



## STRATEGIC TOOLS TOWARDS A SUSTAINABLE USE OF BIOMASS FOR LOW CARBON DOMESTIC HEATING

*Dear reader,*

*Welcome to the third edition of our BB-CLEAN newsletter!*

*A lot was done in the last six months, with biggest highlights being measuring campaigns performed by partners. Italian partner ARPA VdA shared the details of the monitoring air quality campaign in Saint Marcel (in Aosta Valley), French partner ATMO presented the results of BB-Clean citizen experience with 150 citizens involved measuring the air pollution in the CCPMB valley and Italian UCSC described measurements performed in the summer 2019 in Storo and Vezza d'Oglio. BB-Clean project also participated on the first transnational event in Slovenia. An interesting read, so get started!*

*If you'd like to keep up with our latest activities and developments, please follow us on our website:*  
<http://www.alpine-space.eu/projects/bb-clean/>



### BB-CLEAN 3rd PROJECT MEETING HOSTED IN SPECTACULAR ENVIRONMENT

*Bled: beautiful ambience for a climate-relevant topic.*



From 16<sup>th</sup> to 17<sup>th</sup> of October 2019 BB-CLEAN partners gathered in Bled, Slovenia, to discuss latest project development and perspective for the future activities. A lot was done in the last six months, with biggest highlights being measuring campaigns performed by partners in Italy, France and Austria. It has been a smooth sail for the project development this far, but a lot still has to be done. No time for rest then, as next months will

have to show important project results, such as development of the EAA tool, a useful instrument to start an agile transnational comparison of the regulations for BB in the alpine area, report on crowdsourcing campaign in which citizens have a possibility to share their experiences on biomass burning, and development of Sustainable Business Model towards clean BB, to name just a few.

3<sup>rd</sup> project meeting showed considerable progress and a great working dynamic among partners. Next project meeting will be hosted by Austrian partner FH JOANNEUM in Kapfenberg.



---

## **BB-CLEAN PARTICIPATES ON FIRST TRANSNATIONAL EVENT**

*On 18th of October BB-CLEAN joined BOOSTEE-CE project event in Bled (Slovenia), thus marking BB-CLEAN's first active participation on transnational event.*

The event was organized as international training aimed at different target groups (municipal staff, public building operators, urban and energy planners, citizens and researchers), increasing knowledge on energy efficiency in public buildings. The event presented a great opportunity for a synergy session, where common interests and goals of both projects were emphasized.



For BB-CLEAN partners it offered possibility to emphasize on an aspect of the building use, that is often overlooked, which is pollutants resulting from biomass burning. Impact on human health because of biomass combustion emissions is still insufficiently studied, mostly because for long it was not considered to have an especially negative effect. This is exactly why it is important to use international opportunities offered by project networking to raise awareness about the problem of biomass misuse.

Event was visited by municipal staff, public building operators, urban and energy planners, citizens and researchers, a perfect crowd for BB-CLEAN partners to use this platform for improving knowledge on measures that can be undertaken to avoid negative implications of biomass burning.

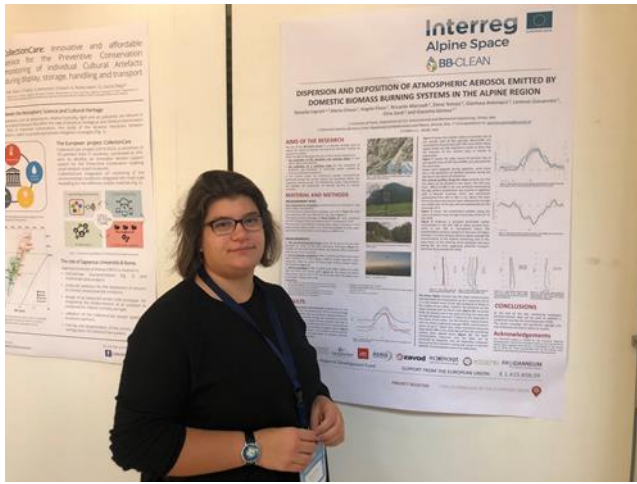


---

## **WPT3 SEEDS ITS FIRST RESULTS**

*UCSC took part in the 35th ICAM Conference held in Riva del Garda in September.*

UCSC took part in the 35<sup>th</sup> ICAM Conference held in Riva del Garda from the 2<sup>nd</sup> to the 6<sup>th</sup> of September. The conference takes place every two years in different countries and gathers scientists from all over the world. The focus of the conference is mainly on mountain meteorology and, since the BB-CLEAN project lies within the framework of the Alpine Region, it was the perfect occasion to present the preliminary results of WPT3 activities. A poster was presented with the description of the monitoring campaigns that UCSC led during summer 2019 in the Municipalities of Storo (TN) and Vezza d'Oglio (BS). Data of PM emission and deposition fluxes, energy balance, T and PM pseudo-gradients and vertical soundings regarding the Storo pilot area were shown in the poster.



The same results were presented during the 2<sup>nd</sup> AISAM Congress in Naples (24<sup>th</sup>-26<sup>th</sup> September 2019). AISAM is an Italian association interested in research topics related to atmospheric physics and meteorology. During the Congress many scientists coming from different Italian regions presented their research work through oral or poster presentations. The topics ranged from meteorological forecasts to surface-atmosphere interactions, extreme events and their connection to climate change. Some of the themes were strictly related to the BB-CLEAN research area, thus the idea to share the first WPT3 results with the participants. Congresses and conferences are the best way to let the scientific world know about the project and gather

information on data analysis and monitoring instruments and collect interesting ideas for future developments. In Naples even CISMA srl presented a poster regarding the model that will produce pollutants concentrations forecasts in the pilot areas and that will be calibrated with the data collected during WPT3 summer and winter monitoring campaigns. The poster described the set up to run the model, the modelling chain and the pre-processing of the emission data. More participations at Workshops and Congresses are foreseen in the future so keep an eye on social media and newsletters in the following months to stay updated.



## THE “MICROCAPTEURS” ARRIVE IN SAINT MARCEL

*People become an "active part" in environmental monitoring.*

On Friday 25<sup>th</sup> of October, on the occasion of the municipal council, the microcapteurs were given to some councilors of Saint Marcel (Italy), who are small portable dust meters able to show, to those who wear them, what they are breathing at that precise moment. This innovative awareness campaign is carried out as part of the BB-clean project of Italy-France cooperation. Starting from the end of October, when the heating systems have already started operating, the volunteers will keep the devices in operation for a few days, thus monitoring, from the point of view of air quality, with particular reference to fine dust, each activity carried out by the "bearer". People will thus become an "active part" in environmental monitoring: the measured values will appear on a georeferenced map, integrating the air quality measurements taken from the fixed stations of the regional monitoring network. In Italy, so far, only a few campaigns have been carried out with this type of sensor and, in Valle d'Aosta, Arpa is the first to launch it. Being a pioneer in this awareness-raising activity represents a great opportunity: on the one hand to deepen the assessment of air quality in a municipal area with great detail monitoring and on the other to test a new method of raising citizens' awareness of the air we breathe. Touching the most “polluting” habits we have, can sometimes represent the decisive turning point to change our attitudes.





---

## ASSESSMENT OF THE CITIZEN EXPERIMENT CAPTOTHÈQUE ON THE CCPMB TERRITORY

*The inhabitants of the community of municipalities of the Mont-Blanc Region (CCPMB) participating in the "Captothèque" experimental scheme met on June 25<sup>th</sup> in Sallanches to discuss the various results of the BB-Clean civic experience.*

They travelled through the valley measuring pollution: from January to mid-April 2019, 150 inhabitants of the CCPMB were able to borrow micro-sensors for free to track particles thanks to the BB-Clean project. This unprecedented citizen measurement project, jointly funded by the Region and the European Union, has made it possible to measure 2000 hours of particulate matter in the Alps, generating more than 4,000,000 hours of data!



But beyond the figures, these data, shared between experimenters, were the subject of analysis and collective debates during thematic workshops on air quality with experts and elected officials. For the interest of the experiment, according to the participants, lies above all in understanding the real impact of certain sources of particulate pollution on the quality of the valley's air: wood heating, road traffic, industry... All avenues have been explored. A concrete discovery of local polluting phenomena, thanks to sensors, which allows participants to tackle the complexity of air quality in the valley more serenely:

*"It really allows us to ask the right questions about individual behaviour, [...] By measuring ourselves, it's experience, it's local. It makes it possible to realize that we have certain thoughts about [the sources of] pollution that are wrong."*

Beyond the sources, it is also their perception of the environmental context and its influence that is refined through their measurements, particularly the meteorological context: "I learned the variability according to the weather, according to altitude, geographical position... I also learned that the inversion ceiling was moving... That all this was dynamic". Highlights one experimenter in particular.

These conclusions were shared on June 25<sup>th</sup> during a meeting with the CCPMB, the Auvergne-Rhône-Alpes observatory and the sociology research firm MyUsages, which followed the experimenters throughout the project. A high point meeting to discuss the experience, share its conclusions and think about solutions to improve air quality in the valley:

*"I don't heat myself with wood, but if I had a wood stove, I would start my fire from the top... I would change a number of practices. Besides, I'm talking to those who heat themselves with this type of heating!"*



---

## A BUSY YEAR FOR RESEARCHERS AT FH JOANNEUM

*The researchers of FHJ spent the last year analysing the sources of particulate matter.*

Thanks to the newest technologies increasingly smaller particles can be analysed and allocated to the sources of biomass or transport. In the partner community Thörl a black carbon monitor is momentarily measuring the particulate matter concentration at the beginning of the heating period. The Austrian project team will further receive 15 Airbeam measuring devices for a measuring campaign in winter. These portable devices can be used to depict the particulate matter concentration in the daily life of a citizen. Moreover, the researchers Jeannine Schieder and Ulrike Zankel-Pichler are going to offer workshops for students, local schools and interested

participants of the population. The aim of these workshops is to gather and analyse data concerning particulate matter in different regions and to compare the results with those of the other project countries.

## ABOUT US

---



**Interreg**  
**Alpine Space**

European Regional Development Fund



**Follow us on our website and social media profiles, to find out more:**

<http://www.alpine-space.eu/projects/bb-clean/>

**Contact us for more information:**

Energy agency of Savinjska, Šaleška and Koroška Region - KSSENA

[hana.kolenc@kssena.velenje.eu](mailto:hana.kolenc@kssena.velenje.eu)