

Urban Planner Logbook

from Oise-les-Vallées

INTERREG STAR2Cs seminar

SPATIAL PLANNING OF FLOOD RISK AREAS IN OISE-LES-VALLÉES

The INTERREG STAR2Cs program involves eight European partners focused on facing a common challenge: adapting to climate change taking into account individual issues and concerns (costal floods, land subsidence on public spaces...) Launched by the Hauts-de-France Region, the Urban Planning Agency has been involved in the INTRERREG for the last two years.

This process aims to benefit not only from the experience of our European neighbours but also from the financial support of the European Union.

The main purpose of this debate is twofold: (1) Full assessment of the spatial planning of about ten flood risk areas and (2) To set broad policies for the spatial planning of such territories, taking into account all stakeholders and leading to proposals that are both consensual and resilient.

Feeding into the discussions, workshops took place in order to bring together every stakeholder within the territory aiming to encourage positive feedback, voicing their views on the question of «How to consider spatial planning of flood-risk areas, taking into account the current situation of the territory and its various stakeholders?».

Architect Eric Daniel-Lacombe, a flood-risk specialist, was entrusted by the Urban Planning Agency of Oise-les-Vallées to guide them through this process. Carried out as inventive dialogues, the workshops allowed to evaluate the expectations of every stakeholder from each of the studied sectors and therefore to elaborate a joint plan of action!

Pursuing these goals, the Urban Planning Agency organized a seminar the 22, 23 and 24, May 2019 with the participation of its European and local partners, aiming to share their experiences, feedback and to collaborate on the subject of flood risk.

This Urban Planner logbook describes and illustrates the event.



@ EDL

WEDNESDAY, 22 MAY 2019

Sharing European experiences



Spacious meeting room, friendliness, small bags filled with brochures and goodies... All set for a successful seminar!

During the morning, the Urban Planning Agency of Oise-les-Vallées welcomed its European partners for a quarterly work meeting. This introductory session allowed them to address various subjects:

- A reminder of the objectives pursued by the INTERREG program
- Reverse planning from now until 2021
- Administrative and financial questions
- Methodology and results
- State of advancement for each one of the partners



The afternoon was dedicated to a «speed dating» amongst local partners.

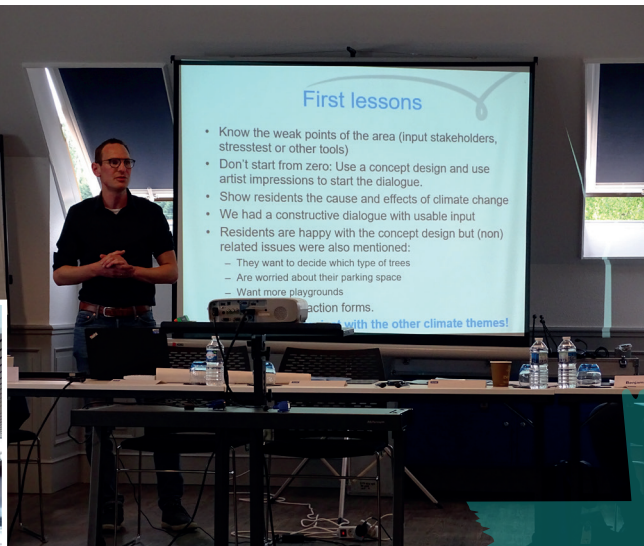
Each one of the European partners of the INTERREG had 5 minutes to present his flood risk related issues, his expertise and to suggest solutions. Then, briefing sessions between the participants took place at regular intervals of 10 minutes.

EXAMPLE :

- **Question:** How do you manage rainwater, by infiltration or evacuation?
- **Answer:** Ours is a clay soil, so there's none or very little infiltration. Almost all rainwater evaporates.



Questions and remarks...feedback to highlight what is done around our European neighbours!



Représentants State Representatives of the DDT, the Oise-Aisne Entente, locally elected officials... A great diversity of local partners was present.

Dinner-debate on the subject of «Urban Planning and Surface Water in France»

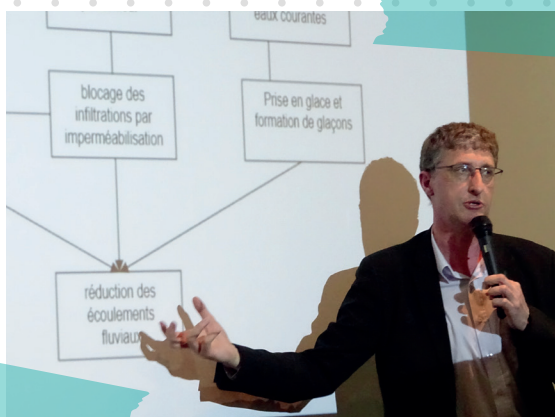
Further conversation about flooding took place during the evening thanks to a dinner-debate. Numerous locally elected representatives had the opportunity of introducing the debate before two other specialists could intervene.



Standing, from left to right:
 Eric BERTRAND, Mayor of Amancourt;
 Frédéric BESSET, Mayor of Saint-Leu-d'Esserent;
 Pascale POUPINOT Chief Delegate of the Urban Planning Agency of Oise-les-Vallées;
 Philippe MARINI, Mayor of Compiègne, President of the Agglomeration Community of Compiègne and President of the Urban Planning Agency of Oise-les-Vallées;
 Michel ARNOULD, Mayor of Verberie.

A brief history of resilience

A brief history of the Oise River overflows



Jean-Yves BONNARD, Doctor in Geography, intervened to draw up a chronological and detailed account of the Oise River overflows. The shown images, texts and data witness of the scale and regularity with which they have taken place at the valley of Oise, where urban developments are located mainly along its coast. These concerns, increasingly exposed, are at the core of a surface water development project to implement resilience measures in the valley.



Ludovic FAYTRE, Urban Planner at the Institute of Development and Urban Planning of Île-de-France spoke about floods and resilience. The concept of resilience is relatively new, just like managing surface water or biodiversity. A big debate on the subjects of spatial planning and vulnerability of the Île-de-France region is currently taking place. How could this metropolis conciliate economic and environmental stakes, housing development and strategic management of flood risk?

Is resilience a goal or a process?



@Iconographic database of Senlis and its surrounding area. Unknown author



A video produced for the EU SEQUANA project shows the impact of a large flood, local issues and projects.

THURSDAY, 23 MAY 2019

Workshop No. 5: Feedback and complements

A great part of the morning of the second day of the seminar was dedicated to a detailed record of previous local workshops. Presented by Eric Daniel-Lacombe from Oise-les-Vallées, the goal of the report was to present, both to local and to European participants, the approach, assessment and spatial planning propositions for the 9 allocated sites, and to discuss the subject of fencing.



At the end of the report, 3 round tables were organized to debrief about the chosen areas on the subjects of: networks, feasibility and environment. Numerous diverse subjects were discussed: Crisis management, vulnerability, network interdependence, regulation, funding, landscape integration and sustainable development.

These working groups allowed for a deeper insight into the Architect's resilient approach on development, and on the culture of risk in a more general manner.



Presentation of the Gand river contract

In order to improve flood risk management measures in the Maarbeek Valley (Gand), the Eastern Province of Flandre (Oost Vlaanderen) implemented a River Contract that focuses on lessening the negative consequences of flood risk by applying a number of procedures that include prevention, protection and preparation. During this task, every risk assessment player bears their responsibilities.

This contract aims to:

- Reestablish the natural system by increasing the permeable capacity on the valley.
- Accentuate the water expansion and retention areas.
- Actively involve local stakeholders and residents in an open co-creative process.



Building together a resilient project through play

Three mixed groups were initiated into a card game specifically designed for the INTERREG STAR2Cs project. It was the first full-scale test for a game that allows sketching a spatial planning project over a flood risk area. The different stages of the game require that the players define a plan of action, offering the appropriate means and techniques needed to carry it out and finally to evaluate the suggested project.

MAIN OBJECTIVES:

- Collaborative planning of a project
- Feedback from all participants
- Ludic and open-minded approach

Visit to



The CEREMA is a center of studies and expertise of risk, environment, mobility and spatial planning. The Technical Direction for Water, Sea and Rivers based at Margny-lès-Compiègnes works on research, engineering and technical solutions. Through its different studies, actions and services, the Direction contributes to sustainable development and risk prevention. It collaborates with numerous partners such as EDF, SNCF, IRSTEA; universities such as the UTC of Compiègne.

Four participants, working on the subject of «Flooding and resilience» presented three of their innovations.



29 settlements throughout the territory

12 Technology platforms
ISO certified and COFFRAC accredited

29 M€ of Research Budget

22,5 M€ on partnerships with businesses and regional authorities

500 Researches, PhD's, experts and engineers

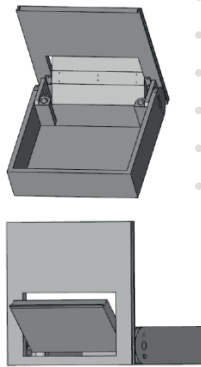
@ CEREMA

Modular Anti-Flooding system: Module Lps8*

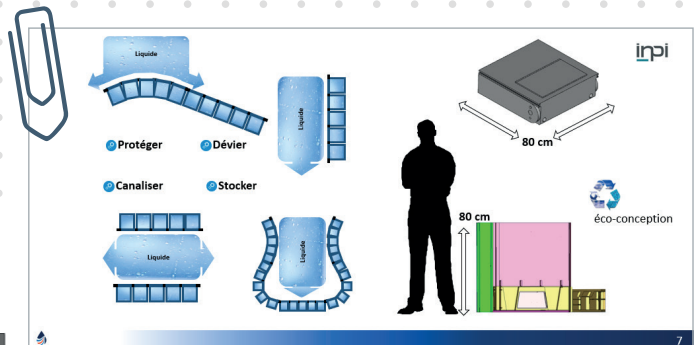
A partnership with Cuirassier Technology allowed to develop and prototype a simple and light-weight Anti-Flooding system module. Highly operational, it allows responding rapidly, occasionally and temporally to an emergency situation such as urban runoff or flooding.

*Lps8: Line of Protection System 8

- No fixing required up to 40 cm of water and up to 80 cm of water with fixation
- weight <25 kg
- 48 modules = 45 linear metres of protection



@ Cuirassier Technology



@ Cuirassier Technology

Augmented reality at the service of Risk Culture

This innovation comes as an augmented reality smartphone application that allows recreating the risks of flooding. The purpose of this tool is to allow anyone to understand the dangers of flooding in the surrounding areas. A prototype for tablets has been created as well. This last one has submitted a call for project proposal within the frame of ANR «OTARRI» (flood-risk resilience tools), however it has not been chosen for allocation and is currently in search of funding.



@ CEREMA

Automatic recognition of a façade opening

DEUFI (Details of the impact of urban flooding) is an ANR (National Research Agency) 2019-2022 project whose goal is to identify the characteristics and impacts of urban flooding on buildings and individuals. The use of A.I. and image processing techniques allows simulating urban floods in order to calculate the level of water on the built areas, to evaluate the out coming risks for the population and material damage.



@ CEREMA

Exploring the territory

Halt at Bassin of Muids in Choisy-au-Bac

The Muids basin is a structure that allows for tide control and doubles as a tourist attraction. The basin has been adapted to compensate the loss of flooding areas due to dikes and to reduce the impact of overflow.

In addition to the hydraulic structures, a fitness trail, a green promenade and fishing piers have been installed with the aim of transforming the place into a recreation spot within its unique natural surroundings, although swimming is not permitted.



Massive ducts to facilitate water evacuation in case of overflow.

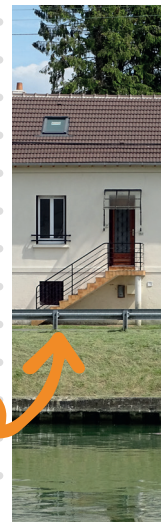


The Oise-Aisne viaduct = A bypass situated 15 metres above the confluence

Longueil-Annel and its City of Boatmen

The town of Longueil-Annel represents a hotspot for French inland water shipping. The river port, a canal that runs along to the Oise River, the lock, the barges... The village has been built around water, partly by bargemen and cadenced by the boats sailing by. A museum was opened in 2000: The Boatmen Museum

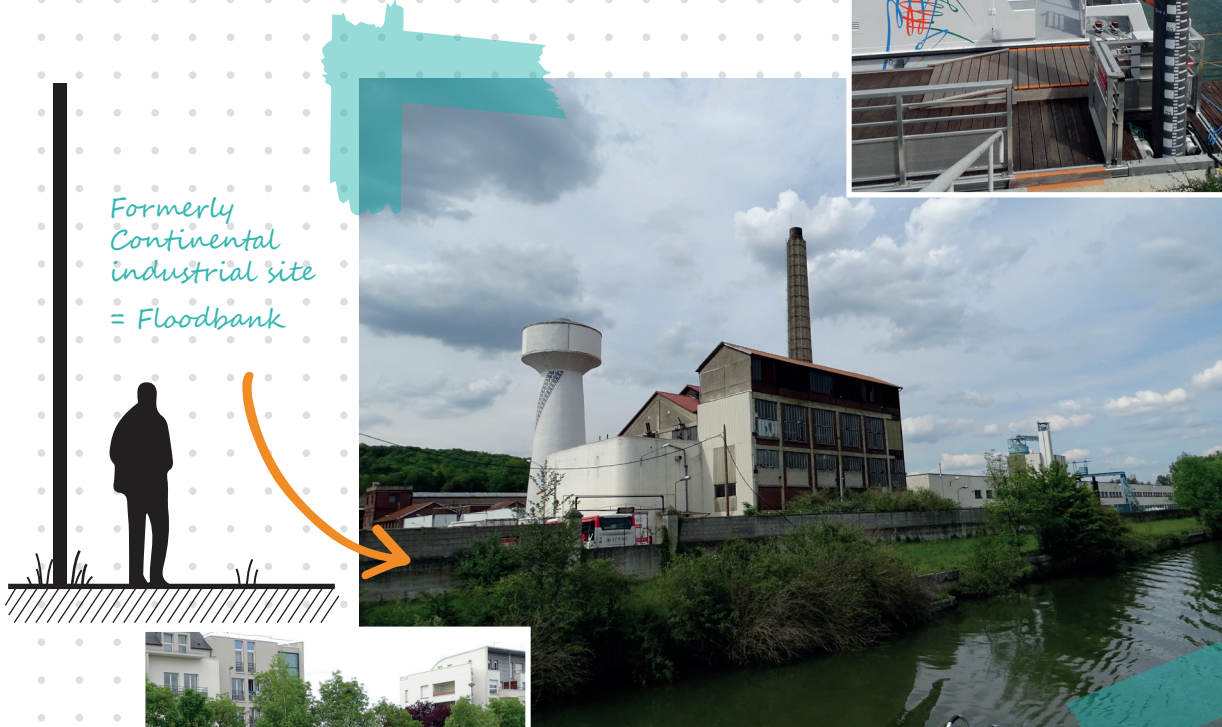
The importance of the river will also be highlighted by the future relocation of the museum, the transformation of the old museum into a boating school, and an ambitious project for a River Halt in parallel with the Seine-Nord Europe Canal Project.



Habitable floor levels to be raised above the predicted flood depth = flood risk assessment and culture of risk acknowledgment

Boat trip on the Oise River aboard the Escapade boat

Longueuil-Annel is the departure point of the Escapade boat. Once embarked, the trip on the Oise River from the lock up to pont Neuf in Compiègne offers a completely different view of the river and its coast. It shows the protective measures implemented on the area after the historical overflows of 1993 and 1995. The Oise River has been bordered along its coastline with dikes to protect the urban zones, particularly the 1:30-year flood event areas.



Formerly
Continental
industrial site
= Floodbank



Lived-in barges and a
floating house.
= Coping WITH the risk



Arrived at
destination on
the Oise quay, a
group photograph
marks the end of
the day!

FRIDAY, 24 MAY 2019

(Unofficial meeting between Oise-les-Vallées and its European partners)

« Adaptation Catalyst » tool

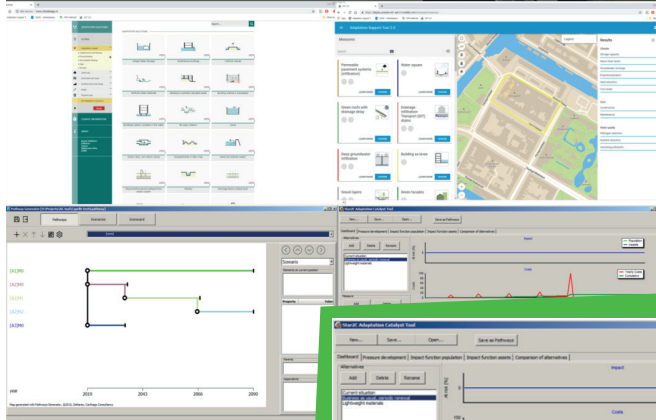
The main focus of this third day of work was to become acquainted with the Adaptation Catalyst tool.

It is a software tool developed within the framework of the STAR2Cs project, designed to help overcome the implementation gap stage. This online enterprise software offers to the user a whole range of conceptual, analytic and technical data required to assess a future urban project. (Costs, impact data...)

Developed by the Dutch company Deltares, the software benefited from the collaboration of the INTERREG partners, who contributed with valuable database and shared their feedback. This last input aimed to deliver the highest performance version of all.

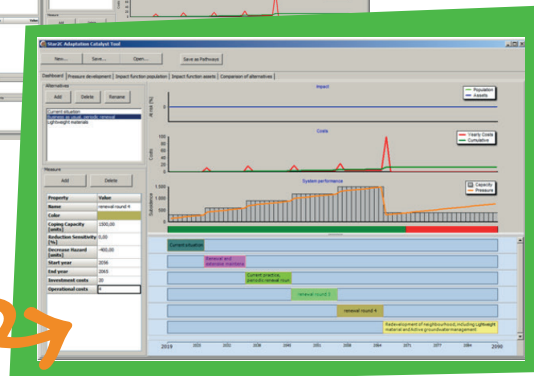


4 tools to explore climate effects and adaptation options

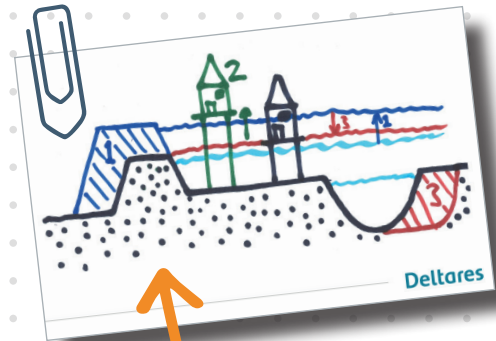


@ Deltares

View of the software interface and its potential results



@ Deltares



@ Deltares

Three sorts of adaptability :

- Reinforcement of existing dikes, creation of embankments as means of protection from overflows
- Habitable floor levels raised above the predicted flood depth
- Clearing tasks in the concerned areas to regulate the water levels