

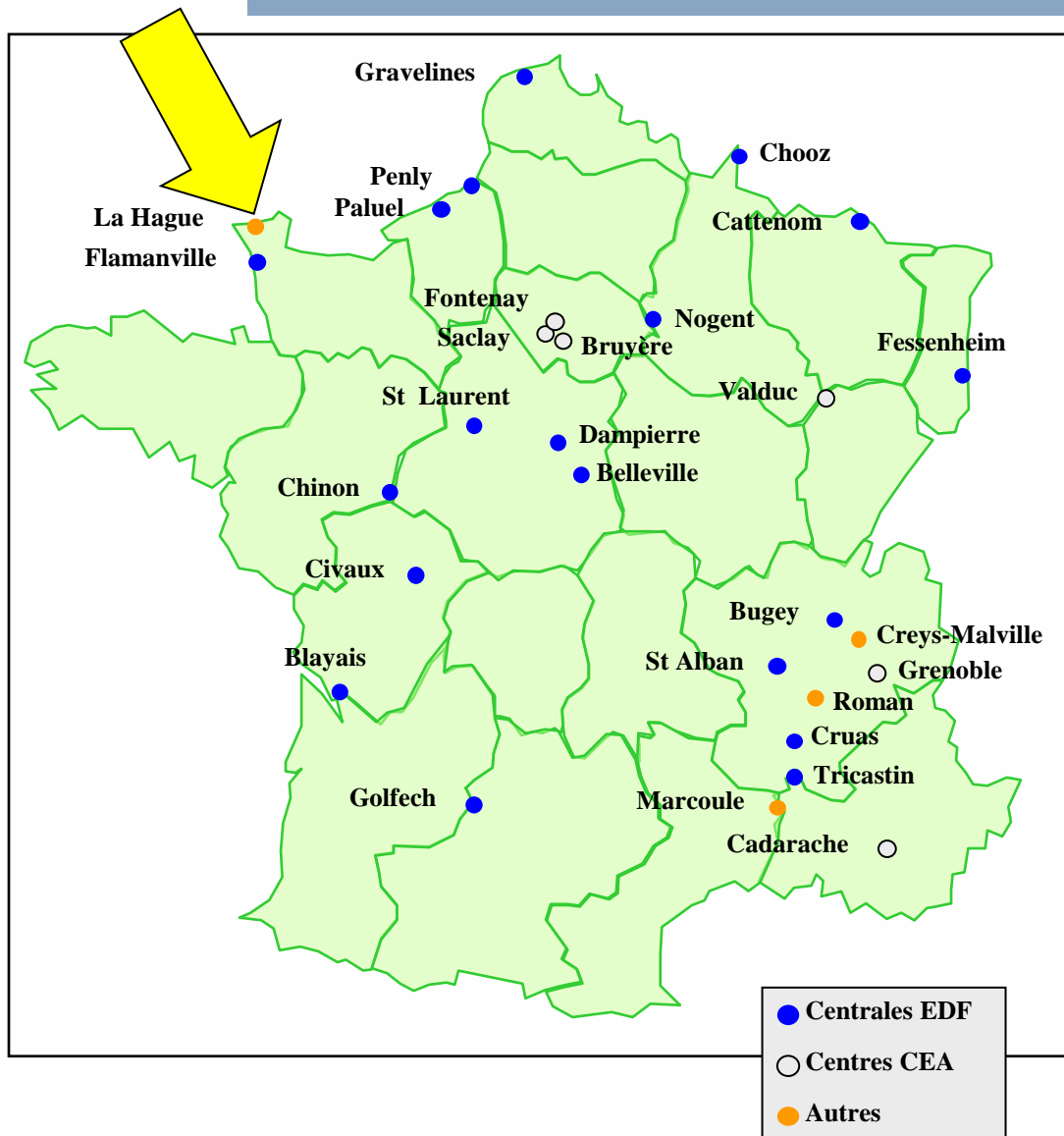
Experience from the French Nord Cotentin Study: *Involving stakeholders in the planning, implementation of dose and risk estimate studies*

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- n The context
- n Creation of the GRNC and objective
- n The GRNC's Work
- n The point of view of experts, NPOs and stakeholders
- n The GRNC consequences

The Beaumont-Hague Canton in Normandy



- n La Hague reprocessing plant started operation in 1966

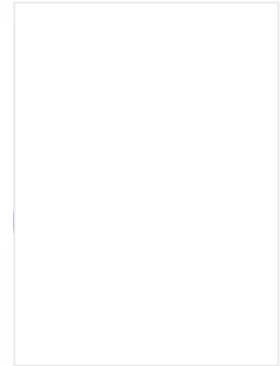
- n Publication of epidemiological studies by Pr Viel and his team (1995 & 1997) :
 - n Suggestion of an excess of leukæmia around La Hague reprocessing plant (4 cases observed versus 1.4 cases expected)
 - n Proposal of causal factors

- n Strong reactions among the local population and national debate on this publication

Reactions in the newspaper

Le Monde

Thursday 17 April 1997



La Hague est-elle mortelle ?

Is La Hague fatal?

- n Creation by the Ministries of Health and Environment in July 1997 of:
 - n A mission for launching a new epidemiological study
 - n An expert group for studying the exposures and associated risk:
 - ➔ *Group Radioecology Nord-Cotentin - GRNC*
- n Including a pluralistic group of experts
 - Operators
 - Public experts
 - Local and national NPOs
 - Foreign experts

- n To reconstruct the doses for the 1966-1996 period and to estimate the risk of leukæmia associated with ionising radiation for the 1978-1996 period from:
 - n Industrial sources
 - n Medical practices
 - n Natural sources

Rules of co-operation in the Group

- n No obligation to reach a consensus
- n Traceability of debates
- n Sharing of information among the Group
- n No confidentiality for the members of the Group
- n Regular contacts with local stakeholders:
 - n *Local group “Angry mothers”*
 - n *Local Commission of Information of La Hague reprocessing plant*

Main outcomes after 2 years

- n Clarification of the radioactive discharges
- n Mutual validation of the different measurements from operators, authorities and NPOs
- n Setting of exposure scenarios based on actual local behaviours (contribution of the local NPOs)
- n A radio-ecological model recognised by all parties involved
- n Estimates of radiation induced risk of leukaemia based on the LNT assumption

Conclusions of the GRNC after 2 years (1)

EXPOSURE SOURCES	NB OF CASES OF RADIATION INDUCED LEUKAEMIA	%
NATURAL	0.62	74%
MEDICAL	0.2	24.3%
NUCLEAR TESTS & CHERNOBYL	0.01	1.5%
NUCLEAR INSTALLATIONS	0.0019*	0.2%
TOTAL	0.83	

* plus 0.0003 for in utero exposure non included

Conclusions of the GRNC after 2 years (2)

- n An estimated number extremely low for radiation induced leukaemia associated with discharges of nuclear installations
- n Average estimate but margins of uncertainty have not been quantified
- n Some members of the Group maintained the hypothesis that the nuclear installations might be at the origin of the observed excess of leukaemia.

Reaction in the newspaper

Friday 2 July 1999

EXCLUSIF: LA HAGUE EST SANS DANGER !
(no danger)

La Hague : le rapport qui rassure
(A report that reassures)

Leucémies : le doute persiste
(Leukaemia: there is still a doubt)

Assessment by the NPOs experts

- n Participation in the Group provided an opportunity to get information on the models and assumptions
- n The broad composition of the Group promoted the richness and quality of debates
- n The co-operation rules allowed participation while respecting each participant position
- n The results still include large uncertainties and chemical discharges also need to be investigated

The point of view of the "Angry Mothers"

- n GRNC was an important step to obtain information about nuclear installations
- n The participation of local NPOs and GRNC's conclusions were key contributions to social trust
- n Our concerns have been taken into account and we have obtained an understandable information
- n **The Angry Mothers decided to continue their engagement with the organisation of an international exercise of measurements with mobile equipment in Autumn 2000**

The GRNC consequences

- n Publication of the results was not the end of the process
- n The works of the Group contributed to:
 - n The creation of a cancer registry under the leadership of a regional network of medical physicians with regular publications and communication with local stakeholders
 - n The creation of a data base on environmental monitoring including measurements from different origins
 - n The reflection on national and European scientific researches on the origins of childhood leukaemia