



CLIM'ABILITY DESIGN: NEWSLETTER NO. 4

JANUARY 2021

All the latest news from
the Clim'Ability Design project!

Three times each year, we'll be publishing this trilingual newsletter on the European Clim'Ability Design project. We'll be telling you the latest news from the project, sharing technical information on the impact of climate change on the Upper Rhine region, and presenting operational solutions to help you adapt and future-proof your business.

Taking up the challenge of climate change with Clim'Ability Design in 2021

Alexandre Folmer, Clément Bernard and Clémence Pierre, Coordinators of the newsletter

The current **climate crisis** has been coupled in 2020 with a **health and economic crisis**, creating a **particularly atypical year**. In this context, the partners of Clim'Ability Design have remained mobilized and have innovated to **continue to accompany you in the face of climate change**, for example with a new survey campaign launched in April 2020.

Started a little over a year ago, the Clim'Ability Design project builds on the results of Clim'Ability (2016-2019) to take into account the **issues of well-being in the workplace and organization of the economic activities** in the Upper Rhine Region **in the context of climate change**. The project brings together **many experts** (architects, climatologists, economists, geographers, engineers, sociologists, urban planners, etc.) in order to establish **innovative adaptation paths**, with and for medium-sized businesses from all sectors.



The **challenge of climate change remains unresolved for 2021** and the years to come. This year, we will continue to **inform you** of the consequences of climate change on your activity and of ways to adapt to it – in particular via this quarterly newsletter which has enabled us to keep in touch in 2020 despite the postponement of many on-the-site events. We will also accompany you in the **design and concrete implementation of these adaptation actions** in a cross-disciplinary and transnational approach.

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Admittedly, 2021 does not announce the end of the crisis we face with its health, economic and climatic consequences; but this year offers us all the more opportunities to **innovate in order to address these challenges** which are truly interdependent. **The entire Clim'Ability Design team remains mobilized with you in the face of climate change and wishes you a very good year 2021!**

Creativity: Relying on the creative potential of companies and collaborators to face up to climate change!

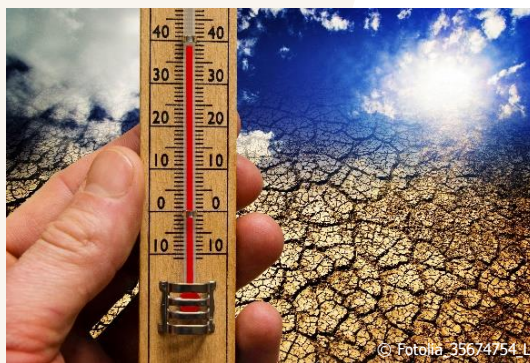
Creativity techniques are designed to search for original and effective ideas to **innovate, differentiate or solve a specific problem**. Conducted in a collaborative way within the company, creativity sessions allow to focus on a particular issue by bringing people with different backgrounds or from different departments and having them brainstorm together.

To illustrate their possible application in companies - including medium-sized companies -, you will find hereafter a practical example in the context of Clim'Ability Design, a European project fostering awareness and adaptation to climate changes.

Climate change: are you conscious of the unsuspected impacts this could have on your activity, your sales and your results?

In order for you to take the measure of climate change on the short term, we propose a two-hour on-line session comprising:

- A presentation of the **outlook of climate change on the short term**, at the scale of your territory of activity;
- A discussion to raise awareness on the **possible impacts for your day-to-day activities**, its management but also on the global performance of your company;
- An **introduction to a creativity methodology** enabling, within a company and with the collaborators, the collective search for practical and concrete solutions to mitigate it.



Note that by embarking on this dynamics, you will have access to **Clim'Ability Design services** such as: assessment of the climatic sensitivity of your company; installation of thermal comfort sensors ; etc.

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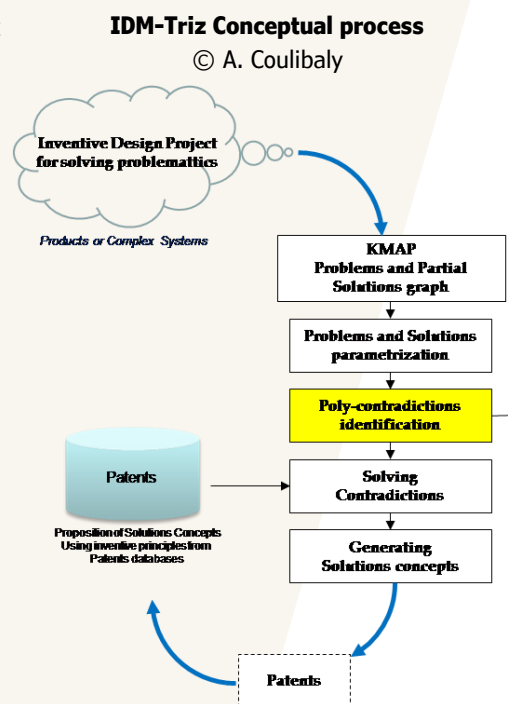
Book now your participation to one of the 4 online sessions organized by the Chamber of Commerce of Alsace Eurométropole in February and March 2021 (precise dates are being worked on and will be communicated to all parties expressing interest). **Participation is free but reservation is required: 8 participant companies per session maximum.**

The Inventive Design Method, an approach to explore possible solutions to the impacts of climate change on complex systems

The impacts of climate change on complex systems usually manifest themselves in multiple ways. As part of the Clim'Ability Design project, we apply an **inventive design method** based on the Triz to study the **problem of low water** and their impacts on various activities related to the **navigability of the Upper Rhine**.

The **MCI-Triz** is a **participatory engineering approach** making it possible to **collect data and knowledge** relating to different scientific spheres and technical fields, to **analyze the causal links** in order to propose breakthrough solutions to **resolve problematic situations** or industrial or societal dead ends. The process takes place in 6 main stages:

- **collection of information** from stakeholders representative of the ecosystem of the problem to be solved;
- construction of a **knowledge graph**;
- identification of **evaluation parameters** (PE) and **action parameters** (PA) respectively making it possible to situate the problems on a scale of intensity (or severity) and the possible solutions to remedy them;
- construction of a **network of poly-contradictions** arising from the analysis of action parameters and their impact on evaluation parameters;
- **resolution of contradictions** in order to identify solutions;
- **assessments of solution concepts** (CS) in order to identify the most relevant.



By applying it to the **“Low Water” issue**, we are moving away from the classic context of the Triz approach because of the context extended to a **multi-scalar territory** corresponding to a complex system of actors impacted by **climate change**. The study is being carried out by a **multidisciplinary team** made up of researchers from engineering and social sciences backed by a network of companies involved in logistics on the Rhine (institutional, shippers, operators, etc.).

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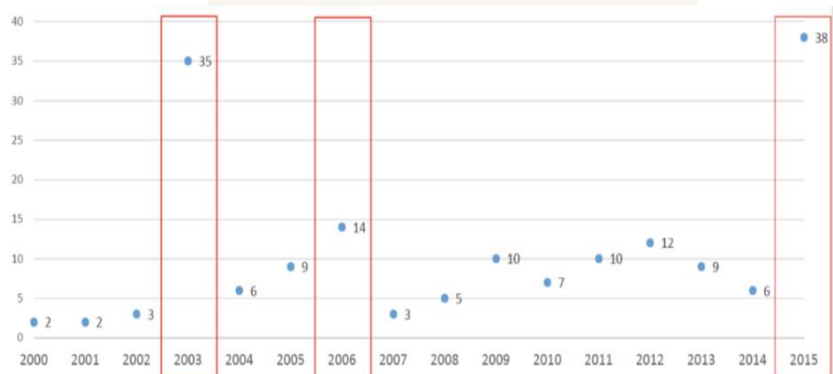
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Climate change, a risk to be considered as any other risk (methodically)

The health crisis has shown how companies depend on networks of local, national and international links. When a link is missing, the whole chain is interrupted. **Climate change can bring the same sort of dysfunctions on the value chain of your company.** Indeed, raw materials, infrastructures, logistic tools but also and above all collaborators are potentially vulnerable to the **effects of extreme and more frequent and intense phenomena.** Thus, **unsuspected vulnerabilities should now be of concern to you and their unpredictability can increase** due to the acceleration of climate warming experienced over the last years.

In the Eastern region of France, where climate warming since the pre-industrial era is already of about +1,5°C, **your employees certainly feel the consequences of warmer, dryer summers:** fatigue, irritability, difficulties to concentrate, mistakes in the execution of tasks, accidents in the workplace. Indeed, the **clear increase in workplace accidents during heat waves** is proof of the direct impacts on the work conditions of employees: during heat waves, the rate of **heat-related accidents increases 4-fold.**

Number of heat-related accidents over the summer period (April-September) 2000 to 2015 © BARPI (November 2015)



Collaborators are more and more exposed to risk situations

Recommendations (© [INRS](#), June 2019) :

- T° > 28°C: Risks for employees working outside or in workshops in arduous conditions.
- T° > 30°C: risk for the safety and health of employees in office spaces.
- T° > 33°C : dangerous health risk for employees!
- Ideal work temperature outside: 23-24°C.

Right to withdraw for employees beyond 30°C (if serious and imminent danger): enacted in the [French Labour Code, articles L. 4131-1 to L. 4131-4.](#)

The management of the health crisis in emergency mode has shown that an insufficient preparation can cause serious dysfunctions. **This is also true of the climatic crisis and we should start to anticipate its management;** this is the foundation of the European Clim'Ability Design project, conducted by the Chamber of Commerce Alsace Eurométropole and its partners, which accompanies you in this process.

We help you answer the right questions to help you be proactive in the face of climate risks: are your employees vulnerable to climate change effects ? Are they aware of them ? Which jobs are affected by meteorological events (heatwaves, cold, intense rainfalls) and their indirect consequences (falling trees, power line cuts, etc.)? To find out where you stand in these areas, you can fill this [online questionnaire](#).

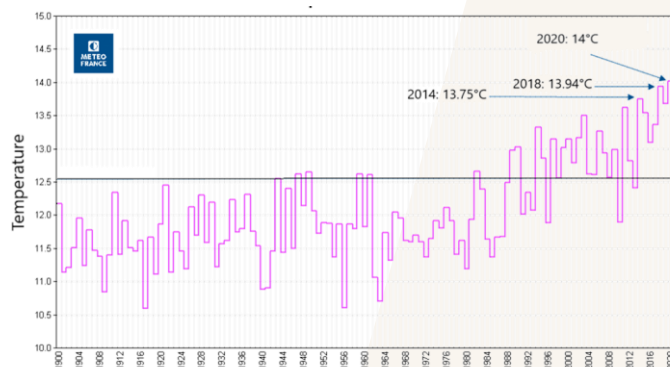
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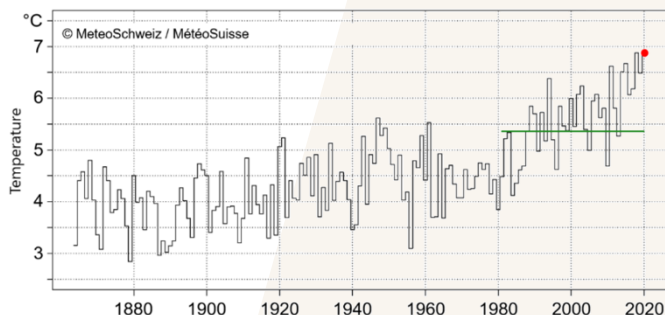
To go further

The evolution of average temperatures in Germany, France and Switzerland – A review of the year 2020

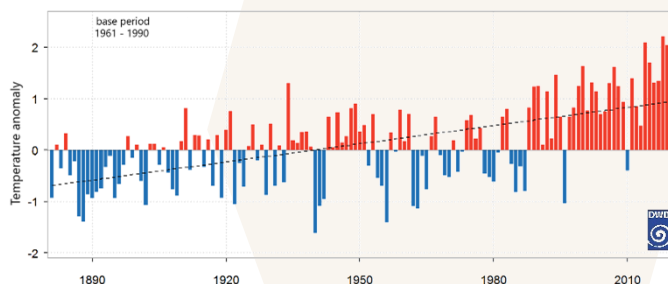
France



Switzerland



Germany



The year 2020 shows an exceptional meteorological character and stands in the first or second place of the warmest years ever assessed in modern times:

- Warmest year ever recorded in France since 1900.
- Warmest year in Switzerland since 1864, on a par with 2018.
- Second warmest year in Germany since 1880, just behind 2018.

In these 3 countries, where the Upper Rhine Valley extends, **9 out of 10 of the warmest years ever recorded** took place in the 21st Century.

They talk about Clim'Ability Design

News on the website & on social networks

"MERRY CHRISTMAS AND HAPPY NEW YEAR!"

"After an unusual year, the whole team at Clim'Ability Design wishes you a year full of hopes and dreams..."

The complete articles are accessible at clim-ability.eu/actualites

Scientific publications & articles

- "Clim'Ability Design", Eucor (The European Campus). Available at: eucor-uni.org/en/research/networks-and-projects/climability-design/
- "Europäisches Projekt Clim'Ability Design", IHK Südlicher Oberrhein. Verfügbar unter: suedlicher-oberrhein.ihk.de/innovation/nachhaltigkeit/klimaschutz/europaeisches-projekt-clim-ability-design-4898400Texte



Trophy « Irisés 2020 »: culture of risk and climate change

The 13th Information Forum organized by [IdéalCo](http://IdealCo.com) on the theme « Major risks: empowerment through information » has been organized online on the 9th and 10th December 2020. This yearly Trophy rewards actions implemented to inform and raise awareness about a culture of risk in France.

On this occasion, the project « Commemoration of the 100th anniversary of the floods 1919-1920: Memory and the culture of risk », involving many participants of Clim'Ability Design and the officers in charge of flood risks in the Region Grand Est, has been selected to be part of the national short list of four candidates. Even though the proposal of the University of Upper Alsace, the SDEA, the Region Grand Est and the Greater Epinal has not been rewarded, the event was an excellent occasion to give national visibility to the Clim'Ability Design Interreg program.

Coming up at Clim'Ability Design

Survey: How can we help you best to tackle climate change?

Small and medium-sized companies, your opinion is of interest to us!

Please take a few minutes to answer this survey developed in the framework of the project. The objective is to help you face up to the climate change.

With this survey, you will also discover Clim'Ability Design, in particular the services already developed by the project to answer some of your issues around climate change and adapt your activity to make it more sustainable.

In addition, your answers will allow us to propose services best tailored to your needs in order to help you imagine new paths of adaptation in the face of climate change.

Many thanks for your participation!

FR : [Je réponds à l'enquête](#)

DE : [An Umfrage teilnehmen](#)

Let's keep in touch!



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Dépasser les frontières, projet après projet / Grenzen überschreiten, Projekt für Projekt

Clim'Ability Design is cofinanced by the European Union through the European Regional Development Fund (ERDF) as part of the Interreg V Upper Rhine programme



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