



# Innovative methods and organizational approaches for improved implementation of the French No Net Loss policy

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# Europe's Biodiversity Strategy to 2020

**Target 2:** *By 2020, ecosystems and their services are maintained and enhanced through the establishment of Green Infrastructure and the restoration of at least 15% of degraded ecosystems.*

- Action 5: Improve knowledge about ecosystems and their services in the EU
- Action 6: Establish priorities for restoration and promote the use of Green Infrastructure
- Action 7: **Ensure no net loss of biodiversity and ecosystem services**
  - Methodology for assessing the impacts of EU funded projects, plans and programmes on biodiversity
  - Commission to propose by 2015 **an initiative to ensure there is no net loss of ecosystems and their services** (e.g. through compensation or offsetting schemes)



# Council conclusions

*NNL means that 'conservation/**biodiversity losses in one geographically or otherwise defined area are balanced by a gain elsewhere** provided that this principle does not entail any impairment of existing biodiversity as protected by EU nature legislation'*

December 2011



# Parliament resolution

*Urges the Commission to develop an **effective regulatory framework** based on the 'No Net Loss' initiative, taking into account the **past experience of the Member States** while also utilising the **standards** applied by **the Business and Biodiversity Offsets Programme**;*

*notes, in this connection, **the importance of applying such an approach to all EU habitats and species not covered by EU legislation**;*

April 2012



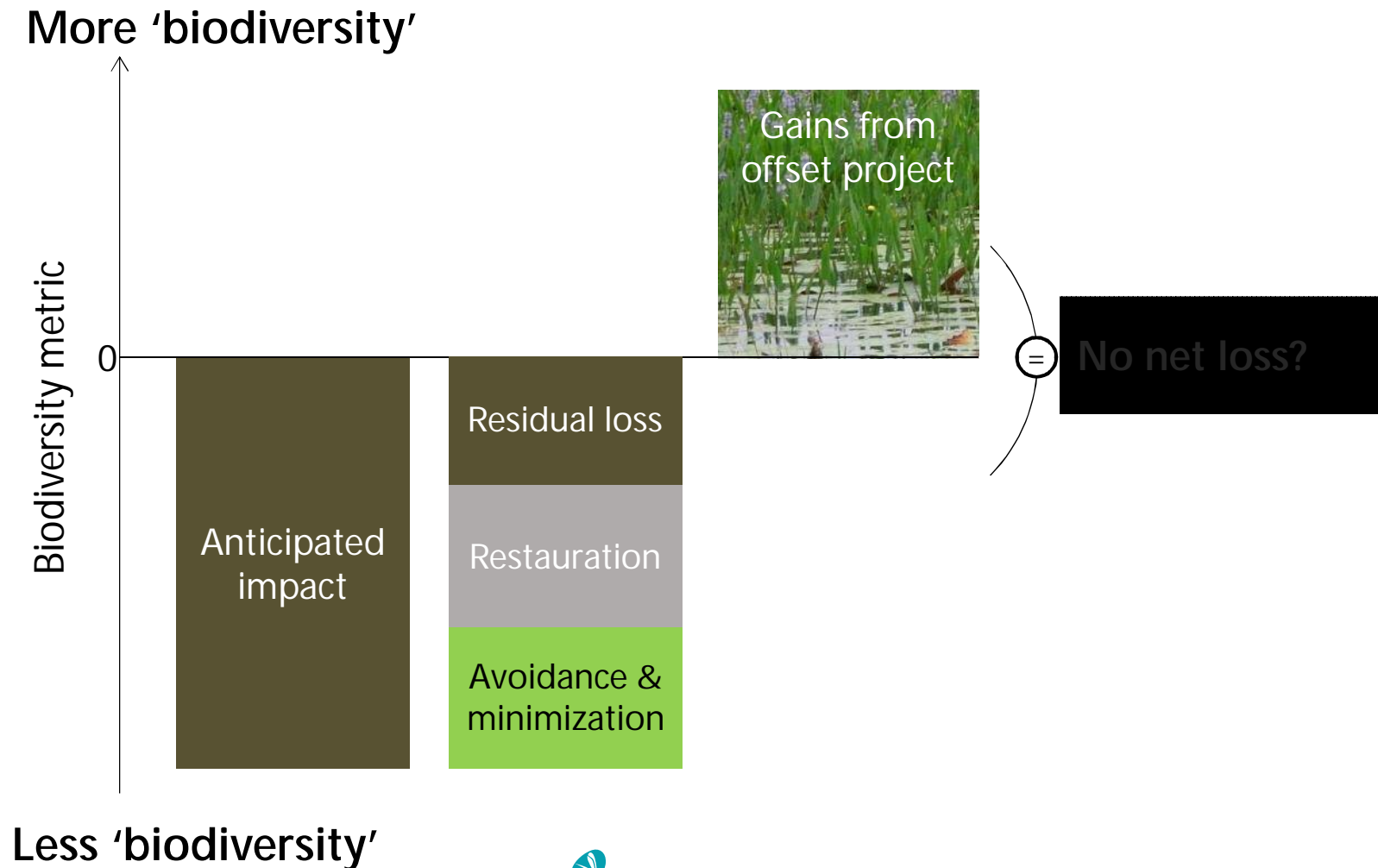
# Achieving NNL through offsets



Biodiversity offsets are **measurable conservation outcomes** resulting from actions designed to compensate for **significant residual adverse biodiversity impacts** arising from project development **after appropriate prevention and mitigation measures have been taken.**

Goal is to achieve **no net loss** and preferably a **net gain** of biodiversity on the ground with respect to species composition, habitat structure, ecosystem function and people's use and cultural values associated with biodiversity.

# The Mitigation Hierarchy





# The slow path to NNL in France

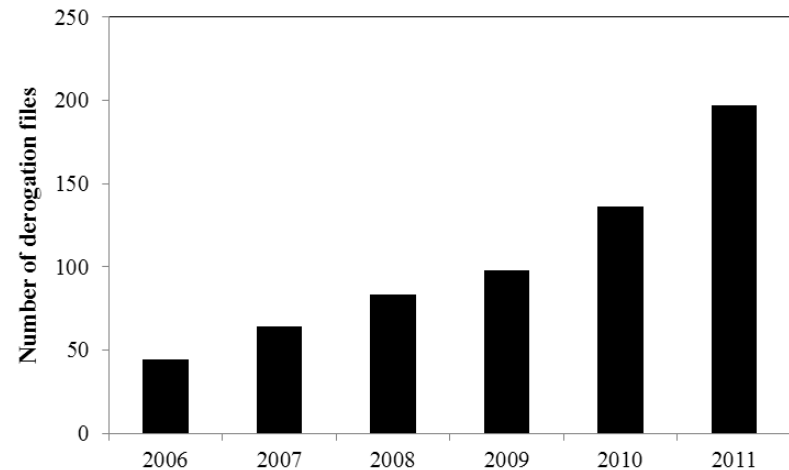
- **1976** : Nature protection law (introduces EIA and mitigation hierarchy)
- **1992** : Water law (reformed 2006)
- **2001** : Forest code
- **2004** : SEA and Water Directives
- **2006-2008**: Progressive transposition of Habitats directive of 1992
- **2008**: Transposition of Environmental Liability Directive
- **2010-2012**: EIA & SEA reforms
- **2012 & 2013**: Guidance on MH
- **2013**: “green and blue veins” (ecological networks)
- **2014**: New forest code
- **2016**: New biodiversity law



**2007 : protected species derogations** “*the net result of a derogation should be neutral or positive for a Species*” (EC 2007 Guidance)

# The slow path to NNL in France

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From Quétier, Regnery & Levrel (2014),  
*Environmental Science & Policy*



*Gagea lacaitae*



*Timon lepidus*

# A typical offset in France...

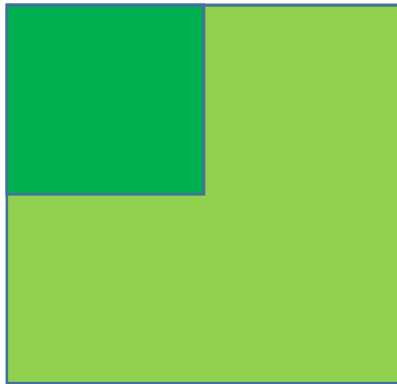


Crau sèche © A. Wolff - CEEP

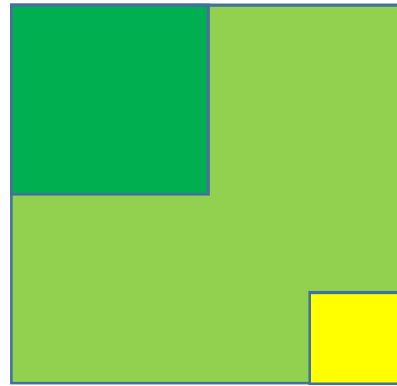
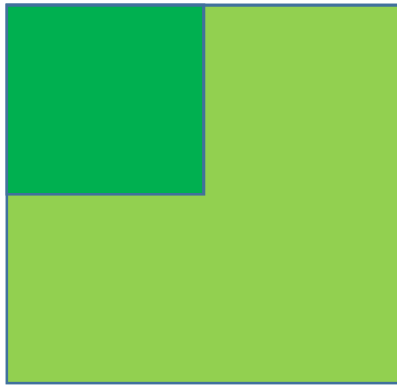
- Pipeline crosses 6ha of “coussoul” steppe (= 0.06% of a Natura 2000 site)
- Offset through the purchase of 70ha of existing “coussoul” (~1.2% of project cost)
- Land handed over to a local NGO (with regional nature reserve status)
- No funding for the management of the offset site



# How much compensation?



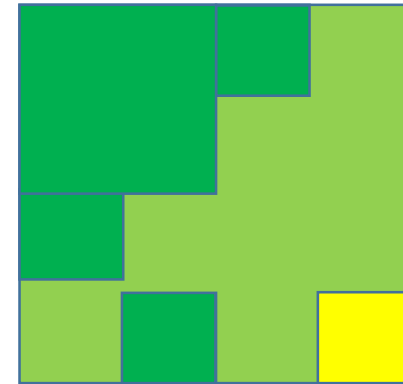
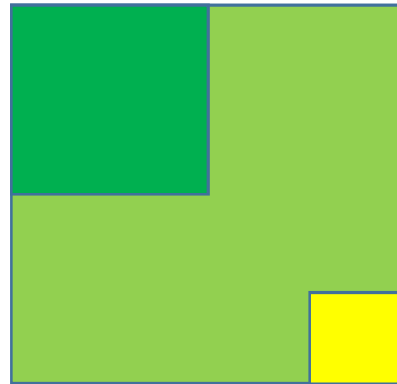
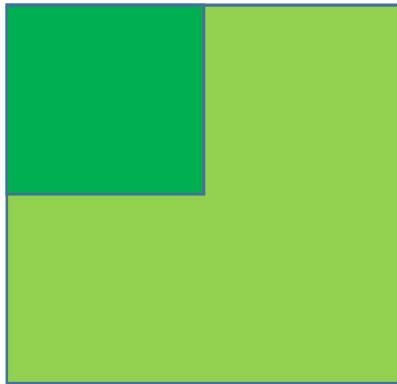
# How much compensation?



**Ratio of 3 to 1**



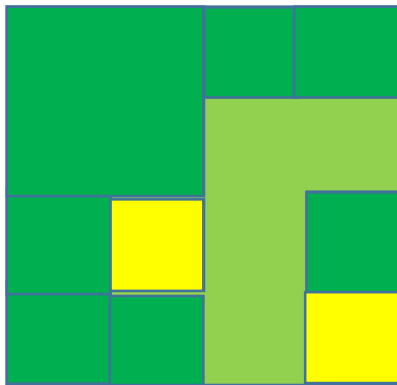
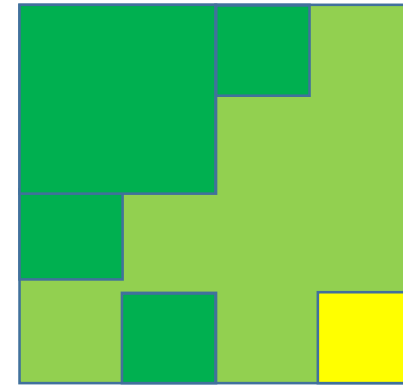
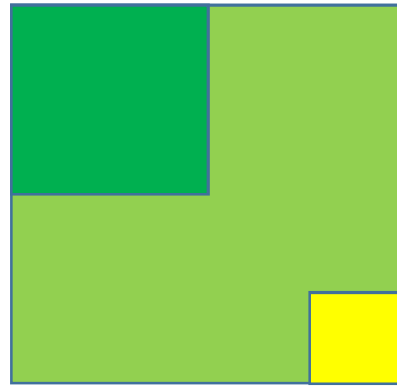
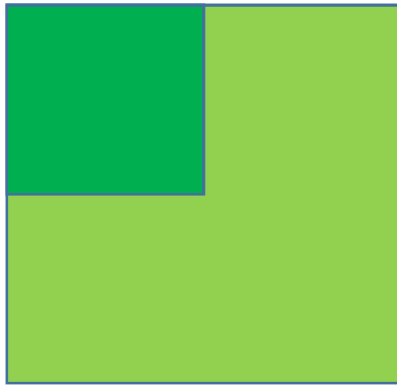
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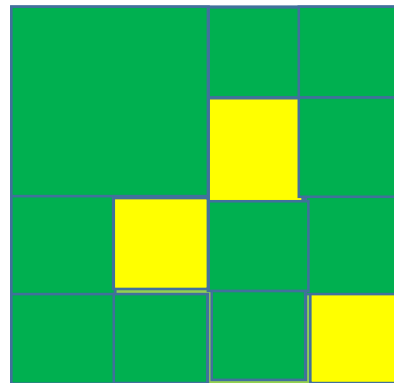
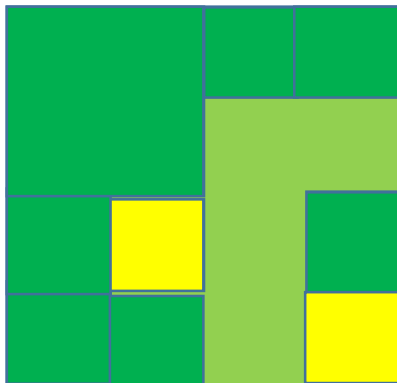
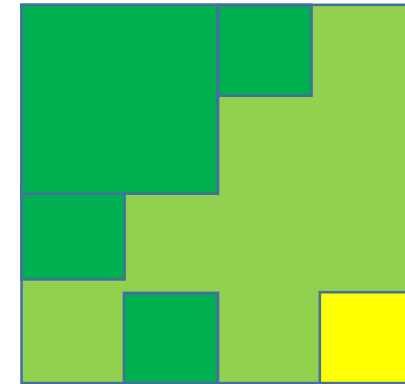
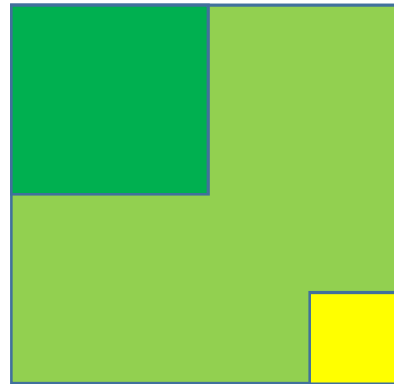
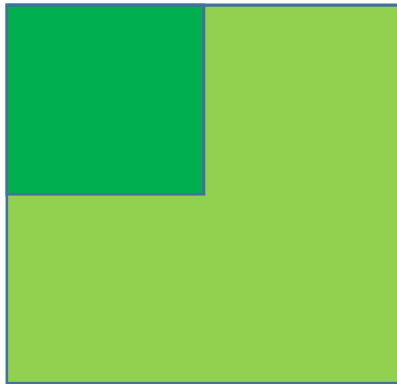
**Ratio of 3 to 1**



# How much compensation?



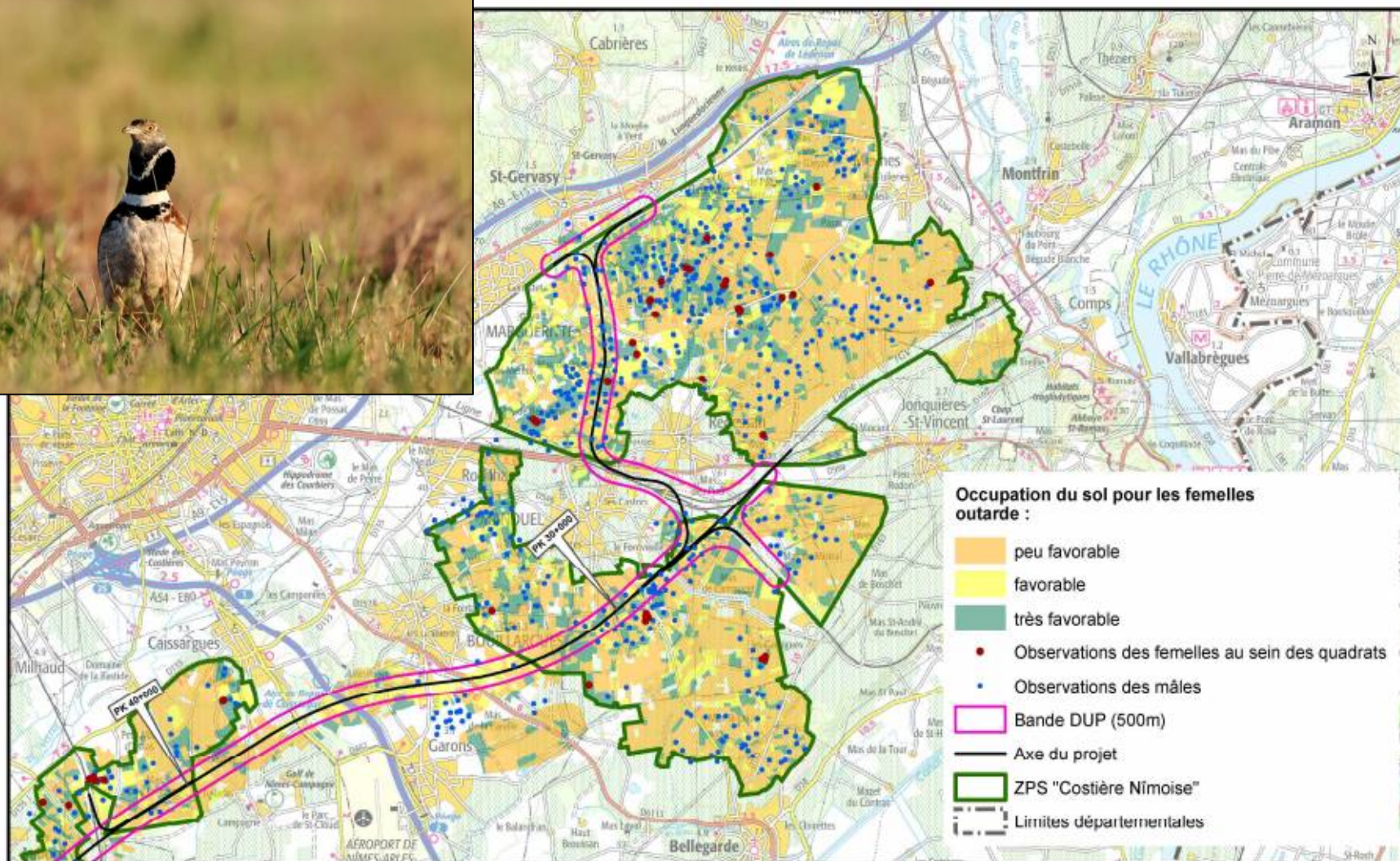
# Net Loss!



*A ratio of 3 to 1  
actually means we  
accept to loose 25%  
of the remaining  
unprotected  
biodiversity*



# The Nîmes – Montpellier line



# Loss – gain calculations



+2,5 units/ha



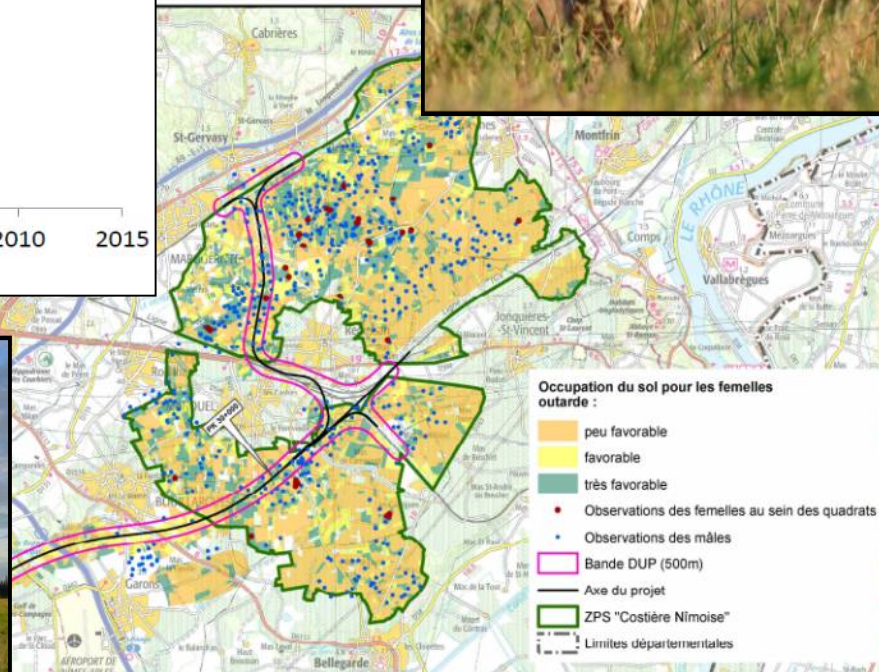
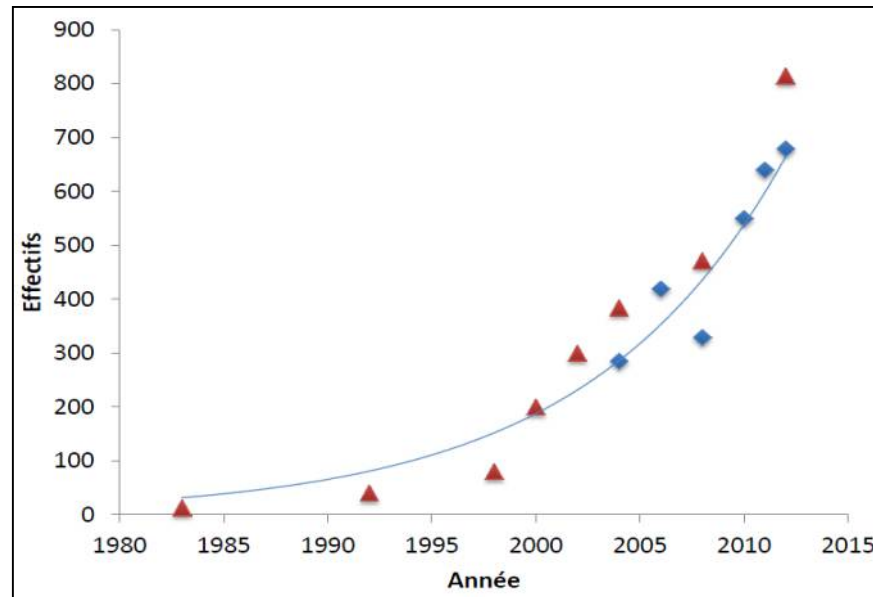
+1 unit/ha



See Quétier et al. (2015),  
Sciences, Eaux et Territoires



# Does it work?



# Governance challenges



# Governance challenges



Images taken from [www.geoportail.fr](http://www.geoportail.fr)



# The Cossure habitat bank



Purchase of 357ha at 12500 €/ha (~4.5 M€)

Restoration & management: 12 M€

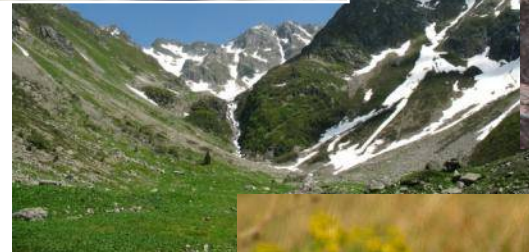
Purchase + restoration: 35000 €/ha

Credits sold at > 40 000 €/ha

Sources: CDC Biodiversité & Réserve Naturelle Nationale  
des Coussouls de Crau : [www.reserve-crau.org](http://www.reserve-crau.org)

# Pilot habitat banks

- **Cossure (Provence)**
  - Steppe birds
- **Farmland in Alsace**
  - European hamster
- **Subalpine valley (Alps)**
  - Black grouse
- **Hedgerow landscape (Britanny)**
- **Peri-urban green spaces (Paris)**
- **Open med. Habitats (Languedoc)**





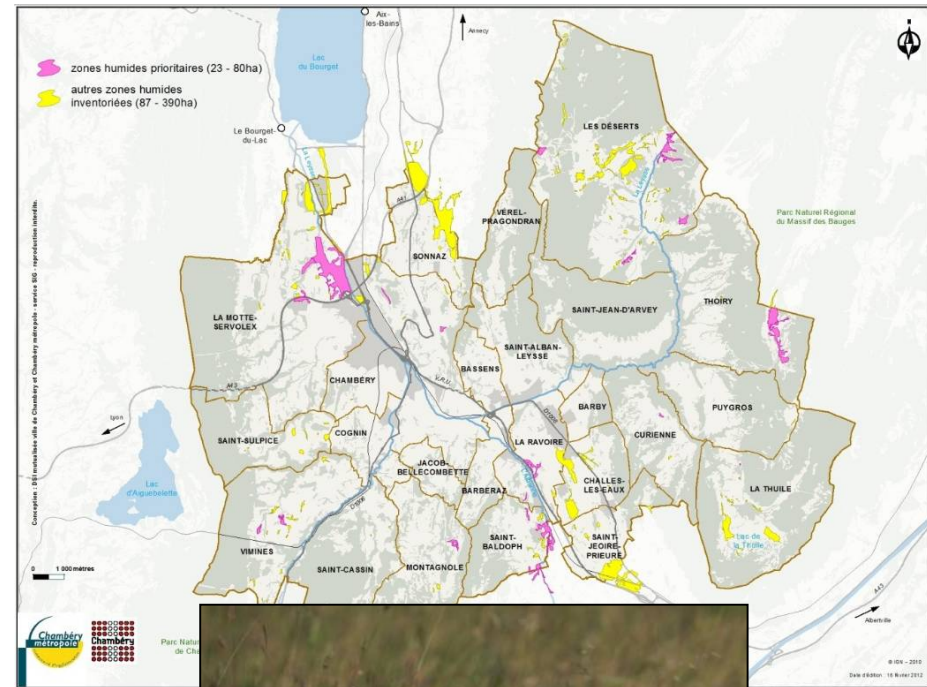
# Other habitat bank-like approaches

- **Wetlands around Chambéry**

Wetland restoration jointly funded by developers and the water basin agencies

- **Stone curlew conservation around Lyon**

LPO (Birdlife partner in France) manages a conservation program (based on signing contracts with farmers), funded by developers



# Technical and scientific challenges

- Lack of standardized ecological equivalency assessment methodologies – but this can spur innovation
- Variation in definitions of significance of impacts – and the treatment of “common” (everyday) biodiversity
- Few shared databases
- Little practice or guidance in setting baselines
- Uncertainties about ecological restoration



# Organizational & governance challenges



- Unstable institutional environment (laws, rules, etc.)
- Ineffective implementation (heterogeneous depending on location and sectors concerned, and local political support)
- Specific silo-based procedures (wetlands, endangered species)
- Limited cumulative impacts assessment, and offsets not integrated into broader conservation or restoration plans
- Limited staff capacity of regulators (numerous applications, permitting phase, control and monitoring)
- Costs of compensatory measures; which take time to be budgeted in project design
- Varying social acceptance of projects and biodiversity offsets



# The promises of a new Biodiversity Law

A Law 2 years in the making (2014-2016)

Some interesting changes:

- NNL and net gain objectives spelt out
- Rights & duties of “offset operators”
- Option for habitat “banking”
- A type of conservation easement (not perpetual)
- National public georeferenced database on offsets
- Environmental liability regime in the Civil Code

Specific changes to EIA rules decided in parallel



# Lessons learned for expanding NNL objectives

- Numerous voluntary initiatives... but you need regulation to:
  - get traction
  - level the playing field
  - ensure long-term commitments
  - build institutions
- Changing laws and regulations takes time and opportunism to build political will
- Pilots and experimental approaches are a useful first step for technical and institutional / organizational innovations (e.g. metrics, habitat banking)
- More research is needed on stumbling blocks (technical and organizational)





***Thank you !***



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