

An international Exchange of Experience

**Economic Analysis according to the WFD:
Status of Implementation**

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**„Baseline scenario – Current
development in some French
Districts and preliminary
results“**



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SEINE-NORMANDIE



DIRECTION RÉGIONALE DE
L'ENVIRONNEMENT
ILE DE FRANCE
BASSIN SEINE NORMANDIE

← Baseline scenario

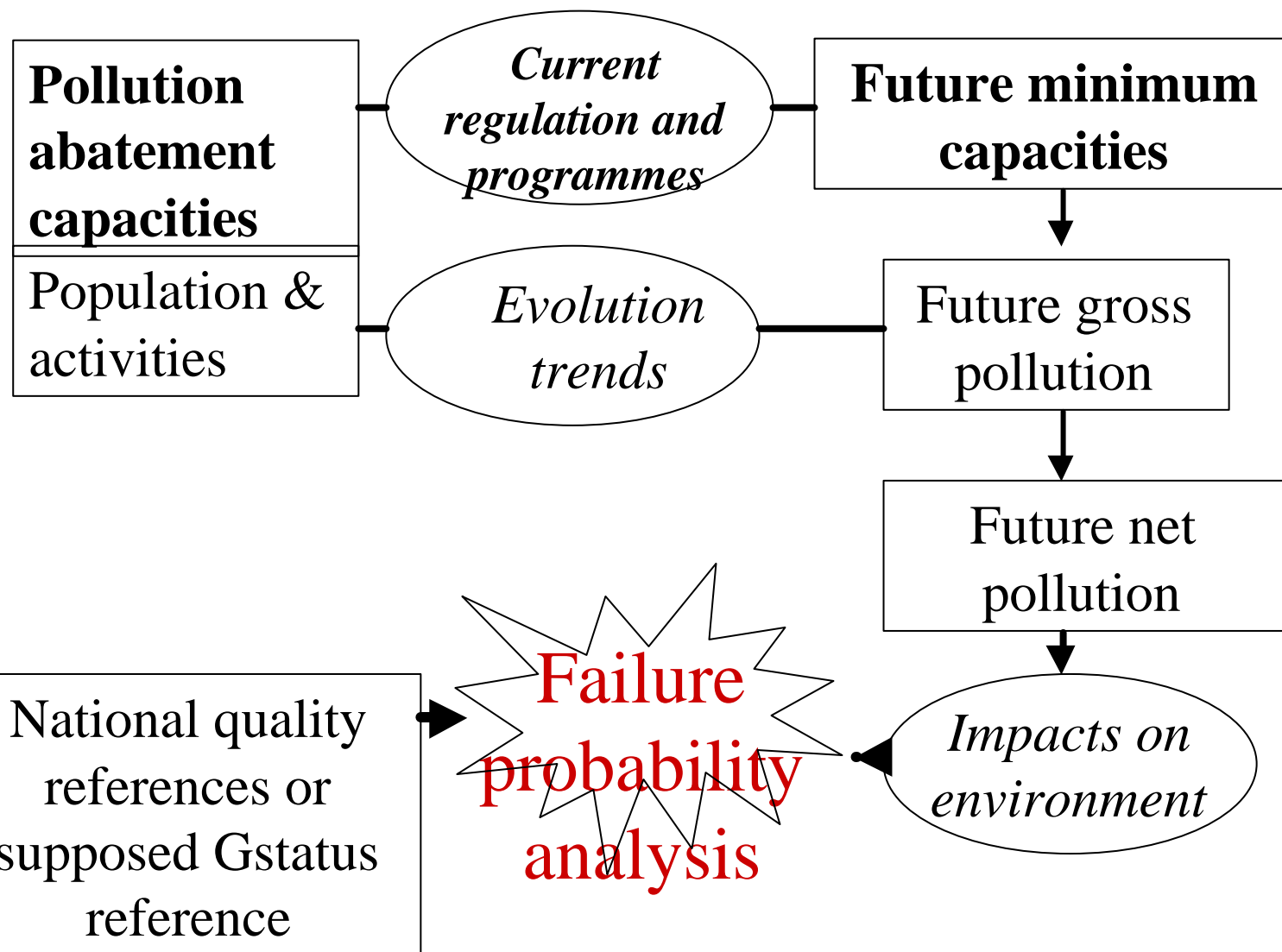
*Current development in some
French Districts and preliminary
results*



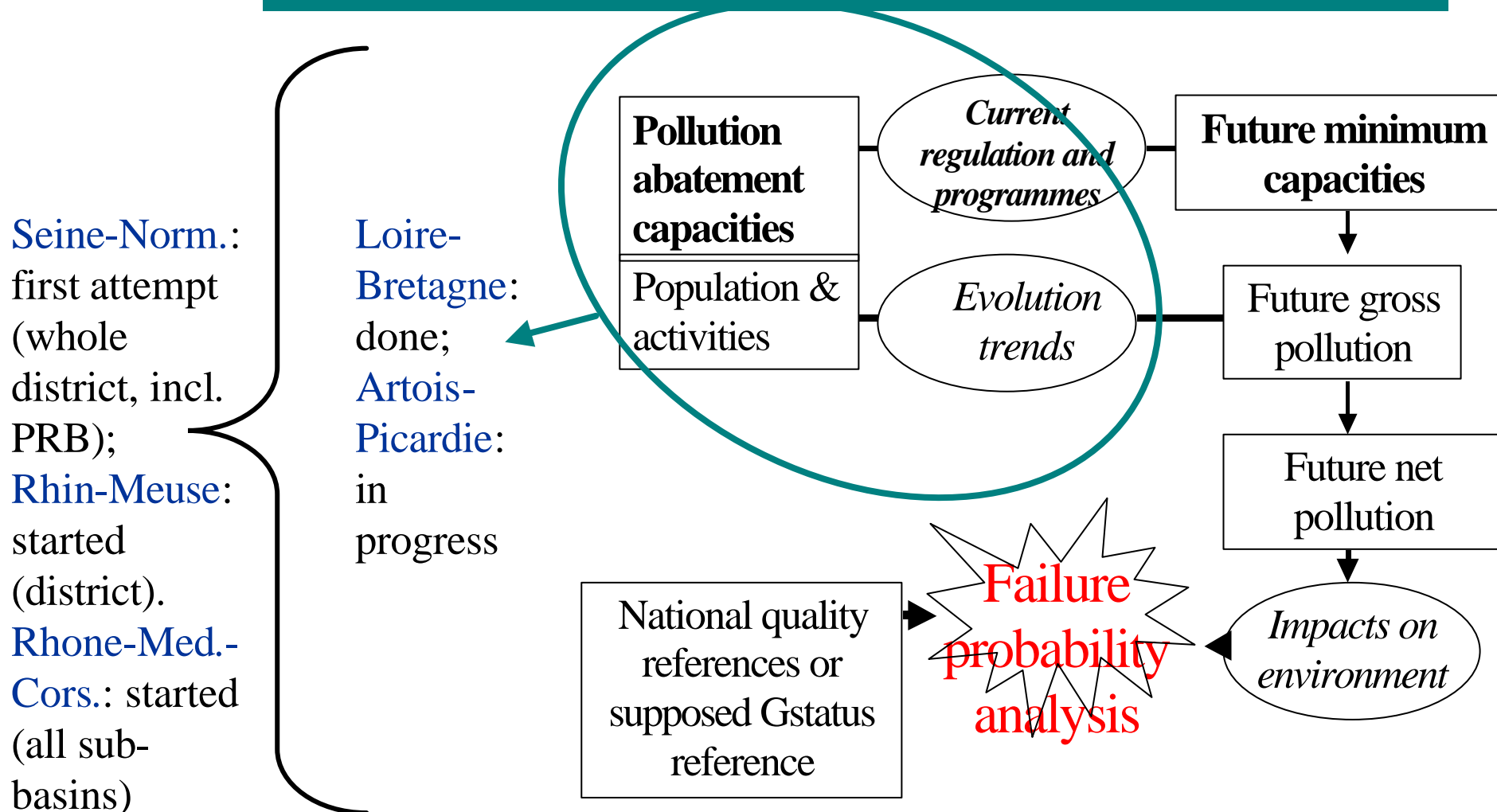
Plan

- 1- Overview of agreed methodology in France and current implementation status in districts
- 2- Problems faced and solutions found (Seine-N.)
- 3- Remaining work for 2004 report in Seine-N.
- 4- Organisation of links with Impress
- 5- Forthcoming development after 2004
- (6- Optional: overview of some results for Marne PRB and Loire-Bretagne)

Agreed general method (from national guidance)



Current implementation status





Problems and solutions (1) resources

- ⇒ Georeferenced data on urban and industrial discharges, plus data on livestock discharge
- ⇒ Numerical modelling of ecological quality in main rivers
- ⇒ Good involvement from water-related administrations and specialists



Problems and solutions (2) lacks

- ⇒ No quantified data at large scale on toxics, micro-pollution, ecological habitats
- ⇒ No general modelling at large scale of groundwater and habitat status
- ⇒ Scientific and technical data lacking on some parts of the calculation process. E. g. rate of discharge from individual non-complying sanitation systems.

Organisation of work (1)

- ⇒ Overall and preliminary work: forecasting workshops on human activities
- ⇒ Specific study on quantitative and calculated data (*Ecodécision & Futuribles*)
- ⇒ A series of expert groups on environmental trends. Objectives: qualitative judgement based on partial data, plus debate and exchange



Organisation of work and links with pressures data (O. "B")

Forecasting workshop for each driver: population, industry, agriculture (integrated econ.+Impress)

General trends on the basin

⇒ Environmental prospective groups

- ✦ drafting group ~ 10 specialists (mostly **Impress**)
- ✦ Hearing of experts
- ✦ 8 sessions / topics

Judgement and projections on environmental baseline evolution


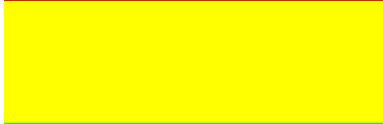



⇒ Model-based studies

- 1) Discharge database (**Impress**) plus local discussion for validation and improvement
- 2) Drivers forecasts (Economists)
- 3) Integration of ongoing programmes (**Impress**)
- 4) (1×2) – 3 → simulation of net discharges after completion of works
- 5) Feeding to the ecological models (**Impact**)
- 6) Simulated results of ongoing work programme**

← 2015

↑ Shift

Remaining work for 2004 report (S-N)

	Current status of w.b.	Likely BAU evolution of indicator from BLS	Risk of failure assessment	
Indicator a		↗	??	→ More evaluation
Indicator b		=	Important	→ and data needed
Indicator c		↗	Low	
Indicator d		=	High	
Indicator e		↘	High	

Remaining work for 2004 report (S-N)

- ⇒ 6 geographical stakeholders meetings;
Presentation of preliminary results (Feb)
- ⇒ Integration of remarks and amendments
(Feb-March)
- ⇒ Official consultation of all local (elected)
authorities (March-Oct.)
- ⇒ Agreement by Basin Committee (Nov)



Remaining work for after 2004 (S-N) Q. "C"

- ⇒ Develop and compare versions of BLS
- ⇒ Open discussion with more stakeholders
- ⇒ Introduce more uncertainty: climatic events, policy or social changes,... = "Non-BAU"
- ⇒ Propose contrasted prospective scenarios
- ⇒ Test and simulate introduction of pre-defined programme of measures
- ⇒ Identify data improvement needs and derogation needs

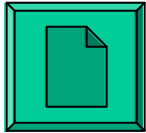




Overview of some preliminary results

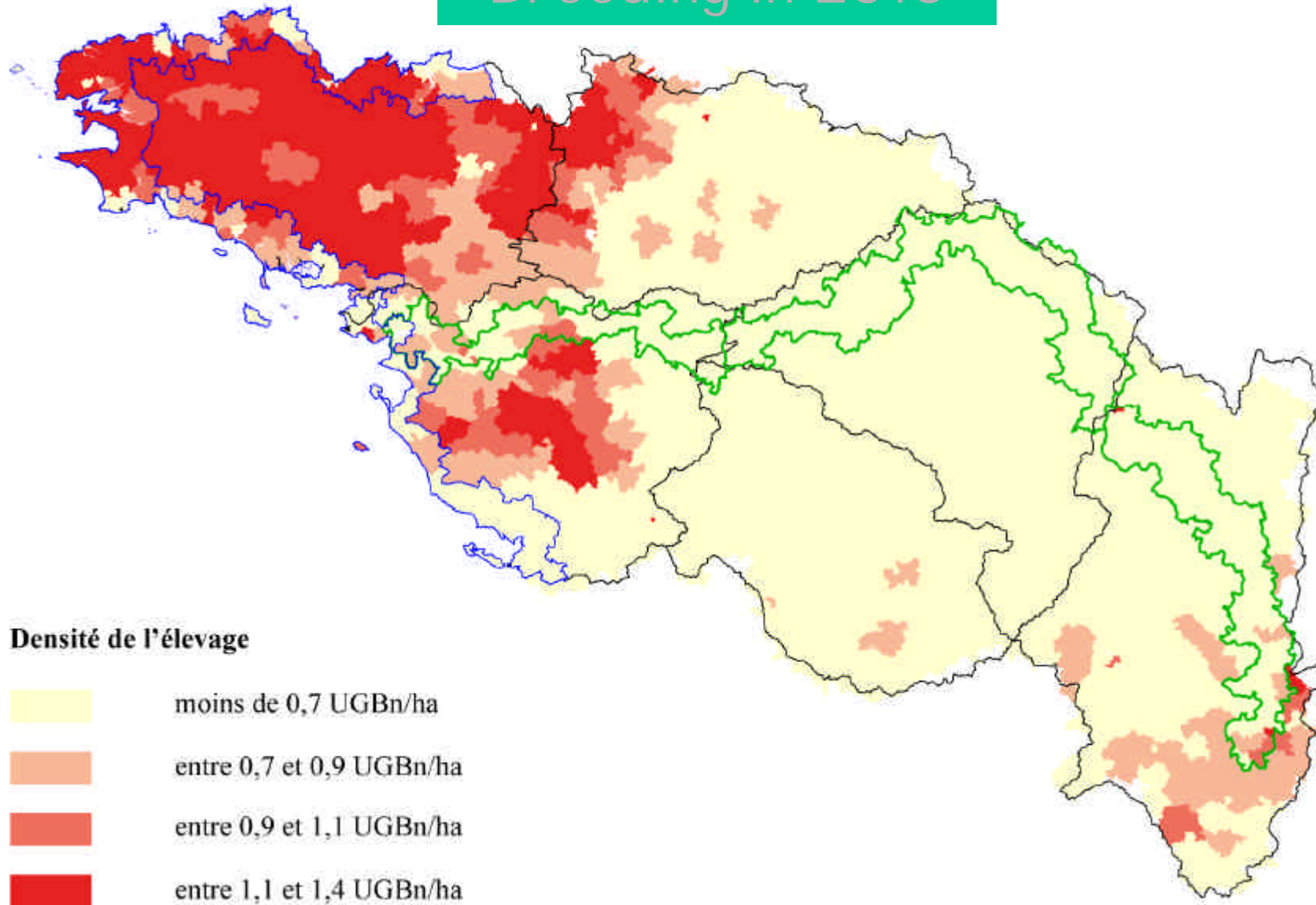
*Central version of Marne PRB
Loire-Bretagne BLS*

S-N. Outlook of main drivers forecasting assumptions

- ⇒ Constant geographic expansion of the Parisian region. Versions: other urban developments more or less dynamic 
- ⇒ Industry: projection of trends in terms of pollution abatement rates. Versions: more or less efforts
- ⇒ Agriculture: progressive homogeneity within agricultural regions. Versions: rapidity of homogenisation.



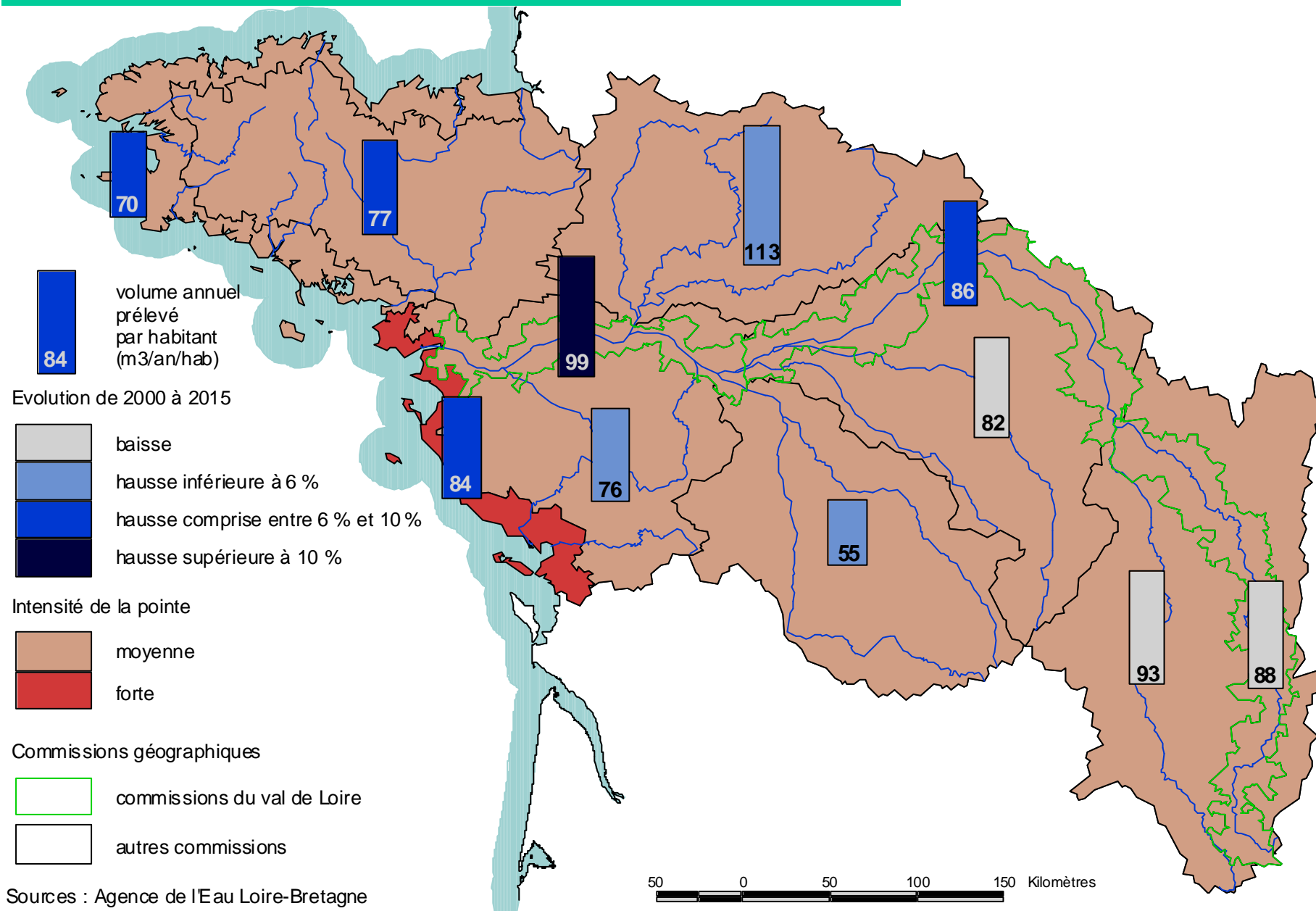
Breeding in 2015



Results: pressures evolution in surface "classical" discharge

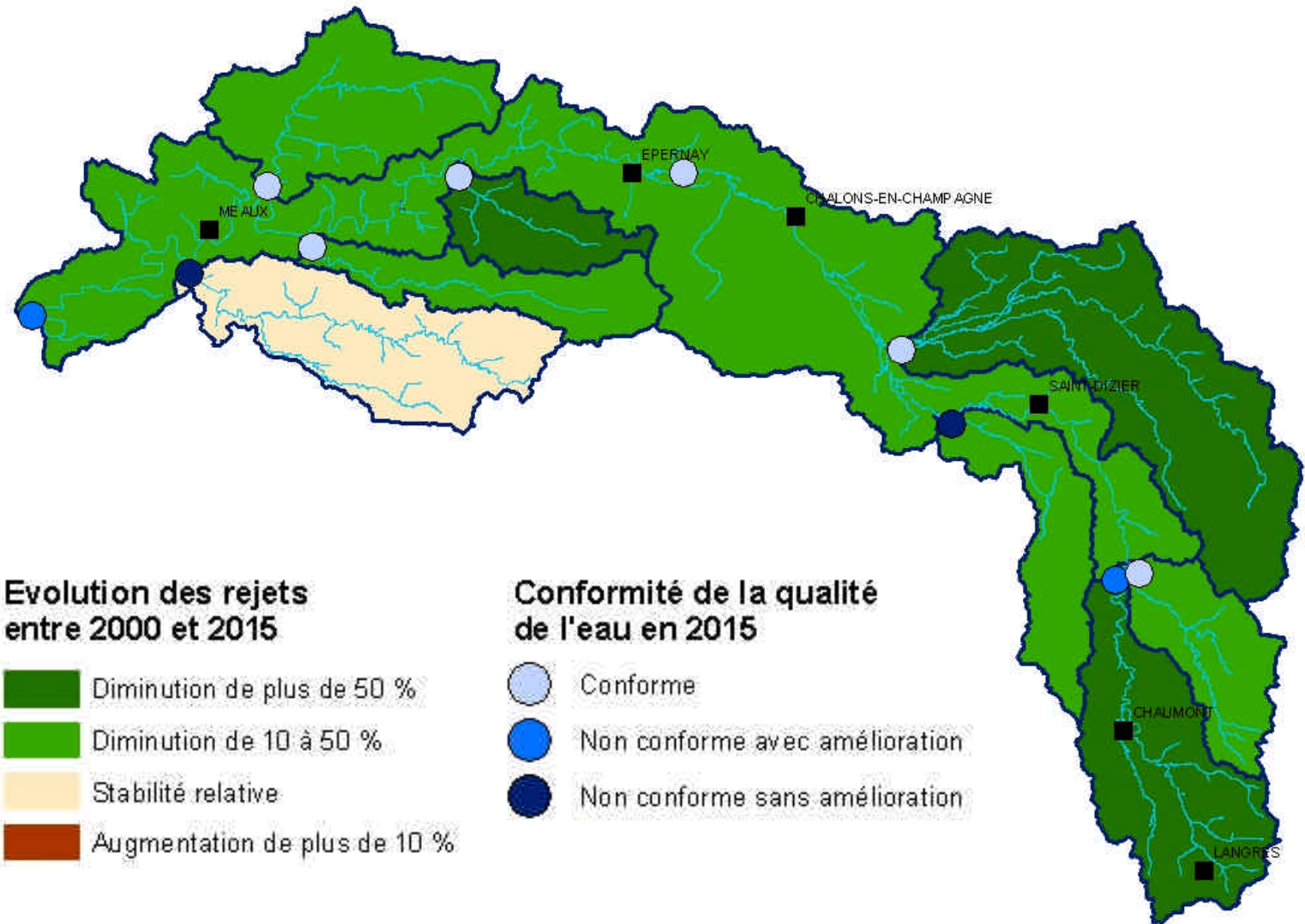
Kg/day		Present discharge	Reduction after works			Residual supposed discharge
			Total	Of which urban	Of which industry	
Marne incl. Paris region	Susp.matt.	45 073	-38%	-9%	-18%	28 050
	OM	21 345	-34%	-4%	-19%	14 032
	N	5 718	-33%	-16%	-11%	3 848
	P	1 898	-36%	-23%	-9%	1 219
Marne without Paris region	Susp. Matt.	19 992	-43%	-12%	-10%	11 338
	OM	11 808	-55%	-14%	-22%	5 365
	N	3 071	-52%	-26%	-16%	1 469
	P	960	-48%	-26%	-17%	500

Abstraction for drinking water in 2015



Sources : Agence de l'Eau Loire-Bretagne

Results (1): Quality simulation (Phosph.)



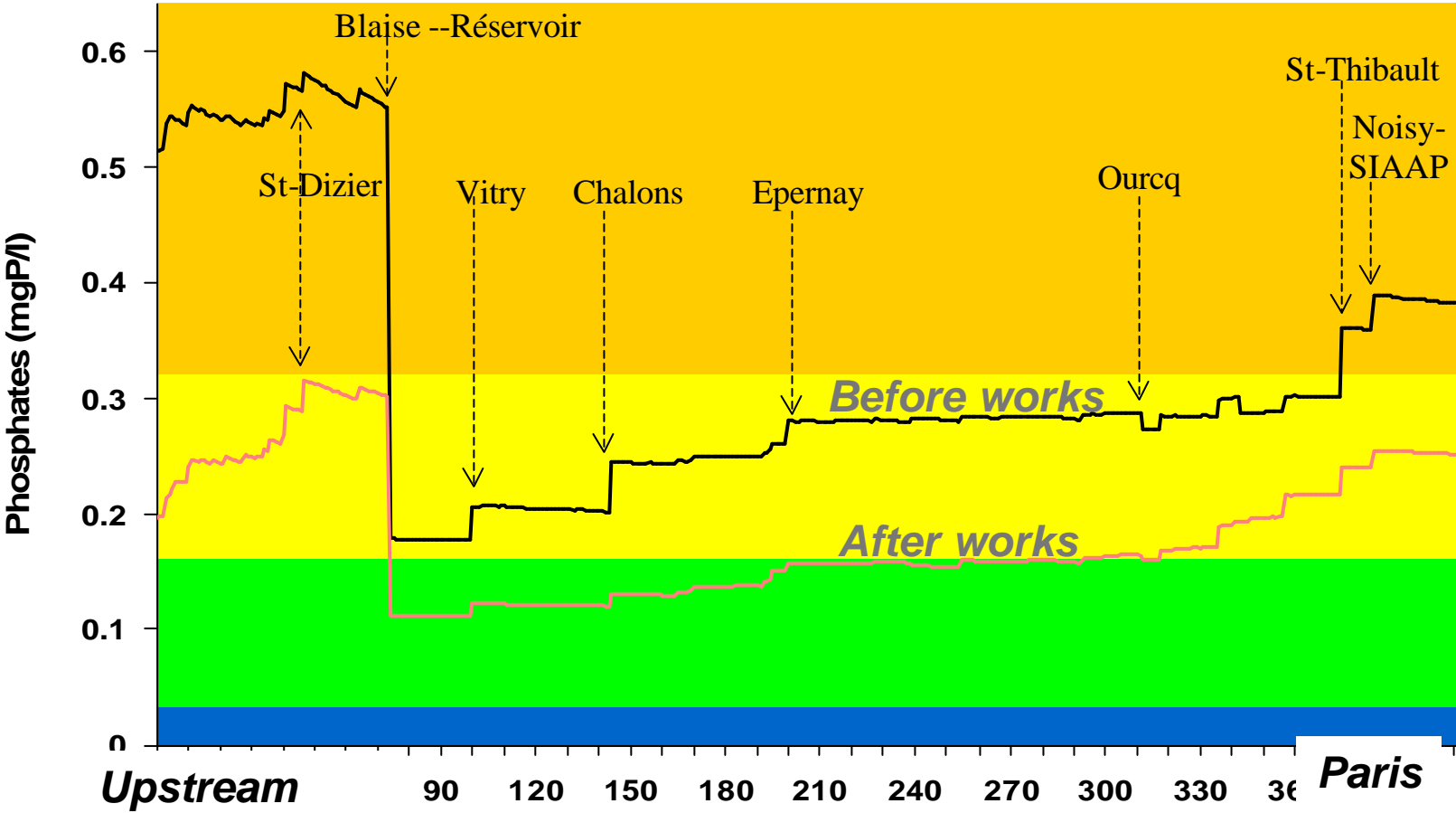


Results (2): Quality simulation

Last decade of July

Hydrological reference: low rainfall (« dry » year)

— Situation 2000 — Situation after works



Main lessons derived from experience

- ⇒ Qualitative assessment and judgement covering wide range of parameters must come along with partial models results
- ⇒ The hardest job is to make things simple though sufficiently valid to bring participation and integration
- ⇒ Deriving several baseline “versions” proved possible and fruitful
- ⇒ Importance of stressing that results do not predict “2015” but only simulate what will come after completion of works: hopefully *before 2015*
- ⇒ Assumptions on general economic growth, and general compliance with regulations, are efficient drivers for baseline simulation





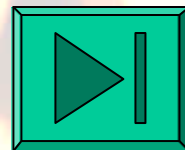
← 2015

Evaluation and Prospective

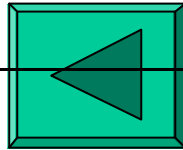
↑ Shift

Thank you for your attention

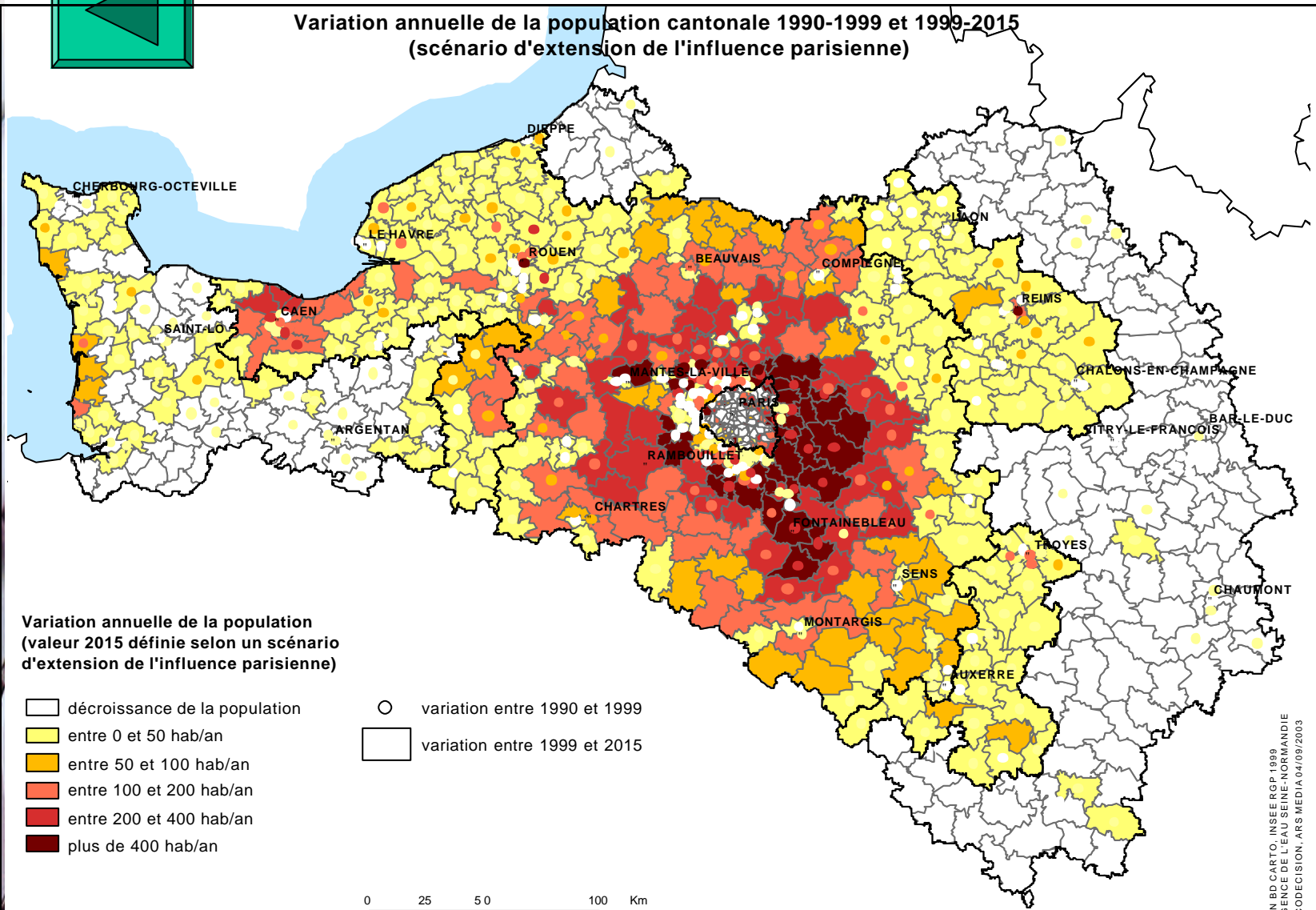
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Central version of baseline on the district: demographic projections



Variation annuelle de la population cantonale 1990-1999 et 1999-2015
(scénario d'extension de l'influence parisienne)



Source : INSEE RGP 1999

0 25 50 100 Km

IGN BD CARTO, INSEE RGP 1999
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ECODECISION, ARS MEDIA 04/09/2003

Evaluation and Prospective

← 2015

↑ Shift

