



# Planning, landscape and the social acceptance of wind power developments (France)

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# Research project

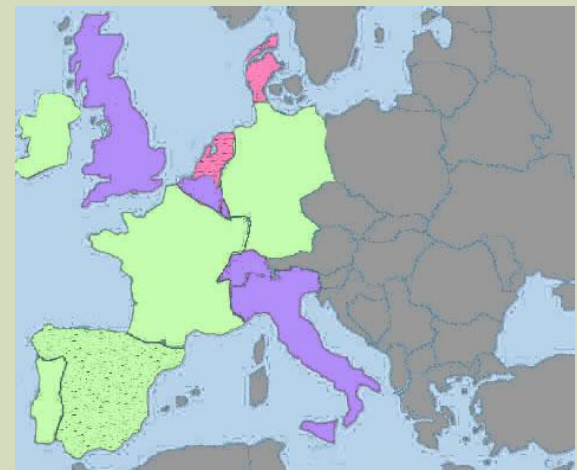
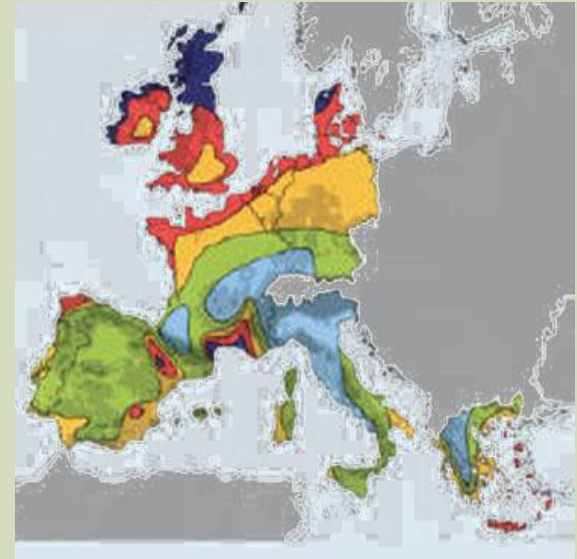
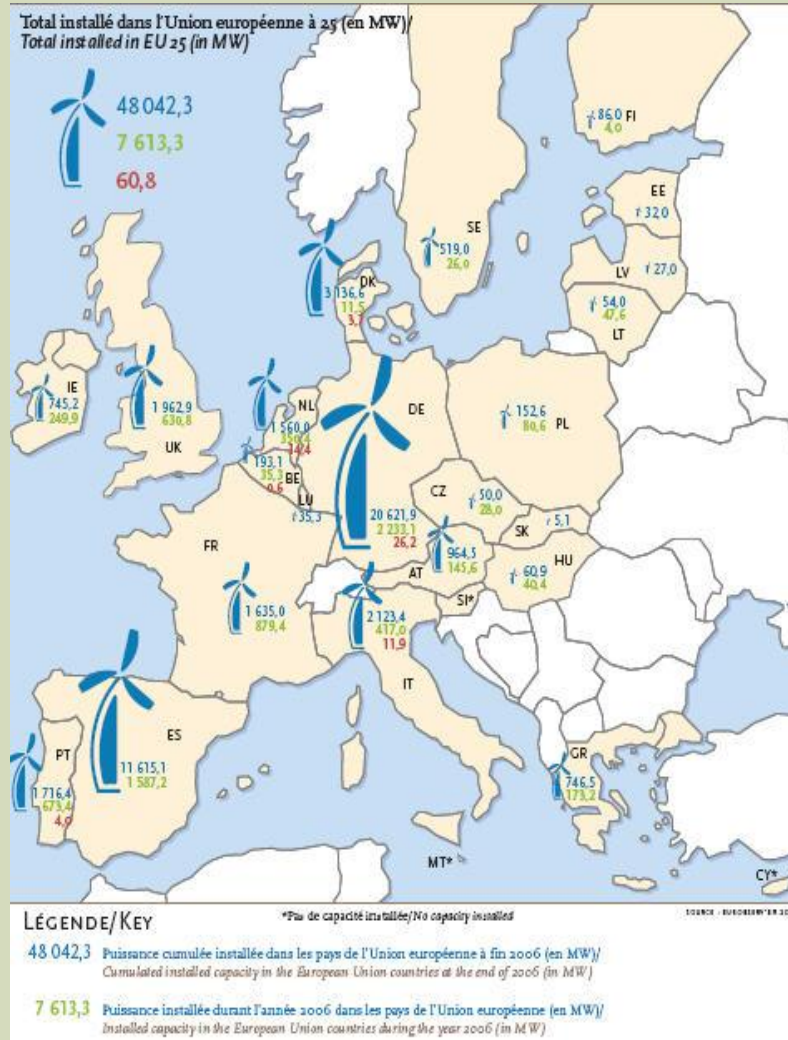
- Comparing wind power policy and deployment in three countries:
  - France | CIRED
  - Germany | University of Bremen
  - Portugal | New University of Lisbon
- National | regional | local case studies
- Policy implementation | local wind power planning | wind power project development
- Actor Network Theory: social re-composition, new technologies, landscape processes



# Wind Power in Europe

# Wind power in Europe

- Weak correlation between instruments and installed capacity.



- Explore other determinants than price quantity

# Two configurations ....

	France	United Kingdom	Germany	Denmark	Spain	Portugal
<b>Inst. cap. end of 2006</b> <b>Nat. Elec. Gross prod. 2003 (Twh)</b>	1.64 GW 562 3	1.96 GW (incl. 0.3 MW offshore) 396	20.6GW 594	3.14 GW 46	11.6 GW 258	1.7 GW 4
<b>Normalised Wind Power cap. (Base Fce)</b>	<b>1.64 GW</b>	<b>2.78 GW</b>	<b>19.4 GW</b>	<b>38.36 GW</b>	<b>25.27 GW</b>	<b>20.32 GW</b>
<b>Growth. 2006</b>	0.88 GW	0.63 GW	2.23 GW	0.01 GW	1.6 GW	0.7 GW
<b>Instruments</b>	. Tarifs (variable)	. Green Certif. (on providers, 7% 2007 à 10% 2010), opting-out penalty + tax exemption	. Tarifs (variable).	. Premium (prev. tariffs) . Instability.	. Tarifs (variable), premium (since 2004)	. Tarifs (variable), Tender (1.2GW + 0.5GW)
<b>Value (c€/KWh)</b>	. Onsh: 8.3 (10/15 years) (decreasing) . Offsh: 11 (10/20 years) decreasing)	. 15.4 (pic) total price WPkWh (aug. 2006)	. Onsh : 8.4 - 5,3 (20 years)(decreasing) . Offsh : 9.1 - 6,19 (20 years)(decreasing)		. 7.3 (decreas), - cap 8.5	. 7.4 aver. (decr) (15 years), . Micro prod, 0.65€ kWh, 07/07
<b>Level of support 2004 (c€/KWh)*</b>		110 aver. 120 max	70 aver. 105 max	58 aver. 62 max		
<b>% RES-E / Gross Elec Cons. 2010 (2004)</b>	21% (12.6%) **[23%, -14%]	10% (3.5%) **[15%, -16%]	12.5% (9.2%) **[18%, -14%]	29% (26.1%) **[30%, -20%]	29.4% (19.3%) **[20%, -10%]	46% (23.9%) **[31%, 1%]
<b>Obj. nationaux</b>	5 - 14 GW 2010 12.5 - 21 GW 2020 23GW 2050		12,5% 2010 20 % 2020		20GW 2010	

# Landscape as a candidate variable ...

	France	United Kingdom	Germany	Denmark	Spain	Portugal
<b>Puis. Norm.(Fce)</b>	<b>1.64 GW</b>	<b>2.78 GW</b>	19.4 GW	38.36 GW	25.27 GW	20.32 GW
<b>Planning</b>	<ul style="list-style-type: none"> <li>. « Department » prefect</li> <li>. WPDZ (2007) proposed by communities,</li> <li>. Mandat. for tarif benefit,</li> <li>. Only local planning before 2007.</li> </ul> <p><b>. Strong visual landscape tradition (visual framing, scenery, heritage).</b></p>	<ul style="list-style-type: none"> <li>. Meta-gouvernance</li> <li>. Allocation of quantitative obj. to regions, pointing at wind power zones.</li> </ul> <p><b>. Strong landscape tradition (“Campaign to Protect Rural England”, « Natural England ».).</b></p>	<ul style="list-style-type: none"> <li>. Communities</li> <li>. WPDZ (optional for com., mandat. for devpers if existing).</li> </ul> <p><b>. Nordic landscape tradition, admin. by local assemblies.</b></p>	<ul style="list-style-type: none"> <li>. Communities</li> <li>. WPDZ (mandatory, Comm. planning doc..)</li> </ul> <p><b>. Nordic landscape tradition, admin. by local assemblies.</b></p>	<ul style="list-style-type: none"> <li>. Regions (autoris)</li> <li>. Integrated hierarchical planning (regional obj., grd devpt ...).</li> </ul>	<ul style="list-style-type: none"> <li>. Instruction on a case by case basis.</li> </ul>
<b>Redistribution</b>	<ul style="list-style-type: none"> <li>. Private developers,</li> <li>. Wind power tax shared with regions / intercom,</li> <li>. Ecological Compens.</li> </ul>	<ul style="list-style-type: none"> <li>. Private devpers,</li> <li>. No specific redistribution scheme.</li> </ul>	<ul style="list-style-type: none"> <li>. Cooperative parks,</li> <li>. Re-powering,</li> <li>. New status.</li> </ul>	<ul style="list-style-type: none"> <li>. Cooperative parks,</li> <li>. Re-powering.</li> </ul>	<ul style="list-style-type: none"> <li>. Private developers,</li> <li>. Direct investment into communities.</li> </ul>	<ul style="list-style-type: none"> <li>. Private devpers,</li> <li>. No specific redistribution scheme.</li> </ul>
<b>Result</b>	<ul style="list-style-type: none"> <li>. Strong econ. interest from rural communities,</li> <li>. Local oppos. in touristic areas / neo rural / second homes.</li> <li><b>. Admin. refusals 25% (landscape, birds).</b></li> </ul>	<ul style="list-style-type: none"> <li>. Reinforcing landscape patterns (protected / exploited).</li> <li><b>. Strong opposition from protect. of rural landscapes.</b></li> <li>. Offshore.</li> </ul>	<ul style="list-style-type: none"> <li><b>. Cooperative parks / private,</b></li> <li>. Onshore saturation,</li> <li>. Offshore / Repowering.</li> </ul>	<ul style="list-style-type: none"> <li><b>. Cooperative parks / private,</b></li> <li>. Onshore saturation,</li> <li>. Offshore / Repowering.</li> </ul>	<ul style="list-style-type: none"> <li>. Big parks,</li> <li>. Oppos. by envt protect. (natural parks, prot. spec., <b>bird</b>).</li> </ul>	<ul style="list-style-type: none"> <li>. Concentration in Northern part (wind, grid),</li> <li>. Oppos. by envt protect. (natural parks, prot. spec.).</li> </ul>



# The French case

# Methodology

- Assumption
  - Wind power policy is faced with the issue of *creating* new (wind power) landscapes.
- Question
  - How to manage wind power planning and policy so as to do so.
- Method
  - Examining the devising and implementation of wind power policy.
    - French parliamentary debate on the (2005) French Energy Programming Law (POPE Law),
    - Interviewing the 22 environmental regional administration (automne 2006),
    - Following *landscape processes* : wind power planning, wind power siting / project development ...
  - ANT >> practices, network of actors.

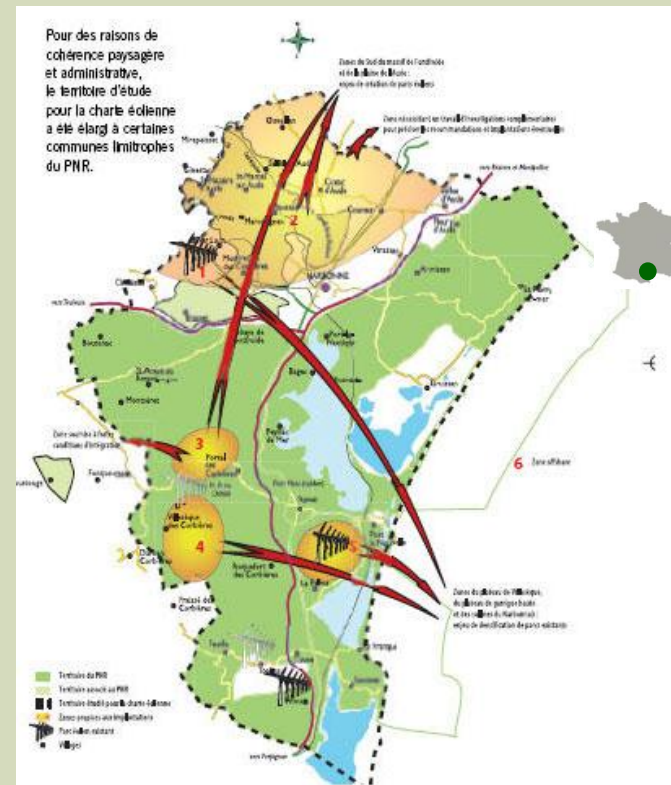
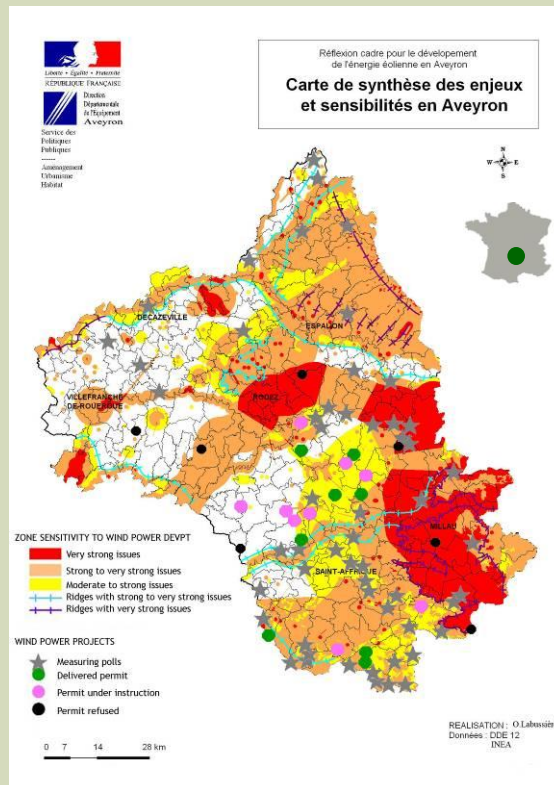
# French wind power policy

- Growing and ambitious objectives
  - 7 GW à 2010 (PPPI 2002); 13 GW à 2015 (PPPI 2006) ; 23 GW à 2020 (Grenelle de l'Environnement).
- Implementation “gap”
  - 2GW installed at the end of 2007.
- Reverse planning
  - Tarifs >> 2000,
  - Wind Power Development Zone (WPDZ) >> 2005.
- Decentralizing French energy policy\*, a major issue
- French WPDZ, a “*premiere*”
  - Not a planning document, Different from the German and Danish WPDZ
  - “Electric document” endorsing a planning function,
  - Proposed by communities / intercommunalities but *validated by the department Prefect* (State representative),
  - Late, implemented in a context of ongoing local planning (48 fin 2006) and wind power projects.
- Statutory ambiguity, necessity to follow implementation

\* NADAI A. (2007) “Planning, Siting and the local Acceptance of Wind Power: Some Lessons from the French Case”, Energy Policy, 35, 2715–2726.

# Wind power planning at the local level

## Aveyron & Narbonnaise



Source : PNR de la Narbonnaise en Méditerranée, « Une charte éolienne pour la Narbonnaise ».

# « Negative » *versus* « positive » planning

- **Aveyron** Administrative zoning (type « constraint mapping»); hierarchical ; fragmented instruction on a project by project basis; territorial concentration ; raising opposition; tensions between communities and inter-communalities.
- **Narbonnaise PNR\*** (\* Natural Regional Park) Intense prospection ; concertation for a Wind Power Charter ; devising wind power envelopes with (specific) siting principles; validation by local politicians ; made opposable through integration into programming document (SCOT) ; limiting projects proliferation ; taking account of multiple dimensions (avifauna, flora, landscape, local acceptance ) ; role of bird protection organization (Ligue de Protection des Oiseaux) ; local opposition limited to project neighbours.

## « Positive » planning

## « Negative » planning

- Devising a project
- Jointly « holds » two different states of the territory: regulatory zoning / mutiplicity of potential wind power sites.
- Works through abduction the prospect of siting (turbines) drives the design of planning | the process of siting validates or invalidates the plan >> process dimension, scaling up and down.
- « Compatibility » with the spirit of the project
- > Potential for creating new landscapes\*

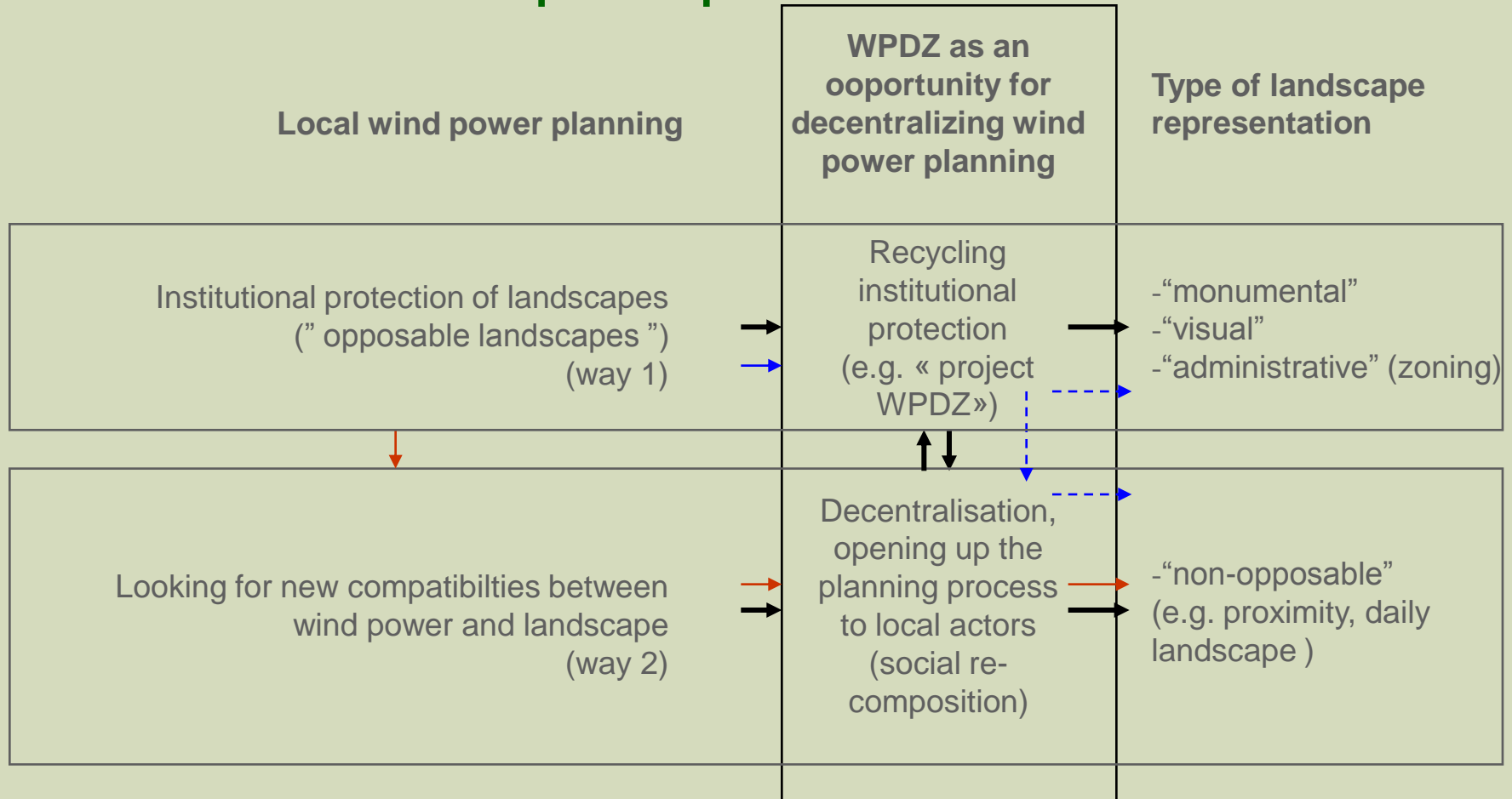
- Delimiting zones which cannot be exploited
- Relies on regulatory zoning
- Works through deduction hierarchy, scaling up.
- « Conformity » with existing landscape representations.
- > Implementing existing landscape representations\*\*

\*Nadaï A. & Labussière O. (under review) "Birds, turbines and the making of wind power landscape in South France (Aude)", article soumis à [Landscape Research](#).

\*Labussière O., Nadaï A. (2008) "Landscape, planning and the social acceptance of wind power developments: the case of Narbonnaise" (South France), *paper to be presented at the PECSRL, 23rd Conference, Portugal, September*

\*\*Nadaï A. & Labussière O. (under review) "Wind power planning in France (Aveyron): from State regulation to local experimentation", article soumis à [Land Use Policy](#).

# The late implementation of French WPDZ and the renewal of landscape representations





# Conclusion

- French wind power policy relies on three pillars
  - Incentives (tarifs),
  - Publicly announced national objectives,
  - Territorial regulation.
- The French « case »
  - Objective (23GW) + incentive = among the highest in Europe,
  - Installed capacity (2GW) = among the smallest Europe,
  - Reaching territorial saturation (heritage gaps start to be filled).
- Diverging interpretations
  - France => local opposition (media),
  - Europe => administrative barriers.

- Questioning opposition's role
  - Opposition is relayed by the media (presse, media) but **does not have much power in the administrative process** (public inquiries).
- The role of planning
  - Planning does not only regulate the display of wind energy infrastructures but contributes to the **construction of wind power potential**,
  - To do so, planning should be devised so as to **renew landscape administrative representation**, therefore opening up the planning process to non administrative actors,
  - **Opening up planning** provides non administrative actors, thus opposition, with an opportunity to incorporate their views into planning schemes (e.g. mediation of Narbonnaise PNR).



Thanks for your attention  
<http://www.eeel.centre-cired.fr>