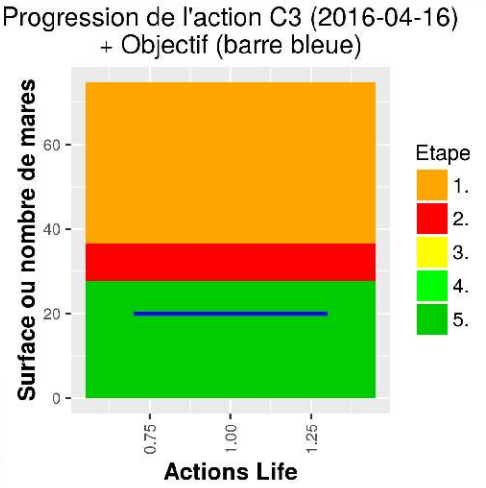
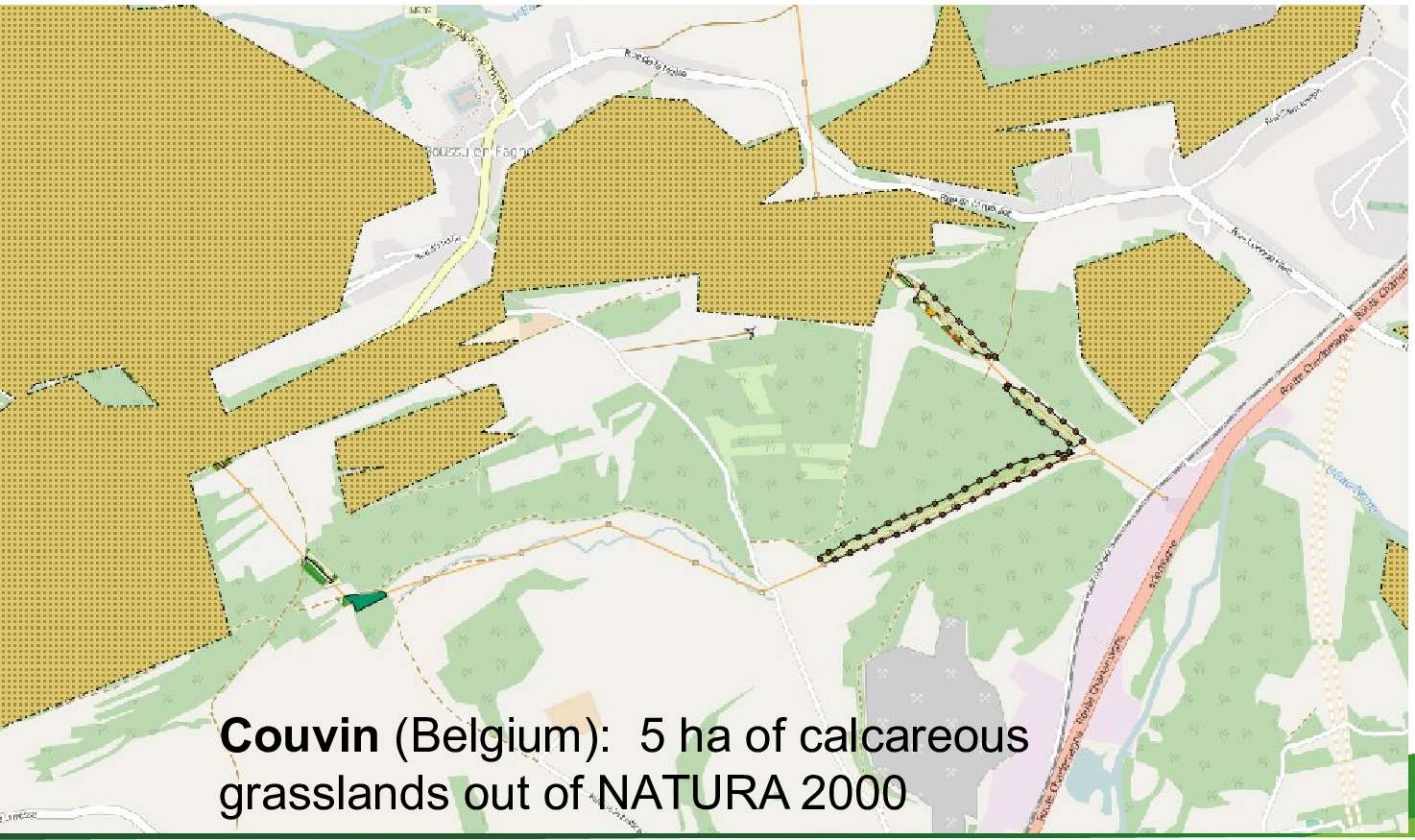
"Action C3" of LIFE: habitats of communautary interest

We already managed and/ restored ca. 27 ha





Couvin (Belgium): 5 ha of calcareous grasslands out of NATURA 2000

Increase the value of NATURA 2000 network !

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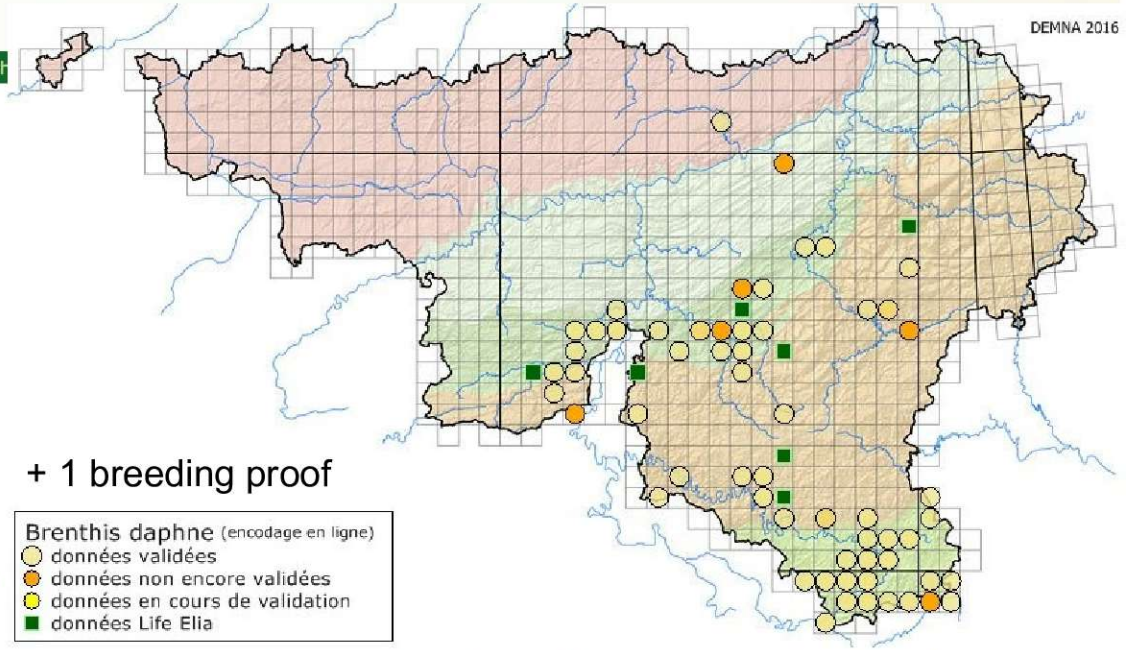
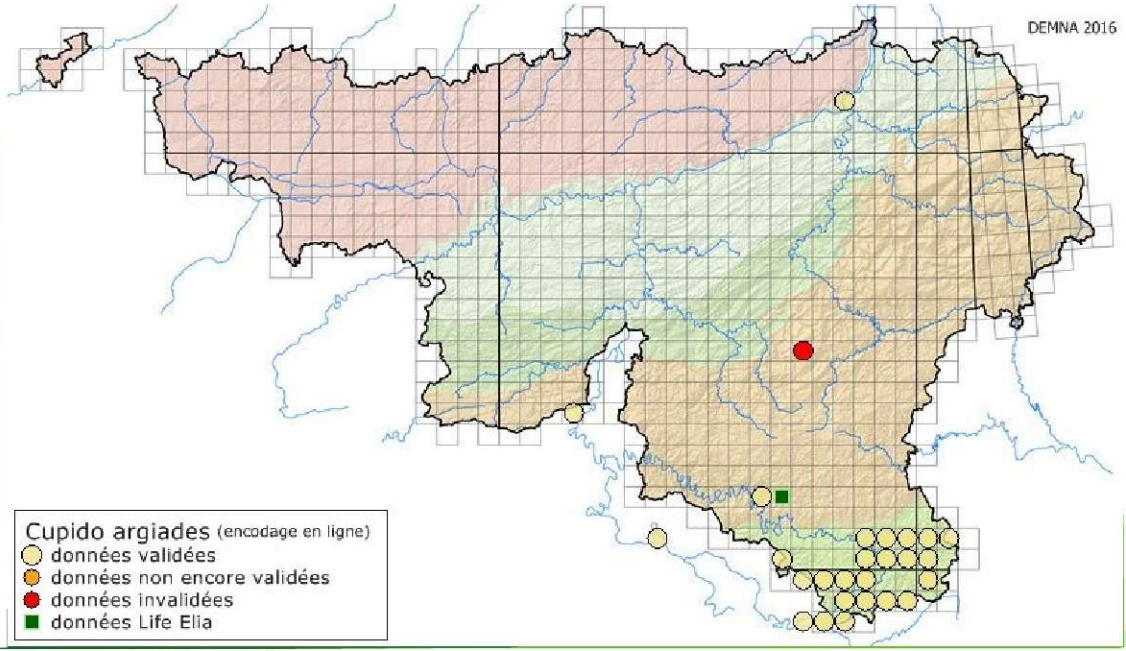
Absent from Wallonia 5 years ago

Brenthis daphne and *Cupido argiades* were observed in “LIFE” forest corridors

Source: DEMNA
http://observatoire.biodiversite.wallonie.be/encodage/





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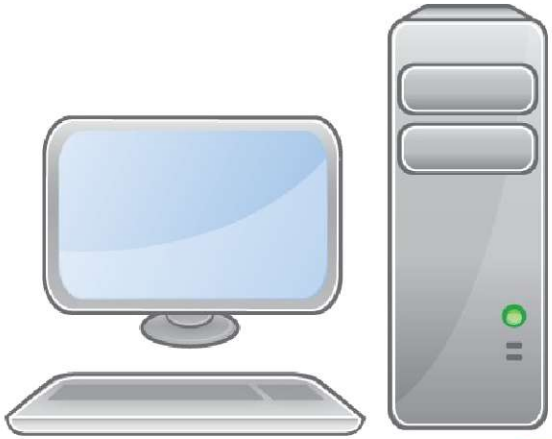
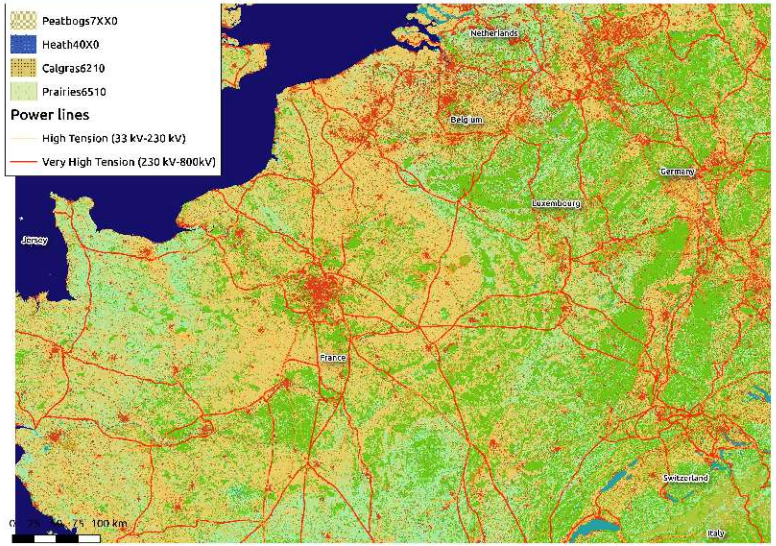
Let's scale up to European level

LIFE Elia-RTE implemented ca. 170 km of forest corridors.
An automated GIS process to identify forest corridors in hard to develop!

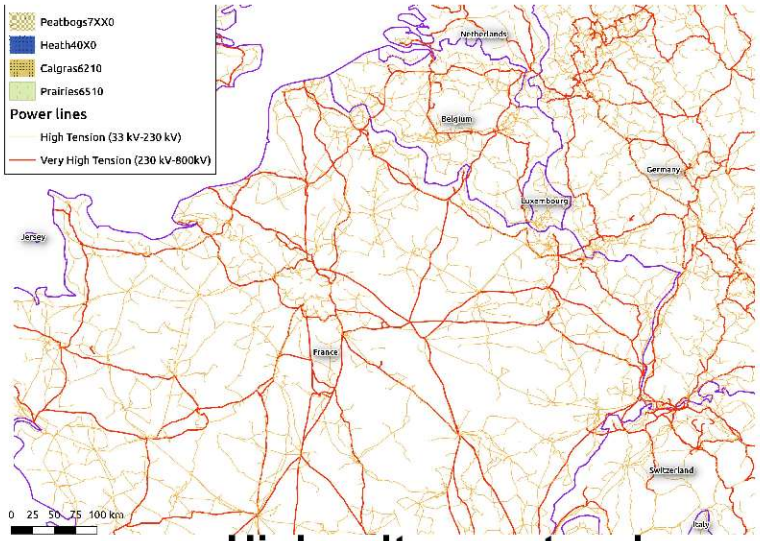
Some approximations are feasible using public/open datasets:
- **Ecosystem types** (raster 100m) and **NATURA 2000** sites from European Environment Agency (EEA)
Directlinks : http://www.eea.europa.eu/data-and-maps/data/ecosystem-types-of-europe
and http://www.eea.europa.eu/data-and-maps/data/natura-1
- **High voltage network** from Open Street Map downloaded with QuickOSM plugin of QGIS



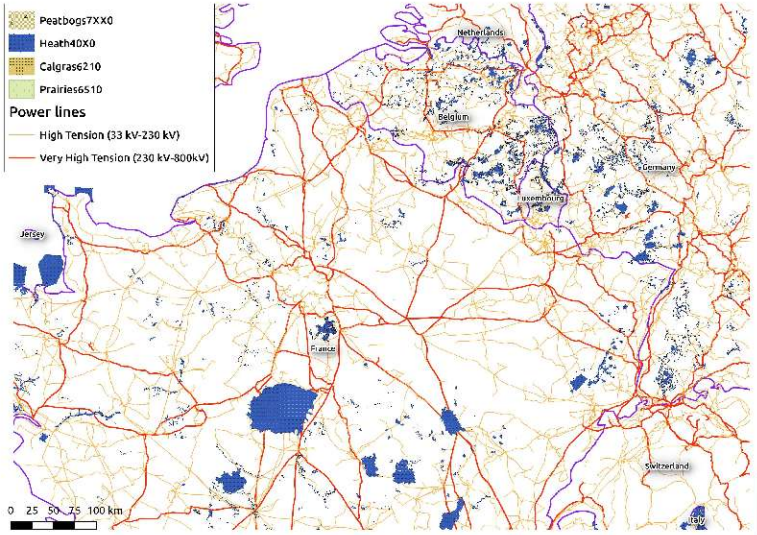
LIFE Elia-RTE - Renaturation under High voltage line



Ecosystem types



High voltage network



NATURA 2000 sites

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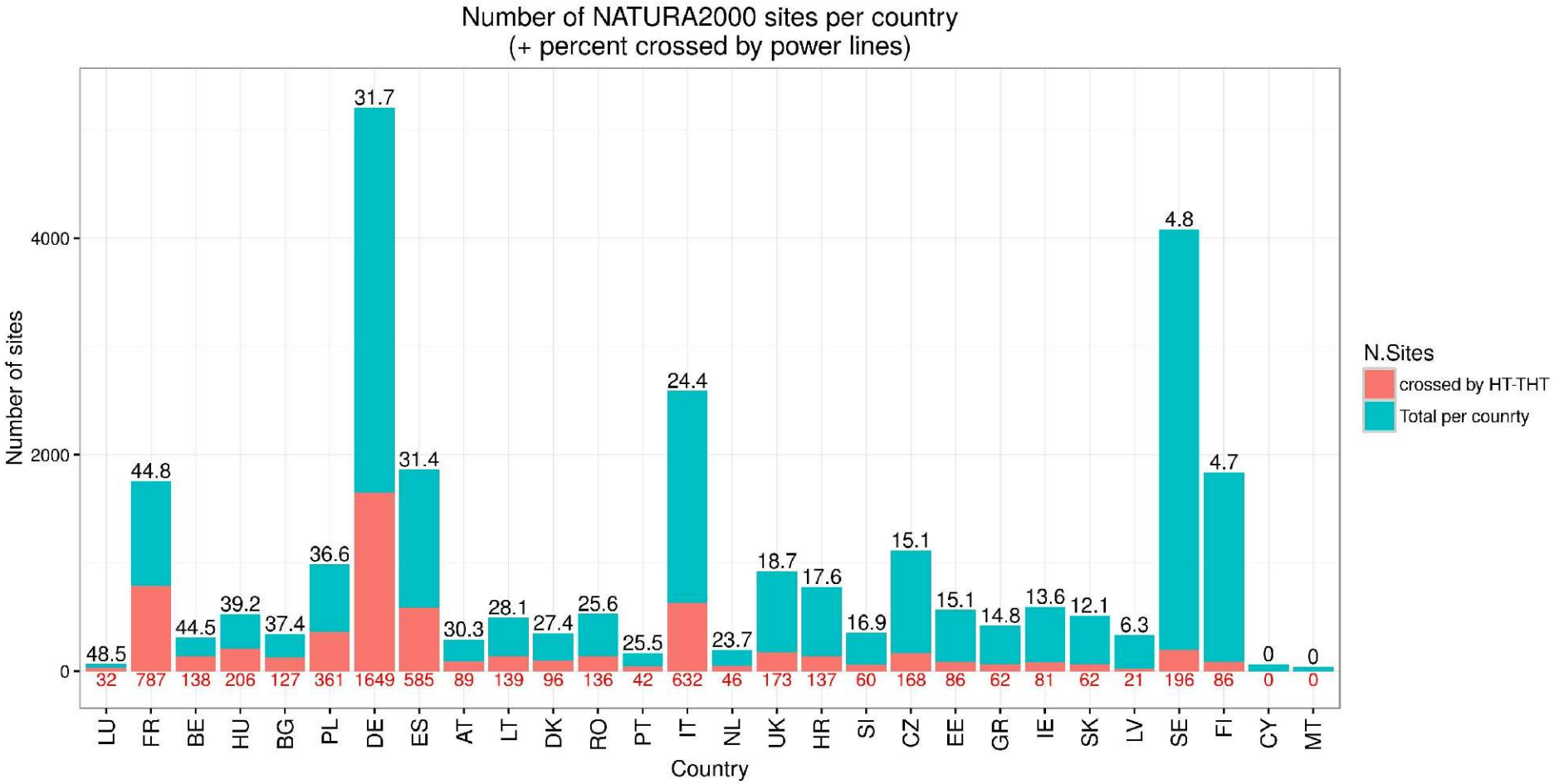

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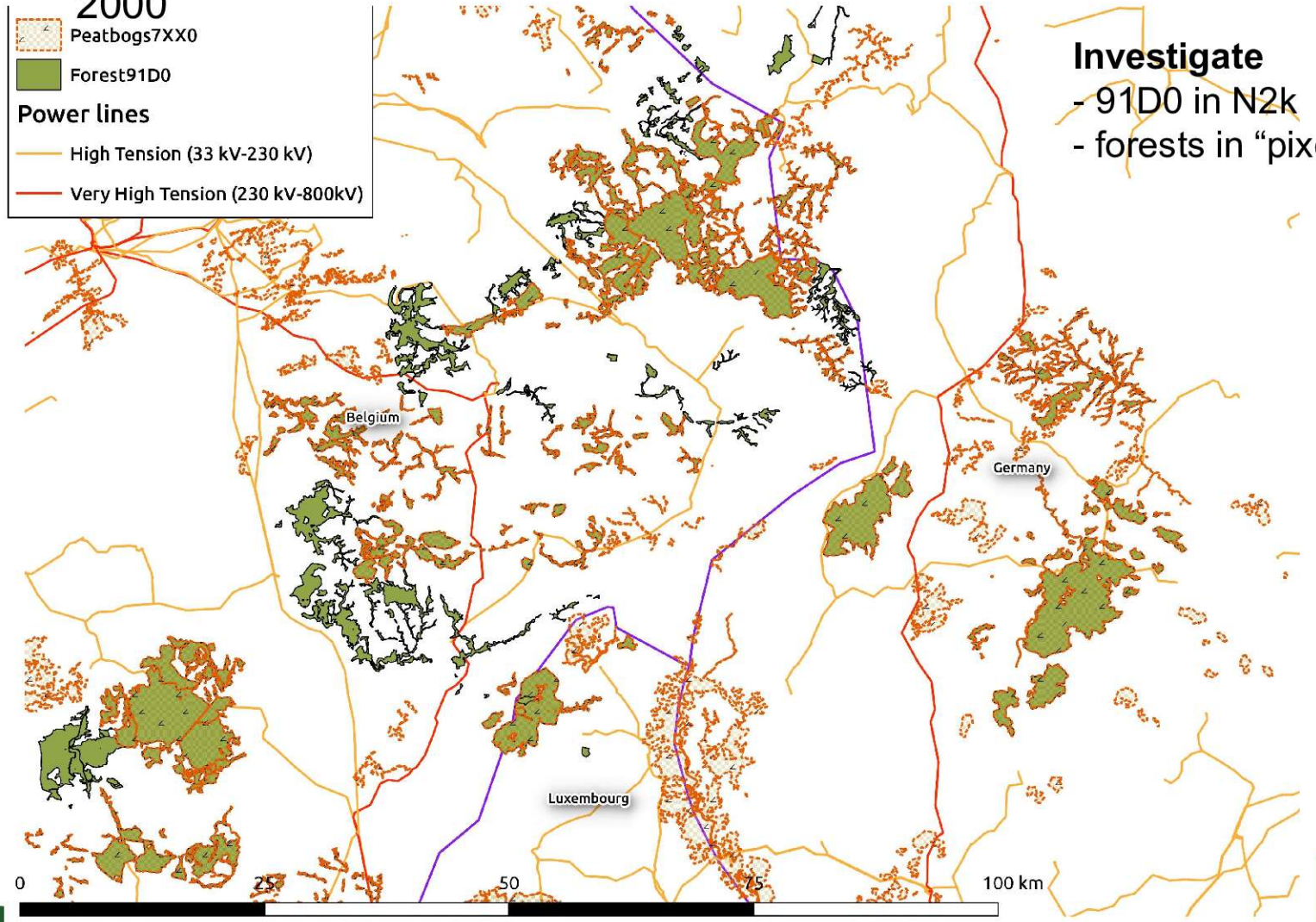
Ecological expertise to develop habitats inside and outside of NATURA 2000



Investigate
- 91D0 in N2k
- forests in “pixel” peatbogs

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To conclude:

- Develop **Community Interst Habitats** under linear networks that are increasing habitats surface and conservation state
- Develop **ecotones**, usually neglected!
- **Added value** to species and habitats targeted by **NATURA 2000** network
- Potential generalisation of the idea throughout **Europe**
- Processes to identify key sites can lean on the rapid increase of amount of **datasets**

Further developpment of LIFE Elia-RTE is on the road!

For more ! :

Internet : www.life-elia.eu/en/
Twitter : @life_elia
Vimeo : LIFE Elia-RTE (videos)
Flickr : LIFE Elia-RTE (photos)

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