

# 13<sup>th</sup> UIC Sustainability Conference



## Biodiversity offsetting

Perspective to 'No Net Loss' of biodiversity through  
the experience of BPL project - Eiffage

*Joachim Lémeri,*  
*Head of sustainable engineering*  **EIFFAGE**





- BBOP community
- Case study: biodiversity offsetting of BPL project in France





# What is BBOP?



Created by **Forest Trends** in 2004

**International Forum** on mitigation hierarchy and offsets

**Offset:** BBOP defines a biodiversity offset as a no net loss (or net gain) conservation outcome, in the specific context of the development project concerned.





# What is BBOP?



**BBOP: 12 years of international, multi-stakeholder agreement and experience**

100 members – companies, governments, banks, NGOs, individuals.







## BBOP can help railways show a 'Net Gain' of biodiversity

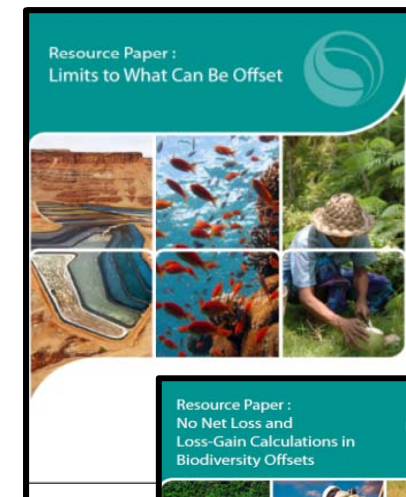


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#### Publications:

Principles and Standard  
Methodologies and Guidelines  
Case studies





## BBOP can help railways show a 'Net Gain' of biodiversity



### **BBOP: 12 years of international, multi-stakeholder agreement and experience**

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#### **Publications:**

Principles and Standard

Methodologies and Guidelines

Case studies

#### **Influence:** BBOP has helped shape:

World Bank Safeguards (2015), IFC Performance Standards (2012 and 2015), IUCN policy (2016), EU NNL Initiative, companies' commitments and practice, governments' laws and policies.

#### **Webinar series**



<http://bbop.forest-trends.org/pages/webinars>

#### **Membership organization & Community of Practice**





## BBOP can help railways show a 'Net Gain' of biodiversity



### Opportunities:

Planning for 'Net Gain' can help secure permits, build stakeholder support & demonstrate sustainability

### Risks:

Poor application of the mitigation hierarchy & low standards puts permits at risk, causes delays, increases costs & liabilities

→ *High Standards: essential! See BBOP Standard*

### Experience & lessons learned:

30 years of successes and failures with mitigation of impacts on biodiversity worldwide

We know what's needed for success

**Join BBOP for support and access to best practice!**

**<http://bbop.forest-trends.org/>**



# Eiffage, a BBOP member



**Construction & public works company**

**4 branches | multiservices activities | 14 €bn revenue | 65 000 employees**

**Construction  
Real estate**



**Public works | Roads**



**Energy**



**Concessions | PPP**



**In 70  
countries**





# Eiffage and offsetting



## Our biodiversity commitments:

### THE EIFFAGE BIODIVERSITY CHARTER

A strong ambition:

To minimize the ecological footprint



- ✓ By avoidance and reduction of impacts on living systems and treating residual impacts through appropriate offset that are qualitative and followed through;
- ✓ By professionalizing the evaluation of impacts of its activities on biodiversity;
- ✓ By including the renaturation of artificialized sites in these approaches;
- ✓ By identifying and internalising environmental costs associated with the Group's activities.

2009



1<sup>st</sup> 2012

2<sup>nd</sup> 2015

**BBOP**  
Business and Biodiversity  
Offsets Programme

2013

## Offsets

~ 3,000 ha

of natural areas managed  
for biodiversity offsetting in France  
(20 to 50 years)

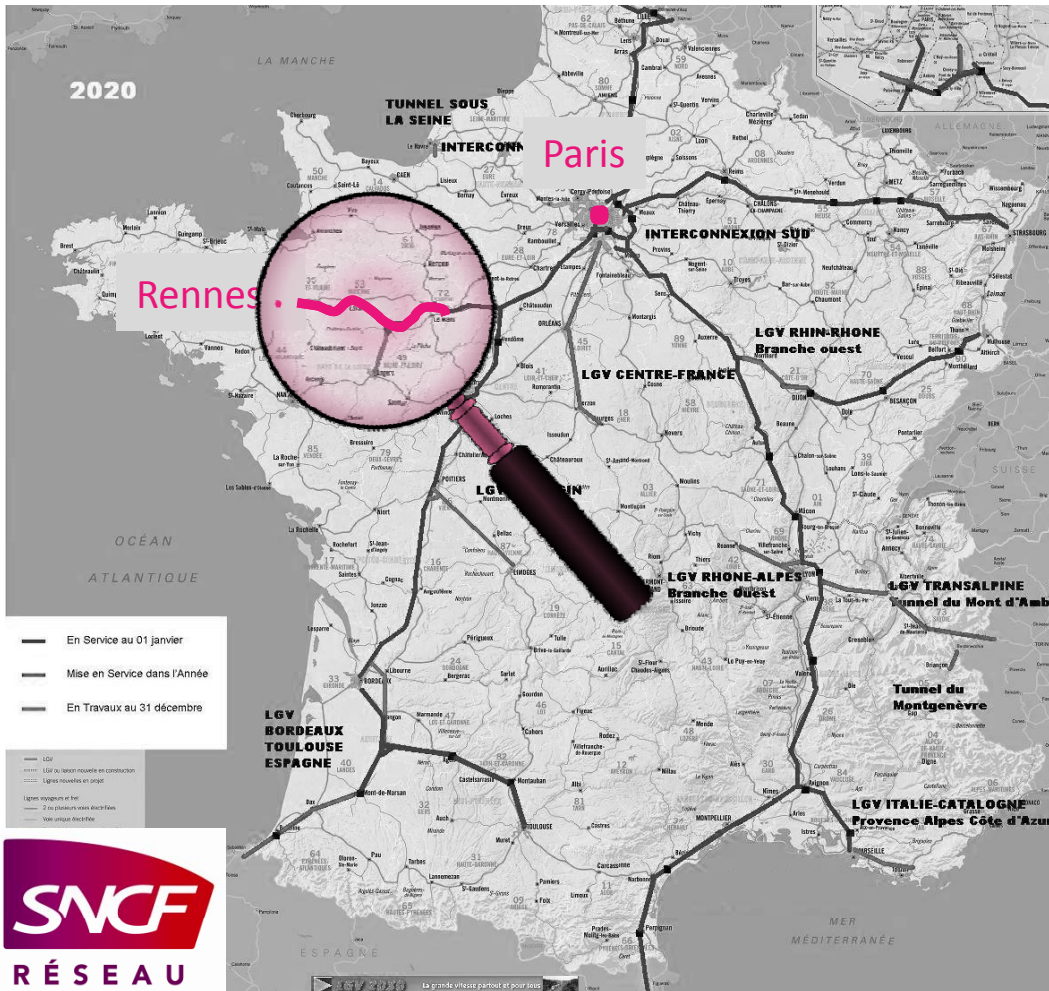


BBOP promotes 'No Net Loss' of biodiversity

*How does Eiffage do it on BPL high-speed line?*



# The BPL project



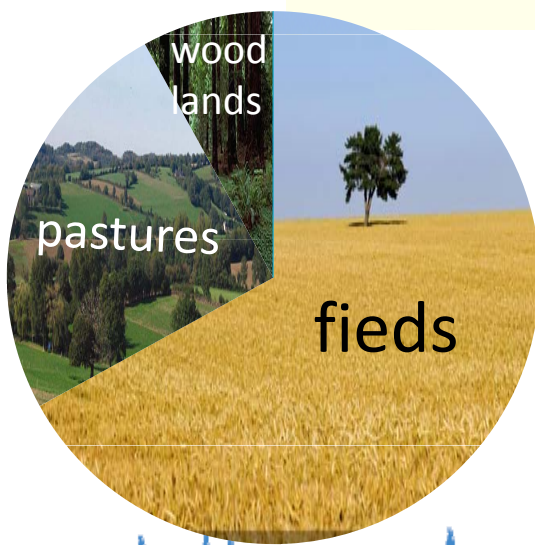
182 km new HSL  
Speed of 320 km/h  
25 years PPP contract | 3.3 €bn invest.  
26 M m<sup>3</sup> earthworks  
11 viaducts + 220 civil structures  
820 km of rails | 1.6 M tons of ballast

37'  
saved between  
Paris-Rennes






## Territory crossed







## Context of offsetting in France

- A real 15 years feedback
- Applies only at the project level, not at the territorial programme level
- The ecological equivalence method is recommended
- Rural territories =  and pressure

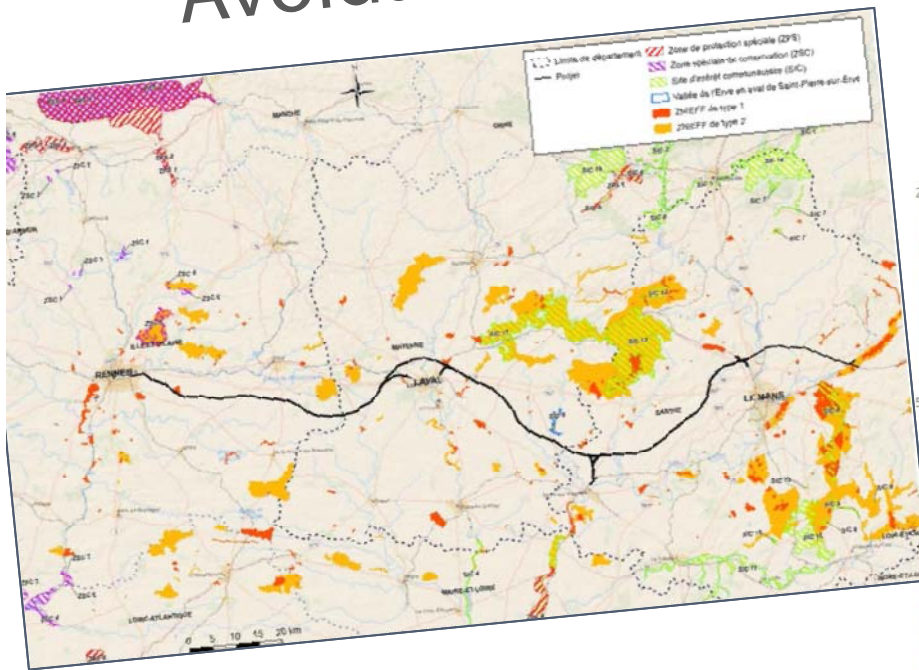


# Mitigation hierarchy



Avoidance 1<sup>st</sup>

Then  
minimization



# Mitigation hierarchy



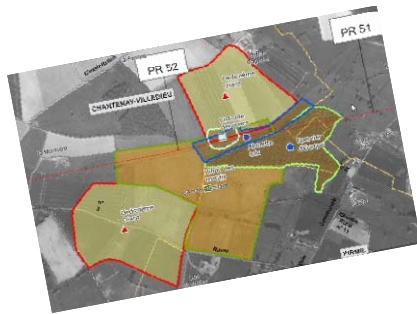
Avoidance 1<sup>st</sup>

Then  
minimization

... but residual impacts → Compensation



# Residual impacts



natural areas: 209 ha  
woodlands: 62 ha  
ponds: 70 u.  
waterway: 7.2 km  
**total: 350 ha**

**70** protected sepecies concerned.



assessment





# Ecological debt



x 2.6



total:

350 ha

915 ha



permit OK



# Ecological debt



Method:

- Offsetting ratios
- Modulation:
  - ecological quality of impacted habitats
  - species rarity
  - quality of offset sites (if known)
- "Habitat" approach



permit OK



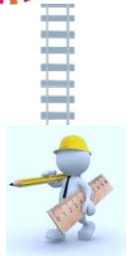
"like for like"



# Offset implementation

**3** key factors:

- To find the offset sites on ground
- The command of the property
- To ensure the command of the long-term ecological management



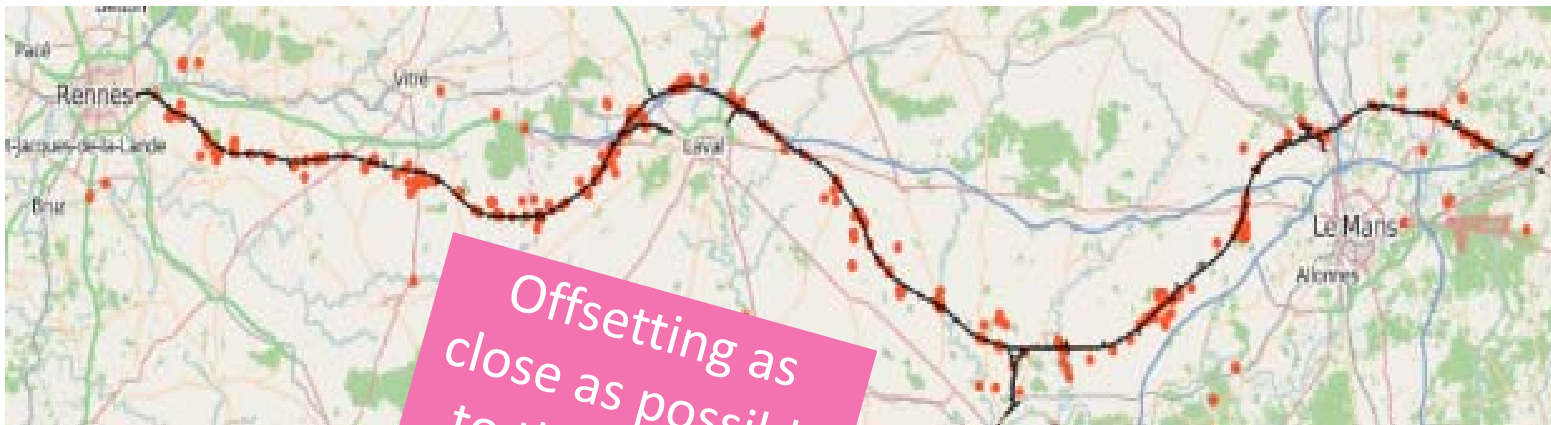
permit OK



# Offset implementation



915 ha spread in **230** offset sites along the route



Offsetting as close as possible to the impacts

● Compensation sites

targets





# Offset implementation



**100%** property acquired at the start of 2015

**80%**  
acquisition

**20%**  
contract

sites OK



# Offset implementation



## 1 **ecological plan** / site including:

- Specifications for farmers
- Ecological works & maintenance
- Offsetting management (surveys,...)

## 1 **offset operator** selected



plans OK



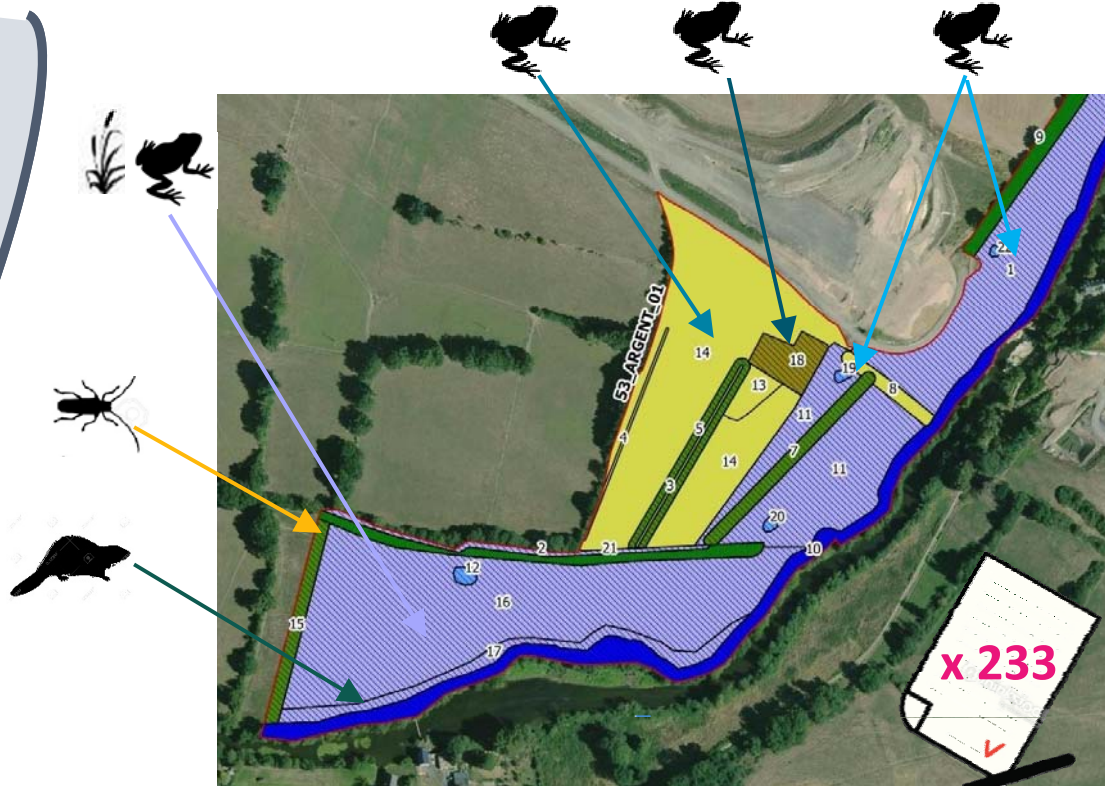
# Offset on ground



Ecological plans



2013 - 2014



plans OK



# Offset on ground



+



Agriculture

**Today:**

**90%** ecological works done

**+ 500 ha** will be cultivated by farmers



works OK 





# Offset achievement






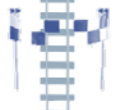
Ecological works



Surveys programme

|                            | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Fluteau nageant transfert  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Amphibiens mares transfert |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Amphibiens MCI             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Chiroptères niochirs       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Insectes grand Capricorne  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Insectes Pique Prune       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Oiseaux nichoirs Huppe     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Oiseaux Oedicnème          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Truite fario               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Loutre/castor ripisylve    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Crossope ripisylve         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Suivi biologiques - 11 CE  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Réalisation d'IPR          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

 sampled surveys  
 survey  
 visit



mangement



# Offset achievement



→ Monitor & adapt the offset in time  
= 3<sup>rd</sup> key factor to a successful offset

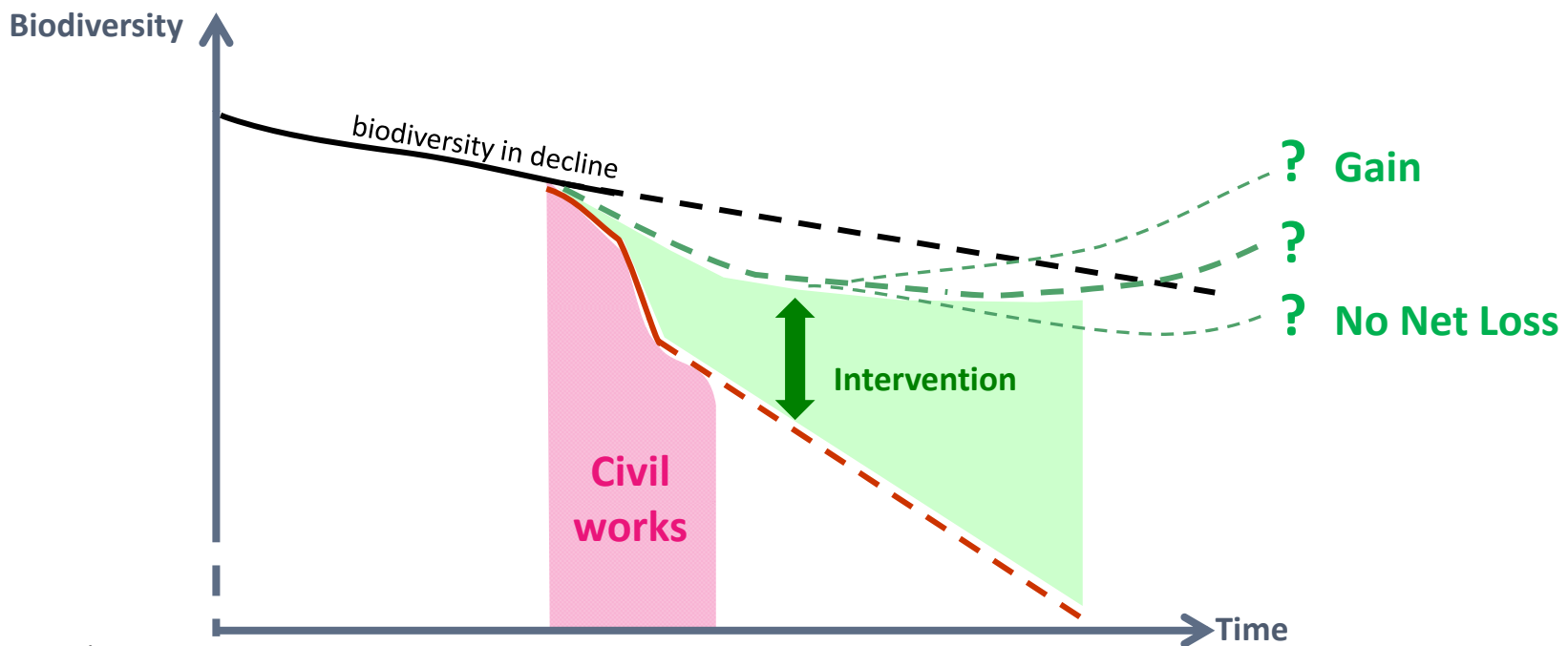


mangement



# No net loss?

... see you in 20 years!



- Without project
- - - With project, without mitigation
- - - Mitigation objectives





The BPL offsetting project :

- ➔ A case study for the mitigation hierarchy application
- ➔ To share with the railway sector for future project
- ➔ THE key factor is anticipation







- Key success to achieve No Net Loss:
  - Collaborative behaviour with local stakeholders
  - Property command to implement the offset
  - Offset long-term management
  - Land-use considerations as important as ecological objectives
  - Good knowledge of offsetting sector





# Railways & biodiversity

Thank you for your attention!

*Joachim Lémeri,*  
*Head of sustainable engineering*  **EIFFAGE**

