cepn

CENTRE D'ÉTUDE SUR L'ÉVALUATION DE LA PROTECTION DANS LE DOMAINE NUCLÉAIRE

Involvement of Pays de Montbéliard Agglomération in the preparedness of emergency situations : local emergency planning and water management

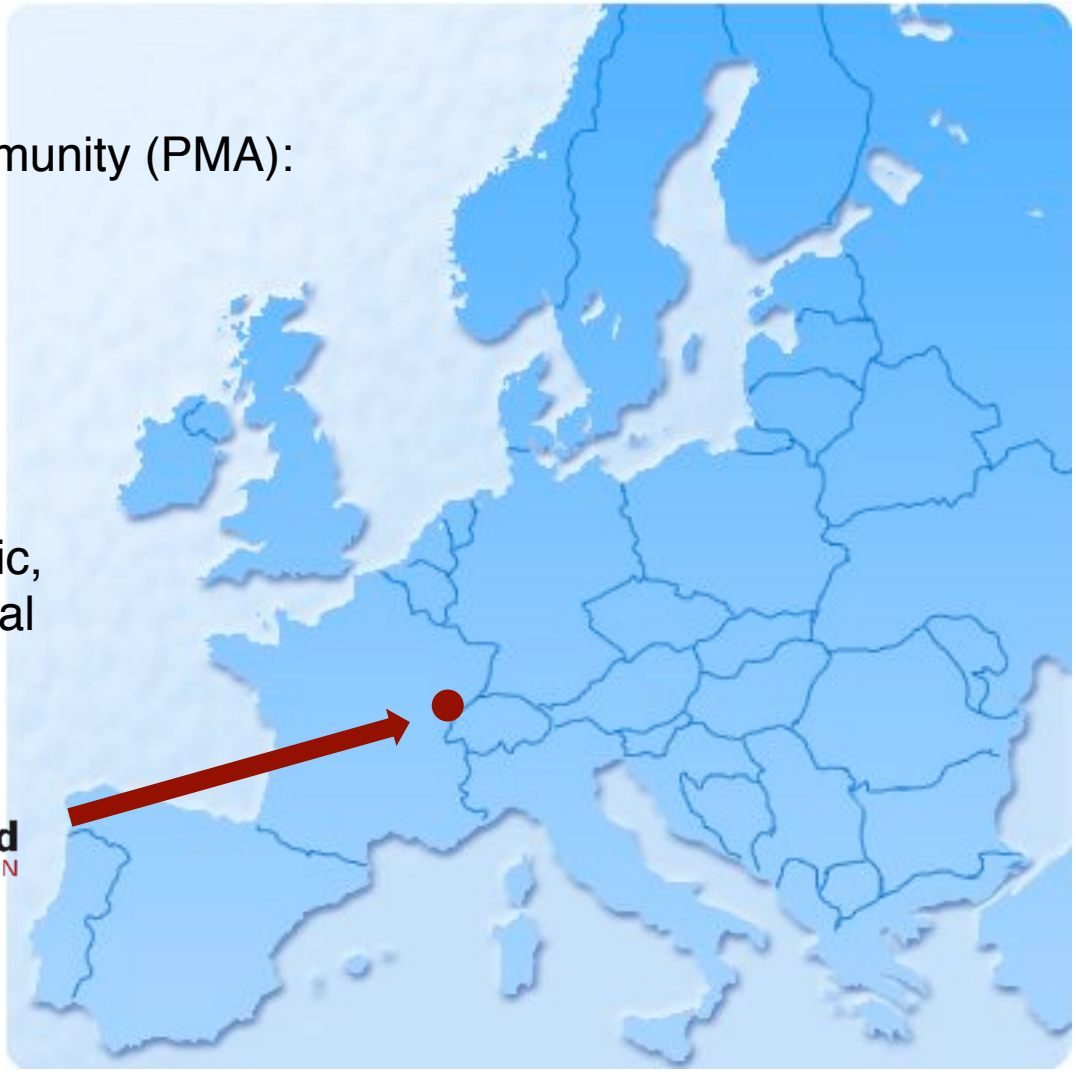
NERIS WP2 Meeting : Emergency preparedness and stakeholder participation

Mon 26th – Tue 27th November, Oslo

S. Biguenet

Presentation of the Montbeliard urban community

- Montbeliard urban community (PMA):
- ✓ 120 000 inhabitants
- ✓ 29 municipalities
- ✓ a council composed of 68 representatives
- ✓ competence in economic, social, health, environmental and education fields



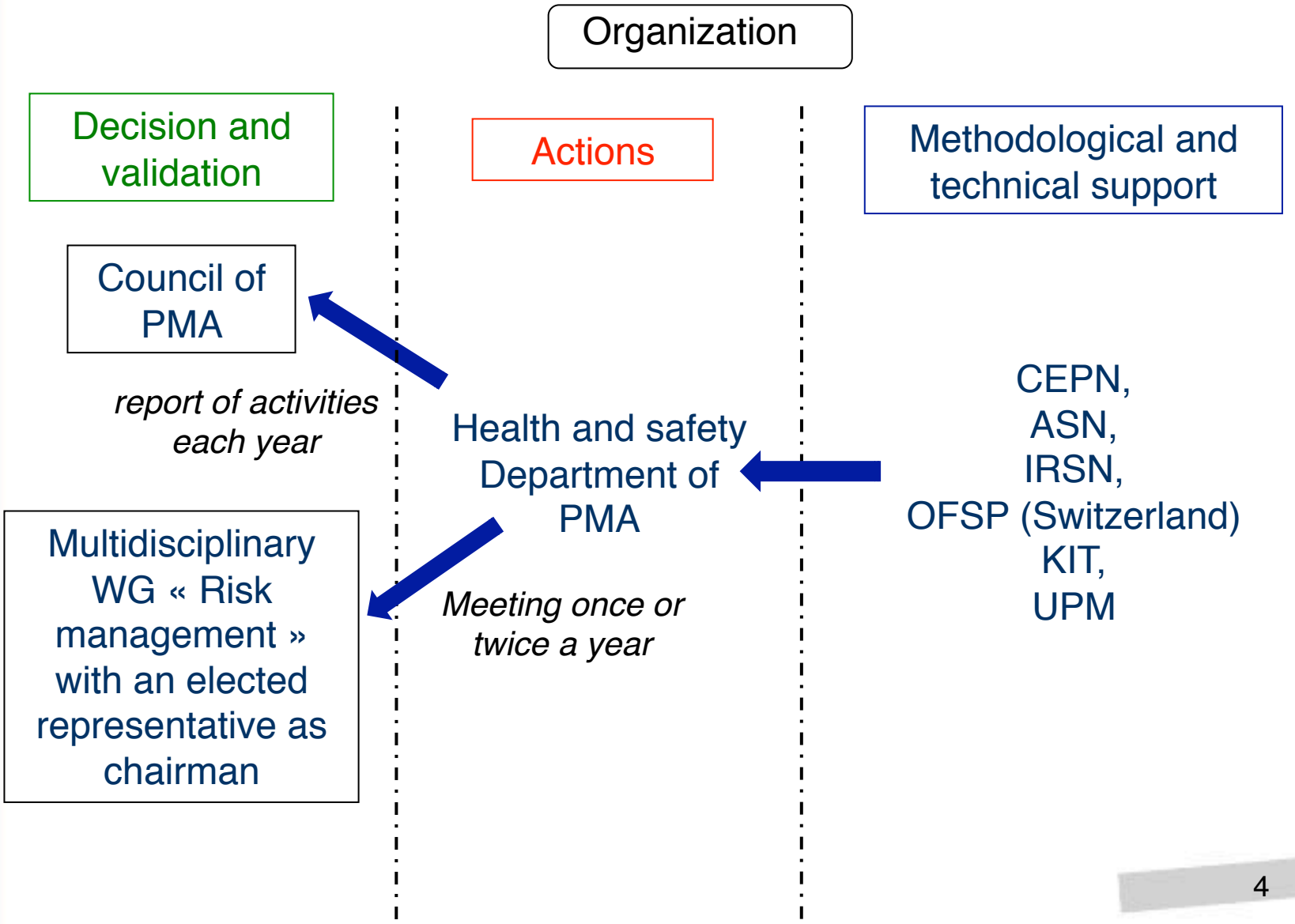
Involvement of PMA in the risk management

- Since 2005, PMA decided to help the municipalities in establishing Local Emergency Plan, as required by the French law of 13 August 2004 related to the modernization of civil security

- This project is carried out by the Health and Safety Department of Montbeliard composed of a section head and 3 public health inspectors.

- Creation of a local Working Group on “Risk management”
  - ✓ Composed of various stakeholders: elected representatives, prefecture, civil safety associations, firemen, police, etc.
  - ✓ Multidisciplinary working group to tackle all the risks of the territory (flooding, breaking dam, etc.)
  - ✓ The chairman of the WG is an elected representative of PMA

Involvement of PMA in the risk management



Involvement of PMA in the risk management

- Geographic Information System (GIS) development to visualize the territory of PMA with :
  - ✓ Risks (flooding, transportation of hazardous cargoes…)
  - ✓ Stakes (population, public building, industry, agriculture…)
  - ✓ Resources, means (firemen, police…)

- ➢ Can be used in a preparedness perspective but also to manage crisis

- ➢ Local representatives and technicians were trained to use the GIS : very positive feedback

The Montbeliard Radiation Protection Pilot Project

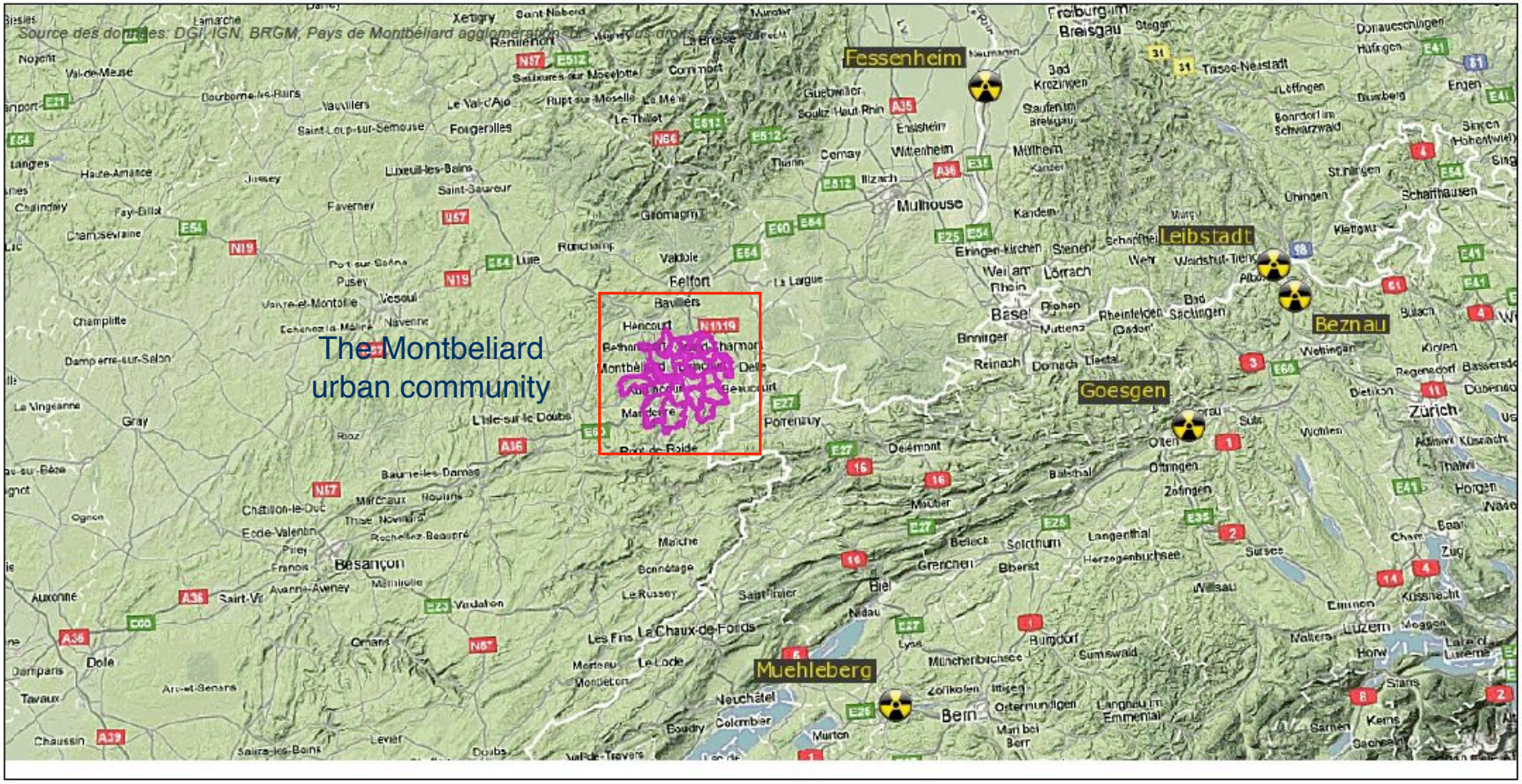
- At the same time, development of the Montbeliard Radiation Protection Pilot Project with support of CEPN (methodological support)

- The objectives are :
  - ✓ To improve radiation protection of the inhabitants of PMA in the various exposure situations which can be potentially encountered on the territory (medical exposures, radon in dwellings...)
  - ✓ To promote the creation of a pole of competence in the field of radiation protection in the territory
  - ✓ Over the long-term, to develop the radiation protection culture among inhabitants

- No nuclear power plants in the territory but PMA is in the vicinity of 5 nuclear power plants around 100 km (Fessenheim in France and Beznau, Muelheberg, Goesgen, Leibstadt in Switzerland)

➢ **PMA engaged a reflection on the radiological risk and included this aspect in the Montbeliard Radiation Protection Project**

Location of nuclear power plants near the Montbeliard County



Local emergency planning and water management

- PMA was involved in the EURANOS Project and the NERIS Project
- Since 2010, PMA is involved in the CODIRPA project in France led by ASN (French Nuclear Safety Authority) with aim of :
  - ✓ Drafting procedures to improve local emergency planning from the CODIRPA recommendations
  - ✓ Developing specific GIS for preparedness of emergency situations “Nuclear and Radiological Risk GIS”
- Use of the MOIRA tool for a first analysis of the risks associated with radiological contamination of water in order to prepare and manage this risk

Involvement in the CODIRPA process(1)

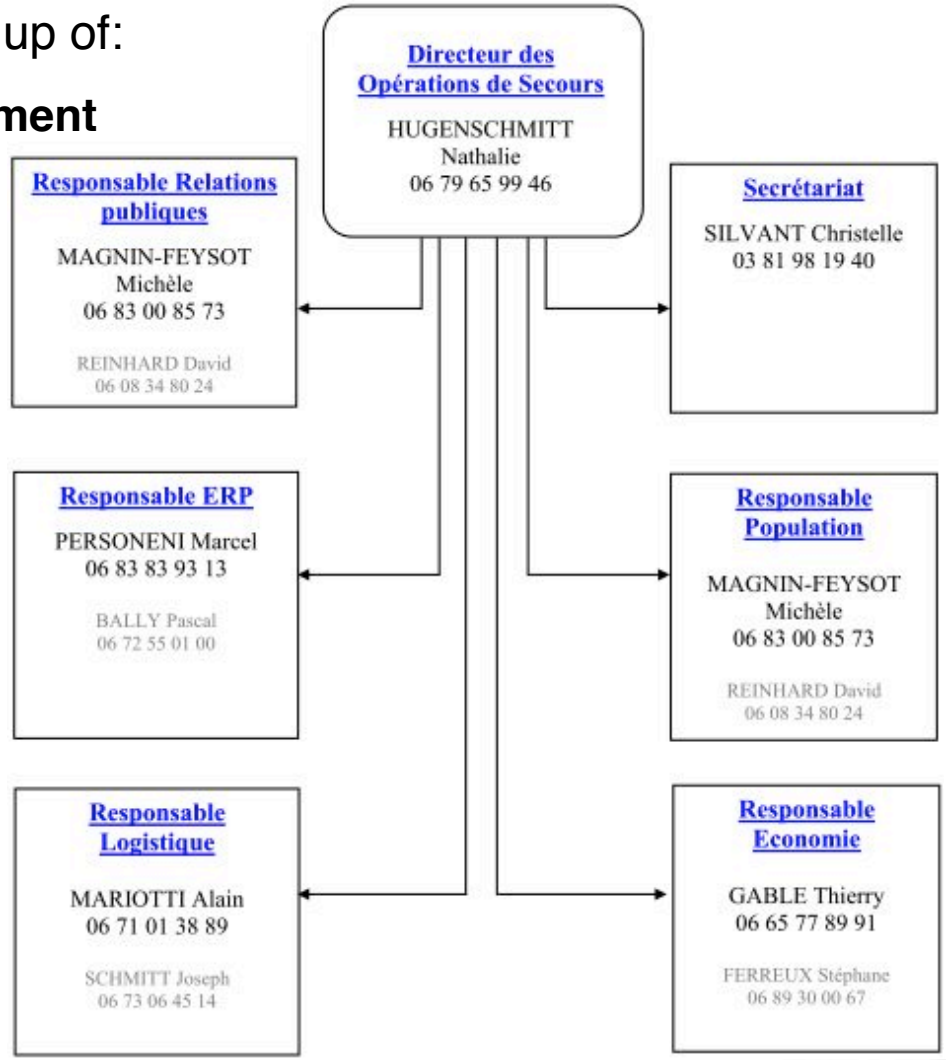
- Work on the practical implementation of the CODIRPA recommendations in local emergency plan

- Several stages :
  - ✓ To draw a parallel between local emergency plan and the CODIRPA recommendations
  - ✓ To draft preparedness plan sheet for each actors in charge of local emergency situations
  - ✓ To modify GIS tool for emergency and rehabilitation preparedness at community level from local database with stakes, resources and means

Involvement in the CODIRPA process(2)

- Local emergency plan is made up of:
  - **Local emergency management**

With local crisis unit based on 7 leaders among elected representatives

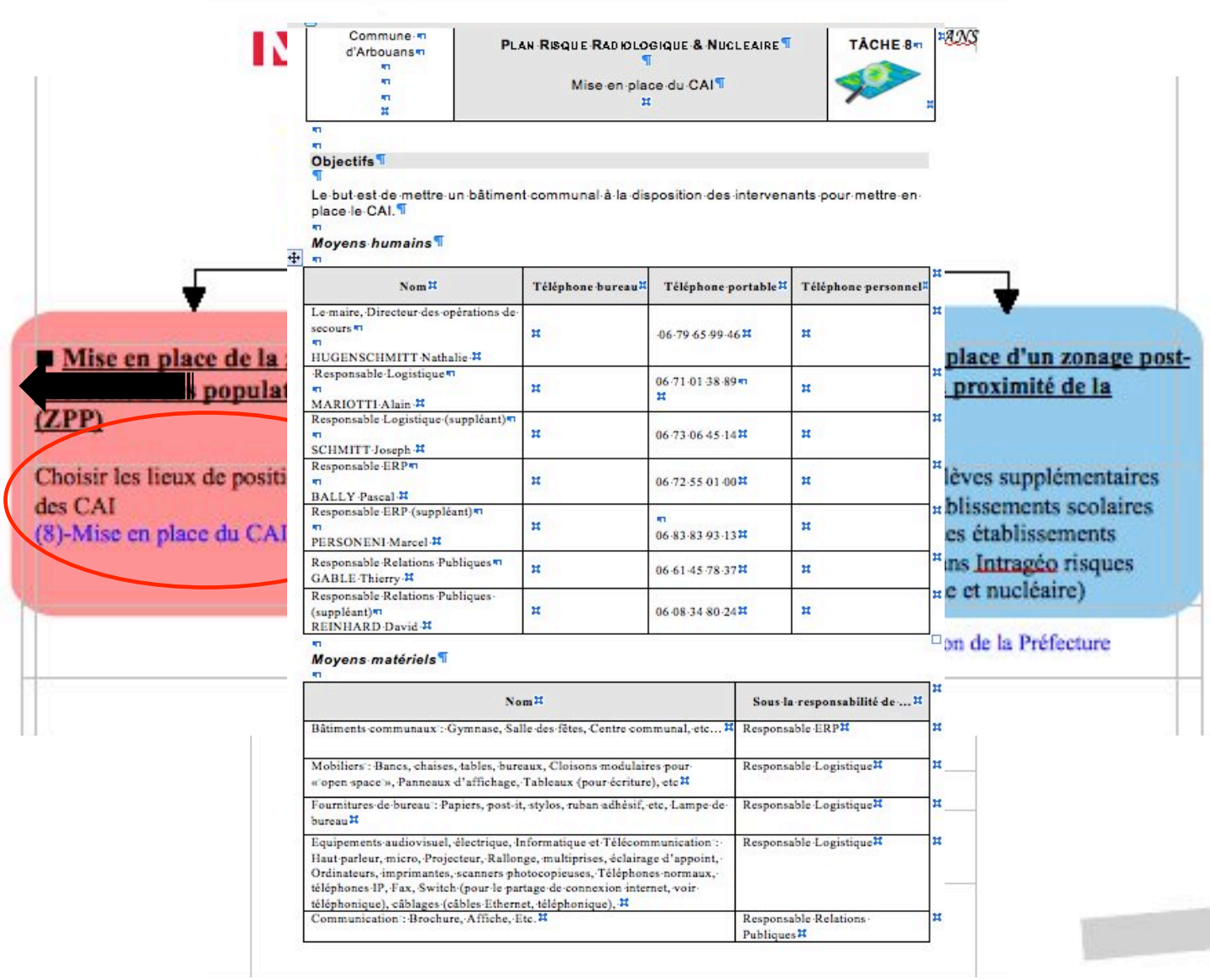


Local crisis unit

  - **Rescue resources**
  - **Local presentation and risks assessment**

Nuclear and radiological GIS

Link with GIS



Commune d'Arbouans

PLAN RISQUE RADIOLOGIQUE & NUCLEAIRE

Mise en place du CAI

TÂCHE 8

Objectifs

Le but est de mettre un bâtiment communal à la disposition des intervenants pour mettre en place le CAI.

Moyens humains

Nom	Téléphone bureau	Téléphone portable	Téléphone personnel
Le maire, Directeur des opérations de secours HUGENSCHMITT Nathalie		06 79 65 99 46	
Responsable Logistique MARIOTTI Alain		06 71 01 38 89	
Responsable Logistique (suppléant) SCHMITT Joseph		06 73 06 45 14	
Responsable ERP BALLY Pascal		06 72 55 01 00	
Responsable ERP (suppléant) PERSONENI Marcel		06 83 83 93 13	
Responsable Relations Publiques GABLE Thierry		06 61 45 78 37	
Responsable Relations Publiques (suppléant) REINHARD David		06 08 34 80 24	

Moyens matériels

Nom	Sous la responsabilité de …
Bâtiments communaux : Gymnase, Salle des fêtes, Centre communal, etc…	Responsable ERP
Mobiliers : Bancs, chaises, tables, bureaux, Cloisons modulaires pour « open space », Panneaux d'affichage, Tableaux (pour écriture), etc	Responsable Logistique
Fournitures de bureau : Papiers, post-it, stylos, ruban adhésif, etc, Lampe de bureau	Responsable Logistique
Equipements audiovisuel, électrique, Informatique et Télécommunication : Haut parleur, micro, Projecteur, Rallonge, multiprises, éclairage d'appoint, Ordinateurs, imprimantes, scanners photocopieuses, Téléphones normaux, téléphones IP, Fax, Switch (pour le partage de connexion internet, voir téléphonique), câblages (câbles Ethernet, téléphonique),	Responsable Logistique
Communication : Brochure, Affiche, Etc.	Responsable Relations Publiques

Mise en place de la … population … (ZPP)

Choisir les lieux de positi… des CAI

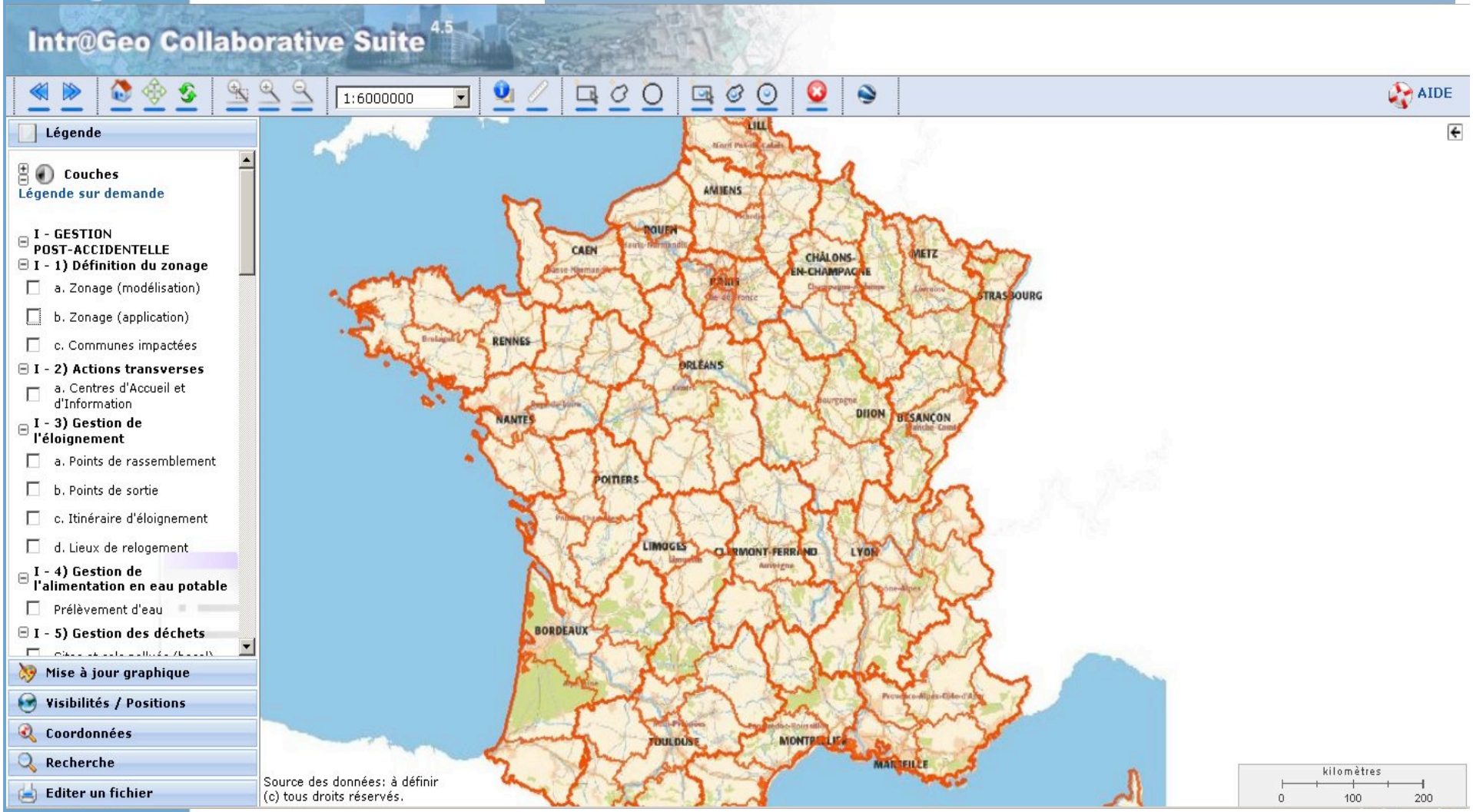
(8)-Mise en place du CAI

…place d'un zonage post-… proximité de la …

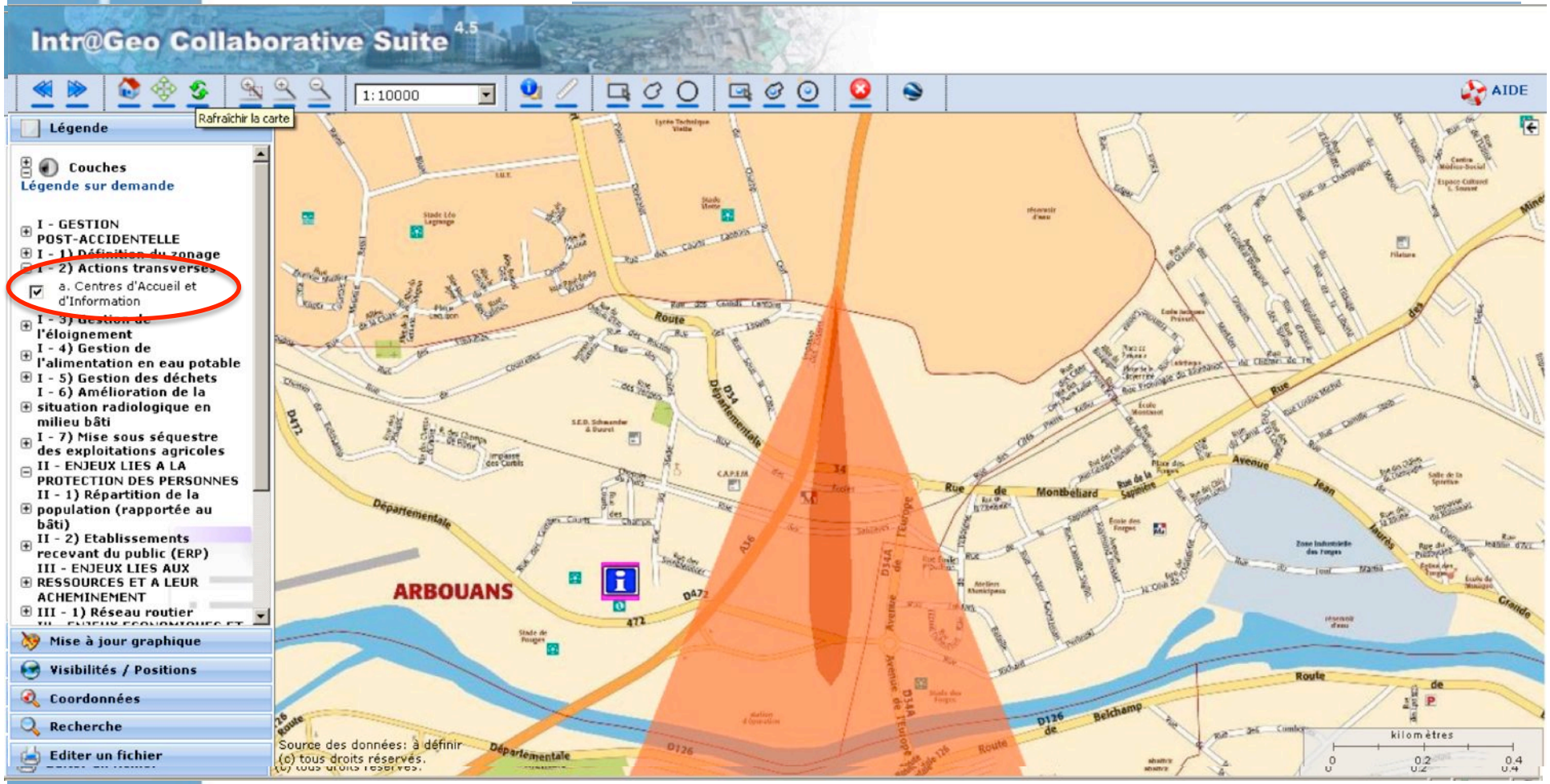
…lèves supplémentaires …blissements scolaires …es établissements …ns Intragéo risques …e et nucléaire)

…on de la Préfecture

Nuclear and radiological GIS



Nuclear and radiological GIS



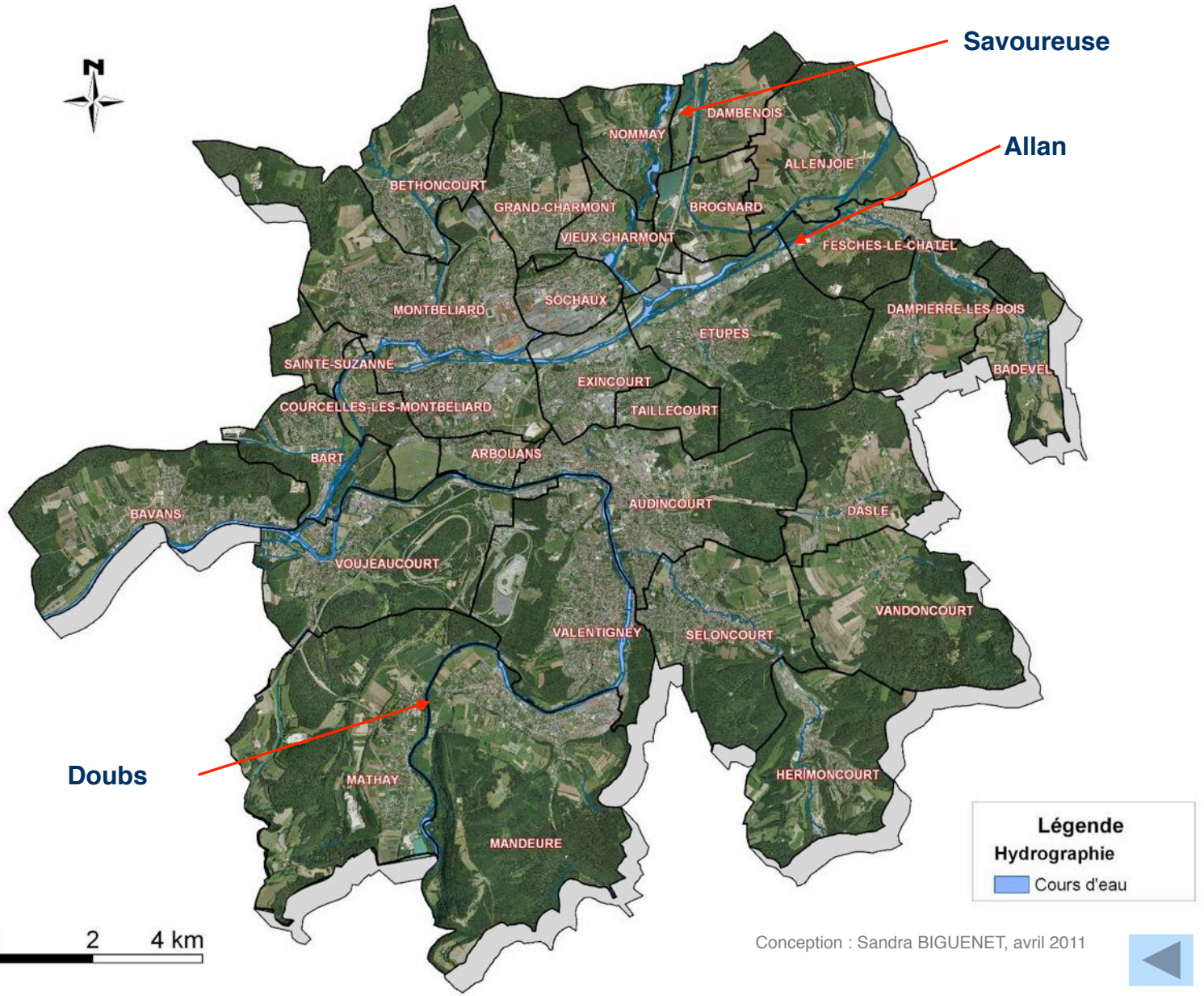
Perspectives

- To improve the preparedness plan sheets for the different representatives and the associated tasks :
  - ✓ According to the evolution of the CODIRPA doctrine
  - ✓ Discussion with municipality representatives to identify their remarks on the nuclear preparedness plan, to adapt the sheets to the local specificities and see how to integrate them in the local emergency plans
  - ✓ Development of tasks according to the community responsibilities: transports, wastes, water management

- To develop the Geographic Information System
  - ✓ Possibility to summarise at any time the situation in electronic and paper formats

Use of the MOIRA tool (1)

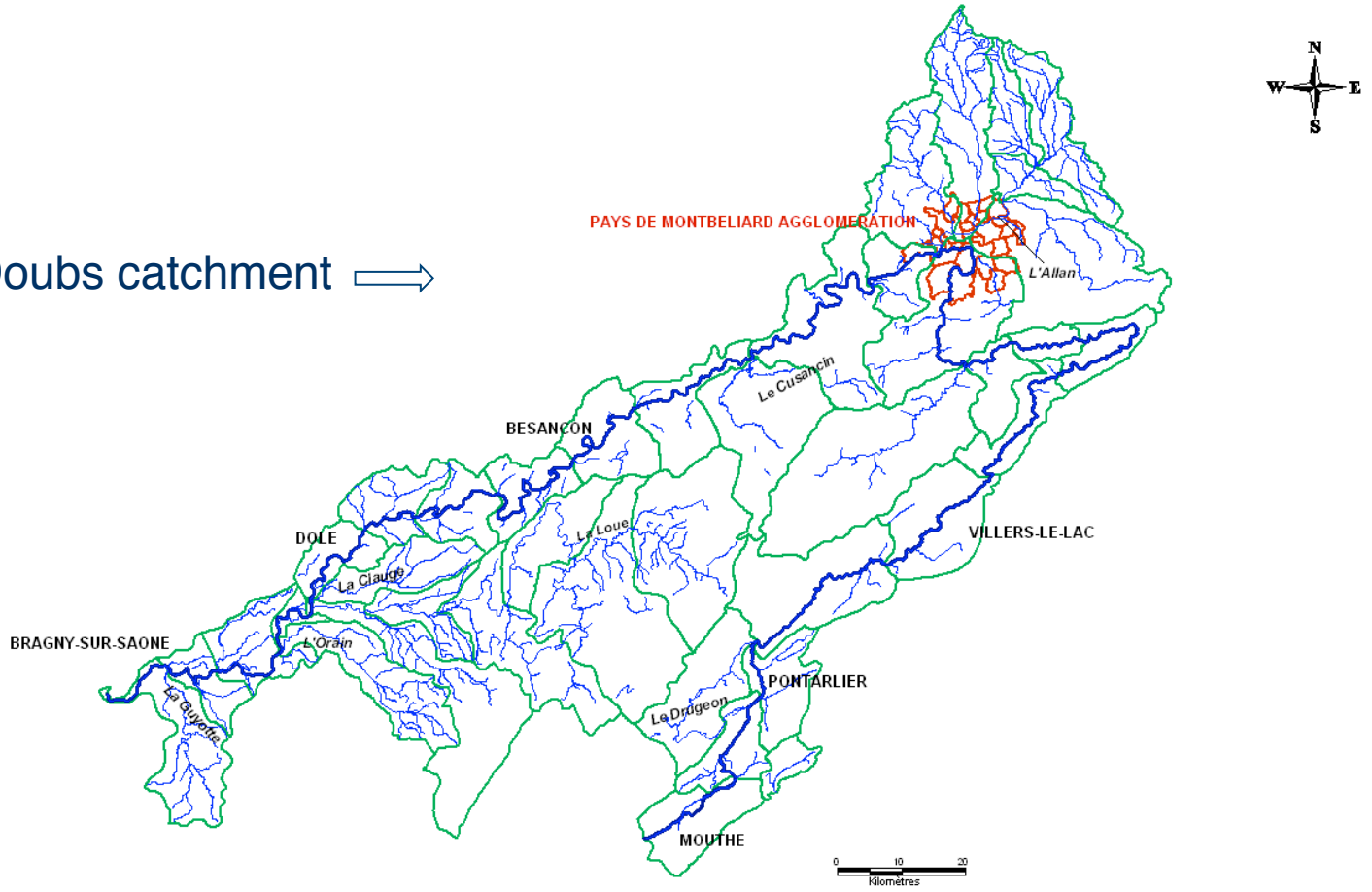
- Local context :
  - ✓ 3 main rivers crossing the territory
  - ✓ Only one water draw off point in the territory (Doubs river) for the 120 000 inhabitants of PMA
  - ✓ 5 nuclear power plants around 100 km
- Link to the GIS of Montbéliard community to define the local data in MOIRA
- Simulation made with an accident in Mühleberg NPP (Switzerland) affecting the Doubs river crossing the Montbéliard territory
- **Objective : identify key issues to enable local people to engage a reflection on the radiological consequences for the PMA territory in case of a radiological contamination of freshwater bodies and catchments**


Savoureuse
Allan
Doubs
DAMBENOIS
NOMMAY
ALLENJOIE
BETHONCOURT
GRAND-CHARMONT
BROGNARD
VIEUX-CHARMONT
FESCHES-LE-CHATEL
MONTBELIARD
SOCHAUX
DAMPIERRE-LES-BOIS
ETUPES
SAINTE-SUZANNE
BADEVEL
EXINCOURT
COURCELLES-LES-MONTBELIARD
TAILLECOURT
BART
ARBOUANS
AUDINCOURT
DASLE
BAVANS
VOUJEAUCOURT
VANDONCOURT
VALENTIGNEY
SELONCOURT
MATHAY
HERIMONCOURT
MANDEURE
Légende
Hydrographie
Cours d'eau
0
2
4 km
Conception : Sandra BIGUENET, avril 2011

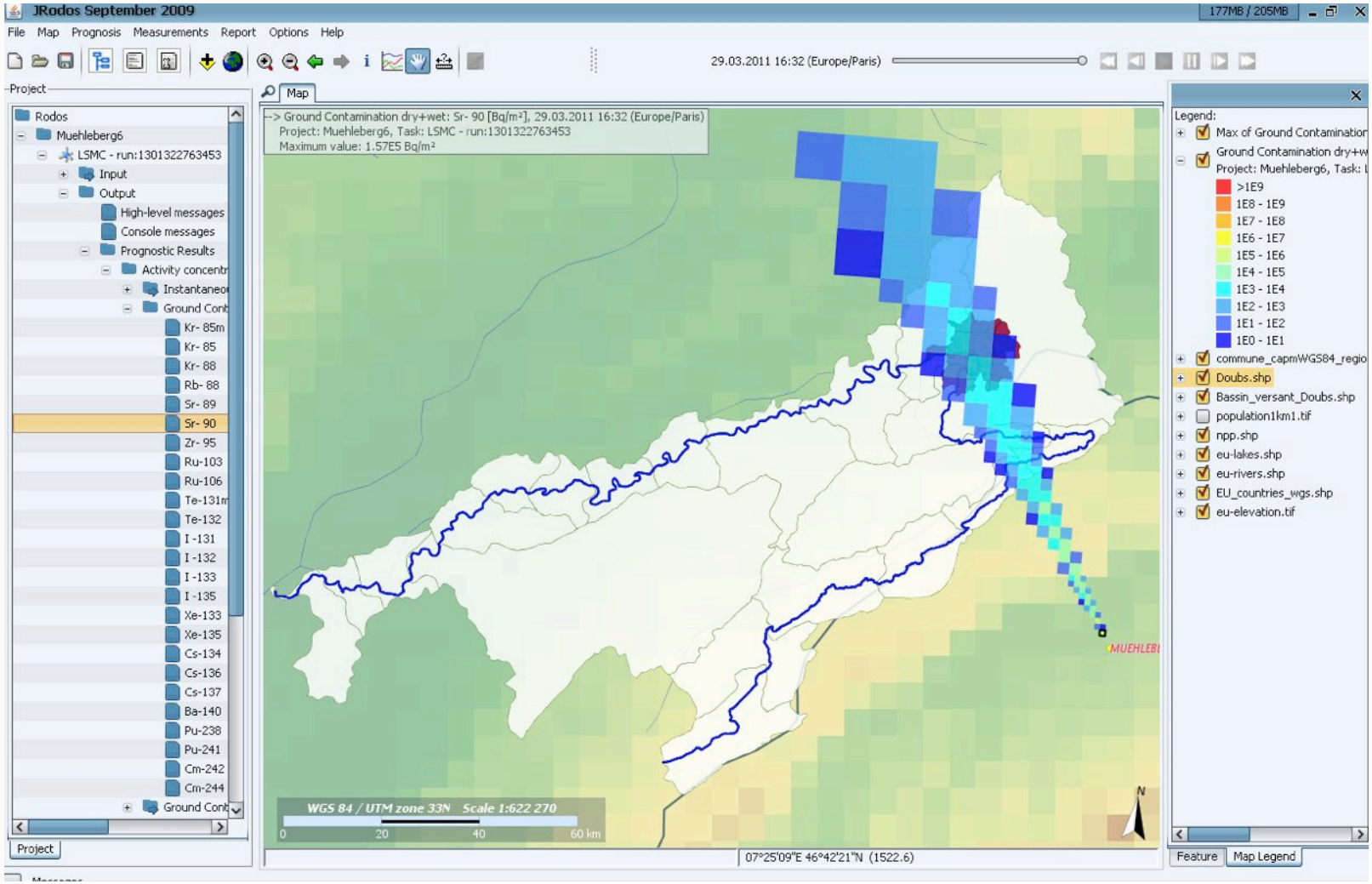
Water balance and territory features

- Use of national database (population, hydrologic data, economic data, agricultural and fishing data…)

Doubs catchment ⟹

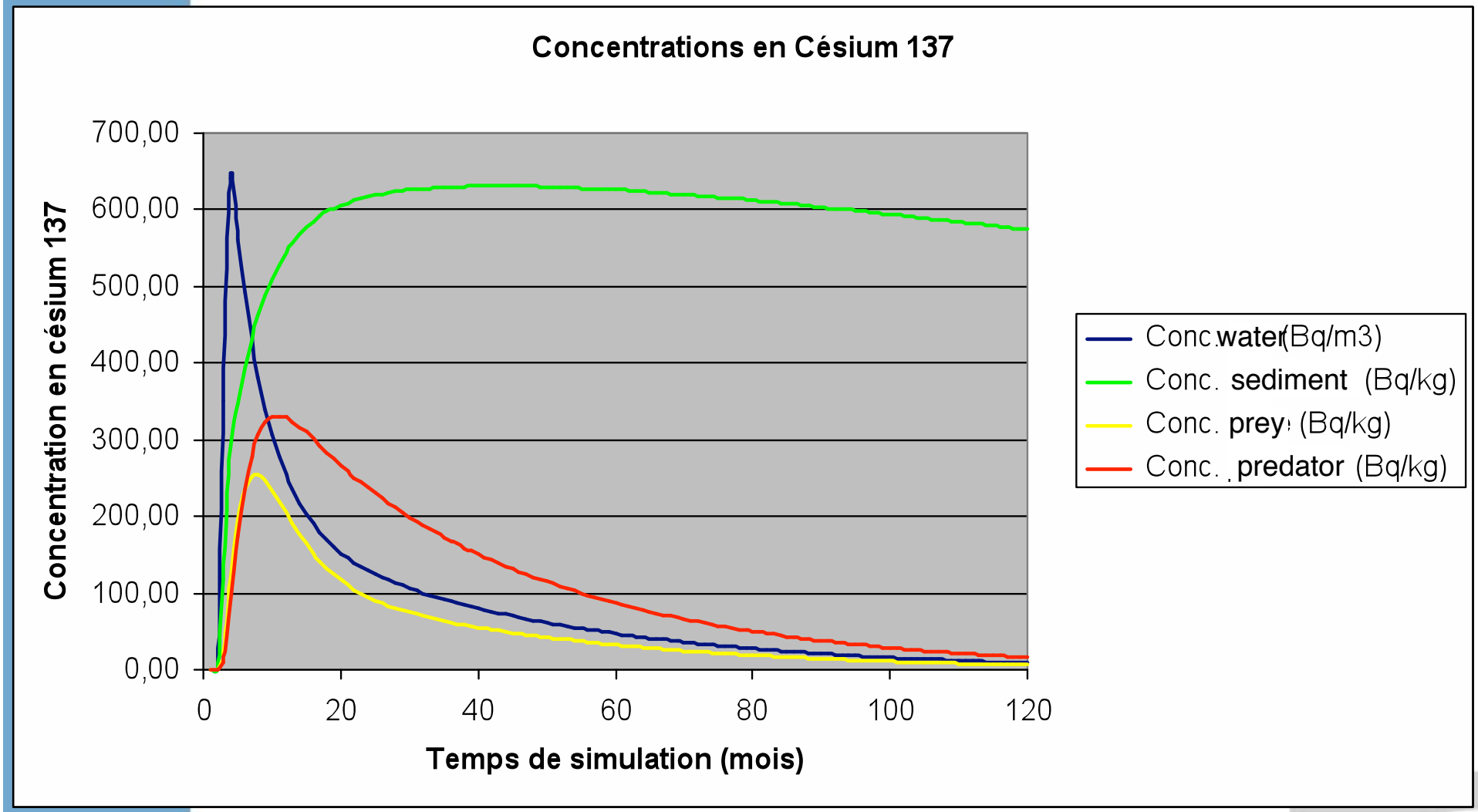


Cs137 et Sr197 assessment with RODOS



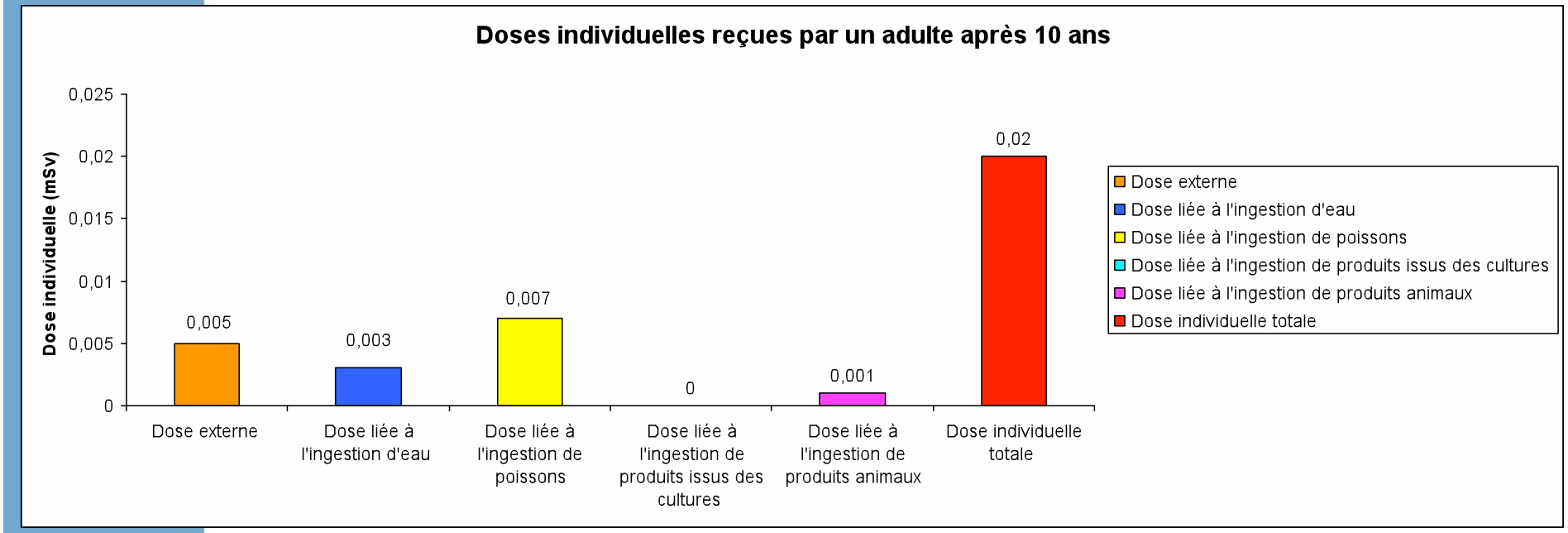
Some simulation results

^{137} Cs concentration in the Doubs river



Some simulation results

Dosimetric results for an average individual after 10 years



Perspectives

- Present these results to the local working group on risk management
- Discussion with municipality representatives to insert the preparedness plan sheets into the local emergency plans
- Discussion about the preparedness emergency situations with training or simulation exercise to appropriate these documents and GIS tool
- Reflection about the community responsibilities: transports, wastes, water management in the preparedness emergency situations

Perspectives

- Discussion regarding water issue (only one water draw off point in the territory) : to launch vulnerability analysis

- Integration of water issue in the GIS of the community

Involvement in the preparedness emergency situations enables PMA to feed global risk management