CLIM'ABILITY DESIGN : NEWSLETTER NO. 2

AUGUST 2020

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.

The COVID-19 pandemic and the adaptation to climate change in the Upper Rhine region – Which prospects for this crisis in the climate crisis?

Rüdiger Glaser und Nicolas Scholze, University of Freiburg-im-Breisgau

During the last few months, the **Covid-19 pandemic** has made the headlines. Our research field has been one of the most impacted. As expected, the lockdown has had a strong **impact on Clim'Ability Design**: projects have been cancelled and procedures had to be tailored to the new situation. For example, planned interviews had to be conducted by telephone. Videoconferences and **virtual meetings** now replace direct contacts between persons. A new questionnaire has been drafted to analyse the perception of the crisis. Travel bans and direct contact prevention have certainly been the most painful measures. Last, an additional difficulty was added by the **differences** in public health administrative guidelines **between our regions**.

With the **reopening of economies**, we will certainly have to **prioritise**: for some companies, the Covid-19 crisis demands exceptional efforts and some are dangerously close to the edge of the cliff. In this context, we face the risk of seeing **adaptation to climate change**, a medium-term priority, be relegated in the background. And even if a vaccine was soon available and if the use of mobile phone apps might mitigate the propagation of the virus, **the climate change challenge remains identical as before**.

Hence, our main challenge will be **to make decision-makers aware of climate change issues and at the same time to exercise empathy** for the most impacted companies. We will have to pay particular attention to interactions and crisis complexity. How can we **reconcile economic recovery and the challenges of climate change**, sustainable development, circular economy and digitalisation? It is important that we expand the scope of our research in these directions. This will enable us to produce a **new understanding** of this critical complexity.

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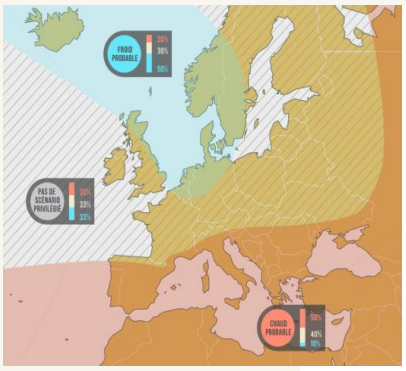
Which summers in the Upper Rhine?

The difficult to exploit seasonal forecasts

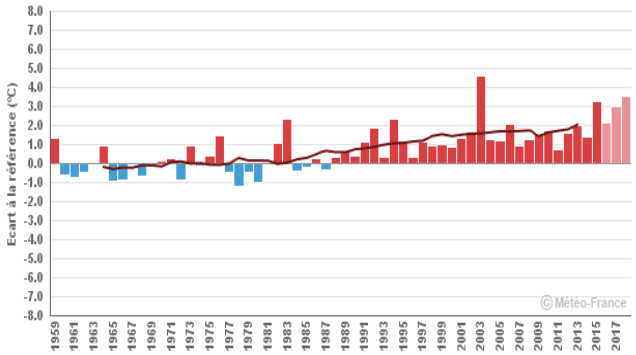
Seasonal forecasts do not forecast one-off events, they try to characterise **larger upcoming climate trends**: warmer or colder than normal as for temperatures, drier or wetter as for precipitations. These forecasts, which take into account the behaviour of other environments (notably the oceans) are often **hard to read**, in particular at our latitudes. For the **summer 2020**, the situation is rather disappointing! No clear scenario emerges for the temperatures in our regions (see map).



Probabilistic seasonal temperature forecasts for the next quarter (July – August – September 2020) © Météo France

Previous summers observed: the case of Strasbourg

The strong **natural variability of the climate** can lead to a relatively cool summer. However this does not reverse the **trend to warming**, stronger in the winter as in the summer! In order to discern larger trends, climate science looks at all possible weather situations in a given region, based on **normal values**. These reference values are average values calculated on 30 years of data. The **deviation in respect to normal values** represented on the figure for the average summer temperatures in **Strasbourg** shows the colder (blue bars) or warmer (red bars) summers. The **11-years moving average** represented by the sepia curve gives the trend: a **2°C increase in the summer** in Strasbourg since the end of the 1950's. Remarkable is to note that the record temperature of August 2003 has been topped in **July 2019** with **38,8°C**.



Average temperature in the summer: deviation from the reference 1961-1990 (Strasbourg-Entzheim) © Météo France

And in the future?

According to **climate forecasting models**, which simulate the future climate based on various greenhouse gases emissions scenarios, **heat waves** will be more frequent, more intense and longer. Furthermore, **extreme rains** may be more frequent, with resulting floods and mudflows. A **strong and dedicated climate policy** could minimise these impacts and allow us to stay within the COP21 Agreement limits of an increase of the global average temperature of +2°C compared to the pre-industrial era. On this point, studies done by the GIEC confirm the 2006 Stern Report on the business model of climate change: **acting now will cost much less than doing nothing!**

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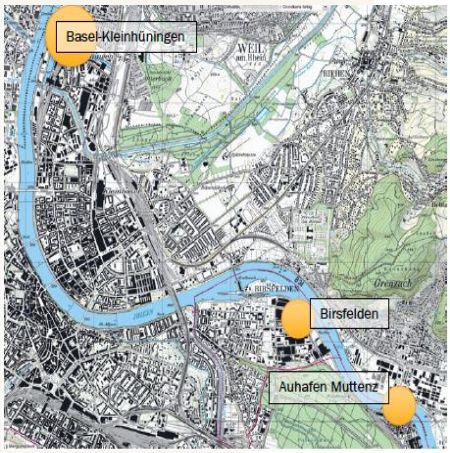
The development areas as key actors in the strengthening of the Upper Rhine's adaptation to climate change: focus on Switzerland

As part of the project, **partnerships** are currently underway in Germany, France and Switzerland to **support economic activity spaces**. In Switzerland, the team from the FHNW and the University of Basel is developing concrete measures for climate protection and adaptation in collaboration with stakeholders in areas such as the Birsfelden port area and the district of Klybeck in the cantons of Basel-Land and Basel-City. Together with the Swiss Confederation, these cantons finance the Swiss part of the Clim'Ability Design project.



The three sites of the SRH Society, cartographic documents: Geoportal Canton Basel-Land © BHP Raumplan, Inputpapier Initialisierungspapier, June 2020

Harbour area of Birsfelden, Basel-Land Canton

The **Birsfelden Harbour** is located between the two other SRH (**Swiss Rhine Ports**) sites, upstream from Basel, on the territory of Birsfelden (map). The **industrial and commercial area** of the harbour extends over some 60 ha. Two thirds of this area comprise the original harbour, the other third comprising the Hardstrasse and Sternenstrasse West industrial and commercial areas. The area is managed by the SRH, owned by the Cantons of Basel-City and Basel-Land. For Switzerland as a whole, the SRH represents the **main logistics hub for imports and exports by waterways**. With a total of 3000 employees, it is also one of the main employers of the region.

The changing industrial district of Klybeck, Canton of Basel-City

District of Klybeck © klybeckplus.ch

Klybeck is a 90 hectare district of **Klein-Basel** which counts 7200 inhabitants. It used to be an **industrial district** with chemical industries and large building bars; a highly asphalted inclination which is conducive to **heat islands**. However **many urban projects** are **transforming** it: extension in 2014 of the Tram 8 to Weil am Rhein; creation in 2013 of the large green space of Ackermätteli; real estate projects; 3Land projects and creation of a new district in 2016. A large part of the district is now owned by Swiss Life and Central Real Estate Basel. In the phase 2 of the project, these actors, with the Canton of Basel-City, are drawing up a **comprehensive urban development concept** (**Klybeckplus**) which takes an in-depth look at many areas such as mobility, economic planning or green and open space planning.

Please contact us if you would like to form a partnership with Clim'Ability Design in order to support the development of your economic activity space.

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JARDIN GLOCAL: A research movement in media ecology – a component of DE\GLOBALIZE

How can we understand the **power of a *Nature*** when the **environment** is not outside anymore but at the **core of our own lives**, permeating us in a cycle of becoming, reciprocal interdependency and finiteness reaching to symbiosis? In the age of Anthropocene, the difference between natural and cultivated areas becomes less and less meaningful. How can we **differentiate** today **controlling the Nature and living in harmony within it**? In our modern, technology-dominated world, how should we interact with the love of raw Nature and the Wild which lays deep inside us? How can we **care for the natural parcels we harness and in which we live** at the same time?

Exhibition "Abschied vom aussen" (2019):
A view on the gardens © Daniel Fetzner

The **third part of DE\GLOBALIZE**, our *Movement of research towards the terrestrial,* lands in the **Rhine Valley** as part of the European research project Clim'Ability Design.

In searching for answers to the above question, we use the **Allegory of the Garden**. The Rhine Valley is taken as an immense garden in the **JARDIN GLOCAL** framework. In the times of climate change, this Garden needs urgently **new culture and exploitation modes**, failing which it could wither and become a "Critical Area".

The **concept of Critical Zone** has recently been the subject of a new cross-disciplinary scientific approach which subject is the few kilometres thick layer of air, earth and water surrounding our planet. Researchers examine this **thin epidermis which supports all living beings**.

With philosopher Bruno Latour, JARDIN GLOCAL expresses the **need to invent a *New start* in a modern era**. This approach can be discovered as part the current exhibition "Critical Zones" proposed by the Centre for Arts and Media in Karlsruhe (ZKM). In this context, it is important to **reframe global and local responsibilities** in new relationships, but for losing the spirit of the Garden.

Further information

- Full paper: Click here
- Laboratory for Media Ecology : mediaecology.de
- Project DE\GLOBALIZE : deglobalize.com

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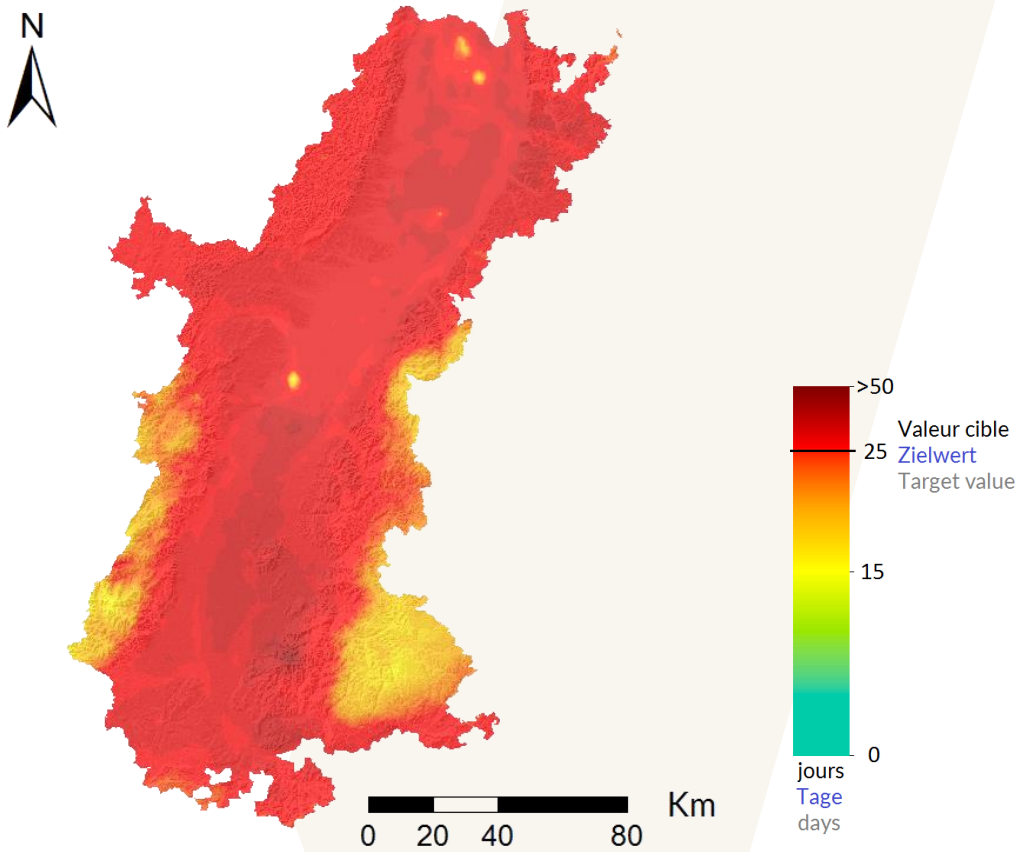
To go further

Ozone concentration in excess of European standards: a reality in the Upper Rhine



Number of days per year where the average of 120 µg/m3 ozone over 8 moving hours is exceeded, as an average on 3 years (2017-2019) © ATMO Grand Est

Ozone is a pollutant whose **concentrations in the Upper Rhine** have not decreased over the last years, contrary to other pollutants such as fine particles or NO_2. This is mainly due to the **ever warmer summers** which the region has been experiencing. The **target value defined in Europe** for the protection of human health, set at 120 µg/m^3 on 8 moving hours, which should not be prevalent more than 25 days per year over 3 years, is **exceeded on 80% of the territory**. Furthermore, in Alsace, the hourly threshold of 180 µg/m^3 has been exceeded on 5 days in 2019.

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They talk about Clim'Ability Design

News on the website & on social networks

CLIM'ABILITY DESIGN DURING COVID – MOBIMET

How has the sanitary crisis affected Clim'Ability Design? This article will be the first of a "Clim'Ability Design during COVID" series of articles, through which you will see how the various missions within the project have been impacted and how they adapted themselves …

CLIM'ABILITY DESIGN – LABEL EUCOR

The Clim'Ability Design project is now part of the European Campus network, which aims at strenghthening cooperation in the research field …

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

Scientific publications & articles

- Scholze N.; Riach N.; Glaser R.: "Assessing Climate Change in the Trinational Upper Rhine Region: How can we operationalize Vulnerability using an Indicator-based, Meso-scale approach?", *Sustainability* [Special Issue "Vulnerability Assessment and Disaster Risk Reduction"], 2020. Accessible at doi.org
- Glaser, R.; Kahle, M.: "Reconstructions of Droughts in Germany since 1500", *Climate of the Past*, 2019. Accessible at doi.org
- « Clim'Ability Design : Accompagner l'adaptation au changement climatique des PME et PMI », *Recherche INSA Strasbourg*, Mai 2020. Disponible sur recherche.insa-strasbourg.fr

Webinar cycle: "How to tackle the world climate crisis : towards the resilient company in a world in upheaval"

In the framework of the Clim'Ability Design and Climaxion programs, the CCI Alsace Eurometropole, in partnership with the Rhine-Meuse Water Agency, the French Office for Biodiversity and the CARSAT pension fund have launched last July a webinar cycle to accompany and help your company design a strategy for climate change and to contribute to mitigate its consequences.

More information and registration to the September webinars [in French only]:

Click here

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Coming up at Clim'Ability Design

« Critical zones – Observatories for Earthly Politics » exhibition at the Center for art and media Karlsruhe (ZKM)

With the affirmation of the protest movement Fridays for Future, the human activity's effects towards the Earth have been highlighted and the climate crisis has arisen public consciousness. Therefore, **the « Critical zones » exhibition invites us to see the Earth as a network of critical zones and to take a new path towards the Earthly** - that is a new way of coexistence between all forms of life. The exhibition is accessible since July 24th, 2020, and will last until February 2nd, 2021.

To learn more about the exhibition **To visit the virtual exhibition**

Save the date: Clim'Ability Design at the BE 4.0 show on November 17th-18th, 2020 in Mulhouse

Find the space dedicated to the Clim'Ability Design project, at the CCI AE booth, at the BE 4.0 show that will take place on November 17th and 18th in Mulhouse! To learn more about the activities and resources that will be offered, visit our social networks and website in the coming weeks.

Let's keep in touch!

Visit our website : **clim-ability.eu** and our social networks:

Email us at **climability.eu@gmail.com**

To suscribe to the newsletter : **Click here** or send us an email at **climability.eu@gmail.com**

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

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