

Sendai - Public Forum – « ONRN » Side Event – 17 March 2015 – Tohoku University

Platforms for risk data sharing and participative governance, from national to local

*Experience sharing
with the French National Observatory for Natural Risks (ONRN)*





Patricia BLANC
Director General
Delegate for Major Risks
French Ministry of Ecology,
Sustainable Development and
Energy (MEDDE)

Welcome address
Introduction of the invited
discussants



Roland NUSSBAUM
MRN, CEO
ONRN Mgt Committee Member

Moderator of the event

- **Pr Dr Norio OKADA**
Kwansei Gakuin University, JAPAN,
chairman of IDRIM Society, international association
addressing integrated disaster risk management,
- **Pr Dr Annegret THIEKEN**
University of Potsdam, GERMANY,
chairperson of the Scientific Committee
of the German National Platform (DKKV)
- **Julio SERGE**
UN-ISDR GAR Team
- **Sarah WADE-APICELLA**
UN-ISDR, Editor of PreventionWeb,
coordinator of IKM4DRR Network

First Panel:
ONRN presentation by the Members of the Agreement





Introductory movie to the first panel session: Interviewing the ONRN partners



Marc JACQUET
Head of Major Natural and
Hydraulic Risks Department,
DGPR, Directorate General
for Disaster Risk Reduction
(DGPR),
French Ministry of Ecology,
Sustainable Development
and Energy (MEDDE)

*The ONRN governance
and objectives*

The National Observatory for Natural Risks project was born from the shared vision of the insurers and the French government after the devastating natural disasters in 2010 (Xynthia).

1- Setting up in 2012

A partnership agreement between the French government represented by the MEDDE, CCR and MRN, signed in May 2012 and renewed in July 2014 for 3 years



Xynthia, 28 février 2010

2- Its main objectives

- To improve and capitalize knowledge on natural hazards and exposed populations
- To contribute to the management and governance of risk prevention
- To enhance economic analysis of prevention and crisis management
- To improve risk culture at national and local levels.

Coming together for better anticipation and action

Management committee

Takes all decisions, sets its management and communication policy, constitutes work groups. Results of actions are presented annually to the COPRNM.

Data producers

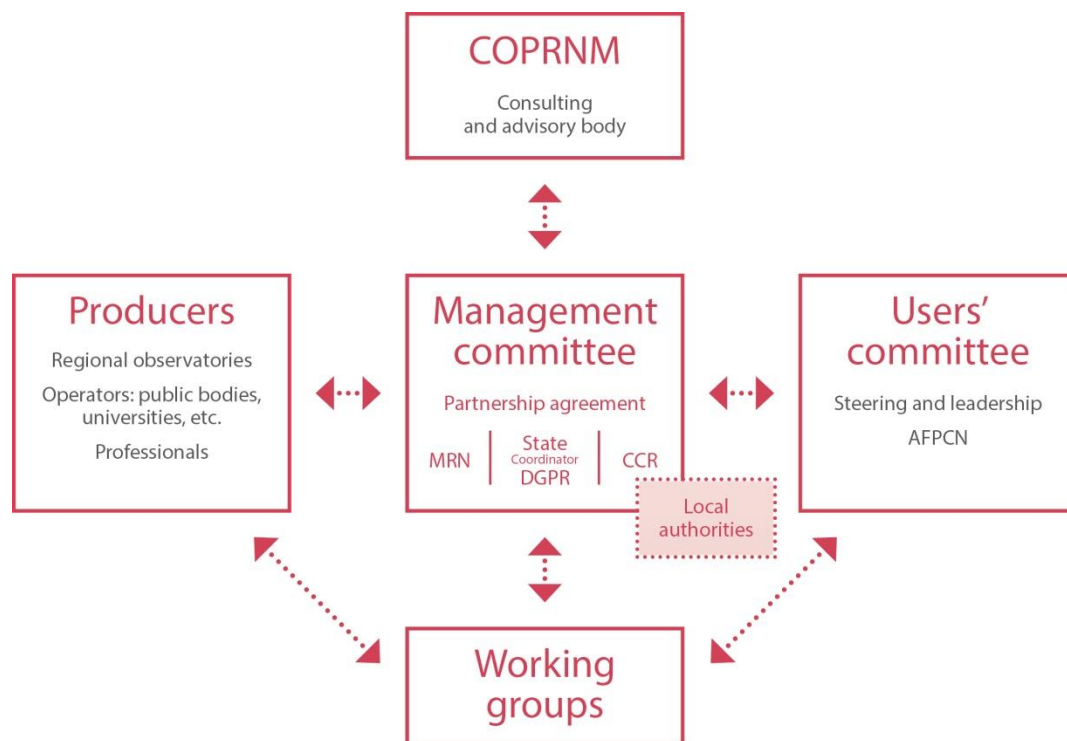
Different partners in data production can be associated to the ONRN actions. Exchanges and services governed by agreements.

The users' committee

Led by the AFPCN- an expression of the users' expectations and opinion on the ONRN work

Working groups

Lead the work conducted on the selected topics and validate the results.



The ONRN productions so far... and 2015 Action Plan



Achievements



1- The ONRN web portal opened on March 2013

Different services available on line to provide access to data bases, stakeholders' projects, events... (to be presented by CCR)

2- National indicators

36 specific indicators produced by the ONRN covering flood, subsidence and storm hazards on risk exposure, damages, prevention measures, available open source for download via an interactive cartographic interface and documented by standard factsheets and metadata

3- Three project partnerships

2 partnerships were made official between the ONRN and entities acting at local level in the areas of natural disaster management and prevention : IAU IdF, ORRM PACA and a third one with EPTB SGL is about to be agreed

4- An increasing committee of end users

Managed by the French Association for Disaster Risk Reduction (AFPCN)

5- Several publications

Booklets on the ONRN and its portal, two numbers of the "Cahiers de l'ONRN"

1- Broadening knowledge with partners

Continue experiments with current project partners and forge new partnerships, especially on the knowledge about sinistrality

2-Producing national and local indicators

Extending indicators to other topics and to all hazards, testing territorial indicators with regional or local partners

3- Structuring, providing access to and adding value to knowledge

Updating the data inventory, the stakeholder directory., updating loss data provided by the insurance industry, consolidating and sharing knowledge on the impacts of natural disasters

4- Promoting and developing the website

The ONRN national risk data sharing platform contributes to the post 2015 framework for disaster risk reduction :

1- Understanding disaster risk

ONRN progressively provides access to and share key information useful to activities and decision making process, produces indicators on assets exposure and loss data, favors scientific and technical development through open source data

2- Strengthening governance and institution to manage disaster risk

ONRN is in relation with the National DRR Platform (COPRNM/AFPCN) and is integrated in the National framework for DRR governance (COPRNM/CMI)

ONRN contributes to pilot risk transfer mechanisms, favors public private partnership, contributes to the integration of DRR into sectors such as health, critical infrastructures...

3- Investing in disaster risk reduction for resilience

ONRN favors exchange of information, cooperation, interdisciplinary and inter-territorial dialogue, observation. It provides reference data to education and training on DRR

4- Enhancing disaster preparedness for effective response

ONRN contributes to improve disaster management capacities (policy, technical and institutional), favors dialogue, coordination & information exchange between disaster managers and development sectors, as well as voluntarism and participation. It promotes regional approaches to disaster response, with risk reduction focus.

The specific contribution of the MEDDE



A complementary approach between public and private stakeholders, in order to reduce vulnerability and damages, to improve prevention measures and risk culture, to better value economic, human and environmental stakes.

Some contributions of the MEDDE are listed hereafter :

- **Co-presides ONRN, acts as the secretariat of the management committee**
- **Encourages financially the development of the technical partnership**
- **Coordinates the exchanges with other instances (its regional directories, COPRNM, other ministries, local authorities...)**
- **Promotes and creates synergies with territorial observatories**
- **Involves the MEDDE services (DGPR, CGDD, DGALN) and its public operators (BRGM, CEREMA..) in the ONRN works**
- **Shares experience in the areas of understanding and preventing natural hazards & Eases access to public databases on natural risks (GeoRisques)**
- **Gives access to the MEDDE documentary database on natural risk and feedbacks**



Laurent MONTADOR
CCR, Deputy CEO

**ONRN indicators on
insured losses**
**Cross fertilization of
informations in Public
Private Partnerships**

CCR and ONRN: private public partnership with French State and insurers

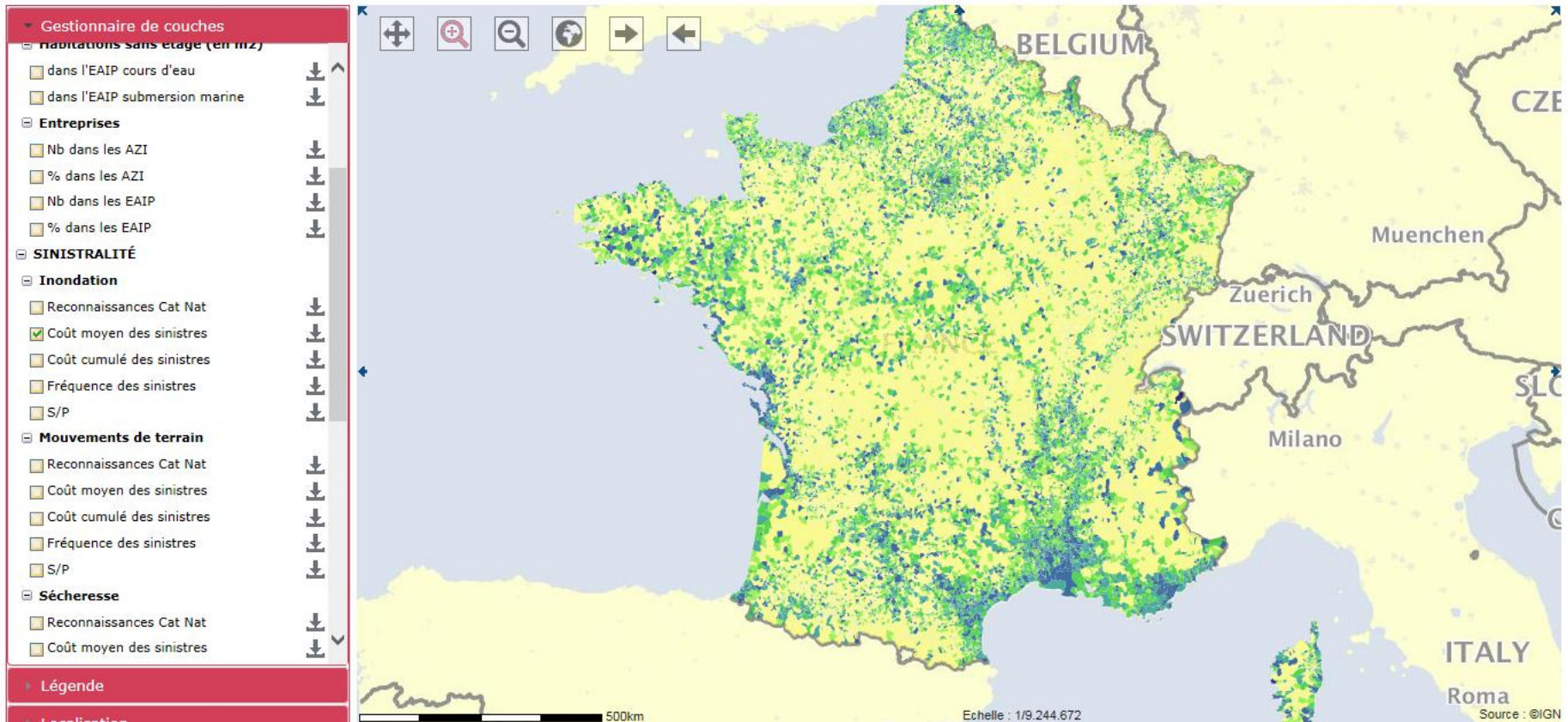


- **CCR is the reinsurance company 100% owned by the French State tasked with designing, implementing and managing efficient instruments providing risk transfer solutions for exceptional perils to meet the needs of its clients as well as serve the general interest.**
- **Why having participated in the creation of ONRN?**
 - **Public company, a component of French Nat Cat regime, fully integrated in public private activities**
 - **Collecting informations from its private clients, the insurers.**
 - **Developping, with other scientific organisms, models to measure the exposure of the insurers, CCR and finally the State**
 - **Participating to prevention as one of its mission for the general interest**

Indicators : available for France main land and overseas (36 indicators)

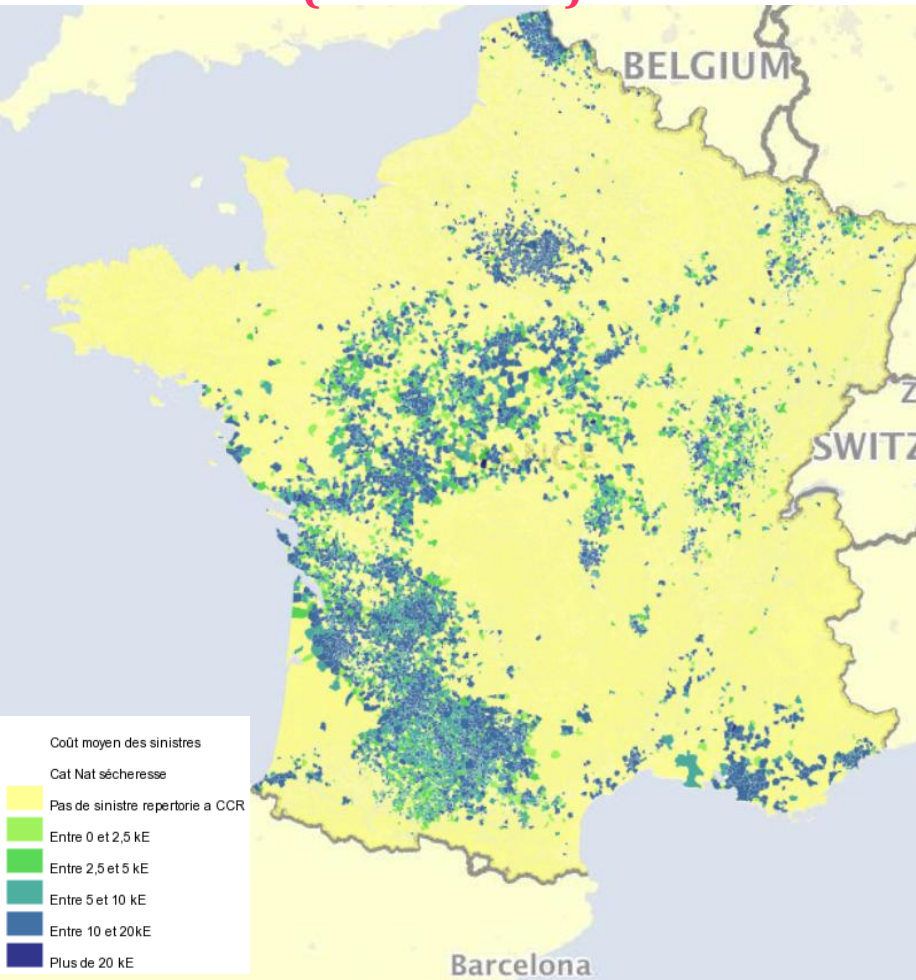
Indicateurs de l'ONRN

[Revenir sur le site de l'ONRN](#)

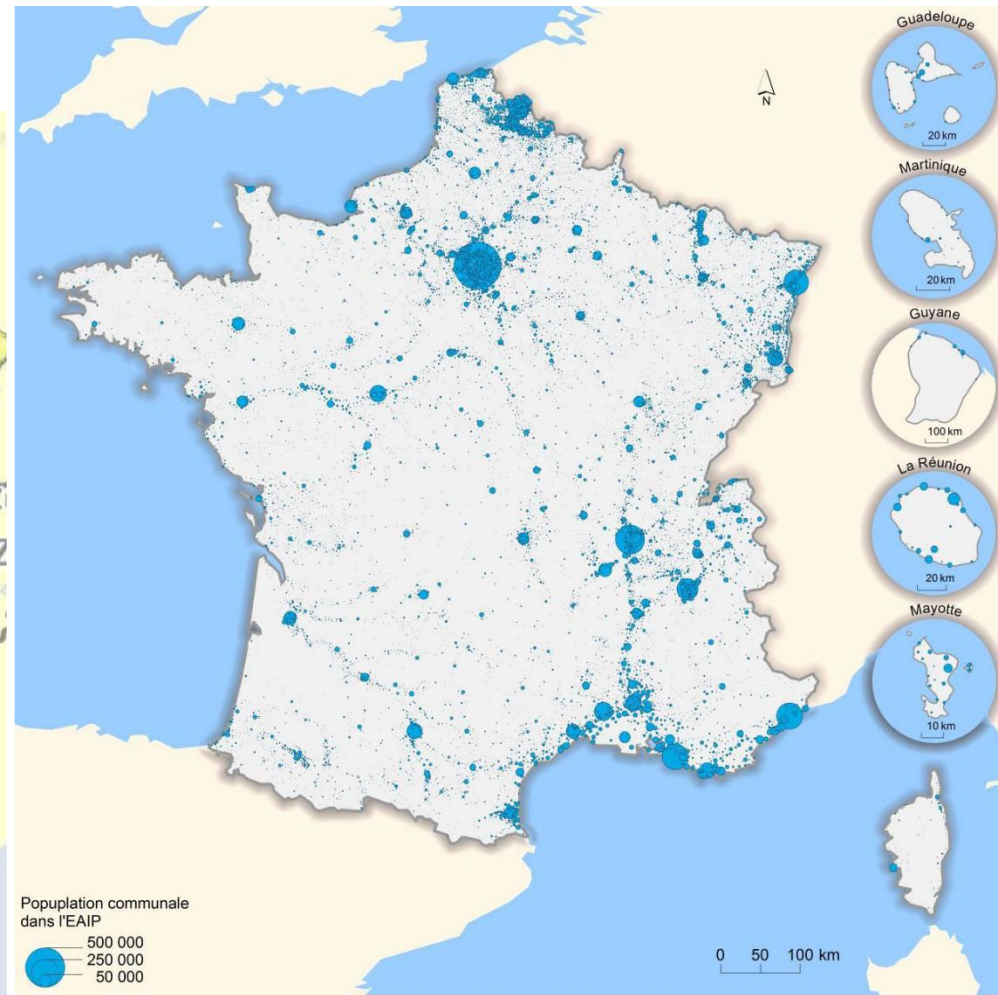


Examples of national indicators produced

Average subsidence insurance claims (1995-2011)



Source : ONRN/CCR



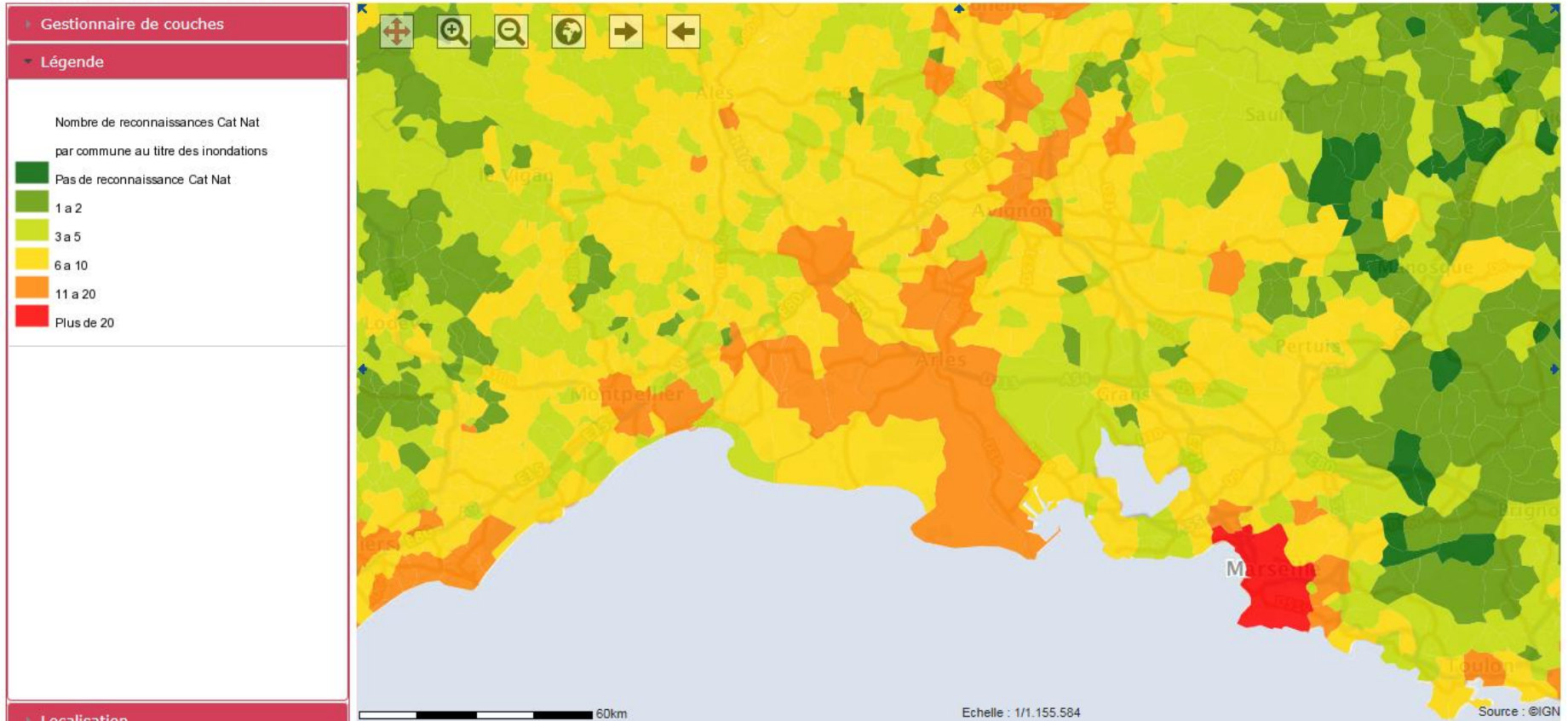
Population exposed to river floods (EAIP)

Source : ONRN/MEDDE, 2011

South east : number of Nat Cat State recognitions in the area of Arles

Indicateurs de l'ONRN

[Revenir sur le site de l'ONRN](#)

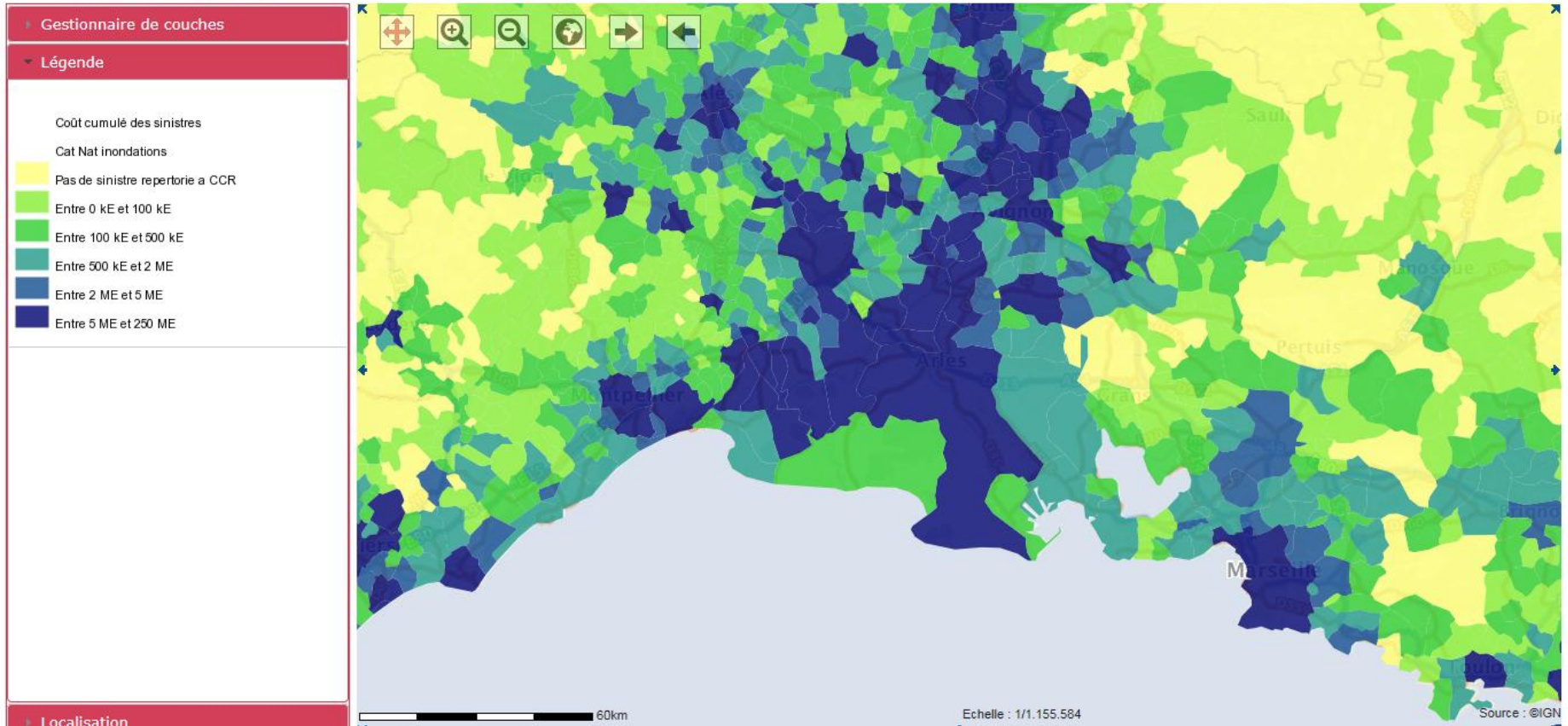


Source : ONRN/CCR

South East : cumulated insured cost from 1995 to 2011 in the area of Arles

Indicateurs de l'ONRN

[Revenir sur le site de l'ONRN](#)

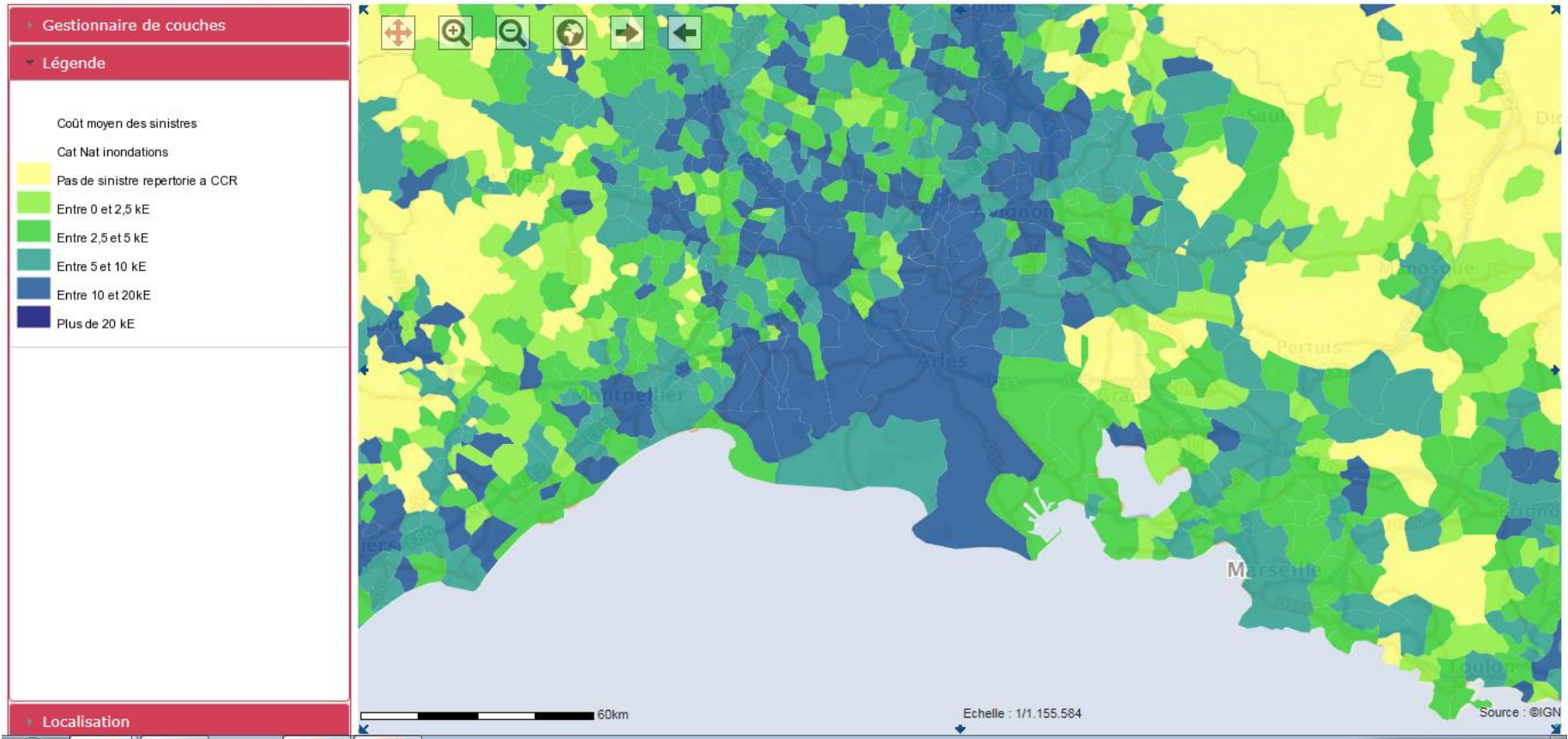


Source : ONRN/CCR

South East : Average insured cost of floods from 1995 to 2011 in the area of Arles

Indicateurs de l'ONRN

[Revenir sur le site de l'ONRN](#)

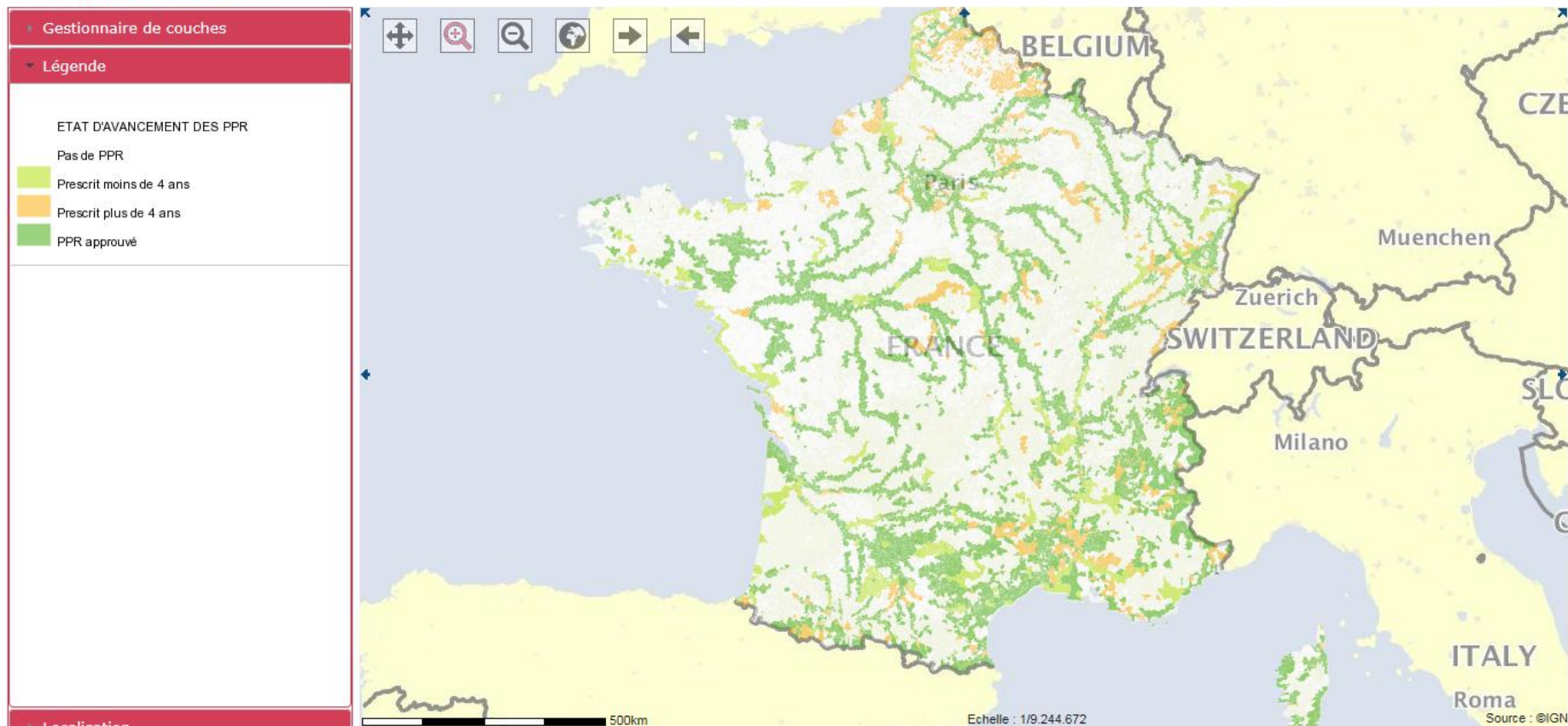


Source : ONRN/CCR

Indicators on risk reduction programmes: Progress status of flood prevention plans

Indicateurs de l'ONRN

[Revenir sur le site de l'ONRN](#)



Access and upload of detailed informations



Indicateur_CCR_ToutPublic_CoutMoyen_1995_2011 [Lecture seule] [Mode de compatibilité] - Microsoft Excel

	A	B	C	D	E
	Code INSEE	Commune	Coût moyen des sinistres inondation (tous types) (Somme : coulée de boue, remontée de nappe, submersion marine)	Représentativité des sinistres inondation (tous types) (Somme : coulée de boue, remontée de nappe, submersion marine)	Nombre de sinistres inondation (tous types) (Somme : coulée de boue, remontée de nappe, submers)
33960	83035	Le Castellet	Entre 5 et 10 k€	> 30%	[20 - 50[
33961	83036	Cavaire-sur-Mer	Entre 5 et 10 k€	> 30%	[100 - 500[
33962	83037	La Celle	Entre 10 et 20k€	Entre 15 et 30%	< 20
33963	83038	Châteaudouble	Entre 10 et 20k€	> 30%	[50 - 100[
33964	83039	Châteauvert	Entre 10 et 20k€	Entre 15 et 30%	< 20
33965	83040	Châteauvieux	Pas de sinistre répertorié à CCR	Pas de sinistre répertorié à CCR	Pas de sinistre répertorié à CCR
33966	83041	Claviers	Entre 2,5 et 5 k€	> 30%	< 20
33967	83042	Cogolin	Entre 10 et 20k€	Entre 15 et 30%	>= 500
33968	83043	Collobrières	Entre 5 et 10 k€	Entre 15 et 30%	[20 - 50[
33969	83044	Comps-sur-Artuby	Entre 2,5 et 5 k€	Entre 15 et 30%	< 20
33970	83045	Correns	Entre 10 et 20k€	Entre 15 et 30%	[20 - 50[
33971	83046	Cotignac	Entre 2,5 et 5 k€	> 30%	[50 - 100[
33972	83047	La Crau	Entre 10 et 20k€	> 30%	< 20
33973	83048	La Croix-Valmer	Entre 5 et 10 k€	Entre 15 et 30%	[100 - 500[
33974	83049	Cuers	Entre 2,5 et 5 k€	> 30%	< 20
33975	83050	Draguignan	Entre 10 et 20k€	> 30%	>= 500
33976	83051	Entrecasteaux	Entre 2,5 et 5 k€	> 30%	[50 - 100[
33977	83052	Esparron	Entre 0 et 2,5 k€	Entre 15 et 30%	< 20
33978	83053	Évenos	Entre 0 et 2,5 k€	> 30%	< 20
33979	83054	La Farlède	Entre 5 et 10 k€	> 30%	< 20
33980	83055	Fayence	Entre 5 et 10 k€	> 30%	[100 - 500[
33981	83056	Figanières	Entre 10 et 20k€	> 30%	>= 500
33982	83057	Flassans-sur-Issole	Entre 2,5 et 5 k€	> 30%	[50 - 100[
33983	83058	Flayosc	Entre 10 et 20k€	> 30%	>= 500
33984	83059	Forcalqueiret	Entre 0 et 2,5 k€	> 30%	< 20
33985	83060	Fox-Amphoux	Pas de sinistre répertorié à CCR	Pas de sinistre répertorié à CCR	Pas de sinistre répertorié à CCR

Interoperability of systems

local -> central -> local -> central



- Many different systems existing at different levels with lots of data in different places.
- Need to have common view with simple access.
- Need to cross fertilize the data for better insights, inference, policy orientation and measure progress.
- Inter-operability of the systems is then a MUST in which ONRN first indicators creation has proven the efficiency, with lot of work!
- Is continuing to get an integrated vision fom LOCAL to GLOBAL with a continuous spectrum of granularity (GIS coding). A need for some normalisation.



Roland NUSSBAUM
MRN, CEO
Member of ONRN Mgt
Board

ONRN interactions with:

- **Stakeholders and project partners**
- **international and EU initiatives**

French direct insurance market early approach: MRN



Mission des sociétés d'assurances pour
la connaissance et la prévention des risques naturels

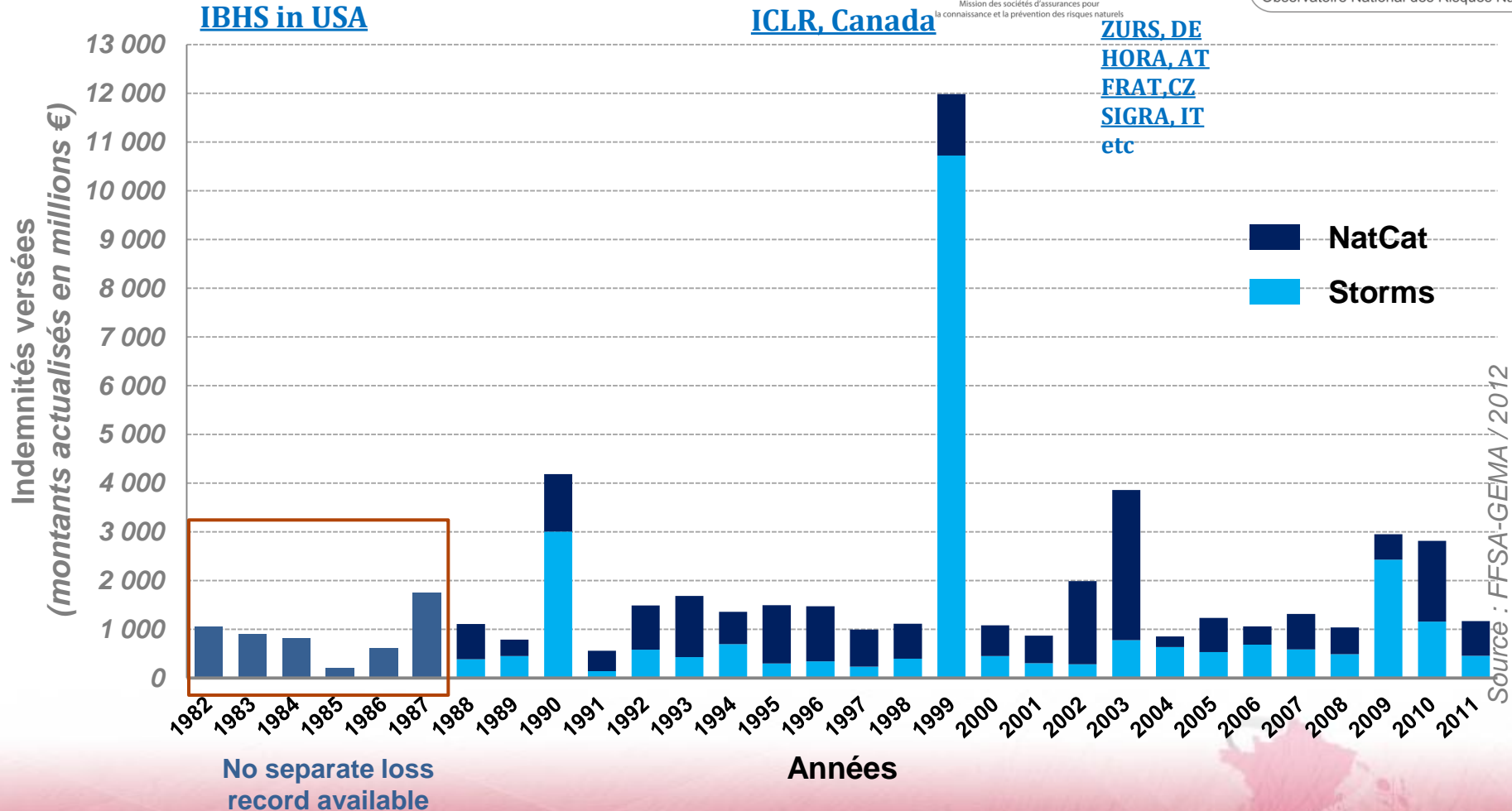
**An association dedicated to NatCat risk knowledge and reduction,
in partnership with public authorities, created in 2000 between:**



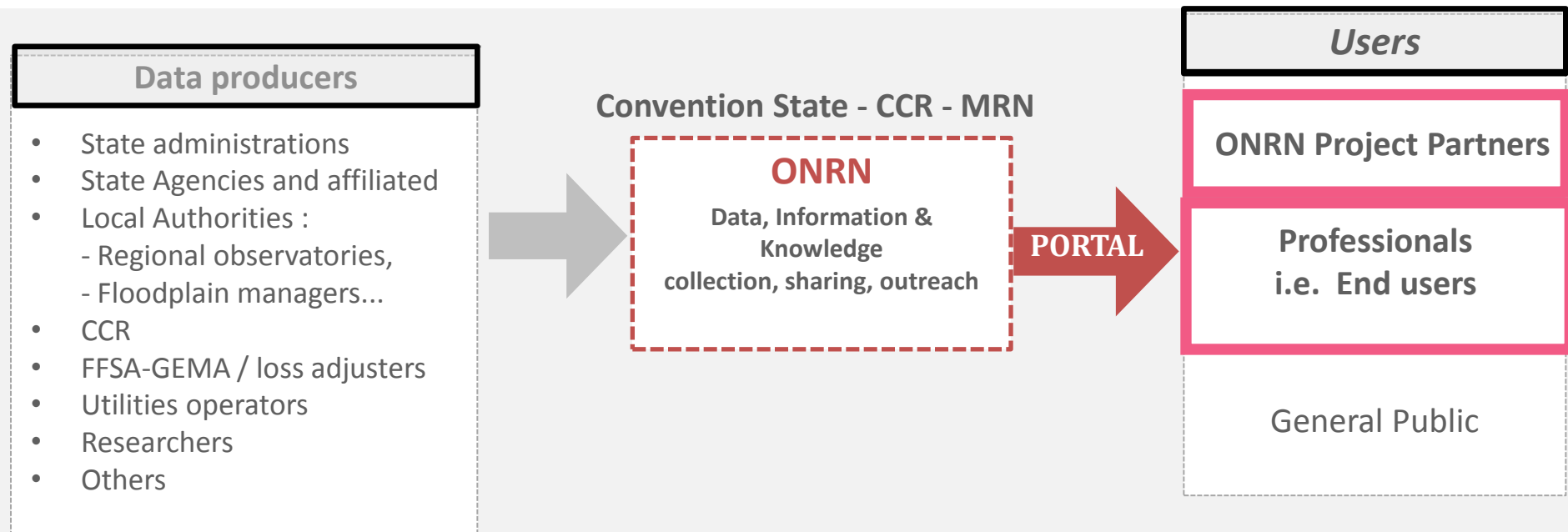
www.mrn.asso.fr

1. Why and how direct insurers promoted this agreement?

Insurance Market PSP-DRR developments in France and other countries



2. ONRN interactions with stakeholders ... enrolling project partners



At International level

- **UN-ISDR**
since Global Platform 2013
- **Integrated Disaster Risk Management (IDRIM) Society**
since 2013 annual conference
- **Global Forum of Insurance Associations (GFIA)**
& **Insurance Europe...**

At European Union level

- **DG ECHO and DG JRC**
EU Loss Data Project
- **DG MARKT**
White paper on insurance of natural catastrophes
- **CG CLIMA**
Actions 4 & 5 (ClimateAdapt Platform)
- **DG RESEARCH & INNOVATION**
FP7 Projects KNOW-4-DRR, ENHANCE...



JRC SCIENTIFIC AND POLICY REPORTS

Current status and Best Practices for
Disaster Loss Data recording in EU
Member States

A comprehensive overview
of current practice in the EU
Member States

Tom De Groeve
Karmen Poljansek
Danielle Ehrlich
Christina Corbane

2014



Thank you for your attention
www.onrn.fr



Debate with First Panel



Second Panel:
**Interactions of a national observatory
with End Users communities
and cooperative action
with regional and local Observatories**

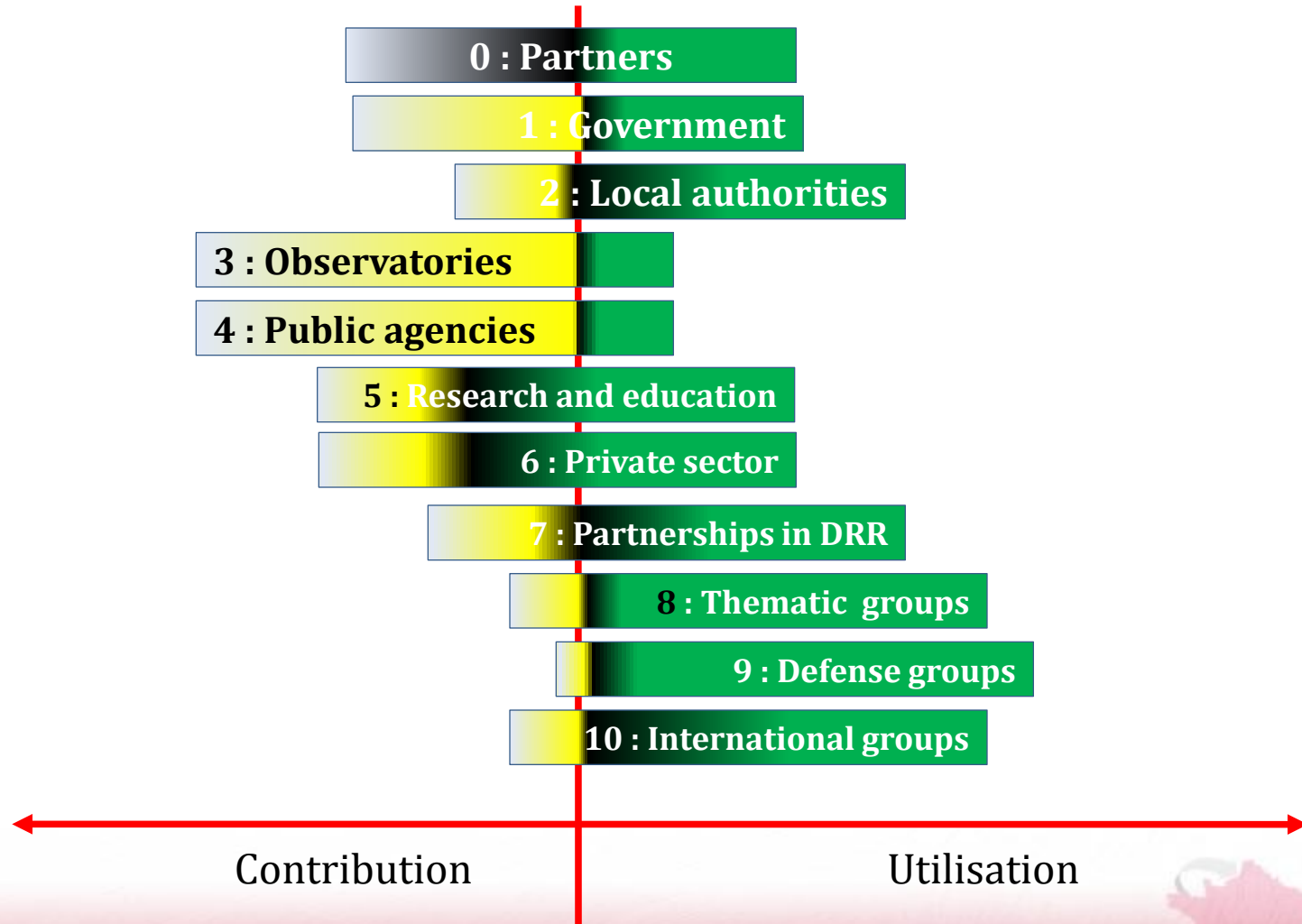




François GERARD
AFPCN
Association of the
French National Platform

The ONRN End Users
Committee

User Committee participants categories

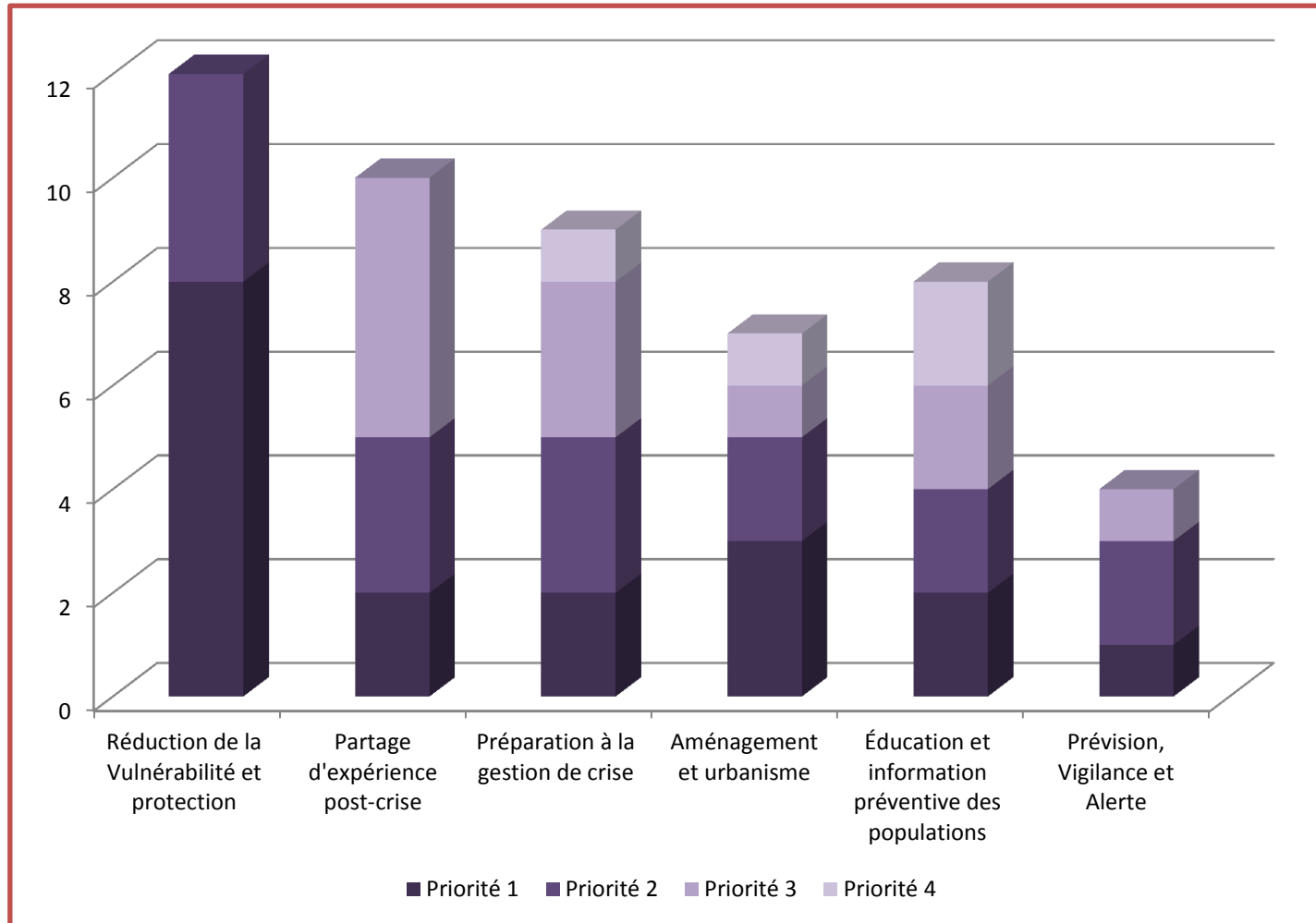


User hierarchy of expectations

Source :
Etude
réalisée
en mars
2013 par
Olivier
Cartier-
Moulin

Pour le
CU de
l'ONRN

(Détail
cet
après-
midi)



Partnership
development

Structural expectations

Observatories :

Recognition, valorisation, networking,
common platform ;

Operators :

Competencies and methods networking,
valorisation ;

University, research :

forum, debate, knowledge spread ;

All :

interoperability.

Sinistrality
workshops

Practical expectations

Data types :

Indicators,
"Raw" data (to be discussed)

Portal
2013

Scale :

Territorial (what does it mean ?);

Confidence :

Documentation,
Validation and qualification,
Tracking

Portal
2015

Legal status :

Accessibility (open data ?)
Legal role ?
Producer responsibility ?
User responsibility ?

The offer: need for new actions

An example on disaster loss data issue



Public DRR objectives		Potential offer of insurance data
Information and awareness raising of local decision-makers		Events data base implementation
Knowledge increase	Development of decision making support tools	Sinistrality and events data base enriched by additional geo localised data and/or Exerpts from insurance experts (geo localisation and costs)
	Development of forecast and warning tools	
	Reduction of construction vulnerability at asset level	Exerpts from insurance experts reports (position and damaging according to material)



Pr Patrick PIGEON
University of
Savoie – Mont Blanc



**ONRN activities with
regional observatories
Contribution of applied
research**

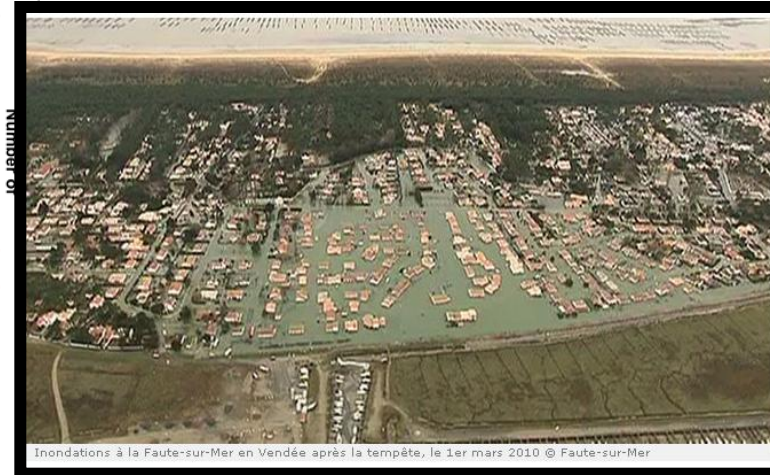
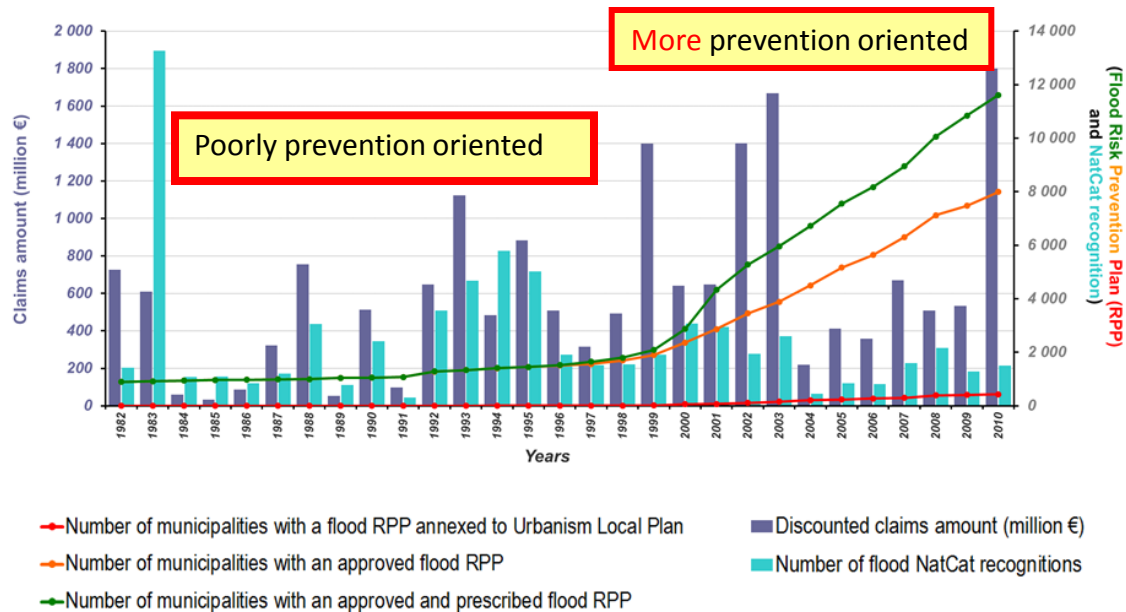
IKM4DRR as a PPP platform for risk data sharing and participative governance: French ONRN

« **Developing national risk assessment to refine risk management planning** »
European commission, guidelines for recording disaster loss data, 2015, p. 2.
European Union civil protection legislation, 17 Dec. 2013

Why a French KMS such as ONRN?

DRR policies necessary, yet limited....

Compared evolution of flood RPP progressing and annual claims in metropolitan France



More prevention oriented...yet still with peak losses (as with Xynthia related disasters...). Needs to reconsider the French national DRR policy (once again...) but with a KMS : ONRN

Where do we find the most disaster prone areas?

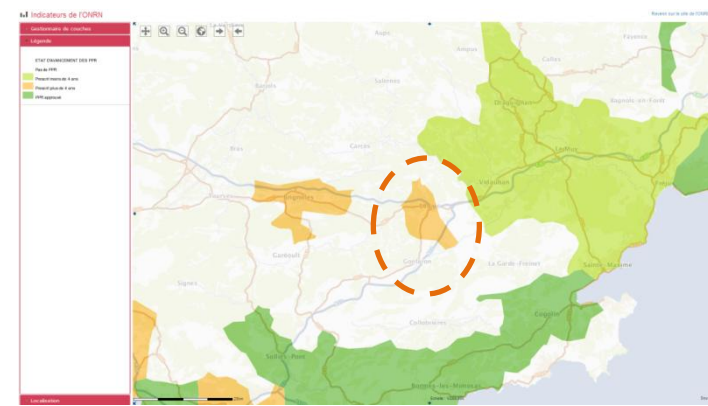
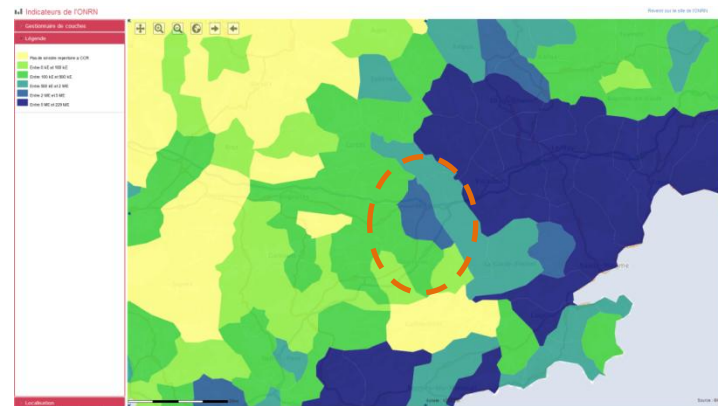
How to use ONRN for preventing more disasters with local stakeholders?

ONRN « refines risk management planning » at regional and municipal scales.

Screenshots of interactive maps from www.onrn.fr
allowing to compare exposure/loss records and evolution of public prevention policy

Cumulated insured losses due to floods
period 1995 – 2010, at municipality grid

Status of public preventive actions, as of end 2013:
municipal flood risk prevention plans (PPRI)



Indicateurs de l'ONRN



Local oppositions to national DRR policies...
Need to address local scales more in details
and to share knowledges with local stakeholders.

Over 5 million euros losses

Approved (enforced) PPR

Indicateurs de l'ONRN



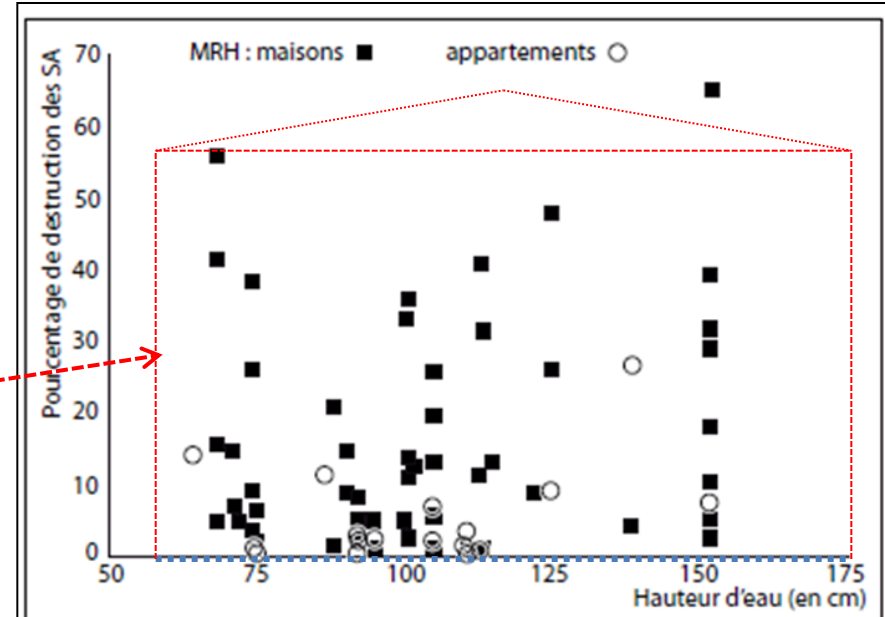
ONRN « refines risk management planning »:
 how to be « **transparent** when showing/vizualising
 the uncertainty »? [E.C, 2015, p. 13], and « **user friendly** »



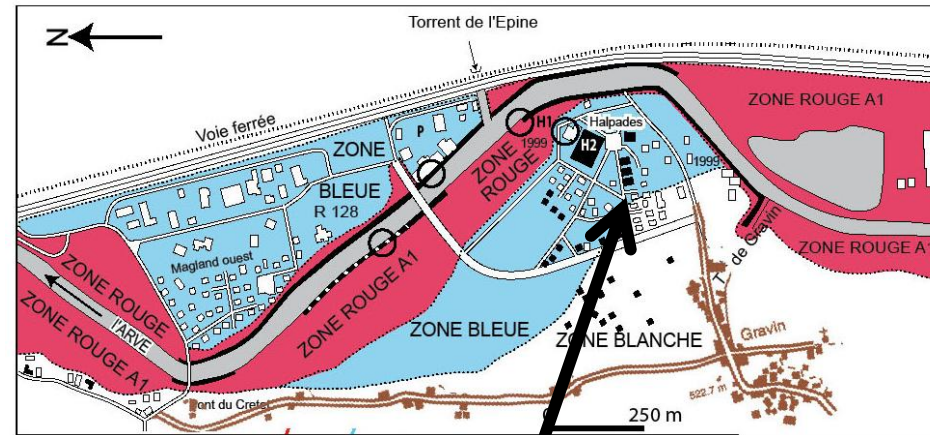
Domenichini, J. 2008.
 PhD, p. 70.

Percentage of insured goods damaged during the Rhone river 2003 floods in Arles.

Losses intensities



Level of water



DRR policies **useful** yet **limited**...
 Need to use transparent knowledge

« for participative governance fora (local to national) ».

ONRN : achievements and challenges.



- **Achievements.**

- ONRN as a KMS allows **national shared risks assessments** at national and municipal scales and since 1982.
- ONRN and its regional partners (ORRN PACA) help « **refining risks management planning** »
- ONRN meets KMS requirements, and reduces institutional fragmentation of knowledge (KNOW-4-DRR)

- **Yet, challenges :**

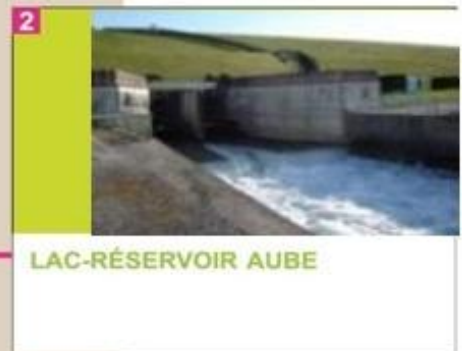
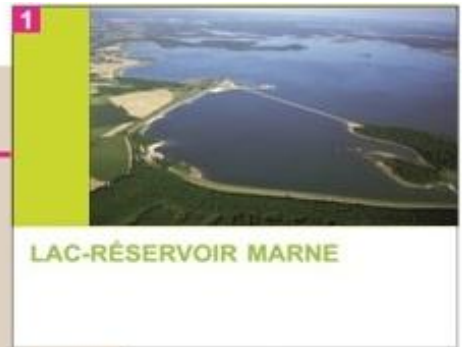
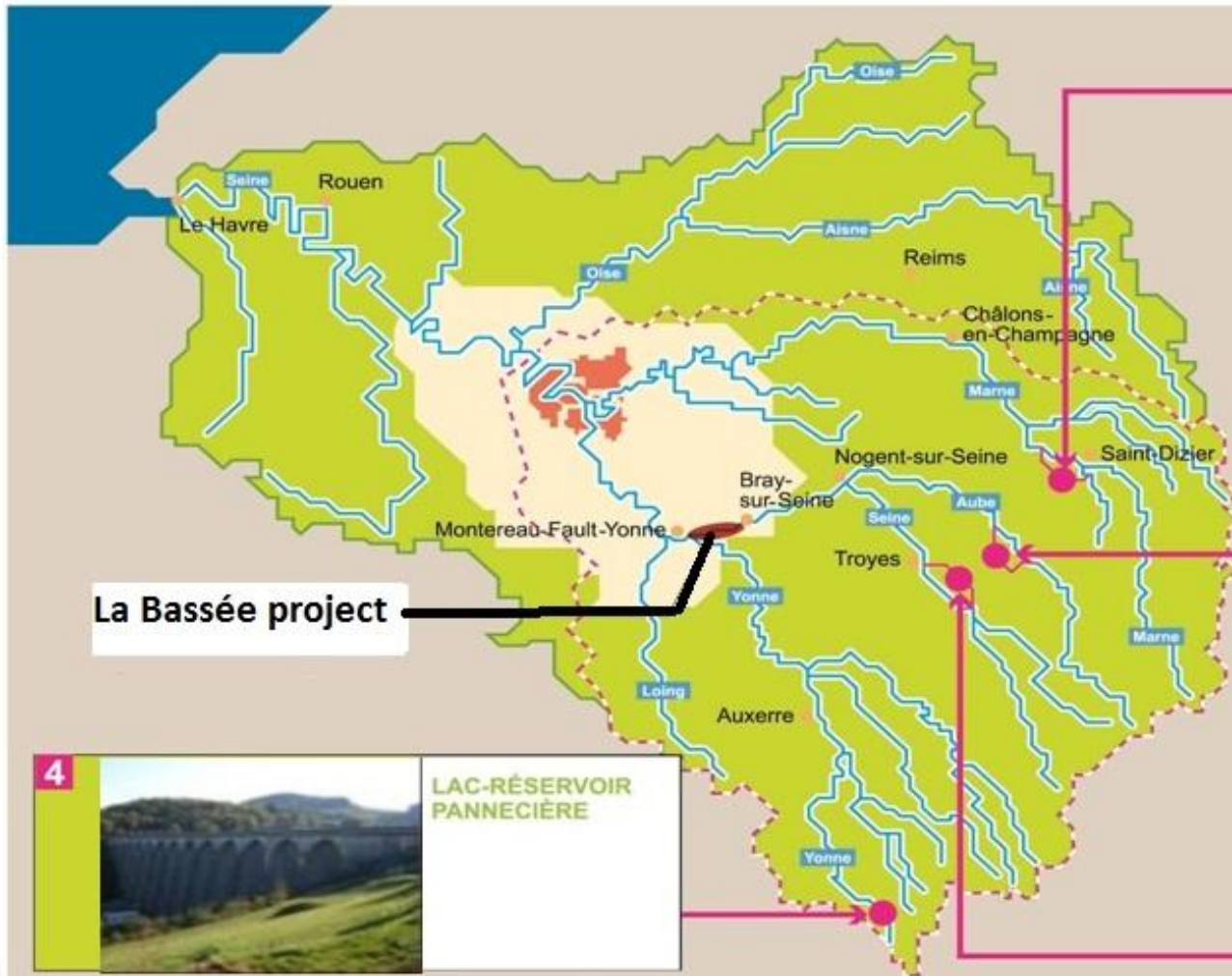
- Developing ONRN as a tool for « participative governance fora (local to national) » (E.C., p. 16).
- How to be more « user-friendly » and « transparent when showing /vizualizing the uncertainty at different levels »...in order to « share options for a wide range of users » (E.C., 2015, p. 13) and more specifically locals stakeholders, including the most vulnerable ones.
- “Making information and knowledge management a core component of coordinated action DRR and CCA risk-informed decision making is now, more than ever, required”(Duncan & Wade-Apicella, concept note, UNISDR, 2014)...OU :
- - “Development of effective knowledge products to facilitate decision and policy making” (idem).



Régis THEPOT
CEO, River Seine Public
Local Authority
(EPTB Seine Grands Lacs)

A Public Local Authority
partnering with ONRN
Contribution of applied
research to develop
a regional DRR project
observatory

EPTB Seine Grands Lacs, a public local institution operating 4 great lakes and developing a new program for Paris flood prevention



LAC-RÉSERVOIR PANNECIÈRE



Alforville , Vitry-sur-Seine © DREIF/GOBRY

WCDRR 3 - Sendai - 17 March 2015 - Side event on Risk Data Sharing Platforms

Flood prevention action programm (PAPI) for the Seine and Marne rivers in the Île-de-France region.



Three priority objectives:

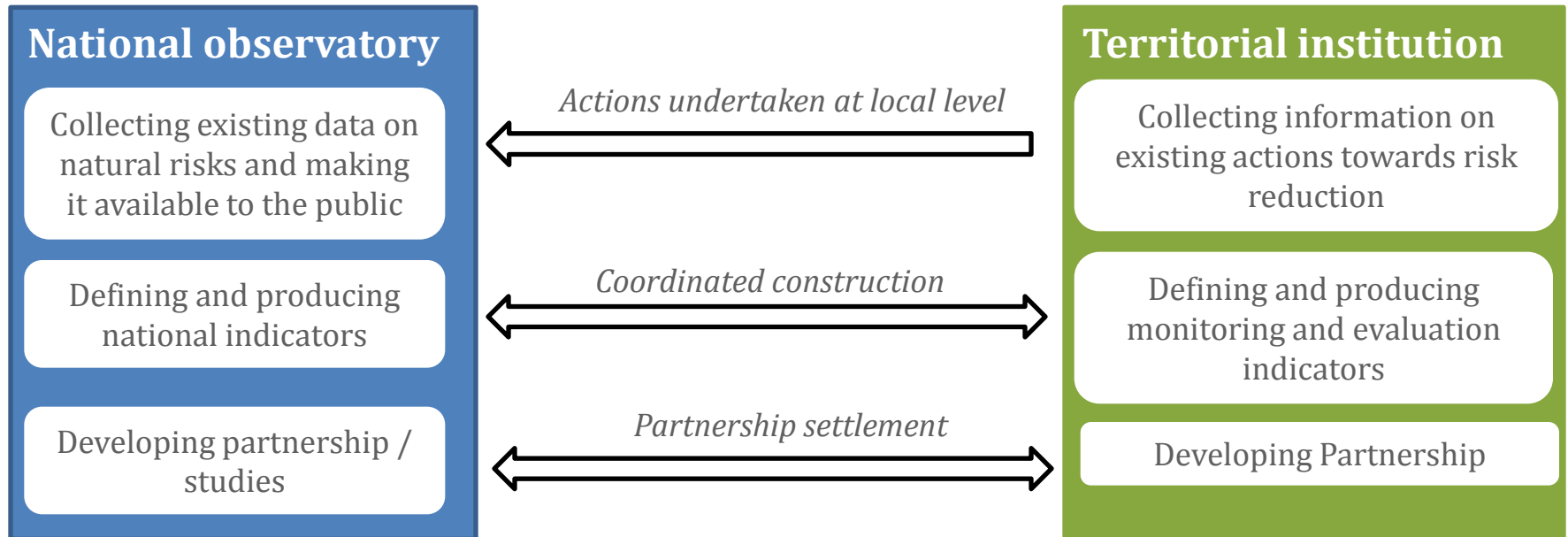
1. Increase the “culture of flood risk” amongst populations in flood prone areas and, more specifically, those at the main public and private managers of facilities and infrastructure that are essential to the functioning of the territory;
2. Stabilise the cost of potential damage linked to flooding in Paris and the inner ring, in the short term;
3. Ramp up the resilience (recover as soon as possible) of the main public services (energy, telecommunications, transport, sanitation, energy and educational services) in flood disaster areas.

Partnership between territorial and national institutions

Shared objectives :

- to assess the implementation and the efficiency of flood prevention policy.
- to increase public risk awareness.

Coordinated actions :



Ongoing indicators co-construction :

- Work groups between ONRN and EPTB Seine Grands Lacs enabled the identification of 15 emblematic risk prevention actions of the flood prevention programme.
- For these actions, indicators will focus on effectiveness evaluation and not only on monitoring.



Pr Freddy VINET
University of Montpellier

UMR GRED
Gouvernance, Risque, Environnement, Développement

**ONRN activities about
collecting, storing and sharing
Disaster Loss Data
Contribution of applied
research**

- **Need of new insights on loss data to contribute to DRR policies assessment**

Two recent Ph D. researches contribute to feed ONRN platform on two key issues :

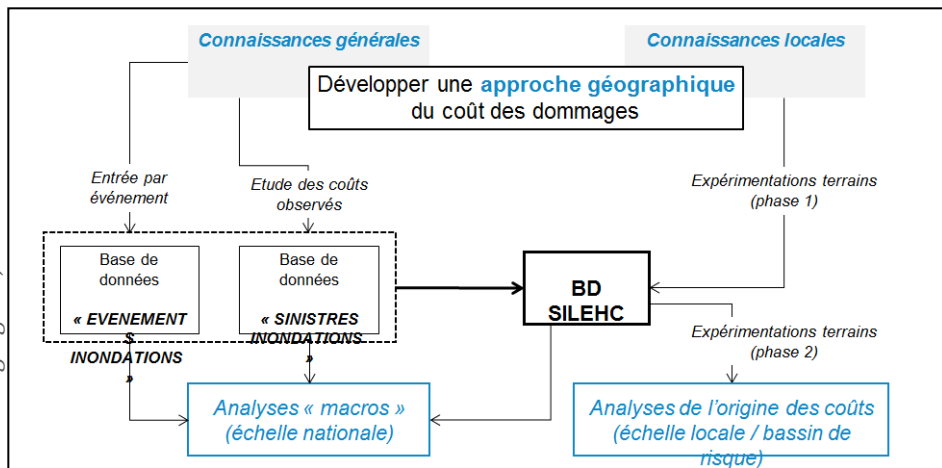
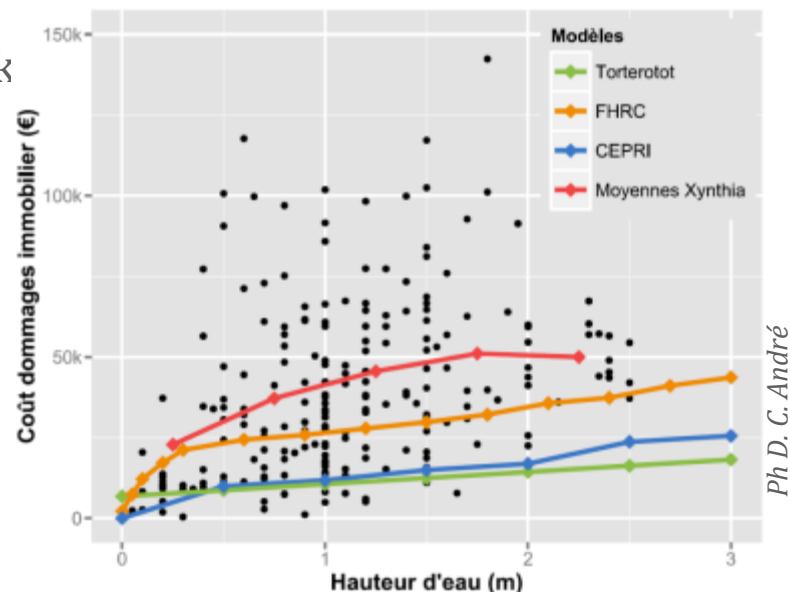
- 1 -An event based approach of loss data (Ph. D. D. Bourguignon, 2014)
 - insurance loss data was collected before on annual statement sheets
 - Need to assess the losses by single event
 - to relate flood events to geographic features (population, vulnerability, DRR measures...)
- 2- Fatalities due to flood (Ph. D. L. Boissier, 2013)
 - death toll may be considered in Europe even if less than in Asia
 - flood related fatalities are not casual but can show vulnerabilities and exposure
 - to display human toll can help enhancing DRR

1- An event based approach of insurance loss data

- The relationship hazard/losses is rather weak

→ need of new insight to explain losses

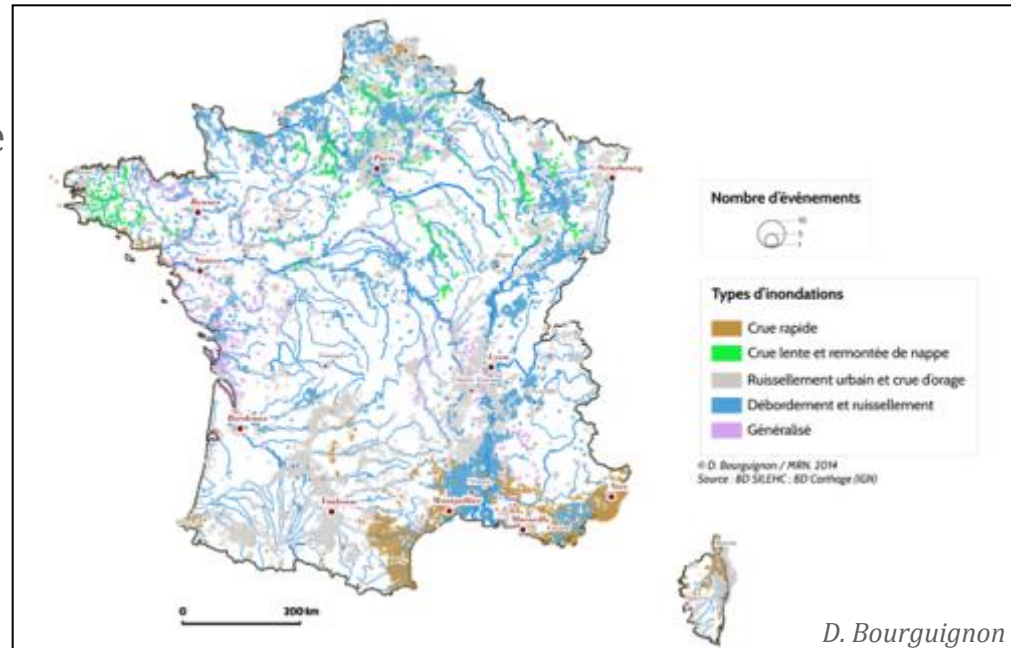
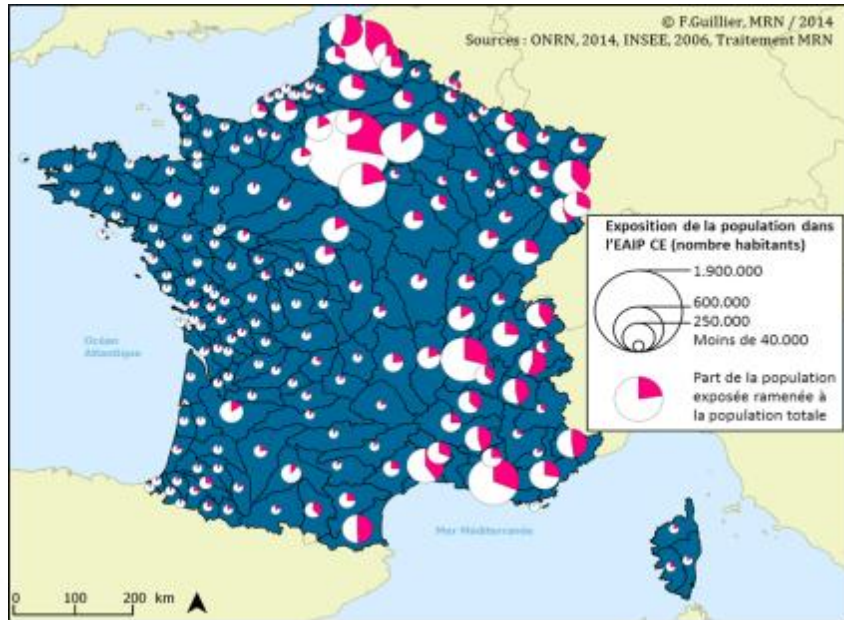
→ building of a new data base called SILEHC integrated on ONRN website



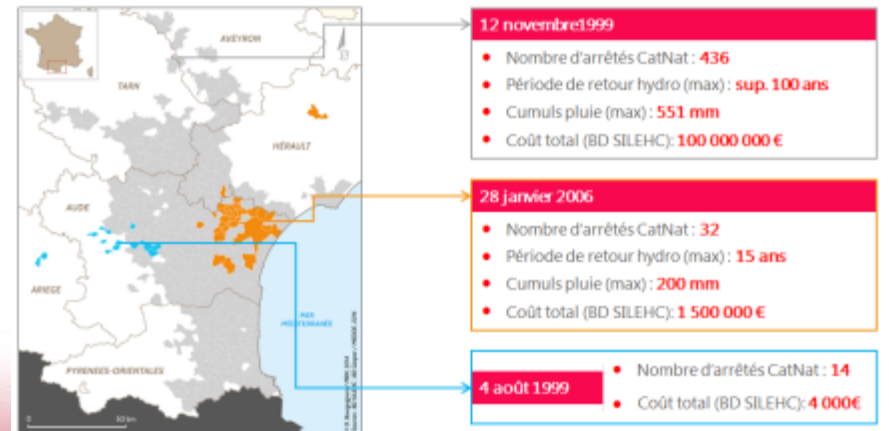
→ [Link to ONRN page](#)

A new approach of loss data

- Distribution of flood events according seasons and kind of flooding at local scale
- Relationship with exposure data



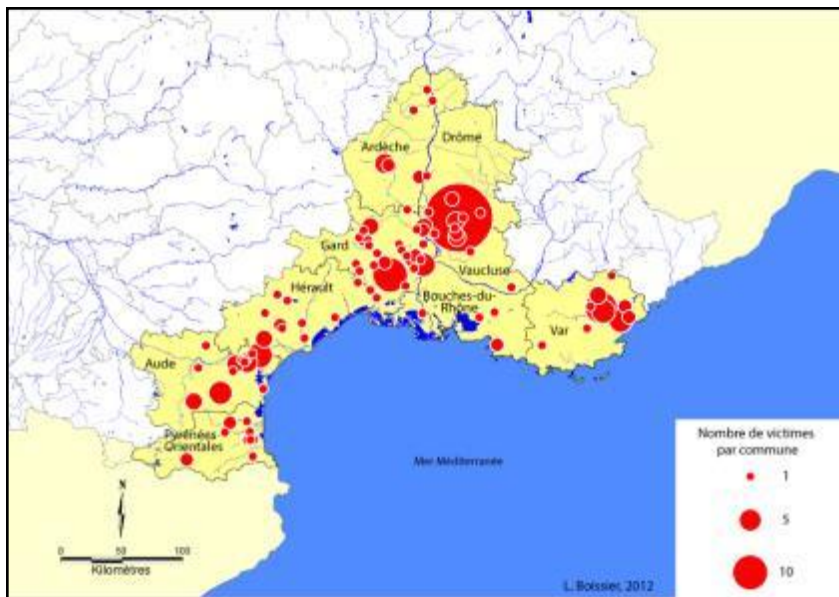
- Maps for each flood event with average costs



2 - To display human toll

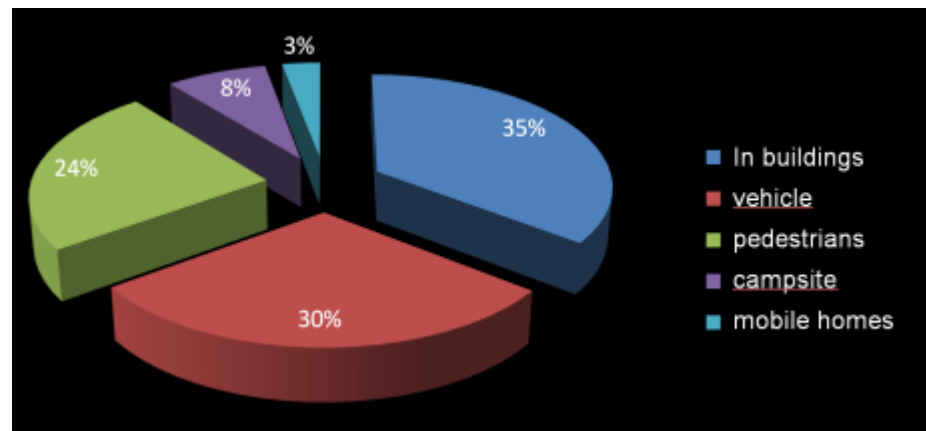
To provide data on flood related deaths

- 244 fatalities has been collected (203 for flash floods and 41 linked to sea surge)



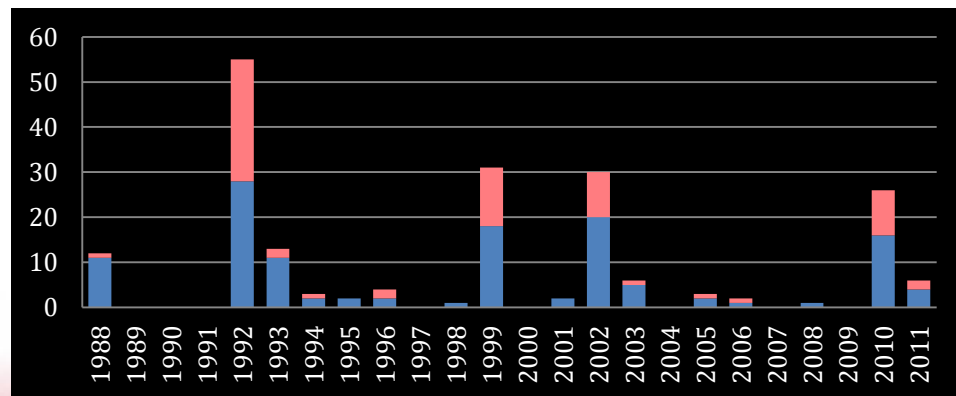
5 huge events + a « current » mortality

Sex ratio (men 60 % in blue)



Collected data

- The circumstances of flood related death
- The places of fatalities
- Age of people, gender...

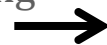
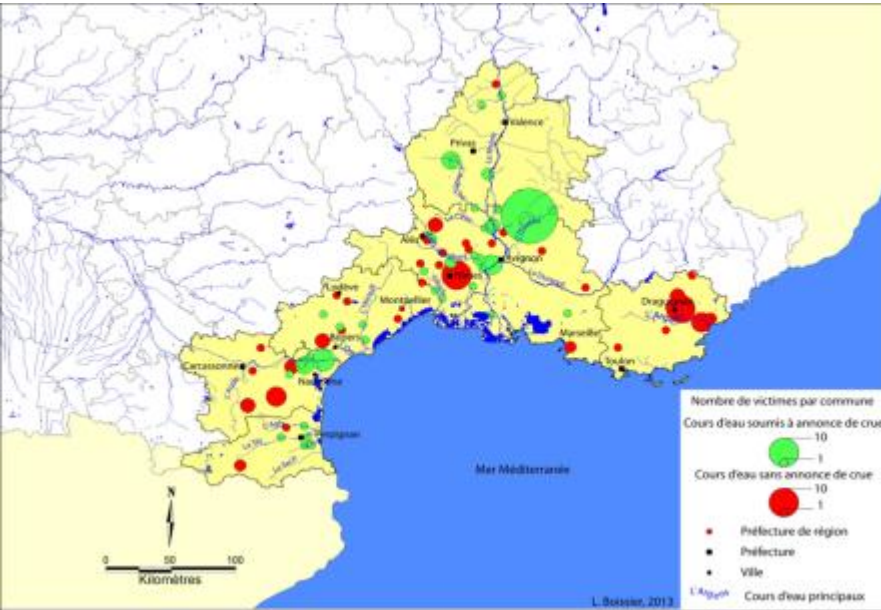


ONRN: relationship between human loss data and DRR data

- ONRN will allow to cross human loss data with :
 - exposure (hazard maps) and fatalities
 - information on vulnerability
 - Data on DRR measures.

e.g. Relationship between death and early warning

50 % of fatalities took place on rivers with early warning (green)
 50 % on rivers where no EW was available (red)



e.g. Death at home (69 out of 203) according to the kind of housing (1988-2011)

	Single-storey houses	house with upper-storey	Other shelter (caravan...)	Total
Number of fatalities	41	23	5	69

The danger of single storey houses

The danger of buildings
not adapted to flooding



City of Draguignan, June 2010

So in conclusion, we hope that ONRN will allow to update, to develop and to share our database and contribute to enhance DRR in France as in Europe countries.

Thank you for your attention
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Debate with Second Panel



Overall conclusions of the workshop



Patricia BLANC

Thank you for your attention
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